Go Deeper

CorelWorld™ 2000

THE CONFERENCE FOR CORELDRAW®, COREL PHOTO-PAINT®, AND COREL VENTURA™ USERS

SAN DIEGO, CALIFORNIA
SEPTEMBER 10 - 15

EXPLORE
the world of graphics
and publishing

DISCOVER
how the pros do it

APPLY
new knowledge to
your own projects

A Funny Thing Happened on The Way...

I'm not one to whine and complain unless I'm playing golf, and besides, the whole thing had a happy ending. But imagine yourself in my shoes about four months ago, in May.

You are beginning your annual sojourn through conference preparation. Making all of the usual contacts, working up leads, gathering information, signing contracts, hiring speakers, negotiating with hotel personnel…all of the standard-issue items that go into laying the groundwork for our little cottage industry that you know as the CorelWORLD User Conference. And then imagine that…

– Corel's attempt at a big merger falls through and the company reports that it will run out of money in a matter of months.

– Company officials announce a layoff of over 300 employees, including a majority of the people you have ever known and have ever done business with.

– Corel cancels its appearance at PC Expo and drastically cuts back travel and marketing. The Events department is a shell of its former self, and by the way, that is the team that decides on all matters related to CorelWORLD.

– The deal you had struck to get Corel's volunteer support team to work the event…the deal for a banner at corel.com… access to newly-registered users…everything down to the number of prizes Corel promises to award…all evaporates into thin air. You must start over with a group of people who barely know your name.

– Less than one month before launch, the president of the company, long a friend and supporter of the conference, abruptly and mysteriously resigns.

You feel as if you're back in grade school, raising your hand, trying to get called upon, clearing your throat but still only managing a squeak… "Excuse me, could we talk about our little conference now…?" How was my summer, you ask? Oh, fine. A bit hectic…

We sent out many tens of thousands of brochures in June and July, but most of my early summer was spent studying cancellation clauses and devising strategies for various worst-case scenarios. I felt like an army sargeant at war, studying "event scenarios." What would happen if nobody showed up this year?

Well, paranoia subsided, the phone started to ring, and before we knew it, it was evident that we were well on our way toward another successful event, with an ever-eager group of patrons signing up as enthusiastically as ever.

And indeed, the fact that we were able to stand down from red alert is a credit to the most valuable resource the Corel community knows: its users.

How silly of me not to have realized how much of a false alarm this all was. With the kind of loyalty that this group has shown over the years, the only thing that would impede the path of the motivated CorelDRAW and VENTURA user is if the software ceased to exist. And we have just described the opposite of the vicious circle: As long as there are users as loyal and as committed as you, the software will always have a home.

Meanwhile, I either have a warped sense of reality or a bizarre form of job security. On the one hand, it is a bit disconcerting to be operating this close to the open flame. Indeed, Corel's current financial crisis is not unlike the California life we lead out here in earthquake country— never knowing when the ground underneath us might shake us off our feet.

And on the other hand, if that were to happen, wouldn't you need your avenues of support even more than you do today? Wouldn't you need to know where to turn to get your most important questions addressed? In a curious sort of way, my business is tied to Corel's fortunes, and it is also tied to Corel's…misfortunes.

But the bottom line is and always has been this: CorelWORLD is in business because of you, and it will continue for as long as there is a "you." We have never known a community of users as loyal, as spirited, and as bonded as this one, and we intend to stick around, no matter how much the Earth shakes.

I can't think of anything that gives me more satisfaction and more enjoyment than hosting CorelWORLD for all of you. Well, except for having a better golf game, but that would involve way too much whining and complaining.

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Memory Lane

A few of us were reminiscing the other day about our first few events, in the late 1980s and early 90s. Back then, the conference was just for Ventura Publisher users, because CorelDRAW (oops, we mean Corel*Draw!*) was still in its electronic diapers, without a following.

Most of those at the conference were running DOS 5.0 and 6.0; a handful were dabbling with Windows, and some of us were enamored with DESQview. It was big news when we networked two computers and one printer in our Technology Suite (what we used to call the Help Center).

We really didn't have much of a clue how to run a conference back then, but nobody seemed to mind—the opportunity to congregate with fellow Ventura users and meet others from around the world carried inestimable value. In 1991, Jonathan and Nancy, whose last names we cannot recall, met at the conference and married a year later. (Three other couples have since added to conference lore this way.)

We didn't call it CorelWORLD back then; in fact, Ventura Publisher was not yet owned by Corel Corporation. It was just the Ventura Publisher Conference, and it continued in this merry way through the first few years of the 1990s. In 1993, it became clear that we needed an event for CorelDRAW users, and we went across the country to Washington DC. It was just a week or two before version 4.0 was released and we note with amazement that over 200 of the people in attendance paid their money and attended solely to witness the 45-minute demonstration of the new version. How bitterly ironic that experience must have been just a few months later when they realized that they fell all over themselves for the honor of seeing what history now shows to be one of the worst initial releases of CorelDRAW ever.

(Version 4.0 spawned the "even-numbered curse" that haunted Corel for the next four years).

Nonetheless, the CorelDRAW conference era was upon us, and we continued with parallel events for five years—holding the Ventura event in the winter or spring and the CorelDRAW event in late summer or early fall, as it is today. A handful of you came to both events each year.

In 1997, we journeyed to Canada for our first-ever north-of-the-border event. Hedging our bets a bit, we announced a parallel event in San Diego, just two weeks later. We loved the Toronto event, but noted with disappointment that of the approximately 180 in attendance, almost 150 of them came from the States. Where were all the Canadian users?? Answer: making plans to go to the San Diego event two weeks later—almost 50 Canadian users made the journey south that year.

And then came 1998, when we decided to merge the Ventura and CorelDRAW events into what we now call CorelWORLD, a five-day extravaganza covering CorelDRAW, PHOTO-PAINT, VENTURA, and the world of Web publishing. At first we wondered about mixing the two events, but it couldn't have worked out better, for all concerned. For those who have been waiting breathlessly for the results, the last three years of this combine have shown that CorelDRAW users are better athletes and VENTURA users are better partiers…

These days, we do have some clue about how to host a conference, but we're proud to say that we have not forgotten our roots. The host's mother remains at her post as Registration Manager (she's missed just two events since 1989), we still play a ridiculously-corny trivia contest after hours, the conference Help Center continues as a mainstay of the event for learning or just hanging out. For one week out of the year, it remains THE place to be, and we're glad that you're part of the IN crowd…

R.A.

Rick Altman
Conference Host

The CorelWORLD Conference Team

*Seminar Leaders
and Technical Specialists*

RICK ALTMAN   Rick enters his 11th year directing the look and feel of CorelWORLD. He has authored six editions of *Mastering CorelDRAW,* and more magazine and Web site articles than he cares to recall. He no longer sings acapella on the final day, however. When he's not whining on a golf course, you can reach him at rick@altman.com.

TOM ANZAI   Tom is the author of one of the most respected training manuals created for Corel users. He has trained thousands of CorelDRAW and VENTURA users, including the employees at Corel Corporation. tom@anzai.com

BILL BLINN   Bill's experience with CorelDRAW and VENTURA starts with version 1 of both. He has spoken on topics as diverse as document layout, effective editing, and digital photography. His weekly radio show, Technology Corner, reaches the entire Columbus, OH area. bblinn@procomp.com

FOSTER COBURN   If CorelDRAW Guru were in the dictionary, Foster's name would be next to it. He is the author of two best-selling books on CorelDRAW, and the Webmaster of the highly-regarded unleash.com Web site. foster@unleash.com

DEBBIE COOK   Debbie has become one of the true authorities on PHOTO-PAINT, and her newsletter and Cutting Edge Design Web site have become popular information sources for Corel users. A veteran of the Help Center, if you happen to ask a question she can't answer from her own experience, she'll get the answer and then track you down like a wild animal. Debbie is also a Corel C-TECH Support Partner, providing technical support to CorelDRAW and PHOTO-PAINT users worldwide through Corel's newsgroups and CompuServe forums. In her spare time, she says simply, "Hah—what's that??" dc@cedesign.com

ALBERT EINSTEIN   Back for an encore address is the Man of the Century himself, Albert Einstein. What's that, you say—he passed on in 1955? Nonsense…he's our featured speaker on Wednesday, September 13!

VINCENT FLANDERS   The Webmaster of the outrageous Web Pages That Suck joins us on Thursday, September 14. His mantra: Learn good Web design by studying bad design.

SHARON GEORGE   Our favorite local-girl-makes-good story, Sharon lives about a mile from our host hotel in San Diego. Yet her work with PHOTO-PAINT has found acclaim around the world. In our "How Did They Do That?" presentations, she'll tell us all how she did it. gorgeous@gorgeousgeorge.com

JULIE GRIMES   We asked the Macromedia folks for a recommendation on a San Diego-based Dreamweaver expert, and they didn't mess around! Having gone from rocket science to Web science, Julie left the defense industry, attended the San Diego State Multimedia Technology Program, is working on a Masters degree in Electronic Commerce, and is a professor at Southwestern College in Chula Vista. She has won numerous awards for her work in Web design, but more importantly to her, her students have been decorated as well. grimes@znet.com

DANIEL GROTTA AND SALLY WIENER GROTTA   The old E.F. Hutton commercial applies to these two, as few command more attention and authority on the subject of digital design and photography. They are *PC Magazine*'s go-to team for all coverage of digital photography, and they will be leading our sessions on Wednesday.

JIM HART   Those who rightly claim that our Help Center is the most effective technical support avenue in the world think of Jim as a god. He is the one who keeps all of the hardware humming along. A user and supporter of VENTURA since 1989, Jim has been a member of the CorelWORLD conference staff since 1990. Hard to

Conference Management

SUE BLUMENBERG If it's a matter of detail, then it's Sue's department, and as Seminar Manager since 1994, she makes the trains run on time…both literally and figuratively. Starting with this Conference Guide, she acts as project and copy editor, riding herd on our horde of seminar leaders. Once on site, she oversees the seminar ballrooms, and the for-ever-rotating barrage of signs and announcements that we heap upon you. Oh, and as for the literal part, well, she is the sole proprietor of our famous Prize Train, which makes regular stops in our seminar ballrooms and in Conference Central. sue@editique.com

BEVERLY ALTMAN Running Conference Central for as long as there has been one, Beverly is one of the two smiling faces that check you in and out, answer all of your questions, show you where to go if you're lost, and get you lost if you're found (just kidding). As the host's mother, she has stories to tell about your host that are blackmail caliber.

MARION ABRAMS The other smiling face at Conference Central, Marion teams with Beverly to form the conference's sister act. Since 1989, these two have worked together at 14 of our conferences. The secret to their CorelWORLD success: lights out at 7:30pm…

KARIN VAN DUUREN Cut from our own cloth, Karin's first involvement with conference management was before she really had a clue about running a conference. But when she successfully oversaw the 300-person Corel Mania in Amsterdam in 1995, we knew it would be only a matter of time until she was a member of the CorelWORLD team.

please and even harder to impress, Jim is the conference's resident cynic and curmudgeon. He has opinions on just about everything and will willingly share them—just ask…at your own risk, of course. jimhart@microtecniqs.com

PAUL HUNTINGTON The winner of our annual Design-a-Brochure contest, this Ontario Canada resident sent five entries to us during the contest—talk about a glutton for punishment. You'll get a chance during the conference (as well as on the Conference CD) to see that the most difficult decision the talented Mr. Huntington gave us was not who would win, but which one of his entries would win… phuntington@lenbrook.com

DAVID HUSS David, a PHOTO-PAINT specialist? What would have given you that idea?? Yes, David has authored or co-authored 10 books on PHOTO-PAINT, and his montage "Beautiful Lady" won Grand Prize in the 1997 Corel World Design Contest. His other forte is scanning, and his *Scanning for Dummies* is due out later this year. davehuss@austin.rr.com

KEN JURINA A veteran user of both CorelDRAW and VENTURA, this native of beautiful Alberta has arguably the best job at the conference: He gets to show off the work of our resident artists. Watch for him in our "How Did They Do That?" sessions, and if you catch him staring at the screen with his mouth agape, give him a shove and remind him that he's supposed to be working…

WAYNE KAPLAN We've said it before and we'll say it again, Wayne Kaplan *is* Mr. Help Center, and he has been so since 1994. He is usually the first one there in the morning, and he is often the last to leave...like, oh, say about midnight…

CAROL LOVELADY Carol is the VENTURA lady, as her Web page implies. She spends most of her time training and using the program to publish books, manuals, and other documents for her customers. The rest of her time is spent digging up tips, tricks and articles for VUEPOINT magazine, which she publishes. clovelady@venturalady.com

GARY PRIESTER   After 25 years in advertising, convincing people to buy things they didn't need and couldn't afford, Gary has resurfaced as an author and journalist. His articles have appeared in *Communication Arts Magazine*, *Publish*, *HOW*, *CorelUser*, and *Digital Publisher*. themook@slip.net

STEVE RINDSBERG   Steve is president of RDP, a Corel-approved slide imaging service bureau, and developer of ZAP! and PageYank. He fell in love with PostScript the first time he saw the original Apple LaserWriter back in nineteen-mumblety- something. Reputed to be the first human to lash one to an IBM PC and live to tell about it, Steve has been a sucker for anything PostScript ever since, including some PS utilities from Corel way back before there was a CorelDRAW. Over the years, he has arrived at a mutually satisfactory working arrangement: He pretends to understand CorelDRAW's PostScript and CorelDRAW pretends to print whatever he asks it to. This will be the second CorelWORLD visit for Steve and his false modesty; we heartily welcome both. steve@rdpslides.com

ALLAN SHEARER   To say that Allan cannot get enough of VENTURA is putting it mildly. Working his way up the ropes at Corel, he reached his pinnacle last year as Product Development Manager for VENTURA. Upon leaving the company to pursue more breadth to his career, he immediately applied for a position with C_TECH, Corel's volunteer team of support specialistss, so he could continue to shmooze with other users. He intends to do his share of that here this week. allans@cyberus.ca

BOB VAN DUUREN   Does anyone know CorelDRAW and VENTURA better than Bob? When your job is to translate an entire software program from English to Dutch, you learn it from the inside out. This is Bob's third visit to CorelWORLD, and he has enjoyed it so much, he has begun hosting a conference for Corel users in Holland. bob@inventiv-edu.nl

Conference Partners

CorelWORLD is nothing if not a place to bring together members of the user community. And therefore, we are delighted to welcome an entire team of talented and dedicated individuals who contributed greatly to the richness of this event.

Corel Representatives

CHRISTEL BINNIE   Product Specialist

LISA CORBIN   Product Specialist

JILL PERRY   Product Specialist

TONY SEVERENUK   CorelDRAW Product Development Manager

ROBERT TRAVERS   Design Team Manager

Seminar Room Monitors

CHERYL ALVAREZ   El Cajon, CA

GLORIA CLANIN   El Cajon, CA

DOREEN MEIER   Chula Vista

VERNA POORBAUGH   Jamul, CA

Assistant to the Seminar Manager

CHRISTINE HANRAHAN   Sarasota, FL

Conference Photographer

BOBBE SINGER   North Palm Beach, FL
bsqd@beyondtb.com

Shirts, Totes, Signs, and Banners

GRASS LAKE IMAGES   Land O Lakes, WI
906-544-2411

CorelDRAW

From the ground up

CorelDRAW has been around for ten years, and this powerful program is still attracting new users. But with power comes complexity, and getting started with CorelDRAW can be a daunting task. This session will take you through the fundamentals so you can hit the ground running. We'll explore DRAW's interface and tools, and the basic functions and effects for producing useable work. Topics include:

- ❏ Understanding the screen

- ❏ Digging into the Toolbox

- ❏ Creating shapes

- ❏ Working with clip art

This session is for users with little or no experience using CorelDRAW, or those who have recently upgraded to version 9 and want a refresher on the fundamentals.

COREL WORLD 2000

CorelDRAW Basics

THE FIRST time you open CorelDRAW, you're faced with a bunch of buttons and a big blank page staring back at you. While we can't make you an expert on CorelDRAW in the next two hours, by the end of this session, you'll have a good idea where to start.

CorelDRAW can be used in a wide variety of situations. At its heart, it is an illustration program, so this session will focus on illustration. But if your job requires using CorelDRAW in another way, it is easy enough to take what you learn here and apply it to your own needs.

The Screen

Knowing where to find the function or information you want is a good start, so let's begin by going over the CorelDRAW screen. We will assume each element is in the same position as the first time you ran the program. If you have customized it in any way, you might find some elements in different positions on the screen.

STANDARD TOOLBAR

Just below the menus is the Standard toolbar. On it you'll find buttons for creating new documents, opening existing documents, saving, printing, and other routine file management tasks. Buttons are also supplied for Cut, Copy, Paste, Undo, and Redo. But the most important item on the toolbar may be the drop-down list of zoom levels.

PROPERTY BAR

Directly under the Standard toolbar is the Property Bar. At first glance, it looks like just another toolbar. But the Property Bar is context-sensitive, and its options change based on the tool or object you have selected. As you work, you'll find that the Property Bar almost always has a button for the function you need. We'll discuss many of these settings as we work through this session.

TOOLBOX

Most tools you need for creating and manipulating objects are found in the Toolbox. You'll also find tools here for changing fills or outlines, adding transparency, and applying many special effects. We'll go over the most important tools and how to use them.

STATUS BAR

At first glance, the Status Bar may not seem very important. And since it is at the bottom of the CorelDRAW
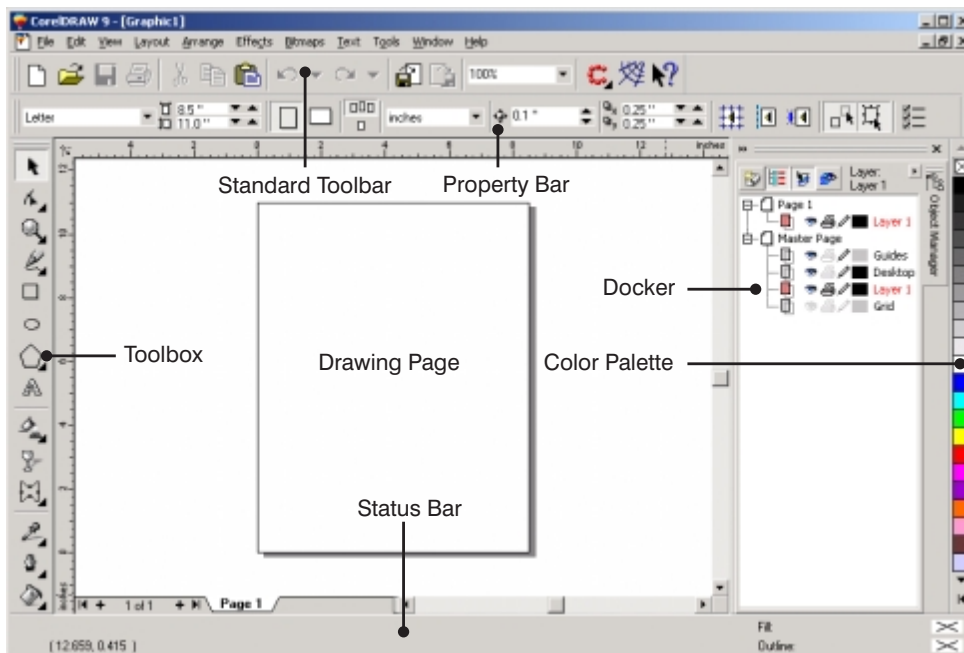
Figure 1
The CorelDRAW screen, with major elements labeled

window, it can easily be overlooked. But you'll find that it can give you valuable information as you work. Here you can learn details about a selected object such as its fill, outline, size, location, and much more. If multiple objects are selected, the Status Bar will tell you that as well. Without taking advantage of this information, you will have difficulty using CorelDRAW.

COLOR PALETTE

On the right-hand side of the screen is a palette of color swatches. The default palette contains a selection of CMYK colors. Left-clicking on a color fills the selected object with that color, and right-clicking changes its outline color. You can choose from a wide variety of palettes, and have as many as you like on screen at the same time. No matter what type of work you do, you can find—or create—a palette that fits your needs.

DOCKERS

CorelDRAW has many dialog boxes that you'll need to have available on screen for use on more than one occasion. So a special type of dialog box called a docker was created. Dockers get their name from their ability to attach or "dock" themselves to any side of the screen. They can also float separately, or be minimized to a button on the side of the screen.

The Drawing Tools

While we all may wish for a magical way to get images from our head onto the screen, it just isn't possible. Instead, we'll use some of CorelDRAW's more primitive shapes, and massage them a bit to get exactly what we want.

PICK TOOL

At the top of the Toolbox is the Pick tool, used for selecting, moving, sizing, rotating, skewing, and many other modifications. Click on an object to select it, then Shift-click on other objects to add them to the selection. You can also select multiple objects by clicking and dragging a marquee box around them. If a desired object is hidden behind another object, Alt-click to reach behind the object that covers it.

To move objects, click and drag their outlines, or simply use the X in the center of the object.

Clicking and dragging a corner handle will size the object proportionally, while clicking and dragging a side handle will distort the object by sizing it only in that direction.

If you click an object a second time, you'll see its rotate and skew handles. Click and drag a corner handle to rotate the object any amount you like. Click and drag one of the side handles to skew the object vertically or horizontally.

As you manipulate objects with the Pick tool, the numerical values of the changes will be displayed on the Property Bar; some of them will also appear on the Status Bar. Holding down the Ctrl key constrains all manipulations: Only vertical or horizontal movements are allowed, sizing is limited to 100% increments, and rotation or skewing changes are constrained to 15-degree increments (unless you've changed the default). Holding the Shift key while resizing an object will stretch or shrink it from the center out.

Whew, that's a lot of stuff and we've only skimmed the surface.

SHAPE TOOL

With the Pick tool, you modified shapes as a whole. The Shape tool lets you modify the individual data points or nodes that make up a shape. Between each pair of data points is a segment. That segment can either be a line or a curve; you can switch between the two on the Property Bar. Each node can be smooth, symmetrical, or a cusp. Cusps allow you to freely modify a curve entering the node without affecting the curve on the other side. Smooth nodes keep the
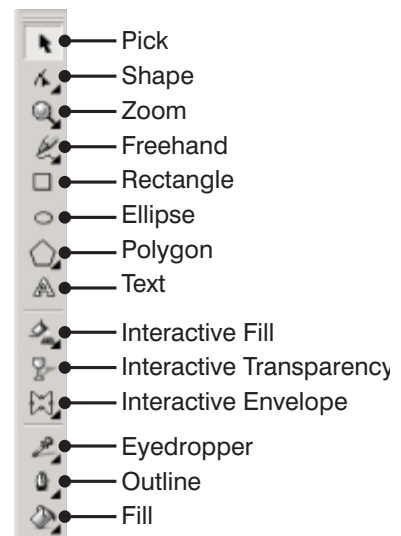
Figure 2
Tools available in CorelDRAW's Toolbox

curves entering and exiting the node smooth. Symmetrical nodes keep everything identical on both sides of the node. Most of the time you will use smooth nodes, with cusp nodes being used if you need to turn a corner.

Click on a curve with the Shape tool to add nodes wherever you desire. Right-click a node to delete it. Try converting a circle to curves and modifying it by adding nodes and changing the shape. You'll be amazed at how powerful this feature can be.

RECTANGLES AND ELLIPSES

It may seem rather dull to draw rectangles and ellipses, but some very interesting figures can be created from just these two basic shapes. To use either tool, click in one corner of the desired shape and drag to the opposite corner. Ellipses obviously don't have corners, but will fit within the imaginary rectangle drawn. Hold down the Ctrl key to constrain the shape to a rectangle or circle, and the Shift key to draw the shape from the center outward.

To round the corners of a rectangle, hold the cursor over a corner until it changes to the Shape tool, then click and drag until you have the desired corner radius. You can also enter a percentage of the radius on the Property Bar.

Ellipses and circles can be converted into pie wedges or arcs. While you can do this interactively with the Shape tool, it is much easier to use the Property Bar. Select the shape you want to modify, type in the beginning and ending angles, and press Enter.

We won't go over CorelDRAW's other shape-creating tools, but you'll find they work in very similar ways. Just remember to use the Property Bar to change settings, and you'll be halfway there.

TEXT TOOL

There are two major types of text in CorelDRAW: Artistic text and Paragraph text. Artistic text is used for small amounts of text, such as a few words. For larger quantities of text, Paragraph text is what you want. Just keep in mind that while CorelDRAW can be used to create multi-page documents with long blocks of text, it is not a true publishing program. That's what VENTURA is used for.

To create Artistic text, simply click on the page and start typing. To change the look of the text, highlight the characters you want to change and select Text | Format Text or the equivalent button on the Property Bar. The Format Text dialog has all the formatting controls you need; simple changes can be made using only the controls on the Property Bar. One of the benefits of using Artistic text is that you can apply effects such as Envelope and Extrude.

Paragraph text is created by clicking and dragging with the Text tool to draw a container for the text. Then you can either start typing, or select Text | Edit Text | Import… to import text from any of the popular word processing formats. As with Artistic text, you can highlight text and format it as you desire. You can also use CorelDRAW's Styles to assign formatting to paragraphs as a whole.

FILLS

Fills are one of the areas where CorelDRAW really stands out from the competition. Solid fills can be specified in CMYK, RGB, or a wide variety of spot colors. If you prefer to use more obscure color mixers, those are most likely available as well. The quickest way to get to these colors is by using the Interactive Fill tool and specifying your choices on the Property Bar.

If you look a little more closely on the Property Bar, you'll see the other types of fills available. *Fountain fills* (sometimes called gradient fills) allow two or more colors to mix together in a linear, radial, conical, or square sweeping motion. You can adjust settings such as the starting point, ending point, angle, and colors directly on the object being filled.

Pattern fills come in three formats: two-color bitmap, full-color bitmap, and vector. You probably won't use the *two-color bitmaps* often, as they are not very attractive and take forever to print. *Vector patterns* (called full-color patterns) are basically CorelDRAW files tiled however you like. A sampling of them is included with the program, but it isn't terribly difficult to create your own. *Full-color bitmaps* are also supplied on the CorelDRAW CD-ROMs, but you can fill an object with any imported bitmap image. It is best to use "seamless" bitmaps that can be tiled without any visible seams where they repeat.

Fractal fills (technically called Texture fills) are also bitmaps, but they are generated on the fly using fractal geometry. Each has a number of independent settings, and a single fill can have over a million different possible patterns. It is very important to specify fractal fills at the correct resolution. With too low a resolution, they will be very pixilated when printed, while using too high a resolution will result in huge files.

The last type is *PostScript fills*. Despite their name, they will print on any type of printer. They do take a while to display on screen, so use them carefully. Also note that they really haven't changed much since CorelDRAW 1, and aren't nearly as interesting as the other types of fills.

Working with Multiple Objects

You're still probably wondering how rectangles and ellipses can be so useful for creating advanced shapes. Sure, they can be converted to curves and manipulated, but that is time consuming. Using the Boolean functions described in this section, it is quite easy to take simple shapes and create complex ones with a single click.

COMBINE AND BREAK APART

The simplest way to make two shapes into one is the with the *Combine* command. If the shapes aren't touching, you will see little difference in their appearance, but the objects will now have the same outline and fill. They will also act as a single object, since they *are* now in fact a single object.

When overlapping objects are combined, the area that overlaps is cut out. A good example of this is two circles, one larger than the other. Centering the smaller circle over the larger one and combining them will create a doughnut shape, complete with a hole in the middle.

Break Apart is the opposite of combine. It will take a shape composed of multiple curves and turn each curve into a separate object. But don't assume this is a way to make the objects exactly the same as they were

before being combined. As you can see in Figure 3, often the end result will be quite different.
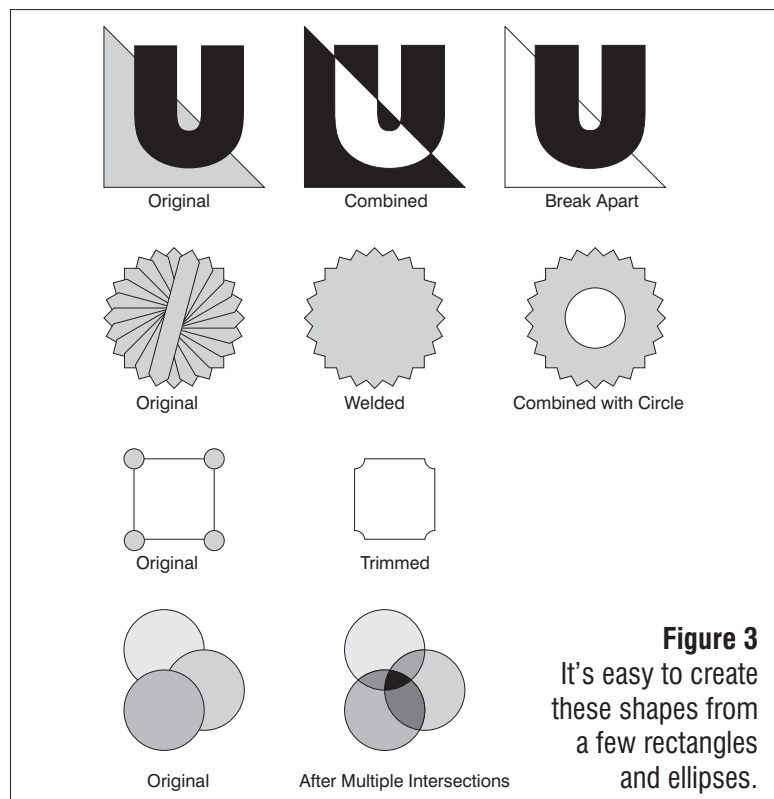
GROUP AND UNGROUP

At first glance, *Group* and *Ungroup* seem to do the same thing as Combine and Break Apart. They don't. The Group command lets you temporarily treat multiple objects as a single group. It's kind of like throwing a bunch of apples into a basket so they are easier to carry.

But when a group is ungrouped, the separate objects will be unchanged, just like you can take your apples out of the basket without finding they have turned into applesauce.

WELD, INTERSECTION, AND TRIM

These three commands are arguably the three most important commands in all of CorelDRAW. They didn't appear until version 5, and it is amazing the amount of work that they save.

Weld takes all selected objects and combines them into a single object. So far, that sounds just like Combine. But Weld throws away all but the outermost line of the resulting object.

Figure 3
It's easy to create these shapes from a few rectangles and ellipses.

Original	Combined	Break Apart
Original	Welded	Combined with Circle
Original	Trimmed	
Original	After Multiple Intersections	

Intersection will create a new shape from the overlapping part of all selected shapes.

Trim will use an object or objects to cut away the last object selected. This is a fantastic way to knock shapes out of other shapes.
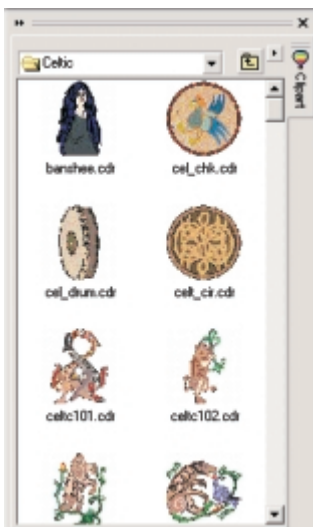
Using these three features, you can draw various ellipses and rectangles, place them strategically, and turn them into much more elaborate shapes. The real key is to break an object down mentally into round and rectangular parts, and draw it accordingly. It may take a while to get yourself thinking in that manner, but it sure is quicker than drawing more complex shapes freehand.

Using Clip Art Effectively

One of CorelDRAW's great strengths over the years is the massive amount of clip art included in the box. The biggest problem has been that users wear out the clip art manual that shows them thumbnails of all the images.

SCRAPBOOK

One way to locate clip art on screen is the Scrapbook built into CorelDRAW. It will display thumbnails of each image on a folder-by-folder basis. If you know where to find a graphic, this is a great way to import it. Simply click on the thumbnail and drag it into your drawing. But with the vast quantity of images to choose from, the Scrapbook isn't always the best way to find what you need.

Figure 4
Scrapbook lets you browse for images and drag them into an open drawing.

ROMCAT

ROMCat does not come with CorelDRAW, so don't go looking in your box for it. It is completely free, however, and you'll find a copy of it on your Conference CD. It lets you search CorelDRAW's clip art library based on internal keywords. So if you want a picture of a cat, for instance, simply tell ROMCat to find "cat," and a list of all the relevant images is returned. When you try this, you'll notice that the Animals \ Pets folder isn't the only place where images of cats are found. If you plan on utilizing Corel's clip art library in CorelDRAW, this is one utility that you must have installed.

EDITING CLIP ART

Many times you will be able to use the clip art as it ships. But making even minor changes can help to differentiate your work from that of others. The Ungroup and Break Apart commands can be very useful for breaking the image down into separate objects that you can recolor or even fill with fancier fills like Texture fills. You can also use simple effects like Envelope to change the look with minimal work.

The Effects

Another area where CorelDRAW has always risen above the competition is its wide variety of special effects. We'll look at a few of the ones that seem to be used most often, but they certainly aren't the only ones in the box.
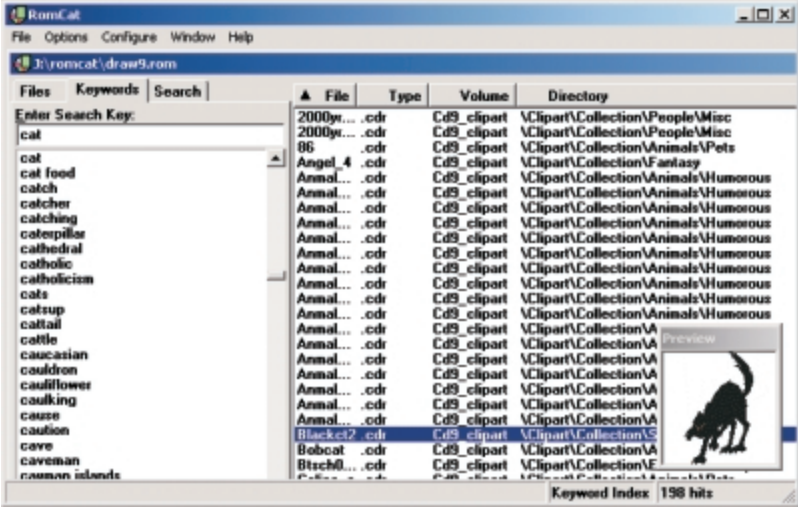
TEXT ON A PATH

To place text on a path, create a shape, select the Text tool, and click on the path. Now you can type whatever you want and it will follow the path. From the Property Bar, you can change the settings that determine where the text goes and how it fits along the path. If you'd prefer to move it interactively, use the Shape tool to select the nodes of the text and drag it exactly where you want.

BLEND

Blend takes any two objects and creates a series of intermediate objects between them. Initially, this may not sound that interesting, but it is a great way to make objects more lifelike with shading. The simplest way to blend two objects is with the Interactive Blend tool: Click on the first object and drag to the next object. A blend will automatically be created between the two. Now you can change the blend settings to whatever you

Figure 5
These cats have many hiding places.

CorelDRAW, and they're easy to create. Select the Interactive Drop Shadow tool, click and drag from the selected object, and you'll get a beautiful soft drop shadow. To change its color, drag a color from the color palette and drop it on the little color square on the shadow. A slider lets you adjust the feathering of the shadow.

You should be aware of a couple of problems created by drop shadows. First, the shadows are always created in RGB color. So if you are sending files for professional output, it would be best to convert the shadow to CMYK manually. They are also created at the document's resolution, which is typically 300 dpi. That is overkill for all but the highest quality print files, so you might want to resample them down to lower resolutions.

desire on the Property Bar. If you notice the shapes seem to get really small and then large again, you probably need to use the Map Nodes feature to pick which node on the starting object relates to which node on the ending object.

ENVELOPE

Another name for this tool could be "warp," as it will take all selected objects and warp them into any shape you desire. Envelope is probably used most often on text, but it will work on all objects except bitmaps. Select the Interactive Envelope tool, choose the type of envelope you want from the Property Bar, then move the nodes until you get the desired shape. Try holding down Shift and Ctrl as you modify the envelope; this will move opposing nodes to the ones you selected. One downside to the interactive tool is that it can't copy an envelope from an existing shape. For this, you must jump through a number of hoops and restore the Envelope docker to your workspace.

DROP SHADOWS

Drop shadows have become a big hit since being added to

Practice, Practice, Practice

We've covered an awful lot of features in a very short period of time. To really become proficient at CorelDRAW will require practice. Here are a few practice exercises to help you get started.

Figure 6
A few of CorelDRAW's effects

Text on a Path

Blend

Drop Shadow

Envelope

ENVELOPE

The most frequent use of Envelope is to modify text. Here's a simple example.

1. Type CorelWORLD.
2. Change the font to something nice and bold, using the Property Bar or Text | Format.
3. Select the Interactive Envelope tool from the Interactive Tools flyout. Your Property Bar selections should change, and your text should now have a dotted line around it.
4. Click the left-most Envelope icon to modify the text using the Straight Line method.
5. Select the top middle node of the text block and drag upward. When you release the mouse, the text should shape itself into a very simple "house" shape, similar to Figure 7.

WELD

1. Draw a rectangle that is approximately five inches wide and two inches high.

Figure 7
A simple Envelope effect

2. Draw a second rectangle that is 1½ inches square, and sits just on top of the center of the first rectangle.
3. Draw two circles, and place them so that half of each circle overlaps the bottom of the first rectangle. Each should be inset from an end of the rectangle by just a bit.
4. Now select all four of the objects and click the Weld button on the Property Bar.

If you look at the before and after images in Figure 8, you'll see that we just drew a very crude shape of a car.

Now that we have a car, we need a destination. When drawing a map, a series of lines is not always what you want, since you can't fill a line without some extra trickery. And if you use shapes, the intersections can look strange. Here is another good place to use Weld.

1. Draw a series of rectangles that are a ¼ inch wide and 4–5 inches high.

2. Repeat the process, but this time make them ¼ inch high and 4–5 inches wide.
3. For good measure, rotate one of these lines to create a diagonal street.
4. Now that you have a crisscrossing grid of streets, select them all and click the Weld button on the Property Bar.
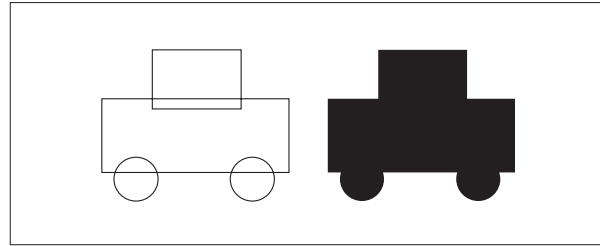
Figure 8
Basic transportation, from two circles and two rectangles

Figure 9 shows you again how easy it is to draw complex objects, using only simple shapes like rectangles and ellipses.

INTERSECTION

Intersection will retain only the overlapping areas of objects. This is a great way to create the illusion of transparency, as we will here.

1. Draw a circle.
2. Drag the circle to the right while holding down the Ctrl key (this constrains movement to one

Figure 9
Going my way?
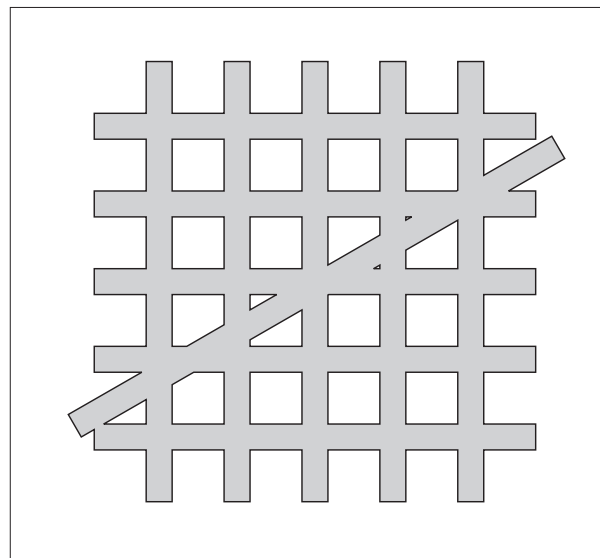
direction), then click the right mouse button when only about a third of the circles overlap.
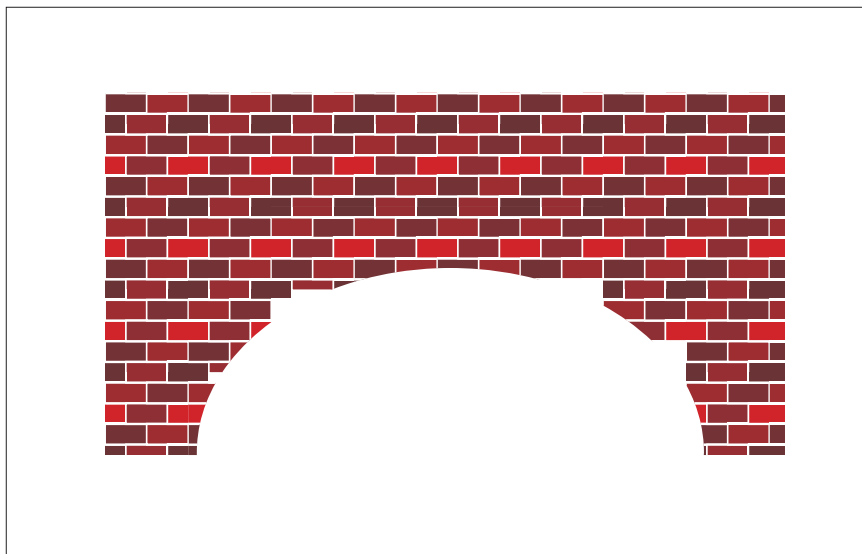
3. Fill the left circle with 10 percent Black and the right circle with 20 percent Black.

4. Select both circles by dragging a marquee around them with the Pick tool, or just double-click the Pick tool to Select All.

5. Click the Intersection button on the Property Bar.

6. A new object should now be selected. Color it 30 percent Black, and you should see something similar to Figure 10.

The object created by the Intersection command was the exact shape of the overlap between the two original circles. And if you look at the drawing we created, you'll see that the circles look transparent like balloons. Creating the illusion of transparency is one of the neatest ways to use the Intersection command.

TRIM

With Trim, any object or objects can be used as a knife. So again you can use primitive shapes cut out from other primitives to create some really interesting results.

1. Draw a rectangle and fill it with a brick pattern. This rectangle will represent a wall.

2. Draw a circle so that no more than half of the circle overlaps the bottom middle section of the "wall."

3. Select the circle first, hold the Shift key, and select the wall.

4. Click the Trim button on the Property Bar.

5. Delete the circle, and you'll see that you've created an archway in the wall, as shown in Figure 11.

These are just a few ideas to get you started. The more you practice with CorelDRAW, the more you'll discover just how much its tools can do. You'll make mistakes; we all do. But often those mistakes will lead to a "happy accident" that you can use in the future. Don't be afraid to play a bit and find new and different ways to use the tools you have in this powerful software package.   2000

Figure 10
Two circles that appear transparent where they overlap

Figure 11
Creating a simple archway wasn't as simple before Trim.

VENTURA Publisher

From the ground up

Need to create a newsletter or long document and wonder if CorelDRAW is the program to use? Did someone suggest that perhaps VENTURA Publisher would be better suited for the task? Ever wonder how VENTURA works, and why it consistently outperforms QuarkXPress and Adobe FrameMaker? If you've asked yourself any of these questions, then this course is for you. You will learn:

❏ What VENTURA is and what its capabilities are

❏ How to get started with the program

❏ The power of tags

❏ What's in a frame? Everything…

❏ The ins and outs of file formats, from ASCII to PDF

This session is designed for users who are new to VENTURA and want to find out more about this powerful publishing program.

COREL WORLD 2000

Power Publishing with VENTURA

COREL VENTURA is a document-formatting program—it creates formatted documents. It is at its best when those documents have a consistent structure, and it is at its most dramatic when the document consumes hundreds of pages. A VENTURA document is composed of text, graphics, and formatting controls. All modern flavors of text and graphics can be imported and used in a VENTURA document, and VENTURA's power lies in the integration of these outside elements with its internal collection of formatting controls.

VENTURA is not is a garden-variety page layout tool. In the 1980s, VENTURA's chief rival was Aldus PageMaker (now owned by Adobe), and the constant comparisons between the two grew tiresome. PageMaker's claim to fame is its pursuit of the perfect page, and any element that you place on a PageMaker document can be fiddled with and fussed over. It makes pages; hence, its name.

VENTURA is nothing like that. Sure, it makes pages, but its MO is so different as to defy comparison with PageMaker, and really every other program on the market today except for Adobe FrameMaker. Upon closer inspection, you are likely to find that CorelDRAW really has more in common with PageMaker, XPress, and InDesign than VENTURA does.

And do CorelDRAW and VENTURA share much in common? Despite an interface that is patently Corelian, shared by both, the answer would have to be…not really. As Figure 1 illustrates, you would never turn over certain projects to CorelDRAW if you used VENTURA, and vice-versa. There is a bit of an overlap in the middle, but even there, CorelDRAW and VENTURA would define starkly contrasting objectives and achieve them in entirely different ways and means.

The showdown

You can find an extensive comparison of VENTURA 8, FrameMaker 5.5, PageMaker 6.5, and QuarkXPress 4 at:

www.coreluser.com/html/vent_table.html

Features such as price, system requirements, page layout, text handling, and graphics support are listed.

The comparison was written by John Button and Luke Bermingham, Directors of Bookcraft Ltd., a company that specializes in software for book and magazine publishing.

What's So Special About VENTURA?

Before we answer this question, it's helpful to think of what VENTURA is not. For starters, it's not a word processor, and no word processor can even pretend to perform on par with VENTURA. If you want to really anger a loyal VENTURA Publisher user, walk up to him or her and say, "Oh, I don't need VENTURA; I use Microsoft Word for all of my desktop publishing." Of course, it's not

projects appropriate for DRAW

flier   resume   brochure   newsletter   annual report   catalog   large book

projects appropriate for Ventura

Figure 1
The larger the document,the better suited VENTURA is for the job.

Subheads are linked and will always format together.

Change this bullet, and the other two change with it.

Every page will have tinted dots between its columns, because we designed one page that way.

It's not possible to format one figure caption incorrectly. Do it right and they're all right. Do it wrong, and every one of them is wrong.

Figure 2
VENTURA's insistence on global styles keeps order in the publication household.

Sample page content

Screen Gems

DRAW goes out of its way to provide you with visual clues about what part of the curve you have selected, and picking up on these clues is crucial to your success as a curve shaper. Here are the important things to know about DRAW's on-screen behavior:

- You can perform some node-editing with the Pick tool. As your cursor crosses over a node, the cursor grows, the node grows, and a four-headed arrow appears next to it. You can move nodes, and use the context menu to access basic commands.

- With the Shape tool selected, DRAW not only tells you when you are atop a node (same visual cue), but also when you are atop a control point or along the path of the segment. DRAW presents the same four-headed arrow to indicate you are atop a control point, and offers up a small wavy line to tell you that you are on a segment.

- Clicking on nodes is an exacting, meticulous, and often tiresome and painful activity. We predict you will find it easier to marquee-select the node. Creating a marquee around a node is usually easier than clicking right on top of it.

What Are These Nodes?

Good question. It's entirely possible that you read and followed everything we've written and shown and still do not understand what nodes are or what they do. Our advice is to forget about understanding what they are (we don't really know either), and concentrate instead on what they do. Try the following exercise to get a better idea of what nodes do.

1. Open a new drawing using File | New. Create a large rectangle of any shape and fill it with any light color or shade. To access the nodes of this rectangle, you must tell DRAW to stop thinking of it as a rectangle and consider it a plain old curve instead.

2. Click on the Convert to Curves button near the right end of the Property bar (or press Ctrl+Q).

3. Then choose the Shape tool and select each node in turn while watching your status bar. For each node, it reports "Line Cusp." This rectangle started with four lines; therefore, its path is made up of straight lines and its nodes are all line cusps. When working with nodes, the Property bar will be a critical member of your team, providing access to all of the tools you would want to use with nodes (see Figure 2).

Draw Straight, Curve Later

The curve above was created with the Freehand tool, but it will be easier for you—and ultimately better for your reputation as a desktop designer—if you learn the value of drawing straight lines. Instead of holding the mouse button and dragging through the entire curve, try leap-frogging from one point to another to draw straight lines. Here are the actions a DRAW user takes when creating a series of straight lines.

Figure 2

The Edit Curve property bar—node editor's best friend.

Add Node · Join Nodes · Curve to Line · Cusp · Symmetrical · Extend Curve Auto-Close · Rotate and Skew · Elastic Mode · Delete Node · Break Curve · Line to Curve · Smooth · Reverse Direction · Extract Subpath · Stretch and Scale · Align Nodes · Curve Smoothness

8   Monday 9:45am

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clear whom you've insulted—the VENTURA user who would grow nauseated at the prospect of publishing with a word processor, or yourself for making such an ignorant insinuation.

Emotions aside, it is fair to say that VENTURA is many levels of horsepower beyond any word processor, including Corel's own WordPerfect. You don't have to try very hard to make this case; what would you do in your word processor if you had to:

- Create a footer that picks up the most recent headline, telephone-book style?
- Create a paragraph that would print under one set of conditions, but not another?
- Create a table of contents and index to reference 35 different text files?
- Intersperse landscape pages in a predominantly portrait-oriented document?
- Create two-, three-, and four-column formats and switch between them with a single click?

Sunday

12:30pm

Figure 3
The Tag Window, displaying all paragraph tags available for use

Tag Window - [cv8 1.0 final.vp]

Paragraph | Frame | Character | Page | Rule

Name	Font	Font ...	Style	Alignment	Font ...
Body small	CentSchbook BT	10.00 pt	Normal	Left	
Body Text	CentSchbook BT	12.00 pt	Normal	Left	
Body Text up	NewCenturySchlbk	12.00 pt	Normal	Left	
Body Wide	SwitzerlandNarrow	14.00 pt	Bold	Left	
Box Text	CentSchbook BT	12.00 pt	Normal	Left	
Bull Arrow	NewCenturySchlbk	12.00 pt	Normal	Left	
Bull Dingbox	CentSchbook BT	12.00 pt	Normal	Left	
Bull Dingbx/s	CentSchbook BT	12.00 pt	Normal	Left	
Double	Helvetica	10.00 pt	Normal	Left	
Fine Print	Arial	6.00 pt	Normal	Justified (Last...	
Head Ex2	SwitzerlandNarrow	16.00 pt	Bold Italic	Left	
Head Left	SwitzerlandNarrow	12.00 pt	Bold	Left	
Head0	SwitzerlandNarrow	22.00 pt	Bold Italic	Right	
Head0 #2	SwitzerlandNarrow	20.00 pt	Bold	Right	
Head0 #3	SwitzerlandNarrow	18.00 pt	Normal	Right	
Head0n	Helvetica-Narrow	36.00 pt	Normal	Right	
Head1	SwitzerlandNarrow	24.00 pt	Bold	Left	
Head2	SwitzerlandNarrow	16.00 pt	Bold	Left	
Head3	SwitzerlandNarrow	14.00 pt	Bold Italic	Left	
HiddWhen y...	Helvetica	10.00 pt	Normal	Left	

- Automatically number—and renumber—selected tables, figures, and paragraphs?
- Establish global formats for everything in sight, including the borders used for tables?
- Share not only documents but selected content and formatting elements of documents?
- Produce professional-grade PostScript output?
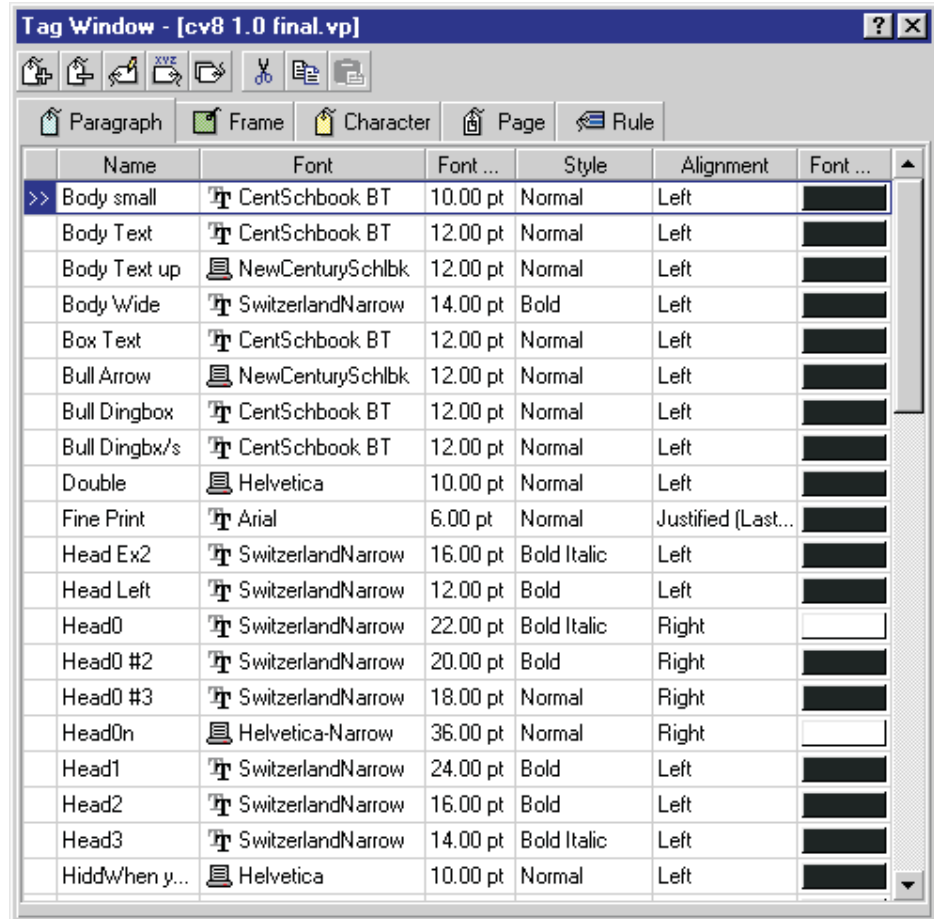
Thinking Globally

If we had to think of one word to describe the way VENTURA thinks, it would be global. Practically every move that VENTURA makes is done with one electronic eye kept on the global implications of that move. Change a paragraph to 9.5-point type? Many other paragraphs change, too. Add a bit of top margin to a page? That could affect hundreds of other pages.

This is enough to give nightmares to new users, and there is no question that the specter of "one wrong move ruins an entire publication" has driven some of them back to the friendlier confines of their word processors or page layout programs. But this is not a bug, it's a feature; in fact, it's the most important feature that VENTURA sports. When you format, say, a paragraph, you don't just change that paragraph. Instead, you change every single paragraph that shares the same formatting instructions.

CorelDRAW can do this with its styles, but the difference between CorelDRAW and VENTURA in formatting is the difference between night and day. CorelDRAW can't store nearly as many functions in its styles as VENTURA can in its tags, and more importantly, as a CorelDRAW user, you must explicitly request that a formatting change be extended out to other objects that use the style. With VENTURA, it's just the opposite: You must explicitly request that a change *not* be global; otherwise, it is.

Figure 2 shows a page from a previous Conference Guide. There is nothing terribly complicated about it, and if we told you that we created it in CorelDRAW, you'd probably believe us. If this one single page were our sole concern, we probably would choose CorelDRAW to position all of the elements just right. But this page is one of hundreds of pages, all intimately linked, with text that flows like a river through them. We neither seek nor need independent control over these objects; we want them to be part of a global

format. (On the other hand, creating the illustration of this page was an ideal job for CorelDRAW, where we could easily set captions and pointing lines, and align them all to a guideline, before exporting everything as a composite EPS file.)

Think of CorelDRAW as a large canvas on which you create, position, and fine-tune elements into one unified piece of artwork.

Think of VENTURA as a big engine for processing elements: You set up the format and the structure of the document first (the engine), then push data through it. Pages take on their appearance as a consequence of the global formats you have created.

VENTURA is capable of creating literally thousands of pages for a publication, but what you are creating is a format for the publication. Flowing raw text through that format creates the publication's structure.

If these qualitative metaphors are lost on you, don't fret; just keep in mind that VENTURA is unlike most other programs in the way that it takes care of its business.

The Magic of the Tag

If VENTURA is an engine, its power source is its network of tags. VENTURA's tags are like CorelDRAW's styles…times 20. CorelDRAW offers styles for text and graphic objects, and can track such simple properties as font, fill, and outline. VENTURA's tags can control hundreds of properties, including such intricate formats as how much indent a paragraph should get if it falls on a left page, and whether a superscript character should be two points or three above the ascender.

And to reiterate, VENTURA's global tagging system is the standard and traditional way to drive the program. That means that if you place your cursor in a paragraph that is tagged Headline, and you change its typeface to Swiss Narrow, every paragraph tagged Headline changes to Swiss Narrow. VENTURA doesn't care if there are two such paragraphs or 200—it changes them all. Current versions give you the option of turning off global tagging mode in the name of the dreaded user-friendliness, but that is so anti-VENTURA as to be quite unworthy of discussion. VENTURA will let you format a paragraph independent of a

tag, and that is a viable function, but turning off global tagging permanently…that's heresy.

There are five types of tags in VENTURA:

PARAGRAPH TAGS

The primary formatting muscle in the program is the *paragraph tag*. When you think of "global formatting," chances are you imagine such elements as headlines, subheads, main text, bullets, drop caps, indents, outdents, captions, headers, footers, footnotes, index entries, section heads, run-in heads…we could go on for quite some time. Figure 3 shows the Tag Window for a publication with a multitude of paragraph tags.

FRAME TAGS

Before we talk about frame tags…what the heck is a frame?? The only CorelDRAW element that is even close conceptually is paragraph text. If you click and drag with CorelDRAW's Text tool, you create a container for text. Shaping the container does not size the text; it only changes the flow of the text. VENTURA's frames are a bit like containers of paragraph text, except they can hold both picture and text elements.

In VENTURA, you can import elements into two places: the underlying page itself, and frames that float atop the page. Frames are quite literally little (or not-so-little) containers that hold things. You draw a frame with a simple click-and-drag maneuver, after which you can import text or a picture into it, or drop a text cursor and begin typing into it. If you think of the text that is already on the page as a river, then a frame acts like a rock in that river, forcing the text to flow around it. This makes frames ideal for placement of graphics, callouts, or any other element designed to reside in a fixed location on a page. (You can also create anchored frames that move with respect to the text on the page, but that's for another course…)

Like paragraphs, frames can be formatted, and many of their formatting elements can be stored in *frame tags*, which can then be assigned to other frames in the publication.

PAGE TAGS

Just as a paragraph of text has properties that identify itself, and a frame can have a unique format, so too can the page itself. Height and
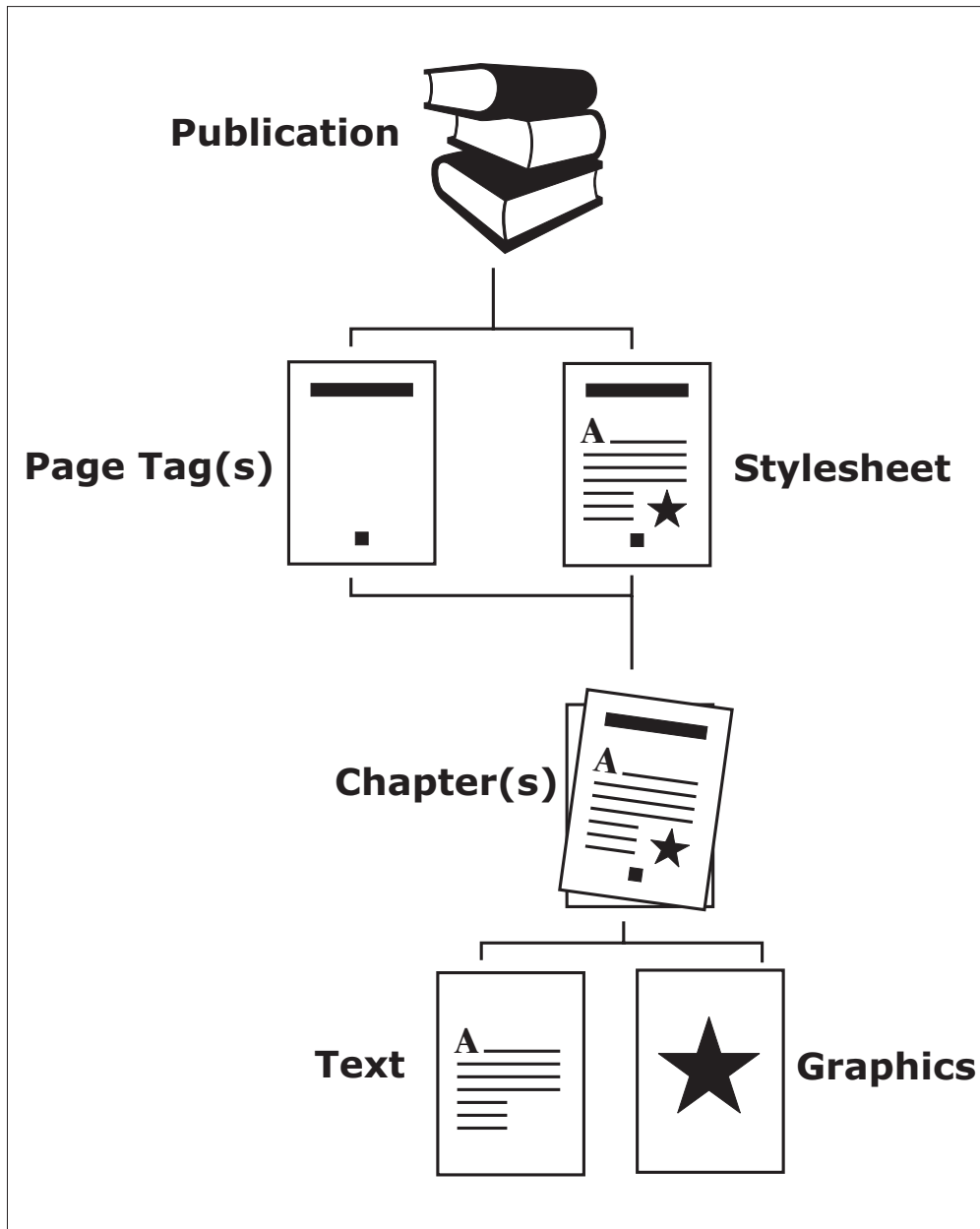
Figure 4
The VENTURA publication breakdown

could be arthritis-inducing. But a *character tag* disposes of the menial labor with aplomb: Select the text, pull down a list of character tags, click the desired one, and you're done—all of the attributes assigned to that tag are instantly applied to the selected text.

RULE TAGS

Rule tags refer to "rule" as in ruler line, not as in a rule to obey, and control how borders and underlines are formatted. While not used as often as the other tags, they are potentially more useful for those

width…portrait or landscape…one column or two…margins around its perimeter…background color…headers and footers—these are a few of the properties that can be programmed into a *page tag*.

CHARACTER TAGS

At first blush, new users might wonder why selected characters need a tag. After all, can't you just swipe the text and change it? Yes, you can, but VENTURA users who handle all of their "local formatting" that way are doomed to be forever shut out of the fast lane. Doing that once is not such a hardship; doing it over and over again

who do need them, because setting rules manually is a very tedious and unpleasant affair. If you are experimenting with the formatting of a table, with lots of horizontal and vertical gridlines, using rule tags is the only way to go.

Cnstructing a Publication

When you create documents in VENTURA, you create and save publication files. These documents contain the text, graphics, and other elements that make up the distinct look of your

pages. Figure 4 illustrates the components of a VENTURA publication.

Each publication contains at least one chapter. Chapters divide your document into manageable sections. A chapter is automatically created when you start a new publication. You can add additional new chapters, or existing chapters from other publications, at any time.

Publications also use one stylesheet and at least one page tag. Stylesheets contain all the paragraph, character, page, frame, and rule tags in a publication. By using multiple page tags, you can include a mix of page setups, such as both portrait and landscape orientation pages in the same chapter.

An example of a typical VENTURA publication is a technical user's manual. The publication contains several chapters, one for each section. A chapter is required for the table of contents, one for the introduction section, and so on.

Once each chapter has been added, the publication is saved to maintain the chapter listings. Then publication-level features such as tables of contents and indexes can be generated before the entire publication is printed.

Figure 5
All roads lead to
VENTURA.

Five Steps to Assemble a Publication

Putting together a basic VENTURA publication takes at least five steps:

CREATE A NEW DOCUMENT AND IMPORT OR MODIFY THE STYLESHEET. Start by creating the basic page tag properties such as page layout, margins, and columns. Add necessary headers, footers, and repeating graphics if needed.

Moving Folder Items with Organize

Another way to move items to other folders is to use the Organize command. You can use this command from all folders except the Calendar folder and Journal folder.

If the Organize pane is not displayed, click the Organize button on the Standard toolbar, or choose Organize from the Tools menu. Select one or more items that you want to move, and then follow these steps:

1 Click here.

2 Choose the folder to which you want to move the items.

Click here to select from additional folders.

3 Click Move.
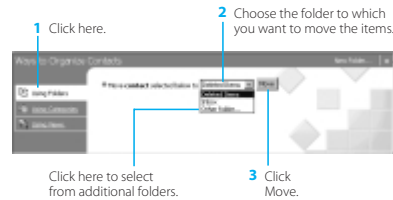
Once you've opened the Move Items dialog box, follow the steps on the next page to move the selected item or items.

1 Select the destination folder. If necessary click the plus sign to expand subfolders.

2 Click OK.

If you want to move items to a new folder, select an existing folder where you want to add the new subfolder, and then click New. In the Create New Folder dialog box that appears, type a name for the new folder, and then click OK.

Copying a Folder Item

You can copy a folder item either while it's open or while it's closed. If the item is closed and displayed in the folder window, hold down the Ctrl key while you drag the item to the destination folder on the Outlook Bar or in the Folder List. You do not have to hold down the Ctrl key to copy an item to a folder of a different type.

TIP

You actually do not have to hold down the Ctrl key the entire time you are dragging an item. Just make sure the Ctrl key is pressed down when you release the mouse button. When you press the Ctrl key, a small plus sign will appear next to the mouse pointer indicating that you are making a copy of the item rather than moving it.

To copy the item by using a dialog box instead of dragging, follow these steps:

1 Open the folder containing the item, and select the item or open it. You can select more then one item in a folder window.

2 Choose Copy To Folder to see the Copy Items dialog box. Copy To Folder appears on the Edit menu.

Continue by modifying the paragraph tags by assigning the font, spacing, and size. Use the Tag Window docker (Tools | Tag Window) to add any new paragraph tags required.

IMPORT OR CREATE THE TEXT. VENTURA supports most common word processing formats, as well as plain text formats such as ANSI and ASCII. You can also type text directly onto the page or a into drawn frame.

TAG THE PARAGRAPHS. With the Pick tool, click within each paragraph and select a tag from the Paragraph Tag list in the Property Bar or the Tag Window docker.

IMPORT GRAPHICS AND IMAGES (OPTIONAL). First, select the frame and import the graphic (File | Import Picture). VENTURA supports a wide variety of vector and bitmap formats. We suggest that you leave the graphic external from the publication. This means that VENTURA does not embed the graphic information in the publication file; instead, it has an external pointer to the source folder location.

Choosing external graphics minimizes the VENTURA publication size and frees up system resources. Most advanced users prefer to work this way. Just make sure that you include the external graphic files when you transport the VENTURA publication to another computer or to your print shop (right-click the publication in Windows Explorer and choose Copy with links to).

SAVE AND PRINT THE FILE. Once you have completed the publication, you can select File | Print Preview to see how it will look, or simply print to the desired print driver. The output can be destined for traditional laser printers, PostScript printers, Adobe PDF, print files, or HTML (File | Publish As…). Be sure you have the proper printer driver loaded before you print or generate a print file.

The Ins and Outs of VENTURA

Like CorelDRAW, VENTURA's appetite for consuming outside elements is practically boundless. It can accept text from virtually any modern word processor, and graphics from all of the standard formats. It is not as robust as CorelDRAW at exporting, but can nonetheless save text in ASCII, ANSI, or RTF format, export graphics in a variety of formats, export full-page EPS files with image headers, and create PostScript and PDF files with ease.

VENTURA acts like a Mecca for publication elements. Rarely do its users compose or create directly in VENTURA (although its Copy Editor view functions just like a word processor); most use their word processors, graphic programs, and image-editing software. On our production machine at this moment, we are composing text in Word, touching up screen captures in PAINT, and using CorelDRAW to add labels to figures. All three types of elements are destined for VENTURA, where they will mix, simmer, and become a publishing stew.

Figure 5 shows a finished page that would be an unfathomable proposition for just about any program except VENTURA. All within a fairly clean layout, you will find:

- Two text files, one from Word and one from a plain text editor
- A full-color photograph
- An EPS file, created from a composite of vector and bitmap images, assembled in CorelDRAW
- A margin icon—captured, sized in PAINT, and imported to VENTURA as a TIFF file

We've just scratched the surface in terms of what you can accomplish in VENTURA. Since the capabilities of the program are beyond those of its closest competitor, the learning curve can be steep. But with the information contained within this session, your steps should be a little more confident as you climb up the VENTURA summit. See you at the top sometime! 2000

PHOTO-PAINT

From the ground up

"Give a hungry man a fish and you will have fed him for a day. Teach a hungry man to fish and you have fed him for a lifetime." This age-old adage is as true for creative tools as it is for fishing, and this crash course will teach you how to fish with Corel's popular image-editing program. We will explore the fundamental PHOTO-PAINT concepts you must understand to achieve some of the most often-used photo-editing techniques, and by the end of the session, you will be ready to continue on your own. Topics include:

❏ Bitmaps, the stuff of PHOTO-PAINT

❏ Getting photos into PHOTO-PAINT with the least amount of damage

❏ Twisting, turning, and positioning photos and other bitmap images

❏ Correcting colors ("What, the bananas weren't supposed to be blue??")

❏ Making images ready for the Web, CorelDRAW, or your printer

This session is for those who have always wanted to understand how PHOTO-PAINT works. It is an ideal springboard for all of the PHOTO-PAINT seminars offered throughout the week of CorelWORLD.

COREL WORLD 2000

Beginning to PAINT

IN JUST two hours, can you really get started with PHOTO-PAINT? Yes, but we'll want to use our time together as effectively as possible. To that end, here is some basic background information about image file management and manipulation, so we can concentrate on more advanced topics during the session.

Opening, Creating, and Saving Images

Before you can apply any effects to your favorite photo, you first need to get that image into PHOTO-PAINT. And after you have finished your masterpiece, it needs to be saved in an appropriate format for printing or display. Whether you are scanning printed photos, importing images from a digital camera, or downloading images from the Internet, there are many ways to get images into and out of PHOTO-PAINT.

Figure 1
The PHOTO-PAINT
opening screen

Figure 2
Opening an
existing image
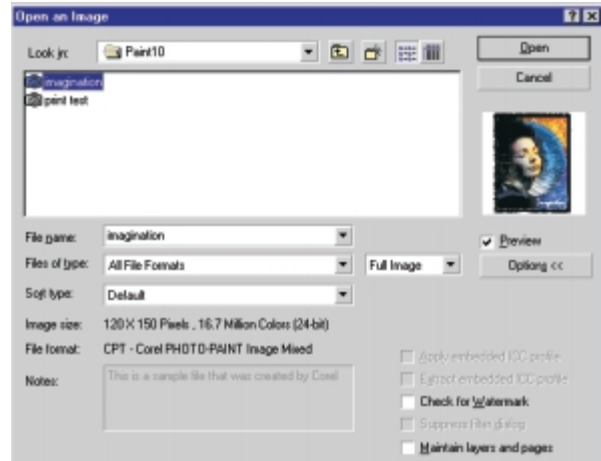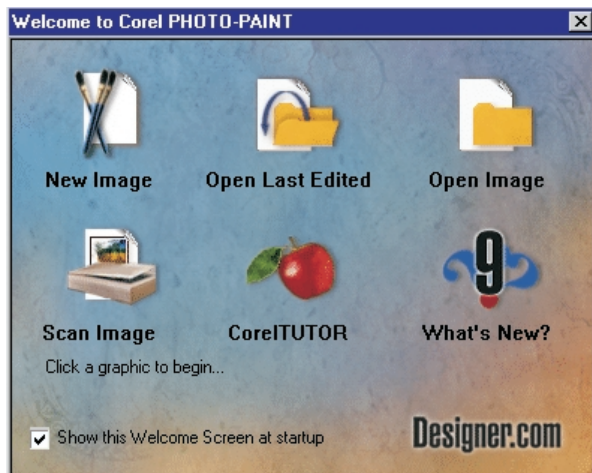
MANAGING IMAGE FILES

PHOTO-PAINT's powerful file import features let you open just about anything except a Swiss bank account. You can even open vector files and convert them to bitmaps. PHOTO-PAINT also lets you import and render 3D models, to add photorealistic objects to your images. Once an image is in PHOTO-PAINT, it can be saved in or exported to just about any industry-standard graphic format, including several proprietary formats like Adobe Photoshop.

When you first launch PHOTO-PAINT, the welcome screen shown in Figure 1 is displayed. It offers six choices, including two for opening files. Don't feel obligated to choose any of them, though; you can just close the welcome screen window instead.

OPENING AN EXISTING IMAGE

If the image you wish to work with has already been saved as a graphic file, you can open it one of three ways:

- Choose File | Open.
- Click the file open icon on the Standard toolbar.
- Use the keyboard shortcut Ctrl+O.

All three methods bring you to the dialog box shown in Figure 2. Locate and select the file, then click Open. That's all there is to it.

OPENING VECTOR IMAGES

Opening bitmap images involves very few choices, but PHOTO-PAINT requires some additional information to open a CorelDRAW .cdr, Windows Metafile, or other vector-format file, because it must be converted to a bitmap through a process called rasterization.
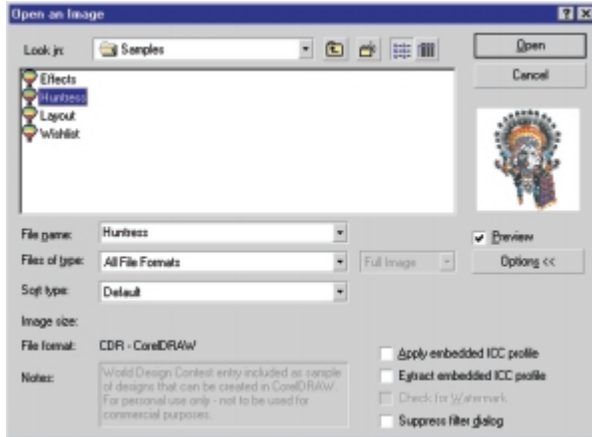
When a vector file is opened, a secondary Import to Bitmap dialog box opens (Figure 4). This dialog box appears a little complicated the first time you see it—especially if you weren't expecting it to appear. The Color setting offers a choice of six different color depths. If you are importing a color file, I recommend choosing 24-bit RGB Color, because it is the native color depth of PHOTO-PAINT. Avoid using 16 Colors or 8-bit Paletted color unless absolutely necessary.

Size should be left at the default setting of 1 to 1, so the aspect ratio (ratio of height to width) of the image remains unchanged. If you select one of the other fixed aspect ratio choices from the drop-down list, and its aspect ratio is different than that of the vector file being rasterized, the resulting bitmap may be distorted.

The dimensions of the rasterized bitmap are displayed below the drop-down list. You can also enter in your own dimensions into the value boxes, but the results may not be quite what you expected.

MODIFYING THE IMAGE AS IT OPENS

PHOTO-PAINT can remove part of an image (cropping) or change its size (resampling) as the file is opened. The default Full Image setting opens the entire image without applying any changes. Other options can be selected from the drop-down box shown in Figure 3.

If you know the image will be cropped or resized after it is opened, consider using the Crop or Resample option. Cropping or resampling an image as it is opened saves time and system resources (especially if it is a large image or you have limited system memory).

Figure 3
Open Image options

CHECKING FOR WATERMARKS

PHOTO-PAINT includes the PictureMarc plug-in from Digimarc, which allows you to embed and read digital watermarks. These watermarks contain information about copyrights and authorship, and provide a persistent identity which travels with the image wherever it goes. Digimarc watermarks do not prevent someone from using your images, but they do prove who created the image. When you open a image (other than a PHOTO-PAINT format image) containing a watermark, a copyright symbol appears behind the file name in the title bar of the Image window. The watermarks are not visible to the viewer.

Figure 4
Importing vector files isn't quite as automatic.
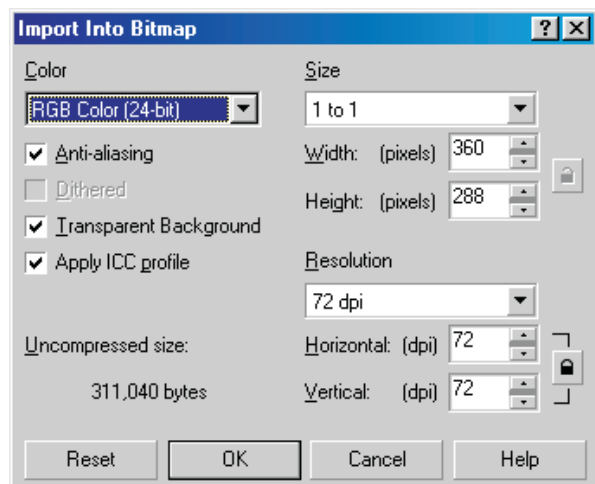
Figure 5
This vector image is being imported with a transparent background.

Resolution settings can be selected from a long drop-down list of preset values, or entered directly into the value boxes. I suggest using one of the preset resolution values—72 or 96 dpi for images that will appear on the Web, and a higher resolution (200 dpi or more) for graphics that will be printed. The projected file size appears in the lower left corner of the dialog box.

USING TRANSPARENT BACKGROUNDS

My favorite checkbox is Transparent Background. When this setting is enabled, the imported vector image is converted to a bitmap object without a background. The resulting bitmap image can be placed in another image without the need to create a complex selection mask, as was necessary in previous releases of PHOTO-PAINT.

In Figure 5, the CorelDRAW file of the Huntress is being imported with Transparent Background enabled. The imported image comes in as an object which can then be placed over another background, as in Figure 6.

Creating New Images

While most of the work you do in PHOTO-PAINT will involve editing existing images, sometimes you will need to create an image from scratch. Let's take a look now at the procedure and the dialog box used to create a new image.

DEFINING A NEW IMAGE

One of the questions I hear most often from CorelDRAW users when they open PHOTO-PAINT for the first time is "Where's the blank page?" I can't find fault with these users, since I made the same comment the first time I opened version 4.

To create a new image, select File | New, or press Ctrl+N. The dialog box shown in Figure 7 opens. It controls color modes, paper color, image size, and a few other options. This is usually the first dialog that new PHOTO-PAINT users encounter, and it can be rather intimidating to someone new to bitmap editing. But don't let the number of options alarm you; you will rarely change more than two or three of the settings.

COLOR AND BACKGROUND

Color mode offers you six different choices. My general rule for this setting is: If the image is color, use 24-bit RGB; if it is not, choose 8-bit grayscale. The reasoning behind this simplistic rule is that even if I will eventually convert the image to CMYK for printing or to 8-bit Paletted for the Web, I will do all of my work on a 24-bit RGB image and convert it to the appropriate color mode as a final step.

Paper color is where you pick a color for the background (called Paper in PHOTO-PAINT). Most of the time you will probably use white.

Checking No Background creates an

Figure 6
The Huntress, in some new hunting grounds

Figure 7
Here's how you get
to that blank page.

handy with screen capture programs like Corel CAPTURE. Select File | New From Clipboard, and the clipboard contents will be pasted into an new image with the correct dimensions. One word of caution here: More times than I would like to admit, I have forgotten that I had just copied a large amount of text to the Clipboard; when I created a new image from it, PHOTO-PAINT almost threw a hairball trying to rasterize all of that text.

Saving Your Work

Once you have created or opened an image and completed all of your work, you will want to save it. Fortunately, that is very easy. Your choices are pretty much standard Windows fare, but Corel has included some additional features to make image management easier.

image that only contains one transparent object. This feature is very handy for making images for the Web, or creating objects to be used in other images.

IMAGE SIZE

The preset settings available in the Size drop-down list change to match the units of measure. For example, if the unit of measure is set to Pixels, the size presets include 640 x 480, 800 x 600, etc. If it is changed to inches, the presets change to include Photo 3 x 5, Photo 5 x 7, Letter, and Legal. If millimeters are chosen, the presets reflect European sizes such as A3, A4, and B5. Of course, you can always enter the height and width of your image directly in the value boxes.

Although Resolution also has preset choices, you can enter any value you want here too. If you are not sure of the correct value, it is better to make the image too large than too small. Images suffer much less quality loss when reduced in size than when they are enlarged.

CREATING IMAGES
FROM THE CLIPBOARD

You can also create new images from material captured to the Windows Clipboard. This is really

SAVING VS. EXPORTING

PHOTO-PAINT's three basic commands for saving image files are Save, Save As, and Export. File | Save or Ctrl+S opens the Save an Image to Disk dialog box shown in Figure 8. It is only possible to save the image in a format that will keep all of the current contents of the image without modification. For instance, with a PHOTO-PAINT image that contains objects and masks, the only choices available in the Files of Type drop-down list will be PHOTO-PAINT formats and Photoshop (which is compatible with PHOTO-PAINT).

If the image is on a CD-ROM or other write-protected source, you must use File | Save As to save it to a different location. Here too, your choices are limited to formats that can contain all of the image's content without modification.

Export saves a copy of the selected file in just about any format your heart desires. If the format chosen does not support all elements in the image, a message box appears advising you of any modifications that will be made to the exported file (merging objects, for example). Even though the copy is modified, the original remains

Figure 8

The Save and Save As commands limit you to formats that retain all elements of the image.
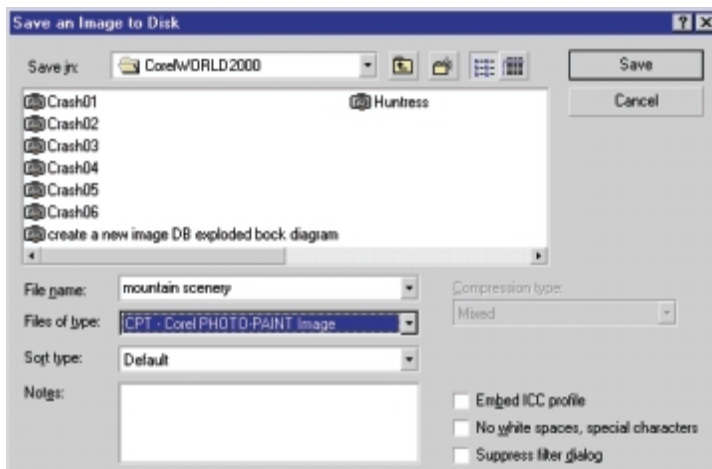
unchanged. The name of an exported file does not appear on the File menu history list, since it has not been opened in PHOTO-PAINT.

Viewing and Modifying Images

We'll start this section on working with images with a look at PHOTO-PAINT's tools for viewing and navigating around images.

ZOOM AND NAVIGATION TOOLS

PHOTO-PAINT's zoom tools magnify or reduce the size of the on-screen display of your image. They provide several ways of viewing and working on your image, from as close-up or wide a view as necessary. When an image is either too large or has a zoom level too high for the entire image to fit on the screen, two navigational tools are available—the Hand tool and the Navigator pop-up.

Before we learn how the zoom tools work, it's important to understand a few things about how zooming in and out affects the display of bitmap images.

ZOOMING AROUND...

In a vector program such as CorelDRAW, selecting a different zoom level causes the program to redraw the image at the requested level. When zooming in or out of a bitmap, PHOTO-PAINT tries to adjust the pixels in the image to match the screen pixels.

At a zoom level of 100%, each pixel in the bitmap is mapped to a screen pixel, producing the most accurate display of the image. When the zoom level is changed, PHOTO-PAINT calculates how to assign the color of each pixel in the image to

Figure 9

The on-screen quality of bitmaps changes with the zoom level.

Figure 10
The original photograph

the screen pixels. Unfortunately, the math rarely comes out even, forcing PHOTO-PAINT to resample the screen pixels. The result is distortion of the image being displayed.

Figure 9 shows screen shots of the same bitmap image displayed at two different zoom levels. The left side is being viewed at 100% while the right side is displayed at 93%. If you examine the Roman numerals on the right carefully, you can see the appearance of the dreaded "jaggies." The only way to know you're looking at an accurate display of a bitmap image is to be sure it's set to a zoom of 100%.

THE FLIP COMMAND

The Flip command produces a vertical or horizontal mirrored copy of the original image, and is a perfect solution for images that are scanned upside down, but its uses are not limited to that: Often an image just looks better when it has been

flipped horizontally. To use this command, select Image | Flip, then choose Horizontally or Vertically.

THE ROTATE COMMAND

Rotate lets you rotate the entire image. Again, this may not seem like much, but you can do a lot with this little command. Its most common use is to reorient a photograph that was too wide for a scanner. For example, a while back I needed to scan a panorama photo of Austin. The photo was 12 inches wide and 6 inches high, but my scanner could only accommodate a width of 8.5 inches. I flipped the photo 90 degrees, so its width ran the length of the scanner. After scanning it, I used PHOTO-PAINT's Rotate command to return it to its original orientation.

To rotate an image, choose Image | Rotate. Another menu appears with the available choices in 90-degree increments. The last choice on the menu is Custom, which opens the Custom Rotate dialog box.

Figure 11
Rotated 15 degrees, and paper color changed to match the towel

Figure 12
Second fill color added

USING CUSTOM ROTATE

Custom Rotate has some handy options that allow you to easily create some pretty slick graphics, as you can see in the next few figures. Figure 10 is your basic come-and-join-our-gym photo.

- Using the Eyedropper tool, we changed the Paper color to match the subject's towel, before using Custom Rotate to rotate the photograph 15 degrees. Figure 11 shows the result.
- Using the Eyedropper tool again, we selected the color of her leotard as a fill color and (with tolerance reset to around 10) applied the Fill tool to the top and bottom (Figure 12).
- Using the Text tool, we added our message, including a drop shadow for effect (Figure 13).

Setting Degrees and Direction in the Custom Rotate dialog box is pretty obvious. Anti-aliasing, when enabled, reduces aliasing or "jaggies" on rotated images, though it also may soften the image being rotated. If you have any doubt about the value of this feature, apply the desired rotation without anti-aliasing once, and you will see why it was included.

IMAGE SIZE AND PAPER COLOR

When Maintain Original Image Size is selected, the image height and width dimensions are fixed and the rotated image is cropped at the image boundaries. The portion of the image area vacated by the rotated image is replaced with the Paper color. If Maintain Original Image Size is left unselected, the image dimensions are automatically adjusted to fit the edges of the rotated image.

THE DUPLICATE COMMAND

The Duplicate command produces a new file that is an exact copy of the original image. After you select Image | Duplicate, you have two decisions to make. First, you must either enter a name for the duplicate file or accept the name generated by PHOTO-PAINT (usually something original like "New-01"). Second, you must decide

Figure 13
Image cropped and text added

whether to check Merge Objects with Background. The Merge Objects with Background option lets you choose whether to make a duplicate image with all objects as they are in the original, or one with the objects merged into the background. Objects can be thought of as bitmap images that float on top of the picture. Once objects are merged, they can no longer be selected and manipulated separately.

Resizing an Image

Resizing an image is a common practice in word processing and page layout programs. But there is more to resizing than first you might imagine.

Many page layout, DTP, and word processing programs include graphic cropping and resizing tools. These features are usually fine for minor image adjustments, but for any significant changes, you should open the files in PHOTO-PAINT and make your changes there. There are several reasons for this:

- If you *crop* a large image file in a word processing or page layout program, the file size remains unchanged. Even if you use only five percent of a 16MB image file, the entire image remains part of the document file. Large document files create problems with lengthy print times and difficulty in transport to a service bureau. If, however, you crop that same 16MB file to five percent of its original size in PHOTO-PAINT, it becomes an 800K file.
- *Resizing* bitmap files in these applications can cause image distortion, which often shows up as unwanted moiré patterns over the entire image.

Most of the commands for changing the size of an image once it has been loaded into PHOTO-PAINT are found in the Image menu. These commands affect the entire image and cannot be applied to a masked portion of the image.

CHANGING THE SIZE OF AN IMAGE

Images are rarely provided in the exact size required for your project. In the old days, when we needed to change the size of an image, we made a PMT (photo-mechanical transfer) of the image,

The Price of Custom Rotation

Images are made of square pixels, and each pixel is assigned a single color. When an image is flipped or rotated, each pixel that makes up the image is rotated along its axis. If the angle of rotation is an increment of 90 degrees, the pixels still line up with the horizontal and vertical axes of the image area, and the integrity of the image remains unchanged.

When the angle of rotation is not a 90-degree increment, the sides of the pixels no longer line up with the horizontal and vertical axes of the image. To correct this, PHOTO-PAINT must read the color value of each pixel and its adjoining pixels to create a new pixel (resample) containing a color value that represents the original value plus the color value from the adjacent pixels.

As a result, the image suffers a small amount of distortion. The most common distortion effect is an overall softening, which is produced by PHOTO-PAINT's anti-aliasing feature. The distortion is most apparent in areas of high contrast with limited shades of colors.

which could then be reduced or enlarged. Fortunately, PHOTO-PAINT provides several much simpler ways to change both the size and the surrounding working area of an image. They include resampling, cropping, and their variations, and are summarized in the table that follows.

Resizing Method	Description
Resampling	Makes the image larger or smaller by adding or subtracting pixels. Can also change the image resolution, which affects printed size without adding or subtracting pixels.
Deskew Crop Tool	Acts like a traditional cropping tool. Allows you to define a specific area and remove everything in the image that is outside of that area.
Paper Size	Uses a combination of resampling and cropping to increase overall image size by increasing the size of the base image, as if you had put a larger sheet of paper under the original. Can also be used to crop the image.

THE RESAMPLE COMMAND

With PHOTO-PAINT's Resample command, you no longer need to grab the old calculator and work out the math to change the resolution and the dimensions of an image. Resampling should not be confused with the scaling features of CorelDRAW or desktop publishing programs. These applications stretch or compress the bitmap images, often producing serious distortion. Resampling actually re-creates the image, adding or subtracting pixels as needed. Increasing the size of the image is called *upsampling*, and is not recommended. Decreasing the image size is called *downsampling*, and can be used without much concern.

You can resample an image using *fixed resolution* or *variable resolution*. Each method changes the image

size, and each has its own advantages and disadvantages.

FIXED RESOLUTION RESAMPLING

With this method, the resolution of the image remains unchanged, while its dimensions are either increased or decreased. Wait a minute…isn't it a fact that if the dimensions are increased, the resolution has to decrease? Normally, yes. But if the resolution is fixed, PHOTO-PAINT must either add or subtract pixels instead, to make the image fit the new dimensions entered.

When the space between the pixels increases, more pixels must be created to keep the resolution constant. PHOTO-PAINT goes through the entire image, comparing pairs of adjacent pixels and creating additional pixels that represent the average tonal value. This is why your computer seems to take so long to resample an image.

When the dimensions of the image decrease, PHOTO-PAINT subtracts pixels from the image. This sounds ideal, but you always lose some detail when you resample an image, regardless of whether you've added or subtracted pixels. The greater the amount of resampling, the greater the amount of image degradation introduced.

If Maintain Aspect Ratio is checked in the Resample dialog box, as in Figure 14, any change made to one dimension will result in a proportional change to the other dimension.

Figure 14
Resampling images in
PHOTO-PAINT
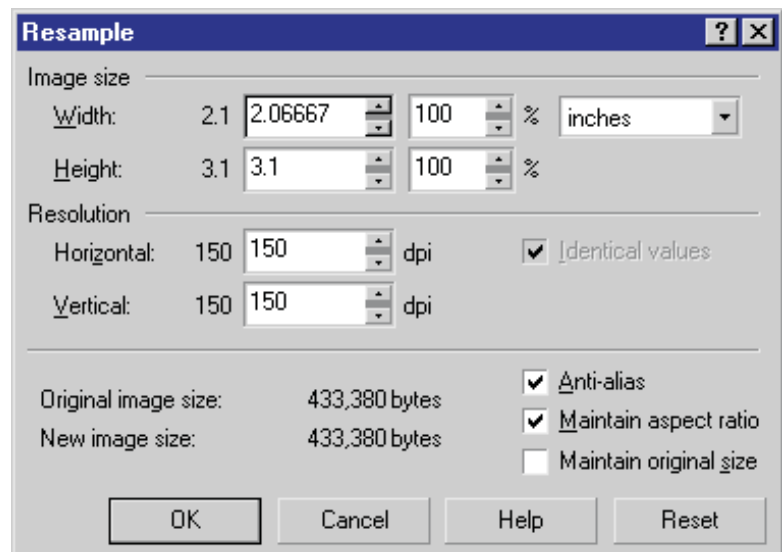
Disabling Maintain Aspect allows you to change each value independently of the other.

Whenever you change the aspect ratio of an image, you introduce distortion. This distortion becomes noticeable when the values entered vary significantly from the original aspect ratio.

VARIABLE RESOLUTION RESAMPLING

Click the button labeled Maintain Original Size to use variable resolution resampling. This is the resampling method I generally use (when I must use one). It forces PHOTO-PAINT to keep the number of pixels unchanged, and change the resolution to fit the newly requested image size. You can safely allow the resolution to be reduced to 150 dpi for grayscale and 100–120 dpi for color images.

The advantages of variable resolution resampling are that the file size remains the same and the operation is instantaneous. The reason it happens so quickly is that the image is not physically altered. Only information in the file header (where the resolution information is stored) is changed.

The disadvantage to this method is the loss of image detail that results from lower resolution. In most cases, if you keep the resolution at the recommended levels for the type of image you are working with, you should be able to resize the image without any noticeable loss of image detail. I recommend disabling Maintain Aspect Ratio when using variable resolution resampling.

When resampling by changing the image resolution, you will not see any change in the image displayed in PHOTO-PAINT because the program maps each pixel of the image to a pixel on the display, regardless of the resolution setting. To see the effect of resampling, you must save the image and print it.

Cropping an Image

Cropping involves removing part of an image to change its size or enhance the composition of the subject matter. The Deskew Crop tool is in the Toolbox, just under the Mask tool flyout. There is also a Crop command in the Image menu and a Crop option on the Open an Image dialog box.

PHOTO-PAINT offers several different ways to crop an open image. Select the Deskew Crop tool and right-click in the image. A pop-up menu appears, offering these three choices for cropping:

- Crop to Selection
- Crop to Mask
- Crop Border Color

CROP TO SELECTION

With the Deskew Crop tool, draw a rectangular bounding box that surrounds the subject and excludes the area you wish to crop, as shown in Figure 15. Use the selection handles move or size the rectangle.

Double-clicking the rectangle crops the image to the shape of the rectangle. You can also crop the image by right-clicking the image and choosing Crop to Selection from the pop-up menu.

CROP TO MASK

This option crops to a mask rather than to a rectangle created by the Deskew Crop tool.

1. Surround the area of the image you wish to crop with a mask.

Figure 15
A portion of this image has been selected for cropping.

2. Select the Crop tool and right-click inside of the mask.
3. Choose Crop to Mask.

Regardless of the type or shape of mask you place on the image, Crop to Mask will calculate a rectangular area that fits all of the points on the mask you have used. The Crop to Mask option is only available if there are masks in the image.

CROP BORDER COLOR

Crop Border Color removes borders of a selected color from an image. An example of where you might want to use this would be to eliminate the ugly black border that seems to surround the images on many early photo-CDs. In theory, you would select the color of the border, click the button, and watch the black border disappear. However, nearly all borders are irregular, and since all crops must be rectangular, some parts of the original border do not get cropped.

Paper Size

The Paper Size command lets you place the original image on a larger or smaller background by creating a new image of a specified size. It is called Paper Size because Corel refers to the image background as "Paper." The new background (Paper) color is determined by the Paper Color setting. If the Paper Size of the new image is smaller than the original image, the image is cropped; if the paper size is larger, the image is positioned according to the Placement selection made in the dialog box. Move the image with the cursor to place it at the exact desired position on the new paper size.

Image Conversion

One of PHOTO-PAINT's greatest strengths is its ability to convert images from one graphic format to another.

MODE (CONVERT TO) COMMAND

Prior to PHOTO-PAINT 9, this command was called Convert To, which I thought was much more descriptive. But whatever it is called, the process is quite simple.

With an image selected, open Image | Mode and choose the desired format. Any unavailable formats are grayed out. With a Paletted (8-bit) image, for example, the Duotone option is grayed out because duotones must be created from grayscale images.

Unlike Export, the conversion process does not create a copy of the image; the original will be converted. If you do not want to change the original, use File | Export to change the format instead, or File | Save As to save the file under a new name before you convert it.

WHY CONVERT?

Some situations require changing the format of an image. For example, I am a graphics illustrator at Motorola and use PHOTO-PAINT to create marketing material that must go to a color printer. No one has ever said, "Dave, just send it in any format your ol' pea-picking heart desires." No, the printers I work with, like those everywhere, have very specific size and format requirements. Most of our conversations sound like someone reading a launch preflight sequence for the space shuttle.

The advantages of converting should also be considered. Converting color images to grayscale can save enormous amounts of disk space when you are producing graphics that will be printed in grayscale. Converting a 24-bit color image to grayscale reduces the image file to one-third of its original size. For example, if the original 24-bit color image is 1.1MB, converting it to grayscale will result in a file size of approximately 250–300K.

Another use of the conversion feature is to view color images for pages that will be printed in grayscale. It is very important to convert any images that will be printed in black-and-white to grayscale, so you can see how the final output will look. Colors that look great in color can fade completely in grayscale.

We have covered enough information in this article to allow you to open, modify, and save just about any image. During the course, we will briefly cover this material, and then learn how to work with some image corrections and effects.   2000

Rick Altman

Sunday • 3:00pm

Webmastering

For the masses

We know the feeling…the World Wide Web revolution moved in so quickly, many of you just felt it come and go like a hurricane. Those of you who didn't get swept up in the tidal wave could feel like you're stuck forever on the outside looking in. At this conference, you'll have plenty of chances to catch up and explore the wonders of creating Web pages and sites, and the first opportunity is here on Sunday. This introduction assumes little knowledge of HTML, but at the same time goes beyond simple Web page creation to the more substantial topic of creating an integrated site. It will also serve as an introduction to Macromedia Dreamweaver. Topics include:

❏ HTML: Not quite rocket science

❏ Is a Web site like a book? Not!

❏ The five things every Web site should do, and not do

❏ What you see…is not always what you get

This course is for anyone who wants a solid introduction to the mechanics and concepts of Web site creation.

COREL WORLD 2000

The Cyber Phenomenon

WE WOULD be insulting your intelligence if we said that the Internet and the World Wide Web have become the hot new computing phenomena. Unless you have been living in a cave, you are well aware of this fact. In unprecedented numbers, CorelDRAW users are turning their attention to publishing their electronic designs on the World Wide Web.

What Is the World Wide Web?

This isn't a stupid question, because many users are not clear on the distinction between the Web and the Internet itself. Many think that the terms are interchangeable, and even those of us in the know often lazily switch them.

The Internet has been around for decades, considerably longer than the relatively youthful World Wide Web. The Internet refers to an actual physical construct connecting computers together, just like the local area network that might be in your office. The World Wide Web is more like software—it is the brains behind the Internet's ability to deliver graphical information to us.

It might help to think of the Internet as the operating system of a computer, and the Web as a piece of software that runs on that operating system. The Internet provides the platform for programs to run; it is essentially the transport vehicle. The Web is the basis for the actual content you see in your browser.

And why is it called a web? Because at its core it is a massive spider's web of interconnected computers, each one identified by a unique number, and each one with a potential role to play in the delivery of information all over the world. With the help of a handful of super-computers that define the so-called "backbone" of the Internet, another tier of machines that act as main arteries, and then still more sites that serve as tributaries, rivers, and streams, our words and pictures flow every which way in their mission to go from one place to another, be it from New York City to Brooklyn, or from Wimbledon, England to Melbourne, Australia. This is all set in motion by a user's propensity to click on a word, phrase, or graphic that is linked to a set of instructions that essentially says "send me."

You Send Me, but How?

And this is the second widespread misunderstanding about the Web. Most users have the notion that if they click on one of those buttons on a Web site, they will travel to another point in cyberspace. They know that they are not really traveling there, but perhaps some beams of energy or some bit trails are going from their computers to other ones.

In fact, it is exactly the opposite. Every action that you take when you are surfing the Web is essentially a download of information from somewhere else to your computer. You are not sending anything out (except for the tiniest set of instructions) and you are not going anywhere—you are making the entire world come to you.

In this regard, your activities on the Web are very much like the old-style way of communicating with your modem, where you would establish a connection with someone else who had a modem, and the two of you would exchange information. You would "upload" data to that person, and "download" information from them.

THE MAGIC OF THE HYPERLINK

So what's the difference between modem communication today and ten years ago? On the surface, the biggest difference is the ease with which you receive that information. Today, you click on a magically charged phrase, button, or graphic—a hyperlink in Web-speak. Again, you may be tempted to think that when you click on a hyperlink, you go somewhere. However, you are actually instructing a site on the Internet to come to you. That it pack up all its information, text, and graphics, and deliver them to a particular folder on your hard drive. Once this has been done, your Web browser can display the site for you. Netscape Navigator and Microsoft Internet

Explorer are incapable of going to anyone else's Web site and displaying information. Strictly speaking, those programs can only show you the information when it arrives on your system.

RUSH HOUR TRAFFIC FOREVER

Today's Internet experience is nothing like the one that its forefathers envisioned. The Internet was originally developed as a means of communication and information exchange by educational, government, and corporate institutions, and was strictly a just-the-facts-please proposition. Its infrastructure was designed to withstand nuclear attacks, but not the explosion of popularity it has met with instead. The Internet is feeling the strain of a usage level far beyond any original expectations. Thank goodness for cable and DSL, both of which have eased the burden of trying to navigate the increasingly-congested Web with slow dial-up connections.

Sending and receiving information across the Internet is like taking a very long and elaborate trip. First, you get in your car and drive to the airport, park the car, and take a shuttle to the terminal. Then you take one airplane to a large destination designed to accept travelers from many destinations and send them to many others—the ubiquitous "hub." From there, you board another airplane to go to your final destination, at which point you rent a car and drive to the place where you really need to be.

Multiply this by a complexity factor of 1,000 and by a sheer volume quotient of 1,000,000,000, and you begin to paint a picture of a day in the life of the Internet. Irrespective of the fact that this trip might take no longer than one second, it is nonetheless an incredibly complex journey.

Yet there is another factor contributing to Internet strain. Suppose before even starting your trip, you had to start your car ten times before the engine engaged. Suppose on the way to the airport, the engine stalled five more times. This is what many users encounter when trying to connect to the Internet via telephone. Telephone networks were designed for people to speak to each other. Average telephone calls used to last three minutes, but since the advent of the World Wide Web and the emergence of telephone-based Internet service providers, the average phone call duration has soared to over 17 minutes. There are over 20 million subscribers to America Online alone, and most use the telephone to connect. You can even buy software to keep your modem line permanently connected to your Internet provider, as if you were actively using it all day long. While we have included many fine utilities on the CorelWORLD CD, our collective conscience would not allow us to offer that one.

The Web Site As Modern-Day Miracle

Do you remember when the fax machine was considered the defining moment in business technology advancement? Indeed, to be able to send a piece of paper to any telephone number in the world seemed breathtaking. Now it's yesterday's news, ruthlessly supplanted by the Web site as the ultra-efficient and way-cool method of delivering and receiving information.

A well-designed Web site is almost seductive in its interactivity and responsiveness. A well-conceived and organized Web site can seem like a mind reader, with just the right offerings at just the right places. And browser software is so easy to use, this is one of the few times when the marketing claims are true: All you have to do is click.

We would be remiss if we did not also mention that poorly designed Web sites and those that are overproduced with large, purposeless graphics provide the diametrically opposite on-line experience. They are difficult to navigate and they make you wait at the wrong times and for the wrong reasons. As a result, this crash course keeps a constant focus on what we consider to be one of the key ingredients of an effective Web site: absence of ugliness. It might be beyond the scope of you, the typical CorelDRAW user, to produce beautiful artwork, but avoiding ugliness is within all of our capabilities.

Five Points to Ponder

What is the purpose of a business Web site? If you answered "making money"…well, you're only half right. What makes it possible for a Web site to make money? What makes it easy for visitors to return? What makes the experience fulfilling? On the following page are five general principles to consider.

1. Keep it Simple, Stupid…Is that possible?

Adhering to the KISS philosophy isn't possible with many Web sites. On the contrary, sites with hundreds and thousands of pages have an incredibly elaborate and complicated blueprint. You might not be able to achieve "simple," but you can reach "clean." Keep your color scheme consistent (colored text suggests the presence of a hyperlink, and if you use colors but not links, you risk confusing your visitors), use as much air as you can, and make it obvious what the most important messages are.

2. Don't be Annoying

It's easier to be obnoxious on the Internet than in print. Be prudent with animation, resist using effects simply because they are possible, and remember, those blinking words and rotating icons that repeat over and over are enough to drive visitors away for good.

3. Overdesign and Underdesign

As you define your overall structure and implementation, take as much time as you need. *Overdesign* your overall architecture, right down to the third- and fourth-level pages. But as you create your graphic look, it is better to err on the side of omission. *Underdesign* your page appearance.

4. Leave Good Breadcrumbs

Visiting a Web site is not like reading a book, where it's a safe bet that your readers will know how to go from Page 15 to Page 16. Successful navigation of your site is entirely your responsibility, and the ease with which your visitors can get around will be absolutely crucial to its success.

5. Know Your Audience!

While this is important for any marketing effort, it is especially so for a Web site. In addition to the usual factors—age, gender, income, etc.—you must also build a technological profile of your target audience. That will influence the design of your site as much as any other factor.

Building the Base

One of the most challenging aspects of Web page design is communicating to your readers a clear sense of the most important parts of your site. There are two reasons why this is difficult:

- Most Web pages contain many elements, and visually communicating the most important ones is difficult.
- It's not always obvious to *you* what your priorities are

More often than not, your original vision for the site grows and evolves as you develop it, and if you don't anticipate that, you risk pigeon-holing new ideas into a construct not designed to accommodate them, or worse, you simply decide to leave out those new ideas altogether. This happened to your seminar leader, and Figure 1 shows the result in 1999. He had his main links along the left, then he decided to include a few permanent links along the top, and then he chose to highlight a few interior pages along the right. Before long, the page was full of hyperlinks, each group of links trying to shout over the others. And what's up with those overgrown links at the top, so stylish just a year ago? Is this how baby-boomers feel when they see photos of themselves with those wide ties of the 1970s??

During the annual redesign at altman.com, your seminar leader started on a big sheet of paper, and didn't leave that medium until he had established the major links and all of the navigational elements. There were lots of scribbles and cross-outs, and myriad arrows pointing every which way. "As long as it made sense to me," he notes, "that's all that mattered. It was my bible for the week." During that week, he looked at "about a million" Web sites, noting what types of elements were used and the kinds of topics highlighted. Anything worth using was added to the scribbles.

THE DRAWING BOARD

The next phase in Web site development is to put a graphic face on your site, and at this stage, our recommendation might surprise you: We suggest you not turn to your Web page editor. Not yet. Most of the Webmasters on the CorelWORLD team are proponents of
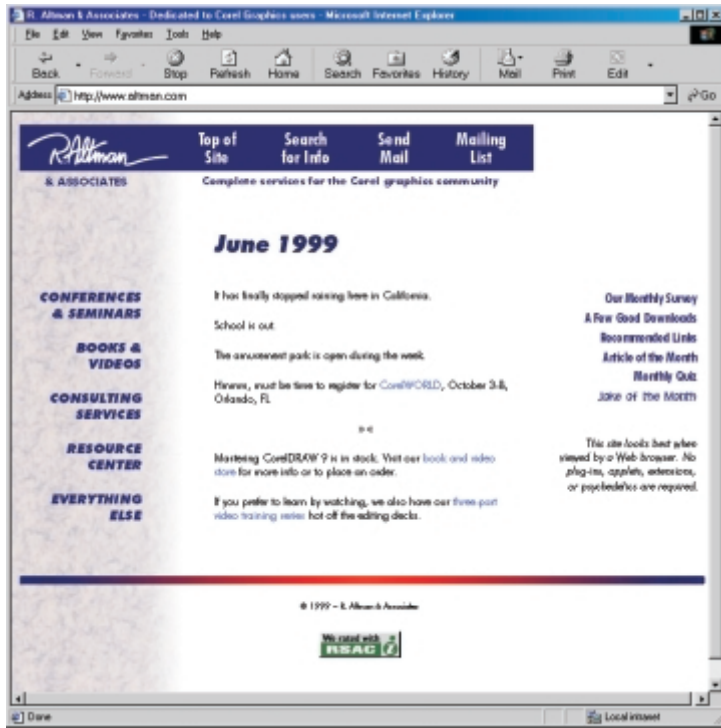
Figure 1
What are the priorities of this page? It's not so easy to tell.

and manage all of the pages in your site. Your seminar leader downloaded a 30-day trial version of Dreamweaver from the Macromedia Web site, and created his entire site with it. The Sunday presentation will explore the following tools and techniques:
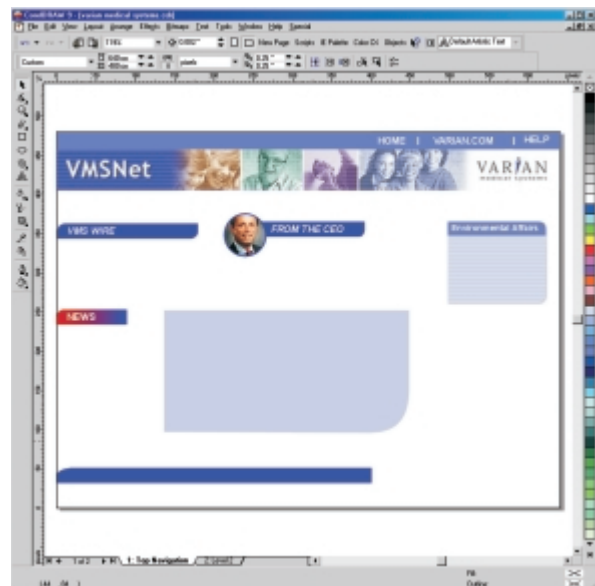
STRUCTURING THE SITE: WHAT GOES WHERE, WHY, AND HOW

You would never dream of building a house without a blueprint; don't consider doing it for your Web site (besides, these days, some Web sites are worth more than homes). Use your CorelDRAW design template, your pieces of scratch paper—we don't care, use cocktail napkins—but write down your plan and refer to it early and often. Before you begin, you should know what is to appear on your home page, and what your first, second, and maybe even third levels of content are.

COLOR SCHEMES AND DESIGN MOTIFS: THE SIMPLER THE BETTER

Sure, you can create your pages by choosing colors that happen to appeal to your mood of the day. And your visitors can turn right around and leave. Far better for you to develop a

WYSIWYG Web tools, such as Macromedia Dreamweaver and Microsoft FrontPage, but the priority at this point is to be able to work in an unfettered environment. You want to be able to easily move objects around, experiment with different looks, color schemes, graphic units, text blocks, etc. For all of this, the answer is simple:

CorelDRAW

Figure 2 shows how CorelDRAW can be used as an effective work area for your Web site. In this example—the design stages of a site for a Palo Alto, CA company—not all of the elements you see will actually be created in CorelDRAW, but the program serves as a good testing ground. During the presentation, we'll show the kinds of tools you can employ in CorelDRAW to help you create a comfortable work environment—a laboratory, if you will—for your Web site and its graphics.

Let the Games Begin

Once you have created your structure and a blueprint for your visuals, at last it is time to move to the application that will create the HTML code

Figure 2
Creating a Web site laboratory

cohesive color scheme and ensure that all elements adhere to it. You'll be surprised at how comfortable that can be, and how creative you can be when you know that your color decisions have already been made.

DESIGN ONE, DESIGN ALL: CREATING A TEMPLATE AND APPLYING IT

One of Dreamweaver's greatest strengths is its use of templates. Most programs offer something similar, and we advocate its use.

TABLES AND LAYERS AND CELLS, OY VEY: THE ISSUES OF POSITIONING

One of the more controversial elements in Web design today involves the use of tables and layers, two popular elements that allow for precision placement of elements. Tables are more universally compatible, while layers are more convenient. We'll weigh the pros and cons of each and let you make your own decision.

A LITTLE BIT OF JAVASCRIPT BY MY SIDE: YOU DON'T NEED TO KNOW HOW TO CREATE THE STUFF TO USE THE STUFF.

Not too many of us are JavaScript experts; thank goodness there are about 30,000 scripts out on the Web for people like us to download and use.

Many of these topics are featured in their own seminars later in the week, so you can consider this not only a crash course, but also a sneak preview. Also, as we explore these topics, we will keep a keen eye on what is taking place at the HTML level. You should expect your Web page editor to provide you with unrestricted access to the HTML code that is actually creating the page you are building.

Web Page Basics

Traditional artwork typically includes a combination of text and graphics, and the same is true of pages that you design for the World Wide Web. Nevertheless, while a CorelDRAW file can contain both types of elements, the ingredients for a Web page are handled differently. The text for a Web page is contained in the same HTML files that contain formatting information, but the graphics are all external, with pointers in the

HTML code that identify them. For instance, here is a sample piece of HTML code that shows the headline "Service with a Smile" and a picture of a smiling face:

```
<center>
<h1>Service with a Smile</h1>
<img src="smile.gif">
```

The picture (smile.gif) was created in CorelDRAW and exported as a GIF file, one of the two formats that all graphical Web browsers understand. Note that the graphic itself is not contained in the HTML file; it is only referenced in it. Figure 3 shows how the code would look in a browser.

This page could also be designed with a line that reads "Click on the smile to learn about our friendly service." In that case, the graphic would function as a hyperlink—the HTML code would be a little different, but the graphic wouldn't need to be changed.

In many important ways, creating graphics for a Web page is easier than for traditional media. Here are a few reasons why.

Figure 3
Those three lines of code appear as this simple page when viewed in a Web browser.

COLOR IS CAKE

Creating four-color printed material is a demanding process, involving choosing color models, creating film separations, and enduring an expensive and time-consuming printing process. But creating color graphics for the Web is easy: you just do it. Today, everyone has a color monitor, and if you create a picture in color, your audience will see it in color. End of story.

NO DOTS TO DEAL WITH

The second big headache in traditional printing is determining the resolution of the final output device and how that will affect the graphics and photographs you use. This issue is almost entirely moot with Web pages. There is little point in creating graphics beyond 100 dpi when final viewing will take place on a display monitor. There are issues involving the pixel resolution of monitors (640 x 480 vs. 800 x 600, for example) and also the color depth (16, 256, 64,000, or 16 million), but these are more easily resolved than traditional print issues.

INSTANT FEEDBACK

If you wonder how a graphic will look on the Web, you don't have to go very far to find out. Open your browser and load the graphic. No need for color keys or Iris prints, or conducting a press check. You create it and you view it.

In all three of these cases, the common factor is this: the output device is a computer monitor, not a piece of paper. No toner or ink is involved, only rays of red, green, and blue light emanating from a cathode ray tube.

For example, Figure 4 is a photo of your seminar leader's two daughters when they were younger, surely destined to become blackmail material later in life. This picture was scanned at high resolution and prepared for printed output in a black-and-white publication. As such, the scanned image required 5.2MB of disk space, and

when prepared for printing, created over 12MB of print information. We also needed about thirty minutes of test prints to ensure its quality. And this was just a black-and-white print…

In stark contrast, preparing this same photograph for the Web required five minutes and less than one diskette's worth of data. We could sample the photo all the way down to 100 dpi, and save it in a Web format with very high compression. Figure 5 shows how the photo appears when viewed in a browser. It is only 109KB in size, but is perfectly adequate for on-screen viewing.

As you begin a journey through Webmastering, you will no doubt experience both the peaks and valleys of the business. You will be deliriously happy with how easy it is to publish in full color, able to wield color photographs without the slightest regard for their production and publication cost. And you will be maddeningly annoyed by how little control you have over the finished product and how it might appear on the estimated 450,000 different output devices.

The agony and the ecstacy comes to mind as the operating phrase that best describes things. We wish you plenty of the latter, so you may better deal with the former.   2000

Figure 5
Preparing this picture for Web viewing requires only 109KB of space, and it can be tested immediately.

Living with Multiple Designer Disorder

Being Creative in the Corporate Environment

Ever wonder what life is like on the dark side? Which side *is* the dark side? Why do we have to take sides anyway? What are the challenges of repositioning a professional drawing tool after it's been marketed as a "Graphics for everyone" package? Hear the perspective of Corel's part-time designer, part-time manager, part-time Art Director, and full-time peacemaker. You'll also get a glimpse into design life at the big balloon.

We'll attempt to cover such perennial topics as :

❏ Don't they understand *anything*??

❏ What does the Art Director know?

❏ How to soothe clients

❏ Stimulating creativity in a corporation

❏ Objectivity about subjectivity

As the Curve Turns

Death, taxes.and nodes

There's no escaping it—if you want to understand what makes CorelDRAW tick, you need to learn about curves, paths, and nodes. This first session will cover the quantum mechanics of CorelDRAW, in the hopes of showing you, without boring you to tears:

❏ That Bézier is not a dirty word

❏ Auto-tracing, manual tracing, or just point and pray?

❏ What the heck is a cusp??

❏ The beauty of the straight line

This presentation is for new users and for intermediate users who want to better understand CorelDRAW fundamentals.

The Science of Curves and Lines

THE CURVE really is the lifeblood of everything that CorelDRAW does. Almost every shape you create in CorelDRAW has curve-like properties. Rectangles and ellipses are really curves in disguise. Text characters have nodes, just like curves. Even straight lines are treated by CorelDRAW as curves. The only type of object that CorelDRAW doesn't try to define as a curve is an imported bitmap. In short, if it's a vector-based object, CorelDRAW sees it as a curve.

A vector object has a path that defines its shape. If the path is closed—if the start and end points are the same—the object's interior can be filled. All paths created in CorelDRAW contain two components: segments and nodes. Here is how CorelDRAW defines these terms:

■ A *path* represents the route from a start point to an end point. Simple closed objects, such as rectangles or ellipses, generally have just a single path.
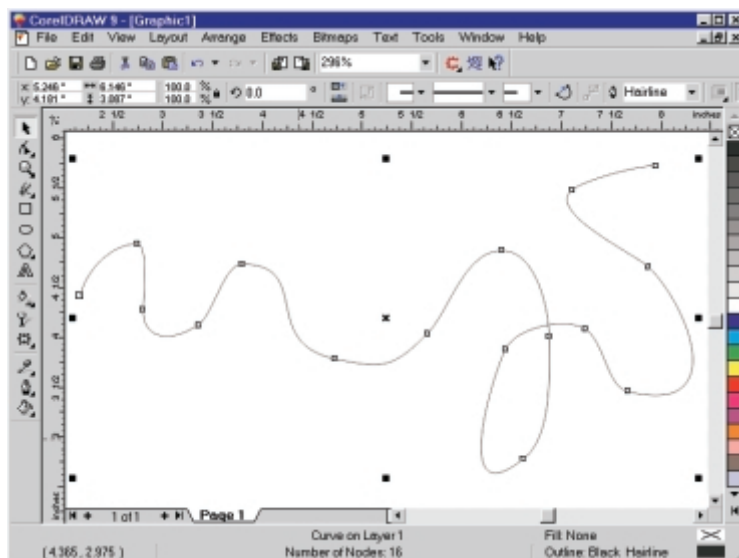
■ A *segment* is a single section of a path. It can be a line or a curve. Each side of a rectangle, for instance, is a segment. An ellipse is a single segment. A crooked line drawn with the Freehand tool could consist of many segments.

■ A *node* is the little point that is the start or end point of a segment. A rectangle has four nodes; a circle has two, one on top of the other; your freehand line might have a dozen.

Every object you create in CorelDRAW contains these three basic elements—paths, segments, and nodes—and in all cases, CorelDRAW provides access to them for editing and reshaping. Sometimes, that access is not so straightforward, as is the case with text characters, but one way or another, you can reach the quantum particle level of an object and see its paths, segments, and nodes in action.

Masterpiece Theater

Figure 1 won't win any awards at Corel's Annual Design Contest, but it could actually prove to be a valuable teaching tool. Because we used the Freehand tool, this object is already a curve and can be easily altered. Once you select the Shape tool, there are three ways to change the parts of a curve:

■ Click and drag any node to move it.
■ Click and drag any segment to change the path between two nodes.
■ Click a node and then drag the control handles to change the shape of the path as it approaches that node.

Screen Gems

CorelDRAW goes out of its way to provide you with visual clues about what part of the curve you have selected, and picking up on these clues is crucial to your success as a curve

Figure 1
This curve may not look like much, but it can teach you quite a bit about how CorelDRAW views nodes and segments.

shaper. Here are the important things to know about DRAW's on-screen behavior:

- You can perform some node editing with the Pick tool. As your cursor crosses over a node, the cursor grows, the node grows, and a four-headed arrow appears next to it. You can move nodes, and use the context menu to access basic commands.
- With the Shape tool selected, CorelDRAW not only tells you when you are atop a node (same visual cue), but also when you are atop a control point or along the path of the segment. CorelDRAW presents the same four-headed arrow to indicate you are atop a control point, and offers up a small wavy line to tell you that you are on a segment.
- Clicking on nodes is an exacting, meticulous, and often tiresome and painful activity. We predict you will find it easier to marquee-select the node. Creating a marquee around a node is usually easier than clicking right on top of it.

What Are These Nodes?

Good question. It's entirely possible that you read and followed everything we've written and shown and still do not understand what nodes are or what they do. Our advice is to forget about understanding what they are (we don't really know either), and concentrate instead on what they do. Try the following exercise to get a better idea of what nodes do.

1. Open a new drawing using File | New. Create a large rectangle of any shape and fill it with any light color or shade. To access the nodes of this rectangle, you must tell CorelDRAW to stop thinking of it as a rectangle and consider it a plain old curve instead.

2. Click on the Convert to Curves button near the right end of the Property bar (or press Ctrl+Q).

3. Choose the Shape tool and select each node in turn while watching your status bar. For each node, it reports "Line Cusp." This rectangle started with four lines; therefore, its path is made up of straight lines and its nodes are all line cusps. When working with nodes, the Property bar will be a critical member of your team, providing access to all of the tools you would want to use with nodes (see Figure 2).

4. Select the node on the lower-right of the rectangle and click on the To Curve button on the Property bar. This button converts the node from a straight line to a curve. If you did it right, the appearance of the line running down the right side will change (it will grow control handles).

5. Click and drag the segment on the right and watch this former rectangle change shape. Drag to the inside and your screen will look like Figure 3 on the following page.

Draw Straight, Curve Later

The curve in Figure 1 was created with the Freehand tool, but it will be easier for you—and ultimately better for your reputation as a desktop designer—if you learn the value of drawing straight lines. Instead of holding the mouse button and dragging through the entire curve, try leapfrogging from one point to another to draw
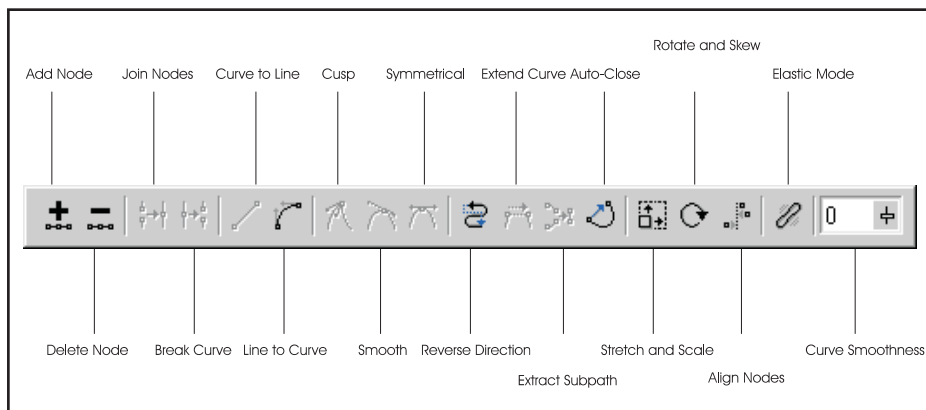
Figure 2
The Edit Curve property bar—a node editor's best friend

undeveloped drawing skills— the most accomplished CorelDRAW artist couldn't do much better with instruments as clumsy as the Freehand drawing tool and a mouse.

A drawing tablet, coupled with some of CorelDRAW 9's new creation tools, would yield better results, but that misses the point, because that's not what CorelDRAW is all about.

When you work in a vector-based application, you are not a painter, and your physical drawing skills are secondary. Success in CorelDRAW is determined first by your artistic vision, and second by your ability to manipulate vector objects to fit your vision.

Much of this vector manipulation comes down to little more than a game of leapfrog where you hop from one point to the next.

straight lines. Here are the actions a CorelDRAW user takes when creating a series of straight lines:

1. Click to define a start point and move the mouse.
2. Click once to define the end point for the segment.
3. Click at the same place to define a new start point and move the mouse.
4. Click to define the end.
5. Click again at the same place to define a new start.
6. Repeat.

Figure 3
By changing a node from a line to a curve, you can drastically reshape this former rectangle.

Smoother Freehand Drawing

Brand new to CorelDRAW 9, and a significant new tool, is the Freehand Smoothing setting, which can provide on-the-fly node reduction and curve smoothing. Higher values result in fewer nodes and smoother curves (although possibly at the loss of critical detail). The default of 50 results in practically every twist and turn of your mouse being translated into a smooth curve.

Figure 4 shows, in both dramatic and horrifying fashion, the value of creating straight lines for simple shapes. The top image shows the ease with which you can create a simple outline, with just a few clicks. On the other hand, as the lower image illustrates, it's not so easy to draw the building freehand.

This is not just another example of your seminar leader's

Figure 4
CorelDRAW rewards you for taking an efficient route from one point to the next.
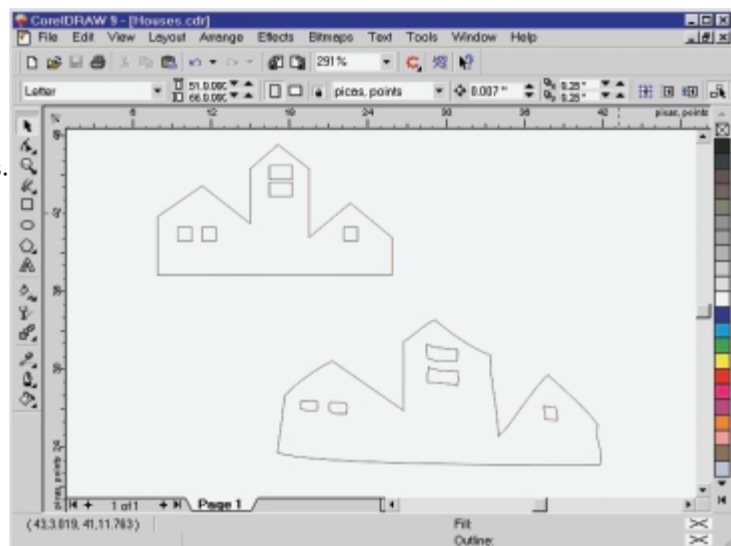
We still don't recommend that you use it for creating precision drawings—the curves you create are smooth, but not necessarily accurate. But if you are sketching or drawing, and an attractive shape is more important than an accurate one, you will appreciate the new Freehand Smoothing tool.

Drawing with a Not-so-Free Hand

Creating curves with the Freehand drawing tool is easy, if inelegant. It's not unlike using an Etch-a-Sketch, with which you move haphazardly from one point to another.

By contrast, the Bézier tool doesn't trace every shake, rattle, and roll of your mouse through a path. It looks for a beginning point and an end point, and then connects them with one curve segment. When creating Bézier curves, you do not click and drag across the entire segment; rather, you click on the start and end points and drag once to shape the curve between the two points.

You can also use Bézier mode to create a series of straight lines by clicking from one point to the next, and this we feel is the most efficient way to create shapes. It's easier than using the Freehand tool because you don't have to click twice in a row.

It is important to understand that all curve segments in CorelDRAW are in fact Bézier curves. The essential difference between the Freehand and Bézier tools is how you create the curves. With the Bézier tool, you do it explicitly; with the Freehand tool, you draw as if you had a pencil in your hand and let CorelDRAW figure out the details. And again, you can create straight lines with both tools, which, ultimately, is how we recommend you create many of your shapes.

A Potpourri of Tracing Options

The most important lesson you can learn about the Shape tool may be this: You don't need to make a curve perfect the first time! Nodes and paths are forever editable and changeable and can always be reshaped later. It is usually better to rough out a general shape, and then go back and clean it up. Trying to make it perfect the first time will likely take you much longer than it will

take to make two passes. We believe the best course of action is a combination of the following strategies:

- Lay down the basic shape of the curve as simply as you can.
- Focus on placing nodes correctly.
- Draw lines first; make them curves later.

In the following exercises, we look at several different strategies for tracing a shape. Your mission is to re-create the bird shown in Figure 5, as faithfully as you can, using the tools discussed here. When you import the seagull to CorelDRAW, it will serve as a tracing template for you to place "underneath" your work.

Where Do the Nodes Go?

Your success as a sketch artist in CorelDRAW rests on your ability to recognize where nodes belong. You wouldn't be far off by concluding that a node needs to be placed at the points where a curve turns a corner, and indeed, many corners need a node. But to be technical, nodes belong at the points along a path where the shape *changes direction*, and by that we mean where it changes from clockwise to counterclockwise, and vice-versa.

Most artists agree: When you need to trace or create a precise shape, the tool of choice is the Bézier.

Figure 5
You can learn a lot about object shaping from this bird.
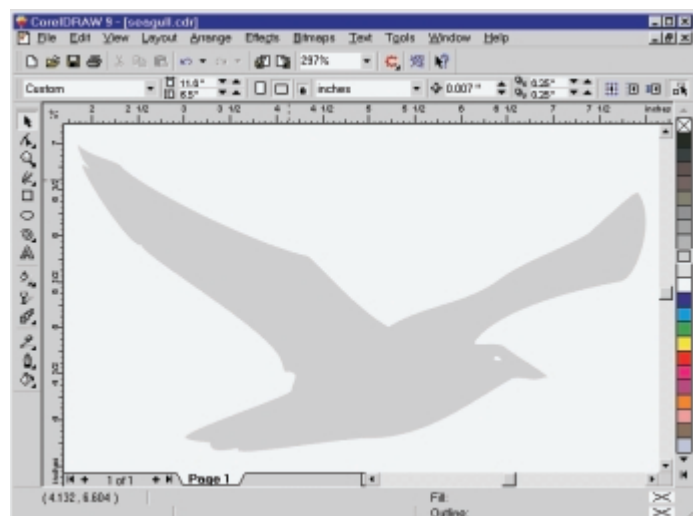
1. Go to File | New to begin a new graphic and use File | Import to retrieve seagull.jpg from the Conference CD. Click once to place the seagull on the page at full size.

2. Once the seagull is on your page, right-click on it and choose Lock Object. This way, you won't inadvertently move it. If you're going to trace it, you want it to sit still.

   If you are experienced with Layers, you could create a new layer, move the seagull to it, and lock the layer.

3. Press F4 to move in as close as you can and still see all of the bird.

4. Activate the Bézier tool from the Curve flyout and start at the top left corner of the bird.

On your own, see if you can identify the places where nodes belong. To place a node, simply click once with your mouse. Look for places where the shape turns a sharp corner and where the shape changes direction. (We'll give you a hint: This seagull can be completely described with 24 nodes) Navigational skills are at a premium when you are doing close node work, so remember these maneuvers:

- Press F2 and draw a marquee to zoom in on any location.
- Press F3 to quickly zoom back out.
- Press F4 to show the entire drawing.
- Use Alt+arrow keys to scroll your screen without having to mouse down to the scroll bars.

After 10 minutes of work, our screen looked like Figure 6. Our shape doesn't look at all like the bird, nor did we expect it to. Our sole focus was in placing nodes in the right places. There might be a few places were we were too ambitious. Can this swooping curve above the bird's beak be represented in just two nodes? Perhaps not, but we

Figure 7
Once you convert the paths to curves, creating the shape of the bird is easy.
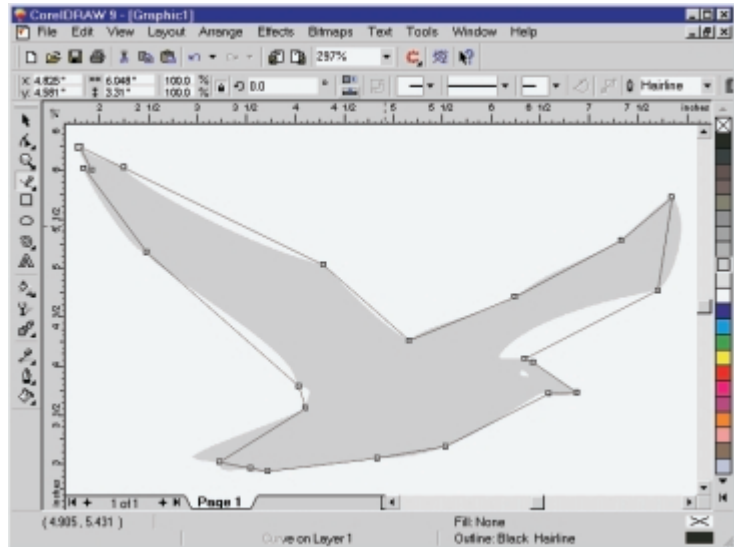
would rather create too few, than too many.

Figure 6
This trace of the bird is both terrible and perfect…

5. Switch to the Shape tool and go to Edit | Select All | Nodes (you can also press Ctrl+Home).

By default, paths that you create with single clicks begin as line segments, as is obvious in the image above. Most of the nodes will be curves, however, and it is our experience that it is easier to turn everything into curves now and send some of them back to lines as you go.

6. With all nodes selected, click the Curve icon on the Property bar, and then the Smooth

icon. As soon as you do, all line segments will become smooth, as shown in Figure 7.

7. Now start shaping the nodes, trying to fit them to the contour of the bird.

As you proceed at your own pace, keep in mind these things:

- If a node isn't in the right spot, just pick it up and move it.
- If you need another node, click on the line segment nearest it and click the plus icon on the Property bar or press the plus key on your keyboard.
- As you shape line segments, the other side of the node will move, also. This isn't a bug, it's a feature, but if you don't want that to happen, do one of these two things:

  - Convert the node to a cusp, using the Property bar.
  - Use the control handles to shape the curve, instead of the path.

The curve might still move on the other side of the node, but not by as much, and if you move directly toward or directly away from the node, the segment on the other side won't move at all.

In general, sharp corners will need to be described by cusp nodes. We didn't find any places where symmetrical nodes were required. To create the bird's eye:

1. Use the Freehand tool (or even just the Ellipse tool) to create the basic shape.
2. Node-edit to taste (if you use an ellipse, convert it to curves and add a node or two as necessary).
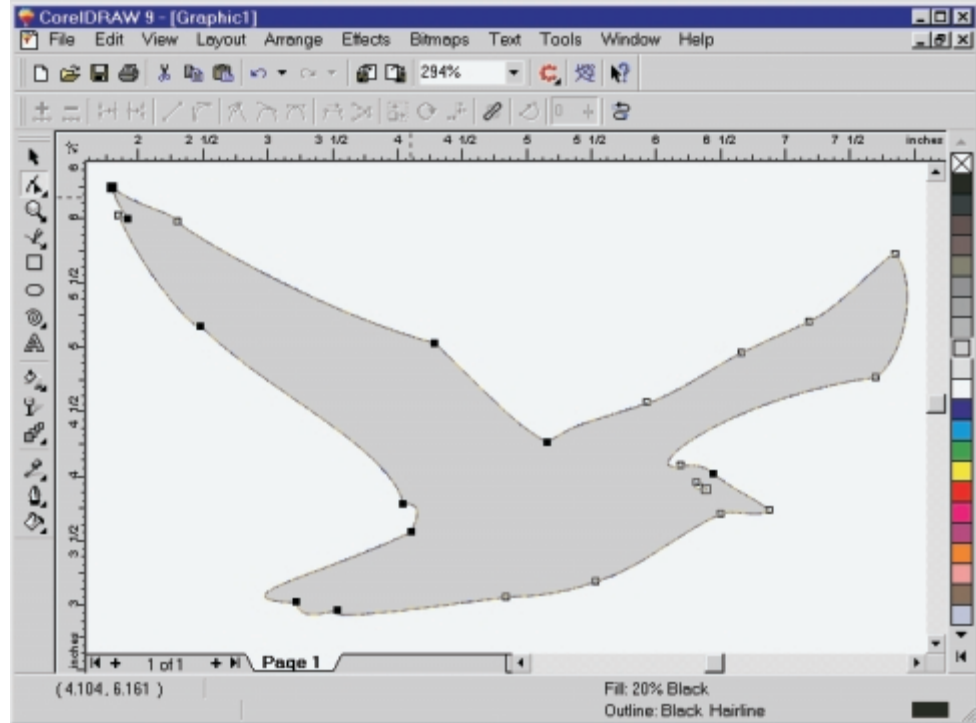
3. Using the Pick tool, select both the eye and the body and go to Arrange | Combine (or Ctrl+L) to turn them into one curve.
4. When you are done, select the bitmap, right-click to unlock it, and delete it.
5. Select your bird and shade or color it as desired.

We have no illusions that this will be a simple task. It took us a good 30 minutes to complete, and it could very well take you two, three, or four times longer.

Figure 8 shows our version of the seagull, with 24 nodes. Of those nodes, 10 of them are cusp nodes and the rest smooth. In Figure 8, we blackened the nodes that we turned into cusps, for your reference. Note that we were successful in describing the severe curve above the beak with just two nodes (even though it is a sharp angle, it does not change direction). On the other hand, we needed four nodes to depict the bird's tail, with those sharp angles.

Figure 8
As simple as possible, but no simpler.

Going Freeform: Head for the Hills!

One alternative to the Bézier route is the Freehand tool. First, let's distinguish between the two ways you can use it:

- If you click from point to point, you are essentially doing the same thing as you did in the Bézier exercises above. The difference is the Freehand tool requires that you click twice on each node to connect them.
- If you click and drag the Freehand tool, you are simulating use of a pencil.

There's just one problem: Your mouse is no pencil, and even if you used a tablet, the screen is no sheet of paper. In short, tracing or creating a shape by dragging a cursor across the screen is, at best, a tedious affair, and at worst, a graphical disaster waiting to happen.

The only point that mitigates this is CorelDRAW 9's new Freehand Smoothing tool, which does its best to eliminate unnecessary nodes and smooth over rough edges.

With it, we were able to create a much better freehand sketch than the pathetic chicken scratching we spewed forth using CorelDRAW versions 8 and previous. Nonetheless, the end result is still a node-laden rendition with lots of extra little bumps and potholes.

This is one of those times when going the

extra mile pays off. By taking the time to place the nodes properly, you tell your audience that you know how to create high-quality shapes with CorelDRAW.

Autotracing: You Might Get Lucky

The final avenue of object creation is akin to a get-rich-quick scheme: You might get lucky…but probably not. If you need to trace an object, and that object can come to you in the form of a monochrome bitmap, you could try CorelDRAW's built-in autotracing module. Think of this as the microwave oven in the CorelDRAW kitchen. It can warm up a meal, but it won't cook it. Unfortunately for our seagull, it didn't even get it lukewarm.

We had a laugh over the effort at the lower left—it's as if Autotrace started to head to the right to go behind the tail, then said to itself, "Nah, forget it," and turned back up the wing. We'd trade such consciousness for a bit of intelligence. Until then, you're not likely to get much satisfaction from Autotrace.   2000

Figure 9
Not much to say about the tracing skills of Autotrace.

Logos for the Design Challenged

How non-professionals can create great logos

Your boss walks into your office, drops the CorelDRAW box on your desk, and proclaims, "Learn to use this and you'll be our new graphic designer!" Sound familiar? Well, you're not alone, but there is hope. In this session, Gary Priester, a graphic designer and reformed advertising art director, shows how you—yes, *you*—can create great-looking logos even if you can't draw a straight line with the Pen Tool. After this session, even the most design-challenged individual will have no excuse for not turning out high-quality, professional-looking logos. Points that will be covered include:

❏ Right side of the brain? My brain has a right side??

❏ Pre-designed logos—what they are and where to find them

❏ Tips and tricks for turning ordinary text and symbols into extraordinary logos

❏ How to apply your logo to your cards, letterheads, and envelopes

This session is for the non-designer who wants to improve his or her design skills. The material is presented in Priester's usual irreverent fashion.

COREL WORLD 2000

Logo Design for Mere Mortals

RAISE YOUR hands if this is you. You bought CorelDRAW because you wanted to create a logo… No, don't raise your hands yet, I'm not through. Then you spent 45 minutes installing CorelDRAW on your computer. (We won't count the time it took you to install the new hard drive so you could *fit* CorelDRAW on your computer). Then you spent several hours just staring at the screen, looking in all the menus trying to find the Logo tool that would automatically design the logos. Am I close?

OK, some of you did not raise your hands. Is this you? Your boss walks into your office one day, plunks a

Figure 1
Casting call
for typefaces

Bob's Bagels

Bob's Bagels

Bob's Bagels

Bob's Bagels

Bob's Bagels

Bob's Bagels

Bob's Bagels

BOB'S BAGELS

Bob's Bagels

Bob's Bagels

Bob's Bagels

Bob's Bagels

Bob's Bagels

BOB'S BAGELS

Bob's Bagels
Buy em by the box!

BOB'S BAGELS
Buy em by the box!

Bob's Bagels
Buy em by the box!

Bob's Bagels
Buy em by the box!

Figure 2
And the
finalists are…

ten-pound box of CorelDRAW on your desk, and says, "You like to work with computers, you're going to be our new designer! Install this, and learn it in your free time. I know you never went to art school, but this CorelDRAW is the best software on the market—and it works in Windows—and everything you need is in the box! The guy at the Software Store told me so.…Oh, and I almost forgot, we need a logo tomorrow afternoon for the San Diego sales meeting!" Sound familiar?

Well, in the next hour we're going to become logo designers. And we're going to do it by using all the resources that CorelDRAW has to offer.

In Search of the Logo Tool

For openers, and to try to have a "positive out-of-the-box experience," we'll begin by looking for help in the font list. Then we'll have a peek at Corel's Symbol fonts. And finally, we'll look at some other symbol and pic fonts to see what they have to offer the design-challenged individual. So

Figure 3
The elusive
CorelDRAW logo tool

sit up straight. Take the gum out of your mouth. No talking. Pay attention. Let's begin.

A FACE IN THE CROWD

The best and easiest place to start is with type. It's quick. It's easy. No experience is required. And best of all, you don't even have to have passed the Mavis Bacon typing course.

Let's assume that you need a logo for your company, Bob's Bagels. Key in Bob's Bagels and then hold an audition for typefaces. Figure 1 only shows a dozen or so, but CorelDRAW ships with 1,000 fonts, and there are tens of thousands of fonts available from a variety of other sources.

Notice how each font adds a different flavor to Bob's Bagels. Look through the entire font list and see which fonts work the best with the name. From this exploration, cull out the best five to ten explorations, make a new group (Figure 2), and see which candidates stand out. Don't forget to experiment with very large and very small sizes. If
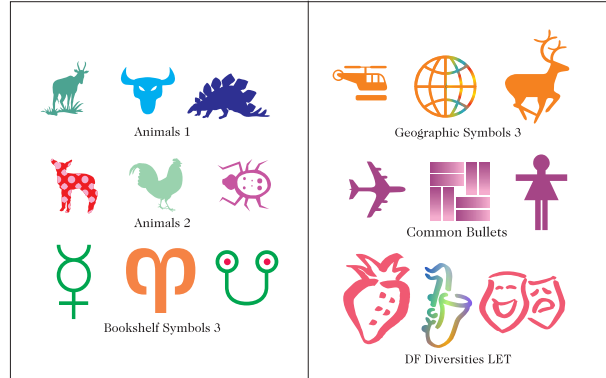
Figure 4
A few of Corel's
symbol fonts

the logo is going to be used on boxes and/or paper bags, print out some samples and paste them on the bags and boxes to see how they look. If it will appear on a Web site, create some .gif images and take a look at them in a Web browser.

Experiment, and then experiment some more. Life is not a contest to see how quickly you can design the logo and be done with it! (Unless it's the logo that your boss needed yesterday for the San Diego sales meeting).

PRE-DESIGNED LOGOS

Those of you who were looking for the Logo tool probably haven't bothered to look in the right place. The Symbols roll-up, or Symbols docker in CorelDRAW 9 (Figure 3) is a treasure trove of pre-designed logos. Corel ships with dozens of symbol fonts, a few of which are shown in Figure 4. Some of these symbols are little gems. Others are a bit rough. But after the typeface auditions, the Symbols docker is the next place to go. And don't forget to check the 10,000 pieces of clip art on the CorelDRAW CD.

If you still can't find what you want there, hundreds more symbol and pic fonts are available from other

Adobe Caslon Ornaments

Mini Pics Lil Creatures ICG

Mini Pics Lil Folks ICG

Rennie Macintosh Ornaments ICG

Adobe Kepler MM Ornaments 1

Adobe Minion Ornament

Figure 5
Symbols galore from the Web

Adobe Critter

Adobe Mythos

Adobe Toolbox

Musical Symbols

Adobe Caslon Regular and Italic

mf

Bookshelf Symbols

Symbol

Figure 7
Some symbols can also perform double duty as letters.

Figure 6
Text that makes more than one kind of statement

musical symbols contains the letter or letters you need, you may have just found a dandy and appropriate pre-designed logo.

Adding Pizzazz to Pre-Designed Logos

Finding the right pre-designed logo is only the beginning. The next step is to alter the logo in some way as to make it unique. Here are some examples of what I like to call gilding the lily.

THINK LOCALLY, DELIVER GLOBALLY

If the name of the company or person you are designing your logo for contains an O, sometimes you can substitute a symbol to change ordinary type into a logotype. The example shown in Figure 8 uses Avant Garde, the font we all know and love, because it has very round Os to begin with.

1. Type the text GLOBAL in Avant Garde.
2. Select the text, convert it to curves (Ctrl+Q), and break the shapes apart (Ctrl+K).
3. Delete the O, and combine (Ctrl+L) the B and A.
4. Replace the O with a globe symbol from the Geographic Symbols library, resized to the same height as the original O.

sources. A great place to find most of these symbol and pic fonts is the EyeWire Web site. The symbols and pic fonts shown in Figures 5 and 6 are from the EyeWire site.

Another fun way to create a logo is by exploring alternative letters. These are symbols, like those in Figure 7, that can also be interpreted as letters. Look at the characters in the Adobe Caslon group. The paragraph symbol could pass for a *q* or a *p*, or if flopped, a *d* or a *b*. The third symbol looks like a pair of *s*'s. And the italic ampersand makes a splendid capital *E*. If you're creating a logo for a person or company connected with music or the music business, and one of the
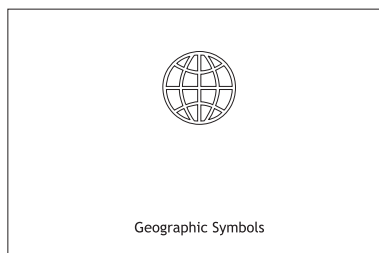
Figure 8
A perfect symbol for this company's name

Geographic Symbols

Avant Garde

Convert text to curves.
Break Apart

Add outline and color to match text

5. Add an outline in the same color, to make the symbol the same weight as the rest of the letters.
6. Type DELIVERY SERVICE in Avant Garde below the logo as shown.

LET'S GLOW FOR A COCKTAIL

I used to use a complex blend to create a neon effect, and never with much success. Figure 10 shows how CorelDRAW 9's Interactive Drop Shadow tool makes this much easier, although not in the way that Corel originally intended!

1. Key in The Afterglow Bar & Grill, using Harlow Solid Italic at 54 points.
2. Change the fill color to Ice Blue.
3. Place the text over a black background.
4. Using the Interactive Drop Shadow tool, click in the center of the text and drag to the right, as shown in Figure 9.
5. Change the shadow color to Ice Blue.
6. From the Feathering Direction drop-down list on the Property Bar, select Outside.
7. From the Edges drop-down list, select Squared.
8. Adjust the interactive slider until you have the right amount of glow.

If you plan to use this technique for commercially printed output, add 20% cyan, magenta, and yellow to your black. This will make the glow more intense and colorful.

RAPID ACCELERATION

The Interactive Blend tool has the ability to accelerate or decelerate the

The Afterglow Bar & Grill

Harlow Solid Italic

The Afterglow Bar & Grill

The Afterglow Bar & Grill

The Afterglow Bar & Grill

Interactive Drop Shadow

Interactive Drop Shadow

Figure 9
Electric libations

objects and the colors in a blend. While this is fun to play around with, sometimes there is actually a reason to use this feature, as in the next example.

1. Import a bicycle symbol from the Geographic Symbols library.
2. Create a duplicate, offset as shown in Figure 10.
3. Fill one symbol Deep Pink and the other Pink.
4. Create a 35-step blend, using the Clockwise Rainbow option.
5. Select the blend with the Interactive Blend tool, and double-click the two facing triangular sliders to make them operate separately.
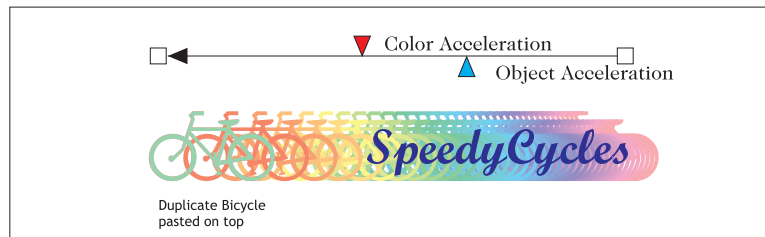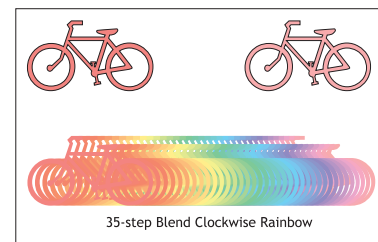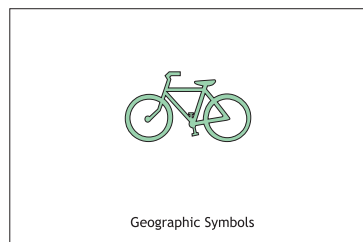
Figure 10
Faster than a speeding symbol

Geographic Symbols

35-step Blend Clockwise Rainbow

Color Acceleration

Object Acceleration

Duplicate Bicycle
pasted on top

SpeedyCycles

Animal Symbols 2

Combine

Make Duplicate.
Move sides in

Send duplicate to back
Add gray rectangle in back

Butterfly Meadows
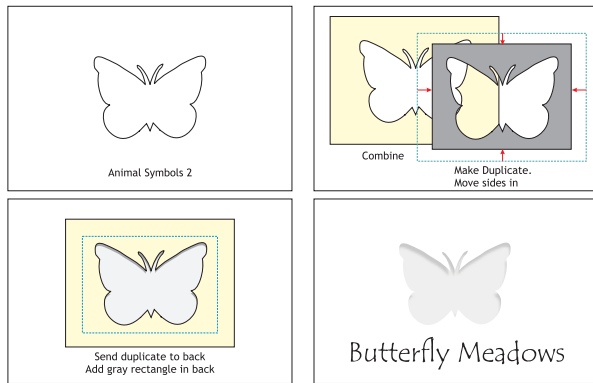
6. Drag the bottom slider (the object acceleration slider) about halfway to the right. This creates the impression that the bicycle just shot into hyperspace.

ALL A-FLUTTER

The logo shown in Figure 11 uses a cutout shapes effect to create the impression of the objects having been removed from the paper.

1. Start with a butterfly symbol from the Animals 2 symbols library.
2. Add a rectangle that extends about ¼ inch beyond the butterfly on all sides, and center the two objects.
3. Combine the butterfly and the rectangle (Ctrl+L or Combine on the Property Bar).
4. Duplicate the object.
5. Using the Shape tool, bring the outside edges towards the middle to about a distance of about 1/8 inch.

Zapf Dingbats

Add Conical Fill

Convert to bitmap
Add Gaussian Blur

The Phone Center
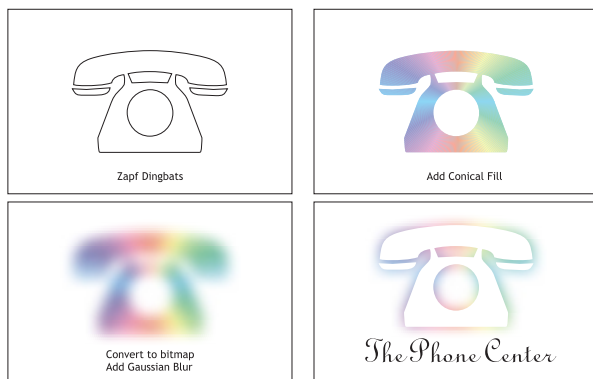
6. Apply a 50% Black fill to the duplicate shape, send it to the back, and move it down and to the left until the shadow looks somewhat like the example shown in Figure 11.
7. Add a rectangle that is large enough to cover the butterfly opening, and apply a 5% Black fill.
8. Select the larger shape, change the fill to White, and set the outline to None.
9. For an even smoother shadow, select the shadow and the light gray rectangle, convert them to bitmap (Bitmaps | Convert to Bitmap), and apply a modest amount of Gaussian Blur (Bitmaps | Blur).

IF THE PHONE GLOWS…

Here's a variation on the cutout shape technique from the last example.

1. Select the funky phone symbol from the Zapf Dingbats symbol collection.
2. Apply a solid White fill and copy the phone to the clipboard (Ctrl+C).
3. Select the phone and apply a Conical Fountain fill, starting and ending with Ice Blue. Use the Reverse Rainbow option.
4. Convert the symbol to a bitmap (Bitmaps | Convert to Bitmap), 96-dpi resolution, Anti-aliasing, RGB color, Use Color Profile.
5. Apply a hardy amount of Gaussian Blur. (A radius of about 10 should be hardy enough.)
6. Paste a copy of the white phone on top and center it over the bitmap, as in Figure 12.
7. Wait until the phone rings before going to the next example. (Just kidding.)

YOU GOTTA HAVE HEART

Here's an easy technique for creating a double emboss effect.

1. Start with the decorative heart symbol from the Zapf Dingbats library. Duplicate the heart and offset the duplicate slightly up and to the right.
2. Press Ctrl+D three times. Each time, CorelDRAW creates another duplicate and offsets by the same amount.
3. Select the top heart, press the Tab key twice to select the middle heart, and bring it to the front (Shift+PageUp).
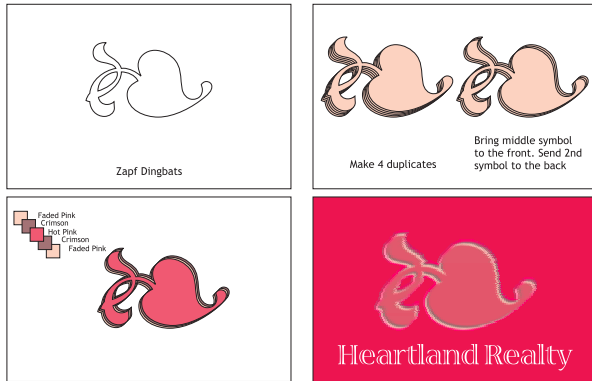
Figure 13
A home in the
heart of the country

4. Now select the second heart from the top, and send it to the back (Shift+PageDown).
5. Select each heart in turn, and apply the color fills shown to the left in Figure 13.
6. Select All and set the outline to None.
7. Apply a Neon Red fill to the background.

SIMON SAYS
　　CorelDRAW's Contour Effect, while effective, has always been a pain to use. Right up there with the Extrude effect in my book. Now that it is only available in the Interactive Tool flyout, it is even more of a pain. But rejoice, CorelDRAW 9 gives us a quicker and more efficient way to do the same thing.

1. Select the musical symbol shown in Figure 14. It looks like a capital S with a line and two dots, and that's how we'll use it.
2. Scale the height to 2.12 inches.
3. Make a duplicate and add a 4-point outline.
4. Now here's the cool part…
Open the Arrange menu and select Convert Outline to Object. While it looks the same, the outline has become a shape, which means we can now apply a Fountain fill (or any other kind of fill) to it.

Note: Convert to Outline is not available prior to CorelDRAW 9.

5. Select the original symbol and apply a 4-color Interactive

Figure 14
A simple effect for Simon

Linear Fountain fill using these colors from top to bottom: Blue, Ice Blue, Black, and Light Blue Green.
6. Select the outline portion of the symbol whose outline we just converted to an object, and copy the fill (Edit |Copy Properties From… Fill).
7. Select the outline object with the Interactive Fill tool and change the fill colors to Gold, Pale Yellow, Walnut, and Gold. The two fills should match exactly, creating a cool lighting effect.

SARAH N. DIPPITY!
　　The symbol shown in Figure 15 is also a music symbol. I have no idea what it means or what it does; just as you are design-challenged, I am musically challenged. But I do know it can be used to create a dandy logo.

1. Make a duplicate, and rotate the duplicate 90° counter-clockwise.
2. Change the fill color for both symbols to Light Orange.
3. Apply a 31-step blend, using either the Clockwise or Counter Clockwise rainbow option (your choice). Why 31 steps? Read on.
4. Select the blend and Separate it (Arrange | Separate), then Ungroup All.
5. Select the top symbol. With one hand on the Tab key and the Pick tool poised over the white color in the screen palette, press Tab once (this toggles through the blend in reverse order from top to bottom) to select the second symbol from the top, and click on the white color.
6. Tab twice and click, tab twice and click, tab twice and click… Keep doing this until every

Music Symbols

Rotate duplicate 90 degrees

31-step Blend
Clockwise Rainbow

Oh Nooooooo!
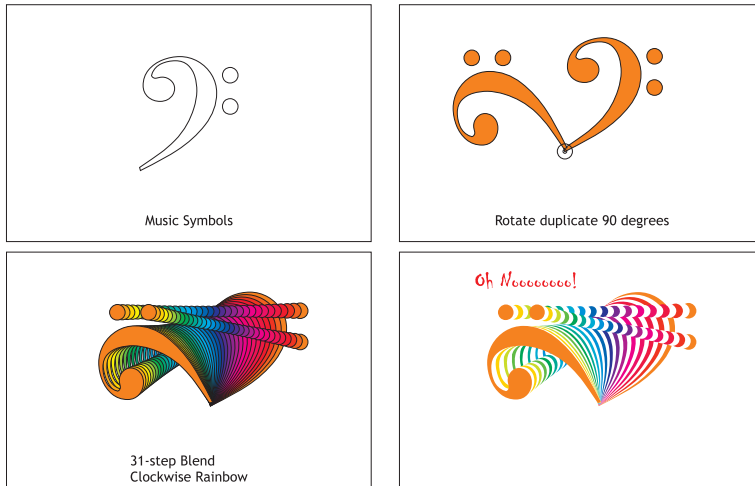
Figure 15
The strobe light effect

other symbol is white. And because we created 31 of them, the last symbol will be colored.

I like to call this the strobe light effect. What I never realized until I rotated this symbol was that it looks like a face going "Oh Nooooo!"

LOOK AT IT THIS WAY

I think the Oh Nooooo! logo we just created is pretty cool. And even better, it really doesn't need any tricks; it's OK just the way it is. We can convert it to curves , break the symbol apart (Arrange | Break Apart), and give the eyeballs a red fill to enhance the feeling of terror. About the only other thing I would do at this point is add a duplicate as a drop shadow. Let's stop here. When you got a great logo, you don't need to do anything more.

Applying Logo to Paper

When designing stationery and business cards, I always like to start with the card. If the design and type work well in the confines of the card, then fitting them on the envelope and letterhead is a piece of cake. Figure 17 shows four different logo placements and type treatments. Which one do you like the best? Why? Please answer in 25 words or less.
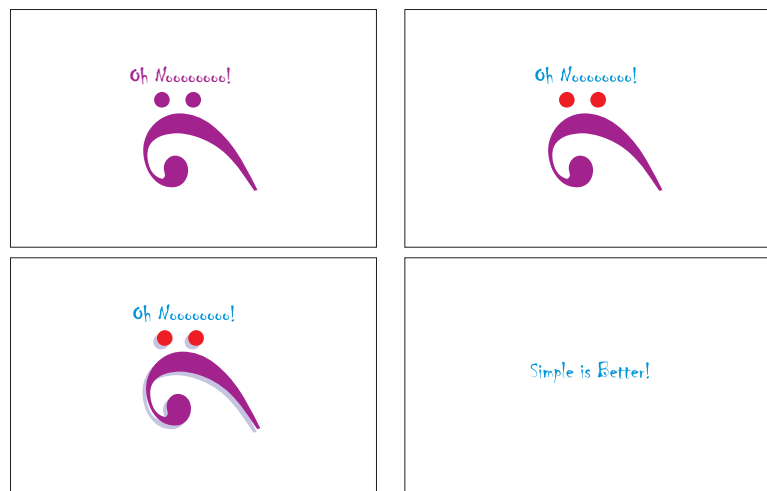
I'm rather fond of the bottom left treatment. My art teacher in high school always emphasized that every element needs to lead into the composition. And to that end, I have the tail part of the symbol pointing into the page.

With the card design decided, we can add the logo to the envelope and stationery (Figure 18). I like for all three applications of the logo to be consistent. Going this one better, I also like to keep the text consistent. It makes for a more professional-looking package.

LOW-COST PRINTING

Many of these logo designs would be very costly to have printed in four colors by a commercial printer. But who says you always have to use a commercial printer? I used to have my business stationery commercially printed, but the economies of printing usually dictated print runs of several thousand envelopes, letterheads, and cards. And while the printing was first-rate, I would start to get bored with the design after the first hundred or so uses.

With the affordable quality of high-resolution inkjet printers, I don't worry about commercially-printed stationery any more. I print my own stationery using what they call in manufacturing

Figure 16
Less is More

Oh Nooooooo!

Oh Nooooooo!

Oh Nooooooo!

Simple is Better!

Figure 17
Same logo, different treatments

JIT (just in time) printing. I buy matching envelopes, letterheads, and business card stock at Staples, and print ten or so at a time on my Epson Stylus 800. The printing looks pretty darn good, and when the printer who used to commercially print my stationery saw one of my Epson-printed cards, he asked me he who

did my printing. Of course, he's my age and his eyeballs are toast, but still and all.

WRAP IT UP, I'LL TAKE A DOZEN

So, now you know where the Logo tool is hidden. You have almost a dozen techniques for embellishing your logo, and I've given you good advice on logo placement, not to mention a cheap way to get good-looking stationery. 2000

Figure 18
Is it real, or is it Epson?

Go Deeper

You will find many of these logos here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\draw\logos.

The Minor Leagues

Hidden treasures in the CorelDRAW box

Corel packs its product boxes with valuable but little-known goodies. Everybody knows about the 10 zillion fonts and the seemingly endless clip art, but there are also other applications in the box that you may not even know are there unless you use the "custom install" option or inspect the contents of the extra CDs. This session uncovers these hidden jewels, exploring such topics as:

❏ Why keeping previous versions of DRAW is a good idea

❏ Version 9's scripting choice—Corel SCRIPT or Microsoft's VBA

❏ Objects, brushes, spray lists, image lists, and tile images

❏ You *have* installed Font Navigator haven't you…?

❏ Working magic with Corel CAPTURE, Corel TEXTURE, and maybe even Corel TRACE

This session is for users who want to explore DRAW's lesser-known applications in an informal setting.

Corel World 2000

Fifteen Minutes of Fame

WHEN YOU buy a box labeled "CorelDRAW," you get much more than you bargained for. CorelDRAW and Corel PHOTO-PAINT are the two primary applications in the box, of course, and many of us use all our available free time from one version to the next just learning PHOTO-PAINT's new tricks and CorelDRAW's new menu structure. If only we had time to go exploring, because somebody at Corel must spend a lot of time watching late-night television. The CorelDRAW box shrieks, "But wait! There's more…."

A lot more. Three CDs filled with helper applications, typefaces, images, plug-ins, and other treasures. Some of the applications won't even be installed unless you choose "custom" as the installation method. And those hidden treasures will remain hidden unless you take some time to examine the CDs.

Corel doesn't give you much help with using these minor league players. CorelDRAW and PHOTO-PAINT have so many features that the documentation for those applications alone already runs to more that 1500 pages. Most of us probably don't read even 10% of that.

Let's poke around in the box and see what else we find.

Corel CAPTURE—better than SnagIt?

Two words: Yes. No. It depends on what you want to do.

SnagIt can capture the full screen, a window, a rectangular area, or a scrolling area. The scrolling-area capture makes it possible to grab an entire Web page, even if it scrolls off the bottom of the screen. But Corel CAPTURE lets you capture elliptical and freehand areas of the screen, which could eliminate an image-editing step.

Both programs offer a wide variety of file formats for saving captured screens, but SnagIt can also convert captured screens to plain text (if they contain plain text) and can capture movies. Both will include or omit the cursor, but Corel CAPTURE offers the ability to replace the existing cursor with a special cursor.

Examine Corel CAPTURE's capabilities. For most screen captures, you'll never need to buy another program.
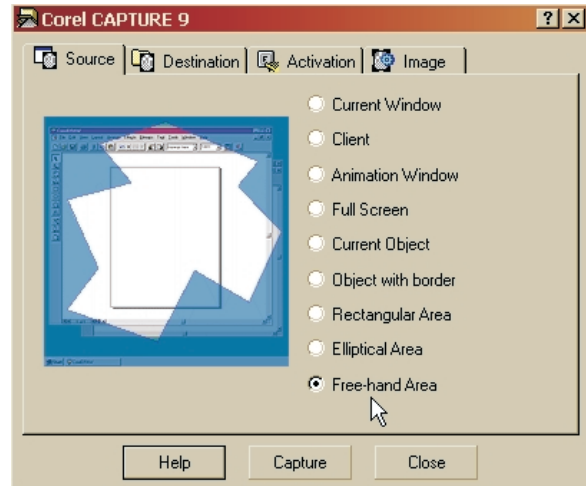
Figure 1
Corel CAPTURE can capture random-shaped objects, as well as rectangular and elliptical areas.

Corel TRACE

This is an application with potential. Unfortunately, the potential hasn't been realized, and the program remains an underachiever. Whenever I use Corel TRACE, I think about the old banker joke: Bankers are willing to give loans to those who can prove conclusively that they don't need a loan.

Corel TRACE makes it possible to convert any bitmap image to vector art, if the image is of sufficient quality that you don't need to convert it to vector art. Unfortunately, if the quality of the bitmap is sufficiently bad that you *do* need to convert it to vector art, the results are invariably unusable.

When you have a bitmap that you'd like to convert, give Corel TRACE a try. Occasionally it works, and even when it doesn't, you're no worse off than you were before.

Figure 2
Just when you need it most,
Corel TRACE falls on its face.

"lights," "textures," and "surfaces," you
will be able to make even more use of the
program.

Canto Cumulus LE

Cumulus LE, included for the first
time with CorelDRAW 9, is
"crippleware." The LE means "limited
edition;" you're limited to storing 2,000
records, and you can't have more than two
catalogs open at the same time.

That's not as bad as it sounds. Even crippled,
Cumulus LE can be a useful program—particularly
if you need to catalog a lot of images, textures,
backgrounds, clip art, or photographs. You don't
need this program to keep track of the clip art
Corel provides on the CD (see ROMCat, below),
but you can use it to keep track of everything
else—including files from VENTURA or your
word processor.

The Kitchen Sink

Photos, clip art, fonts, spray lists, image lists,
brushes, objects, and tiles. You know they're there,
but do you use them? These little prizes are
scattered throughout the CDs. A little

Bitstream Font Navigator

This is the unsung hero from the Corel box,
and it's the one minor league player that all
CorelDRAW, PHOTO-PAINT, and VENTURA
users should put on their teams.

If you're trying to manage typefaces without
Font Navigator, you're working too hard. Adobe
Type Manager can help with Type 1 faces and (if
you buy the full version) True Type faces, too; but
ATM doesn't have Font Navigator's flexibility.
And if you install Windows 2000, you'll find that
Adobe Type Manager is missing unless you buy a
new version. That's because Windows 2000
handles display of Type 1 faces.

Corel TEXTURE

Here is another player that's
headed for the big leagues. If you
need to make a background for a
Web page (or create any other
image that tiles nicely), this is the
application you should reach for.

Corel TEXTURE's wizard
interface will guide you though the
development of good images. If you
take some extra time to learn about

Figure 3
Bitstream's Font Navigator makes it
possible to manage and keep track
of thousands of typeface files.
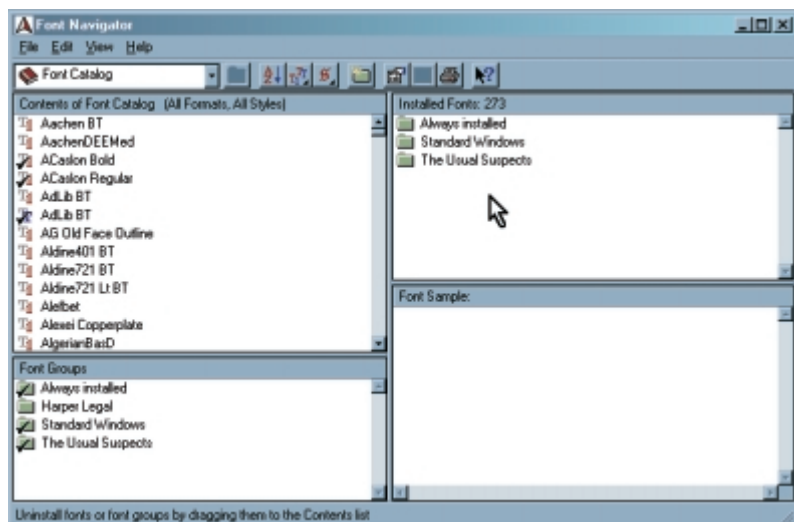
Figure 4
Using little more than Corel TEXTURE's wizard, I created a wood-like texture. The .tif file won't tile properly, but I told the program to create a tiling file when I exported the .jpg file.

Original does not tile properly

File run through TEXTURE tiles perfectly

experimentation can turn up just the right decorative typeface for a project.

The spray lists and image lists give even severely non-artistic folks like me the ability to create something that, while not a work of art, at least serves the purpose without being embarrassingly bad. And Corel's included photos, while limited, might be just what you need.

Corel's clip art has too many sketches of "famous" people for most of us, particularly because using any of them might tend to suggest an endorsement of your product, service, or position by one of those "famous" people and therefore might result in
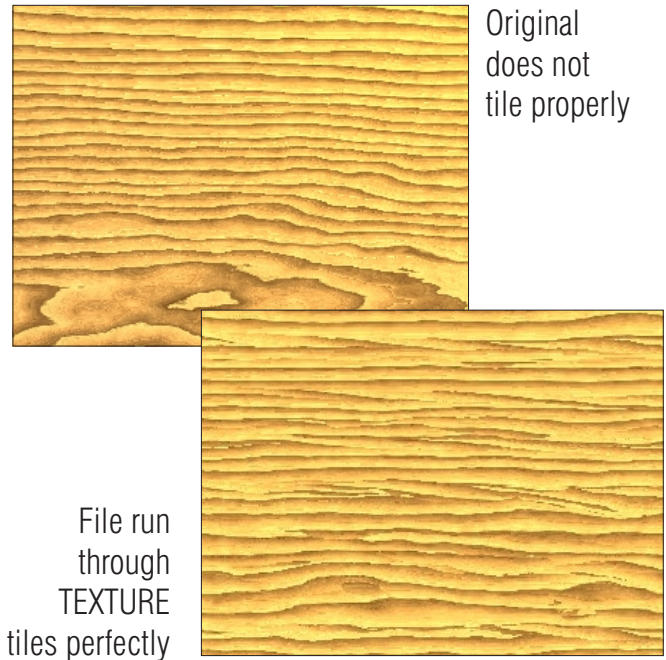
Figure 5
A little clip art, a few minutes of work, and the result was a happy client—all because of extras in the CorelDRAW box.

correspondence with the "famous" person's attorney. Still, the box contains a lot of pieces you can either modify or use as-is.

When I needed to create a Halloween theme for a Web client, I used several pieces of Corel's clip art. And when the same client wanted a Santa Claus on a motorcycle, I removed a Santa from a bicycle and placed him on a Santa-less motorcycle.

As a non-artist, I know that I could never have created anything like this, no matter how much time I spent. Using Corel's freebies, it took less than 20 minutes, including the time spent searching with ROMCat for clip art.

Take a look at the brushes, objects, and tiles, too. Often the effect I'm fighting to create already exists. Sometimes (rarely) I'm even able to impress my 16-year-old daughter, who really *is* an artist, but obviously didn't inherit the talent from me.

ROMCat

It's not in the box, but you need it, it's free, and it's on the Conference CD. Now a 32-bit application, ROMCat works with Windows 9x, Windows NT, and Windows 2000. It works with CorelDRAW 9 just fine, and with earlier versions so far back that you shouldn't even be thinking about using them.

ROMCat uses keywords to help you locate the file you're looking for. If you can't find an image with ROMCat, it's not on the CD.

Tools | Options

Strictly speaking, this isn't an extra in the box, but it is something that far too many users either don't know about or don't think is worth learning about.

When you find something that doesn't work the way you think it should in your favorite Corel program, you can change it. And when Corel's programmers move something from one menu to another and you don't like the new location, you can move it back.

Within Tools | Options, you'll find functions that aren't on any menu, tool bar, fly-out, drop-down, drive-by, zoom-over, Pandora's box, exploding cigar, Easter egg, or slither-past anywhere in the program. You may wonder why the programmers provided these features and then didn't put them anywhere on the user interface. If so, you'll have to keep wondering, because I haven't a clue either.

Invest a little time in learning about Workspaces and about how to make CorelDRAW, PHOTO-PAINT, and VENTURA change to suit the jobs you use them for.

California DREAMing

Some of the minor league players disappear from one version to the next. This has happened with some typefaces (although the missing faces are usually replaced by something better) and it happened to Corel DREAM 3D, which was included in the version 8 box, but had gone missing by version 9.

DREAM 3D is a program I really want to like, but so far I haven't been able to talk it into going out with me for even a short drive and a movie, much less becoming serious.

Even so, it's been on my wish list for several years—as in "I wish I could figure out how to use it." The trouble is, DREAM 3D works in three dimensions, but we're limited to two-dimensional input devices (mouse or pen) and two-dimensional
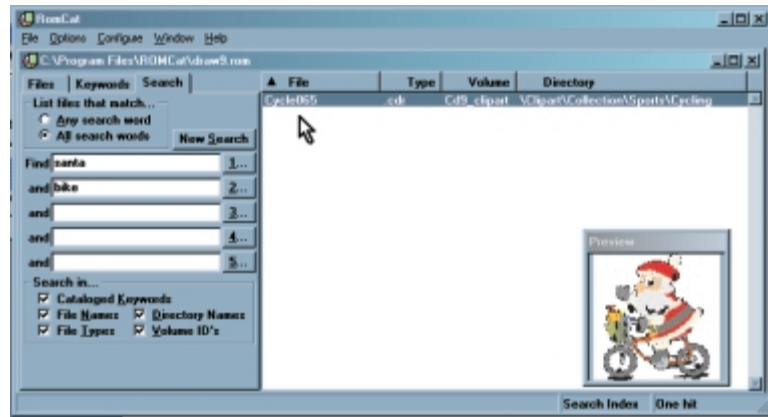
Figure 6
No matter what you're looking for, if it's on theCorelDRAW CD, ROMCat will find it—even if you're looking for a Santa Claus on a bike.

output devices (monitors and paper). I have enough trouble trying to keep track of two dimensions, so I've never really mastered DREAM 3D.

After spending some time with it, I'm not sure that I even qualify as a novice, but I'll keep DREAM 3D on my wish list. By tinkering with it every now and then, I get a little closer to convincing it to come home with me.

Stuff You Get But Don't Need

- Quick Time 3. The current version of the free QT viewer is 4. Obtain it from http://www.apple.com/.
- Acrobat Reader 4. Many of us probably have bought Adobe's Acrobat Distiller 4, so we don't need the viewer. If you don't have the viewer, you should still check the Adobe Web site (http://www.adobe.com/) to ensure that you have the most current version of the viewer.

Corel should be commended for including all these "little" extras in the box. While some of the applications aren't particularly useful, you'll find enough power tools in the box to make the exploration well worth your time. 2000

Rick Altman & Bob van Duuren

Monday • 11:15am

A Tag Team of Tips

The Rick and Bob show

In CorelWORLD Holland earlier this year, who would have expected the most popular presentation to be one that was added last-minute to fill a hole. Host Bob van Duuren suggested to Rick Altman, "What if we both go up there and just trade off showing cool stuff?" (Rick's reply: "As long as I don't have to do it in Dutch.") With a bit of slapstick, a lot of banter, a few good zingers, and lots of great tips and advice, this impromptu session was the surprise hit of the show, and now they're taking the act on the road.

Topics will include…um, uh, well, we have no idea what these two will talk about, but we'll keep you posted if and when we ever do find out.

This presentation is for intermediate to advanced users who like to browse the bargain racks at stores and/or have an attention span of less than five minutes.

COREL WORLD 2000

Sharon George and Ken Jurina

Monday • 11:15am

How Did They Do That??

Sharon George, traditional-artist-turned-pixel-pusher

Come see the PHOTO-PAINT goddess at work! In this session, award-winning artist Sharon George will unveil the tools, tips, techniques, and numerous filters she uses to convert traditional illustrations into amazing digital works of art. Known for her "goddess" portraits that celebrate the feminine form, Sharon will give you an in-depth look at the steps she take to make her images come alive. This session will cover:

❏ Utilizing traditional artwork in electronic files—sketch, scan, and digitize

❏ Thank goddess for the transparency filter!

❏ Applying fills, translucent textures, layering and combining objects

❏ How to really paint in PHOTO-PAINT

This session is for intermediate and advanced users interested in learning the process of converting artwork from paper to pixels.

Portrait of a Goddess

SHARON GEORGE has been an illustrator and freelance artist since 1994. Over time, she married her traditional skills with the features of PHOTO-PAINT, and this happy union has produced some remarkable works of digital art. Sharon wants to break the stereotype that you can't be "creative" on a computer; her "goddess" portraits are certainly evidence of the contrary.

Now let's see how they're done...Here's Sharon.

Magic Valley

Magic Valley is part of an on-going project of mine to adorn the world with digital goddesses. I use CorelDRAW 9, PHOTO-PAINT 9, and Painter 5 to create them.

IN THE BEGINNING...

This piece was inspired by two photographs: one of a lotus flower, and one of the profile of a lovely woman with "big" hair. The first thing I did was sketch my subjects. Then I scanned the sketches into PHOTO-PAINT.
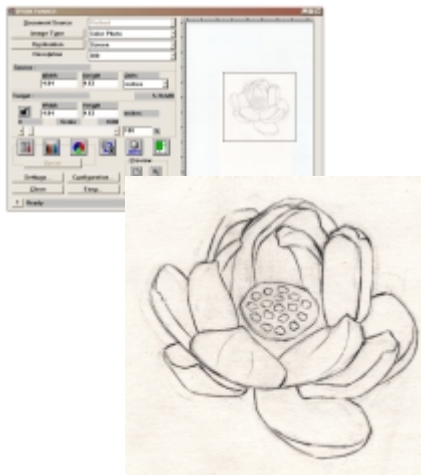
Now I began painting the sketches. As they were finished, I dropped them into the magic_valley.cpt file as floating objects.
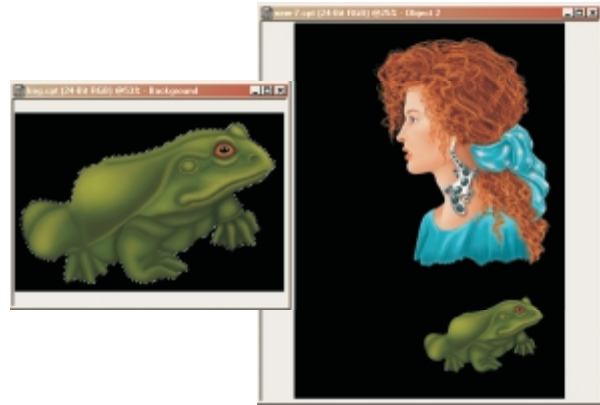
As I continued painting elements of the piece and adding them to the master file, I began to consider how to unify them and make them work together.
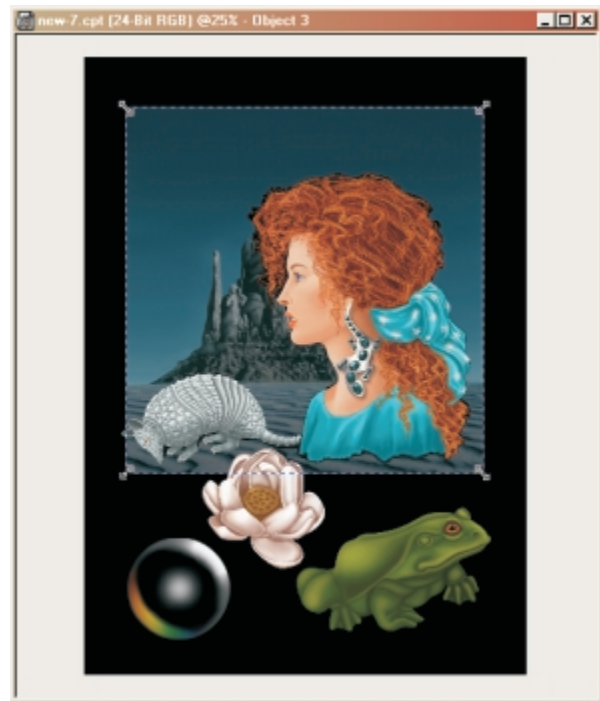
RIPPLING WATER

I decided that the lower portion of the piece should be water, which I created by making a rectangle, filling it with a blue Gradient fill, and applying the Ripple filter (Effects | Distort | Ripple).
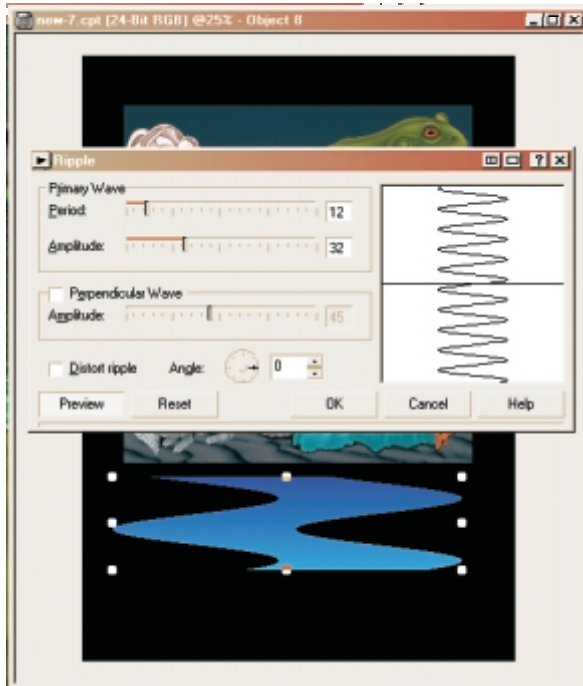
I applied a flat transparency of about 40% and duplicated the "water" object many times, layering and distorting it as I felt it needed. This created the effect of the water repeating the shape of the frog's lily pad.

Then I combined the transparent layers, masked off the area I wished to save, converted the mask into a floating object using the Mask | Cut command, and deleted what I didn't wish to include in the image (Object | Create | Object Cut Selection).
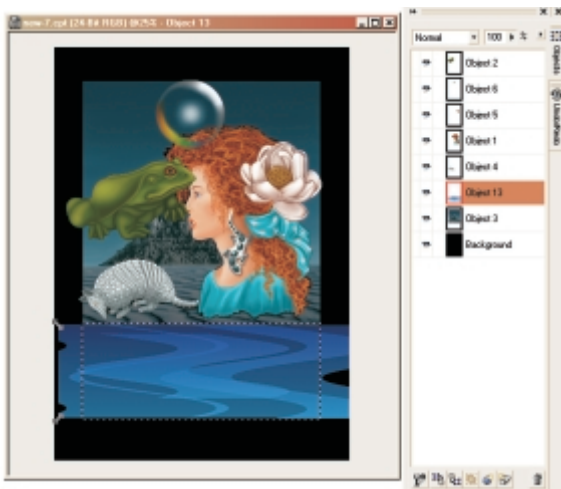
GRASS AND LILY PAD

I created the aquatic grass using the primitive Polygon tool, filling the shape with a green gradient fill, and applying noise for texture. I only needed one shape, because I duplicated it and distorted it by scaling, rotating, and even applying the Mesh Warp filter. Then I grouped the grass clumps and placed them by the water.

The frog's lily pad began as an oval, from which I masked off and removed a pie-shaped slice. I duplicated the lily pad and stacked the duplicates on top of each other to give the illusion of thickness, then applied a Mesh Warp to create the illusion that the lily pad was floating on the water.
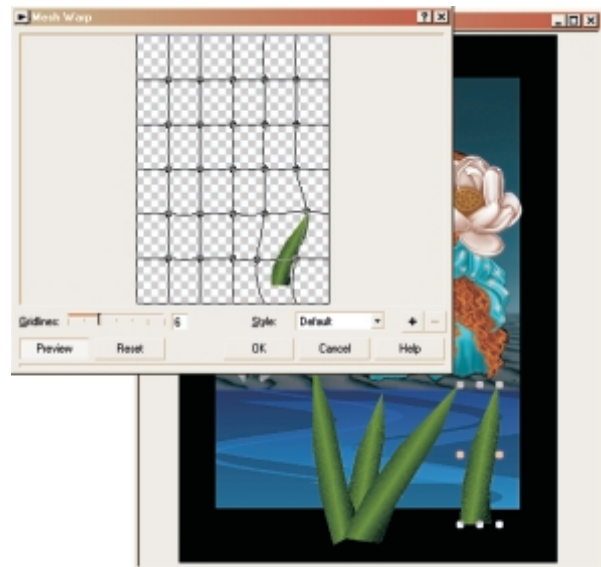
The many frothy lily-shaped clusters are ovals to which the Effects | Scatter and Effects | Particles | Stars filters have been applied. They were duplicated over and over, mesh warped, and combined.

BUBBLES

The bubbles started as two white circles, one on top of the other. I used the Eraser tool to erase all but the top outline of the first circle. The second circle I filled with a Rainbow fill and erased all but a lower portion. The the two circles were combined, and a Radial transparency was applied. I dropped a third white circle in the center, and applied a Gaussian blur. That was also combined with the other circle.

WATER DROPLETS

The water droplets on the frog were applied with the Eye Candy | Water Drops filter, but not randomly. I selected the frog, applied a mask, and created a new layer. Then I applied the Water Drops filter to that layer within the confines of the mask, which gave me much more control. I erased all but a few of the drops, removed the mask, and masked the drops individually, turning each drop into a separate object. This allowed me to control the angle and transparency of each drop...and the result no longer looked like a filter application.

THE SCARF

An easy way to enhance the illusion of folded fabric is to include a simple pattern that's been twisted to fit the shapes of the folds. After I had painted the light and dark shapes of the scarf, I created a white star in CorelDRAW, using the

Polygon tool set to 5 sides, and saved it as a bitmap.
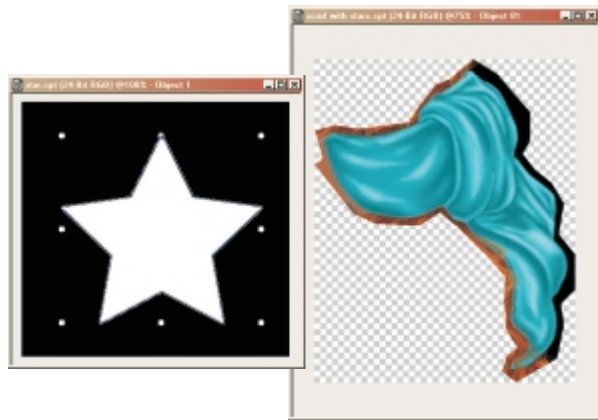
I then dropped the star on my scarf image, which had already been masked off from the original image of the woman, cut away, placed in its own window, and saved. This was so I would have a smaller area to apply filters such as Mesh Warp. If you have a little tiny object floating on a large area, it's impossible to find it in the Mesh Warp filter dialog box!
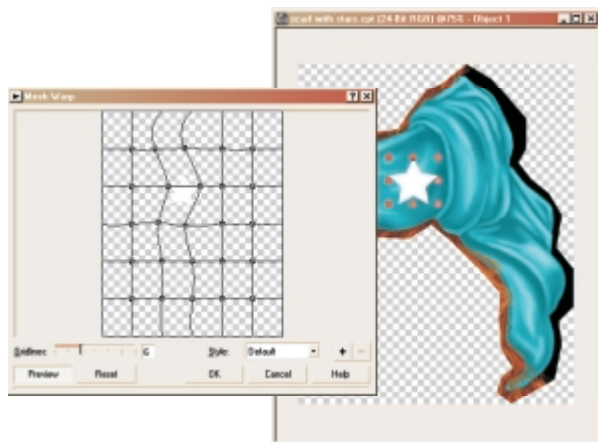
After the Mesh Warp filter was applied, all it took was a little rotation, and Wow! It's a star curving along the folds of the scarf. A quick swipe with the Brightness effects brush, and the areas farthest away became darker, heightening the illusion of the star bending to the cloth.

Finally, the stars were combined with the scarf, and the scarf was dropped onto the image of the woman and combined.

To Sum Up:

My art is created by determining a use, size, resolution, and proportion—format follows from that. Sketches of individual elements are drawn with pencil and paper, scanned into PHOTO-PAINT, painted in PHOTO-PAINT and Painter (great airbrush tool!), converted into floating objects, and dropped unto final piece. Many filters, masks, and transparencies are applied, until the art has a cohesive look with the feeling that I was originally trying to project.   2000
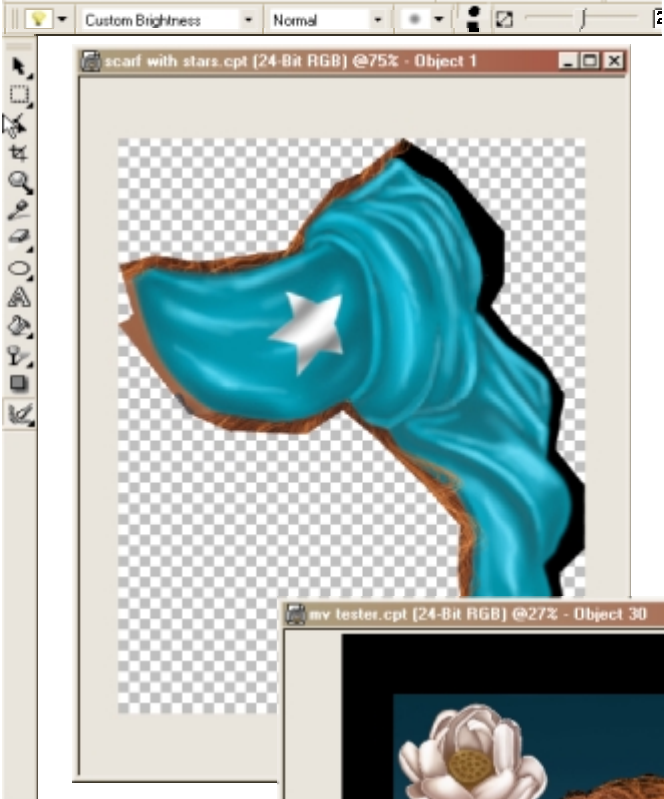
Go Deeper

You will find many examples of Sharon's work here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\paint\sharon.
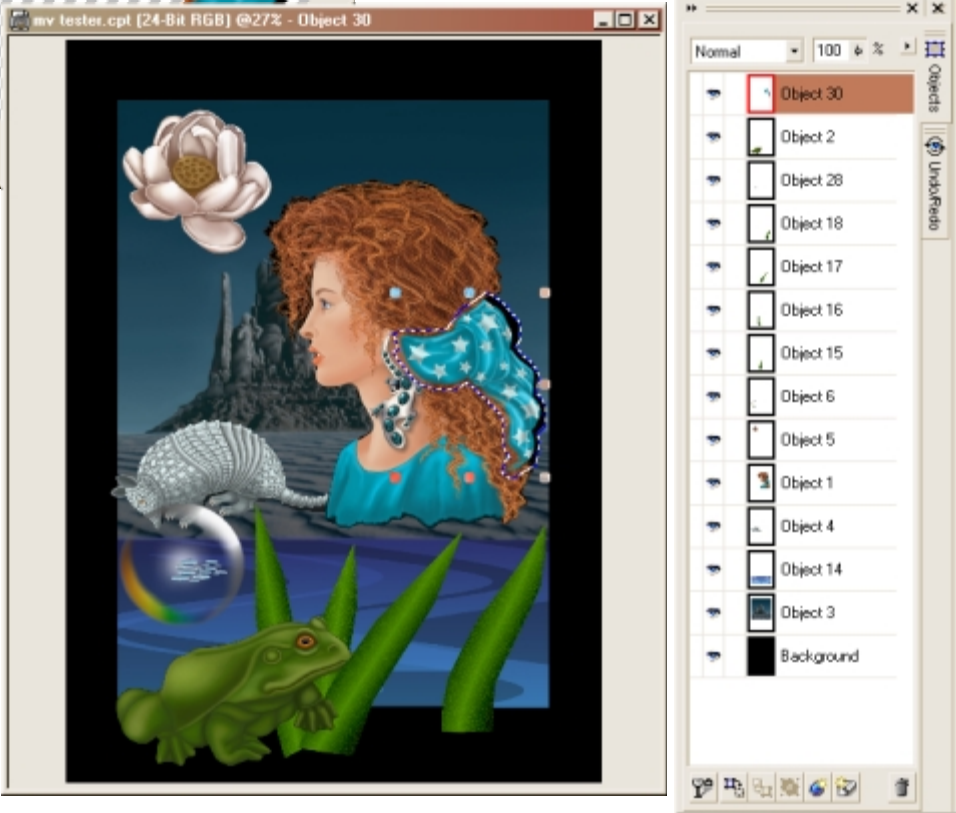
C_TECHniques

Corel's volunteer force takes center stage

Thanks to CorelWORLD, the unsung heroes of the Corel user community are now being sung about. Corel's volunteer support team will be in the Help Center throughout the conference, and each day, one of its members will lead a panel discussion and demonstration about a particular topic. These sessions will take place right before lunch on Monday, Tuesday, Wednesday, and Friday. Check the Help Center bulletin board for updates on topics—the current and tentative lineup is as follows:

❏ Monday: Cropping, clipping, and trimming

❏ Tuesday: Delicious Distortions

❏ Wednesday: All about output

❏ Friday: Database Publisher

These sessions are for any users seeking an introduction to the particular topic scheduled for that day.

PHOTO-PAINT
Survival Skills

Tips for surviving the bitmap jungle

If you've seen any of the awesome effects and transformations possible in Corel PHOTO-PAINT, it's no mystery to you why everyone is dabbling in bitmaps these days. Whether you need to create Web imagery, fix a damaged photo, or just want to experiment with a multitude of special effects, PHOTO-PAINT is for you. But it's easy to get lost in the world of pixels, and this session is here to help. It will show you all about:

❏ Working with objects

❏ Applying masks

❏ Creating special text effects

❏ Restoring damaged photos

❏ Experimenting with filters

This session is designed for novice PHOTO-PAINT users who want to understand how to get started with the program and be able to complete simple projects.

COREL
WORLD 2000

PHOTO-PAINT
Survival Skills

PHOTO-PAINT is a photo editing and enhancement program that allows you to retouch digital images, apply special effects, and work with an assortment of paint tools. Unlike CorelDRAW, which is a vector-based drawing program, PHOTO-PAINT can only work with paint, or bitmap, images. Common bitmap image file formats are TIFF (.tif), GIF (.gif), JPEG (.jpg), PCX (.pcx), and BMP (.bmp).

In bitmap formats, the image is constructed from discrete pixels rather than lines and curves. PHOTO-PAINT can open vector files, but they must be converted to bitmaps before you can work with them.

Resampling Images

Bitmap images have a fixed resolution and image size; you cannot resize an image without first resampling it. Select Image | Resample to resample an image. Resampling changes the resolution or size of a bitmap, and alters the number of pixels it contains. To increase the resolution, increase the number of pixels; to decrease the resolution, decrease the number of pixels.

Increasing the size of the image is called *upsampling* and is not recommended in most cases, due to the degradation caused by interpolation. PHOTO-PAINT must create pixels to increase the size of the image. The process involves a certain amount of guesswork, and will always introduce some blurring. The pixels that make up a bitmap image are square, and resampling the image to a larger size may also result in a jagged look. Decreasing the

size of the image by removing pixels is called *downsampling*, and can be used without much degradation, as illustrated in Figure 1.

Tip: An alternative to upsampling is to rescan the image. If this is not possible, resample the image so it's about 50% larger than the desired size, apply the Unsharp mask filter, downsample to the correct size, then apply a small amount of Directional sharpening.

Checking Maintain Original Size forces PHOTO-PAINT to keep the file size (number of pixels) unchanged. Only the resolution is changed to fit the newly requested image size. The advantage to this is that the image is not physically altered; however, loss of image detail may occur when lowering the resolution. You can only accurately see the difference by saving the image and printing, due to the way the program maps each pixel of the image to a pixel on the computer screen.

Changing the Paper Size

Changing the paper size will increase or decrease the size of the background that surrounds the image. Adjust the paper size smaller to crop the image; adjust it larger to place the image within a designated area of the background. The background color is determined by the Paper Color setting in the Paper Size dialog box.

To change the paper size:
1. Select Image | Paper Size.
2. Choose a position for the image by dragging the image in the Preview window.

Figure 1
The smaller image is resampled down 50% at the same resolution.

3. Hold Ctrl while dragging, to move the image to a specific area. A hand icon will appear, as in Figure 2.
4. Click the small lock icon to maintain the aspect ratio.

Manipulating Images

PHOTO-PAINT provides many ways to manipulate images. Three basic but very useful ones are flipping, rotating, and cropping.

FLIPPING IMAGES

To flip images horizontally or vertically in the Image Window, select Image | Flip | Horizontally or Image | Flip | Vertically.

ROTATING IMAGES

PHOTO-PAINT allows you to rotate images by a preset amount, or specify the precise angle and direction of rotation.

To rotate an image, do one of the following:

- Select Image | Rotate | 90° Clockwise.
- Select Image | Rotate | 90° Counterclockwise.
- Select Image | Rotate | 180°.
- Select Image | Rotate | Custom, and enter a value in the Angle box.

CROPPING IMAGES

Cropping an image in PHOTO-PAINT is like cropping a photograph—it removes selected areas of the image without affecting the resolution of the image or the remaining image areas. Images can be cropped using the Deskew Crop tool from the Toolbox (circled in Figure 3), or with the Image | Crop command. To crop an image using the Deskew Crop tool:

1. Select the Crop tool and drag to select an area on the image.
2. Drag the sizing handles to fine-tune the cropping area.
3. Double-click inside the cropping area.

Precise values can also be entered in the Crop Size and Crop Edges boxes on Property Bar.

To cancel the cropping procedure, double-click outside the cropping area.
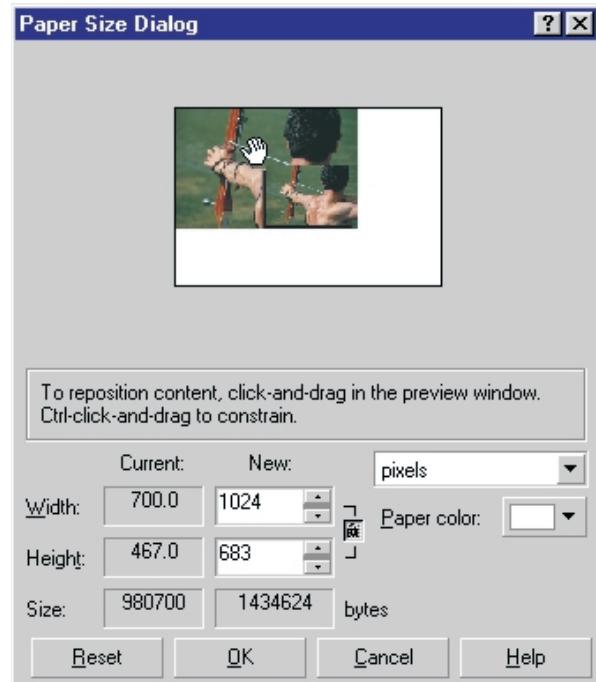
Figure 2
Hold the Ctrl key to move the image to a specific area of the new paper size.

You can crop an image as you open it, by choosing Crop from the list box to the right of Files Of Type in the Open An Image dialog box. If you select a cropping area that is larger than the current page size, the page size will increase to fit the cropping area.

Image Adjustment Basics

One of the advantages of using a photo editing program such as PHOTO-PAINT is the ability to alter the composition of images with a click of the mouse. Because of the ease in which you can experiment with different effects and enhancements, you can use a multitude of features to your liking.

CHANGING THE PAINT, PAPER, AND FILL COLORS

In the Status Bar area at the bottom of the screen are three boxes that contain the current

Figure 3
Crop tool in the Toolbox

Figure 4
The Paint, Paper, and Fill boxes on the Status Bar.

Paint, Paper, and Fill colors (Figure 4). Depending on which tool you intend to use, you will have to change one or more of these colors.

To change…	Do one of the following:
Paint Color	■ Double-click the Paint box and choose a color. ■ Drag a color from the Color Palette to the Paint box. ■ Use the Eyedropper tool and click on a color in the image.
Paper Color	■ Double-click the Paper box and choose a color. ■ Drag a color from the Color Palette to the Paper box. ■ Use the Eyedropper tool, hold Ctrl, and click on a color in the image
Fill Color	■ Double-click the Fill box and choose a color. ■ Drag a color from the Color Palette to the Fill box. ■ Use the Eyedropper tool, and right-click on a color in the image.

To reset the colors back to their defaults, click the Reset Colors button on the Status Bar.

Masking Basics

Masking allows you to alter or protect a selected area in the image. Masks can either be used to protect an area from change or to limit the effects of a change to the area within the boundaries of the mask.

It might help to think of a mask as a stencil containing holes that allow the image areas showing through to be changed. For example, if you are using the Paint tool, the paint is applied only to the area within the confines of the mask. If you invert the mask (Mask | Invert), the paint is only applied outside of the mask boundaries.

PHOTO-PAINT has two types of masks. *Regular masks* define a selection within an image based on its shape. *Color-sensitive masks* create a selection based on the color of the pixels in the image.

These masking tools are found on the on the Mask Tools flyout (Figure 5):

■ **Rectangular Mask**. Creates rectangular masks. Along with the Circle Mask, one of the simplest mask tools to use.
■ **Circle Mask**. Creates elliptical masks.
■ **Freehand Mask**. Creates multi-segmented masks.
■ **Lasso Mask**. Creates an irregular selection surrounded by pixels of similar colors. Limited usefulness, but works well.
■ **Scissors Mask**. Detects edges of elements and masks along an edge. Very difficult to use and not recommended.
■ **Magic Wand**. Creates a mask by including all
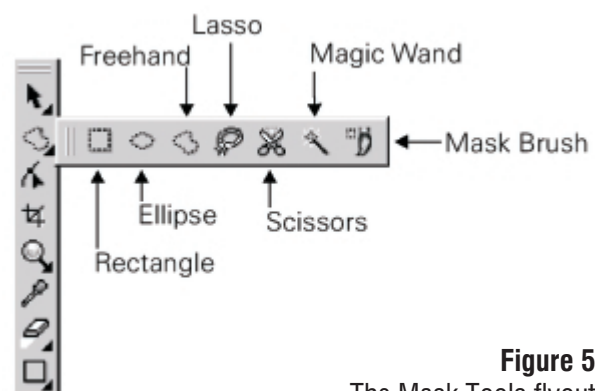
Figure 5
The Mask Tools flyout

adjacent pixels that are similar in color to the pixel you click on. Good for solid-colored areas such as backgrounds.
■ **Mask Brush Tool**. Allows you to paint, or brush, the masked area.
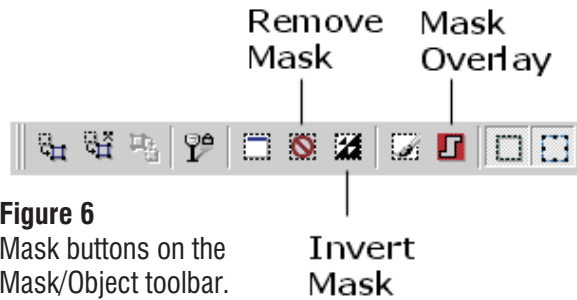
Figure 6
Mask buttons on the Mask/Object toolbar.

To resize a mask:

1. Hold down the Object Picker tool in the Toolbox and select the Mask Transform tool.
2. Drag the mask's sizing handles to resize, or hold the Position mode button on the far left in the Property Bar and select the Size mode icon.
3. Enter the horizontal and vertical dimensions.
4. Click the Transform button.

APPLYING A MASK OVERLAY

A mask overlay helps you differentiate editable areas from masked ones. The masked areas are displayed in varying degrees of red, according to their transparency. The deeper the saturation of the red tint, the greater the degree of protection.

To display the mask overlay, either select Mask | Mask Overlay or click the Mask Overlay button on the Mask/Object toolbar (Figure 6). Repeat the steps above to toggle this feature off and hide the mask overlay.

INVERTING A MASK

Sometimes it is easier to mask the areas you want to protect from changes and then invert the selection. Begin by drawing the mask, then invert the mask so that the area that was initially selected is protected and will not be affected by editing changes. To invert a mask, select Mask | Invert or click the Invert Mask button on the Mask/Object toolbar.

REMOVING MASKS

When you no longer need to protect certain areas in your image, remove the mask to make the entire image available for editing. To remove a mask, either select Mask | Remove or click the Remove Mask button on the Mask/Object toolbar.

USING MASK SHAPE COMMANDS

The Shape commands illustrated in Figure 7 let you expand or reduce an image selection. These commands are available from the Mask menu.

■ **Border**. Splits the mask marquee into two mask marquees with the same shape and center point
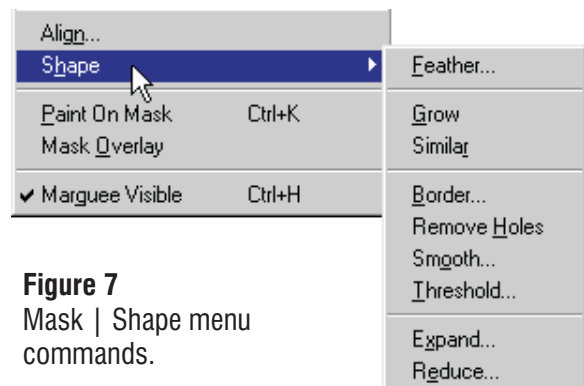
Figure 7
Mask | Shape menu commands.

but separated by a specific number of pixels
■ **Remove Holes**. Expands a selection by adding masked areas that are enclosed by the selection
■ **Expand**. Enlarges a selection by adding a specific number of pixels to its edge
■ **Reduce.** Shrinks a selection by removing a specific number of pixels from its edge
■ **Grow**. Expands a selection by adding pixels that are of similar color to the pixels in the selection and adjacent to them.
■ **Similar**: Expands a selection by adding pixels that are of similar color to the pixels in the selection and located anywhere in the image.

The Grow and Similar commands operate on the basis of the color tolerance you specify for the Magic Wand Mask tool, but modify a selection created with any of the mask tools.

MASK MODES: ADDITIVE, SUBTRACTIVE, NORMAL, AND XOR

Before you use a mask tool to create or fine-tune a mask or selection, you must choose a mask mode from the Mask menu or the buttons on the Mask/Object toolbar (Figure 8).

Four modes are possible:

- *Normal* selects an area in an image. This is the default mode.
- *Additive* selects multiple areas in an image. You can use this mode to create a selection and expand an existing selection.
- *Subtractive* removes areas from a selection.
- *XOR* selects multiple areas in an image. If areas overlap, the overlapping regions are excluded from the selection and added to the mask. You can use the XOR mode to create a selection, and to expand or reduce an existing selection.

The following keyboard shortcuts switch between masking modes:

To choose...	Press..
Additive mode	Shift
Subtractive mode	Ctrl
XOR mode	Ctrl+Shift

The Ctrl and Shift keys will constrain your selection to a specific shape. For example, if you begin selecting an area using the Rectangle Mask tool and hold down Ctrl while completing the selection, the area you select will be a perfect square. If you hold down the Shift key, the area you select will be in the shape of a rectangle that is drawn from the center out. And if you hold down Ctrl+Shift, you will select a perfect square that is drawn from the center.

The last mask mode chosen is retained until changed at a later time. It's a good idea to revert back to the Normal mode in order to minimize problems that may occur the next time you use the masking tools.

Advanced Masking Techniques

APPLYING COLOR MASKS

PHOTO-PAINT's Color Mask feature lets you select pixels based on their color content. The color tolerance and threshold controls in the dialog box expand or reduce color selections. Specifying a higher color tolerance adds to the selection all pixels whose grayscale value is below or

Figure 9
Color Mask makes masking the blue sky around the bridge a snap.

Figure 8
The current mask mode affects how and what you are able to mask.

equal to the defined color tolerance. Specifying a lower color tolerance removes all pixels whose grayscale value is above the defined color tolerance. Figure 9 illustrates how easy it is to mask the blue sky in a photo using the Color Mask command.

USING THE PATH TOOL

With the Path tool, you can create precise, outlined shapes in your image. Paths are line and curve segments connected by square endpoints called nodes. Nodes connecting curve segments have two control points that determine the angle of the curve you are creating or shaping.

Once you have enclosed part of your image within a path, you can:

- Convert the path to a mask
- Apply a brush stroke along the path with the Paint, Effect, Clone, Image Sprayer, Color Replacer, or Eraser tool
- Export the contents of the path as an irregularly shaped bitmap for placement in a drawing or page layout program, such as CorelDRAW or VENTURA

Path editing controls can be found on the Property Bar and in the Path docker window. Because paths let you modify isolated segments of the outline, they provide more flexibility than mask marquees. You can edit each line and curve segment on a path with precision, and you can move, add, remove, or transform the connecting nodes.

Tip: Convert a mask to a path and adjust to exactly the shape you want, then save the path, convert it to a mask, or both.

To draw line or curve path segments:
1. Select the Path tool in the Toolbox.
2. Do one of the following:
   - Select the Bezier Path button on the Property Bar. Click to place the first node, then either click again to create a line segment or drag to create curved segments.
   - Select the FreeHand Path button on the Property Bar. Drag a freehand path.
3. Click the path's start node to close the path. The Bezier Path and FreeHand Path cursors

change to the Close Path Indicator cursor when positioned over the starting node.

To delete the path, right-click in the path area and select Delete Path from the pop-up menu. To toggle between showing and hiding the path, right-click in the path area and select Show/Hide Path from the pop-up menu.

Saving and Loading Mask Channels

An alpha channel is a temporary storage area for masks. Once a mask is stored as an alpha channel, you can access it and reuse it as many times as you want. Alpha channels are useful when you are editing a complex image where you want to access multiple masks at the same time and switch between them.

Although you can display only one mask in an image at a time, you can create, view, manage, and save as many masks and alpha channels as you like, using the Channels docker. Storing masks in channels lets you load and reuse different masks in the same image repeatedly, without having to recreate them.

You can also store the masks you have created by saving the image in a file format that supports mask information, such as PHOTO-PAINT's native .cpt ormat or TIFF bitmap (.tif). A saved
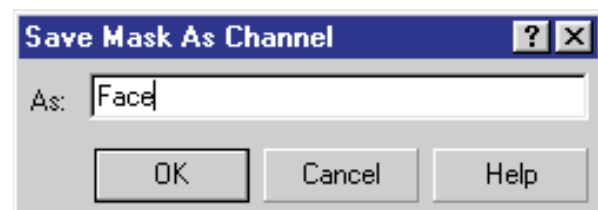
mask or alpha channel can be reloaded at any time. When you load a mask from disk, you can open it over the entire image or over an image area.

Figure 10
Save the mask as a channel by entering a name.

To save a mask to an alpha channel, select Mask | Save | Save As Channel. The Save Mask as Channel dialog box is illustrated in Figure 10. Type the name of the new or existing alpha channel in the As box. The default channel name is Alpha x, where x is the number of the channel in the order in which it was created. For example,

the first alpha channel create in an image, will be named is Alpha 1.

You can also save a mask to a new channel by clicking the Save Mask To New Channel button in the Channels Docker window.

Paint on Mask

Paint on Mask mode allows you to use additional tools such as the Paint, Effect, and Eraser tools to expand and reduce a selection. This mode displays an image as a grayscale image, with the protected masked areas shown in black and the fully editable areas in white. Pixels that are partially protected or partially editable are displayed in varying degrees of gray.

Figure 11 illustrates one way Paint on Mask can be used. After the image was opened, Paint on Mask was activated, an Interactive Linear fill was applied, then Paint on Mask was turned off.

Finally, a Gaussian blur was applied (Effect | Blur | Gaussian). Notice that the image is in sharper focus on the left side than the right side, due to the gradual mask applied with the Paint on Mask feature.

To use Paint on Mask:

1. Select Mask | Paint On Mask or click the Paint On Mask button on the Mask | Object toolbar.
2. Select one of the following:
   - Paint tool
   - Effect tool
   - Clone tool
   - Eraser tool
   - Color Replacer tool
   - Image Sprayer tool
   - Shape tools
3. Adjust the tool's attributes on the Property Bar and paint in the image to expand or reduce the selection.
4. Click Mask | Paint On Mask to return to the image.

   Note: If you choose the Paint tool or a Shape tool, the paint and fill colors that you choose are converted to their grayscale equivalents.

Images and Objects

Since PHOTO-PAINT contains both Image and Object menus, there could be some confusion about which set of commands to use. Image commands alter the background image. Object commands alter objects that float on top of the background.

If the commands that you want to select are grayed out, chances are you have not first selected the appropriate background or object. Use the Objects docker to display and select the desired elements.

CREATING OBJECTS

An easy way to create objects is to paste or drag-and-drop images from other files onto the current image. This enables you to combine multiple images into one. For example, you could paste a picture of yourself onto an image of a beach, or add trees to a barren landscape.

Images that are pasted or dragged and dropped onto another image must

Figure 11
Use Paint on Mask to make gradual changes to an image.

be combined with the original image if you intend to save the file. Working with multiple objects may require you to use the Objects docker.

To paste objects onto other images, mask an area of the image. Copy and paste the object from the source image to the target image.

Once you have created a mask, it can be converted to one of two kinds of objects.

To copy the masked area to an object and leave the area as is:

- Select Object | Create | Object: Copy Selection, *or*
- Click the Object: Copy Selection button on the Mask/Object toolbar.

To cut the masked area to an object and remove the selection from the background, thus leaving a white area:

- Select Object | Create | Object: Cut Selection, *or*
- Click the Object: Cut Selection button on the Mask/Object toolbar.

Using the Objects Docker

The Objects docker (Figure 12) lists all objects in the current image, and displays a thumbnail representation of each object. The docker is used to facilitate object management and editing. Controls allow you to hide objects from view, lock them to protect them from change, change their overall opacity, and choose the currently editable object.

Several menu commands that are related to objects are also provided as buttons at the bottom of the docker. These commands include Lock Object Transparency, Create Mask From Object, Create Object From Mask, Combine Objects With Background, New Lens, New Object, and Delete.

To activate the Objects docker, select Window | Dockers | Objects.

MERGE MODES

The Merge box in the Objects docker determines how the selected paint, object, or fill color combines with other colors in the image. For example, if you apply color or merge an object into the background using the Normal merge mode, the selected color replaces the original color in the image. If you apply color or merge an object into the background using the Add merge mode, the paint and paper colors are combined to produce a brighter color.
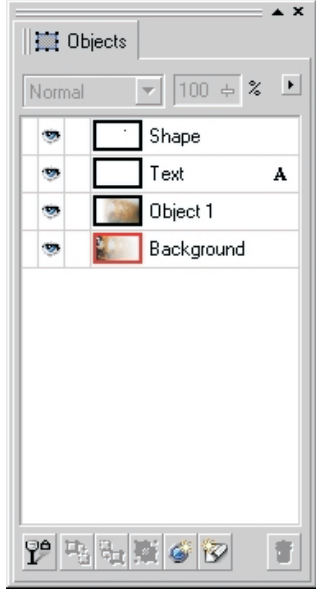
Figure 12
The Objects docker, with objects plus the image background

OPACITY

The Opacity slider determines the opacity or transparency of the selected object. 100% opacity is zero transparency and 100% transparency is zero opacity.

WORKING WITH OBJECTS

To rename objects in the Objects docker, right-click the name in the docker and select Properties. Enter the new name in the Name box and click OK. To reorder objects, drag the thumbnail image in the Objects docker to arrange the stacking order of the objects. To change the object's opacity, click on the object's thumbnail image in the docker and drag the Opacity slider at the top. To merge objects with the background, select the object and choose Object | Combine | Combine Objects With Background.

Special Text Effects

Fancy text effects aren't limited to CorelDRAW; you can also achieve them by applying various filters in PHOTO-PAINT. Here are some simple exercises that will create some dazzling effects.

RAISED TEXT EFFECT

1. Select an image with a texturized background similar to Figure 1, or create a new RGB image and fill with a Texture fill (Edit | Fill).
2. Select the Text tool and click anywhere on the left side of the image.
3. From the Property Bar, select Times New Roman, and a point size that fills the image dimensions.
4. Type Photo-Paint.
5. Use the Object Picker tool to move the text into the center of the image.
6. Select Mask | Create From Object(s) to create a mask from the text object.
7. Select Edit | Clear to delete the object from the mask.
8. Select Effects | 3D Effects | The Boss. The Boss filter generates an embossed look, using the mask to create the raised effect.
9. Drag the Width slider to about 10 and observe the result.
10. Experiment with the various options (e.g., Width, Height, Smoothness).
11. When finished, remove the mask (Mask | Remove).

RUSTY TEXT EFFECT

1. Create a new RGB image at an image size of about 200 x 100 pixels.
2. Type the word Rusty and format with a thick font at about 48 points. Center the text within the image window.
3. Choose a Linear Fountain fill using a custom blend from brown to white to dark brown.
4. Use the Fill tool and fill into each character of the word Rusty.
5. Select Effects | Noise | Add Noise. Choose a Uniform noise type with a Level of 100 and a density of about 50.

Figure 13
Rising above the crowd

6. Select Edit | Repeat Add Noise to increase the amount of noise. Repeat again if necessary.
7. Apply a drop shadow using the Object Dropshadow tool in the Toolbox.

Figure 14
Rusty text

CHROME TEXT EFFECT

1. Create a new RGB image with an image size of 450 x 150 pixels.
2. Type the word Chrome and format using a

Figure 15
Chrome text

thick font at about 48 points.
3. Choose a Linear Fountain fill at an angle of 90 degrees, using a custom blend from blue to white to blue.
4. Use the Fill tool and fill into each character of the word Chrome.
5. Click the Lock Object Transparency button in the lower left corner of the Objects docker. This will prevent any changes in the object's size and shape from occurring in next step.

6. Select Effects | Distort | Ripple. Apply a Period of 7, Amplitude of 1, and an angle of about 38.

7. Select Mask | Create from Object (or press Ctrl+M).

8. Select Effects | 3D Effects | The Boss. Experiment with the settings to achieve the bevel look shown in Figure 15.

Figure 16
All puffed up

PUFFY TEXT EFFECT
Creating an impressive effect using PHOTO-PAINT may require several steps and some in-depth experimentation.

This exercise is intended to show you how a professional Corel PHOTO-PAINT user, Debbie Cook, would use a combination of masks, blurs, embosses, and object manipulation to achieve a puffy look

1. Create a new RGB image about 450 x 200 pixels and type the word Puffy. Format with a thick font at about 100 points.

2. Use the Object Picker tool and click on the text object. Select Mask | Create From Object(s).

3. Select Mask | Save | Save As Channel and save as Alpha 1, to save the mask as a channel for repeated use.

4. With the text object still selected, select Edit | Clear to delete the text object, leaving the mask.

5. Select Effects | 3D Effects | Emboss.

6. Choose Depth 2, Level 500, Direction 65, Emboss Color Gray. Click OK.

7. Select Mask | Remove.

8. Select Effects | Blur | Gaussian Blur.

9. Choose a radius of about 4 pixels, and click OK to blur the text.

10. Select Effects | 3D Effects | Emboss.

11. Choose Depth 1, Level 500, Direction 130, Emboss Color Gray. Click OK to emboss the entire image, including the background.

12. Select Mask | Load Alpha 1 to load the mask you saved earlier.

13. Select Window | Dockers | Object.

14. Select Object | Create | Object: Cut Selection to create a new Object 1 in the docker.

15. Click the Background thumbnail in the docker.

16. Select Edit | Clear (with Paper set to white) to clear the background.

17. With the Background still selected, select Mask | Load Alpha 1 to load the mask you saved earlier.

18. Select Object | Create | Object: Cut Selection to create a new Object 2 in the docker.

19. With Object 2 selected, click the Lock Object Transparency button in the Object docker to maintain the shape and transparency of the object when you edit it.

20. Select Edit | Fill, and click the Edit button. Select a fill of your choice (e.g., R=245, G=195, B=15).

21. Drag Object 2 to the top of the docker, to move it on top of all other objects.

22. In the Merge Mode list at the top of the Object docker, select Overlay merge mode and 100% opacity. Overlay mode multiplies or screens the current paint color when an object is merged with the background.

23. Hold the Shift key and click on Object 1 and Object 2 to select both objects.

24. Click the Combine Objects Together button at the bottom of the docker to create a new Object 3 in the docker.

25. With Object 3 selected, press Ctrl+D to duplicate and create a new Object 4.

26. With Object 4 selected, select Edit | Fill and choose a black fill (e.g., R=0, G=0, B=0).

27. Click Lock Object Transparency to disable and unlock the transparency.

28. Select Effects | Blur | Gaussian Blur.

29. Choose a radius of around 2 pixels and click OK to blur Object 4.

30. Press the down cursor key twice and the right cursor key twice to offset Object 4 from Object 3.

31. Press Shift+PgDn to move Object 4 to the back.

32. Select Object 3 and Object 4, and combine together.

33. Click the Combine Objects Together button at the bottom of the docker.

Retouching and Fixing Photos

PHOTO-PAINT's tools and effects filters really shine at retouching and fixing blemishes on photographs. The type of image determines the effectiveness of a filter. For example, one filter may be better to use for images containing large areas of spot colors rather than complex images containing many shades of color. Other filters may only be effective in color images at high resolutions.

Our final exercise will demonstrate how you can apply filters and use the PHOTO-PAINT's drawing tools to fix damaged photographs. Figure 17 shows the original photo and the results of our retouching. You can find the Smile.jpg file we will be working with on the Conference CD.

RETOUCHING EXERCISE

1. Open Smile.jpg. This image contains too much red in the flesh tones, and the photo is torn in the top right corner.

Figure 17
Before and after retouching

2. Select Image | Adjust | Tone Curve. The Tone Curve filter allows you to correct the detail lost in shadows or highlights, correct under- or over-exposure, and improve the tonal quality of the image.

3. Click the folder button. The Load Tone Map Files dialog box appears.

4. Double-click lighten.crv to choose the preset tone map file.

5. Observe that the dot in the tonal curve is located higher to lighten the tones.

6. Click OK.

7. Select Image | Adjust | Hue/Saturation/Lightness. Hue adjusts the color; saturation adjusts color depth from dull to intense; lightness determines the perceived intensity (lightness or darkness of the color).

8. Choose a Hue value of 30, set the other values to 0, and click OK. The skin tones take on a more realistic flesh color with less red.

9. Select Image | Adjust | Gamma. The Gamma filter enhances detail by adjusting the mid-range tones. It does not affect the shadow areas (darkest areas), or highlight areas (lightest white areas).

10. Choose a Gamma Value of around 1.2 and click OK. The mid tones are sharpened, creating more detail in the model's face.

11. Select the Zoom tool in the Toolbox and zoom into the top right corner of the image where the photograph has been torn.

12. Press and hold down on the bottom tool (Paint tool) in the Toolbox and click on the Clone toolbox. The Clone tool copies a selected area of an image to another area. First you identify the area to reproduce, then you use a dragging action to clone it.

13. In the Property Bar, choose a square nib, Nib Size 6, Transparency 0, Soft Edge 0.

14. Place the cursor on a dark shadow area of the palm tree in the background, and click to place the X clone marker.

15. Point to the white torn area and click. The selected area is reproduced where the X clone marker is located.

16. Repeat to gradually color in the white area. To reset the X clone marker, place the square cursor to the desired area and click the right mouse button.

17. Activate the Clone tool flyout and select the Effect tool.

18. In the Property Bar, choose Custom Smear in the Brush Type box. The Smear tool spreads colors in an image, creating an effect similar to running your finger through a wet painting.

19. In the Property Bar, choose a round tool shape, Nib Size 6.

20. Place the cursor on the seam of the area where you cloned, and slowly drag down along this area to make the cloning less noticeable.

21. When finished, press F4 to view the entire image.

22. Use a combination of the Clone and Smear tools to rub out the black ink dot on the model's forehead. Zoom in to work in detail.

23. Click on the Deskew Crop tool on the Standard toolbar.

24. Press F4 and marquee-select the entire image, excluding the black borders around the perimeter.

25. Double-click within the cropped area.

Only the Beginning…

Working effectively with PHOTO-PAINT requires practice and an understanding of the world of pixels. The tool settings and lingo are different from those of CorelDRAW, but once you understand the basics and beyond that are covered in this session, the effects that are possible with a bitmap editor such as PHOTO-PAINT are incredible. Enjoy pushing your pixels!   2000

Go Deeper

You will find the files used in Tom's presentation here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\paint\survivingpaint.

From Start to Finish

Like clockwork

Gary will create a complete clock in this session, using only a mouse and CorelDRAW 9. This clock showcases CorelDRAW's incredible set of illustration tools, and Priester leaves no tool untouched in this CorelDRAW *tour de force*, as he demonstrates:

❏ Rotating fills

❏ Molding the wood

❏ Adding the numbers and tick marks

❏ Adding the glass and brass

❏ Building the case

❏ Adding the pendulum

This session will be most helpful to the intermediate to advanced CorelDRAW user. New users should be able to catch an hour's sleep; if you're able to stay awake, however, you will get an idea of CorelDRAW's power and elegance.

COREL WORLD 2000

We're Going to Draw Around the Clock Tonight…

THIS IS a modified, and greatly simplified, version of the Seth Thomas regulator clock that I created for *CorelDRAW Studio Techniques*. I had intended to pretty much reproduce the entire chapter from the book. But wouldn't you know, CorelDRAW 9 could not open the version 7 files, and when I looked in the book, I realized that I would do a lot of things differently today. So, sighing, I started over. From scratch.

Because this drawing is very complex, I will not go though each and every step. However, the steps in this broad-strokes article should give you a understanding of how the piece was created. Each groups of steps is followed by an illustration, to help you follow along.

1. Using the Ellipse tool, draw three circles, 3", 2.13", and 2" in diameter.
2. Center all three circles.
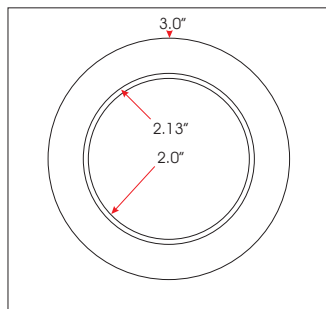
1. Duplicate the 2.13" circle by pressing the + key.
2. Select the 2.13" circle and the 3.0" circle and combine them (Ctrl+L or Combine on the Property Bar).
3. Select the duplicate 2.13" circle and the 2" circle and combine them.
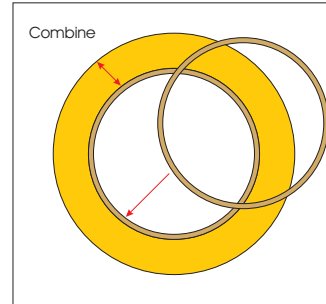
1. Drag vertical and horizontal guidelines through the center of the two O shapes. The easiest way to do this accurately is to enable Snap to Objects. Then, with the O shapes selected, drag your guidelines; they should snap to the vertical and horizontal center. Disable Snap to Objects as soon as you are finished.
2. Using the Freehand tool, draw a vertical line from the exact center of the O shapes that extends beyond the shapes by about .25".
3. Click twice on the line you just drew to toggle Rotate/Skew mode. Drag the Rotation bulls-eye down to the intersection of the two guidelines.
4. In the Angle of Rotation text entry box, enter 22.5 and press Enter. Duplicate the line (+), and enter –22.5 in the Angle of Rotation text entry box. Press Enter. You should now show a V shape.
5. Select both lines and Combine them (Combine on the Property Bar).
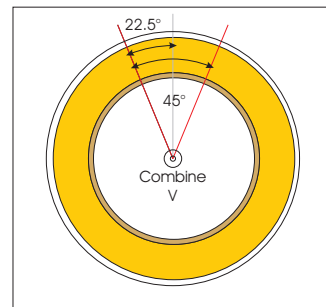
1. Select the V shape, then the larger O shape, and press the Trim button on the Property Bar.
2. From the Arrange menu, select Break Apart.
3. Delete the larger portion of the O shape, leaving just the arc at the top.

Trim
Break Apart
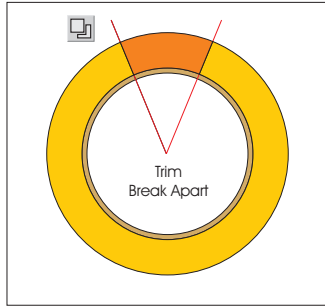
1. Insert the CorelDRAW Disc #3 in your CD-ROM drive.
2. Select the arc, then select the Pattern Fill dialog from the Fill tool flyout.
3. Check the Bitmap radio button.
4. Press Load, and load Tiles \ Wood \ Wood21M.cpt from the CD.
5. Select the arc with the Interactive Fill tool, to enable the resizing and rotation handles.
6. Resize the wood fill to about the width of the arc.
7. Check Transform Fill with Object. This option will cause the fill to rotate along with the shape.

Pattern Fill
Bitmap
Disc 3
Tiles >
Wood
Wood21M
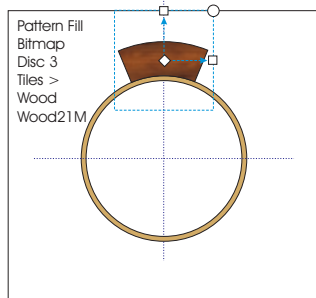
1. Click twice on the arc with the Pick tool to toggle Rotate/Skew mode.
2. Drag the rotation bulls-eye to the intersection of the two guidelines.
3. Open the Transformation docker. Select the Rotation tab, enter 45 in the Rotation Angle text entry box, and press Apply to Duplicate.
4. Press Apply to Duplicate six more times to add the other sections.
5. Group all eight sides and set them and the thinner O shape aside for a moment.

Duplicate
and Rotate
45°
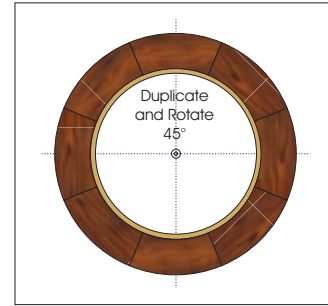
1. Using the Ellipse Tool, draw three more circles, 2.95", 2.56", and 2.15" in diameter.
2. Select the two outer circles and change the line weight to 2 points and the line color to Black.
3. Select the center circle and change the outline weight to 4 points and the outline color to White. (I've made my circle light gray in the figure below so you can see it).

2.95"

2.56"
2.15"

2 & 4
point line widths
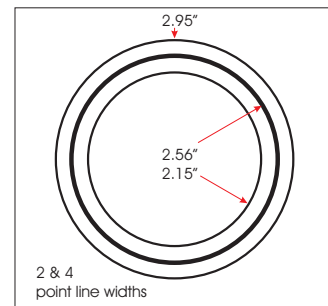
Select the white circle and move it upwards a bit.

Move center
outline upwards

black
and
white
outlines
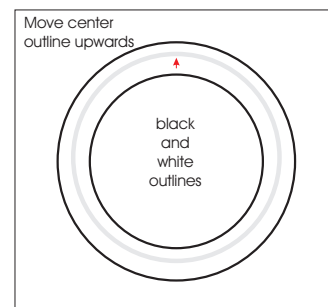
1. Select the white circle and bring it to the front (Shift+PageUp).
2. Select the Interactive Blend tool.
3. Drag from the white circle to the outer circle, then drag from the white circle to the inner circle. This creates a neon-like effect, which

when combined with transparency will give the wood a 3D appearance.

Create
2-part
20-step
Blend
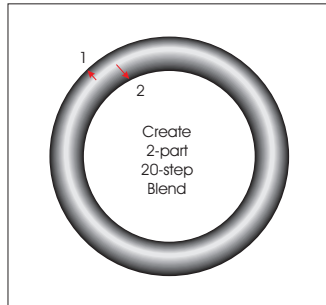
1. Center the eight grouped, wood-filled arcs on top of the blended circles.
2. Select the Interactive Transparency tool (the wine glass icon), then select the wood-filled group with the Transparency tool.
3. From the Property Bar, select Uniform, Subtract, 60%. This produces a very deep shading effect, which should be lighter. If we increase the percentage, however, we'll lose the shading.
4. Duplicate the wood-filled group (+) and change the transparency to Brightness, 60%. Ah, that's better! If you have not already done so, name and save your work and take a short eyeball break.

Apply Interactive Transparency

Subtract
60%
Duplicate (+)
Lightness 60%
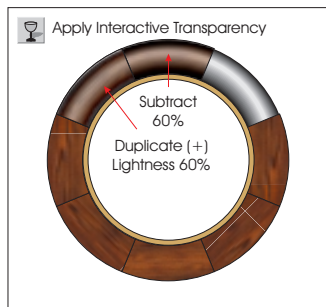
1. Select the thinner O shape and apply an Interactive Conical fill, using Gold on the top and bottom, and Pale Yellow and Walnut on the sides.
2. Place the Walnut and Pale Yellow squares closer together to produce the appearance of a shiny brass bezel. (To do this, drag the colors from the screen palette and drop them onto the fill path. Once on the fill path, you can reposition the colors by dragging them.)

Conical Fill
Gold
Pale Yellow
Walnut
Gold
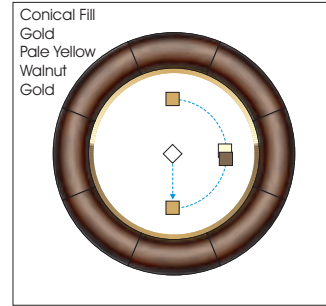
1. Draw two more circles, 1.9" in diameter with a .5-point outline weight, and 1.8" in diameter with a 1-point outline weight.
2. Center these two circles inside the brass bezel, and center both over the crossed guidelines.
3. At the top of and between the two circles, and in the exact vertical center, draw a small .5-point vertical line with the Freehand tool.
4. Click twice to toggle Rotate/Skew mode, and drag the rotation bulls-eye to the intersection of the two guidelines.
5. Using the Transformation/Rotation docker (Arrange | Transformation), enter -6 degrees and press Apply to Duplicate five times.
6. At the 12 o'clock position, construct a small triangle and then rotate it -30 degrees.
7. Delete the vertical line at the 12 o'clock position.

Create Tick   Add a triangle
Marks   at 30°
Rotate -6°

1.9" (.5 pt)
1.8" (1 pt)
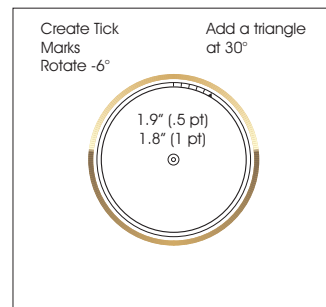
1. Group the four lines and the small triangle.
2. Click twice on the group, and drag the rotation bulls-eye to the intersection of the two guidelines.
3. Using the Transformation | Rotate docker, rotate the group -30 degrees by entering -30 in the Rotate Angle text entry box and pressing Apply to Duplicate repeatedly until all the tick marks have been placed.

4. Under the 12 o'clock area, add the Roman numeral XII, using Onyx or a similar condensed serif font.

5. Select the XII and apply a center alignment by selecting Center Alignment from the Text Alignment drop-down on the Property Bar. (The text must be selected, or the text insertion cursor inserted in the text, before the alignment options are enabled).

6. Center the XII over the vertical guideline.

7. Click twice with the Pick tool, and drag the rotation bulls-eye to the intersection of the two guidelines.

8. Using the Transformation | Rotate docker, rotate and duplicate the XII eleven times.

9. Select each hour with the Text tool and change to the correct Roman numerals. By center-aligning the text before rotating it, the edited text is automatically centered.

    Note: Many clockmakers prefer IIII to IV for Roman numeral four.

10. Duplicate the circles and tick marks, and reduce these to 20% for the second hand.

11. Change the tick marks and text as shown: Every fifth tick mark is twice the height and extends into the center of the circle. The text for seconds is placed every ten seconds, and is not in Roman numerals.
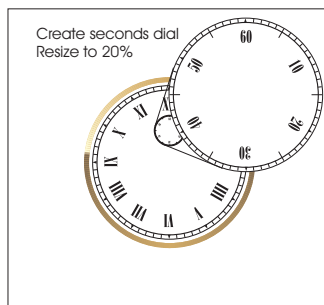
1. To create the minute hand, draw a thin rectangle starting from the center of the dial and extending into the XII.

2. Add a small circle at the bottom that is center aligned to the dial. Convert the rectangle to curves (Ctrl+Q).

3. Using the Shape tool, select and move the bottom left and bottom right nodes outward a tiny amount to taper the rectangle.

4. Add an ellipse about 1/5 down from the top. Convert the ellipse to curves (Ctrl+Q).

5. Using the Shape tool, select the top center node and nudge the node upwards with the arrow keys.

6. Select the top node with the Shape tool and change the node into a cusp (Make Node a Cusp on the Property Bar).

7. Drag the top node's two Bézier control handles down until you achieve a teardrop shape.

8. Select all three shapes and press the Weld button on the Property Bar.

9. Duplicate the minute hand (+).

10. Drag the top center control handle downwards about ¼" and stretch the hand a little bit horizontally to make the hour hand.

11. For the second hand, create another rectangle, taper it like a toothpick.

12. Add a small circle toward the bottom.

13. Add an even smaller ellipse toward the bottom.

14. Convert the ellipse to curves and convert the top and bottom nodes to cusps.

15. Drag the top and bottom center Bézier control handles toward the center to create a tapered ellipse.

16. Weld the three shapes.
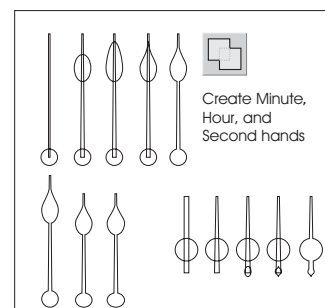
1. Position the hands so the clock reads ten minutes past ten.

2. Reduce the second hand and position it at about 40 seconds.

Position
Minute, Hour, and
Second hands

Add large circle
Apply 2-color
Linear Fill
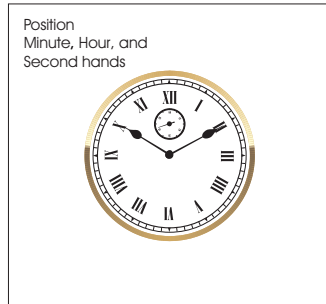
1. Select the three hands and weld them into one shape by pressing the Weld button on the Property Bar
2. Copy the hands to the clipboard (Ctrl+C).
3. Move the welded hands down about 1/16 inch and apply a 50% Uniform Interactive Transparency as a drop shadow.
4. Paste (Ctrl+V) the solid hands on top.
5. To create the small brass discs that hold the hands to the stems, add two small circles that are smaller than the circle portion of the hands.
6. Copy the bezel fill to the small circles. (Drag the bezel with the right mouse button over the small circle, and release the right mouse button.)
7. Select Copy Fill Here from the pop-up menu.

Weld 3 hands
Copy (Ctrl C)
Apply
Transparency
Paste
hands
on top

Add small
circles
Copy fill from
bezel
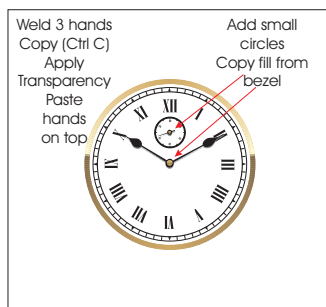
1. Construct a circle that is larger than the dial but smaller than the bezel
2. Apply a 10% black-to-white Linear fill, with the fill path going from 11 o'clock (10% black) to 5 o'clock (white).
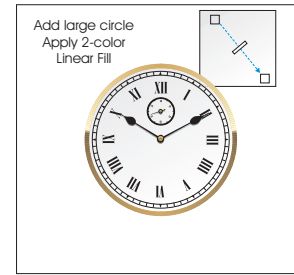
1. Construct a small square using the Rectangle tool. Rotate it 45 degrees.
2. Make a duplicate (+), then use the Shape tool to drag one of the nodes, making the square a circle.
3. Add ST (for Seth Thomas—an American clockmaker) in the center, using Copperplate Gothic Bold.
4. Group the elements and reduce them to fit on the bottom portion of the clock.
5. Add Seth Thomas directly above the logo in Copperplate Gothic Bold.

Create
Logo and
add
text

ST
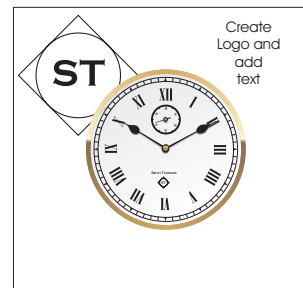
6. Make yet another circle, this time the exact size of the inside of the bezel.
7. Apply a black-and-white Radial Fountain fill.
8. Drag the white portion of the fill up and to the left, and reduce the length of the fill so the bottom right portion is opposite the Roman numeral V.

Add Circle
and apply
Radial
Fill
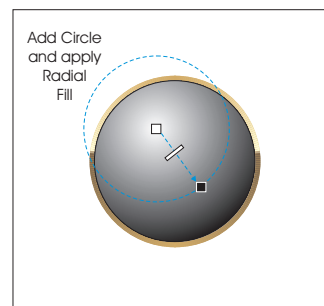
Select the circle and apply a Uniform, Multiply, 70% Interactive Transparency, to give the illusion of glass.
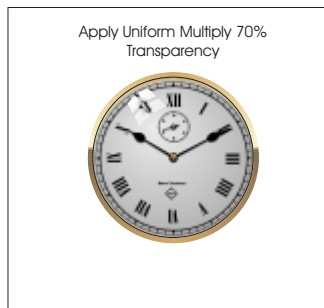
1. Draw a square and duplicate it three times, space the squares evenly, and make a window pane.
2. Combine the four squares.
3. Reduce the width of the four squares to about 60%.
4. Position the four squares over the IX.
5. Apply a Straight Line Interactive envelope and taper the outside edge.
6. Apply a Single Arc Interactive envelope and match the outside curve to the curve of the bezel.
7. Adjust the inside curve so it is less severe.
8. Apply a White fill.
9. Click twice to toggle Rotate/Skew, drag the rotation bulls-eye to the center of the clock, and rotate the window pane highlight to the 11 o'clock position.
10. Apply an Interactive Linear Transparency that matches the fill path of the clock face.

And that's all there is to it!
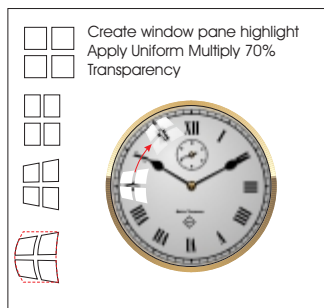
Finishing Touches

1. Add a marbled paper-filled background, using a marbled paper fill from the Tiles\Paper folder on CorelDRAW Disc 3.
2. Create a circle the same size as the clock, and apply an Interactive Drop Shadow.
3. Send both the circle and the shadow to the back (Shift+PageDown), then send the paper background to the back.

Then send out for a cold one, or your weakness of choice—you're done.　2000

Go Deeper

You will find many of these logos here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\draw\logos.

Training the Trainers

Strategies for teaching DRAW

CorelDRAW is an awesome program with a vast array of functions and options. Because it's so packed with tools and features, learning it is quite a challenge. Not surprisingly, teaching DRAW can be quite a challenge, too. In this session, we will show you how to smooth the learning curve with proven methods that work at all skill levels. You will learn how to:

❏ Keep your classes fun and exciting for both you and your students

❏ Create quick and easy handouts

❏ Share tips and tricks of the pros

❏ Incorporate design principles and typography

This session is designed for anyone offering or thinking about offering training in CorelDRAW.

To Color and Back

Going from gray to color to gray

No, this is not a seminar on Grecian Formula 44, but rather a tutorial on colorizing black-and-white photos. We'll use several images, old and new, and show you the process of:

❏ Manually coloring a grayscale image

❏ Creating a Duotone photo to simulate sepia tones

❏ Masking difficult areas, such as hair

❏ Taking a color photo, removing the color, and coloring one specific region

This session is designed for intermediate PHOTO-PAINT users who want to understand techniques for adding color to black-and-white photos.

CoreL WorLD 2000

To Color and Back

WITH A click of a mouse in Corel PHOTO-PAINT, you can change a color photograph to a duotone, add color to a grayscale photo, and dramatically change the color values of a photo that's not quite right.

In this session, we will concentrate on creating duotones, then explore methods for colorizing grayscale photographs. The options are limitless, especially with a few basic procedures under your belt and a casual eye on the Undo tool.

Creating a Duotone

A duotone is a grayscale image that is colored with two inks. In most cases, one ink is black and the other is colored, although you could also choose a shade of gray for the second color. In the 1950s, photographs were often taken with yellowish-brown sepia tones. You can see the sepia color in Figure 1, a photograph of my parents' wedding. It also shows the fact that the Clone tool could be used to remove the scratches, but that's a topic for another session.

Not too long ago, creating a duotone was a messy, tedious chemical process (see the sidebar at the end of this article for the painful details). But now you can keep your hands clean and create duotones in PHOTO-PAINT.

What is old is new again, and duotones, especially those using a color that mimics sepia tones, are back in vogue. The good news for digital artists is that PHOTO-PAINT has built-in commands to create quick monotones (one ink), duotones (two inks), tritones (three inks), and quadtones (four inks).

CONVERTING TO DUOTONE

To convert an image to the Duotone color mode:
1. Click Image | Mode | Duotone (8-bit).

Note: You no longer need to convert the image to grayscale first, before accessing the Duotone command. PHOTO-PAINT 9 automatically converts colored photos to grayscale for you.

2. From the Curves tab, choose Duotone in the Type list box.
3. Choose the desired ink color for duotone conversion:
   - Double-click an ink color in the Type window, or
   - Click the Load button and select a preset duotone file, such as dcolor1.

   The preset files are located in the \Graphics9\Custom\Duotone folder.

To simulate a sepia tone image, choose a color similar to Pantone 145CV.

The Duotone dialog box contains a tone curve grid consisting of ink curves that will be used for the conversion. The horizontal plane (x-axis) displays the 256 possible shades of gray in a grayscale image (0 is black; 255 is white). The vertical plane (y-axis) illustrates the intensity of

Figure 1
Mom and Pops, captured in a sepia moment
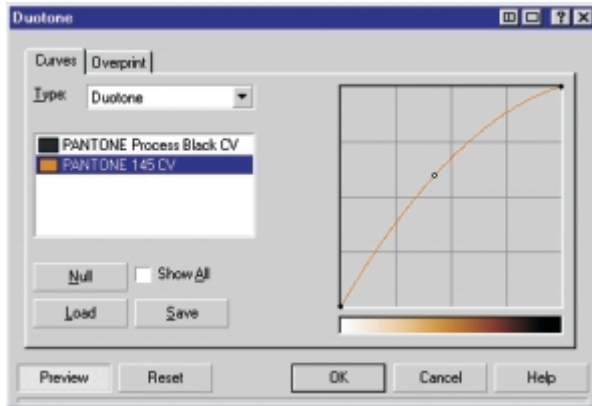
Figure 2
Duotone dialog box, with a modified tone curve

the colored ink (from 0 to 100 percent) that is applied to the corresponding grayscale values. By adjusting the tone curves, you can control the color and intensity of the ink that is applied to an image.

To adjust the duotone curve of an ink:

1. Click the ink tone curve on the grid to create a node.
2. Drag the node to adjust the percentage of color at that point on the curve.

After you adjust the tone curves for the duotone conversion, you can determine which colors will overprint when you print your image. Overprint colors are the colors that have too much ink when two or more colors overlap. When the image is displayed, each color is applied on the screen in sequence, creating a layered effect. The Overprint tab in the Duotone dialog box displays all instances where the colors you choose for the duotone conversion can overlap. Associated with each instance is the color that is produced by the overlap. You can also choose new overprint colors to see how they overlap.

Tip: You can save the customized duotone color and tone curve information in a file for later use.

ISSUES TO WATCH OUT FOR
If you plan to import the image into CorelDRAW and print separations, you must export it from PHOTO-PAINT as an .eps or .dcs file. These two formats will retain spot color information in CorelDRAW. If you export as .eps, be sure to import the file into CorelDRAW using

the EPS-Encapsulated PostScript (not PostScript Interpreted) filter.

When printing EPS-generated composites to some printers such as the Tektronix, you may only get a grayscale printout. To temporarily resolve this issue, convert the duotone to CMYK and print, then convert back before you separate to film.

Colorizing Black-and-White Photos

You've probably seen old black-and-white movies that have been colorized. Using masks and transparent fills, you can easily color your black-and-white photographs in PHOTO-PAINT. So dig out that old shoe box in your attic and let's add some color to the photo shown in Figure 3.

1. Convert the image to RGB by selecting Image | Mode | RGB Color (24-bit).
2. Use the masking tools to mask around the boy's face. To help you mask as accurately as possible, select Mask | Mask Overlay to place a transparent mask. Use the Additive Mode to add several mask regions as one.

Going Further

If you're not satisfied with what PHOTO-PAINT can do with duotones, you can purchase the Powertone plug-in from INTENSE software. It's an easy-to-install piece of software, accessed through PHOTO-PAINT's File | Export menu. The only catch is that you will need Adobe products (PhotoShop, Illustrator) to work with final images, as the EPS and MDCS formats produced do not import correctly into CorelDRAW 9. Powertone costs $249 USD, and a demo version is available at intensesoftware.com/products/powertone/index.htm. The 281KB download includes a PDF manual, and permits you to output two separations before you must buy a serial number.

Figure 3
The original photo before colorizing

3. It's best at this point to save the Mask as a Channel in case you need to use the mask at a later time. So select Mask | Save | Save as
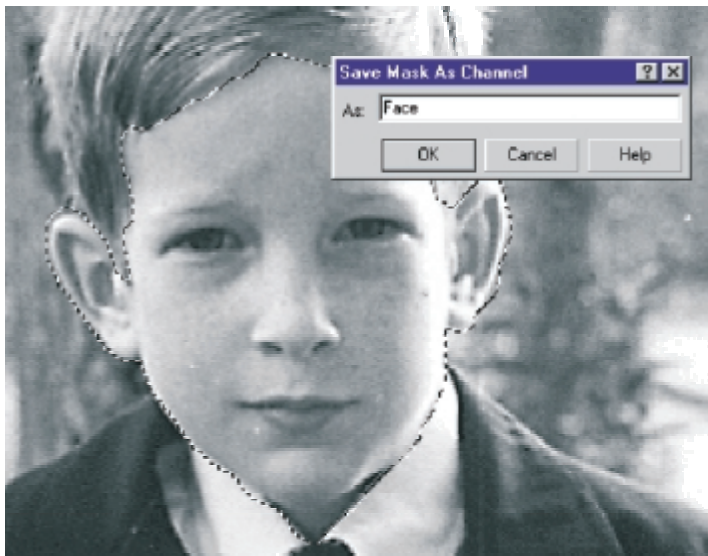
Figure 4
Saving the face mask as a channel

Channel. Enter a name such as Face, as we have in Figure 4.

Now for the hard part. Ultimately, you need to fill the mask area with an appropriate skin color. While you can use one of the skin color palettes, such as Flesh.cpl in the RGB\People\ folder, you'll get more realistic results by swiping the fill from a color photograph of a subject with the same skin tone. For this project, I opened a photo of a boy (885065.wi in the \Photos\Child folder of CorelDRAW Disc #3).

Figure 5
Right-click a color with the Eyedropper to fill objects with that color.

4. Point to the skin tone and right-click with the Eyedropper tool (Figure 5) to assign this color as PHOTO-PAINT'S current fill.

You could also color the skin by using the Image | Adjust | Tone Curve dialog box to increase the Red channel and decrease the Blue channel. Or you could manually apply a mix of yellow, a little bit of magenta, and less of cyan. Some experimentation, of course, is required to achieve the desired skin tone.

5. Once you have assigned the desired fill, select the Fill tool and choose a transparency of about 70%.

6. Click within the mask to fill the face. If the color is off, undo and experiment with the transparency level. If necessary, choose a new fill and repeat.

   Tip: Some experts like to add the color on a separate object, as a way of protecting the original image. If you don't like the color you added, you can simply clear the object and start over. Or you can hide the object (click the Eye icon in the Objects docker), create a new object, and experiment with different colors.

7. Select Mask | Remove to remove the mask around the face.

     Tom Anzai

Figure 6
He's looking a little less peaked now.

Before we move onto other parts of the image, let's spend some time with the eyes.

1. Zoom into the eyes.
2. Select the Effects tool from the Paint tool flyout, then the Tint tool from the Effects drop-down list shown below. Tint the eyes by selecting a color from the Color Palette and dragging over the eyes.
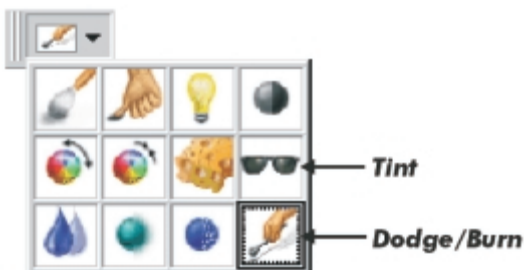
3. Select the Dodge and Burn tool from the Effects drop-down list, and use the Burn Shadow options from the brush type drop-down list to darken the irises of the eyes.

4. Continue the process by individually masking the lips, hands, hair, suit, and tie. Choose the appropriate fill from the 885065.wi sample image, then fill the masked region. Remember to use a high transparency fill level (higher than 60%), and experiment until the desired color is achieved. Also remember to save the mask as a channel (select Mask | Load to recall the masked region) and remove it before you work on another region.

Figure 6 shows the result of our work. Now you're ready to colorize just about any black-and-white photograph. This example used a person, but you can add color to any grayscale subject, and even add new colors to an existing color image.

Color to Gray and Back to Color

Have you seen the Yellow Pages ad where everything is grayscale except for one yellow object? We can use this technique and apply it to our project. And the good news is that this will take only a few steps to accomplish.

1. Start with the full-colored photo of a boy and his apple shown in Figure 8 and convert it to grayscale (Image | Mode | Grayscale), then back to RGB (Image | Mode | RGB Color). Alternatively, you can wipe out any color by selecting Image | Adjust | Desaturate.
2. Select the Clone tool from the Toolbox. In the Property Bar, click the down arrow beside the Clone icon (far left) and select the Clone From

Figure 8
The full-colored original photo.
Not too appetizing, is it?

Figure 9
The Clone From Saved tool
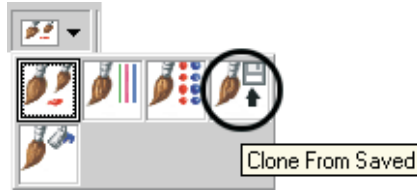
Saved tool (Figure 9). Set Transparency and Soft edge to 0, and a Nib size of about 8 pixels.

3. Drag on the apple to bring back the image's original color. Choose a smaller Nib size when you are brushing around the boy's fingers. This is where you would have to zoom in and pay particular attention to where you brush. You may decide to mask the apple before you apply the Clone From Saved tool.

Either way, it's quick and easy to accomplish the finished result in Figure 10. **2000**

Figure 10
Almost good enough to eat

In the Good Old Days...

Not so long ago, creating a duotone was a precise, tedious, and fairly messy process. Here's how the traditional method was described to me by Tony Hayden of the Aloha Photographic Studio & Gallery:

In the small package of sepia toner mix, there are two smaller packets. The first is a bleach that takes away the image pretty much. There is a step between the bleach and the toner that brings the image back to life, but in sepia. It is advised that prints going through this process should be printed a bit darker than normal.

Then there is the usual wash process. These are powder mixes. A good camera store should have it in stock, not too expensive, or they should be able to order it. There is Potassium Feriacyanide in the bleach, and I also use a concentrated dose of it to bleach or lighten parts of some photos that are too dark, but that is very tricky. You might be interested in using Kodak's selenium toner. It gives a purplish black tone to the print and I find that fiber enlarging papers react in a better way than resin coated papers. A small amount, 2-4 ounces, are added to the hypo clear agent, and you leave the prints in for around 7 minutes. When I am going to exhibit a black and white print, I always use it.

David Huss

Monday • 3:30pm

It's a KnockOut!

Corel's hot new masking tool

One of the most challenging photo-editing techniques is the use of masking tools to select specific areas of an image. Last year, Corel acquired rights to KnockOut, an incredible automatic selection tool. KnockOut is a standalone application, also expected to be included in a version of PHOTO-PAINT 10, to be released in the fall. This session explores how to isolate subjects from their backgrounds with KnockOut, and will cover:

❏ Identifying subjects that are and are not good candidates for KnockOut

❏ Determining the outside and inside of the subject

❏ Using Preview mode to obtain the best results

❏ Selecting colors that are inside the subject area

❏ Exporting and tweaking the resulting mask in PHOTO-PAINT

This session is for graphic designers who want to be able to use KnockOut to make detailed or complex masking selections. It does not require a working knowledge of PHOTO-PAINT.

Corel World 2000

The Power of
The KnockOut

KNOCKOUT IS the best automatic selection filter on the planet. I know that sounds a little extreme, but once you learn to use this program, I'm sure you will agree. It was created by Ultimatte, a company that has won numerous film awards, including an Oscar, for their work in blue screen technology. Blue screening has been used in film and television for years. It is the electronic trickery that makes your favorite weather forecaster appear to be standing in front of a map or in the middle of a tornado.

It is fair to say that Ultimatte has a lot of experience in the field of isolating foregrounds from their backgrounds, and they applied what they knew to the creation of KnockOut for the Mac (logical choice). It cost $500.00 (questionable decision) and required a hardware copy-protection device (terrible decision). To put it kindly, KnockOut, while a terrific program, wasn't a runaway success. Corel acquired the product in 1999, cut the price in half, removed the copy-protection device, and released version 1.5 on both Windows and Mac platforms. Enough history, let's see how it works…

Using KnockOut

Before opening an image, we need to consider RAM requirements of this program. Why? Because KnockOut likes RAM. Lots of it. You need at least five times as much available RAM as the size of your image. That is the minimum. For best performance, the amount of RAM in your system should be eight times the size of the image. With RAM prices as low as they are today, this isn't a big deal, but more than once I have talked to users who scanned in their favorite photos at 1440 dpi (since their printer operates at 1440 dpi) and were amazed they had difficulties working on 60MB images with 24MB of system RAM.

DEFINING THE SELECTION AREA

The principle behind using KnockOut is simple. You tell it what should be inside and what should be outside, and KnockOut makes the selection.

Using the Inside Object tool (which works like a pencil or line tool), select an area inside of the part of the photograph you want to keep, as shown in Figure 1. Try not to get too close to the edge of the subject matter, which contains both foreground and background information. Of course this brings up a good question: How close is too close? You want to make sure that the inside selection goes through all of the colors that are near the edge of your subject. Our little teddy bear is almost all white, so the selection line can be pretty loose. If the subject has lots of colors, you need to make the inside selection closer to the edge—but not too close. Once the inside selection is finished, you can use the Inside Object tool to add (Shift key) to or subtract (Alt key) from the selection.

Next, use the Outside Object Tool to outline the subject (Figure 2). Again, be careful not to include any of the colors that

Figure 1
Selecting the
inside area
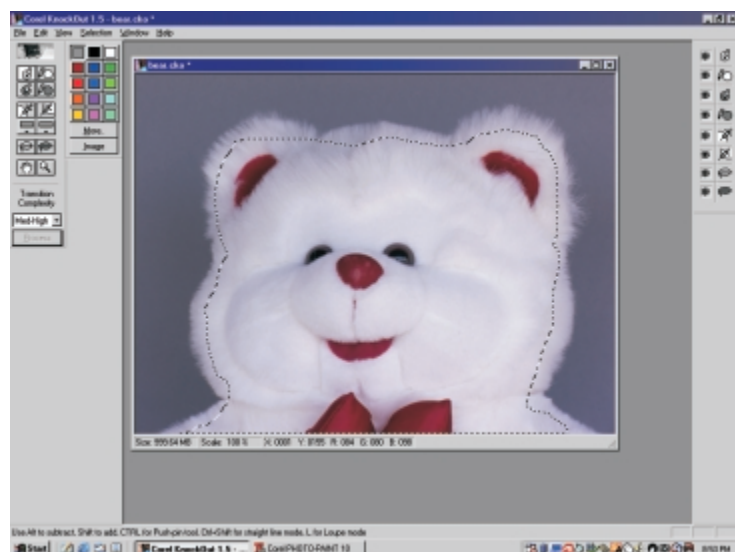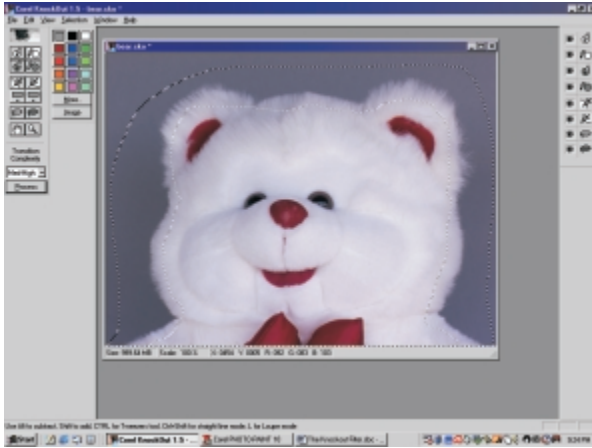
Figure 2
Outlining the subject

make up the edge of your subject when making the outside selection.

You should see two lines of "marching ants" on the image that define three zones—inner, outer, and transition. The outer zone defines the background, the inner zone defines the object being selected, and the transition zone contains both background and foreground information.

Processing the Selection

Once you've finished telling KnockOut what's in and what's out, click Process. At this point, you can choose between three possible views of your subject: the original (Ctrl+1), the knocked-out version (Ctrl+2) where the old background is replaced with a new and temporary one, and the alpha channel or masking image (Ctrl+3). Use the key combinations to move between these

views. Because the subject you are isolating may be the same color as the default background color of the knock-out view, KnockOut allows you to select a different color from an on-screen palette.

SAVING AND EXPORTING

Once you are happy with the selection, you can save it as a .cko file, which can only be read by Corel KnockOut. Of course if that were all you had, you wouldn't have much. To be able to use this selection for editing, you must export it to either PHOTO-PAINT or (dare I say it?) Adobe Photoshop. The user's manual that comes with Corel KnockOut is a little vague on the subject of Photoshop. Here is what you need to do:

1. Export the selection as a Photoshop (.psd) file.
2. Using Photoshop, open the file.
3. Go to Channels, open the alpha channel as a mask, then cut and paste the isolated subject.
4. Now comes the most important part: Use the Remove Black Matte feature, and the selection is complete.

PROCESSING TRANSITIONS

How the Process button acts on the image depends on the transition complexity setting. There are several choices available.

Figure 3
This image combines detail and basic transitions.
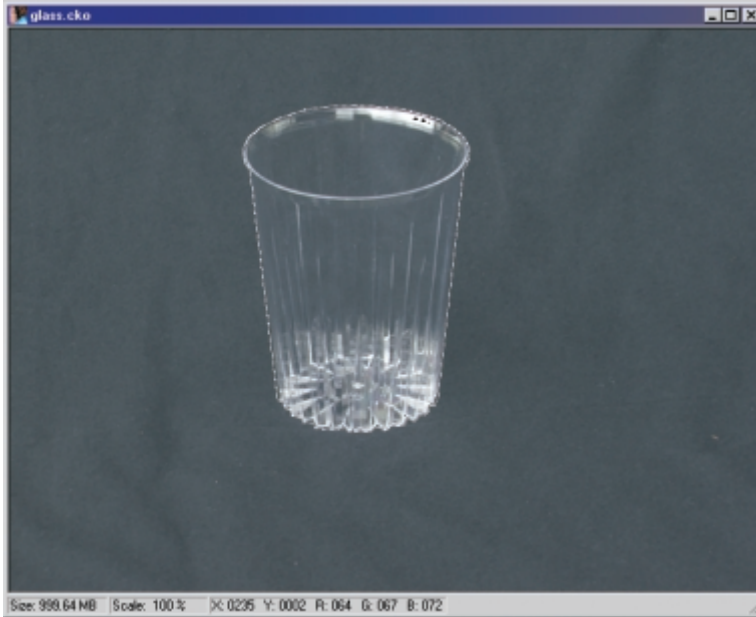
Figure 4
An object with challenging transitions

background information will get included in the transition zone…not good. The Low-Med setting is a good choice for the photo that appears when you first open the program (Figure 3). Don't let all that hair trick you into using a higher transition complexity. The background has only two basic colors, and the color of the subject's hair is in sharp contrast to those background colors. You could almost do it with a Low setting, except for the transparency of the bubble.

Speaking of transparency…

The glass in Figure 4 is tough because it (as Ultimatte was fond of saying) isn't about edges; it is about transitions. The challenge is that the glass is transparent and the mask must allow that transparency to show through, which requires the Med-High setting to sort it out. The background is textured, resulting in noise or details which must be removed. Figure 5 shows the glass after the original background was removed and a new one generated in PHOTO-PAINT.

The High transition complexity setting should be reserved for subjects with many different colors and or backgrounds with multiple colors.

This has been just a glimpse of what this application can do. It has a separate set of tools for isolating shadows as well as several other tools for fine-tuning the operation of this filter, which we will cover in the session. But it should already be clear that KnockOut is, as Corel describes it, "an essential part of a professional designer's toolbox." 2000

Med-High is the default setting, and it's a good choice for our teddy bear. He's a bit hairy, but the background color is uniform (dull), as are the colors in the bear.

The Low setting is fast and good for backgrounds and subjects containing very few colors. If it is used on a complex image,

Figure 5
Mission accomplished!

The Script Shop

Taking the tedium out of CorelDRAW

This is the first of a series of workshops devoted to the scripting and automation of tasks. Each of these informal seminars will explore a particular aspect of scripting, this first one placing CorelDRAW itself front and center. If you are bothered by tedious or repetitive tasks, if you suspect there is a better route to take, if you think a script could make your life easier, you would do well to attend these sessions. If you have specific issues you want addressed, we suggest you visit the Help Center prior to this workshop—our aim is to focus on the particular needs of those attending.

The Creative Individual

Will you be obsolete in the digital age?

The Digital Age has given us remarkable power to design and create, to achieve and distribute. Almost anyone can push a few buttons and *voilà!*, you have "art." If that is all it takes to produce effective, impressive Web pages or videos, are writers and artists becoming nothing more than "content providers"? Beyond the aesthetics, how will this affect future developments and creativity? Ever pragmatic, Grotta looks at the future and recognizes that successful bottom line management will depend more and more on creative, unusual visuals, designed and executed by creative individuals. But in the short run, will this break the budget?

❏ The coming new Renaissance may change the business of art, as well as the art of business.

❏ Are art and artists important components of the business world, or simply useful communication tools and pleasant appendages to our lifestyle?

❏ Dollars and Sense: Are you really saving money and time in the long run?

❏ Great creativity makes for good business, but is there a point of diminishing returns?

Tom's Terrific Tips

A handful of CorelDRAW tricks from an efficiency expert

Finally! It's my turn to reveal the list of CorelDRAW features that I most frequently use. These tips are designed to cut corners wherever possible and make the program sing. In composing this melody, we'll take a look at:

❏ Interface tricks

❏ Zooming and selecting shortcuts

❏ Working with color features

❏ Troubleshooting secrets

❏ Undocumented tips

Hang onto your hats…

This session is designed for intermediate to advanced CorelDRAW users who want to learn some useful, and not-so-useful-but-neat-to-know tips and tricks.

Tom's Favorites

I THOUGHT this session would be easy to do until I had to whittle my favs down and document them. Though all of us have our favorite ways to do things in life, sometimes it's hard to categorize them into some sort of logical sense. But here goes my list of CorelDRAW features that I frequently use and would like to share with you.

Interface Tricks

Setting up the CorelDRAW screen is much like re-arranging your car interior after your husband/wife/son/daughter/thief has been behind the wheel. You probably need to adjust the seat, move the mirrors, choose a different radio station or CD, and then find the damn keys! Fortunately,
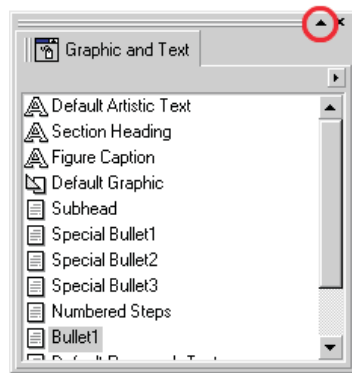
Figure 1
Thought they got rid of roll-ups? Think again!

CorelDRAW not only allows you to display or hide screen elements, but also lets you program shortcut keys, change ruler settings, and tear off toolbars.

Here are some of the things you can customize in CorelDRAW:

- Tear off a docker from the side to float anywhere on the screen. Once you do this, the docker becomes a roll-up. Click the up arrow in the upper right corner (circled in Figure 1) to temporarily roll up the window. Click again to roll it back down. And they told you that they got rid of roll-ups in version 9!
- Double-click a docker to quickly make it a roll-up. Repeat again to convert it back to a docker.
- Group floating dockers by dragging one on top of the other. To ungroup, simply drag the tab of one to another area of the screen.
- Tear off a tool flyout such as the Fill tool and dock it to any part of the screen (Figure 2). My favorite location is in the free space right below the Toolbar.
- Reset the ruler's "0" setting by dragging the box in the top left corner where the rulers intersect, and placing the crosshair cursor at the desired coordinate. Double-click the box to reset and move the ruler back to its default location. This is a great way to change the vertical ruler's "0" setting to the top of the page from the default bottom of the page.

Figure 2
Tear off a flyout and stick it where you want for easier access.

Figure 3
Move your rulers down closer to your objects.

- Hold the Shift key and drag the box where the vertical and horizontal rulers intersect in the top left corner, to move the ruler down into the drawing page (Figure 3). Hold Shift and double-click the intersection area to reset.
- Hold the Alt key and drag a button in any toolbar or toolbox to another toolbar or toolbox. Hold Alt and drag to an blank white space of the screen to delete it.
- Hold Ctrl+Alt and drag a copy of a button in any toolbar or toolbox to another toolbar or toolbox. I like to move the Guideline Snap button to an area where it's always accessible.
- To change the appearance of an icon in the toolbar, activate the Options dialog box (Ctrl+J) and select the Customize | Toolbars category. Right-click the icon and select Properties. The Button Properties dialog box (Figure 4) appears. To access basic commands such as Undo in the Properties dialog box, right-click to activate the pop-up menu.
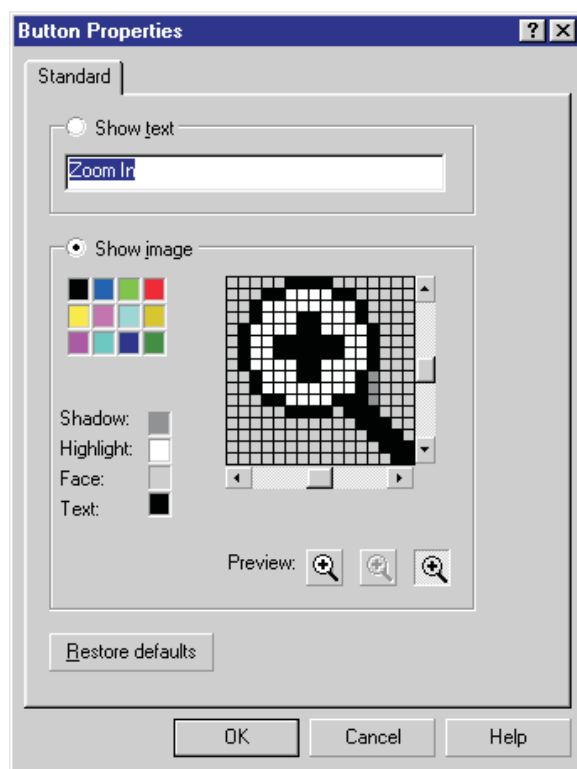
Figure 4
Ever tried to make a picture with small squares? Now's your chance to make a new icon!

Figure 5
Impress your friends by putting Memory and Swap file allocations in your Status Bar. Now if only we knew what they meant…

- To reset a toolbar back to the original buttons, right-click it and select Toolbars. Click Reset in the Options dialog box, and answer Yes to the confirmation prompt.
- Customize what's displayed in the Status Bar, as in Figure 5, by right-clicking it and selecting Customize. Click Status Bar in the list and drag any component to the Status Bar. If you need to reset, right-click the Status Bar and select Reset Status Bar.
- Did you know that you can enter arithmetic expressions in the Property Bar? Try it. To increase an object's height by 75%, enter *.75 after the numbers appearing in the Height box. To decrease an object's size by half, enter /2 after the numbers appearing in the Property Bar. To find out how much wood a woodchuck... You get the point, right?

Zooming and Selecting

Zooming and selecting are a necessity when using a program such as CorelDRAW. We all know how to do this, but here's my list of quick shortcuts.

- Press the following keys to zoom:

F2	Zoom in
F3	Zoom out
F4	Zoom to all objects
Shift+F4	Zoom to page
Shift+F2	Zoom to selected objects
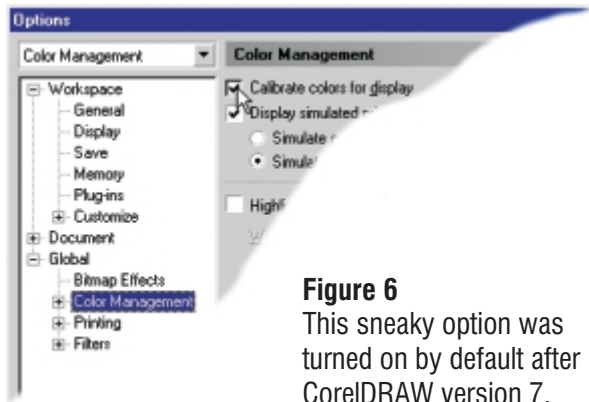
Figure 6
This sneaky option was turned on by default after CorelDRAW version 7.

- Hold Alt and touch any object to select it.
- Hold Alt and click to select an object that is obscured by another object.
- Hold Alt with the Shape tool to marquee with a freehand shape.
- Double-click the Pick tool to select all objects on the page, including any that may be on the desktop as well as those inside the page area.
- Press Ctrl+A to select all objects.
- Select File | Select All, followed by the desired choice, to select all text, guidelines, or nodes.
- Hold Ctrl and click on grouped objects to select a child object. Once the child is selected, you can move it, delete it, size it, and change its properties.

Working With Color

Try the following the next time you need to apply some color to your objects:

- Turn off Calibrate colors for display in the Options dialog box (under Global | Color Management—see Figure 6) for true RGB display colors. Turn it back on only when you are creating documents to be output on the printing

Figure 8
Use the right-drag pop-up menu to copy properties such as fills and outlines.
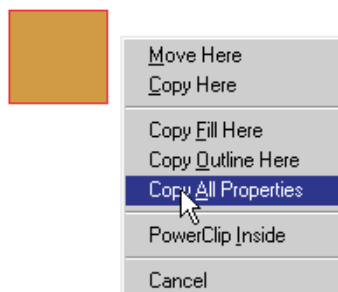
press. Add a Calibrate colors button to your toolbar to quickly turn this feature on and off.
- Double-click the Fill or Outline boxes in the bottom right corner of the Status Bar to activate the dialog box that contains the current fill or outline.
- Point and hold on a color in the Color Palette to display various tints of that color (Figure 7).
- Hold Ctrl and click on a color in the Color Palette to add 10% of that color to the object's fill.
- Change the fill or outline color of an object by dragging the color swatch from the on-screen Color Palette to the outline or fill of the object.
- Copy color outline and fill attributes from one object to another by right-dragging one object to another. Select the appropriate command from the pop-up menu shown in Figure 8.
- Click the Mixers tab in the Uniform Fill dialog box (Shift+F11) to select a complimentary hue with a lighter, darker, cooler, or warmer variation.
- Select Window | Dockers | Color, or click the Color Docker Window button in the Fill flyout, to activate the Color docker and apply any color as the selected object's fill or outline.
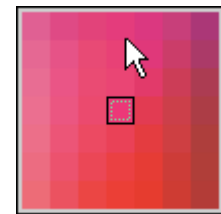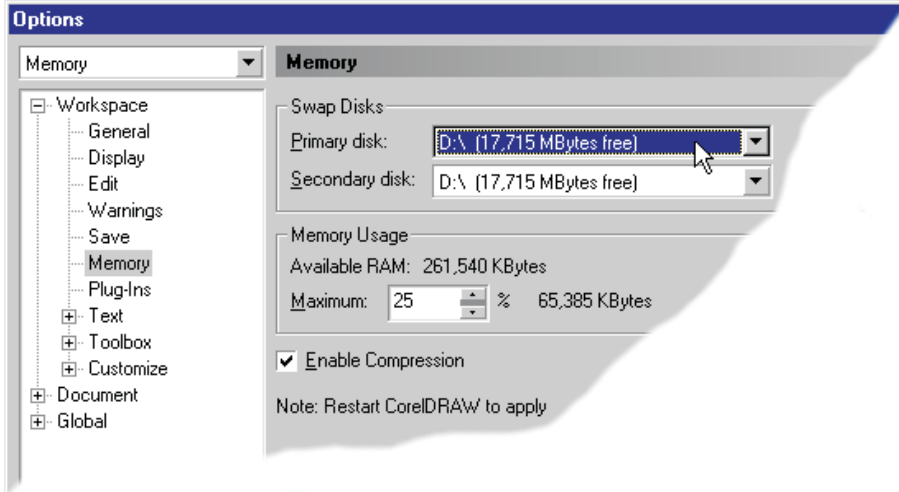

Figure 7
Need a different tint? Hold down on the color in the Color Palette.

Troubleshooting

Here are some tips you can try to increase your CorelDRAW performance and reset the factory defaults.

- In the Workspace | Memory category of the Options dialog box (Figure 9), set the primary and secondary swap disk to your largest (and preferably fastest) hard disk. Change the RAM allocation percentage to your preference at the expense of other applications that run in the background.
- Hold F8 when you start CorelDRAW, to reset the workspace (toolbars, toolbox, defaults, styles, and any other setting in the Options

Figure 9
Set the Primary and Secondary swap disks to your largest, fastest drive.

may be up to 40MB and require over an hour (at 33.6kps) to download the necessary files to your computer. *[Editor's note: Good thing we also include them on the Conference CD…]*

dialog box) back to the factory defaults. Click Yes to the reset prompt. This also works with PHOTO-PAINT 9, and version 8 of both programs. Always use this method before
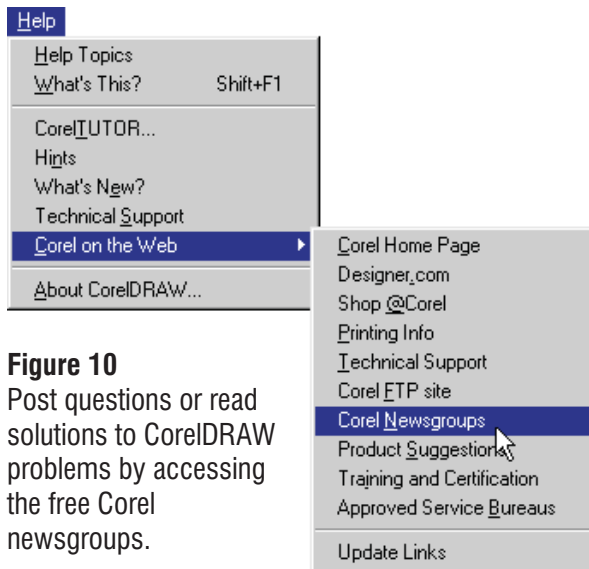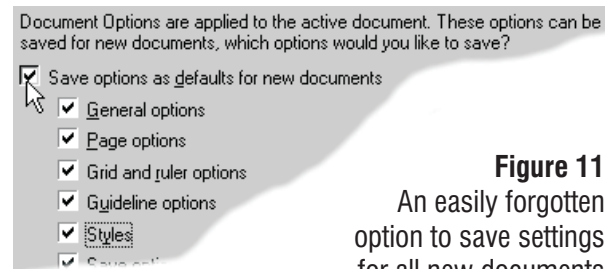

Figure 10
Post questions or read solutions to CorelDRAW problems by accessing the free Corel newsgroups.

resorting to a full reinstallation of the program.
■ Post questions or review answers in the Corel newsgroup. With an active Internet connection, select Help | Corel on the Web | Corel Newsgroups (Figure 10) to display the available newsgroups. For example, visit cnews.corel.com/corelsupport.draw9-draw for the CorelDRAW 9 newsgroup.
■ Download recent patches and maintenance releases by selecting Help | Corel on the Web | Corel FTP site. Note that some downloads

Setting Defaults for New Documents

This should be easier than it is, but CorelDRAW has evolved from its simpler predecessors to a fully customizable application that allows you to choose specific settings for just about anything. In the process, it has hidden the way that you globally set defaults whenever you create new documents. Here's how you do it:

1. Choose any of the Document options in the Options dialog box. For example, click the + sign beside Document in the category list, or double-click Document. You'll see sub-categories expand beneath Document. Click Styles and change any of the listed styles: Default Graphic, Default Artistic Text, or Default Paragraph Text. Choose from the options listed to the right (e.g., Fill, Text, Outline). In some cases, you may need to click the Edit button to make your changes.

2. When finished, click the Document category on the left side of the Options dialog box.

Figure 11
An easily forgotten option to save settings for all new documents

Shadow

Figure 12
Problems with Interactive Drop Shadows? Try blended shadows instead.

3. Check Save options as defaults for new documents, as illustrated in Figure 11. Then check all options, including Styles, or the styles you changed will not be used when creating new documents.

The last step is very important. You don't want to know how many users, even veteran CorelDRAW users, have posted this question in the Corel newsgroup!

Soft Shadows Without the Drop Shadow Tool

Before the development of the Interactive Drop Shadow tool in version 8, CorelDRAW users had to find another way to create a soft shadow. One of the better ways was to implement a series of grayscale blends to simulate a shadow look, as in Figure 12.

Even today, this method may be more reliable than using the Interactive Drop Shadow tool, should you experience file bloating or printing problems.

Here's how to do it:

1. Create the object or text and color it with a light gray color (10% Black).
2. Press Ctrl+D to duplicate the object and color it black.
3. Select the Interactive Blend tool in the Toolbox.
4. In the Property Bar, enter 15 steps or so in the Number of Steps box.
5. Point to the light gray object and drag to the black object to blend them together.
6. Select the original black object. Make sure the Status Bar confirms that you have selected the Control object.
7. Copy then Paste a separate object on top of the black object.

8. Apply a color of your choice to complete the soft shadow.

Print Merge

While it may not be one of the most frequently-used features of CorelDRAW, print merge is an excellent way of substituting text from one printout to another. At Anzai! Inc., we use this feature when we want to "gang-print" course certificates. First, we create a list of student names and the course title in a .txt file, then we print merge it to a certificate created in CorelDRAW, et violà! Out comes a personalized certificate for each student (Figure 13).

Making print merge work requires that you follow strict guidelines. If it is not correctly set up, you will get an error message when you attempt to merge. Always follow these rules:

- Only Artistic text (not Paragraph text) in the drawing can be merged.
- Merged text will maintain any formatting and transformations applied to the original text, except for blends, extrudes, fit to path, or individual character attributes.
- The text in the drawing must be identical to the corresponding text in the .txt file. This includes capital letters, spaces, line breaks, and blank lines, wherever they occur.
- The merge file must be saved as a DOS ASCII or Windows ANSI .txt file.

You'll first have to add the Print Merge to the File menu.

1. Click the + sign beside Customize in the Options categories and select Menus. A list of menu

Figure 13
Do a print merge for invitations, certificates, or greeting cards.
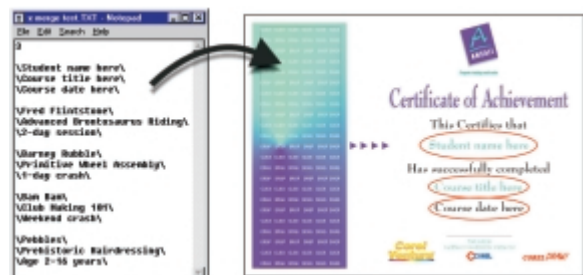
commands appears in the middle area of the dialog box.

2. Click the + sign beside File & Layout, then click the + sign beside File. Scroll down the list of commands and select Print &Merge…

3. Click Add, then click the Down button repeatedly until the Print &Merge… command is just above the &Print command. This determines the placement of the Print Merge command on the File menu.

To prepare the merge file, you will need to create a new document in your word processor or text editor. Your first entry is the number of strings of Artistic text in the drawing you want replaced.

Note: A common mistake is for users to enter the number of printouts required instead of the number of Artistic text strings to be replaced in the drawing. Now that I've pointed this out, you won't make this mistake, right?

The second and subsequent lines contain the text exactly as it appears in the drawing, with a backslash (\) before and after each string. The strings can either be typed on separated lines as follows:

> \Name\
> \Company\
> \Address\

Or each string can be typed on one complete line as follows:

> \Name\\Company\\Address\

Figure 14 illustrates the two different methods of specifying the merged text file.

When you are finished, save the file in ASCII or ANSII .txt format and close the document.

To merge the text file with the drawing:
1. Open the drawing you want to merge the text with.
2. Select File | Print Merge.
3. Select the text file and click OK.
4. Choose desired print options, if any.

CorelDRAW merges the text with the drawing and sends the pages to the printer.

When you tried following the instructions, did you receive an error when you selected the Print Merge command? This can easily happen for a variety of reasons. Here are some things to check:

- Make sure you close the merge .txt file before selecting the Print Merge command.
- Save only as a DOS ASCII or Windows ANSI .txt file. Word processing formats such as Word or WordPerfect will not work.
- Print Merge is case sensitive. Type the text exactly the way it is typed in the CorelDRAW document.
- Type backslashes (\), not forward slashes(/), in the merge .txt file.

or
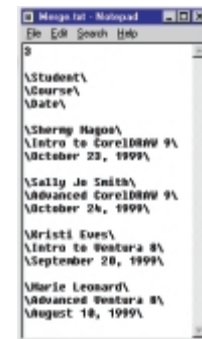
Figure 14
Either enter the merged text line-by-line, or together on a single line.

- If you're using CorelDRAW 9 and certain characters are being dropped, confirm that you have updated to at least the 9.397 maintenance release (August 9/1999, 13MB).
- Always print from the Print dialog box. If you attempt to print while in Print Preview, the merged text entries are printed on top of each other on a single page.
- If you want to merge several labels or cards on a single page (e.g., 4-up business cards), make sure each text string to be replaced is unique ("Name1", "Job1", "Phnumber1", and "Name2", "Job2", "Phnumber2", and so on). Print merge does not support any of the multiple impositions in the Print dialog box. You must actually have the multiple labels or cards drawn on the page.

Now go forth and print merge away... 2000

Grumpy Old Men

The rematch

Regardless of what Gary Priester has told you, the next hour will demonstrate that PHOTO-PAINT is superior to CorelDRAW when it comes to creating realistic and interesting designs. In this rematch, Gary (weakened by the loss of his ponytail) will attempt to keep up as David unleashes the power of PHOTO-PAINT to create stunning graphic images. We will cover:

❏ A chrome pretzel? Hey, this was Gary's idea.

❏ A photorealistic anchor chain using PHOTO-PAINT and the Image Sprayer

❏ Polished gemstone inlaid letters...very cool

This session is for anyone who wants to learn more about techniques that can be accomplished with either CorelDRAW or PHOTO-PAINT. While it is not necessary to have a working knowledge of either program, it will be helpful if you have CPR training in case Dave pounds Gary into submission once again.

Grumpy Old Men

Another perspective…

Conference patrons might not be aware of the simple fact that David Huss and I (oops, I mean David Huss and Gary Priester) were Siamese Twins, joined at the head. When they performed the operation to separate us—for it was clear from an early age that both egos could not fit in the same room—Gary ended up with 98.5% of the brain and poor Huss got what was left. So we must forgive Dave's brash outbursts; he is not playing with a full deck. Five cards, max!

And although over the years, Gary has abused what remains of his 98.5% of our shared brain, enough remains to ensure that you will see demonstrated a triumph of intelligence and talent over mindless technique and shameless bravado. And once and for all, the power of CorelDRAW will be proven superior to PHOTO-PAINT.

This session is for anyone who wants to see David Huss humiliated.

The Morning Muse

Reserved for on-site requests

One of the most valuable aspects of less structured presentations is how agile we can be with them. If a lot of you are asking the same questions at the Help Center, we'll create a workshop on that topic. From Tuesday through Friday, the first session each day in the Corner Pub will be devoted to a topic that you have requested. We will take input from the previous day and post the daily topic before breakfast that morning.

Advanced Customization

For the advanced user

Have you ever had one of those dreams where you're running as fast as you can to a destination, but you just can't get there? That dream becomes reality for advanced users who know precisely what they want the program to do, but get bogged down in the number of steps it takes to get there. Like you're running, but not getting anywhere…

This session is designed to turn the nightmare into a dream come true. Its sole focus is on improving access to the tools and functions that you use the most. You will see how to:

❏ Rearrange, clarify, and create new toolbars

❏ Create intelligent default settings for new drawings

❏ Write scripts and macros to automate tasks

❏ Save, manage, and transport your personal workspaces

This session is for advanced users who already know how the tools work and who have specific ideas on how the interface should function.

COREL WORLD 2000

Your Very Own Interface

THIS SEMINAR won't teach you about any new special effects or drawing commands, and it won't show you how to wrap text around a graphic or create a parallel extrusion. In fact, the presentation on customization does not contain any tips and tricks at all, at least in the conventional sense.

But if you want to customize CorelDRAW to make it more efficient for what you do, you'll want to hear every word we have to say. Corel has given versions 7, 8, and 9 an interface that is almost completely customizable, and it takes center stage at this presentation.

Creating Workspaces

Before you begin any significant remodeling of the CorelDRAW architecture, you should conscientiously create a place to store your work. Figure 1 shows the top page of the Workspace tab, including three workspaces supplied by Corel. The one labeled _default is the plain vanilla configuration that we all see the first time we start the program. The next is to help Illustrator defectors make the transition, and the third is for those who prefer the way CorelDRAW 8 looked and felt. And then there is the one that we created to facilitate the writing and production of

Mastering CorelDRAW, from which most of the text in this article is excerpted; the large dot indicates that it is the default.

Most users never pay attention to this dialog and so they simply use _default (although "use" implies intent, and many users don't even know these workspaces are here). Any interface changes—even unintentional ones—get written to and stored there.

While there is nothing dangerous about doing this, we recommend instead that you leave _default alone and create a workspace of your own. Even if you don't expect to change the interface—even if you don't know what we're talking about!—go ahead and create a workspace for yourself. It's easy: Click New, supply a name, and click Set As Current. To switch between workspaces, just double-click them.

We like leaving _default pristine because that way you have a baseline reference for any changes you make, and for technical support purposes (should you ever need to seek assistance with the program), it's good to know what the factory settings are and how to return to them. If, however, you have made substantial changes to _default, you can return to factory settings by holding F8 while starting CorelDRAW.

Once you have created a home for your personal interface, you're ready to begin building the interface.

Figure 1
With a personal workspace, you are now ready to begin remodeling.

Rick Altman

We also hate it. Corel placed it on the so-called "No Selection" property bar—the one that you first see when you start the program, the one that is active when no objects in the drawing are selected. But that's not when we want to change a Nudge setting; we want to change it after selecting an object and getting ready to nudge. But the property bar for selected objects is different and it does not include the Nudge setting. This requires that we deselect the object, change the Nudge, and then reselect. No good!

We want this great little Nudge adjuster to always be present. We want it to be visible when we have one object selected, multiple objects selected, a group selected, a bitmap selected. Any time, any place. That means just one thing: Standard toolbar, not a property bar. While some of the maneuvers in this discussion are advanced, this one isn't. Watch:

1. Press and continue to hold Alt until we tell you to stop. By holding Alt, all toolbars become "unlocked" and their elements free to be moved.
2. Place your cursor inside the Nudge box and begin dragging it up.
3. Find a place on the Standard toolbar where you would like its new home to be, like, say, next to the Zoom Levels drop-down list.
4. Release Alt and note that Nudge has left its spot on the property bar and taken up residence on the Standard toolbar.

To copy rather than move an interface element, hold Ctrl during the above operation. To remove an element altogether, drag it away from any toolbar (like to the middle of the page) and release Alt.

Now we're happy. Our Nudge box will always be available, no matter the context, because it now lives on the Standard toolbar, as highlighted below:

Figure 2
Great tool, lousy home. We think the Nudge Offset value box deserves a permanent place on the interface.

You Say Tomato…

It is impossible to please everyone all of the time, and Corel knows it. Its program designers have created a default interface that they think will please most of the people most of the time. They have thought through which commands and functions should always be available (they would go on the Standard toolbar), and which ones are only needed in certain contexts (in which case, they would belong on a property bar). In these efforts, they have probably succeeded in finding a good middle ground.

But that doesn't mean you have to be satisfied with it, because you can make it perfect. All it takes is a bit of customization know-how and a long interview with yourself.

For instance, the on-screen Nudge setting, which we're pointing to in Figure 2, is a wonderful addition to the property bar, saving us countless trips to Options when we want to change it from 1 point to 1 pica, or from 1 point to ¼ of a point. We love it.

Menu Mania

Toolbars aren't the only thing that you can rearrange in CorelDRAW. Nothing is sacred, including the menus that hold most of the program's commands, dialogs, and dockers.

From the Customize dialog, click on the Menus tab. You will arrive at the gateway to total control of the menus and their elements.

This dialog goes beyond the rearranging of menu items—you can also add your own. Here is how it's done, and why you would want to.

1. In Customize | Menus, click on the last item in the Menu window, &Help.
2. Click on Add Menu and type &Special, or whatever menu name you prefer. The & indicates which key (when pressed along with Alt) triggers the menu. Try to give it a letter for keystroke access that is not used by another menu.
3. Browse the command tree looking for frequently-used commands that would otherwise require more than one or two keystrokes or mouse clicks. When you find ones you want, simply click Add. Then, if

necessary, rename the items and/or reposition the &. Add as many separators as you deem necessary.

Figure 4 shows the Special menu we created for our personalized workspace. It might be more logical to place some of these commands on other menus (e.g., Snap to All and None on the View menu), but there is a certain simplicity in housing all customized commands under a single menu. You can decide this for yourself.

Our chief criterion is obvious: which commands and functions require that we click through multiple menus, flyouts, or dialogs? As far as we're concerned, any command that is nested in a flyout (meaning we would have to click three times, and possibly click and hold for one of them) had better be an item that we don't use often. If we need it regularly, it gets promoted.

We focused here on customizing the main menu, but CorelDRAW has other menus. Examine the drop-down list in Customize | Menus and you will find every context menu (the menus that appear when you right-click an object) that CorelDRAW offers. One valuable customization strategy is simply to place the

Figure 4
Functions and commands that used to require many clicks are now just an Alt+S away.
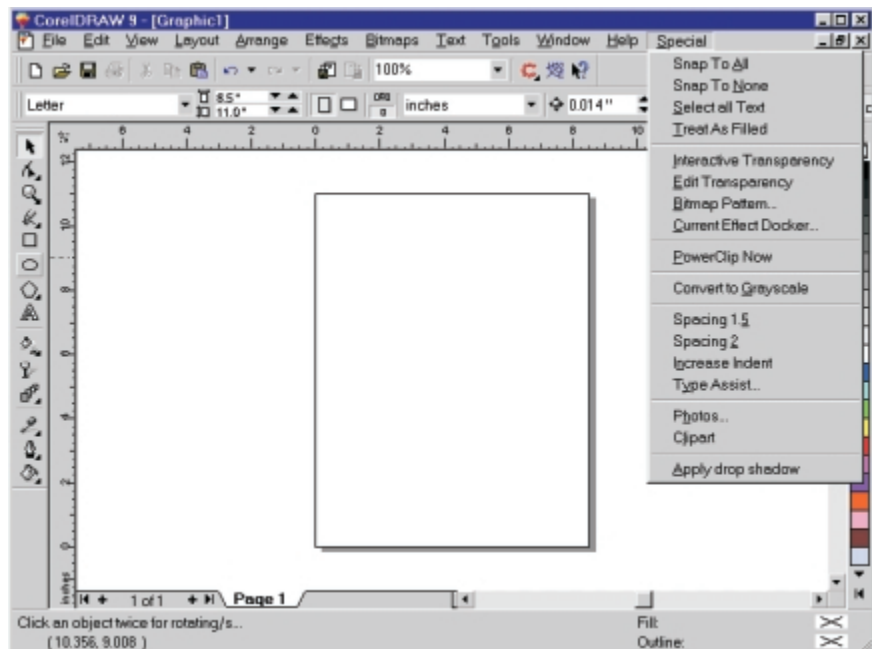
commands you use most often at the tops of each context menu.

The Keys to Happiness

Those who want to drive the CorelDRAW interface as fast as they can will look no further than their keyboards. We decline to debate which method is best—icons, menus, or keystrokes—as it is based on personal preference. But for pure speed, keystrokes will win all the time, and we'll challenge anyone to a race to prove it.

Keyboard users have yearned for Corel to provide more hotkeys, even if the developers have to use strange and bizarre ones (such as Alt+F3 for Lens and Ctrl+Shift+A for Copy Properties From). But you no longer have to accept weird key mnemonics or absent hotkeys. From Customize | Keyboard, you have total control.

Assigning and reassigning shortcut keys follows the same path as toolbars and menus: you get a list of every single command in DRAW-land, and then a box to type the shortcut key you want applied to the chosen command.

If you choose a keystroke that is already in use, you must click Delete Conflicts in order to continue, and once you do, you then have the option to Navigate to Conflict—meaning CorelDRAW gives you a chance to assign a new keystroke to the command that just lost its original one.

The shortcut key we think has saved us the most time is our Auto-PowerClip key. Here is how we created it.

1. From Customize | Shortcut Keys, we drilled down to Effects | PowerClip Effects | Place Inside…
2. In the Press New Shortcut Key box, we typed Ctrl+1 as shown in the figure in the next column.
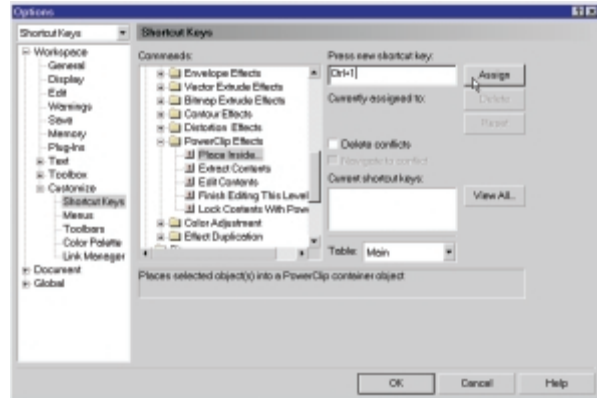
We did not have to deal with Delete Conflicts, because no other command or function uses this keystroke. (In fact, we found that Ctrl+1 through Ctrl+0 are excellent places to store custom shortcut keys.)

3. We clicked Assign and then OK.

The reason we like this shortcut so much is that it allows us to operate with maximum efficiency and minimum effort. Imagine that you're about to powerclip one object into another—the final action to be taken is a click with your mouse on an object on the page. That's non-negotiable; there is no way to do that without using the mouse. Even if you know the cool shortcut of right-dragging one object atop another, it's still a mouse-centric operation.

So the last thing you want to have to do is move off the page and up to the menus to do a bunch of clicking, only to have to return to the page to click on the container. With the hotkey, it is much simpler and easier on your mouse hand:

1. Select the object to powerclip.
2. Move your cursor to the desired container.
3. Press Ctrl+1 and click.
   That's it—you're done. Couldn't be simpler.

Managing Workspaces

If you have followed along so far, you have created a workspace to store all of your interface design changes, and perhaps thought of more than one workspace you can create:

Figure 6
These folders and files
are responsible for the
heart and soul of your
CorelDRAW interface.

- Is your computer shared among multiple users? Each can have a workspace.
- Do you have separate projects with radically different needs? Make workspaces for them.
- Do you routinely change screen resolutions? Make a workspace that is better suited for lower resolutions.
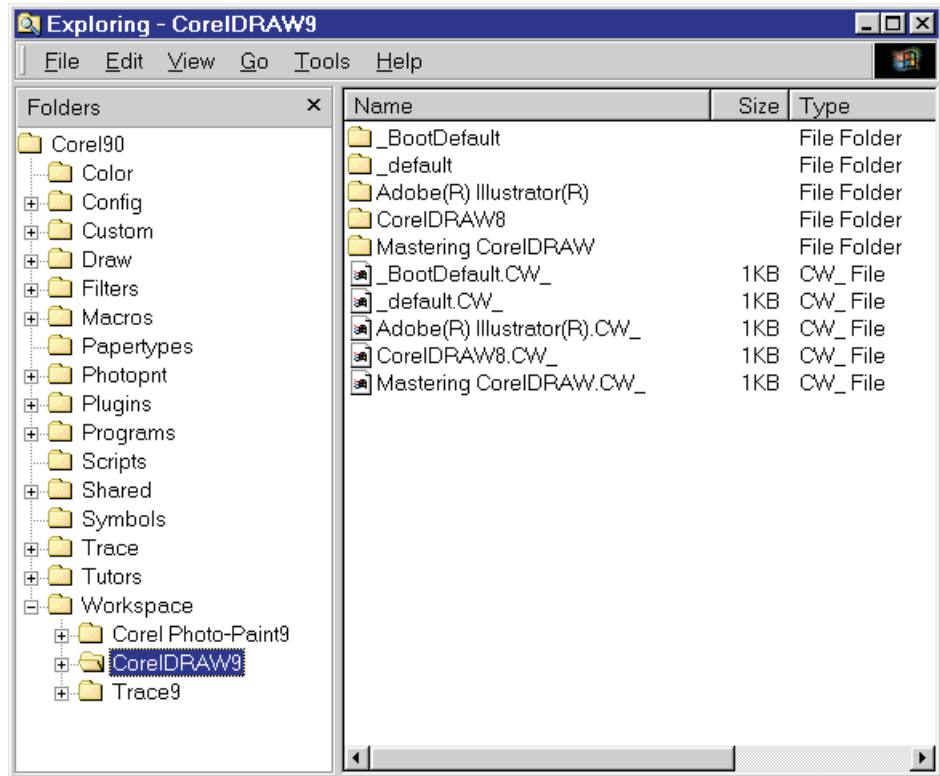
All of this can be handled swiftly from the Workspace page of Options, where the New, Delete, and Set As Current buttons perform as expected. But there is another element to workspaces that has not been accounted for: What if you use two computers and you want the same workspace on both of them? We'll need to go backstage to handle this one…

CorelDRAW's Configuration Files

On a Windows 9x system, CorelDRAW manages all of your customizing with configuration files that are buried deep in the recesses of the CorelDRAW folder chain. From the main CorelDRAW folder, you'll find them at Workspaces \ CorelDRAW9, with each workspace having a subfolder for its files. In each subfolder, you'll find two .ini files, several .cfg files for tracking toolbar and menu assignments, and the rather crudely-named .sck file for storing shortcut keys.

In addition, for each workspace that you create, CorelDRAW creates a small file with a .cw_ extension. An Explorer window of the Workspace subfolder would look like Figure 6.

On a Windows NT system, the configuration files are stored under the path \ winnt \ profiles \ username \ application data \ corel \ coreldraw9. With Windows 2000, you'll find them at \ documents and settings \ username \ application data \ corel \ coreldraw9.

These files store all of the changes that you make to the CorelDRAW interface. When you rearrange a toolbar or create a new one, CorelDRAW records all the action into cdrbars.cfg. Each time you launch CorelDRAW, it looks in cdrbars.cfg for instructions on how to configure its toolbars. If cdrbars.cfg doesn't exist, CorelDRAW uses its own factory defaults and recreates cdrbars.cfg from them.

As a result, deleting .cfg files is never fatal. You might lose whatever intelligence you programmed from the Customize dialog, but CorelDRAW can always recreate the file and start up according to its factory defaults. We had quite a fun time experimenting with this, creating all sorts of "accidents" for CorelDRAW:

- We deleted all of the .cfg files. CorelDRAW just recreated them.

- We deleted the entire Workspace folder and all of its subfolders, just to see if CorelDRAW would complain. It didn't—it blithely opened with factory settings and recreated the subfolders that it needed.
- We took all of the .cfg files and replaced them with nonsense files—like autoexec.bat, .dll files from the Windows folder, and text files that read "Mary had a little lamb." CorelDRAW issued a message that the files were corrupt and that it was using factory settings instead. That was all—no fireworks. We were halfway disappointed…

Moving Workspaces

So with these files being so small, portable, and ultimately not terribly essential, it is really quite a low-risk proposition to share them with another system. In fact, here at CorelWORLD, we create a workspace for the presentation computers, and disseminate it out to all dozen computers. Here is how you move a workspace to a different computer

1. Navigate to the Workspaces subfolder under the main CorelDRAW folder, and then drill down to CorelDRAW9. (Again, NT users will find this folder under the main \winnt folder, and Windows 2000 users will find it under \documents and settings.)
2. Find the subfolder and the file with the name of the workspace you want to transport. It will end in .cw_.
3. Copy or archive the workspace. There are lots of methods that would work:

   - Copy the folder and the .cw_ file to a diskette.
   - Create a .zip archive from them.
   - E-mail them to another location.
   - Copy them across a network.

   The only requirement is that the files in the subfolder stay in the subfolder, and the .cw_ file be one level above those files. Consult the Explorer window shown in the previous section for the proper hierarchy.

4. On the destination computer, copy the files into the same location, with the .cw_ file and the new workspace subfolder residing in the CorelDRAW9 subfolder.

Three points to make about this. First, if you are unfamiliar with the destination machine, you will need to find where CorelDRAW was installed. If you can find the icon that starts it, you can check its Properties sheet. Second, if there already is a workspace with the name of the one you want to add, you have two choices: overwrite the existing one or rename either one of them. Renaming a workspace is easy, as long as you remember to rename both the subfolder and the .cw_ file. If CorelDRAW doesn't find both elements, it won't show the workspace in Options | Workspace. Third, you might receive a benign error message from CorelDRAW after you begin using a workspace from a different PC, if the other PC had CorelDRAW installed in a different location. The program won't find the same color palette it was using and will tell you so. This is completely non-fatal, and as soon as you point the program to an existing palette, it stops complaining.

Our choice for transport is a .zip file. WinZip handles nested subdirectories with ease, and carting around one file is much easier than several. We also archive our workspaces this way—after all, these files get written to and updated regularly, so they are at greater risk of having something happen to them.

We have invested a lot into our workspace, so we treat it like valuable data: we back it up. We copy it to a .zip file, so we can easily retrieve it should something bad happen, like, say, the files ending up with "Mary had a little lamb" all over them… **2000**

Joined at the Customized Hip

All of the points discussed in this article apply equally to PHOTO-PAINT (versions 6–9) and VENTURA (versions 7 and 8).

Paul Huntington with Ken Jurina

Tuesday • 11:15am

How Did They Do That??

The four losers...by the Winner

Join us for a look into the design wizardry of CorelWORLD Design-a-Brochure winner Paul Huntington, as he deconstructs his other contest entries ("the four losers," as he likes to call them). This session will delve into both CorelDRAW and PHOTO-PAINT, as we strap ourselves in for Paul's guided tour of the tools, tips, and thought process used to devise these four stunning pieces of artwork. The session will cover:

❏ Applying real-world airbrush techniques

❏ Integrating PHOTO-PAINT and CorelDRAW

❏ Manipulating photographs to create virtual reality

❏ Playing with PowerClip

❏ Enveloping your text

❏ Creating 3D objects in CorelDRAW

This session is for anyone interested in watching the evolutionary steps taken in creating great design.

COREL WORLD 2000

If These are Losers…

ON HIS CorelWORLD 1999 evaluation form, Paul Huntington suggested that we hold more "How did they do that?" sessions. He found great benefit in watching an individual work through a project, as with many Corel products there are so many ways to reach the same end result.

Paul never expected that this year his work would be the object of everyone's gaze. But after winning the CorelWORLD 2000 Design-a-Brochure contest, he found himself a conference celebrity. Instead of dissecting his winning entry, Paul decided he would like to show us the contest entries that *didn't* win. Indeed, our big winner was also a four-time loser; in this session, and this article, you'll get to hear from the big loser-turned-winner himself…

Airbrushing CorelWORLD

During the course of the CorelWorld 2000 brochure design contest, I submitted five separate entries. One was chosen by the judges, leaving four losers. While these four pieces were not selected, each one contains some interesting techniques that I'd like to share with you.

In all designs submitted, I limited myself to the use of only my own photography and illustration. No stock images or clip art were used. This created more work, but greater enjoyment.

Figure 1 shows the first entry, which I had intended to be my only submission to the contest. I was trying to achieve a balance between the beauty of our conference destination and the instructional/creative nature of the conference. The work featured the application of real-world airbrush techniques using CorelDRAW and PHOTO-PAINT—a great combination!

WATER AND SAND

The upper left corner of the piece was to be an image of gentle waves as they appear at a protected beach—the transition from the warm sand to aqua to the blue of the deeper water. I did not have such an image, so the first job at hand was to create it.

I started with a photograph of water shot while I was jet skiing in Mission Bay. This image provided the water shapes and blue of the deep water.

Figure 1
A marriage of beauty
and creativity

CorelDRAW in the final file. I used this image rather than the original water image to ensure that the colors would match exactly and that the object covering the text would appear seamless.

Now I had an image of water with a very unrealistic reflection of the title. Waveforms appear as areas of shadow and highlights. Objects
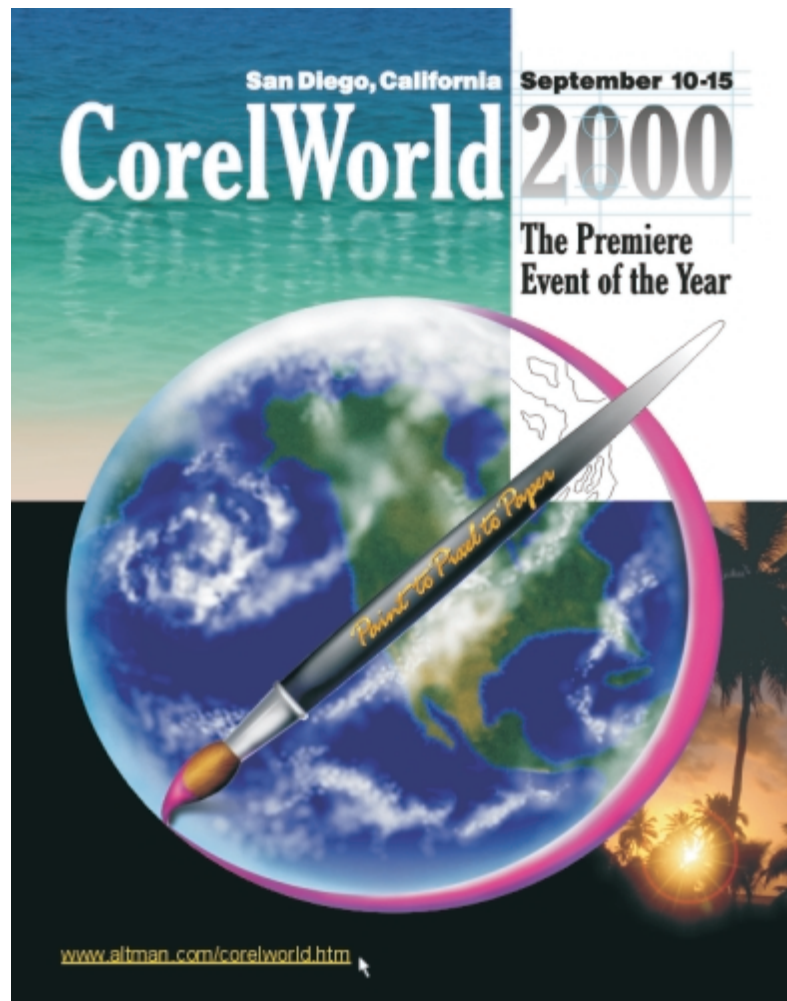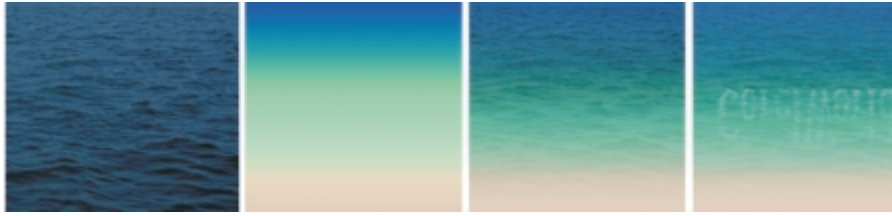
Figure 2
PHOTO-PAINT magic on Mission Bay

Since I had already created the basic layout, I knew the exact measurements the image needed to be, so I opened it in PHOTO-PAINT and cropped it to the size required.

Then I added a new layer, and filled it with a custom Fountain fill of tan to aqua to blue. The background was selected, copied, and pasted as a new object. Using the Object Transparency tool, I made this new image completely transparent at the bottom, because no wave forms were needed there, and completely opaque approximately two-thirds of the way up the image. Then I experimented with the overall opacity of the layer in the Objects docker, finally selecting 72%. Figure 2 shows the ingredients and the end result.

REFLECTIONS IN THE WAVES

The basic water image was now complete and inserted into the CorelDRAW file. I decided at this stage to add a reflection of the title in the water. I selected the water image, along with the "CorelWorld" text, and exported as a TIFF file at 300 dpi. Then I exported just the water image as a second TIFF. The reason for the second TIFF will be clear later.

I opened the water image with text in PHOTO-PAINT. Using the Magic Wand Mask tool, I created a mask of the text shapes, then copied the text shape and pasted it down as a new object. Using the top center control handle, I pulled the text shape down to create the basic reflection shape, then moved it down slightly so it appeared to be floating. The second "water only" TIFF was opened, copied, and pasted into the "water and reflection" image. I masked the top of the image, where the text appears, and cropped the "water only" object. This allowed only the reflection of the text to appear in the final image, as it is preferable to use text created in

The Making of a Loser

Paul started in design as a paste-up artist 20 years ago. The job was to be a brief stay before going back to school. Well, Paul hasn't gone back to school yet…but he has found himself a career in design that requires ongoing learning, so in a sense he really never left.

One day his first computer was dropped on his desk, with an early DOS/GEM version of VENTURA loaded on it. He was told "Learn this. Actually learn it fast, I need a brochure tomorrow." As with most of us, Paul learned his programs through trial and error, and left those silly manuals in the box unread.

Purchasing CorelDRAW one day for the Envelope tool alone, Paul was not aware of what untold features awaited him. He's now migrated through all the versions of CorelDRAW and currently works with version 9. His present duties range from design for various print materials and trade shows to design consultation for his fellow co-workers. Paul is also an accomplished airbrush painter and pen-and-ink illustrator, when he's not sitting at the computer.

reflected in waves have nearly opaque reflections in the wave highlights and nearly transparent reflections in the shadow areas. To achieve a more realistic reflection, I added a new layer and painted a series of soft-edged white shapes onto it, using the Paint tool (custom brush, 97% transparency, 100% soft edge) at the points where the letter shape reflection and the wave highlights intersected. The Paint tool at these settings acts very much like an airbrush, giving the reflections an illustration-like feel.

Once the painting was complete, I selected the letter shape reflection object. Using the Eraser tool (97% transparency, 100% soft edge), I gradually erased the letter shape reflection completely from the shadow areas and lower portions, leaving only a hint of the letter shapes in the waves. I added some additional soft-edged white shapes on a separate layer, then saved the file and exported it as a TIFF, to be inserted into the CorelDRAW file.

THE PAINTBRUSH

One of the main elements of the cover was to be a paintbrush. I wanted this to have a very illustrated and three-dimensional look.

First, I created the basic shape of the brush in CorelDRAW, drawing the brush in a vertical position with the Bézier and Freehand tools. To ensure that the brush was symmetrical, I drew a square with one side bisecting the brush, then used it to Trim the brush so that just one half remained. The brush half was duplicated, mirrored horizontally, and slightly nudged back toward the original, then the two halves welded together. I positioned the brush shape on the layout and added the paint, drawing with the Bézier tool. After filling each portion of the brush with a different color, I exported the brush as a TIFF at 300 dpi.

Now it was time to open the paintbrush in PHOTO-PAINT. At this stage, it was a very two-dimensional brush shape in a variety of colors. I created a mask of each part using the Magic Wand Mask tool, and saved each mask as a separate channel. Now everything was ready to airbrush.

In real airbrushing, various masks are placed on the work surface, and paint is sprayed through the openings. A number of different spraying techniques can be used to create different effects.

This is also how the brush was "airbrushed" in PAINT. But there's a big advantage to PHOTO-PAINT airbrushing: Undo! There is very little room for error in real airbrushing, while in PHOTO-PAINT there is plenty of room to experiment… Or goof up.

I painted the brush, starting with the metal trim piece which anchors the bristles to the wooden handle. The "metal" mask was loaded into the image and a 20% black fill added. Then, using various brush sizes (transparency 97%, soft edge 100%—my favorite setting for airbrushing), I "sprayed" in the shadow and highlight areas of the metal piece. To ensure smoothness, I applied a Gaussian Blur at a 2 pixel radius. The whole metal shape was copied and pasted and the mask removed, then I locked transparency from the Object docker. This would effectively act as a mask of the outline of the shape, allowing the use of small masks for creating highlights, etc.

Highlights are the key to making 3D items jump off the page. Soft highlights, representing diffused light sources, can be sprayed in without masks. Hard-edged lights from direct light sources require a hard edge, so a mask is used. I created one such highlight for the metal shape. I drew a mask using the Freehand Mask tool, then using the same custom brush settings as before, sprayed in white. This was then feathered at the top and bottom edges. Using my favorite brush settings, I gradually built up the color, creating areas of different densities.

The other areas of the brush were painted in the same manner. The bristles in the brush were created by using the Custom Smear tool over the basic 3D bristle shape.

I exported the brush shape as a Windows Bitmap. This was a quick way of preparing the file
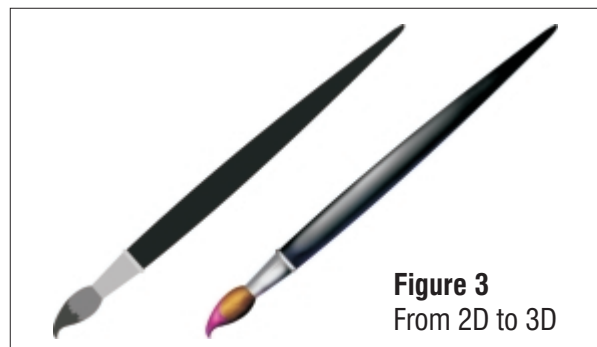
Figure 3
From 2D to 3D

for insertion into the final CorelDRAW layout. The .bmp file format doesn't support layers or channels, so everything works very simply in CorelDRAW. Once the bitmap brush was imported, I powerclipped it into the original brush shape, then adjusted the shape of the brush to crop out any unwanted white pixels around the edges. Now we have a 3D brush with razor edges. This prints very nicely.

A Virtual Lighthouse

Entry number two was where the fun really started—I was now going to explore themes. Most of the time the theme evolves from the image, and since I had a established a rule of only using my own images, I started to search through slides looking for inspiration. I came across this image of a lighthouse, shot in Key West following last year's conference (Figure 5).

TURN OFF THE SUN

The original image was shot in mid-afternoon under a bright sun. Nice picture, but not very dramatic; the background had to go. I really liked the trees in the foreground, however, and wanted to keep them.

I masked the trees, using the Magic Wand Tool in the additive mode. The foreground was copied and pasted as a new object. With transparency locked, it was filled with black. The transparency was unlocked, and a Gaussian blur was applied. The foreground was now complete. Next, I masked the lighthouse itself, using a variety of mask tools. Once masked, it was copied and pasted as a new object.

Before proceeding further, I needed a new background. I chose a sunset, inserted it as a new object, and moved it to the bottom, then made adjustments in the

Figure 4
Shedding some light
on the Conference

Hue/Saturation/Lightness dialogue box. Next, I applied a vignette, so the sunset faded to black around the lighthouse.

The background and foreground were now basically complete. The only thing left to do was take a bright white lighthouse and make it look as if it belonged in the image.

Figure 5
From Key West
to San Diego
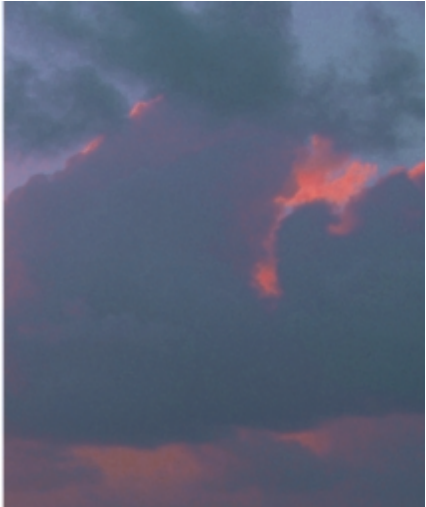
I created a mask from the lighthouse object, then using the Freehand Mask tool in the subtractive mode, removed the lighthouse top from the mask. Now the mask only covered the white painted portion of the lighthouse. This was copied and pasted as a new object. Then the top portion of the lighthouse was similarly copied and pasted as a new object.

Now the painting could begin. Using the Eyedropper tool, I selected various colors and painted, gradually building up density until the color of the lighthouse simulated the reflection of the setting sun. I used the same process with the lighthouse top, specifically the roof. Using the same techniques as with the paintbrush in the previous image, specific roof panels were masked and "sprayed" with the colors of the setting sun.

The lighthouse still appeared flat, so I added a transparent layer and painted in shadows and highlights to enhance the shapes. There are no such transparent layers in real airbrushing, so this feature is a real treat!

The over-painting on the white portion of the lighthouse had eliminated the detail that existed in the original image. I selected the original lighthouse object, copied it, and pasted it in as a new object. Then I applied edge detect, using a sensitivity of 1 and a white background. What was left was a white image with some detail of the brick showing in various colors. Using the Magic Wand Mask tool in the subtractive mode, I masked the brick details and painted them dark gray. The brick details were copied and pasted as a new object. The previous object had served its purpose and was now deleted.

The lighthouse now appears as if it belongs in its virtual sunset environment. Now, would someone please turn on the light?

**TURNING ON
THE LIGHT**

Using the Freehand Mask tool, each pane of glass was masked, copied, and pasted into the image. The transparency was locked, and the left hand glass pane was selected. This pane faced the sun, so it would have a very bright reflection, which was "sprayed" in, using my favorite custom brush setting. Various colors were selected and gradually built up. The same process was used with the far right panel, except this one would reflect

the colors in the clouds. The three panels in the middle would be pretty much transparent, showing the dark interior and the light itself. I filled these glass panes with black, then copied and pasted them into the image.

A lighthouse lens is multi-facetted, and would have numerous points of light surrounded by a larger glow. I painted in the glow by gradually building up a pale yellow, and then painting in individual points of white. Now all that's lacking is a beam of light. I added a new transparent layer and drew a mask of the light beam shape using the Freehand Mask tool. Using pale yellow and my favorite brush settings, I built up the light beam. The mask was then removed and a gossip blur applied to soften the edges.

Finally, a little freehand painting, on another transparent layer, was used to detail bits of the background clouds.

Up, Up, and Away

Entry number 4 was a take-off on the Corel hot air balloon. The headlines of the day suggested a parachute might be used as the next corporate

Figure 7
Corel's new logo?

identity. Adding text to the parachute canopy is a good example of the power of the Envelope and PowerClip tools.

PUTTING THE NAME ONTO CANOPY

I created the parachute much like the paintbrush—basically "airbrushed" in PHOTO-PAINT and powerclipped into an object in CorelDRAW. The text was laid out, and now needed to be shaped to match the shapes of the canopy. I selected the text with the Interactive Envelope tool, selected all the nodes, and hit the + key several times. A node was required for the intersection between each element of the canopy.

Thirteen nodes were required for the top and bottom of the lettering. I dragged each node in turn to create the required shape, then adjusted the curves between the nodes to make the lettering appear to be curving over the canopy elements.

The letters were all the right shape, but still needed to be shaded to look real. The canopy with the letters was exported as a TIFF and opened in PHOTO-PAINT. I selected the letters, using the Magic Wand Mask tool, and expanded the mask by three pixels. This would allow for some extra image when the text was returned to CorelDRAW. The masked area was copied and pasted into the image. With the letter object selected and the transparency locked, I drew a mask over the first canopy element. Using my favorite brush settings, I sprayed navy blue over the areas needing shadows on the first element lettering, the followed the same process on the remaining elements. The lettering object was then copied and pasted as a new document.

In CorelDRAW, the image of the lettering with shadows was powerclipped into the Enveloped text. The text now appeared to be part of the canopy. To increase the contrast between the text and the canopy, I added a drop shadow. The drop shadow was then power clipped into the canopy shape and combined with the canopy image.

Drop shadows are transparent bitmaps. By combining the drop shadow and the image behind it, the bitmap is no longer transparent and

Figure 8
High-flying training

printing will be far less problematic. Most output I have seen does not work very well when transparent elements are contained in the file.

Figure 9
Photorealism isn't limited to photos.

Creating 3D in CD

Up until this point, everything has been manipulated within PHOTO-PAINT. Entry 5 was created entirely with vectors in CorelDRAW, and is proof that very detailed and realistic drawings can be created using CorelDRAW.
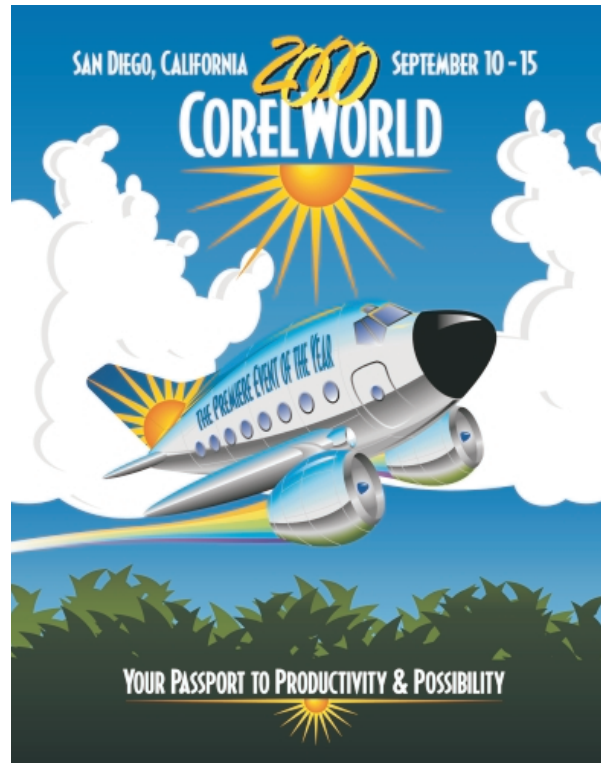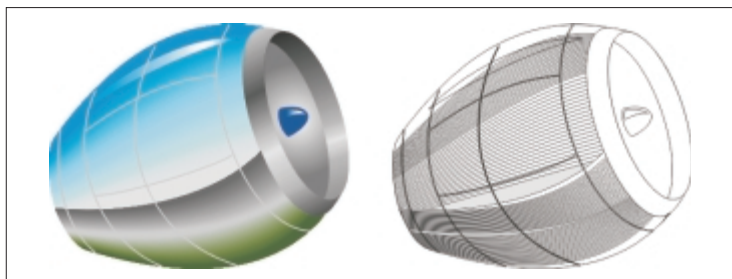
Realism was not the end goal of this particular design, but as you can see, the techniques used lend themselves to creating realistic 3D images.

Drawing a Metal Airliner

First, I drew the basic shapes of the fuselage, wings, and engines. Starting with the right side engine, I duplicated the basic shape, adjusted it to be just be the top half, filled it with blue, and duplicated the new shape. The duplicated shape was adjusted to just be a very thin slice of the bottom of the top half shape, and filled with white. I confirmed that both shapes had the same number of nodes, then blended the two objects together. The same process was followed for the lower half of the engine.

The two blends were powerclipped into the original engine shape. Because of the similar shape of the other engine and the fuselage, the same blends were also powerclipped into those original shapes. Some of the elements making up the airplane such as highlights, windows and reflections were created using

Figure 10
Fly the friendly skies of CorelWORLD.

fountain fills. Figure 11 illustrates the illusion created with the blends, fountain fills, and powerclips.   2000

Go Deeper

You will find the files used in Paul's presentation here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\draw\losers.

Figure 11
Combining effects in CoreDRAW for powerful results

C_TECHniques

Delicious Distortions

Corel's volunteer support team will be in the Help Center throughout the conference, and each day, one of its members will lead a panel discussion and demonstration about a particular topic. These sessions will take place right before lunch on Monday, Tuesday, Wednesday, and Friday. Check the Help Center bulletin board for updates on topics. Currently scheduled for Tuesday:

❏ Delicious Distortions with Debbie Cook: A few of the many ways that DRAW and PAINT can alter reality

*These sessions are for users seeking
an introduction to the particular
topic scheduled for that day.*

Going Organic

Painting over reality with rust, rivets, and rain

One of the most popular styles in graphic design is the weather-beaten, corroded or faded effect, and PHOTO-PAINT excels at this type of technique. In this session, we will explore how to use a combination of PHOTO-PAINT tools to convert perfectly good objects into corroded, rusted, and decayed ones. We will also learn how to use PHOTO-PAINT's Image Sprayer tool to create the most often-used visual icon of strength—the rivet. Attendees will receive step-by-step procedures for each of the techniques demonstrated in class. The material covered will include:

❏ Making rust without water or metal

❏ Decay and corrosion with the Paint on Mask

❏ Creating a unique twisted metal effect

❏ The basic rivet and pairs of pairs

❏ Combining rivets and rust

This session is for PHOTO-PAINT users who want to create photorealistic effects in their designs. It assumes a basic working knowledge of the program.

COREL WORLD 2000

Deteriorated Metal

WATER AND metal don't mix, period. When water—especially salt water—comes in contact with metal for prolonged periods of time, a chemical reaction occurs that we call rust. Over time, the metal slowly dissolves, and tiny holes develop as the edges begin to perforate.

The Deteriorated Metal technique, which works with most typefaces, may seem complicated, but I believe the finished product is worth the effort. In addition, you will see it has several variations.

Creating Rust

1. Create a 24-bit RGB image. The sample shown in the exercise is 4.5 inches wide by 2 inches high, at 150 dpi.
2. Select the Text tool in the Toolbox and type in the word Titanic. In the Property Bar, change the font to Impact at a size of 150. Convert the text to an object with the Object Picker tool.

3. In the Objects docker window, ensure the Lock Transparency checkbox is checked. Choose Edit | Fill and select Bitmap fill. Click the Edit button and then click Load. Choose Wood08L from the accompanying CD. Click

Open | OK to select, and OK again to apply the fill.
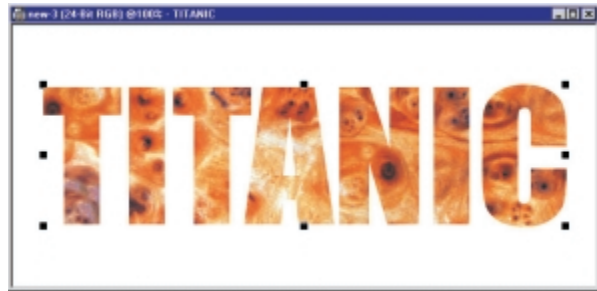
4. Select Effects | Noise | Add Noise. Choose Gaussian, change the Level and the Density to 100, and click OK.
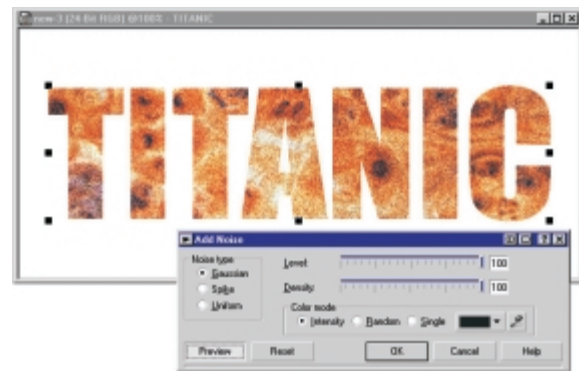
5. Choose Effects | 3D Effects | Emboss. Change the settings as follows: Original: color; Depth: 2; Level: 200; Direction: 135. Click OK. Congratulations, you just created rust!
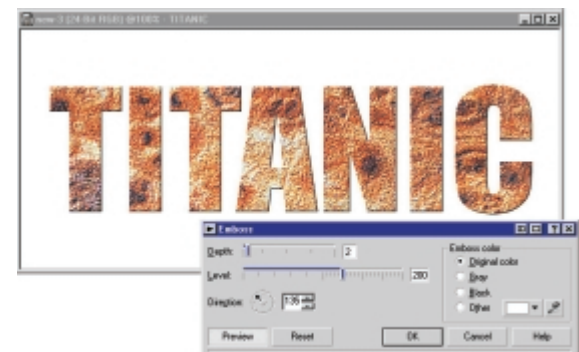
6. Create a mask from the text object (Ctrl+M). Enable Paint on Mask (POM) (Ctrl+K). While in POM, we will modify the mask created from the text. Choose Effects | Distort | Displace. Click Reset. Leave the Scale mode and Undefined areas settings unchanged. The Scale slider settings are the only settings that control the effect we want for this technique. Change both sliders to 60. Click OK.
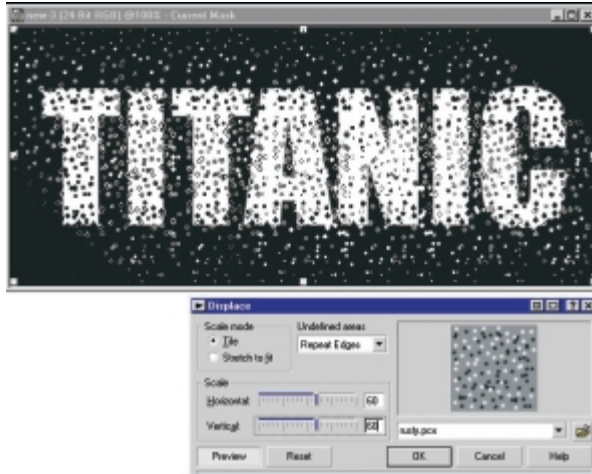

7. The previous step created random holes, but there are so many fragments that we need to consolidate them a little to be able to use the Boss filter effectively. Choose Effects | Noise | Median. Use the default Radius setting of 1. Click OK.
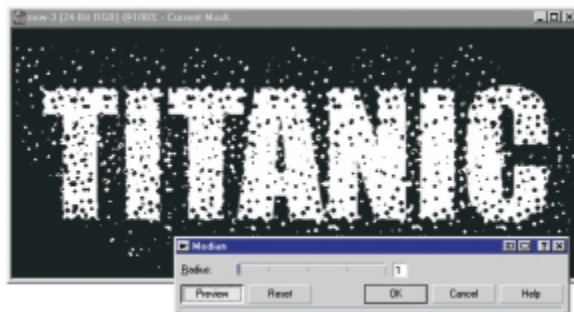
8. Click the POM button to return to normal mode. Choose Effects | 3D Effects | The Boss.

Change the settings as follows: Width: 3; Smoothness: 75; Height: 75; Brightness: 100; Sharpness: 20; Direction: 225; Angle: 15; Drop off: Gaussian. Click OK.
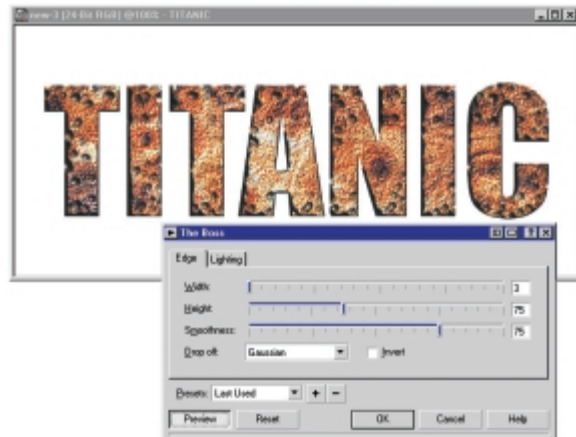
Holy Corrosion, Batman!

Now our text object appears rusty and worn, and we can use it this way. Let's look at some options that are possible with this effect. When metal objects become sufficiently rusted or corroded, they eventually are eaten away. PHOTO-PAINT allows us to recreate that effect.

What is POM?

Paint on Mask (POM) is a mode that temporarily replaces the image with a grayscale representation of the mask, to help you view and work on the mask you just made. In POM mode, the protected areas of your image are black, while the fully editable areas are white. Pixels included in the selection that are partially protected are displayed in varying degrees of gray.

1. Using the text object from the first exercise, select Object | Crop To Mask. This produces holes the viewer can see through in the text.

2. With so many holes, we need a shadow to restore some of the appearance of original text.

VARIATIONS ON A THEME

Several factors control both the size and shape of holes. The physical size of the holes in the displacement map is fixed, so the only way to make the holes larger or smaller is to increase or decrease the size of the image.

The next figure shows the effect of three different Boss filter settings on a different text object. The resolution of the image is 300 dpi. This makes the number of pixels in the image twice as high as in the exercise we just finished. Since the spots (holes) in the displacement map are a fixed size, the holes in the image appear smaller.

The shape of the holes is determined by the Smoothness setting. The greater the setting, the fewer the holes that appear. The sample at the top of the figure had a Smoothness of 100 (maximum), while the one in the middle had the same setting we used in the exercise. The bottom sample had the same Smoothness setting, but the height was reduced to only 30 pixels.

Here is a weathered version of the word Corel, created using the technique just described. Rivets were added and applied (as objects) to the type, then a photograph of some old wood added for the background.

Organic Doesn't Have to Be Ugly

When I was younger, I used to love to visit Ceylon (known today as Sri Lanka). It was there that I was introduced to gemstones. While I knew about and had seen gemstones before, I had several opportunities in Ceylon to visit gemstone mines (more like mud pits) and see the entire mining process. This technique is designed to capture the shape and feel of the gemstone jewelry I used to see in the marketplaces around Colombo (the main port of Ceylon) and Kandy.

1. Create a new image that is 6" x 2" at 150 dpi.
2. Select the Text tool in the Toolbox, and in the Property Bar change the font to Arial Black. Change the size to 96 and the character spacing to -10. Type the word CEYLON.

Select the Object Picker tool and center the text in the image window (Ctrl+A)

3. Create a mask (Ctrl+M). Choose Mask | Save | Save as Channel. Name the mask channel TEXT. Delete the text.

4. Select Paint On Mask (POM) mode (Ctrl+K), then select the Line tool. Ensure the Width setting in the Property Bar is set to 6, and Render to Object is not enabled. Click at a point outside of the characters (I started above and to the left of the letter C) and begin to make a multi-segmented line similar to the one shown below.

5. When you get to the last point, double-click the point to complete the action and draw the line. If you create a point you want to remove, click the Delete key. Each time Delete is pressed, the most current point on the line is removed. Heres what the resulting mask image looks like.

6. Exit Paint On Mask mode (Ctrl+M).
7. Save the mask as a channel and name it Lines. Change the Mask mode to XOR (Ctrl+NumPad).

8. Select Mask | Load | Text. Select Edit | Fill. Choose Bitmap fill and click Edit. Click on the preview swatch, then scroll down to choose and apply the gold fill.
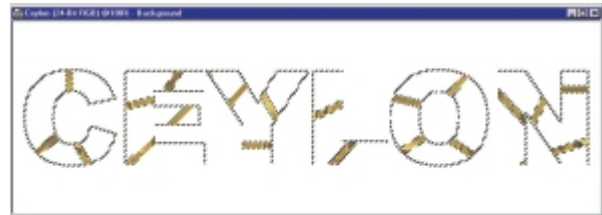
9. Select Effects | Texture | Plastic and click OK.
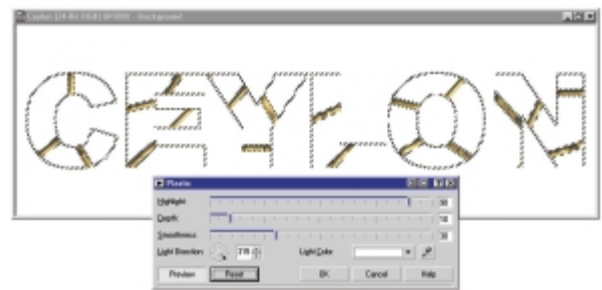
10. With the Mask Mode still in Exclusive OR (XOR) mode, choose Mask | Load | Text. This new mask restricts the application of effects to the areas between the gold inserts we just created. Figure 17 shows what the new mask looks like. (Mask Overlay was enabled to show the mask.)

11. Select the Fill tool. Select Edit | Fill and choose Bitmap fill. Click Edit and select the burnt orange (it is cork) from the pop-up menu. Click OK to select the fill. Ensure the Tolerance setting is changed from its default value of 100 to 25. With the Fill tool, fill the inside of the letters as shown below.

12. Change the fill and apply the Fill tool to other areas in the text. Continue to change and apply until all of the letters are filled.

13. Select the Plastic filter again and apply it again, but this time with the smoothness set to 60.

It takes nature many years to create some of these weathered effects. With PHOTO-PAINT, you can create them in an hour or so. Maybe in a matter of minutes.　**2000**

Go Deeper

Take a look at David's rust for yourself here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\paint\organic.

David Huss

Logos for the Not-So-Design-Challenged

Actual case studies

In this session, Gary showcases three commissioned logo designs and shows how the professional design process works. You will see the candidates, the finalists, and the final design chosen by the client. Each logo is recreated step by step, and you'll see how at least one logo migrates to the Web and gains new life as a Flash animation. Topics include:

❏ Where do logos come from?

❏ The design and thought process—let it flow, let it go

❏ Real-world issues

❏ Presenting and selling designs to the client

❏ From paper to pixels—moving a print logo onto the Web

This session will interest designers at all levels, although more experienced users will benefit most from it. Learning to let the ideas flow and not censor them can help the creative process at any level.

So You've Been Around The Block...

YOU'VE BEEN through Logos for the Design Challenged. Three times! And now you are ready to move up to the next level. You've even designed a few logos yourself, but know with a little inspiration you could do better.

Great logos don't just happen with the first design. Or even with the first 10 or 20 designs. Great logos come as the result of a lot of hard work and exploration. In this session, I will share my experience as a graphic designer and take you step-by-step through the creative process involved in the conception and design of three logos.

Many times when I receive a commission to design a logo or corporate identity program, an idea will immediately pop into my brain. I'm not sure where these initial ideas come from, but I never look a gift horse in the mouth. However, as cool as these ideas seem, they are only the beginning of the design process. Of course I could put the idea on paper, try to sell it as *the* design, and take the money and run. But then I'd be doing a disservice to not only my client, but to myself as well.

Each logo I design is an ambassador for me. If the logo is really terrific, other people will ask who the designer was and I'll get referrals. If the logo is a dog, and I manage to sell it in spite of itself, people may still ask who the designer was so they can be sure to avoid him or her in the future. Each successful logo I design is a stepping stone to another—and hopefully bigger and better—assignment.

Rules of Thumb

The first rule is this: There are no bad ideas. Don't edit yourself when you start out. Try anything that comes to mind, no matter how silly it looks. It may not be a winner, but it might suggest something that could be.

- Keep designing until you're out of time, and/or you know you have designed a logo that you're really happy with. If you need more time, ask for it. It's in everybody's best interest.
- After you have come up with a design or designs that you're really happy with, do a few more designs. You'll be surprised that these will often be the best ones!
- Try to make the logo reflect the client's product or service. If a perfect stranger (or even an imperfect stranger) can guess the nature of the client's business or service from the logo, you've designed a winner.
- Never show a client a logo you would not be happy to claim as your own design. It is inevitably the one he or she will buy.
- Don't be afraid to break the rules.

Kick-Starting the Design Process

I like to start with type. Whether it's a single letter, a pair of letters, or a word, look at as many type faces as you have on your computer. See if any of these fonts suggest a unique flavor, attitude, or personality. Once I've done this, I look to see if there are any letters that might be joined together in what is called a ligature. I also look to see if some of the letters can be modified or flopped. For example, a lowercase sans serif *a* can often be flopped to look like a lowercase *g*. A lowercase *h* can be flopped vertically and used for a lowercase *y*. Sometimes this looks really stupid, but it's worth looking at.

Next, I try to find a symbol that represents the client's business or service. If I'm not familiar with the client's product or service, I ask for a tour. I try to find out as much as I can to help move the design process along. I like to know if there are any symbols that are unique to that business. For example, if the product or service has to do with music, a modification of musical symbols or musical instruments might be a good place to start.

And finally, I let my right brain have a go at the project. The right side of the brain is creative and non-verbal. It works in the background, processing ideas. Often it's a matter of tricking your brain into thinking that you're not thinking.

You may be on the freeway, or in the shower, or sleeping, and your right brain is quietly churning away, often coming up with the winning idea. If you're getting nowhere on a project, get up and do something else. Give your right brain a chance to kick in. And if you're lucky enough to get a direct message from your right brain, write the idea down immediately if you can. Trust me, you will not remember it when you get home or back to your computer.

Three Logo Designs from Start to Finish

KELLEHER

Kelleher manufactures milled wood molding and is headquartered in northern California. They contacted me for a logo makeover when I was writing my Makeover Maven column for *Corel Magazine*, back when they were a real magazine. Ironically, Kelleher's marketing manager had no idea when he wrote his request that I lived only a few minutes from their main offices. We met, and it turned out the company was actually looking for a new logo rather than a makeover. I agreed to let him see the logos I created for the article, and offered to sell one of the final designs to them. As often is the case, they were very impressed with some of the designs, but in the end decided to keep their present logo, which had served them well for over 20 years, and would continue to do so for many years to come.

Kelleher's current logo represents four pieces of molding, two square and two quarter-round. I have always admired this logo for its simplicity, as well as its relevance to the milled wood business.
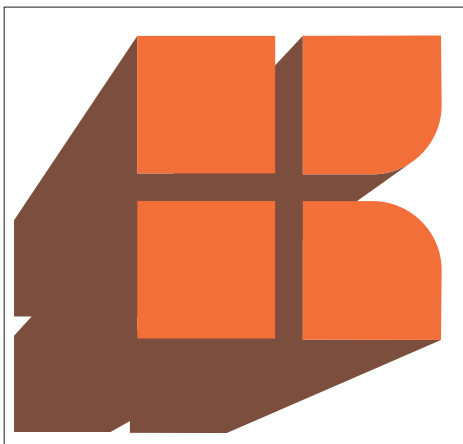
My first impulse was to explore some variations on the current logo, not changing the logo for the sake of change, but perhaps simplifying it. This design uses four quarter-round ends. It is close enough to the original that customers might still associate it with Kelleher.

The next design uses a brown PowerClipped logo placed inside a larger orange logo, again reusing the existing Kelleher logo.
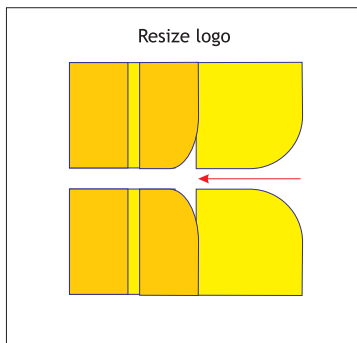

For this next design, I created a blend of two logos, that I had placed in perspective using the same vanishing point. The blend was ungrouped and every other logo colored white, creating an interesting three-dimensional effect.
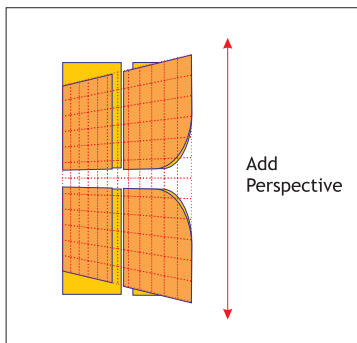
To prevent the logo from looking distorted when I applied perspective, I reduced the width of the logo by about one half.


Resize logo

I added perspective (Effects | Add Perspective) and manipulated the vanishing point until I was happy with the results.

Add Perspective

I made a duplicate, reduced its size by 75%, and placed it about 1¼ inches to the right. Then I created an 11-step blend, separated the blend (Arrange | Separate), and ungrouped the logos. I selected every other logo and changed the fill color to white.

Apply 11-step Blend

Fill every other logo white
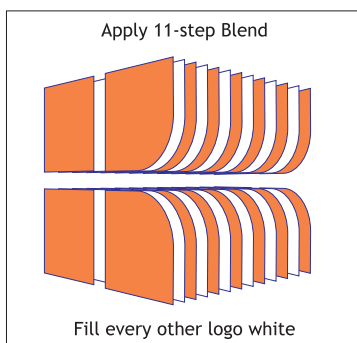
I selected all the logos and set the outlines to none.

Set outline to none
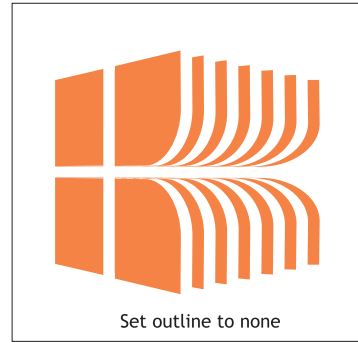
Still working with the original logo design, I wondered how it might look with a wood fill. Pretty clean, actually. The soft gray drop shadow adds dimension.

KELLEHER

As a variation on the last design, I applied an Extrude Bevel (Use Bevel | Show Bevel Only) effect. This design would look really hot embossed on a glossy white-colored presentation folder.


Kelleher

Having covered a variety of designs using the old logo design, I felt confident to try some other approaches. These next two designs were an attempt to create a stacked lumber feeling. The first one used a series of rectangles arranged them to resemble a K. I duplicated the K, made the fill

color dark brown, sent the duplicate to the back, and moved it to the right.
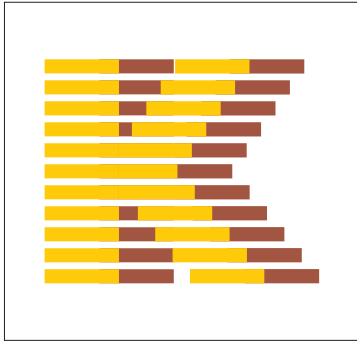
This was another attempt to replicate the look of stacked lumber. For some reason that eludes me now, I liked this design better than the previous one.
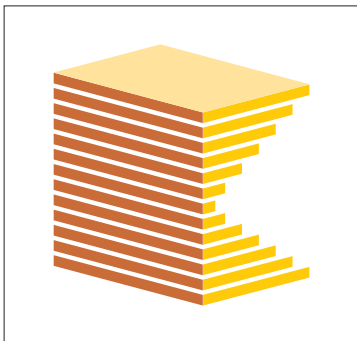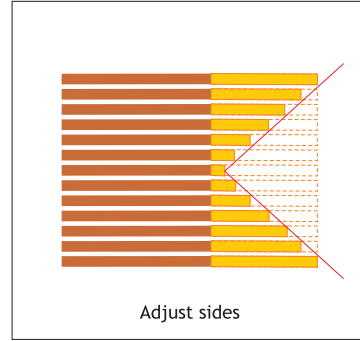

Here are the steps to accomplish the effect.

1. Start with two stacks of rectangles.

2. Create a 45-degree angle and use it as a guide to shorten the yellow rectangles, creating a K shape.

Adjust sides

3. Group the dark orange rectangles, then group the yellow rectangles. Skew each group upwards 15 degrees, using the Ctrl key to constrain the movement.


Skew sides upwards 15 degrees.
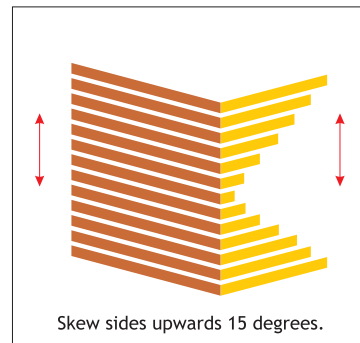
4. The stack cried out for a top. With Snap to Objects enabled, create an L shape, using the top of the two groups as a guide.
5. Rotate a duplicate L shape 180 degrees to make the back side.
6. Select both L shapes and Combine them (Ctrl+L).
7. Select the shape with the Shape tool, marquee select the corner where the nodes were joined, and press the Join Two Nodes button on the Property Bar. Repeat this for the opposing corner.
8. Apply a lighter yellow fill.

Add top
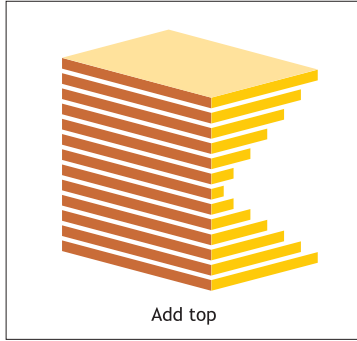
Up till now, I was doing what I like to refer to as metaphorical throat clearing. Some of the designs were OK, and one or two might be viable alternatives to the current logo. But while I was going through the motions of creating these modified logo designs and new designs, my right brain was also on the case.

Suddenly I received a message from the right brain, saying in its own non-verbal way, "Have another look at that folder in front of you. The answer to the logo you are struggling to find is inside!" I opened it up and all I saw was a bunch of cross-section renderings of the decorative moldings Kelleher offered. "Come on, right brain," I said. "You have to do better than this." But my right brain was off working on other problems. So I stared at the cross sections and then it hit me… I could arrange some of these molding cross-sections and make a K!

I scanned the molding cross-section illustrations and picked out three very ornate and distinctive ones to work with. I imported the scanned images into CorelDRAW and created vector outlines of the best three, which I fiddled around with until they formed a K. I created a grid pattern and placed the K on top. This was starting to feel like a winner.
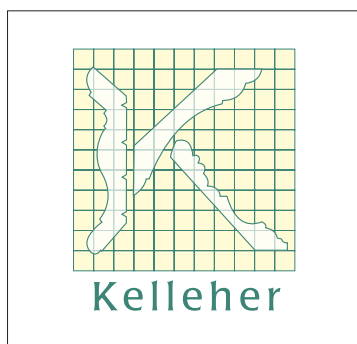
Then I created a 2-step Contour effect to the Outside, separated the contour, and changed the fill on the middle contour shape to White, creating the appearance of an outlined letter.


Although the side view of the molding shapes is helpful, it doesn't show you what the actual molding looks like in 3D. If I could create a 3D version of my logo, it would really spell out what the company does. And CorelDRAW's Extrude effect was the right tool for the job.

I also tried a version using Xara 3D, which produced a very smooth and finished-looking logo with realistic lighting and highlights.

Returning to Corel DRAW, I clicked on the logo with the Interactive Extrude tool and dragged down and to the right. Adding a temporary outline to the logo enabled me to see the extrusion facets.
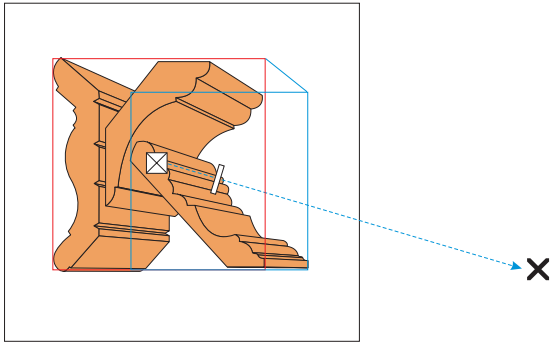
I changed the fill to Solid and set the outline to none.

I added one light source in the default position, with the default setting of 100%. This revealed the shape of the molding in a most dramatic way.
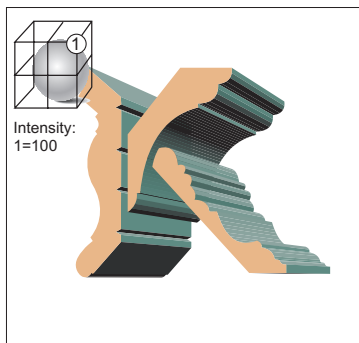

Finally, I added the text in Benguiat Gothic Light, which lent an architectural touch.

BERNARDINI CONSTRUCTION

I traded this logo design for a new set of redwood decks to replace the old ones which were on their last legs. The client's request was for a logo that looked three-dimensional, as if it were constructed rather than drawn. A second request was for a color scheme of red, white, and green, the colors of the Italian flag, representing the heritage of my client. I ultimately presented 12 designs (out of fifty or so preliminary designs) to the client. I'll go through the design process for four of them.

This design features a pair of crossing Bs. It was one of my right-brained ideas, and figuring out how to execute it took a little imagination. Here are the steps I followed.
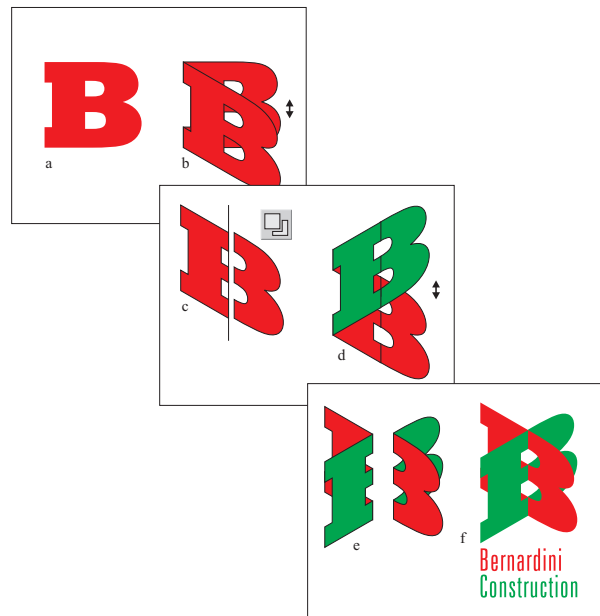
a. Start with a Bold capital B set in Rockwell Extra Bold, a square serif font.

b. Click twice on the B to toggle Rotate/Skew mode. Holding down the Ctrl key to constrain the angle, skew the B down 30 degrees.

c. Construct a vertical line and center it horizontally over the B. Select both the line and the B, and press the Trim button on the Property Bar. Select the B and then Break Apart from the Arrange menu, to separate the B into two parts.

d. Made a duplicate of the two sections (shown in green), and skew it vertically 60 degrees.

e. Pair the two left sections and the two right sections, making an interesting bent effect in the process.

f. Move both sections together.

This was my favorite design, although regrettably not the client's. I though it might look cool to replace the counters (the cut out sections of a letter such as the B) with windows.
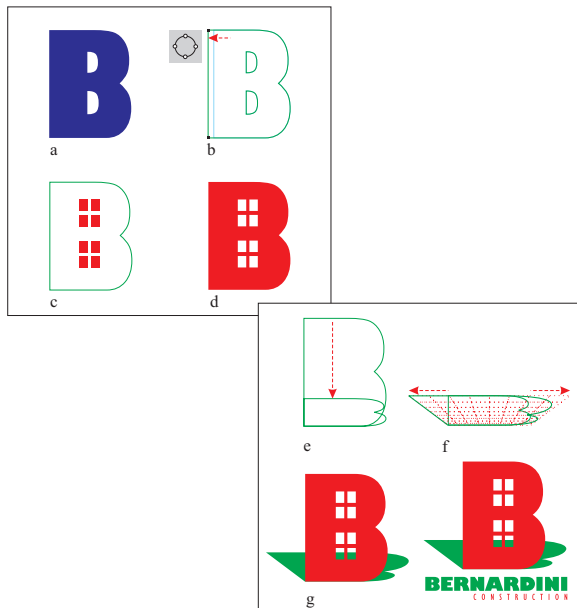
a. Start with a capital B.

b. Convert the B to curves, then select the top and bottom left-hand nodes and move them to the left a little. Select Arrange | Break Apart and delete the two counters. Make a duplicate and set to one side.

c. Group four small rectangles to make a window, combine the rectangles into one object, and made a duplicate. Position them as shown.

d. Select the two windows and B outline shape and Combine by pressing the Combine button on the Property Bar.

e. Squash down the duplicate of the B without the counters to about ¼ its original height.

f. Add perspective (Effects | Add perspective) and holding down the Shift and Ctrl keys, drag the top left corner of the perspective grid to the left. The right side will move in the opposite direction the same amount.

g. Apply a Green fill and send the shape to the back (Shift+PageDown) as a drop shadow.

h. Add the text in two weights of Gill Sans.

Another idea I thought would be cool was to create stacked, 3D red, white, and green Bs. Easier said than done. But after a little trial and error, it worked just swell.
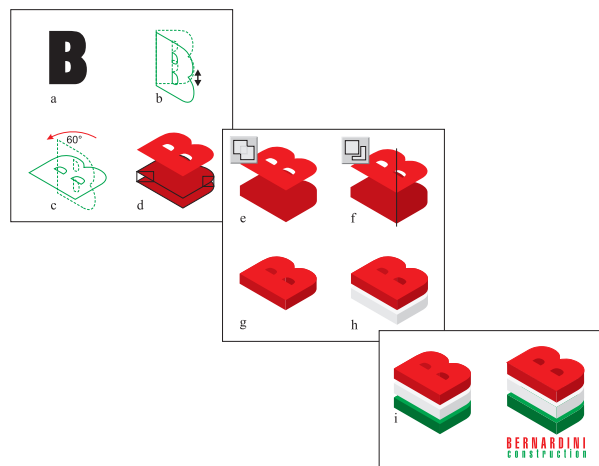

a. Start with a capital sans serif B.

b. Skew the B down 30 degrees.

c. Rotate it counterclockwise 60 degrees.

d. Made a duplicate and move it down about 1/8 inch. Construct two rectangles that cover the opening on the left and right side of the stacked Bs.

e. Select the two rectangles and then the two stacked Bs, and Weld by pressing the Weld button on the Property Bar, making one continuous outline.

f. Construct a vertical line intersecting the point at the bottom of the B. Select the line and the B, and press the Trim icon. Select Arrange | Break Apart to break the B into two sections.

Fill the left section with a dark red and the right section with a darker red.

g. Duplicate the 3D B twice, and stack with a small space between each duplicate set. Change the colors on the middle duplicate to light grays.

h. Change the colors on the bottom duplicate to greens.

i. Add text to complete the logo design.

This next logo was by far the most ambitious of the bunch, and was worth the effort as it was the logo chosen by the client. I needed to create a 3D isometric grid, which took some doing before I figured out a reasonably easy way to do it.
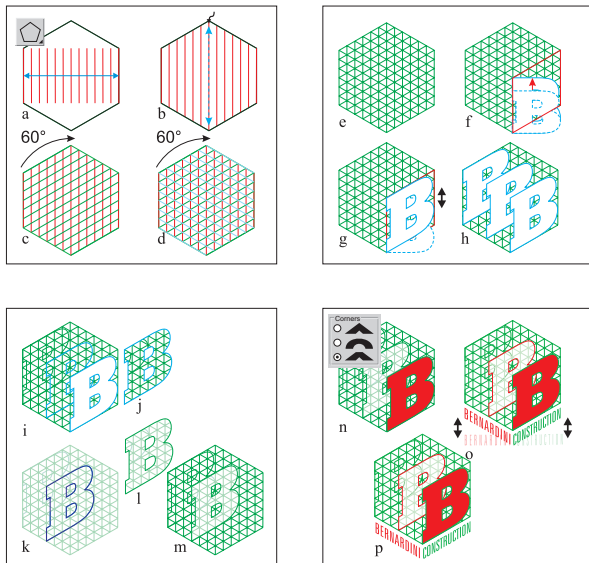
a. Select the Polygon tool and set the number of sides to six. Holding down the Ctrl key to constrain the Polygon to equal sides, create a hexagon to use for reference. Enable View | Snap To Objects and snap a vertical line to the left side of the hexagon. Duplicate the line and snap the duplicate to the right side of the hexagon. With both lines selected, create an 11-Step Blend.

b. Select Split from the Miscellaneous Blend Options button (the button on the Property Bar with the speedometer icon). Click on the center line with the squiggly arrow to indicate where the split should occur. Resize the center line so it snaps to the top and bottom of the hexagon. Separate the blend, ungroup all

(Arrange menu), then regroup the separated objects.

c. Rotate a duplicate of the group of lines 60 degrees.

d. Rotate a second duplicate another 60 degrees. Delete the hexagon, which has served its function as a guide.

e. The isometric grid!

f. I've added a red outline to one side of the grid so you can envision it as the right panel of a 3D cube. Add a capital B in Rockwell Extra Bold, stretched to the height and width of the panel.

g. Skew the stretched B 30 degrees upward, fitting it snugly into the side of the cube.

h. Make two duplicates and fit them in the back and middle of the cube.

i. Send the B in the back behind the grid. (Shift+PageDown)

j. Duplicate the grid, the center B, and the rear B. Lighten the outline color for the grid and the other B. Select the duplicate grid and the duplicate rear B. PowerClip them inside the duplicate middle B (Effects | PowerClip | Place Inside Container).

k. Edit the contents of the powerclipped B (right-click on the powerclipped object and select Edit Contents from the pop-up menu) to make the outline colors a lighter shade of green.

l. Right-click the edited contents and select Finish Editing this Level from the pop-up menu. The results should be a perfect but lighter-colored match.

m. Now the powerclipped B has replaced the central B, giving the appearance of translucency.

n. Give the first B a Red fill and a Green outline. Select the Bs and change the outlines to the option shown, to blunt the ends of the Bs and make them fit better into the grid.

o. Give the center B a Red outline. Add the words Bernardini and Construction, and adjust them to the width of the left and right sides. Skew each word upward 30 degrees.

p. The final logo. If I believed in the overused word "concept," I could say that the concept

for this logo was a mirror of the construction process—planning (the bottom B), construction (the middle B) and finished construction (the red B).

G-TECH

G-Tech manufactures air diffusers—box-shaped affairs that fit into the ceiling of office buildings and connect to the air conditioning ducts to regulate the flow of heated and cooled air. The president of G-Tech was a *Corel Magazine* subscriber, and had been a long-time reader of my Makeover Maven columns. He told me about his products, what they did, and how they worked, and asked me to design a logo for his company. I was intrigued and eagerly accepted the commission.

This design started as a series of O-shaped rings that decreased in width as they got smaller. I removed the top right quarter from each, which looked pretty cool. I then moved each of the O shapes up, creating a thinner space between the rings on the top than on the bottom, and added the text with the G fitting into the open portion in the center.


This was another O shape, from which I removed a small portion and added a circle in the middle. I made a duplicate logo and created a 3-step Blend, which I separated and ungrouped, then filled every other shape white.


As with the Kelleher logo that used the molding shapes, this design really got me excited because it looked like the metal air conditioning conduit ducts used in office buildings. Here's how to create the logo.


1. Modify a circle with the Shape tool, making a 270 degree arc.
2. Add a line to the center to create the G.
3. Combine the arc and circle (Ctrl+L), use the Shape tool to select the two nodes where the line and the arc came together, then select Join Two Nodes on the Property Bar.

Modify circle
Add line to make G
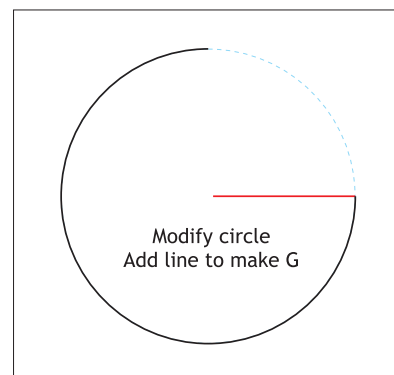
4. To give the conduit a shiny metal look, create a four-color Interactive Linear Fountain fill. Place the two middle colors one almost on top of the for a shiny reflective effect.


Create ellipse.
Apply custom Linear Fill
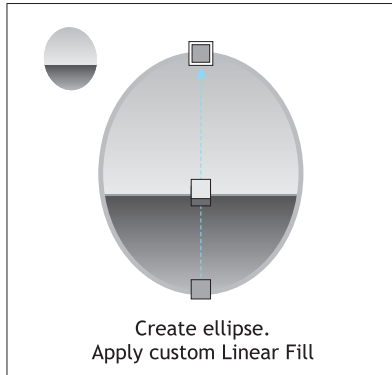
5. Duplicate the shiny ellipse and create a 15-step Blend.
6. Place the blend on the G-shaped path.
7. Duplicate the top ellipse and give it a more diffused-looking fill to create the appearance of an opening in the conduit.


Modified fill

15-step Blend on a Path
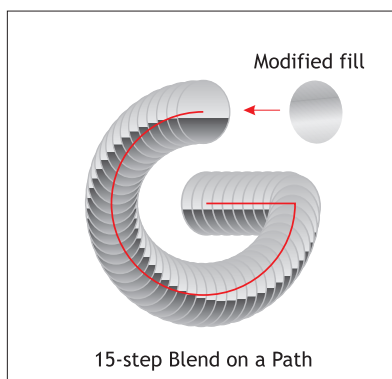
While my client liked the last design, he and his staff liked this one better. They all got the conduit imagery, but felt it lacked class. This design was simpler and more acceptable to them, although they said they would like to see different colors. The design features a stylized grid like the grids found on the air diffuser box grills, and the lowercase g becomes transparent as it is filtered through the grid. Thus, the logo is a metaphor for G-Tech's products.

Because I was going to apply perspective to my grid shape, I reduced the width, making the grid squares about twice as tall as they were wide. As you can see, when perspective is applied (Effects | Add perspective), the shape of the grid shape changes dramatically.

8 x 8 grid   Add Perspective
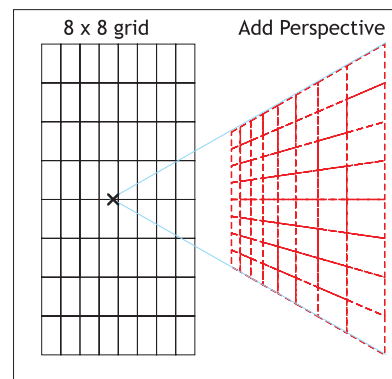
The original logo was created in CorelDRAW 7. Many feature enhancements make it easier to do this logo today in version 9. Unfortunately, combining my grid and then converting the combined grid to an object (Arrange | Convert Outline to Object) was no help. When I broke the shapes apart, I got a hodge-podge of shapes. So I enabled Snap To Objects, and snapped new lines to the grid until I had recreated the grid. I selected the new lines, set the line weight to 1.5 points, combined the lines (Ctrl+L), and then converted the lines to an object. I broke the shape apart (Arrange | Break Apart), deleted the largest shape, and recombined the remaining rectangles.

Recreate lines
Combine Lines
Convert to Object   Break Apart
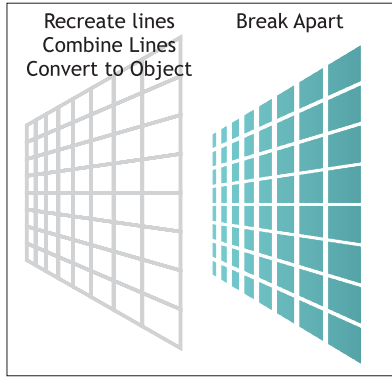
I auditioned lowercase g's until I found just the right font—Baskerville, a classic serif font with elegantly drawn letter forms. I extended the g so it would optically look better with the grid. My client had selected these colors from a sheet of various two-color combinations I had presented.


Stretch g

To create the appearance of the g passing through the grid, I applied an Interactive Transparency, which started in the center of the g (where it would bisect the grid) and ended just beyond the grid. Because we see the very top of the g behind the grid, I created an Intersection of the portion that extended beyond, and set the

Go Deeper

You will find many of these logos here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\draw\logos.

transparency to none. The text is in Adobe's Tekton Multiple Master font.

Intersection

Add Interactive
Transparency
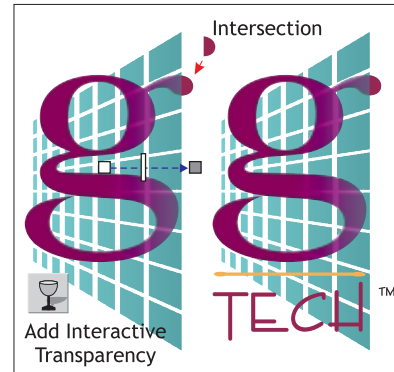
I decided to abandon the transparency because I was very concerned about how it would (or would not) work in an EPS file. Transparency is not supported in PostScript, and can cause output problems. My workaround for this, which is a bit too complex to detail here, involved creating a negative grid shape directly over the g and applying a complex, multi-colored Fountain fill to recreate the fluid transparent look. The result, although it was a major effort to create, was a simple shape that exported flawlessly as a EPS file.

Presenting the Final Logos

Many of my clients are located outside my immediate area. G-Tech is in Vermont, and even though Bernardini Construction is located nearby, because of the client's busy schedule, it was difficult finding a time to review the logos together.

So I prepared a virtual slide show—a Web page with buttons linking to individual pages containing single logo examples. I uploaded the Web page to my Internet Service Provider, then sent the URL to the client. From there, we could both look at the logos on the screen and discuss the merits of each design.   2000

The Script Shop

Killer scripts that any PHOTO-PAINT user can create

This is the second of a series of workshops devoted to the scripting and automation of tasks. Each of these informal seminars will explore a particular aspect of scripting, this one featuring the use of PAINT's scripting tool.

If you are bothered by tedious or repetitive tasks, if you suspect there is a better route to take, if you think a script could make your life easier, you would do well to attend these sessions. If you have specific issues you want addressed, we suggest you visit the Help Center prior to this workshop and tell us about them—our aim is to focus on the particular needs of those attending.

Go Deeper

You will find a treasure trove of scripts for both CorelDRAW and PHOTO- PAINT here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\scripts.

COREL WORLD 2000

Encore!

Summer reruns at the Conference

One of the greatest joys of conferences like this is the abundance of excellent presentations to choose from, and one of the biggest frustrations is having to make that choice. Here is your chance to catch a repeat performance of the Conference's most anticipated sessions.

Near the back of the printed guide you will find a ballot for voting, which you should complete and return to Conference Central by 2:00pm on Tuesday. We will announce and post the encores during the 2:00 sessions.

These sessions are for anyone who would like another chance to see a seminar that they missed the first time around.

COREL WORLD 2000

The Doctor Returneth

It's all relative at CorelWORLD

In his second insightful CorelWORLD presentation, Dr. Einstein will again focus on exploring ways to change our thinking. What we think and how we think are appropriate challenges as we relive stories and revive examples from Einstein's experience. Our starting point is Albert's definition of creativity: "Seeing what everyone sees and thinking what no one has ever thought."

Be prepared for brain boosters, maybe a creative pause, and this year a deeper look into Einstein's Three Rules of Work. Albert is sure to nudge a few neurons, stretch your imagination, and generate more fun than $E=m(c)^2$. If you remember his first visit in 1998, you'll be glad to discover that even a deceased speaker can learn a few things worth sharing.

❏ Find out what you have in common with an Einstein.

❏ Learn the real scoop about relativity.

❏ Receive several on-target techniques to re-frame your thinking.

❏ Enjoy smart and entertaining ways to boost your creativity.

COREL WORLD 2000

Understanding Digital Cameras

An introduction

With over 150 different digital cameras available, how do you choose the right one for your needs, budget, and style? In this seminar, we will discuss the wide variety of features available, and their advantages and disadvantages. We will also put the technology behind resolution into perspective so you can understand what it means to you. Topics include:

❏ Look and feel: Take a reviewer's-eye fly-through of a typical camera, so you can learn how to recognize what's important.

❏ What's good enough: What kind of camera is appropriate for Web publishing, sharing pictures by e-mail, desktop publishing, and prepress?

❏ CCDs and resolution: What do all those numbers mean, and do you really need the greatest number of pixels?

❏ The next generation: Should I wait until the next model comes out, or jump in right now?

This session is appropriate for anyone thinking of buying a digital camera, or just curious about how they work.

COREL WORLD 2000

Understanding Digital Cameras

DIGITAL CAMERAS aren't that difficult to understand, because you already know the basics. Like the vast majority of people, you started taking photographs at a very young age. Okay, you were probably using a traditional point-and-shoot film camera. But that's an important beginning.

Boiled down to its basics, a digital camera is the same thing as a film camera—except that the film has been replaced by an electronic capture device. Of course, this is an oversimplification that can be very misleading. The purpose of this session is to explore the details of what makes up a digital camera and how it differs from a film camera, then to guide you with this new knowledge in picking out the right camera for your purpose, budget, and shooting style.

The Heart of Digital Photography

At the heart of every digital camera is a fingernail-to-postage stamp-sized photosensitive semiconductor, mostly likely a chip called a CCD (charge-coupled device). This is the same kind of chip used in most scanners. The CCD is the source of the camera's resolution rating.

There is only one thing you really need to know about a CCD—its effective resolution. The highest consumer/prosumer CCD resolution available today is 3.3 megapixels, or a resolution of 2048 x 1526. That translates into a captured image that can print out at up to 8" x 10", with the results virtually indistinguishable from a film-based photo enlargement. Well, it will stretch to 12" x 18" with a great printer. But if you try to blow it up larger, image quality will degrade.

But just because the newest cameras have that much resolution, doesn't mean your digital camera absolutely, positively must be a 3-megapixel model.

The first thing to consider in checking and comparing various digital camera makes and models is what you plan to do with your images. That will determine the appropriate size CCD, and hence the digital camera type you will want. For instance, if all you ever plan to do is e-mail photos or post them on your Web site, and you don't need to zoom into details on them, a 3-megapixel camera is not only overkill, but will diminish the value of your pictures. That's because the image files will be too large and take too long to download. What's more, a computer screen can use only so much data, and the rest is useless.

So in many cases, a 2-megapixel, 1-megapixel, or even VGA (640 x 480) model might be your best price/performance value. In the seminar, we will show you what the different size CCDs look like in actual printouts and screen displays. But here are some rules of thumb: A 2-megapixel camera will give you nice 5" x 7" prints, a 1-megapixel about 4" x 5". At the lower end, VGA's maximum quality print size is only 3" x 4", usually best for screen display and/or the Web.

But Wait, There's More…

Just because it is possible, and because they think it will give them a competitive advantage in bragging rights, many manufacturers load their cameras up with dozens of special features and functions—the electronic equivalent of the Swiss Army knife. But which ones, if any, do you really need?

There are only a handful of features that we feel almost every digital camera should offer:

- Good optical zoom lens
- LCD viewfinder
- Removable memory card
- Built-in or attachable flash
- Exposure compensation

Everything else is optional, though your particular needs or shooting style can make one or more of the other features absolutely indispensable.

Let's briefly discuss the mandatory basic features we just listed above.

Daniel Grotta & Sally Wiener Grotta

LENS

The quality of a camera lens is as important as CCD resolution for image excellence. When considering the zoom range of any digital camera lens, always go by the optical zoom rating and not digital zoom numbers. Optical zooms produce a better picture—so much so that we personally never, ever use the digital zoom feature.

LCD VIEWFINDER

The LCD viewfinder is the little screen on the back of most cameras that allows you to preview your shot, as well as see the picture you've just taken. You also use this mini-screen to do some image management and operate camera controls. A camera's LCD viewfinder should be big, bright, sharp, and not too power-hungry. In fact, if you don't like the display or the colors of any digital camera you're considering buying, pass it up and look at other models. Although it's not absolutely necessary, you will probably want a digital camera that also has an optical viewfinder (the little glass window like the ones you are used to in film cameras), because LCDs are notoriously difficult to see in bright sunlight.

REMOVABLE MEMORY

Unless it's cheap, you love the form factor (design), or it has other incredible features, resist the temptation to buy any digital camera that does not have a removable memory card. As their name implies, memory cards are used to save your images. When a card is full, you can quickly and easily swap it out for another, just as you would a roll of film in a traditional camera, and continue shooting. Then, when you are finished, you put your card into a handy adapter and just pop it into your computer. The computer sees it like any other drive, allowing you to rapidly transfer images in seconds or minutes.

On the other hand, cameras without removable memory cards must be plugged into the computer to offload the images you shoot. It's not only much more inconvenient and time-consuming, it means that once your digital camera's built-in memory fills up, you won't be able to shoot more pictures until you do offload all the pictures to your computer. When buying extra removable memory for your cameras, you will want the highest capacity card or cards you can afford.

ELECTRONIC FLASH

Look for two features that will allow you to take pictures in less than optimum lighting: an electronic flash, and exposure compensation capability. Without them, you have a very limited box camera that will be useless in many situations. True, you can always do some post-processing improvement once you're in an image-editing program like PHOTO-PAINT, but you'll always have better quality images if they're exposed right at the time of capture. If you plan to use your camera in a studio situation, get a model that has an external flash connector.

AND A PARTRIDGE IN A PEAR TREE

Other features you may or may not want or need include panorama, burst mode, movie mode, manual exposure controls, internal image adjustments, and many other functions and modes. While you may be tempted to buy a model heavy with features—just because they're included and therefore available—ask yourself seriously which ones just sound like fun, and which ones you absolutely need to get the pictures you want. And if it is just for fun, be sure the camera really *is* fun to use in those modes. Quite frankly, once you go off the default settings, many digital cameras become extremely complex and irritating to use.

Carpe Diem

With digital technology always getting better, faster, and cheaper, you might ask: Should I wait for the next generation of digital cameras, or jump in now?

Our advice? Digital cameras have finally hit the threshold where, for most purposes, they are as good as film…and, in some ways, better. Within ten minutes of getting your camera out of the box, you will be taking pictures. Add another ten minutes, and you will be editing them with PHOTO-PAINT, putting them into a CorelDRAW document, or uploading them to the Web. Yes, there will be better cameras next year. But what about this year's pictures?   2000

The Power of PDF

Portable documents have hit the big time

We can stop calling the Adobe Acrobat format the wave of the future. It's here now, it's the star player—it's the Tiger Woods of professional output. This session explores all the ways that Acrobat files have become woven into the fabric of our business activities, from proofs, to document editing, to four-color high-grade pre-press work. Topics include:

❏ What PDF does and how it does it

❏ The four scenarios for using PDF

❏ Distiller vs. PDF Writer: One rocks and the other…doesn't.

❏ The CorelDRAW factor: What a team!

This session is for users who need to learn about PDF in the first place, or better understand all the different ways in which it can be put to use.

The High-Flier of Professional Output

WE NOTE with both amusement and dismay the fact that Adobe's Portable Document File format continues to suffer through a bad reputation among many of the more casual members of the electronic publishing community. After all, the PDF format—or Acrobat format, to use its commercial name—was born and originally bred for purposes far removed from professional publishing. It was the tool you used when you wanted to show the way a Word or WordPerfect document would look, or how your résumé would appear, or maybe the invitation to your six-year-old's swim party.

In its early days, Acrobat would make half-hearted attempts to get colors accurate and conspicuously weak efforts to get typefaces right. And accuracy in both departments was judged on how the document looked on screen, not on how it printed.

A few years later, by the mid-1990s, several applications (including CorelDRAW) offered a PDF Writer choice on their export or print menus. This was a little freebie application that produced results about on par with screen capture programs. It was nothing at all like creating a press-ready print file, but it came around at the same time that several industry pundits were beginning to discuss the PDF format as a pre-press front end. People took one look at the files created by the hapless PDF Writer and they are still running. Mention PDF to them and they'll duck and cower. Or they'll laugh…

Have we just described you? Or have you not yet gotten around to paying much attention to Adobe Acrobat? In either case, it's time you did—otherwise, you might soon feel as if the world is passing you by.

The Promise of PDF

The Adobe Acrobat format began as a simple proofing device, a way to show others how a document looks, even if they did not own the application that created the document. You could design an advertising spread in CorelDRAW, create a PDF file from it, and then send that file to others, without regard for whether or not they owned CorelDRAW. They needed only to be able to open the .pdf file, which quickly became as routine as opening a .txt file in Notepad.

Adobe Acrobat costs about $150, and the application within the product that creates PDF files is called Distiller. Today, users of Distiller 3.0 or Acrobat

Figure 1
You might not own CorelDRAW or the typefaces we used, but you can still see and print our brochure exactly as it was created, thanks to Acrobat.
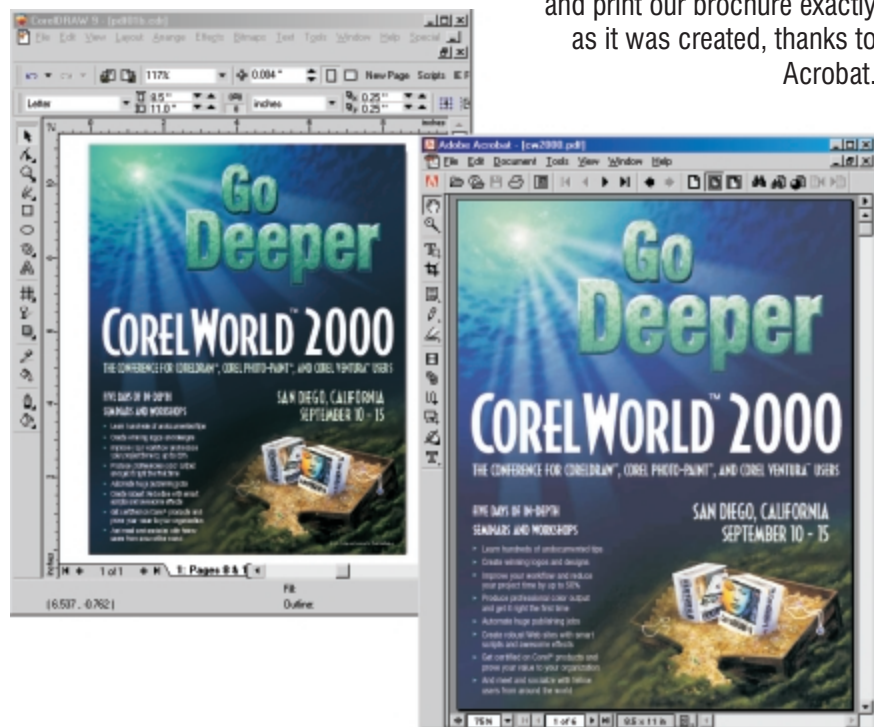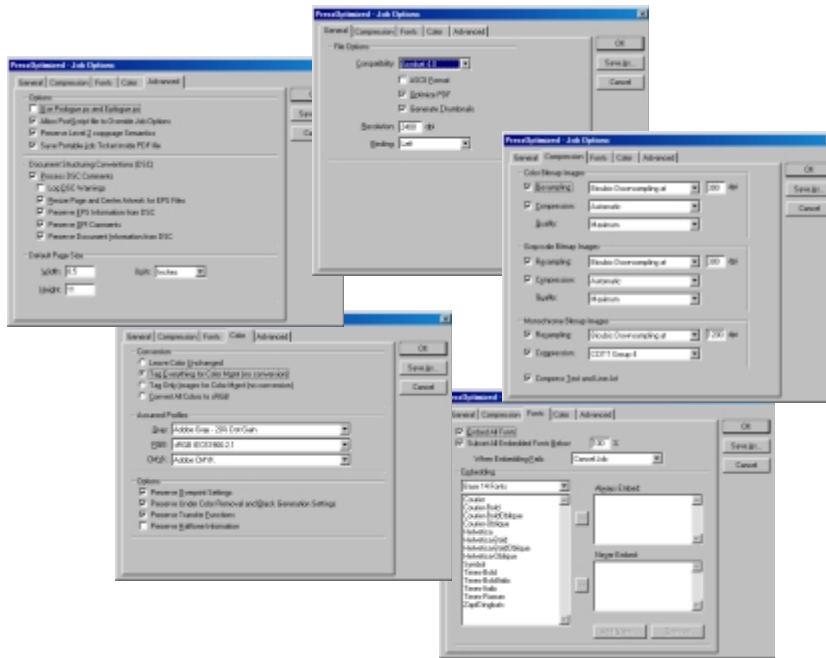
Figure 2
PDF is serious business, with robust controls for handling a thousand-page one-color book or a glossy magazines.

PostScript, just like the print files you used to make. It is not some mysterious printer control language that works in some obtuse way—it uses the same calls, the same commands, the same sub-routines, the same typeface-handling method, the same *everything* as a PostScript print file. Yet PDF journeys well beyond the myopic world of the print file:

4.0 can do much more than just replicate the appearance of a document:

- They can assign the resolution of the output.
- They can determine which typefaces to use, and if necessary, download them with the job.
- They can designate what color model to use and how to calibrate colors for particular output devices.

In other words, not only can a PDF file show how a document is to look, it can also tell precisely how a document should print. It is a full-service pre-press engine. Figure 1 shows the cover of the CorelWORLD brochure in both CorelDRAW and Acrobat. We created it in CorelDRAW; we sent it to our service bureau as a PDF file.

This is all possible when you own the commercial version of Acrobat, as opposed to the el cheapo PDF Writer that many applications offer as a free substitute. It is also attainable, with a few conditions, by users of CorelDRAW 9. Figure 2 shows you the various pages of the Acrobat Job Options dialog—you can see the wealth of pre-press choices available.

Pure PostScript

PDF owes its appeal and success to the fact that, at its core, it is 100% USDA-choice

YOU CAN VIEW IT

You're flying blind when you send a print file to your service bureau, and if there is a problem with the file, you usually don't know it until you have received—and paid for—your film output. But a PDF file is viewable by both the commercial version of Acrobat and the free Reader application, so you get a chance to perform a pre-flight check on your output before you send it off. Your SB gets a chance to do the same, and if there is a problem with your output, the chances are good that a savvy SB operator will detect it, recognize it, and be able to describe it to you.

YOU CAN CORRECT IT

If you or your SB spots a typo, it can actually be corrected with current versions of Acrobat. Assuming that you downloaded the entire character set of the typeface (as opposed to instructing Acrobat to download only those characters that were used), you can activate a text tool, drop your cursor into a line of text, and change it. Editing is limited to line-by-line changes and there is no text wrap, but for simple typos, this could save an entire round of RIPing.

YOU CAN FORGET ABOUT PRINT DRIVERS

When you create a traditional print file, it is as if you were in possession of the printer or imagesetter. You print from the application, using

the specified print driver or PPD file, but you send all of the data to a file instead of to the output device itself. When you turn over that file, you are 100% accountable for its success, and you had better hope you configured the output settings correctly. This is often a troubling notion, because in many cases, you have never even laid eyes on the device and have no clue how a print driver actually works.

But with a PDF file, you are responsible only for creating the PostScript code. The operators at your SB then take over the job of sending the code to the output device (i.e., they open the PDF file in Acrobat and print from there). This is a much better division of labor—they are probably more familiar with the device; it should be their job to arrange correct communication with it. You worry about creating the content and you focus on the Acrobat settings, but you let the SB deal with the actual printer configuration.

NO MORE SEPARATIONS OR TRAPPING TO WORRY ABOUT

With a traditional print file for a color job, you typically create the print data in an already-separated state. If there are any trapping issues, you'd better know how to address them and fix them, because after that, you'll be on your own. PDF files are typically sent as *composite* files—all colors in one file. Again, your SB is responsible for sending the data to output, so it handles the separations, not you. Perhaps more important, your SB can use some of the sophisticated trapping software available today (designed to work only on composite files), eliminating entirely the whole issue of registration errors and how to minimize their impact.

Creating and Using a PDF file

In its most automatic state, creating a PDF file is a simple matter of printing: You print to the Acrobat Distiller driver and a few moments later (10 seconds to 10 minutes, depending upon the job), a PDF file bearing the same name as the document appears on your hard drive. The default location is "PDF Folder" under the main Acrobat folder.

This seems like magic, and there is no magic allowed in this presentation, so we are going to identify exactly what goes on during this process.

1. PostScript code produced

The Distiller driver is a PostScript print driver, so the first thing that takes place is the creation of the PostScript code that describes the page or pages. It is relatively generic PostScript, with no specific knowledge of the ultimate output device (i.e., it doesn't know what the bleed limit is, if there is a dead zone around the edge, or arcane facts like some imagesetters using Transverse Portrait rather than Landscape). You'll get a chance later in the process to adjust printer-specific settings.

2. Acrobat Distiller started

Even though you might not see it, printing to the Distiller driver automatically activates Distiller, and the PostScript code is sent to it. Once done, Distiller…well, distills the file. It compacts it way down, and it transforms the PostScript code into a viewable package. This package is saved as a PDF file.

3. PDF file opened in Acrobat

The other main application in the standard Acrobat product is the program formerly known as Exchange (and now simply called Acrobat), capable of opening, viewing, and printing a PDF file. When your service bureau prints a PDF file from Acrobat (or when you print a PDF file a local printer), it is then that a particular printer configuration is used—just as if you were printing directly to that printer from Word, VENTURA Publisher, CorelDRAW, or QuarkXPress.

There are various degrees of automation that you can bring to this process, and at its most automatic, it does seem almost magical. On the other side of the spectrum, you can tell CorelDRAW to print the PostScript code to a file. Then you can start Distiller and open the file to distill it. While it takes more steps, we prefer this route because it gives us a chance to adjust the settings. We really like the Watched Folders feature, and show exactly how it works in the presentation.

CorelDRAW's Publish to PDF Feature

If you experimented with CorelDRAW 8's Export to PDF feature, you may well be thinking, "Once burned, twice shy." That PDF export filter was—how shall we say—awful!

But the Publish to PDF engine in version 9 is different. It is not a rewrite of the CorelDRAW 8 filter, but a completely new engine built by Corel for Corel from the ground up. It purports to create PDF files as well as Adobe Acrobat, and Corel's claim for it has teeth—it works. We have found Publish to PDF to be very convenient, a great display of technology, and…almost perfect.
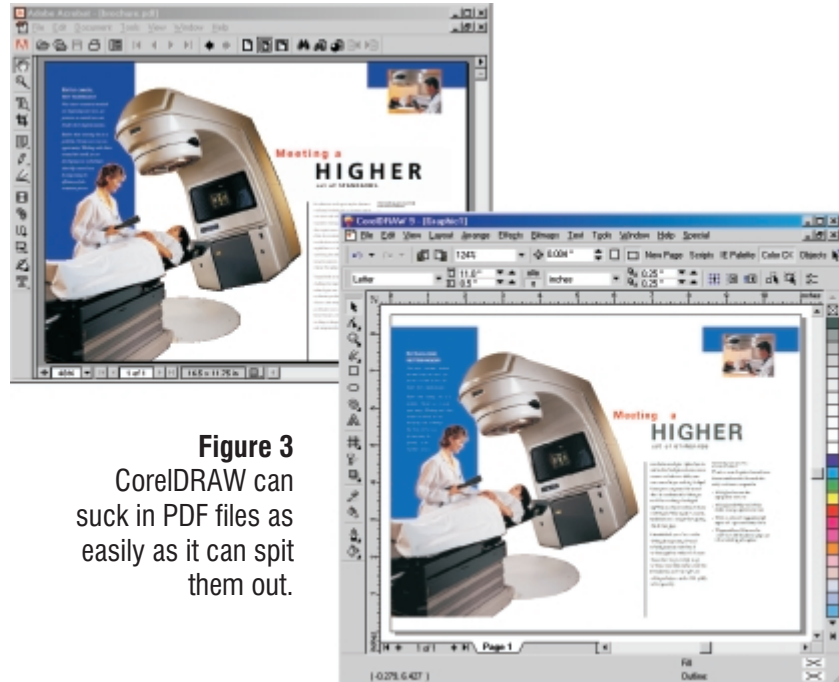
When it performs as expected, it is every bit as good as Adobe Acrobat. (It does not achieve the same level of compression, but that is immaterial to the core issue of output quality, accuracy, and pre-press worthiness.) And it is easier to use—you essentially perform an export and CorelDRAW does everything else for you.

Its problems are mostly related to its status as a rookie, and we look forward to watching it evolve. Issues that we know of include:

Figure 3
CorelDRAW can suck in PDF files as easily as it can spit them out.

- Certain typefaces cause mysterious dropouts of characters, and while this is very rare, it is obviously unsettling.
- There is no support for Acrobat's ability to set security and access levels, such as password protection, printing rights, etc.
- Jobs that require bleeds are not as easily produced with Publish to PDF. With Distiller, you create a print file, and therefore it's simple to define a page size larger than the actual page in CorelDRAW. But Publish to PDF concerns itself only with the page, not any elements that hang over it. To create a bleed and output it with Publish to PDF, you would need to adjust the page size in CorelDRAW first. That can be very inconvenient.

Going in Reverse

Acrobat files give CorelDRAW an additional opportunity to show off. So far, the discussion has been about going from CorelDRAW to PDF. Corel's import filters are so good that you can go in the other direction also. In our estimation, CorelDRAW 9 is without peer when it comes to importing PostScript files. We don't just mean the simple placement of EPS files; we refer to the ability to read and interpret the PostScript code and create editable objects and images from it. CorelDRAW does that better than any other application. Most don't even try.

And this capability extends to PDF files (because, after all, they are PostScript at their core). You can import a PDF file and ask CorelDRAW to interpret its various elements and offer them to you as a set of editable objects. Figure 3 might look a lot like Figure 1, but it is actually precisely the opposite: We pulled this PDF file from the Web and then imported it into CorelDRAW, with all text remaining editable and all other objects taking their rightful vector or bitmap forms. When we show this at the presentation, expect your jaw to drop.

We'll show you a lot more, too. Acrobat has proven to be one of the most flexible formats around for carting documents from one place to the next. We are continually finding new ways to use the technology and the format. It's no wonder an entire industry has grown up around it. **2000**

The Morning Muse

Reserved for on-site requests

One of the most valuable aspects of less structured presentations is how agile we can be with them. If a lot of you are asking the same questions at the Help Center, we'll create a workshop on that topic. From Tuesday through Friday, the first session each day in the Corner Pub will be devoted to a topic that you have requested. We will take input from the previous day and post the daily topic before breakfast that morning.

Daniel Grotta & Sally Wiener Grotta

Wednesday • 11:15am

Using Digital Cameras

Exploring further

Okay, you've bought your digital camera. Now what do you do with it? In this seminar, the Grottas will explain some of the tricks of using digital cameras effectively. You'll learn how to download your pictures to your computer and into Corel software, and share them via e-mail, on the Web, and in print. Topics include:

❏ The limits of digital photography: Understanding what your camera can and can't do, to get the best pictures possible

❏ From camera to computer: There's the easy way and the hard way, but it's all much more simple than you thought.

❏ Playing with pixels: A quick overview of how to use your pictures with CorelDRAW

❏ Show and tell: Using the right kind and size of picture for the right purpose

This session is appropriate for novice to intermediate users of digital cameras.

COREL WORLD 2000

We're Going Digital… Now What??

THE QUESTION we are asked most frequently by friends, family, associates, readers, and attendees at virtually all of our seminars is: Which digital camera should I buy? It's a loaded question, one that always gives us pause before we brave a response. There is no simple, single answer, no perfect one-size-fits-all digital camera. It's simply not possible for us to give a helpful, informed product recommendation unless we ask the would-be buyer a lot of leading questions first:

- What kinds of subjects do you want to shoot?
- How and where will most of your images be output or displayed?
- How knowledgeable and experienced are you working with film cameras?
- How would you describe your shooting style?
- What is your level of familiarity with computers?
- What do you already know about basic digital camera technology?
- How much money do you want to spend for a digital camera?

In this seminar, we'll wade through those questions, one by one, to define, refine, and identify the type of digital camera that is best suited for your needs, expectations, and budget.

What Is Your Subject Matter?

In selecting a digital camera, it's the tail that wags the dog. In other words, the technology, the product, and even the model are determined by what you intend to do with the camera, and not the other way around.

If you're an illustrator who occasionally shoots layouts for reference only, or a Web designer who wants to incorporate head shots of company employees on your corporate site, then it would make no sense to invest in either an expensive studio scanback or a cheap fixed focus point-and-shoot digital camera. Instead, look at the range of products that are capable of accomplishing the tasks you need to do, and concentrate in that range.

Let's break digital cameras into four basic categories. You should be able to easily and quickly see in which group you should be looking for your digital camera.

PROFESSIONAL STUDIO CAMERAS

Group 1 is the professional studio camera. These are tripod-mounted devices, usually tethered to and shot from a computer. Some can shoot in real time (live models, action, things happening), while others

The Nikon D1, a professional portable camera that uses standard lenses

Olympus's C2500L SLR prosumer camera. Try not to drool all over the lens.

require anywhere from a few seconds to a quarter of an hour to complete their exposure.

They're big, heavy, and expensive—$10,000 to $45,000—and require expert knowledge to operate properly. The only people who should buy professional studio cameras are professional studio photographers.

PROFESSIONAL PORTABLE CAMERAS

Group 2 are professional portable digital cameras. These models use Nikon, Minolta, or Canon 35mm film camera bodies on the front end and digital camera technology on the back end. Using film camera bodies allow them to incorporate important pro features, such as interchangeable lenses and other accessories. Some can take rapid series of shots—what's called the burst mode—while others offer such capabilities as high-capacity image storage or in-the-field wireless transmission to a news desk or home base.

Pro portable digital cameras are costly—from $4,000 to $28,000, not including lenses and accessories—and work best in the hands of a pro. They're typically used for photojournalism, sports, fashion, or scientific/medical applications. They're definitely overkill for the occasional user.

PROSUMER CAMERAS

Group 3 is probably where most of you fall: the advanced amateur/prosumer market. These cameras are capable of capturing high-quality images, usually incorporate a long list of functions and features, and typically cost between $800 and $1,500. What separates them from pro portables is that their lenses are not interchangeable, they don't shoot nearly as fast, and they are more difficult to operate once they're taken off full automatic. Also, the pro camera lenses usually incorporate better glass and optics, which translates into higher picture quality.

Advanced amateur/prosumer cameras are ideally suited for users in the professional graphics fields who are not themselves professional photographers.

HOME CONSUMER CAMERAS

Group 4 is basically for the home market, as well as for technically unsavvy users. Most of these cameras are easy-to-use point-and-shoot devices, though many also incorporate lots of other features for those able and willing to use them. Some can take excellent quality images, albeit as smaller sizes; enlarge them past 4" x 6" or 5" x 7", and the images begin to pixelate and fall apart.

Consumer digital cameras range from under

A high-end consumer camera

$100 for basic bare-bones models, to about $700 for cameras that reach almost into the prosumer realm. Group 4 cameras are for the kids, for use on vacations, for real estate agents and insurance adjusters…but they're also great for capturing images for the Web.

How Will Your Images Be Output?

Are your digital photographs destined for print or the Web? At what quality? Shooting for a glossy magazine ad that will be printed on an 8.5" x 11" page at 300 dpi requires a far different camera than one shooting for Web output in indexed color at 72 dpi. A rough rule of thumb is that consumer digital cameras can output prints at 3" x 4" to 5" x 7", a prosumer camera can output 8" x 10" prints, pro portable cameras are usually good for up to 11" x 14", and pro studio cameras can generate posters to billboard-sized prints. The bigger and finer the detail of your intended output, the more expensive camera you will need. On the other hand, if you rarely—if ever—make large prints, why pay a premium price to buy a camera that will do more than you need it to?

Do You Have Film or Video Camera Experience?

If your VCR is still flashing 12:00, or you call the electrician to change a lightbulb, don't buy a digital camera whose complexity will intimidate and overwhelm you. Some digital cameras allow users to manually set such photo and video parameters as f-stops, shutter speeds, white balance, ISO equivalency, etc. If you don't know what they are or how to utilize them effectively, don't bother considering a camera with those features and options because you'll never use them, and may ruin your shots by trying.

What Is Your Shooting Style?

When you use a film camera, do you typically shoot ten rolls in a morning session, or one roll a month? Do you like motor drive action that allows you to capture two, three, or more frames in rapid succession, or do you prefer to carefully compose each shot? Do you shoot primarily outdoors in bright sunlight, do you use studio strobes, or do

you like working in available light? Do you like total control over light and focus, or shoot on auto so the technology doesn't get in the way?

There are specific cameras that are best suited for the way you work, from heavy, beefy devices to lightweight, pocket-size models that you can take with you anywhere. Determining which is best for you means comparing lists of camera attributes and features, as well as getting some hands-on experience handling each potential purchase.

Are You a Computer Geek?

Digital cameras work best when you can download the images to your computer and perfect them with image-editing software. How easily or quickly can you get those images into the computer? Does your camera come with an easy-to-setup interface and a powerful image-editing program? (Of course, as Corel users, you are probably already intimately familiar with PHOTO-PAINT 9). Can you use an adapter for faster, more direct downloads?

What Do You Already Know About Basic Digital Camera Technology?

Prosumer cameras usually offer the best compromise between quality, features, and cost for non-photographers who will use their images professionally, but their operation can be quite complex for all but the most basic tasks. If you are not very familiar or comfortable with digital camera technology, but need features beyond those offered by home consumer cameras, consider how much you will need to learn to use the camera you have chosen effectively.

How Much Do You Want To Spend?

Finally, consider your budget. While it would be shortsighted to make your buying decision solely on the basis of cost, you will find a wide price range within the digital camera category that best suits your needs.   2000

Successful Scanning

Good output requires good input

As good as scanners have become, graphic designers still have challenges getting the most out of them. In this seminar, we will begin with scanning fundamentals, then see how to deal with some of the real-world problems that occur every day to everyone. You'll learn many tips and tricks that will allow you to get the very best image out your scanner. Topics include:

❏ Scanners, resolution, and other boring stuff

❏ Scanning images that are too small, too thin, or otherwise troublesome

❏ Scanning physically difficult images such as dog-eared, stained business cards; images larger than your scanner; photographs that have been creased; and screened images

❏ Color calibration—getting your scanner and printer to agree

❏ Creative ways to use your scanner as a digital camera

This session is for anyone who wants to get better scans. It does not require previous knowledge of PHOTO-PAINT or nuclear thermodynamics.

COREL WORLD 2000

Scanning Fundamentals: Bringing It All In

SCANNING IS not difficult, it simply takes knowing a little and working a little to extract the most out of a printed image. Even today, with digital cameras that provide high-resolution images becoming so inexpensive, it is necessary to use scanners to bring photographs and drawings into a computer.

Over the last few years, the price of desktop scanners has dropped while the performance of the scanners has increased dramatically, resulting in more and more people owning and using them. Sadly, many users—including graphic professionals—do not understand some basic fundamentals necessary to get the best quality image from a scanner into Corel PHOTO-PAINT and out to a printer.

Scanners, Scanning, and CorelSCAN

The most commonly-used device to input photos, line art, or hand-drawn pictures into a computer is a scanner. You also need to use a scanner—either yours or one at a service bureau—to bring existing photos and artwork into PHOTO-PAINT.

A scanner is a device that captures an image and converts it into a digital pixel map for computer processing. Think of it as a camera and a photocopier combined and connected to a computer. Like a camera, most scanners capture an image with depth (grayscale or color), whereas a copier records only black and white. As with a copier, the object being scanned is usually placed on a glass plate (the copyboard), where it is scanned. What makes scanners different is that the image is not captured on film or reproduced on paper, but rather stored in a computer file, where it can be opened and manipulated to the limits of one's imagination and work schedule.

BRINGING SCANS INTO PHOTO-PAINT

The only way to move images from a scanner directly into PHOTO-PAINT is to use the TWAIN driver provided with your scanner. TWAIN interfaces provided by scanner manufacturers range in functionality from the bare essentials to very sophisticated interfaces which provide many presets and automatic scanning functions.

Another option, CorelSCAN, was available in PHOTO-PAINT 7 and 8. The purpose of CorelSCAN was to automate many of the operations, such as redeye removal, tonal adjustments, and almost anything else that can be done on a scanner. It wasn't very successful, and by version 9, it had disappeared from the box.

THE MEETING OF THE TWAIN

First, ensure that your scanner's TWAIN drivers are installed; PHOTO-PAINT does not install any scanner drivers. If you have already installed the software that came with your scanner, you have the necessary TWAIN driver installed.

To determine what TWAIN drivers are installed, choose File | Acquire Image | Select Source. This opens the Select Source dialog box, with a list of all of the installed TWAIN drivers in Windows 95/98. If your scanner does not appear, its TWAIN driver is not installed. If no TWAIN drivers are installed, you will see a warning message indicating a TWAIN driver could not be found. You cannot use any scanner to scan into PHOTO-PAINT until a TWAIN driver for it is installed.

To install a TWAIN driver, install the software that came with your scanner. If you have an older scanner, you must use a Windows 95 TWAIN driver; contact the manufacturer of your scanner if you do not have one. Windows 98 users may require an updated driver. I am using a Hewlett-Packard 6100 scanner, and it needs an updated driver to work properly with Windows 98.

David Huss

To scan an image using the scanner's TWAIN drivers, choose Acquire Image from the File menu. Select Acquire. Your scanner's own dialog box will appear.

Note: Some older or discontinued scanners do not have Windows 95 TWAIN support and cannot be used to scan directly into PHOTO-PAINT. This is something to keep in mind the next time you hear about a bargain scanner a friend wants to sell you.

Scanning with CorelSCAN

If you have PHOTO-PAINT 7 or 8, you can also use CorelSCAN, either as standalone application, or from within PHOTO-PAINT by choosing File | Acquire Image | Acquire from CorelSCAN. CorelSCAN features a wizard style of operation. The first time you use it after installing PHOTO-PAINT or a new scanner, it will run a series of tests that check the capabilities of your scanner to see if it is safe to use without the driver's UI, check whether the scanner supports ADF (Automatic Document Feeder), determine what type of resolution it supports, etc. It stores the results in a configuration file, which is then used by CorelSCAN to optimize its scans.

CONFIGURING AND TESTING THE SCANNER

To set up the configuration of your scanner, click the Configure Scanner button on the opening screen of CorelSCAN. From the Scanner Configuration dialog box, you can select your specific scanner configuration, as well as test the scanner's operation with CorelSCAN. After completing the configuration, give the configuration file a unique name and save it. The configuration you saved can now be accessed from the CorelSCAN opening screen.

CorelSCAN scans an image and saves it as a raw image. From there, any processing that is requested by the user (redeye removal, image enhancement, and so on) is applied to a copy of that raw image. If CorelSCAN was launched as a standalone application, you have the option to save the raw scan when the scan is finished, otherwise it is discarded.

The Story of TWAIN

Not so long ago, it was the responsibility of every company that wrote paint (bitmap) programs to provide the software necessary to communicate with the scanner. However, every scanner spoke its own language, and unless you owned one of the more popular scanners, you could not access the scanner from within your paint or drawing program. It was usually necessary to run a separate scanning program that was provided with your scanner to scan in an image, then load it into your favorite paint or OCR program. That may sound like a lot of work, and let me assure you, it was.

Then one day all of the scanner people got together and said, "Let us all make our scanners speak one language." So they came up with an interface specification called TWAIN.

Why is it called TWAIN? My favorite explanation is credited to Aldus (now Adobe) Corporation. They say TWAIN means "SpecificaTion Without An Interesting Name." Logitech, one of the driving forces behind the specification, gives a different answer: "It was a unique interface that brings together two entities—application and input devices—in a meeting of the "twain."

Whatever the origin of its name, the TWAIN interface allows any program that supports TWAIN to talk to the scanner directly through a common interface, and for that we should all be thankful.

AUTOMATED SCAN WIZARD

CorelSCAN does not require users to understand the scanning process. It asks you a series of questions about the source material being scanned, it what processing you want done, and where the final output of the scan will be used. These answers help determine how the scan will be set up and processed.

Be aware that selecting "high quality art" will cause the image to be scanned at the highest optical resolution of the scanner, using 24-bit color for the raw scan. This can take a long time and result in very large image files. I recommend that you change the recommended resolution to a maximum of 200 dpi.

The automated features offered by CorelSCAN include dust and scratch removal, image enhancement, rotation, redeye removal, and cropping. Others may also be available, depending on the image type you choose to process. While all of these operations can be accomplished in PHOTO-PAINT, CorelSCAN provides a wizard-like approach for scanning that you may find desirable. Regardless of which approach you take, you will end up with an image in PHOTO-PAINT—which was our original goal.

Once you have made your choices using the wizard, you can save these settings as a preset and access them the next time you scan an image. While Corel provides an excellent library of presets with CorelSCAN, you will find it quite helpful to add your own presets for the specific type of work you do.

ADVANCED INTERFACE

Enabling the Advanced Interface option on the CorelSCAN opening dialog box bypasses the wizard and uses the currently selected preset to process the scan. This is a great time-saver for batch jobs.

Note: For more information about using CorelSCAN, click the Help button when the opening splash screen appears. You will find a wealth of information there about CorelSCAN and its features.

Import Plug-Ins

Import Plug-Ins allow third-party programs to be used to control and at times automate the scanning process. Although PHOTO-PAINT supported Import Plug-Ins as early as version 7, in later versions, both Import and Export Plug-Ins appear as separate items on the File menu.

Examples of such programs are the PhotoPerfect program shipped with UMAX scanners and the SilverFlash program shipped with Epson scanners. Both of these programs offer many automated features to provide the user with the best possible scans with the least amount of effort. Installing either the Import or the Export is simply a matter of installing the software per the manufacturer's instructions, then configuring PHOTO-PAINT to use it just as it would any other plug-in.

Wrestling with Resolution

A TRICK QUESTION

During a recent CorelWORLD conference, I had the opportunity to ask literally hundreds of attendees the following question: "If you are going to print a photograph on a 600-dot-per-inch (dpi) printer, at what resolution should you scan the image?" More than half answered they would use a resolution of 600 dpi. Was that your answer? If so, read on. If you answered with any resolution from 100 to 150 dpi, you are correct. But even if you knew the correct answer, I hope that you will either learn something new or remember something you once knew.

If you answered 600 dpi in the trick question, don't feel bad. Logically, it makes sense that the resolution of the scan should be the same—or nearly the same—as that of the printer. The problem with this reasoning is in the definition the term *resolution*. When I speak of the resolution of a scanner, I am not using same units of measure as when describing printer resolution. In fact, the elements being measured are not even the same shape. Scanners scan pixels, which are square, and a printer makes dots, which are round.

For purposes of illustration, we'll refer to a black-and-white laser printer for the comparison that follows. All of the same rules apply to color

printers and scanners, though the math is a little more complicated.

DOTS, SAMPLES, AND HALFTONES

The resolution of the printer dot is measured in dots per inch. Each dot made by a 600-dpi printer is 1/600 of an inch in diameter. These printer dots only come in two flavors: They are either on or off.

So how can you make a grayscale image that contains 256 shades of gray with dots that only come in black and white? With halftone cells. Here is a simple example. If I were to construct a square that was 100 pixels on each side, it would contain 10,000 pixels. If I made 5,000 of the pixels black and placed them on the left side of the image, the left half of the image would be now black and the right half would still be white. But if the pixels were arranged so that every other pixel was black, the whole square would appear to be 50% gray.

To be accurate, we should describe the resolution of a scanner in samples per inch (spi). So why do the scanner manufacturers list the resolution of their scanner in dots per inch rather than samples per inch? The answer is that they used to. Early scanner resolutions were given in samples per inch (spi), or sometimes in pixels per inch (ppi). The result was confusion. When the scanner expert at the local computer super center (who only last week was probably the tropical fish expert at the local pet super center) began to use the term dpi to describe scanner resolution, so did everyone else. Soon all of the scanner advertisements and specifications listed the resolution in dpi.

Each sample of a scan at 600 dpi is 1/600 of an inch square (remember that pixels are square). Unlike the printer's dot, which can have only two possible values, each scanner pixel can have one of 256 possible values. (Remember, for simplicity we are talking about grayscale here.)

At this point, we can see that a scanned pixel is much more like a printer halftone cell than the original printer dot. So how do we determine how many halftone cells per inch our printer is capable of producing? If you look in the back of your printer manual, you won't find a setting for halftone cells per inch, but you may (and I emphasize *may*) find a setting for either screen or

line frequency. An old rule of thumb for scanning is: *Scan at twice the line (screen) frequency of the final output device.* This rule has become pretty outdated. It would have the user scan a photograph at 240 dpi, assuming a 600-dpi laser printer has a line frequency of 120 lpi (2 x 120 = 240 dpi). This would be almost twice the resolution needed, resulting in a file nearly four times larger than necessary while producing little improvement in image quality.

WORKING THE MATH

There is some serious math we can use to calculate the ideal resolution to match the scan to the output device, but I have listed some basic rules for scanning different types of images. These rules are compiled from recommendations by various scanner manufacturers and service bureau operators. When you know the final output is going to a service bureau or a printer, ask them what resolution they expect, then follow these scanning guidelines:

Image Type	Final Output	Recommended Resolution
B&W	Laser printer (600 dpi)	600 dpi
B&W	Screen	Convert B&W image to grayscale and use 72 dpi
Grayscale	Laser printer	150–200 dpi
Grayscale	Imagesetter*	200–300 dpi
Grayscale	Screen	72 dpi
Color	Color inkjet	100–150 dpi
Color	Imagesetter*	150–300 dpi
Color	Screen	72 dpi

*check with service bureau

Guidelines for Image Types

The guidelines for scanning images depend on the nature of the source material, as well as the final output device.

TEXT AND LINE DRAWINGS

Text and line drawings are truly black-and-white images. They are also called *line art* or *bi-level* images, and Adobe refers to them as *bitmap images*. Regardless of what you call them, either a white dot or a black dot is scanned and then printed. Unlike continuous-tone images like photographs, which have smooth transitions, the transitions in line art are abrupt and produce sharp edges. Because of these sharp edges, this type of image should be scanned using the following rule: *Scan with a resolution equal to the maximum resolution (in dpi) of the final output device, up to but not more than the scanner's maximum resolution.*

One word of caution: You may find that following this rule causes problems with the RIP (Raster Image Processor) when you are outputting to an imagesetter. RIPs seem much more sensitive to image resolution than to image size. It is not uncommon to output a 20MB grayscale image with a resolution of 200 dpi with no problems, yet have the imagesetter choke when it gets a 1,000-dpi image, even a small one.

Whenever your print job contains line art, I recommend using the fastest and newest RIP available. If the job is large, and especially if it contains multiple scans, run some test pages first. It has been my experience that black-and-white bitmap images print much faster if the art is at the same resolution as the imagesetter itself. I am told this is because the imagesetter doesn't have to rescale the work, so the image gets sent right through.

Line art and text are the only images that are scanned at maximum resolution. Because the color depth value of each pixel is binary (either on or off), the file sizes do not become extremely large. If you scan this type of image at lower resolutions, you will discover that it produces jaggies (the stairstep effect that appears in diagonal lines or curves when reproduced digitally).

Tricking the Eye

Did you notice that black and white requires the highest resolution, and color doesn't require as high a resolution setting as grayscale? This because color offers a greater tonal range than grayscale. As the number of shades in an image increases, the need for high resolution decreases. When there are only two colors (black and white), it is very easy for the eye to detect imperfections in the image.

COLOR TEXT AND DRAWINGS

These images present a problem for scanning, because they require the same high-resolution scanning as discussed previously, with the additional overhead associated with color. File sizes can become as large as the federal deficit in a big hurry. There are several ways to minimize this problem:

- If your scanner supports it, scan the image in at 256 colors. Converting the file to 256 colors reduces its file size by 66%.
- If your scanner can only do 24-bit color, bring the image into PHOTO-PAINT and convert it to 256 colors, using the Image | Convert to command. Choose Optimized palette, not Uniform, and keep dithering set to None.

You can also use CorelTRACE to convert the image to a vector image, or scan it in as a black-and-white image and replace the black in PHOTO-PAINT with colors similar to the original.

PHOTOGRAPHS

Continuous-tone images such as photographs can be color or black-and-white. This type of image is less detailed and requires lower resolution than line art. The rule for them is simple: *Scan photographs at 100-200 dpi.*

Some exceptions to this rule are:

- For 300-dpi laser printers, scanning at 100 dpi is usually sufficient.
- For 600-dpi lasers, scan at 150 dpi.
- For imagesetters (including high-resolution lasers that produce camera-ready art), scan at 200 dpi.

Scanning at a higher resolutions than those stated above rarely improves image quality and produces very large file sizes. Each time the resolution is doubled, the file size quadruples. Large image files take a long time to process, and time is money at your service bureau.

COLOR SLIDES AND NEGATIVES

Continuous-tone images in photo transparencies such as 35 mm slides generally contain more detail than photographs. They are also physically smaller. The rule is: *Scan at the resolution necessary to achieve the desired size at 200 dpi, up to the maximum interpolated resolution of the scanner*. Remember that even though the resolution is high (up to 2,400 dpi), the area being scanned is usually very small, so you rarely end up with monster-sized files.

To scan negatives or slides on a flatbed scanner, you'll need a transparency adapter. A transparency adapter is a light table in the form of a scanner lid. It lets you scan in a black-and-white negative and turn it into a positive. Some scanners offer the adapter standard, as is the case with the PacificImage 1800, shown below, that will be on display at the conference.

Most scanner software programs have a built-in invert feature, but you cannot scan in a color negative and make it a positive. This is due to the orange mask that is part of the film base. It requires special software which until recently was only available with slide scanners, but was included with the PhotoLab filter in PHOTO-PAINT 7 and 8. It was gone by PHOTO-PAINT 9, because no one was using it.

Scanner Trickery

INTERPOLATION AND OTHER SCARY THINGS

Most scanning isn't done at the scanner's optical scanning rate, but includes some form of scaling or interpolation. Interpolation is a process that provides scan resolutions exceeding the optical limitations of the scanner.

If I want to scan an image at 1200 dpi on a 600-dpi scanner, it is necessary for the scanner to read between the lines—yes, it really reads between the lines. In this example, the scanner's recording head will move in

The Pacific Image 1800 Film/Slide Scanner.

increments of 1/600 of an inch, since that is its maximum optical resolution. Since we want information every 1/1200 of an inch, the scanner must somehow fill in the information between these increments. It does this by comparing the color value of adjacent pixels between the optical scan lines and mathematically determining the value of the pixel to be added. So if the first pixel on the first scan line had a value of 164 and the first pixel on the second scan line had a value of 166, the scanner would interpolate a value of 165 for the pixel added between the scan lines. The actual process is much more complicated, but this give you an idea of what is going on.

So how good is an interpolated versus an optical scan? If I compared two scans with a magnifying glass, I could probably tell them apart. But for all practical purposes, there is no discernible difference to the eye if you are using a high-quality scanner.

SCALING IMAGES

Scaling (enlarging or reducing) an image is done by increasing or decreasing the number of scanned pixels (resolution) in relation to the requested resolution. Clear as mud? Let me give you another example. If you are scanning a photograph that will be printed at 100% on an imagesetter, you would select a scanner resolution of 200 dpi. To enlarge the photo 200%, you would scan the photo at 400 dpi. The result is an image that is twice as large as the original at a resolution of 200 dpi. Most scanner software does the calculations for you automatically. I use the DeskScan II software provided with my HP 4C scanner, and it has a scaling slider that allows me to select the final resolution and scaling I want, so I never have to worry about what the actual resolution is.

Most major scanner OEMs provide scanning control software and I strongly recommend using it over CorelSCAN, even if that is an option. It is not that CorelSCAN is bad, but the software provided with your scanner was designed by the manufacturer to make full use of all of the scanner's built-in features.

Always do any image scaling with the scanner software rather than later on the scanned image. There's a noticeable difference between an image scaled at the time it was scanned and one scaled

later, even using the best photo-editing program. The scanner software can extract the necessary additional pixels out of the original by increasing the resolution during the scan, while PHOTO-PAINT (or any other image-editing program) must create them using mathematical approximations. The result is soft images, lacking in detail.

Speaking of scaling, here's a quick trick (called descreening) to remove halftone patterns from a scanned image.

1. Scan the image at 200% of the desired size.
2. Select Image | Resample and choose 50%. When the resampling (downsampling) is applied to the image, an anti-aliasing algorithm is applied by default. It is this anti-aliasing that breaks up the patterns of the scanned halftones and reduces or eliminates any resulting moiré patterns.

If you can still see the half-tone screen in the scan, try the following modified version:

1. Scan the image at 200% of the desired size.
2. Apply Effects | Blur | Jaggy Despeckle. A setting of 2 or 3 should be sufficient.
3. Select Image | Resample and choose 50%.
4. Apply Effects | Sharpen | Unsharp masking at the default setting.

I leave you with the greatest piece of advice about how to get the best possible scan I have ever received: "Keep your glass clean." No joke, many people spend lots of time trying to remove things from their scanned images that were on the glass top of their flatbed scanner and could have been easily removed with some glass cleaner and a paper towel.

To see if your scanner glass is clean, do a "sky scan": Lift the lid of the scanner and scan. Watch the glass as the lamp moves down the copyboard. Don't feel bad about the results; everyone's glass is a little dirty.   2000

C_TECHniques

All about output

Corel's volunteer support team will be in the Help Center throughout the conference, and each day, one of its members will lead a panel discussion and demonstration about a particular topic. These sessions will take place right before lunch on Monday, Tuesday, Wednesday, and Friday. Check the Help Center bulletin board for updates on topics. Currently scheduled for Wednesday:

❏ All about output: Covering the issues and the solutions
for successful printing with CorelDRAW

*These sessions are for users seeking
an introduction to the particular
topic scheduled for that day.*

Touch and Retouch

Rescuing and refining your digital photographs

If you have a $5,000 digital camera, then most of the material we will cover in this session does not apply to you. If, however, you or your clients have a digital camera in the range from $1,000 down to Mattel's Barbie digital camera, this presentation is for you. We will explore how to use PHOTO-PAINT to turn green digital photos taken under flourescent lighting into (almost) normal ones. We will also learn some other color correction tricks and selective tonal balance techniques. Topics include:

❏ Why digital cameras sometimes take lousy photos

❏ Tips and tricks to improve those lousy photos (and even the good ones)

❏ Pitfalls of tonal correction with digital photos

❏ When all else fails…artistic effects to make the best out of a digitally bad photo

This session is for those who want to improve the appearance of their digital photos. It assumes you understand the basics of digital photography or have attended the Grottas' sessions immediately prior to this one. Knowledge of PHOTO-PAINT is helpful but not necessary.

COREL WORLD 2000

Color Correcting Digital Photos

"YOU CAN'T make a silk purse out of a sow's ear." That phrase, a favorite in Texas, seems fitting when working on photos created by the vast array of digital cameras that have recently flooded the market. The pictures produced by top-flight digital cameras are excellent, but the results obtained from inexpensive digital cameras tend to be grainy, the colors may be completely different from that contained in the original subject, or the image may exhibit a bluish cast. Yet for all that's wrong with them, these new digital marvels represent the beginning of a new era.

It seems that each day sees a newer and less expensive version of a digital camera that only six months ago represented the best of the best. I believe that digital photography will continue to expand, making it imperative that we, as publishers of these digital gems, learn how to repair them. In other words, we are about to learn the basics of making silk purses out of sows' ears. The color correction techniques described in this article also apply to scanned photographs.

Some Digital Camera Basics

To understand the problem, it will help to know just a little bit about digital cameras. Digital cameras are very portable scanners. Of course, that is an oversimplification, but the basic premise is valid. Sensors, usually using CCDs (charge-coupled devices), capture digital images. Photosensitive pixels within these sensors respond to light, and their response is recorded digitally. Filters control the wavelengths of light recorded.

In some digital cameras, the individual pixels are coated with color filters, while others use multiple CCDs to capture red, green, and blue values. The point to note is that CCDs almost identical to the ones used in scanners are used to record the image.

Why is that important? Because from working with scanners, we know that CCDs have some limitations. The CCD in the camera is least sensitive to blues, and it is more difficult for an inexpensive digital camera to interpret those colors. Also, when you capture an image with a digital camera, more often than not it is compressed with JPEG compression. The combination of these two factors introduces noise into an image that is already challenged.

If all of that weren't bad enough, CCDs have poor ability to record subtle tonal differences in the shadow region (darker portions) of an image. So it shouldn't come as a big surprise that some digital images don't look great when we first get them.

Color Fundamentals

One of the most noticable defects introduced by less expensive digital cameras is color shift. Sometimes the shift is subtle, and other times it can be quite dramatic. To understand how to correct it, we must first learn something about color balance and brightness. The brightness of a pixel in an image is expressed as the sum of its red, green, and blue values. If you increase the level of one or two of these colors, you will not only change the color balance of the image, but will slightly increase its overall brightness. Likewise, decreasing the level of one or two colors will darken the picture.

An Alternative to CCDs

The most expensive single item in the camera is the CCD array. Several manufacturers have recently released digital cameras using CMOS devices in place of CCDs. Once CMOS digital camera technology can be perfected, vendors will be able to produce cameras for one-tenth the cost of today's cameras—at which time they will reduce the price 10 percent.

Figure 1
Adjusting a color is not always as easy as it first appears.

For example, in the middle of Figure 1 we have a picture of Leanne at her brother's wedding in Texas. The photo was taken with a digital camera that sells for around $200. You will find that indoor photographs taken by most digital cameras costing less than $600 suffer noticable hue shifts. Because Leanne was lit entirely with fluorescent lights, and due to other factors, the resulting photo is much too green.

Your first thought might be to simply reduce the amount of green in the image. Reducing the green by 30% (as shown on the left) fixes the color problem, but it also darkens the image slightly. Increasing the red and blue each by 30% (as shown on the right) has the same effect on the color balance, because the relative contribution of the green is still 30% less than the red and blue.

Figure 2
Correcting colors visually with the Color Hue control

But by increasing the red and blue by 30%, the overall image is brightened instead of darkened. So what if you want to correct the color and not change

the brightness? Reduce the green by 16% and increase the red and blue each by 8%. The green is still reduced by a relative 30%, but the overall brightness—the sum of the red, green, and blue—remains unchanged.

If the Color is

Too red	Decrease red; increase green and blue by half as much
Too green	Decrease green; increase red and blue by half as much
Too blue	Decrease blue; increase red and green by half as much
Too yellow	Decrease red and green; increase blue by twice as much.
Flesh tones too orange	Covert to CMYK and ensure that cyan is 20% greater than magenta and yellow

Now that you understand the principle behind what is happening, here's an easy visual way to apply color correction with PHOTO-PAINT. Figure 2 shows the original photo again on the left, with the image adjusted using the Color Hue control on the right. For the record, it took a 20% increase in magenta, and a 10% increase in yellow and red. Did I work that out with a calculator? No, with Color Hue control you simply add or subtract color until it looks correct.

Figure 3
Mr. Belvedere after a dye job

Fundamental Color Correction

Figure 3 was also taken inside with the same camera. The light source was limited to the camera's strobe. As in the case of Figure 1, if we examine the pug in the image, we can see that the colors are off in the direction of green and possibly cyan. I know the colors in the image aren't correct for two reasons. First, you don't see many pugs with fur that has a greenish-blue tinge. Secondly, that said same pug, Mr. Belvedere, is lying at my
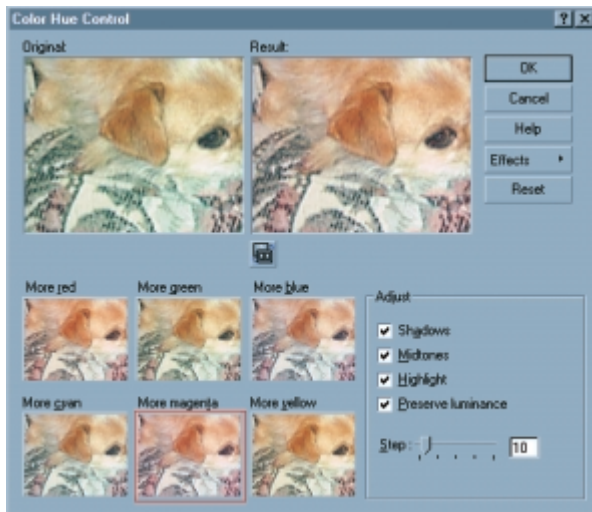
Figure 4
Correcting his fur color without a trip to the dog groomer

feet as I type this article, and I assure you there definitely isn't any green in his fur.

Fortunately, PHOTO-PAINT offers an easy way to correct minor color shifts that doesn't require working out color balance percentages like we did with the green lady. Found under Image | Adjust, it is called Color Hue. The Color Hue Control dialog box is shown in Figure 4. Below the before-and-after preview, the image's primary colors Red, Green, and Blue are shown. Below them are their compliments Cyan, Magenta, and Yellow. Since the primary tinge we want to remove is green, we need only apply the

Figure 5
A better balance between the subjects and the background

complimentary color (in this case, Magenta). The preview windows each show the result of applying the amount shown in the Step setting. To this image, I applied both Magenta and Red.

SOME ADDITIONAL CORRECTIONS

After correcting the color, I made a few other changes to the photo to emphasize the dogs. First, although the two dogs are resting on their favorite sofa, it is distracting. So I took the Freehand Mask tool and made a crude outline of their shape. Next, I applied a Feather of 8 to the mask, so the transition boundary of any effects applied would be subtle. After inverting the mask to protect the dogs, I applied a very light (1) Gaussian Blur. The sofa is still in focus, but its pattern is softened. Inverting the mask again to protect the

David Huss

Figures 6 & 7
The original oversaturated image
and after decreasing the saturation

background, I applied Contrast at a setting of 10. Normally, I do not advise using linear tone controls like contrast or brightness, but in the case of digital photographs, contrast really seems to help. This is especially true if the camera has compressed the image by saving it as a JPEG. My last step, removing the mask and apply the Vignette filter to darken the edges (Figure 5), has nothing to do with repairing the image, but I felt it was necessary to help the dots stand out.

A Good Photo?

Figure 6 was also shot indoors with the same camera, but this time the light source was a combination of daylight and florescent lighting. At first glance, this appears to be a good photo. But if you look carefully, you will see that while there is also a slight hue shift towards green, as in the first two images, the biggest problem with this image is that the color components are oversaturated. That is why the subject looks like he just had a tanning parlor accident. Attempting to adjust the hue shift like we did in the first exercise before changing the saturation will never produce satisfactory results. Instead, we need to select the Image | Adjust | Hue Saturation and Lightness filter and decrease the saturation by about 20%, as shown in Figure 7. The image looks dark because reducing the saturation reduces the overall brightness and contrast. To make the image more vivid, we need to apply about 10% of both Contrast and Intensity, as shown in Figure 8. Why not use Brightness? For several reasons, the most important being that digital images which have been compressed have a tendency to experience blowouts when brightness is applied. A blowout

Figure 8
Correcting contrast
and intensity

Figure 9
Adjusting the hue, cropping, and resampling

(specular highlight) is an area of the image containing light/bright colors that turn solid white when too much brightening is applied, resulting in a loss of image detail.

To complete the image, I removed the slight greenish hue by applying a little magenta, then masked and applied a light (2.0) Gaussian blur to the background. Finally, the image was cropped and resampled, to keep the photo approximately the same size after cropping. When resampling, I strongly encourage keeping Maintain Original Files Size enabled. Using this method changes the size by decreasing resolution from the original 200 dpi to 150 dpi. The result is shown in Figure 9.

Resampling Helps Noise

Sometimes you can use resampling to reduce noise in a digital image. Figure 10 shows a portion of a picture taken of Ed Brown, one of the authors of the Corel VENTURA 7 book. That night, he was a finalist at the 1997 Corel World Design Contest, and using a Kodak DCS120 digital camera. Normally, the DCS120 takes relatively noise-free pictures, but in this case it didn't.

The original photo, on the left, was at the original resolution of 72 dpi, but the total image was very large (13 x 17 inches). With an image this large, it is possible to downsample (reduce in size using the resample command) and see improvement in the noise from the anti-aliasing option that is set by default in the Resample command. As the pixels are resampled, the anti-aliasing effect tends to smooth out the noise. The resulting image, shown on the right side of Figure 10, exhibits less detail, so it looks softer. Another effect of resampling is a mild color shift, which can be easily corrected.

While resampling works fine for small amounts of noise, another technique for an image containing a lot of digital noise is to apply Effects | Blur | Jaggy Speckle to the area from which you want to remove the noise. Afterwards, use the Clone from Saved tool at a high transparency to partially restore the image detail. The Blend tool

Figure 10
Sometimes downsampling improves an image.

(one of the Effects tools) helps by smoothing noisy areas of an image.

Figure 11 is the original photograph of Ed, and Figure 12 shows the completed image.

What remains is cleanup work. The background was selected using mask tools and

Figure 11
This image contains noise and unwanted detail in the background.

blurred. Because Ed's head and the darkness of the open door seem to blend together, I decided to clone the bricks from the right side of the image, so the wall appears to continue behind him. The image was dark overall, so I applied a Tone Curve to lighten it up. I could have used the Gamma filter, but it has been my experience that this filter is a poor choice for digital images because it preserves the mid-tones, which is where most digital photo defects occur. Application of the Tone Curve to the dress caused it to blow out and lose detail. To prevent this, I created and feathered a mask around the dress and inverted it. In this way, it was protected from the effect of the Tone Curve. Speaking of the dress... Ed? Actually, it was for his wife.

A Few Closing Thoughts

If an image is going to be converted to CMYK, make all of your adjustments in the normal RGB mode. Once you are satisfied with the results, make minor adjustments for the expected loss of image tone that is expected with a CMYK image. Whenever working with an image in which color accuracy is important, be sure that your monitor is calibrated, so the images that come out of your printer are as close as possible to the ones on your screen.

This article only touches on a few aspects of color-correcting digital images, but it should help you get started. I encourage experimentation to find what works well for your photographs. Working on an image, under a deadline, is not the time to learn how to do this.   2000

Figure 12
After correction and cleanup, the subject stands out much more.

The Tyranny of Typefaces

Staying sane with your sans

Let's see if we have this straight…you want to be creative with your work, and you don't want to have to go back to the CD all the time, so you told CorelDRAW to install all of its typefaces, and now you wonder why your system is crashing a lot…

Few topics strike the kind of nerve that typeface management does, and for good reason: Typefaces are a valuable commodity, but if not dealt with, they become the worst kind of headache. We'll leave the aesthetic discussion for another day; the focus of this presentation is how you can take control of your typefaces. Topics include:

❏ First things first—UNINSTALL!!

❏ Creating a personal Fonts folder

❏ How to have access to all your typefaces without killing Windows

❏ Two words: Font Navigator

If you feel as if your typefaces control you rather than vice-versa, then this session is for you.

Fighting the Font Wars

NO MATTER what part of the country I visit, no matter what part of the world I'm in. No matter what type of audience I am speaking to, no matter what level of computer expertise they have. There is one topic that is always met with fear and trepidation.

Fonts.

It's no wonder this is so. Let's leave out the entire subject (and arguably the most important one) of choosing the best-looking and most effective typeface for a given job. Let's also set aside the lively controversy over which is better between the PostScript Type 1 and TrueType formats. With those two monsters out of the picture, the dream is still a nightmare, as few users have a good handle on how fonts get installed and uninstalled, where they are located, and (all too often) where they come from.

You wouldn't allow your word processor or CorelDRAW to dictate to you where files can and cannot be saved; you want to save them in folders that you have created. Yet you allow your fonts to be stored in arbitrary locations over which you seem to have no say.

So please walk to the nearest window, open it up as wide as you can, stick your head out and yell, "I'm mad as hell, and I'm not going to take it

anymore!" Then pull your head back inside, go to your computer, and get to work taking back the control you have lost over your typefaces. Here are some strategies for helping you win the Font War.

The Fonts Folder: Magic Potion or Voodoo?

Microsoft engineers tried to make it easy on users when they created the Fonts subfolder that resides under the Windows folder. They succeeded—to install a TrueType font, you need only copy the .ttf file into the Fonts folder, visible from the Control Panel or from any Explorer window. Windows then automatically adds the required instructions to the Windows Registry.

Unfortunately, Microsoft engineers also made it possible for any application to dump fonts in there without telling you, and they made it easy for you to ignore the process of font installation and font management. The likely result: Before you know it, several hundred fonts are installed in your system, bogging down performance, gumming up the works, and worst of all, inviting you to use them…all in the same project. Figure 1 shows a rather tame lineup of typefaces, but still the whole idea of a drag-and-drop window for typeface installation is deficient for professional graphics users.

Figure 1
What a mess! Using the Control Panel for typeface management is for the birds.
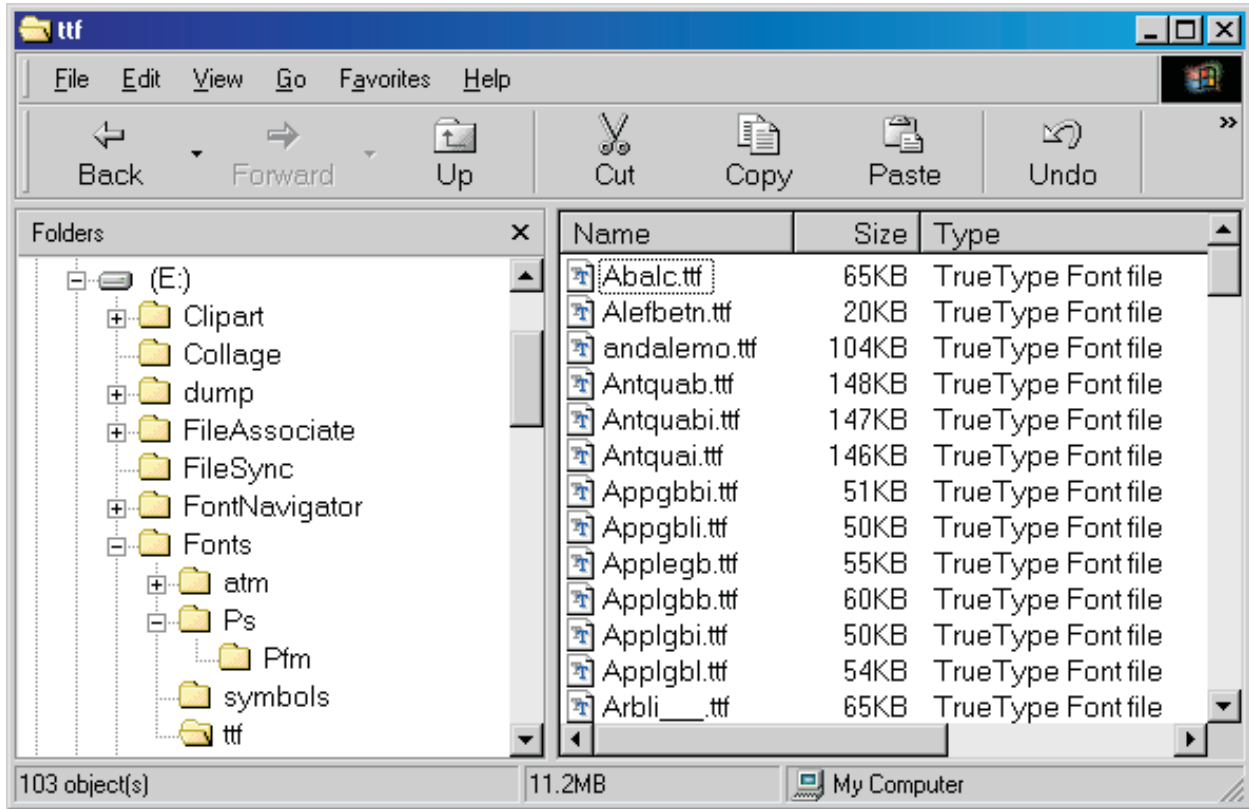
Figure 2
A font folder structure of your choosing, not Microsoft's

This strategy of idiot-proofing typeface installation might be fine for normal, PC-fearing computer users who rarely leave the confines of their office software or their Internet browsers. It's not enough for CorelDRAW or VENTURA users. As a Corel user, you have a higher responsibility to control your typefaces and understand how they are managed. Furthermore, I don't know about you, but I think there's enough crap in the Windows sub-folders already, without dropping untold numbers of .ttf files in there. So here is what I want you to do (warning, version 7 users or below will have to spend $40 to follow this strategy):

1. Create a Personal Fonts Folder

    Using Explorer, My Computer, some other shell program, or your neighborhood DOS prompt, pick a spot on your system that makes sense to you and create a Fonts folder. If you use both Type 1 and TrueType fonts, then create subfolders (like TTF and T1) for each below Fonts. Figure 2 shows what my folder system looks like.

From this point forward, this is where all font files should go. If you purchase or acquire new ones, you will know to copy them to this folder (or the subfolders below). Applications that think they are doing you a favor by giving you a boatload of fonts won't know to do this; you'll have to clean up after them.

2. Move all fonts to your Fonts folder

    Now that you have created your personal Fonts folder (or whatever you choose to call it), I suggest moving all of your .ttf files there. Open up the Windows \ Fonts folder in one Explorer or My Computer window and open your personal Fonts folder in another. Then do a big ol' drag-and-drop from one to the other. Keep in mind four things:

■ Explorer or My Computer will show fonts installed elsewhere as shortcut icons; ignore these and choose only the fonts that actually reside in that folder.

- Because of the way Windows treats the Fonts folder (showing you fonts installed in addition to files present), it is easier for experienced PC users to do this from a DOS prompt. Go to Start | Run | Command, and then use the Move command.
- Make sure to select only .ttf files, not .fon files.
- You won't be able to move all of the fonts. Windows will yell at you about a few of them (like Marlett and maybe Arial). That's okay—let them be.

Figure 3
The clean and intuitive interface of Bitstream's Font Navigator

At this point, your interface and your applications might look funny, as they cannot find the fonts that were there just a moment ago. Don't go postal—as soon as you reinstall them, all will be well.

3. Copy all of Corel's fonts to Fonts

It will cost you about 60MB to follow Step 3, and it's well worth it. Point one of your open Explorer windows to the Corel CD and keep the other one pointing to your Fonts folder. Take the TTF and Symbols folders on the CD and copy them across (use your discretion on the other font types). Corel keeps all of its fonts in subfolders, one for each letter of the alphabet. A straight drag and drop will maintain that structure, and if you hate that as much as I do, you will want to spend an extra few minutes to copy the contents of each folder into Fonts, so they are all in the same place. However, it is also okay to leave them in an alphabetized tree structure. In either case, now you are ready for…

4. Get Font Navigator

Bitstream's new program Font Navigator is the latest incarnation of an old Ares program called FontMinder. It is a clean, smart, fully-32-bit application, and it's smarter than ATM Deluxe, in my not-so-humble opinion. Best of all, it is bundled with CorelDRAW 8 and 9, and VENTURA 8. (If you perform a custom setup in any of those three programs, you will have the option to install it). Non-Corel users can download a 30-day trial copy from bitstream.com and/or order it for $39.95.

Rick Altman

You'll love Font Navigator—it has four clear and obvious windows, one each for:

- A catalog of all fonts found on your system
- All fonts actually installed
- Any groupings of fonts that you create, for whatever purposes you have, and
- A font preview window.

To install fonts, drag and drop from the Catalog window to the Fonts Installed window.

Because all of your fonts are now in your personal Fonts folder, it's easy to build a catalog using Font Navigator's Find Fonts command: You simply tell the program to look in that one folder. That will bring every font you own—all of Corel's fonts, any Type 1 fonts, Windows fonts, other purchased fonts, every single font you have copied into your Fonts folder—into Font Navigator's Catalog window.

5. Reinstall

This is my favorite part. I do it after hours, maybe from the notebook computer in our living room. I pour myself a cup of cocoa and I put my feet up. As I browse each font, its appearance instantly shows up in the Preview window, and if I want to install it, I drag it to the Installed Fonts window (or just press Insert). Figure 3 shows Font Navigator in action. I am careful to not go font-happy here—I know that installing too many fonts is bad for my health, and I also know how easy it is to install fonts later.

6. Maintenance

Every month or so, you should check the Windows \ Fonts folder to make sure that no rogue fonts have made their way in there, thanks to some application you installed that thought it was doing you a favor. You decide which fonts get installed, not your software. Move those fonts into your personal Fonts folder, and if you want to consider installing them, reissue the Find Fonts command in Font Navigator so they will show up in the Catalog window.

A Word about PostScript

Font Navigator is capable of handling your Type 1 fonts also, but you might have to do a bit of searching to find them on your system. They are probably in a PSFonts folder; when you find them, move them into Fonts. A Type 1 font has two files associated with it, a .pfb file and a .pfm file; you'll want to make sure to create a PFM subfolder and account for both files.

Finally, while I am of the opinion that Font Navigator is better than ATM Deluxe, PostScript printer owners still need ATM. The core function of ATM that provides support for PostScript printers is indispensable. Without it, PostScript fonts will not display on screen or print to non-PostScript printers. You don't need to use the Deluxe version, however—that duplicates Font Navigator's services, but not as well.

If the last two paragraphs made you sweat, consider that a compelling reason to upgrade to Windows 2000. The new OS supports PostScript typefaces "natively"—in other words, without the need for an external program like ATM. This is one instance where Microsoft lives up to the promise of making things work and work simpler.

•

Now you are armed and dangerous. You know exactly where your fonts live, you know how to browse them, and you know how to install them. This strategy of copying all of Corel's fonts to your Fonts folder brings an important benefit to CorelDRAW 8 and 9 users: Upon opening a drawing, if CorelDRAW cannot find a font that is used, it checks the Font Navigator catalog. If it finds it there, the Panose substitution box offers you the choice of installing the font right then and there. You won't be getting a substitute, you'll be getting the actual font. What's more, you can choose to have the font installed permanently, or just for the period of time in which you have that drawing open. In other words, you can open any .cdr file that uses Corel fonts and know that you will be able to view it with the correct font information. This is way cool… 2000

Windows 2000

A workshop for prospective upgraders

Windows NT 4 is more stable than Windows 9x, and for Corel users, NT's stability means less time spent rebooting the system and recovering lost work. But Windows NT doesn't have advanced power management or Plug'n'Play capability. Windows 2000 offers these features, among others, while retaining NT's overall stability. Does this mean that it's finally time for the rest of us to move to Windows 2000, or are compatibility and reliability problems enough to keep the wise user on the sidelines for a little while longer? If these questions interest you, join us for a roundtable discussion about the new operating system from Microsoft. We expect the topics discussed to include:

❏ Is Corel LINUX OS a better choice? Or Red Hat?

❏ Can you eliminate Adobe Type Manager and still use Type 1 faces?

❏ Understanding Corel's lack of Windows 2000 certification

❏ What's all the fuss about NTFS?

❏ Dual-booting: Best of both worlds or nothing but trouble?

This session is for those who want to hear what others think about Windows 2000, as well as share their own ideas.

COREL WORLD 2000

Is it Time For Windows 2000?

IF YOU'RE a Corel software user, should you consider Windows 2000? Windows 2000 offers stronger security than Windows 9x, and it supports technology not supported by NT 4, such as advanced power management and plug-and-play. Because of the way Windows 2000 works, users of Windows 9x may find the switch less startling than will those who come to Windows 2000 from Windows NT.

Consider Linux, too—specifically Corel LINUX OS. This summer, Corel released its WordPerfect Office suite for Linux. CorelDRAW and PHOTO-PAINT for Linux are in development. It's anybody's guess about VENTURA Publisher.

Corel offers a branded version of Debian Linux. When I installed it, I concluded that the installer is far better than anything else on the market, because it found hardware that even the highly regarded Red Hat Linux installer missed. But I'm not using Linux now for a couple of reasons: VENTURA isn't available for Linux, and many of the other applications I need don't run on Linux.

Both Linux and NT are more robust than Windows 9x. Both are more secure and more resistant to crashes. Beyond that, they are different in nearly every regard. They can be made to look similar, but under the hood nothing is the same. If you need to do system-level tasks on a Linux system, you'll still be faced with the command line and some cryptic commands. The overall selection of software isn't nearly as great for Linux as for Windows 2000 or NT, although this is changing every day.

Microsoft has presented tests that show NT server farms handily beating Linux systems, and Linux backers have presented tests that show exactly the opposite. This is a good example of how to set up tests that will produce the desired results. In other words, both operating systems have strengths and weaknesses, despite what the proponents of either system might say. For most users, Windows has the advantage of momentum. It's hard to beat the enormous variety of software available under Windows.

If VENTURA for Linux becomes a reality, I could face life without Internet Explorer and Word. Today, Linux isn't feasible for the work I do. I'm too reliant on programs that don't yet have Linux versions. For me, it's still a decision between Windows 98, Windows NT 4, and Windows 2000.

To choose, I had to test.

Get it On (the machine)

I selected a notebook computer for the initial installation. My reasoning was that if something went horribly wrong, I could do without the notebook for an extended period. Also, since advanced power management and plug-and-play were new to this version of Windows, I wanted to throw the most challenging machine possible at the setup program.

Since Windows 2000 is the replacement for Windows NT 4, I expected the setup to have the complex look of an NT setup. It turned out to be easier than installing Windows 98. First, there was a pre-flight check that told me that I would need to update device drivers for some of the hardware, that some of my software would require patches to operate under Windows 2000, and that a few applications wouldn't work at all.

After uninstalling the applications that I knew wouldn't run under Windows 2000, I let the installation process continue. It took about 90 minutes, but needed no information from me. I didn't have to help it find hardware. I didn't have to answer a long list of poorly worded questions. When the system had to restart, it needed my attention only because I'd installed a CMOS password.

For several months, I'd been dual-booting the notebook computer with Windows 98 on one partition and Linux on the other—Red Hat for several weeks, and then Corel's version. When I attempted to make a partition change, Partition Manager ended with an ugly error and left a partition that no program I owned could get to.

I'd planned to dual boot between Windows 98 and Windows 2000, but since half of the disk was inaccessible, I decided to overwrite the Windows 98 installation with Windows 2000. When the installation was complete, I noticed that the Windows 2000 disk manager could see the damaged partition. I told the disk manager to format it as an NTFS partition.

Everything worked. The settings I'd created under Windows 98 were still there. The sound card made sound. The DVD player worked with CDs, but not with DVDs. That was one of the problems the pre-flight check warned me about. It wasn't until a few weeks later that I found out from Dell that no update would be available for the DVD player. While that was annoying, it wasn't a disaster; I don't own any DVDs.

I did encounter a problem with CorelDRAW. The program couldn't see any fonts at all. Because WordPerfect, Word, Fireworks, PHOTO-PAINT, and a variety of other programs could see all the typefaces, I decided that the problem must be with that particular installation. Removing and reinstalling CorelDRAW took care of the problem.

The pre-flight check warned me that I'd have to reinstall Microsoft Outlook, part of the Word 2000 suite. Hoping to see something break, I tried starting Outlook without re-installing it. Windows 2000 asked me for the Office 2000 CD and, without asking even one question, updated Outlook.

I have a Hewlett Packard Journada CE device (a personal information manager) that I keep synchronized with the notebook computer. The pre-flight check said I'd have to download and install a new version of the synchronizer software. I did the download on the desktop computer, copied the file to a Zip disk, put the Zip disk in an Iomega USB Zip drive, and plugged the drive into the notebook. Windows 2000 detected the Zip drive and installed the driver…no questions asked. This is the way these devices are supposed to work!

I ran the update process and Windows told me that it had to restart. After restarting, Windows gave me this complex set of instructions for getting the CE device set up again:

1. Plug the cable in to the notebook computer.

2. Plug the other end in to the CE device

3. Press Next

Windows 2000 found the CE device and ran a full synchronization.

I was beginning to be impressed.

COREL PROGRAMS REQUIRE SOME SPECIAL TINKERING

CorelDRAW 9 is on Microsoft's list of programs that are compatible with Windows 2000, although not certified. The same is true of VENTURA Publisher. The programs work just fine under Windows 2000, but getting them installed is slightly problematic.

With VENTURA under Windows 98, I would have been able to install the program and then run the second service pack. Under Windows 2000, that doesn't work. Users have to install Service Pack 1 before running Service Pack 2.

Getting CorelDRAW up to date is a bit more convoluted. If you've already installed the program, the easiest option is simply to uninstall it (and make sure all CorelDRAW folders have been deleted). Then change the time zone to GMT+8, install CorelDRAW 9, install the patches, and change the time zone back to what's normal for you. Setting the time zone to GMT+8 is the key. Sometimes simply deleting the directories that contain the program files and doing an "update installation" will resolve the problem, so you may want to try that first.

Once you get CorelDRAW installed, it will work fine.

Windows 2000 is Crash-Proof, Isn't It?

Not exactly. Programs can still crash under Windows 2000, and occasionally the operating system becomes unstable. This is a Microsoft operating system, after all. But I've run Windows 2000 for weeks at a time without experiencing a crash that takes down the operating system. On that basis alone, I suggest that Windows 2000 is worth your consideration.

Windows 2000 can run for extended periods without needing to be restarted and without crashing. The interface seems—for want of a better technical term—smooth. Many small changes in the way things work make Windows

Figure 1
Windows 2000 includes
native support for
TrueType, PostScript,
and OpenType fonts.
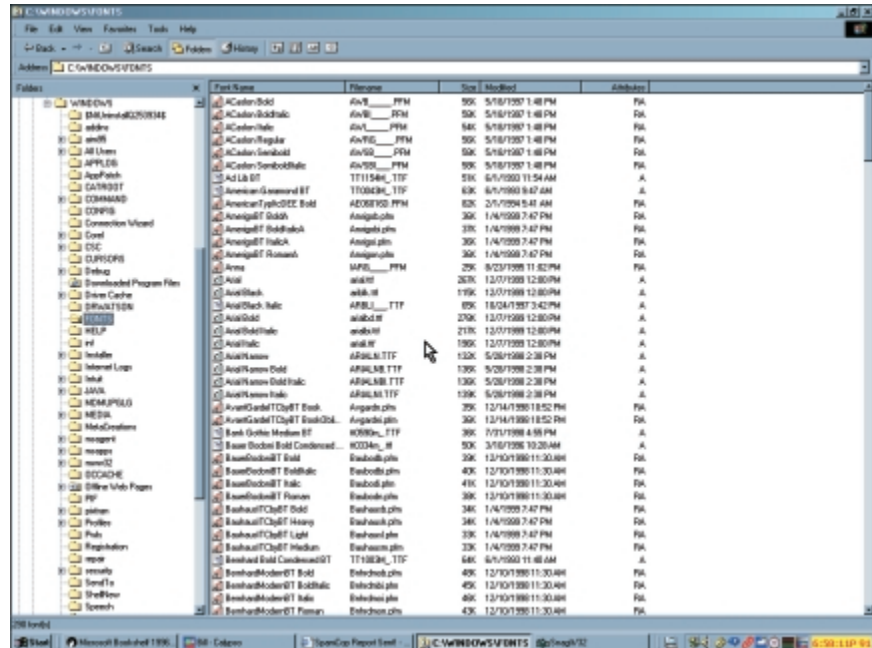
2000 feel like it's running on 12 cylinders instead of 6. Earlier versions of Windows seemed to run on 3 cylinders.

If you are familiar with Windows 9x or Windows NT 4, the conversion should be relatively easy. The functionality you expect is there, but it may not be where you expect to find it. This is true whether you're arriving from the 9x side or the NT side.

Windows 2000 looks a lot like Windows 98 and feels a lot like Windows 98. Without benefit of any real benchmark tests, I can safely say that Windows 2000 is at least as fast as Windows 98 on any given machine, and probably faster. At least it seems faster on moderately fast machines (300 MHZ Pentium II, 96MB of RAM) and on slow machines (200 MHZ AMD K5, 64MB of RAM).

While I've set up some NT systems and am one of the administrators for an NT 4 system at the office, I haven't used NT Workstation, so most of my expectations have been based on what I was used to under Windows 98. The conversion to Windows 2000 was a pleasant surprise, and within a month I had converted all the systems I use regularly to the new operating system.

In retrospect, that was too fast, because some important software (such as an updated backup program for my Travan drive and software to read my digital camera's SmartMedia) wasn't available until several months later. Still, the reliability and functionality of Windows 2000 have made the few pains acceptable.

Comparing 9x, NT, and 2000

Let's take a look at some of the differences between Windows 9x, Windows NT 4, and Windows 2000.

Feature	Windows 9x	Windows NT 4	Windows 2000
Plug'n' Play	Fully supported	Not supported	Well supported
Auto log-on	Set up with TweakUI	Set up with TweakUI	Set up Default User
APM	Fully supported	Not supported	Fully supported
Security	Very weak, even if logins are validated through an NT server	Strong	Strong

ONE KEY FOR PUBLISHERS: TYPE 1 DISPLAY IS BUILT IN

Windows 2000 no longer needs Adobe Type Manager. In fact, if the upgrade installer finds ATM, it will remove it. That's because Windows 2000 now directly supports the display and printing of Type 1 as well as True Type faces. Support for OpenType, combining Adobe Type 1

and the True Type formats, results in another font icon. OpenType fonts are depicted with an O. Adobe assisted Microsoft in development of the Open Type font format and Adobe helped develop the system's PostScript printer driver.

Font Navigator is still essential, though, because Microsoft still doesn't have a convenient way to add and remove faces. Font Navigator 3 works exactly the same way under Windows 2000 as it did under Windows 9x with one exception: I've found intermittent problems with Multiple Master (MM) faces.

Occasionally Font Navigator will report a font failure for the first typeface after one or more MM faces. I cannot consistently create the failure; I have only 2 MM faces, and neither is one that I use regularly. For me, this is not a serious problem, and I haven't yet taken the time to fix it.

There are workarounds if you need a MM typeface and the face that would immediately follow the MM face: Just add another typeface between the MM face and the other face that you need. The new face will fail and the other face will again be usable. Dumb? Yes, but it works. (You may have to use Font Navigator to remove and reinstall the failed face.)

Windows 2000 also supports the enhanced type options provided by the Unicode system (foreign languages and large character sets, for example). The new Character Map illustrates

some evidence of the improvements, including support for the new Euro currency symbol.

Device Detection

Windows 2000 does an excellent job of detecting devices as they're attached to the system, and this is particularly true of USB devices. Each time I plug an Iomega USB Zip drive into my notebook, Windows 2000 immediately detects it and makes it available. If there's a disadvantage, it's this: Removing the device requires that you "stop" the service. That sounds more complicated than it is. All the user has to do is click a tray icon and choose Stop. And even if you fail to do that, Windows simply displays an ominous blue screen that recommends stopping the service before unplugging the drive.

I've added a small four-port USB hub, and my keyboard adds two more USB ports. The primary computer now has a USB mouse, a USB SmartMedia reader, a USB connection for a Diamond Rio, and a USB scanner. On the notebook, I can easily add and remove an external mouse. Windows 2000 detects it and installs the appropriate drivers.

Device detection at installation time may not be perfect, but it's the best I've ever seen from Microsoft. The entire installation process is nearly automatic, whether you're upgrading or installing to a clean drive. Once you've answered a few questions, the installation process continues, reboots as needed, and runs to completion.

Unlike in the past, Windows 2000 seems to be able to install most
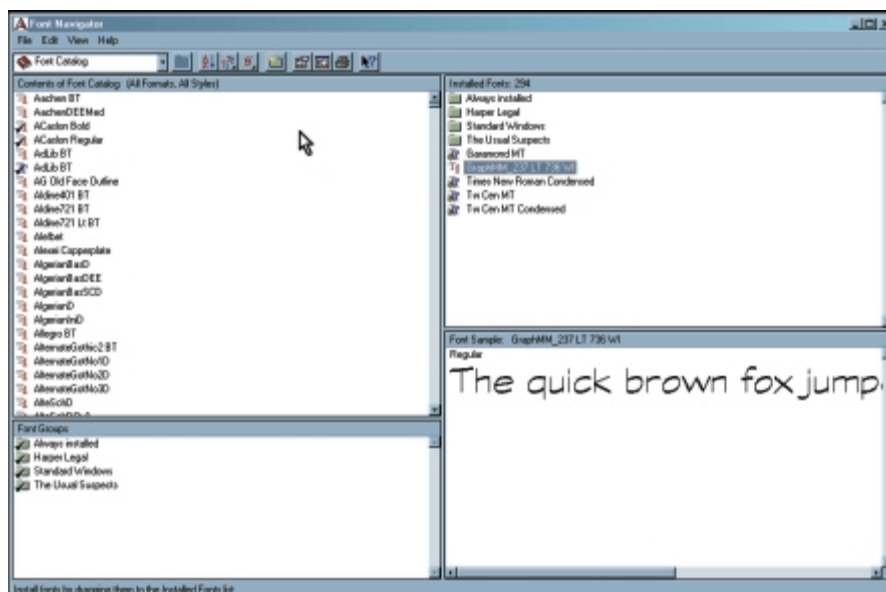
Figure 2
In this case, the MM face has not created a problem.

printers without demanding access to the installation CD. All you have to do is plug in a new printer or add a new network printer, and tell Windows 2000 the manufacturer and model.

PC (formerly PCMCIA) Cards

Windows 2000 brings full PC Card support. Unlike as in Windows NT 4, you no longer need to reboot to add or remove these devices. Instead, you'll find them under an icon in the tray. Unlike Windows 9x, Windows 2000 does require that you "stop" a particular device before you unplug it. This requires clicking the tray icon and choosing to stop the device you want to remove.

As with USB devices, those who fail to stop a device before unplugging it may find themselves face to face with what appears to be a menacing blue screen of death. Often, it's not; but it does suggest strongly that the next time you stop the device before ejecting it.

Windows 2000 brings the Windows 98 OnNow power management functionality to systems that have motherboards with support for it. Even those systems that don't support power management can still "hibernate" and resume all running applications the next time the system is started.

The Interface

USER-FRIENDLY MENUS?

One of the most visible new features of Windows 2000 is its "intelligent menus." The menus remember a user's most-used selections and hide other menu items. If the user fails to select anything, the additional menu items are displayed after a few seconds.

I first saw this feature in Office 2000, and I'm still not sure I like it. Just because I don't use a menu item every day doesn't mean that I want the operating system to hide it. There are some

Figure 3
The new toolbar before text has been removed

programs I may use only once a week, and having to go through the pause two-step is annoying.

Also new: The menus fade in as they are selected. This is nothing but chrome to please the eye, but it doesn't seem to slow the operation of the system. Another seemingly needless addition is a soft shadow behind the mouse, which makes the mouse cursor appear to hover above the screen. As silly as this may seem, it is an improvement. The shadow helps the mouse cursor stand out from the background.

A Familiar Taskbar

Windows 2000's interface looks more like Windows 98 with the MSIE active desktop activated than like NT 4. You can now add documents or programs to the taskbar, and you can add new toolbars, as you can in Windows 98.

One I use makes the Explorer immediately available via an icon on the taskbar. Here are the steps I took to create it:

1. Create a new directory anywhere. I created "Drive access" in the root directory of drive C.
2. Right-click and drag My Computer to the new folder, and choose Create Shortcut.
3. Drag the new folder to the taskbar. It will be large and ugly (Figure 3). Don't worry.
4. Right-click the new tool bar and clear the check mark beside Show text. Do the same to clear the text beside Show title. You'll be left with a tiny computer icon that will give you one-click access to My Computer. Add specific drives or folders (or anything else) if you wish by dragging shortcuts to the directory you created.

FLOATING UI ELEMENTS AND APPLICATION SWITCHING

CorelDRAW and VENTURA users will note that here the Windows interface has finally caught up with Corel. Toolbars can be pulled off the taskbar and placed anywhere on the desktop as floating pallets.

Many users still haven't figured out that they can pop from one running application to another with Alt-Tab, so Windows 2000 has made mousing from one application to another a bit

easier: A single click on the application's taskbar icon switches to it.

You can also get to the task manager by right-clicking the taskbar (although Ctrl-Alt-Del is still faster). Because this is really NT, the task manager can almost always shut down a failed program without bringing down the operating system.

The taskbar has been movable since Windows 95. I've moved it to the top, and may leave it there. I find it easier to use the system when the taskbar and the menus are all on the same side of the screen.

Windows 98 on Steroids?

Like Windows 98, Windows 2000's plug-and-play detect functions are faster than those in Windows 95. It's still important that both your hardware and software be on Microsoft's official list of "compatible" products. For those products that are, Windows 2000 often provides better support than Windows 98. I found this to be true on my office computer, which was able to support a higher screen resolution than was possible under Windows 98.

Windows NT 4 was weak when it came to advanced power management, but Windows 2000 takes care of that. It offers "hibernate" (write all currently active data to disk and goes into suspended animation) as well as "suspend" (keep everything in RAM and hibernate after a specified time), in addition to shutdown and reboot. There's also the option to lock the system (which allows some processes to continue running) and to log off the current user.

Configure Windows 2000 For Each User

Applications can be made available to all users or to specific users, and applications can be configured to suit each user's preferences. At home, four people use our computer. My wife Phyllis doesn't like it when I change the way things work. With Windows 2000, she has her own desktop and menus. The menus contain only the half-dozen programs she uses. Phyllis also detests Word's automatic spelling and grammar checks,

Why application crashes don't bring down the system (an allegory)

In 1996, Howard Gilbert wrote "There is no Hotel in Chicago," to explain why a Windows 95 crash can bring down the entire system. (Microsoft's code name for Windows 95 was Chicago.) Gilbert compared Windows 95 to a home and "real" operating systems such as Windows NT and Unix to a hotel.

In a hotel, the clerk takes your credit card number and gives you a key. You're entitled to a room with a lock, its own bathroom, and a television, he wrote. "To make this all work, the hotel employs a professional staff." At home, there is no professional staff. Bathrooms are shared and anyone who gets hungry in the middle of the night "simply raids the refrigerator." Homes work well for families; hotels are better if you have a bunch of strangers.

Real operating systems, said Gilbert, are designed like hotels. Each application has its own address space so that programs do not interfere with each other or with the system, and can request services from the system's professional staff of device drivers, interrupt handlers, queues, and events.

Windows 9x is more like a home, in that there is no separate component to do the work. In Windows 9x, programs write directly to the hardware via routines provided by the operating system. While Windows supplies tools for programs to use, the work is done by the application program itself. Users and programmers may who don't understand this distinction can wreak havoc.

The complete article can be found at pclt.cis.yale.edu/pclt/OPSYS/HOTEL.HTM.

and the auto-correct feature. When she logs on, these are all disabled.

I've given my artistic younger daughter, Katie, full access to all the Corel applications. Each user has different wallpaper. Users can assign new e-mail sounds that will work only with their accounts. In other words, Windows 2000 allows us to keep out of each other's way.

This is accomplished with Windows 2000's user and group management. Those familiar with previous versions of NT will understand immediately. Those who come to Windows 2000 from Windows 9x will have a little learning to do.

Windows 2000's users can be administrators, standard users, restricted users, or visitors. As you might expect, administrators have the most power. They can add and remove users, set passwords, and take ownership of accounts. Standard users can install programs and make other modifications, but cannot read files that belong to other users. Restricted users are further limited in that they are prohibited from installing programs. By default, the "guest" user is disabled so that only users with IDs and passwords can use the system.

Administrative tools in the Start Menu allow the administrator to manage certificates, view the event log, and make changes to the system. The Microsoft Management Console is also accessible by right-clicking the My Computer icon and selecting Manage.

Find Can Now Find Itself

Windows 2000 expands the search function beyond anything you've seen. It can find files and directories, based on name, contents, or file attributes. It can search the network to find printers that meet specific criteria. From Explorer, you can also search for people using LDAP, or search the Internet for a Web page, an address, a map, or a business.

The operating system also tries to solve problems before users know they have a problem. If you rename or move an executable file, Windows 2000 locates shortcuts to that file, and updates them to eliminate broken links.

Figure 4
Like NT, Windows 2000 offers a choice of file systems.
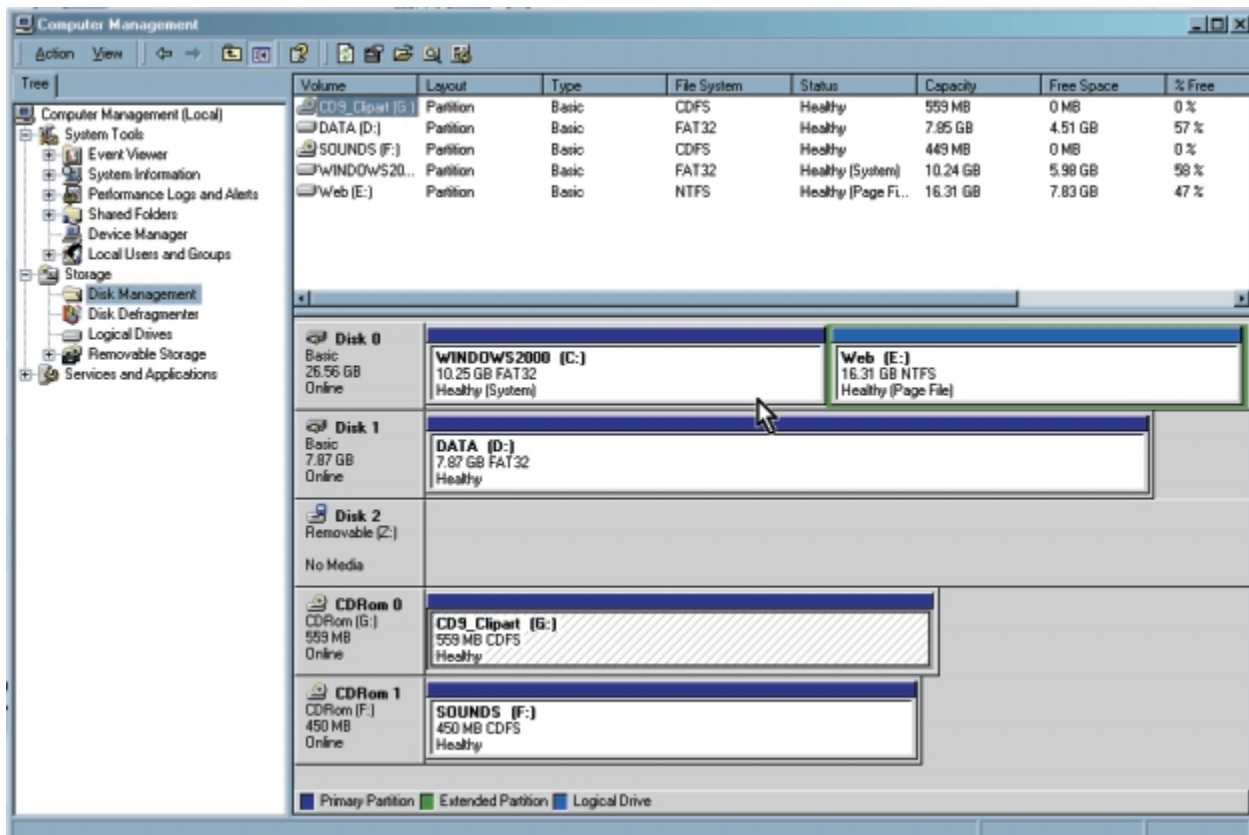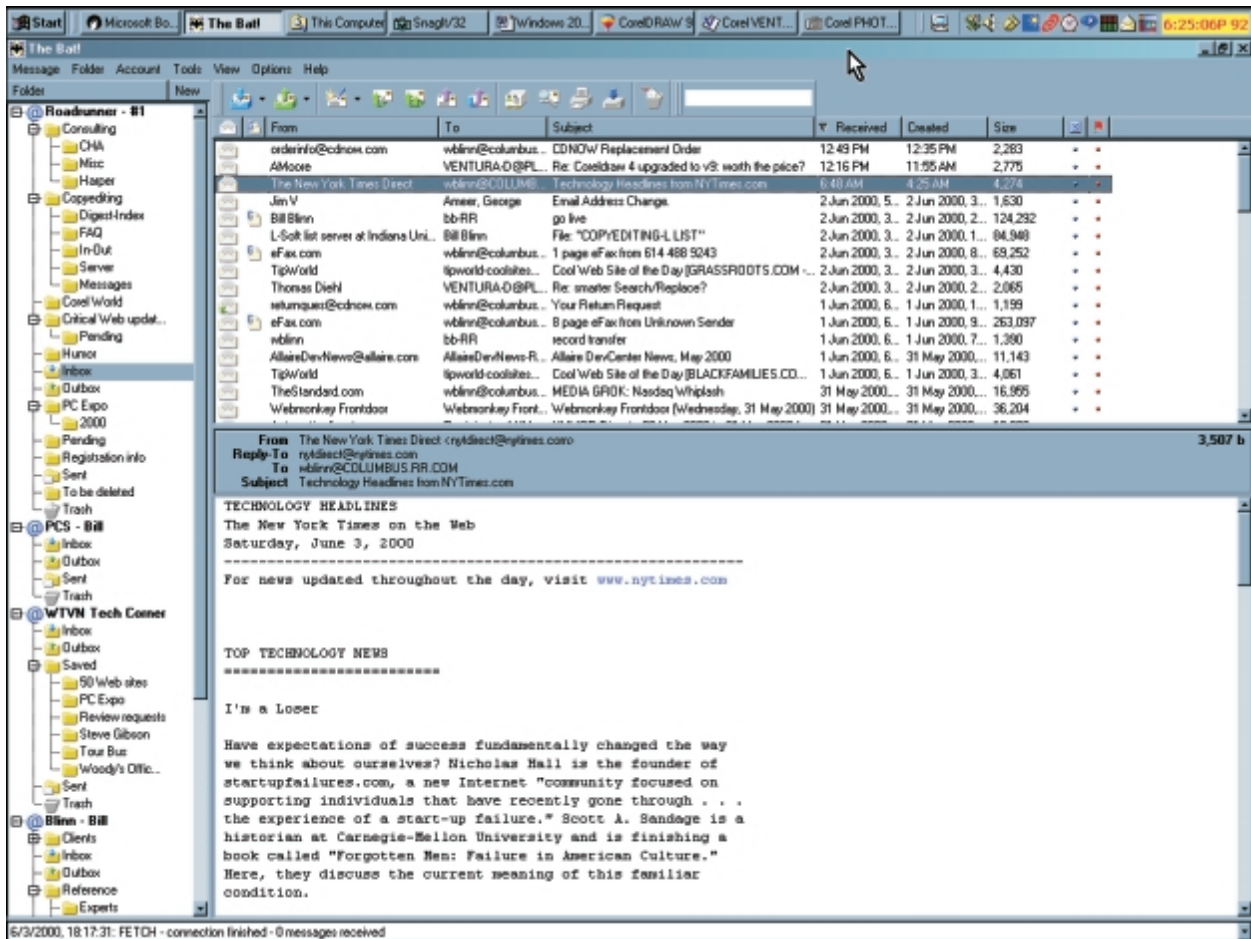
More is More

Intel suggests that Windows 2000 Server systems require a minimum of a Pentium Pro 200 MHZ processor with 64MB RAM, but additional RAM is recommended. Windows 2000 Professional RAM requirements are, according to Microsoft, essentially unchanged from version 4, meaning that it will "load" and "run" in 32MB of RAM. Don't try this, though, unless you like to watch a computer that appears to have died. Use at least 64MB of RAM. 96MB is better. 128MB is better still.

A clean installation will take about 600MB of disk space. At one time, that was a lot of space. For Windows 2000 Server, anticipate about 1GB for the installation.

FAT32 or NTFS?

The way I look at it, there's not much reason to use Windows NT or Windows 2000 if you don't use the NT file system (NTFS). NTFS conserves space and allows you to make some parts of the disk off limits to others.

If you plan to dual-boot the system, though, keep in mind that Windows 9x cannot read NTFS volumes. Windows 2000 can read FAT32 volumes, though. So for dual-boot systems, FAT32 might be the only choice.

And if you're upgrading from NT 4, beware! Windows 2000 uses NTFS5, a slightly modified file format. NT 4 cannot read an NT 5 volume until you install Service Pack 4.

Let's Get Started

Before you buy a Windows 2000 CD, you should check the Microsoft hardware and software compatibility lists at Microsoft's upgrade site. I also

recommend that you run the system pre-flight test, chkupgrd.exe, that you'll find on the Conference CD. If the pre-flight test finds any serious problems, you can resolve them before you spend time and money on the new operating system.

The Microsoft hardware and software compatibility lists, coupled with the pre-flight test, give you significant insight into problems you might face. These are not the final word on whether something will or will not work, though. Some hardware and software not specifically shown on one of Microsoft's lists may work, while some combinations of devices and applications that are on the lists will fail.

Another good source of information is windows2000faq.com/.

INSTALLATION SUGGESTIONS

- The boot partition should be at least 1GB. Fast and wide SCSI would be the best choice, although enhanced IDE drives are getting faster every day.
- Don't even consider installing Windows 2000 on a computer with less than 64MB of RAM. Like NT 4, Windows 2000 works better if it has more memory. With 96MB, you'll be able to run CorelDRAW, VENTURA, Word, an e-mail application, and several tray applications simultaneously (Figure 6). 128MB would be even better.
- Windows 2000 doesn't support DriveSpace3, but if you choose to convert your drives to NTFS, you can choose NTFS compression. NTFS, even without compression, wastes less space than FAT32.
- Don't skip the pre-flight test, even if you think everything you own will work with Windows 2000.
- Clean installations (run FDISK to make partition changes, format the drive, install the operating system, install all the applications, restore settings, and restore data) are better than upgrades. They're more work, but it's generally worth the trouble.

Dual Booting?

Unless you have a good reason to dual boot, don't. The only good reason I can think of for dual booting is if you have an application (a game, for example) that will run only under DOS or Windows 9x. If your Windows 9x or DOS application needs to have access to Windows 2000 application files, you'll have to use a FAT32 file system instead of NTFS, another disadvantage.

For those who have sufficient space (and a little extra cash), a better solution would be a second computer, a couple of inexpensive network cards, and a few feet of cable.

This Isn't a Cheap Upgrade

Windows 2000 Professional, the replacement for Windows NT Workstation, sells for more than $300. Upgrade from Windows 9x, and you'll pay a little over $200. Upgrade from Windows NT 4 Workstation, and you're down to $150 or so.

If you want to set up a Windows 2000 server, expect to pay close to $1,200 for a server version with ten client access licenses, and about half that for upgrades from Windows NT 4 Server.

Is it worth it? How much time do you lose now to system lock-ups, rebooting, and other Windows 9x annoyances that largely go away when you use Windows 2000?

I do know that today I spend a lot less time grumbling at the "stupid computer" and a lot more time doing productive work. 2000

Bob van Duuren

Wednesday • 3:30pm

Are You Ready for the Linux Revolution?

An introduction to the Desktop that we all might use soon

Tired of Windows? Then Linux might be for you! This stable, fast, and reliable operating system is rapidly gaining popularity. And the news gets better: Many of your favorite applications are available for Linux now…CorelDRAW, PHOTO-PAINT, WordPerfect Office 2000, and Netscape Communicator. And maybe, in the not-so-distant future, we will see VENTURA for Linux. Learn what Linux has to offer in this informative session. Topics include:

❏ Is it Windows or is it Linux?

❏ Corel and Corel LINUX OS

❏ Using the Desktop

❏ A few intimate details

❏ See your favorite apps run

This session is for anyone interested in an alternative to Microsoft Windows.

COREL WORLD 2000

Exploring the Linux Phenomenon

THERE IS a good chance that you have heard a lot about Linux recently. At the same time, chances are you have never seen it in action. If so, you've come to the right place! In this session, you'll get acquainted with Linux—a powerful, stable, multi-user and multi-tasking operating system. And what's more, it is absolutely free. Even better could be the fact that you don't have to re-invent the wheel: Corel's version of Linux looks deceivingly like Windows, as you can see in Figure 1.

So what's all the fuss about? Why would you want to switch to Linux? The answer to this last question is: You may not want to. It all depends on your needs and software requirements. This session will not provide you with an answer to the question "Why should I convert to Linux?" However, it will give you enough information to make up your mind about staying with Windows, or making the change.

Linux Strengths and Weaknesses

Looking simply at the operating system, Linux has various strong points. The most important ones are:

- It's open. Linux is based on a free and open standard, which means that everyone can enhance and improve the operating system. Fortunately, most enhancements are

coordinated by the creator of Linux, the Fin Linus Torvalds. He started with Linux in 1992, which means that it has been around for quite a while now.

- It's stable. Thousands of developers all over the world have contributed to Linux. This means that most, if not all, of the bugs have been ironed out (which is not so difficult, because the source code is open). Many people consider Linux to be the most stable OS in the world.
- It's multi-user. One computer can be shared by various people (even simultaneously, via a network). Because of user/password authentication, files, directories, and even

Figure 1
Is it Windows, or is it Linux?
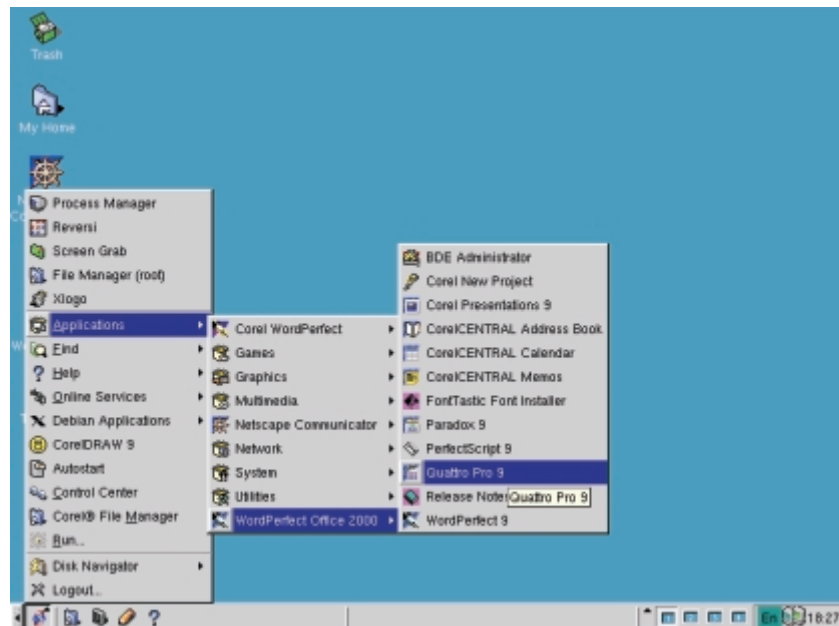
programs can be locked or hidden to other users. This means that it is safe to leave confidential files on a computer, even when other users will be using that computer. As an owner of a file, directory, or program, you can assign access rights.

- It's multi-tasking. Linux can run programs at the same time. Obviously, Windows can do the same thing, but the way Linux does it is more reliable. Linux's multi-tasking scheme is more like that of Windows NT than that of Windows 9x. As the operating system has full control over the computer and hardly ever crashes, a crash in one program will not

influence the OS or other programs. Therefore, Linux is often used to host Web sites.

- It's free. You can download Linux from the Internet for free. And you can use Linux on your computer for free. Besides that, many programs for Linux are free, including PHOTO-PAINT 9, WordPerfect 8, and Star Office.
- It's user-friendly. Although Linux is based on UNIX—which is very difficult to use—anyone with a bit of Windows experience can use Linux. That is a result of the fact that many Linux versions or distributions come with KDE, a Windows-like graphical user environment. Corel's version of Linux includes Corel Install Express, which makes the installation of Linux a breeze, too.

Obviously, there are some disadvantages to Linux, the most important one being the lack of applications. After all, an operating system is only as good as the number of available applications for it. Here Corel plays an important role, and they
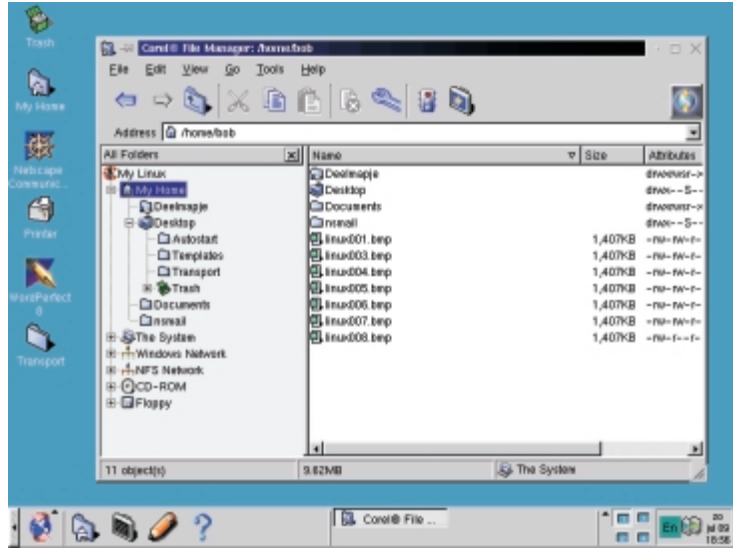
Figure 2
Corel File Manager

Figure 3
KDE, windows, the Application
Launcher, and the Panel

are not the only ones. But on the other hand, if your computer works (with Windows), why fix it?

Corel's Involvement

Corel has not created the Linux version that comes with the Corel LINUX OS. That may sound strange, but the "heart" of Corel LINUX OS is formed by the Debian distribution. Corel has added KDE (K Desktop Environment) to this distribution, and enhanced it with a few programs they especially developed for this product; Corel Install Express, Corel Update, and Corel File Manager are the most important ones. Corel LINUX OS comes in various editions, but most of them include Netscape Navigator or Communicator, WordPerfect 8, Acrobat Reader, and a host of utilities, games, servers, and Internet-related programs (IRC, Chat, News, Dial-up, and so on). KDE is the most important part of Corel LINUX OS (apart form the kernel, of course), as this program is responsible for the appearance of the operating system. KDE is not written by Corel, but by the KDE team (www.kde.org). KDE is available in multiple languages, and has many, many applications, including an office suite.

Figure 4
The Virtual Desktop Manager

Using the Desktop

KDE is responsible for the GUI (graphical user interface), which is your primary gateway to Linux. KDE looks a lot like Windows, so managing applications and files will not be too difficult. In KDE you can click, double-click, and right-click items, just as in Windows. Likewise you can drag and drop items, to copy or move files or to create shortcuts, for example.

Applications are launched via the Application Launcher, which is the Linux equivalent of the Start Menu. As in Windows, the Application Launcher has menus for applications, settings, help, and so on. Launching an application in Linux is as easy as launching an application in Windows. The Application Launcher is part of the taskbar, which is called the Panel in Linux. The Panel holds buttons for active applications and windows, various shortcuts, and a desktop tray (which shows the time and the current keyboard layout), as well as virtual desktop buttons.

A concept in Linux which you can't find in Windows is the virtual desktop. A virtual desktop is a desktop other than the one you are looking at, which can be activated by clicking on one of the virtual desktop buttons in the Panel. By default, Corel LINUX OS offers four virtual desktops, but you can increase this number to eight. Each virtual desktop can have its own look and feel, and each virtual desktop can have its own set of open windows. This means, for instance, that you can run a Web browser on one desktop, CorelDRAW on another desktop, and a word processor on a third, giving you all the space you need without cluttering up your workspace.

Using the Virtual Desktop Manager, you can easily move application windows from one desktop to another. You can even make windows "sticky," which means they'll show up on every desktop.

Corel File Manager

One of the Linux applications developed by Corel is Corel File Manager. This Windows Explorer-like program can be used to manage and open files, start applications, and view HTML files. You can even use it to browse the Web. The ability to show HTML files and browse the Web comes in handy if you have a bare-bones version of Corel LINUX OS, without Netscape Navigator.

Corel File Manager has a

Figure 5
The Corel File Manager
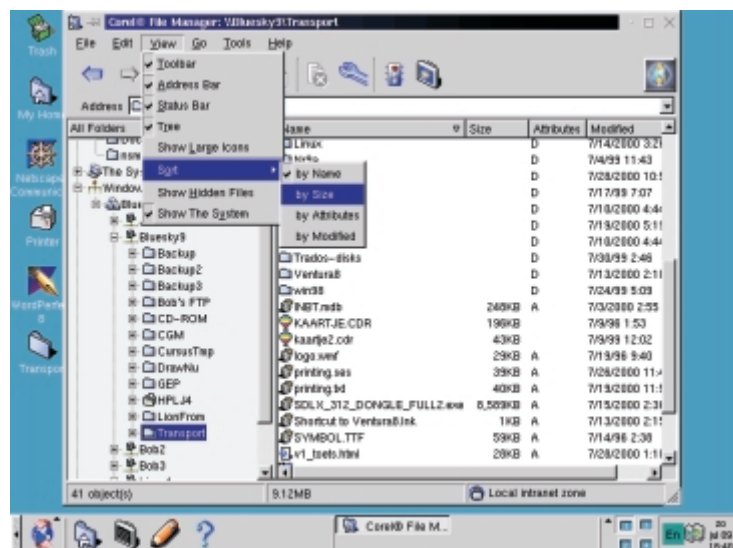
familiar tree view pane and a flat view pane, which makes it easy to select and manage files. In the tree view, you get a good look at the structure of the Linux operating system. Many directories are standard to the operating system, and some of them are hidden if you're logged on as an ordinary user.

Corel Update

One of the biggest complaints about Linux has always been the sheer complexity of the product. Even for experienced users, installing and upgrading Linux has always been a tedious, difficult, and time-consuming task. Corel Install Express (the installation program) takes care of the complex task of installing Corel LINUX OS, and Corel Update can be used to install new programs (or packages) or to update the system. Corel Update looks for new files on a CD-ROM or— when you're connected to the Internet—on an FTP site. It allows you to check the installed versions of your packages against the current ones on the CD-ROM or FTP site, and will flag any packages which require an update. This procedure can also be used to install completely new packages, or uninstall existing ones.

The Console

Linux itself is a non-graphical operating system. The GUI is KDE, a separate program. In this way, Linux can be compared to Windows 9x, which runs on DOS. Just like you have the ability to open a DOS box (MS-DOS prompt) in Windows, you can open a command line (the console) in Linux. When you do so, you'll be presented with a window where you can enter any of your favorite Linux commands. In case you don't have any yet, here are a few to get you started:

- **ls**: shows the contents of a directory
- **cd**: changes a directory
- **cp**: copies a file
- **rm**: removes a file
- **cat**: shows the contents of a file
- **exit**: closes the console
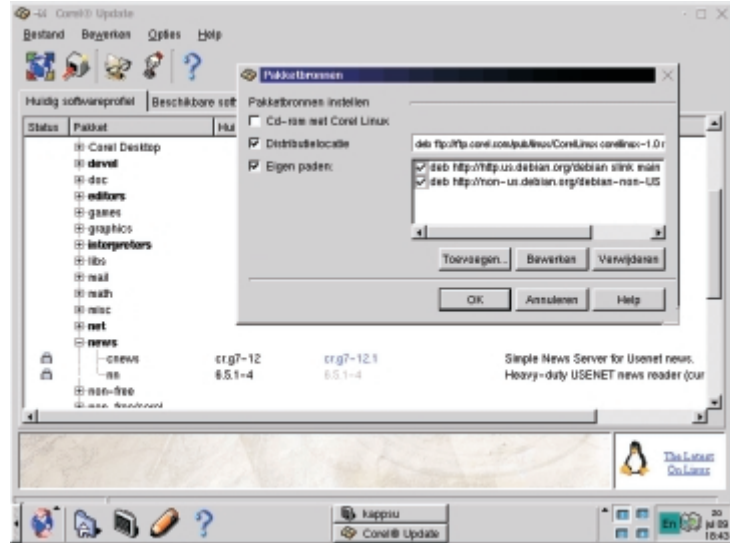
Figure 6
Corel Update

Server Capabilities

One excellent reason to set up a Linux system, is its server capabilities. As a multi-tasking, multi-user operating system, Linux can be used to run a variety of servers simultaneously:

- A Web server
- A mail server
- An FTP server

At the same time, a Linux machine can act as a print server and as a file server. And the best thing is, you don't have to invest a dime. Corel LINUX OS ships with Apache Web server, the ftpd FTP server, and the qmail mail server. Print and file serving are standard capabilities of the operating system. Even better is that the servers are already set up; by placing your HTML files in the correct directory, you'll be running your own Web server in no time!

The server capabilities of Linux make a Linux machine an attractive alternative to a computer running Windows NT. If you now use an NT machine for file and print sharing, as well as an FTP and a Web server, chances are you can save yourself some money by setting up a Linux server instead.
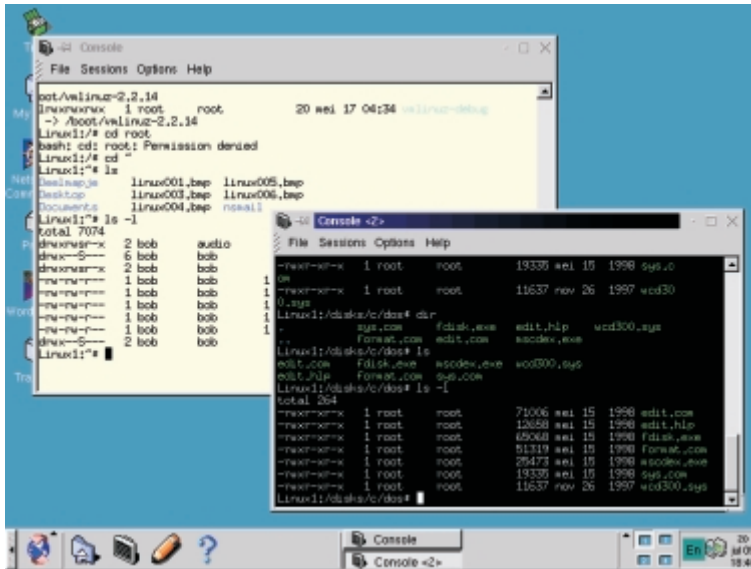
Figure 7
Two console instances

The following major players are currently active on the Linux platform:

- **Corel**: WordPerfect 8, WordPerfect Office 2000, CorelDRAW 9, PHOTO-PAINT 9, and maybe Corel VENTURA 8.5 at some stage
- **Adobe**: FrameMaker, Acrobat Reader
- **Netscape**: Netscape Communicator
- **Sun**: StarOffice
- **IBM**: will sell notebooks with Linux
- **Inprise**: development tools

You'll notice the absence of Microsoft in this list, but is generally expected that Microsoft will have a Linux version of Office 2000 up and running before long.   2000

Applications

As stated earlier, an operating system is only as good as its available applications. And although there are many Linux applications are available (and many of them for free), not all of the "major apps" have been ported to Linux, and some of them never will be.
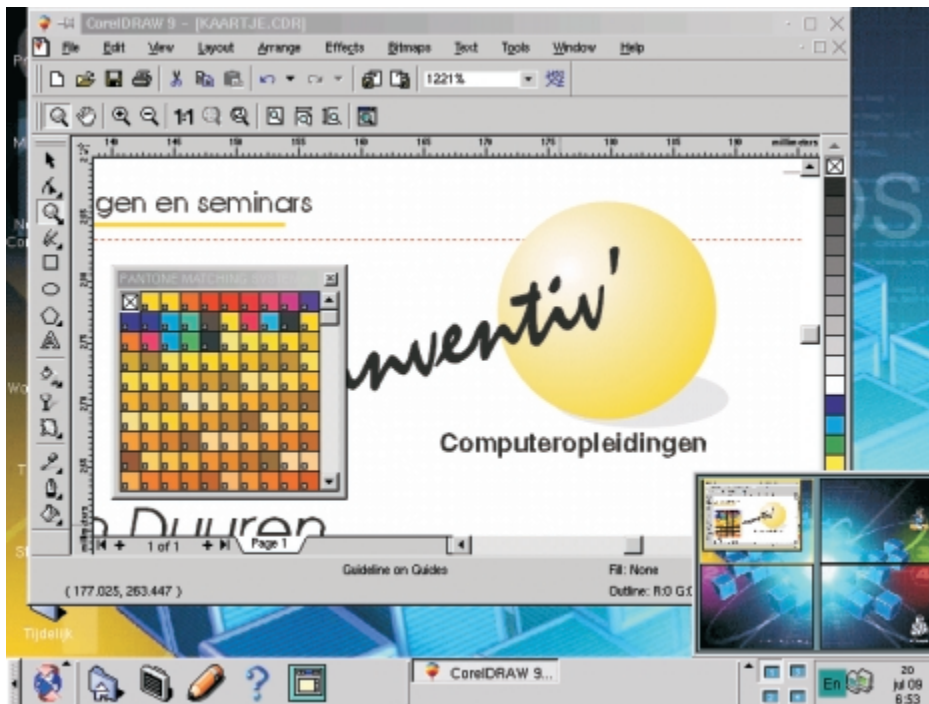
Figure 8
Yes, CorelDRAW for Linux really exists.

Starting Out with HTML

Looking under the hood

Behind every Web page is raw HTML code. Understanding this code is extremely important if you are designing pages of your own. Sure, you may be using one of the packages that claims to insulate you from HTML, but there will still be times when you need to see and understand the actual code that creates a page.

This session will cover the basics of constructing and deconstructing an HTML file. We'll go over the tags that will get used most often if you are creating a file. But we'll also open a few files created by a WYSIWYG package and look at the mess it can leave behind. Topics include:

❏ Tags that are absolutely required for a page

❏ Formatting a page with the basic tags

❏ Linking to a style sheet for more advanced formatting

❏ Adding tags to help the search engines

❏ Inserting a JavaScript file

While this session will touch on a few advanced subjects, it is meant for those who are new to HTML or looking to brush up on their basic HTML skills.

COREL WORLD 2000

HTML and Web Authoring

THE HYPERTEXT Markup Language (HTML) is a subset or document type of Standard Generalized Markup Language (SGML), but it is better known as the language of the Internet's World Wide Web (WWW).

You can look at HTML in two different ways. The first would be as a sort of programming language. In reality, it is not a programming language, but at first glance it may look like that. It is really a standard way of describing a document's formatting so it can be viewed on many types of machines. HTML may seem very familiar to those of you who have delved into Ventura's formatting codes. While the codes aren't always the same, many of them are similar and the way they are defined is nearly identical.

There are several levels of HTML available, because the language is continually evolving. But use of newer features can come at the expense of having the document display correctly in older browsers. This tutorial will help you to create HTML code that is not only attractive, but also compatible with the majority of browsers used to view Web documents. We'll discuss some of the advanced commands, but it will be noted that some may cause compatibility problems if used.

FORMATTING CONVENTIONS

HTML formatting codes are always enclosed in angle brackets (the < and > keys). Most of the commands require a code preceding the text to be formatted and another code at the end of the text. The code at the end will be preceded by a slash (/), as you will see later. Because of this strict adherence, the codes seem more like programming commands. As in programming languages, each code has many variations that can appear within the angle brackets.

The Basic HTML Document

At the beginning of your HTML document, you need to insert the <HTML> command. This just tells a browser that some HTML-formatted information is coming next. And at the very end of the document, you need to place an </HTML> command to indicate the end of the HTML data stream.

Inside of that structure are two other major sections. The first one is the <HEAD> section. This section contains information about the document you are creating. The main piece of information to include is the document title. Whatever is specified by the <TITLE> tag will appear in the title bar of the browser. Remember that at the end of the title line, you must include a </TITLE> tag. Other items, such as the name of the author, can also be placed in this section. And then a </HEAD> tag should follow, to indicate that the head is complete.

The other major section of the file is the Body, which begins with a <BODY> tag. This is where the meat of the document is stored. And just like all other sections, it needs to end with a </BODY> tag.

So a very basic document may look like the following:

```
<HTML>
<HEAD>
<TITLE>My First Web Page</TITLE>
</HEAD>
<BODY>
This Web page is my first HTML experiment.
</BODY>
</HTML>
```

Obviously, a page as simple as this one will be very boring, but it is the building block upon which we will begin to add more information and much more pizazz.

Hiding Information in Meta Tags

An example of something that could be included with a meta tag is the author's name. It would be added by including a line similar to the following in the Head section:

```
<meta name="AUTHOR" content="Foster D.
Coburn III">
```

This line defines a "meta" variable by the name of AUTHOR. And the variable will hold my name, Foster D. Coburn III. This particular information will not be displayed on screen, but it will be accessible to others editing the document. And because of everyone's ability to look at a page's source HTML code in their browser, they can easily see the name of who created the document. It is just a quick way to give yourself credit for your work.

There are other meta tags that are extremely important for registering your site in the major search engines. The first, `<meta name="DESCRIPTION" content="A great site">`, will be the description used by search engines when they list your site. You should keep the description fairly short and try to use as many keywords in it as possible, while still having them in sentence form. A similar tag, `<meta name="KEYWORDS" content="word1, word2, etc">` will provide a list of keywords to the search engines. Having both of these tags on every page of your site will make a significant difference in your search rankings. No page should be without them.

Formatting Text

Text formatting can be accomplished in several ways. *Style tags*, very similar to VENTURA's paragraph tags, can be applied to various heading levels. *Logical styles* allow you to apply a more generic type of formatting to the characters surrounded by the tag. And *physical styles* allow you to apply more specific formatting to a group of characters. We'll look at all three types, and discuss where each should be used.

HEADINGS

HTML provides six levels of headings. The lower the number, the more prominent the heading. Each heading tag will look something like the following:

```
<Hx>This is a heading</Hx>
```

where x will be replaced by a number from 1 to 6.

This doesn't give you control over the font or the size, as that is controlled by the browser or a style sheet. There are ways to specify fonts and point sizes, but this method can created bloated code. If you wish to control the text formatting, use a cascading style sheet in conjunction with the style tags described here.

TEXT ATTRIBUTES

Adding other attributes such as bold and italic can be accomplished in more than one way. The two styles of formatting are with logical styles and physical styles. When possible, use logical styles.

To boldface text, the `<STRONG></STRONG>` tags are the logical style and `<B></B>` are the physical style. For the most part, they have the same effect. To italicize text, the `<EM></EM>` tags are the logical style and `<I></I>` are the physical style.

The other important logical style is the `<CODE></CODE>` tag pair, which will use a fixed-width font. Its main use is for programming code, but it can also be useful for general emphasis or to suggest something a user must enter.

Other logical styles exist, but they will generate the same effect as the three described above. Very rarely are the logical styles used in the real world. Most coders stick to the physical styles for bold and italic.

LINE AND PARAGRAPH BREAKS

Just as in paper documents, you must specify where line and paragraph breaks occur. Line breaks do not put any space before the next line of text, and are created with the `<BR>` tag. Paragraph breaks will leave a blank line before the next paragraph and are created with the `<P>` tag. These are standalone tags that don't require a closing tag. Simply place them where you want the line or paragraph break.

The `<BR>` tag has been extended to define how the line break behaves. An example would be `<BR CLEAR="ALL">`, which specifies that the next line should start after any graphic images floating on the left or right. But the CLEAR attribute is not a standard part of HTML, and its use is being phased out. While the `<P>` tag does not require a closing tag, it is a good idea to use one so that Cascading Style Sheets will format the text properly. Even if you don't plan on using style

sheets it is good to plan ahead for if you decide to use them in the future.

A third type of break is a graphic horizontal rule. This draws a horizontal line across the screen. To add one, simply use the <HR> tag, which again is a standalone tag. This tag has been extended so that you can define the length and width of the line.

LISTS

Something you see quite often on Web pages are lists. Three different types of lists can be created: unnumbered, numbered, and definition. The major difference between the three is in their formatting. An *unnumbered list* simply places a bullet before each item. A *numbered list* will automatically number each item in the list, and a *definition list* will indent items.

With unnumbered and numbered lists, each item in the list should be preceded with the <LI> tag. If you wish the list to be unnumbered, precede the whole list with a <UL> tag and place a </UL> tag at the end. The numbered list works the same way, except with the <OL> and </OL> tag pair.

An example of an unnumbered list would be:

```
<UL>
<LI>Frame Tool
<LI>Shape Tool
<LI>Pick Tool
</UL>
```

Note that closing </LI> tags are beneficial if you plan on using Cascading Style Sheets.

This same list can be changed into a numbered list by changing the <UL> and </UL> to <OL> and </OL>.

A definition list always begins with the <DL> tag. Each term is then preceded with the <DT> tag, and each definition with the <DD> tag. The list is followed by the </DL> tag.

Here is an example of a definition list:

```
<DL>
<DT>Shape Tool
<DD>Tool used to manipulate the nodes of
an object
<DT>Frame Tool
```

```
<DD>Tool used to create and manipulate
frames
</DL>
```

Hyperlinks

The feature that makes the World Wide Web so interesting to most of us is its ability to link documents to one another. Hyperlinks are extremely important for linking documents within your site to each other, as well as for connecting to the outside world. In order to link to a document, you need to know its Uniform Resource Locator (URL).

Two types of linking are possible, *relative* and *absolute pathname*. When linking within your own site, it is best to use relative linking, as this allows you to move your site from one location to another without making major changes.

Each link is surrounded by the <A></A> anchor tags. The HREF parameter is used to refer to the document to which you want to link. An example of an absolute pathname link would be:

```
<A
HREF="http://www.unleash.com">Graphics
Unleashed</A>
```

The line begins with the <A> tag, with the parameter of HREF referring to "http://www.unleash.com," the URL of the site we are linking with. Then the text "Graphics Unleashed" appears as a text reference that will be highlighted in the browser. The </A> tag closes the link reference.

But if our link were to another document within our site, it should be done instead with a relative link that would look similar to the following:

```
<A HREF="/unleash/training/">Training
Solutions</A>
```

Again, this starts with the <A> anchor tag, with the HREF parameter pointing to a directory named "training" under the local /unleash directory. The text "Training Solutions" would be highlighted in the browser, and </A> closes out the link.

Note that this assumes that the link is to the default file index.html, and that a file named index.html will be found in that directory. Otherwise, a filename must also be specified.

You can also link to a particular section of a document. First you must name the section in the document to which you will link. Let's include a section named "graphics" in our index.html file. To do this, add the code <A NAME="graphics"></A> where you wish the section to begin. Then to create a link to that section, you would write the following:

```
<A
HREF="/unleash/training/index.html#graphics
">Graphics Training Solutions</A>
```

Thus, we've added a # sign and the name of the section after the document name in our link. The most difficult thing about links is that the names can get rather long, if a file is nested several levels deep in the file structure. While this link can be simplified if used within the index.html file, it is a good idea to leave the filename fully spelled out.

Images

Adding graphics to your code works almost exactly like hyperlinks, as you are essentially linking your document to a graphic file. In fact, if you want only an image to appear on the page, then it works *exactly* like a hyperlink. But most of the time, you want to have your images appear in-line or intermixed with text.

If we want the file logo.gif to appear in our document, we would use something similar to the following:

```
<IMG SRC="/unleash/graphics/logo.gif">
```

The IMG must appear at the beginning of the tag as shown. In this case, we've got SRC next, followed by the path name of the image in quotes. Again, you can use either relative or absolute pathnames. Note that the filename we've used appears in all lower case. When naming your files, the capitalization does matter when used on the Web, since UNIX recognizes the difference. If you are testing this on a Windows machine, you may not realize there is a problem until you've already

uploaded the page. Therefore, you may want to standardize your naming so that everything is lower case. This decreases the chance of problems after uploading, and makes managing the files much easier.

You can also specify the alignment of the image by adding "ALIGN=xxx", where xxx can be left, center, or right. Another very important part of the IMG tag is the addition of "ALT=", where you place alternate text within the quotes. This is for browsers that choose not to display graphics. So, a more complete version of our code may look like the following:

```
<IMG SRC="/unleash/graphics/logo.gif"
ALIGN="left" ALT="Our Logo">
```

Often you'll want to link an image to another document so that the image behaves like a button. This combines the hyperlink and image tags that we've discussed previously. So now we'll link our logo image to a document about our company as follows:

```
<A HREF="/unleash/aboutupi/"><IMG
SRC="/unleash/graphics/logo.gif">About
Unleashed</A>
```

The line starts with the HREF to the document that will be accessed when the user clicks on the image or the text. The IMG SRC tag specifies the image, and the </A> tag closes out the hyperlink.

So that the page displays as fast as possible, it is important to include the height and width of the graphic in pixels. This way space can be allocated for the image before it actually downloads. An example is shown below:

```
<IMG SRC="/unleash/graphics/logo.gif"
ALIGN="left"  ALT="Our Logo" HEIGHT="200"
WIDTH="200">
```

Tables

Tables were created so that tabular material could be presented on Web pages. But most often, tables are used to format pages. Understanding the basic commands is extremely important. To create a table, you'll need to use the

<TABLE></TABLE> commands. From there, you define rows, and then cells within those rows. A table must have at least one row defined with the <TR></TR> pair of tags. And each row must have at least one cell defined by the <TD></TD> pair. Beyond these basics are a number of variations that can be used to combine cells together, add borders, and assign backgrounds. I'll leave further exploration of tables for study outside of this tutorial.

Special Characters

Four characters that are used in HTML formatting can only appear in your text if you use a special code to tell the browser that they should be interpreted as text instead. If you want to use the angle brackets (< and >), the ampersand (&), or double quotes("); enter the following codes in their place:

<	&lt
>	&gt
&	&amp
"	&quot

Other special characters may or may not work, depending on the user's browser and operating system. These are the "upper ASCII" characters, most notably accented letters and some punctuation. Following are a few more codes to ensure these characters display correctly in all browsers:

©	&copy
ñ	&ntilde
È	&Egrave

As you can see, most accented characters are created by typing the letter, followed by the spelled-out name of the accent.

Adding JavaScript

Some of the more exciting things that happen on a Web page come through the addition of JavaScript code. As with tables, we'll only cover the very basics of scripting.

Typically, you'll place the script code in the HEAD section of the HTML page, though that isn't a requirement. If the script is JavaScript, use the tags <SCRIPT LANGUAGE="JavaScript"></SCRIPT>, and fill in between them with the actual script. Most of you probably aren't programmers who will write your own scripts, but you can find many prewritten scripts on the Web that you can drop into your HTML.

Putting It All Together

Now, let's put all of what we've learned together into our own little Web page. Following is the HTML code, and in the figure below, you can see how this code looks in the Netscape browser.

```
<HTML>
<HEAD>
<TITLE>My First Web Page</TITLE>
</HEAD>
<BODY>
<H3>Example of an unnumbered list</H3>
<UL>
<LI>Frame Tool
<LI>Shape Tool
<LI>Pick Tool
</UL>
<H3>Example of a definition list</H3>
<DL>
<DT>Shape Tool
<DD>Tool used to manipulate the
<EM>nodes</EM> of an object
<DT>Frame Tool
<DD>Tool used to create and manipulate
frames
</DL>
<H3>Linking</H3>
Link to <A
HREF="http://www.unleash.com">Graphics
Unleashed</A> home page.<BR>
Or click on this button <A
HREF="http://www.unleash.com"><IMG
SRC="/unleash/gifs/unleash.jpg"></A><P>

<STRONG>&copy; 2000 Unleashed
Productions, Inc.</STRONG>
</BODY>
</HTML>
```
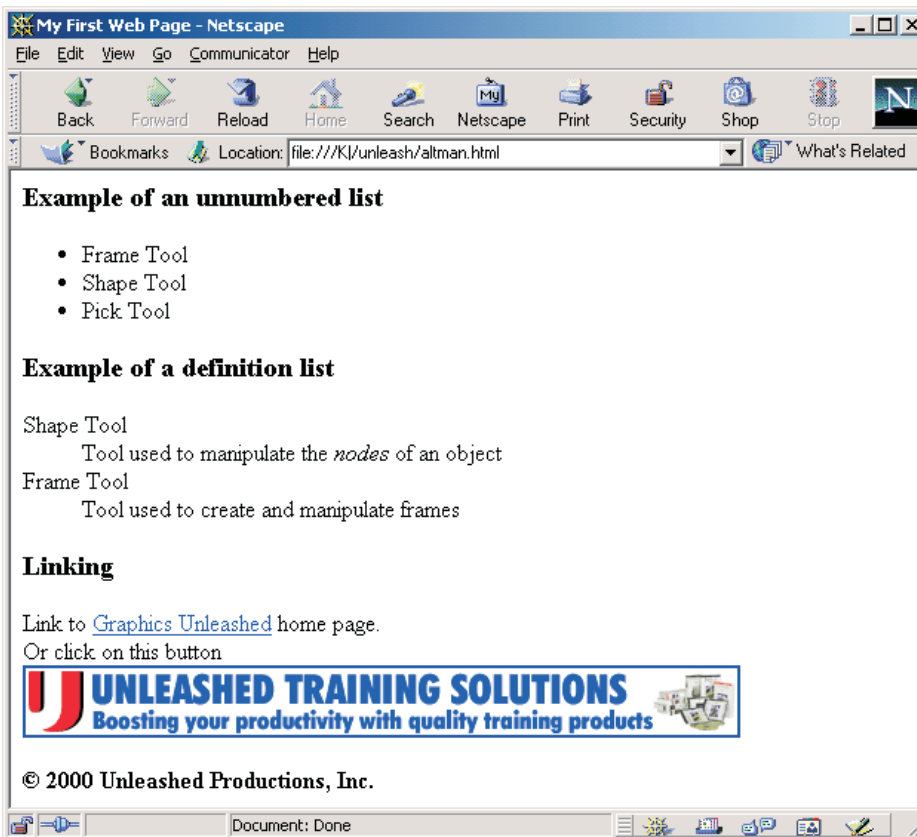
Figure 1
The code on the previous page is displayed as this Web page by a browser.

Wednesday

3:30pm

Deciphering Complex Pages

Depending on the authoring program you use to create Web pages, you may not have to face HTML on a regular basis. But that doesn't mean the information you just learned isn't useful. There will be times that you will have to hand-edit the code created by your favorite software, and the tags you just learned will help you to find and fix any errors. Plus, it is good to look at other Web pages to learn various tricks.

Load the Web page you wish to study and select View | Source in Internet Explorer or View | Page Source in Netscape. This will show you the HTML code of the page you are visiting. You might find the page much more complex than what you've seen here. But if you study a bit closer, you'll notice that the information we've discussed makes up a large part of the page. And with a little time, you can decipher exactly how the page works, so that you can use some of the best tricks on your own pages.   2000

Go Deeper

You will find several excellent utilities for Web site development here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to the \programs folder and have a browse.

Going Filmless

A digital discussion

Digital photography has really come into its own as a conference topic this year—note the entire day of presentations, ending with this panel discussion. Knowing which camera is right for you—or whether digital photography itself is right for you—requires understanding exactly what your photographic needs are. Once you've determined your needs, all you have to do is sift through jargon-laden advertising literature from a dozen or more manufacturers.

In short, buying a digital camera combines the worst of buying an optical camera with the worst of buying a computer. This panel discussion, featuring our resident experts, will help you with the most salient issues:

❏ $189 or $18,900—how much should you pay?

❏ Can you really get good print quality from a digital camera?

❏ Who makes the best cameras?

❏ It's worse than with scanners! What do all those numbers mean??

❏ Are more pixels always better?

This session is for those who have questions unanswered from the day's presentations, or who just can't get enough of this topic.

COREL WORLD 2000

Web Pages That Suck

Learn good design by looking at bad design

In this morning's keynote, Vincent Flanders will help us all feel better about our Web design skills by showing us Web page disasters created by other designers—including some who work at the largest companies on the Web. He'll also show the steps they've taken to improve their sites; together, we can decide how well they've succeeded at that goal. Topics include:

❏ Under the influence: Sites that "borrow" the look of other sites

❏ Then and now: A look at Web sites created in the ancient 1990s.
How do they look in the year 2000?

❏ Scenes of the crime: Bad design techniques to avoid

❏ Where Am I?? Web sites lost in navigation limbo

The Art of Paragraphics

Learning how and when to go with the flow

Last year, after a brief hiatus, this traditional opening presentation returned to CorelWORLD, and we found it to be just as relevant as ever. As VENTURA and its users evolve, there is more and more opportunity to discover the power of automation built into the software. How is this session named? *Art* as in not science, *paragraph* as in, well, paragraph, and *graphics* as in design elements, not just text elements. Topics include:

❏ When in doubt, reach for the Paragraph tool.

❏ When to use frames and when to avoid them

❏ How to attach design elements to the flow of the text

❏ Painless anchoring

❏ Do it right once, do it right every time.

*This session is for VENTURA users
who are no longer beginners.*

Rocks, Rivers, and Fish

New-age ingredients for publishing success

IT'S AMAZING when you think of it. It was almost 12 years ago that a seminar by this name was first presented. We barely knew what we meant by "paragraphics," but it sounded kind of cool.

Now, it's my religion. I practice it with unfailing diligence. And we still get e-mail from veteran VENTURA users who remember those early presentations about placing as many elements as possible into the stream of the text.

What does this say about a program when advice given 12 years ago still holds? Boring? Out of step? Outdated? Too big and slow to change?

How about so fundamentally sound and well-conceived that it could hardly be improved upon? As far as I am concerned, that is not far from the truth.

Here is what I said about this topic back in 1988:

"The most important element of any document is the text itself, not the presentation of it. When I make the text the primary focus of a document, I usually become more efficient with my production. From this experience, I have developed a Prime Directive: In a long document, attach all elements to the text, whenever humanly possible.

"In a long document, the flow of the text is your document's lifeline. Graphics are linked to critical parts of the text; pagination is based on changes in content; bullets, big first characters, underlines, italics, and bold are all attached to critical parts of the copy. These critical parts shift as the text shifts; they don't stay in one place. With some tasks this is obvious—you don't italicize a certain portion of the page with the hope that the desired text falls there, you italicize the text itself. And very few users would choose to underline text by drawing a fixed line in Graphics mode [that's what it was called then].

"These decisions are easy, but many are not so obvious. How would you attach a vertical line to a paragraph? How would you create a big first character with a gray shade around it? How would you place a rule at the top of each section or a row of dots underneath a headline? Many might think to create a secondary frame to accommodate unusual text handling, but that would violate the prime directive: A second frame is a fixed object in your river of text. The first thing you should look for is a method of attaching the element to the text flow.

"Whenever Ventura presents you with many options for a given task, try to narrow down the possible answers by looking for ways to attach graphic elements to the flow of the text. Sometimes the answer is hiding deep in a dialog box, but patience pays—the time spent developing the technique will pay off in time saved not having to readjust and reformat elements every time your text file shifts."

Twelve years later, very little has changed, except the degree to which you can accomplish this. My No. 1 piece of advice remains precisely the same as the first day I gave it, back in 1988: Whenever possible, use paragraph formatting to solve your pagination and layout challenges.

There are plenty of examples of this, and Figure 1 shows the traditional (and simplistic) example that I like to use. New and occasional users would likely study this page and see many independent elements, requiring manual preparation. Headlines that cross columns…three blocks of text along the left column…two square bullets flanking the byline…a large capital letter reversed out of a solid bar—this page has "manual creation" written all over it.

Indeed, many users would create frames to hold the headlines, draw a frame down the left side, and use a small frame to house the large first character. And that's not necessarily a bad strategy—it all depends upon the project. If your sole objective is to complete this one page and then not look at it, or one like it, ever again, then the only thing that matters is how it looks.

But if this page represents a recurring project, or if it is coming back from review, you won't

Go With the Flow

The Secret to Taming Ventura Publisher

When it comes to power publishing, seek out the true ace in the hole: the Paragraph tool.

■

by

John Q.

Publish

■

Mr. Publish has been using VENTURA Publisher since 1888. He assures us his systems are free of Y2K problems.

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Figure 1
All of the elements on this page flow with the text.

IT'S PRODUCTION FRIENDLY For objects that need to stay with a passage of text, what could be cleaner than having them live inside the paragraph?

IT'S EASY TO DUPLICATE This might be the most important point of all. VENTURA is all about automation, and when you use paragraph formatting for page layout, you create automation at a very high level.

Back to Figure 1, where a single text file governs this page's every move:

■ The headlines are set to span across all columns.
■ Space below the subhead determines the starting point for the large italic first paragraph.
■ The square bullets around the byline are actually rules set top and bottom. But instead of having them span the column, they have been set with a custom width, in this case, a mere 10 points.
■ The bio is set bottom-aligned. That automatically forces the body of the article to begin in the second column.
■ The large cap is its own paragraph, with a rule below, jimmied to move up and envelop the character.
■ And the tag at the bottom of the article is set to share the baseline of the preceding text and stay four points ahead of it.

appreciate having to create and adjust all of those frames. You'll wish for a more automatic approach, and perhaps you'll even blame VENTURA for not being better suited for these types of projects.

In fact, the entire thing can be created with paragraph formatting. You do not need to create a single frame or graphic object. Everything is part of the flow of the paragraphs, and that has potentially dramatic implications for you:

IT'S EFFICIENT Paragraph tags are very compact commodities—one stylesheet and one line of code in a text file.

Starting FrontLook Express

When you do not have e-mail set up, launching FrontLook Express might open the Internet Connection Wizard, which you can use to tell FrontLook Express how to connect to the Internet to check your mail and newsgroups. If you've been using a Web browser or another mail program and you already have a dial-up account established, you can select the same account.

Once you've completed the Internet Connection Wizard and each time you start FrontLook Express, you might see the message shown here:

Figure 1
Setting your dial-up configuration is the first step toward connecting.

FrontLook Express doesn't automatically connect to your Internet service provider (ISP) when you first start it. If you have more than one ISP account, choose the one you want to use from the Connect To list, and enter your username and password. To avoid having to enter your

Using the FrontLook Express Address Book

The address book in FrontLook Express is a simpler version of the one in FrontLook, but it offers many of the same capabilities. You can, for example, organize addresses into groups and initiate online conferences if Microsoft NetMeeting is installed.

To access the address book, click the Addresses button on the toolbar, or choose Address Book on the Tools menu.

The FrontLook Express address book only has one address type, and you cannot access addresses on your network server or in FrontLook itself, although you can import from some other address sources (by selecting Import from the File menu). To create a new listing, click

New on the Address Book toolbar and choose New Contact from the menu that appears. Figure 1 shows the Address Book form for creating a new address or editing an existing one. Here's how to create a listing:

1 Enter an optional nickname in the Nickname box.

2 Type the e-mail address in the E-Mail Addresses box.

3 Click Add.

4 If a person's e-mail system does not allow him or her to read formatted messages, select the check box labeled Send E-Mail Using Plain Text Only.

Shared Contacts
Main Identity's Contacts — Main identity's address list
Barbara's Addresses — Folder
Bowling League — Group

If you selected to share the folder with other identities, the folder will appear under the Shared Contacts item in the folder list. To add a new name to the folder, select the folder in the folder list, and then choose New Contact after clicking the New button. You can also drag existing names from one folder to another, which removes them from the original location.

TIP To send an e-mail message to all the addresses in a folder, select the folder, click the first name in the list of addresses, hold down the Shift key, and click the last name in the folder. Then, with all the names selected, click the Action button on the toolbar. Choose Send Mail from the menu that appears, and a new message window will open with all the names placed in the To box.

Sending Mail

Sending Internet mail in FrontLook Express is just as easy as sending mail using FrontLook, if not easier. To start a message by choosing the recipient first, use one of these techniques:

- Double-click the name in the Contacts list.
- Click the name, or group name, in the address book, click Actions on the Address Book toolbar, and choose Send Mail from the menu.

Working with Electronic Mail

Figure 2
Are these elements rocks or fish? The answer to that question should drive your formatting strategy.

Open flow.vp from the \Files\Ventura folder of the Conference CD and you'll see the page shown in Figure 1, next to an identical-looking page created with frames. Give yourself a simple task, like changing the subhead to three decks instead of two, and you'll immediately see the value of paragraphics: It would take all of three seconds to change the page if it is set with paragraph formatting; several minutes with the frame-based page.

I have trotted out this old page mostly for the sake of nostalgia, and to show how good form in VENTURA is really quite ageless. Chances are that most of your work is more complicated and challenging than this, so keep reading.

Of Rocks and Rivers

During production, I like to identify all elements with respect to their relationship to the text. If they are to flow with the text, then they are like fish. If they are designed to stay in one place on a page, then they are like rocks in the river. And if you go with the following rule of thumb, you'll be right 95% of the time:

- If it's a fish, then format it with paragraph tags.
- If it's a rock, use a frame.

Figure 2 represents two pages from an actual book project, and is replete with elements that could either be rocks or fish, depending upon the context. For instance, the design spec for this book might call for all figures to be placed at the top or bottom of a page. If that were the case, then the image entitled Figure 1 would most decidedly be a rock, and would therefore be placed in a floating frame. That frame would sit top or bottom, and all of the text would flow around it.

But if the image is supposed to attach itself to the text, then you need to treat it like a fish. Obviously, it is still in a frame, but the way you handle that frame becomes critical to your strategy. Anchored frames have been a well-worn production aid since version 2, and we used one here to keep the figure moving with the text. In

the presentation, we'll address several good strategies for handling the caption; you can also open book.vp from the Conference CD to study what we did with it.

The margin icon on the left page of Figure 2 is another opportunity to ask the question: rock or fish? If it's a rock, it's easy: throw it in a frame and move it to the right place. If it's a fish, it's a bit more challenging, but oh-so worth it to meet the challenge. Imagine how often you would need to move an icon like this if it were treated like a rock instead of a fish.

The right-hand page has another graphic designed to flow in the river, and then there is the question of the tip. Handling this was not so obvious to me, and I'm burning with curiosity about how others would format it. If you do not attend the presentation, then ask me afterward and we'll talk about it. Beers optional…

Attach, Attach, Attach!

That is now my war cry with structured projects (which is all I use VENTURA for; if it is not structured, I use CorelDRAW). If it takes me an hour to figure it out, so be it—I'll save that and more in the long run. One of the most common issues in document production is handling margin notes, icons, and other graphic elements tied to specific passages of text. How would you go about attaching them to the text, and more intriguing of a question, could you do it with just paragraph tags? It might cost me 30 minutes to figure it out, but it will most certainly be time well spent: In a recent project, we had to place about 200 of them, but we dispatched them all with a simple, scriptable, maneuver of two keystrokes.

After a while it becomes a game. Can I do this without extra frames or extraneous graphic elements? Sometimes, I go overboard and get obsessive about it; sometimes I spend more time on the solution than I hope to save when using it. I accept this. In the long run, I am far ahead of the game for my use of paragraph formatting.

If you take nothing else away from CorelWORLD this week, think about the river, the rocks, and the fish. 2000

Go Deeper

You will find the files used in Rick's presentation here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\ventura\paragraphics.

Web Pages That Don't Suck

A *hard look at making your Web site better*

In his keynote address, Vincent discusses the problems that often befall Web sites and their creators. In this presentation, he looks at specific design problems with a focus on solving them. After all, you can only have so much fun making fun of others' problems until you decide to do something about it. Topics to include:

❏ Fixing the splash page

❏ Fixing the site's navigation

❏ Fixing graphics problems

❏ Knowing when to use technology and when to avoid its use

❏ Effective use of screen real estate

❏ Tips for intranet design

A complete outline of this presentation is available at fixingyourwebsite.com/corelworld/.

This session is for anyone who feels his or her Web site could perform better.

The Morning Muse

Reserved for on-site requests

One of the most valuable aspects of less structured presentations is how agile we can be with them. If a lot of you are asking the same questions at the Help Center, we'll create a workshop on that topic. From Tuesday through Friday, the first session each day in the Corner Pub will be devoted to a topic that you have requested. We will take input from the previous day and post the daily topic before breakfast that morning.

The Makeover Studio

The Hitchcock Spotlight and VENTURA 8

Deb Krisko is a CorelWORLD alumna three times over, so when she approached us about redesigning her company's newsletter, we knew we had to do a good job. Furthermore, there was talk of turning this quarterly over to QuarkXPress if VENTURA couldn't hack it. Fortunately, it did…with aplomb. This session chronicles our journey, and the newsletter's transition from an ugly duckling to a swan. Topics include:

❏ Makeover? Well, more like a teardown…

❏ What are all these frames doing here??

❏ Instant newsletter—just add text

❏ A blueprint for quarterly recycling

This session is for intermediate or advanced VENTURA users who are considering makeovers of their own.

Spotlight on the Spotlight

"WE NEED your help producing our newsletter," came the innocent-sounding remark. "We use VENTURA, but our DTP person doesn't use tags."

As any veteran user will agree, that's a bit like stirring a tall drink with a toothpick. Not quite the right tool for the job. But when two-time CorelWORLD alumna Deb Krisko of Hitchcock Industries told us that the alternative was to switch to QuarkXPress, we wasted no time telling her that Hitchcock was already using the right software, just not in the right way. Hitchcock asked us to produce it properly, and we knew that we were at the all-important fork in the road: Hitchcock would either stay in the VENTURA fold, or leave. And that decision rested entirely on our performance in making over the company's quarterly newsletter.

To say that the *Hitchcock Spotlight* was designed poorly would be a bit unfair. It wasn't designed at all. And to say that the company's DTP staff used VENTURA 8 would also be subject to interpretation, seeing how the entire product was created with tag overrides, and some of the pages featured as many frames as paragraphs. Indeed, Hitchcock might as well have been using PageMaker…

The Before

Figure 1 shows the lackluster cover that greeted employees each quarter. The spotlight idea was well-intentioned, but its execution flawed with poor contrast, a barely-recognizable logo, and a muddy fountain-filled background. Also, the cover tells us what is inside, but not where.

Once you move inside, you are immediately struck—okay, overcome—by the newsletter's use of white space. This is because, as Figure 2 shows, the white space is present between each paragraph. You'll note the use of four distinct formats for text—the department headline, the story headline, the

Figure 1
What recommends the cover of the *Spotlight*? Not much…
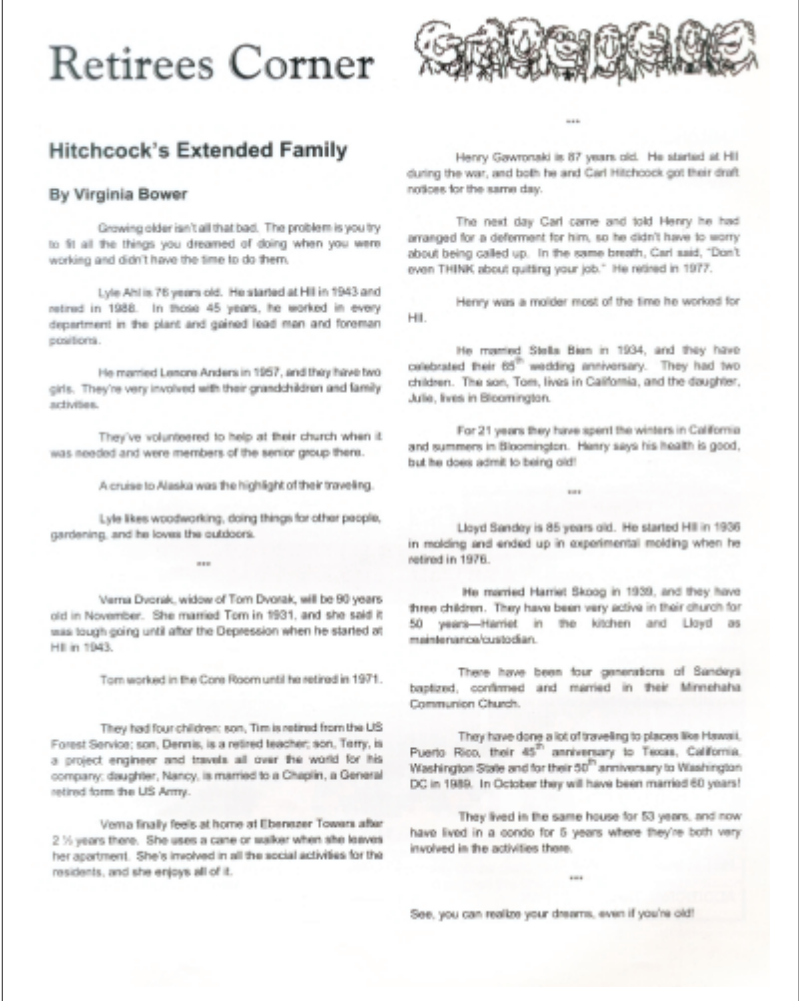
familiar with the project than when you take over for someone else.

The After

Decision No. 1 was the grid—a concept completely lost in prior efforts. We decided to create a three-column grid with a "scholar's margin" on the outside. The outside column would be used for photos, captions, callouts, or nothing. Figure 3 shows the page tag that we created for it, with frames on the outside columns to contain text flow to the inside of each page.

We created two other page tags: One for the front page—which was similar to the default pages, save for the vertical masthead consuming the left column—and one for photo spreads and layouts—essentially a big, empty page. With

byline, and the body copy. However, only one tag was used, and with tag overrides being used for all formatting, there was no hope at all of a consistent design.

It became clear to us immediately that a makeover would not be in order. The *Spotlight* needed a teardown—we would start from scratch. Moreover, we recommend teardowns for almost all inherited VENTURA projects. When you start from scratch, you become much more
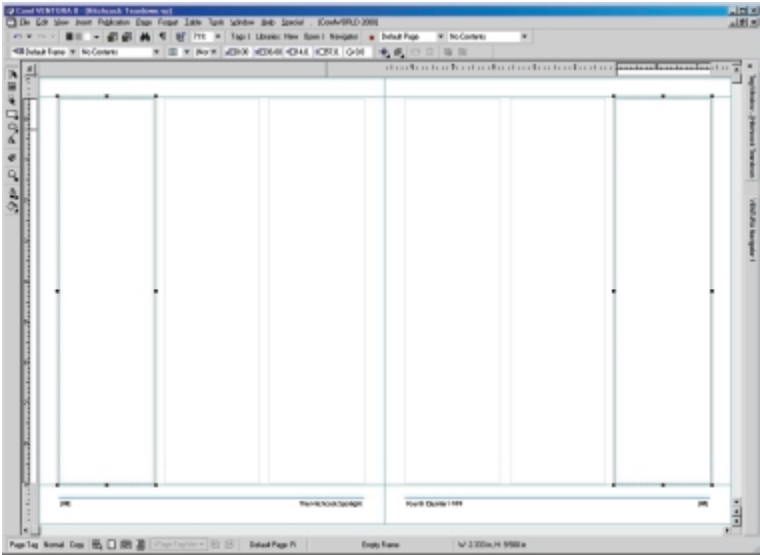
Figure 3
Outside white space will make for easier-to-read copy.
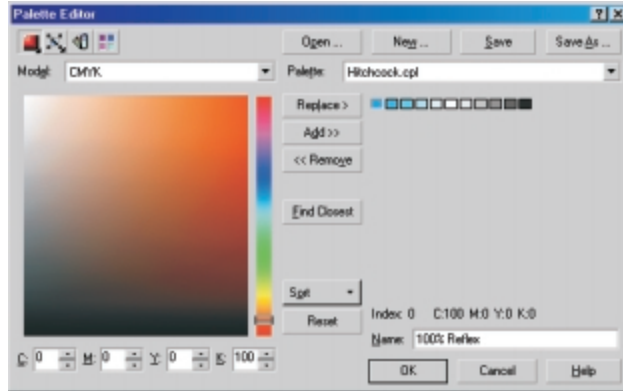
Figure 4
The two colors for this project, with varying tints

the palette we created for the job; note that we called Cyan 100% Reflex—you can name a color anything you want when you create your own palette.

TYPEFACES

We wanted to move as far away as we could from ransom note publishing (we counted seven different typefaces in the original design), so we designated that all body copy—including headlines, subheads, bylines, drop capitals, and callouts—would be set in Adobe Garamond. That's one face with which we think you can just never go wrong. We chose Eras for accents (it is a sans serif that is almost italic—just leaning forward a bit), and applied it to the masthead, department heads (reversed out of a solid blue bar), and folio lines along the bottom. Figure 5 shows how these two faces interplay.

simplicity as our mantra, we were determined that if readers were going to criticize the new look, they weren't going to claim that it was overdesigned or ugly.

COLORS

Hitchcock was publishing the newsletter in four-color and had the hefty print bills to show for it. We insisted the company could get a better-looking newsletter and publish in just two colors; they weren't about to say no to that. So we chose black and good ol' Reflex Blue, and proceeded to create a color palette for the job. We actually used Cyan to represent the Reflex—we do this regularly, as we often find it easier to work with a process color than a Pantone color (and the people at your print shop do not care what it says on the film—they'll use whatever ink you tell them to). Figure 4 shows

THE COVER

In addition to the drab colors of the original cover, we were not thrilled with the

Figure 5
Adobe Garamond is like a black evening gown—everything goes with it.

less time for each service.

The industrial engineering department is currently auditing work standards in an attempt to reflect current labor cost to our customers. With your help, we hope that we can find ways to produce our products more efficient

competitively priced product, since quality is now a given. By competitively pricing our products we hope to secure our futures well into the next millennium and beyond. ◈

Quality Assurance

Quality and Value for Customers

by Bill Guzaski

"**M**ake it faster, make it better, make it less expensive! "Everywhere you look, these are the opportunities facing Hitchcock. In this very competitive business and world of

formidable task when you face it alone. By working together and using the knowledge and skill of experienced personnel along with special programs and tools to reduce cycle time, variation and waste, Hitchcock will make it faster, better, and less expensive.

Figure 6
Bleeding off of all four sides adds a bit of energy to our new cover design.

THE HITCHCOCK SPOTLIGHT

Premium Quality Aluminum and Magnesium Sand Castings Since 1916

THE

INSIDE

Bill Girtz Bids Farewell After 45 Years of Service

Can you believe that Bill Girtz has worked at Hitchcock Industries full-time for 45 years? WOW! Bill started at the company in 1954 and worked as a Mag and Brass Molder until 1966. From 1966 to 1976, he was Supervisor of the Magnesium Foundry. From 1976 through 1999, he has been working in the position of Director of Safety and Security.

To most of you, Bill is the guy how has kept our toes covered with steel and our faces decorated with attractive glasses and side-shields. Bill's job description reads like an endless chore list: plant safety, fire protection, environmental regulations, determining health hazards of chemicals and materials. Also, he has organized and trained people in CPR, served as liaison between Hitchcock and the community, and found the time to serve for 25 years as an Emergency Medical Technician (EMT) for Bloomington and Burnsville.

Bill retired from Hitchcock at the end of 1999. He plans to spend a lot of time traveling in a fifth wheel with his wife and spending more time with his eleven grandchildren. Bill has always been a dedicated employee, and we wish him the very best.

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using the Hitchcock logo. A simple anchoring trick that we show during the presentation ensures that the marker always follows the last line of text.

PHOTOS AND TEXT BOXES

Hitchcock likes to honor its employees who have reached milestones of employment or have recently retired, so lots of photos are taken. We had good luck scanning and placing these photos. We were tempted to print them in the second color, but referring back to our mantra, decided not to. However, we did make liberal use of sidebars, separated from regular copy by their lightly-shaded backgrounds.

All in all, we were adamant—almost aggressive—in our stance of simple pages and clean lines. It's almost as if we were saying, "Yes, we could have added more elements to this page, but we intentionally didn't."

POST-PRODUCTION

We knew that somebody with less-than-expert skills would be responsible for the newsletter's quarterly production, and this influenced how we structured the publication. We created Text and Artwork subfolders in the Newsletter folder, and placed all photos, graphics, and text into the proper places. We chose recognizable names for them—such as president.txt, sports.eps, retirement.txt—and designated that all text be stored externally (i.e., Export on Save activated).

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lack of content. Certainly, there must be *something* going on each quarter at Hitchcock that is front-page news! Indeed, we convinced the bosses to designate one article each quarter for the cover of the newsletter, and now we felt much more comfortable designing it. After the relatively dull color scheme used previously, we went for bright and high-contrast, using fully-saturated blues and solid whites. We bled the masthead off of the left side, and a teaser off of the right side, leading readers into the interior pages. Figure 6 shows our efforts.

THE INTERIOR

One area of confusion in the earlier design was where one article ended and the next one began. Therefore, we insisted upon end-of-file markers,

That way, as new copy comes in for each subsequent quarter, the editor need only name it properly and place it in the correct folder. Upon opening the .vp file, VENTURA will find the new text and place it in the correct location.

This introduces a few archival issues, because if you overwrite new text on top of old text, all earlier publications will be rendered inaccurate. Therefore, we created the following post-publication maneuver:

1. Round up all graphics, text, and the .vp file, and copy them to a .zip archive.
2. Copy the .vp file to the next quarter's name (e.g., copy q2-2000.vp to q3-2000.vp).
3. Open the newly-published .vp file (q2-2000.vp).
4. Embed everything—all graphics and all text.
5. Save and exit.

With these five steps, you ensure three important things:

- You have a complete backup of the publication, exactly as it was produced, stored safely within a .zip file.
- You can get a good jump on producing next quarter's publication simply by opening the new .vp file (q3-2000.vp).
- For quick reference or for grabbing various elements, you can open the .vp file in which you embedded all the objects.

We also created a library of various knick-knacks and doo-dads, like the photo of the president, the end-of-file marker, generic clip art, etc. We think the employees appreciated the cleaner, easier-to-read look, and we're pretty sure that Hitchcock's accountants appreciated the reduced print bill. With any luck, the net result is one more organization choosing to stay in the VENTURA camp… 2000

Go Deeper

You will find Hitchcock.vp and Hitchcock.pdf (which was sent directly to the printer for imaging) here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\ventura\hitchcock.

Flash!

DRAW's newest export flavor

Flash graphics are the hottest thing on the Web right now. They allow you to use vector graphics, sound, animation, and much more, while still keeping file sizes manageable. And now you can create Flash files in good old CorelDRAW.

This session will show you how to create CorelDRAW files that will translate well into Macromedia Flash format. Then you'll see the process necessary to export them from CorelDRAW to Flash. We'll also look at how to convert those files so they can be further tweaked in Flash. Topics include:

❏ The basics of animation

❏ Creating "flashable" graphics

❏ Exporting to Flash from CorelDRAW

❏ Using Adobe Illustrator as a bridge to Macromedia Flash

❏ Exporting from Macromedia Flash

This session is for all users who want an introduction to creating Flash files from both CorelDRAW and Macromedia Flash.

Flash Files for the Web

IF YOU'VE created graphics for the Web, you've probably noticed that you have two choices—GIF and JPEG. Sure, there are other formats, but those two are dominant. And they are also both bitmap formats. This seminar will cover another popular format, and it works with vectors rather than bitmaps. I'm talking about Macromedia Flash or SWF format.

Vectors and the Web

Before we get into a step-by-step tutorial about how to create a Flash file, let's look at why vectors can be useful and why we're going to choose Flash.

With a bitmap, the image is broken up into a series of pixels (picture elements). So for a Web graphic that is 150 pixels wide and 150 pixels high, you have a total of 22,500 individual pixels. Each of those pixels can hold any of 16.7 million colors for JPEG files and any of 256 colors for GIF files. Each of those formats contains a compression routine that lets it create a much smaller file than if the data were uncompressed, but even for a small file, there is a lot of data to be stored.

Another limitation of bitmap graphics is that resizing the file may give undesirable results. If you enlarge the file, it becomes pixelated or stairstepped. Making the image smaller will throw out detail.

But for many things on the Web, bitmaps work great. A Web artist can tweak the images to make the files small, while still getting great results. And best of all, the browsers support both formats.

Then there are vectors. If you want to create a shape in vector format, you only have to describe a few data points along a path. Then you can fill the path with any color. So for simple shapes, vector files can be much smaller in size. And they can be scaled to any size you want without a loss of quality.

Programs like Adobe Photoshop, Corel PHOTO-PAINT, Corel Painter, and JASC Paint Shop Pro are all dedicated to working with bitmaps. Software dedicated to vectors includes Adobe Illustrator, CorelDRAW, and Macromedia Freehand.

So we've decided that for a particular Web graphic, a vector image will work best. Maybe it is because the file will be smaller. But another great reason is that a vector image will print text at a much better quality than a bitmap. Our example will be a map, where the various roads are all labeled with small text. The text wouldn't be readable as a bitmap, but it will print beautifully as a vector graphic.

One flavor of vector files that works well on the Web is Macromedia Flash. There is the product Flash, which we'll get to a bit later. But there is also the Flash file format, which is open to any developer who wants to support it. Both of the major browsers include support for Flash files, and a recent study showed that over 150 million people already have Flash support in their browser. So I guess you could say it is pretty darned popular.

Since we'll be using Macromedia Flash for our project, you might want to download the 30-day evaluation version from the Macromedia Web site, so you can follow along. (There's a link at the end of the article.) If you like it, you can order the product from within the evaluation version. If you don't like it, it didn't cost you anything.

Another vector format is getting a lot of attention these days. It is called Scalable Vector Graphics (SVG), and is backed by many of the big players in the software industry. Right now, there is very little software that will create a file in SVG format, and there are no browsers that can display it without a rare plug-in. So we'll carry on in Flash and wait to see what SVG brings us in the future.

Preparing the Map

I won't spend a lot of time describing how the map in Figure 1 was created, but I will give you a few tips for preparing a file. Since we know that the file is headed for the Web, we definitely want to use RGB colors. The best way to do this is to use one of the Web-safe palettes that are supplied with

CorelDRAW. I always use the Netscape Navigator palette, as the Microsoft Internet Explorer palette contains sixteen extra colors that only work in Windows. That is the only difference between the two. You'll also want to keep the CorelDRAW image fairly simple. Don't use a bunch of the special effects like Lenses, because they won't translate well to other file formats.

Exporting Directly from CorelDRAW

Back in April, Corel released a filter that allows you to export directly from CorelDRAW 9 to the SWF file format. For simple applications like our map, it works just fine. More complex files may not export correctly, and can even cause CorelDRAW to crash.

Let's start by exporting our file directly from CorelDRAW. Select File | Export and search for SWF - Macromedia Flash in the Files of type drop-down list. If you do not find it, you most likely haven't installed the filter. You can find a link to a beta version at the end of this article.

Figure 2
The Flash export filter dialog box

Once you've selected the export filter, you'll get the dialog box shown in Figure 2.

The first section of the export dialog deals with bitmap settings. This is only important if you have bitmaps in your file. If everything is vector, these settings have no effect. For files that do contain bitmaps, make sure that you keep a high enough quality setting so that they don't look horrible. I would suggest keeping the compression at 50% or less.

The next section deals with the bounding box of the file. You can either select Page or Objects. Unless you have purposely designed using the white space of the page, it would be best to select Objects.

Internet Links will allow any object in CorelDRAW that has links to take on some sort of special effect when the mouse goes over it in the browser. Seven different effects are available. Our map doesn't contain any links, so the roll-over effects aren't necessary. Even so, it would be best

Figure 1
We will be exporting this map in Flash format.

to use restraint and avoid these effects unless they provide a useful purpose. Eye candy like this can drive away traffic from your Web site.

The last setting is File Protection, and it does exactly what it says. If you intend to put the file directly on the Web, then you'll want to check this as it will prevent anyone else from editing the file. But if your intent is to edit it further in Flash, you'll want to leave it unchecked.

Where Direct Export Fails

Having a filter that exports directly to Flash format is great. But it leaves several large holes. While it creates the SWF file, it doesn't create the code needed to load the file in a Web page. Some HTML editors will do this for you, but it would be difficult to code it yourself. And I've found files that don't export correctly. One in particular had a gradient fill that turned to a solid color when converted to Flash format. The only way to make it work was to use the techniques described later for converting to Adobe Illustrator format. Even then, I had to take things a step further and open the AI file in Illustrator and resave. I've also found several maps containing a larger number of objects that would cause CorelDRAW to crash when exporting directly to Flash. The only way that I've been able to get them to work is

Figure 3
Exporting from Adobe Illustrator

using the techniques described a bit later in this article.

There is one other area of concern: Files exported directly from CorelDRAW can be significantly larger than those exported to AI format and saved directly from Macromedia Flash. As an example, our map was 18.8K when exported from CorelDRAW and only 7.8K when exported to AI format and exported from Macromedia Flash. That's less than half the size!

Moving the Files into Macromedia Flash

Now that we've seen the benefit of using Macromedia Flash to save the files, we'll need to export our map to Adobe Illustrator format. Because Illustrator doesn't have all the features of CorelDRAW, some things just won't export correctly. So if your goal is to create an illustration that you want converted to Flash, try not to use features like pattern

Figure 4
Publishing the files needed for the Web

Figure 5
Selecting the Flash settings

fills, transparency, and bitmaps. This limitation is frustrating, but for now it is just something we have to live with.

In the Adobe Illustrator Export dialog box shown in Figure 3, there are a few specific settings that are important. First, choose Adobe Illustrator 7.0 format. This flavor of Illustrator supports more CorelDRAW features than the other versions, and it works just fine with Flash. If you're using a PC, select PC. For those of you on the Mac, choose Macintosh. Export the Text as Text. This will retain the fonts in your file. Note that we have made sure all other settings are unchecked. The
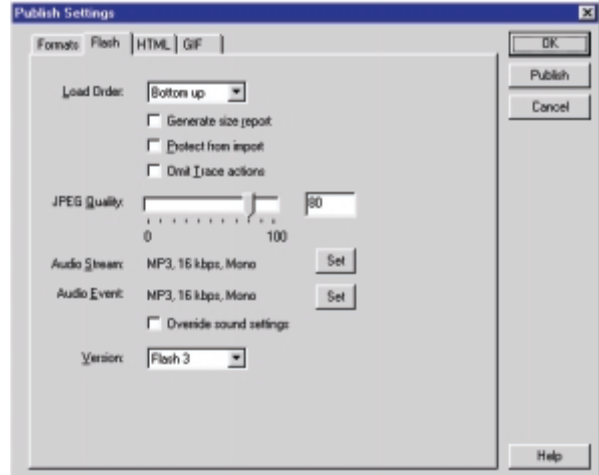
Figure 6
The HTML tab

only exception is Include placed images, and it is grayed out since we didn't use any images (bitmaps) in the file.

Moving Into Flash

We're going to assume that the file does not need to be edited in Flash. So all we need to do is import the Illustrator file and Publish it to a Flash Movie.

To import the file, choose File | Import. As it comes in, you'll notice that all objects are selected. This is indicated by a gray box around each object. Click away from the objects and everything becomes deselected. If you needed to do minor editing, you could select an object and do the editing here in Flash, but that is beyond the scope of this article.

Now we need to save the file, so choose File | Save. This is so that we can work with it later if needed. But for using it on the Web, we'll need to Publish it. Select File | Publish Settings to get the dialog box shown in Figure 4.

We want to create three files: a Flash file (.swf), an HTML file (.html), and a GIF image
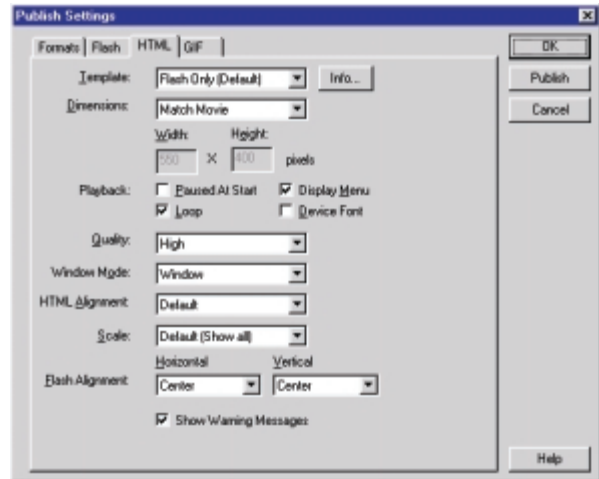
Figure 7
The GIF tab
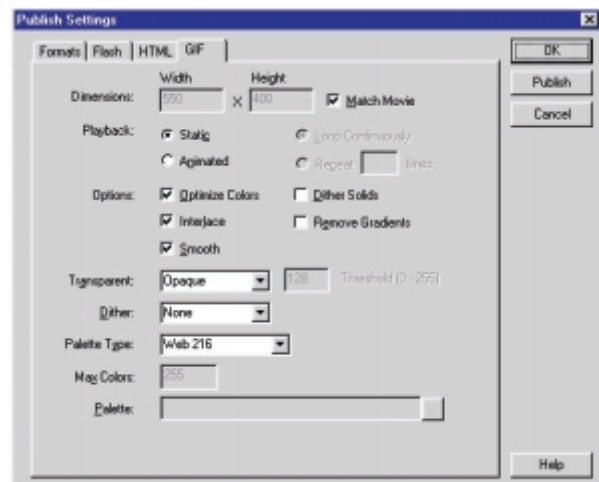
(.gif). So make sure all three of those checkboxes are checked. You'll see that other types of files can also be created, but we'll just stick with these three for now.

Now let's move to the Flash tab of the dialog box shown in Figure 5. You might wish to change the Load Order, but I've left it at the default of Bottom Up. This just determines how the image will be drawn. The important change to make is the Version—the dialog box defaults to Flash 4, and we want to change this to Flash 3. Since Flash 4 is fairly new, we want to choose the older format that can be seen by a much larger percentage of users.

Next, move to the HTML tab shown in Figure 6. Here we've kept with the default settings. I suggest that you start with these settings. You can always go back and make changes later.

The GIF tab shown in Figure 7 is where you control the settings of the GIF file you create. You might be asking why we are even creating a GIF file at all. It is really only done as a backup. If someone doesn't have the Flash plug-in and doesn't want to download it, the GIF will display in its place. Again, we stayed with the defaults except for Interlace, which we've checked. Go ahead and click OK.

The last step is to choose File | Publish. This will create the SWF, HTML, and GIF files you requested. You can either use the HTML file as is to display the Flash file on the Web, or you can paste the code into another HTML file.

A New Method?

There is yet another way to do what we want, and that is a soon-to-be released Corel application that looks like and works like CorelDRAW, while adding functionality to make it handle animation, sound, and other Flash-like features. At the time of this writing, the product is very early in the development cycle, and very little definitive information is available. We'll discuss it in detail during the session, and maybe you'll get a sneak peek at what it can do. **2000**

Going Further...

Now that you've seen what can be done with CorelDRAW, Adobe Illustrator, and Macromedia Flash, here are a few links to help you get started.

Macromedia Flash Player:
macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash

Macromedia Flash, 30-day evaluation version:
macromedia.com/software/flash/trial/

Beta version of CorelDRAW 9 SVG filter:
corel.com/draw9/flash.htm

Corel's "Ask the Experts" Q&A page:
designer.com/focus/ask_experts_flash_1.htm

Tutorial – Exporting a CorelDRAW image as an .SWF:
designer.com/focus/ask_experts_flash_2.htm

Publishing Databases To the Web

Live Web publishing and updating made easy

Creating Web pages has never been easier, but Web pages can become even more convenient when the need for updates is all but eliminated. Using a database as an engine behind your Web site can help you accomplish this. In this session, you'll see how database publishing can drastically reduce Web site maintenance. Topics include:

❏ Creating a database

❏ Setting up an ODBC link

❏ Using the MS FrontPage wizard

❏ Doing it with your bare hands (without a wizard)

❏ Programming tricks

This session is meant for enthusiastic Web designers who are not afraid of programming. Some knowledge of programming concepts is advised.

Going Live With Your Data

ALTHOUGH YOU may not have done it before, connecting your Web site to a database is not all that difficult. There are multiple advantages to doing this. First, an update in the database will be reflected on your Web site immediately. This means that you'll never have to worry again about information being out of date. Second, the risk of errors is minimized. Because a Web page is built from the information in the database, the Web page is always correct—if the information in the database is correct, of course. Third, connecting a database to a Web site reduces the time needed to maintain the Web pages. Instead of carefully maneuvering around HTML tags to update a Web site, the site is simply maintained by updating the database, either in a database program or via a different Web page.

Requirements

To tie a database to a Web site, you'll need to use a technique called server-side scripting. This means you'll need a server and a scripting (programming) language. Although there are a multitude of possibilities, the scenario used is often one of the following:

- Using a UNIX/Linux-based server and CGI (Common Gateway Interface); the scripting language often is Perl.
- Using a Windows-based server and ASP (Active Server Pages); the scripting language often is Visual Basic.

The examples in this session will be based on a Windows server in combination with ASP. This means that you should be able to reproduce the examples on your own computer. You'll need one of the following configurations:

- Windows 95 and Microsoft Personal Web Server 3.0 or 4.0. If you use version 3.0, you will also need the ASP engine (available on the Microsoft Web site or on the FrontPage 98 CD-ROM)
- Windows 98 and Microsoft Personal Web Server 4.0 (available on the Microsoft Web site or on the Windows 98 CD-ROM, in the \ add-ons \ pws folder)
- Windows NT and Internet Information Server 3.0 or later (4.0 recommended)
- Windows 2000 and Internet Information Server

Although the introductory examples are based on FrontPage, you do not need it. In fact, to create real working database connections, all you need is…Notepad! Any other Web editor will do as well. You will also need an ODBC- compliant database program. For starters, Microsoft Access or Corel Paradox will do. But other databases like SQL Server, Oracle, and even Excel or plain text files can interact with your Web site.

THE UNAVOIDABLE TECHNICALITIES
Here is where it gets slightly difficult. In order to make databases work, you'll need to know about ODBC and SQL. To make them do what you want, you'll also need to know a scripting language; by default, the scripting language for ASP is Visual Basic, although JavaScript is included, and can be used if you prefer.

Figure 1
A database-driven Web site

Figure 2
A database in
Access
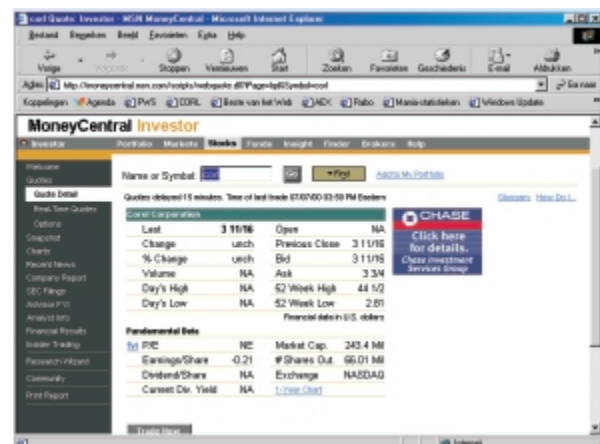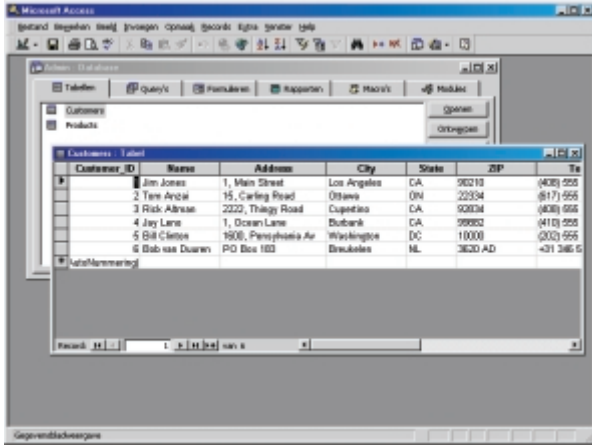
Finally, you'll need to know the difference between "normal" scripting (like using JavaScript in HTML) and server-side scripting. Here we go…

Getting Started

First of all, you need to set up an ODBC name for your database. This is pretty straightforward, and allows you, your applications, or your Web site, to reference your database via its ODBC name (also known as a Data Source Name, or DSN). The reason behind using a DSN (which you can give any meaningful name) is that it will allow you to upgrade or move your database at a later time—for example, to another drive or even another server—without having to re-write your applications. All you will have to do is to change the reference for the DSN. This implies that you can even change from a Paradox to an Access or SQL Server database without having to rewrite your code!

In this session, we'll use the Access database Administration.mdb as an example. This database can be found at files\misc\dblive on the Conference CD. Administration.mdb consists of two tables, one called Products and one called Customers. You can have as many tables as you like, and by using SQL statements you can select data from one or more tables. To set up an ODBC name for this database, you'll use the ODBC applet in the Control Panel, as follows:

1. Click Start | Settings | Control Panel.

2. Double-click ODBC.
3. Select the System DSN tab.

The System DSN tab shows the existing DSNs on your system. Most likely, the list is empty. You can add your own DSN by clicking Add and selecting the appropriate ODBC driver; now enter any meaningful name for the database (like Admin) and select the corresponding database:

1. Click Add.
2. Select the Microsoft Access Driver (*.mdb).
3. Enter an ODBC name (like Admin) in the Data Source Name text box.
4. Click Select to select the corresponding database.
5. Browse to the folder that contains Administration.mdb and select it; click OK.
6. Click OK and close the Control Panel.

A SQL Primer

SQL (pronounced "sequel") is a simple yet powerful language to retrieve information from a database. You can use SQL to retrieve information from Access, Oracle, SQL Server, and Paradox databases, among others. SQL statements mimic the English language, which means you can define queries like:

- Show me all the products that are available.
- Show me all products whose stock is less than five items.

Figure 3
The System
DSN tab
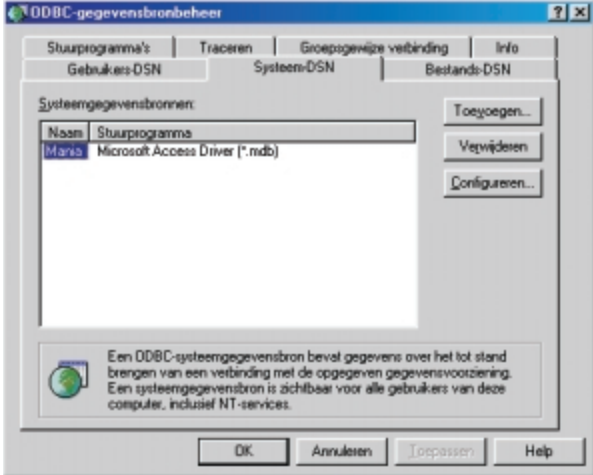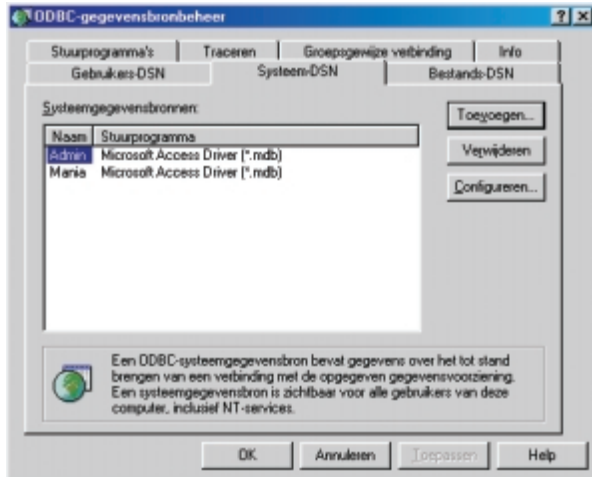
Figure 4
Our database has been added

- Show me every customer in the state of California, ordered by city and then by name.

  SQL queries can also be used to add new information and to update information, but that is beyond the scope of this session.
  As SQL is like a computer language, it follows certain rules. Most important is the keyword SELECT, which is used to select information in a database. The three queries above look like this in SQL:

SELECT * FROM Products

SELECT * FROM Products WHERE Stock<5

SELECT * FROM Customers WHERE State='CA' ORDER BY City, Name

  You see, that's not too difficult. The "*" selects every piece of information (field) in the record, so if you only need product names in the second query, you would use:

SELECT Name FROM Products WHERE Stock<5.

  Notice, by the way, the use of the number 5 and the text 'CA'. Because State is a text field, the search delimiter is enclosed in single quotes.

  Obviously, to construct correct SQL statements, you'll need to know the field names used in the database tables. In our sample database, the Products table has the following fields:

- Name
- Description
- NetPrice
- SalesPrice
- Stock
- Image

The Customer table has the following fields:

- Name
- Address
- City
- State
- ZIP
- Tel
- Email

Now, What's an ASP Page?

  Fortunately, this is an easy one. An ASP page is…an HTML page! Only the extension differs. If you have made an HTML page, you can turn it into an ASP page by simply changing the extension. Obviously, it will only start to act as an ASP page once you add script commands. You do this by placing your script commands between <% and %>. For example:

```
<HTML>
<HEAD>
<TITLE>
Show the time (time.asp)
</TITLE>
</HEAD>
<BODY>
<H1>Hello, the time is <% =time %></H1>
</BODY>
</HTML>
```

  This is an ASP page in its most simple form. You can clearly see the ASP command =time enclosed by the script delimiters. Save this file in a Web folder and open the file in the browser; you will see the current server time in your browser.

When you look at the document source (View | Source), you'll only see HTML, and no script. This is because the script has been executed at the server, which transformed it into HTML.

Using FrontPage to Access a Database

The easiest way to retrieve information from a database is using the FrontPage 2000 (or FrontPage 98) database wizard. If you don't have FrontPage, feel free to skip this section.

Note: To make ASP pages work, the directory properties must be changed to Executable for scripts. This is the default case for IIS and PWS
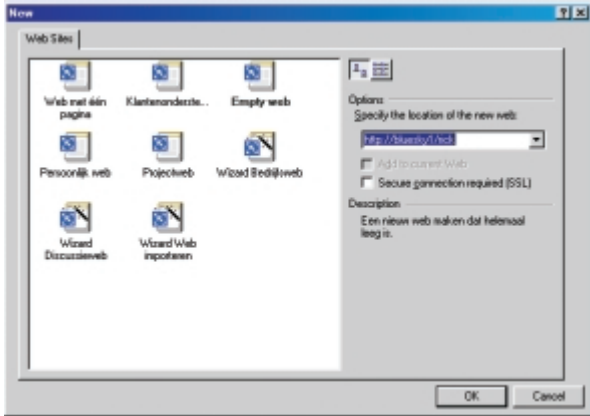
Figure 6
Creating an empty Web site in FrontPage 2000

4, but not for PWS 3. You can change the rights in FrontPage or in Windows by right-clicking the directory and selecting Allow scripts to be executed.

Make sure your Web server is running, and that you have installed the ASP engine if you are using Personal Web Server 3.0.

Your next step is to create an empty Web page. Select the top directory in FrontPage and click the New Page button in the main toolbar. An empty page called new_page_1.htm appears in the edit window. Before we do anything else, we'll save it as an ASP page, called data1.asp. Now the database wizard can be invoked, by selecting Insert | Database | Results. The first time we do this, a new database connection (to Admin) will need to be made. Do the following:

Figure 5
The ASP page works!
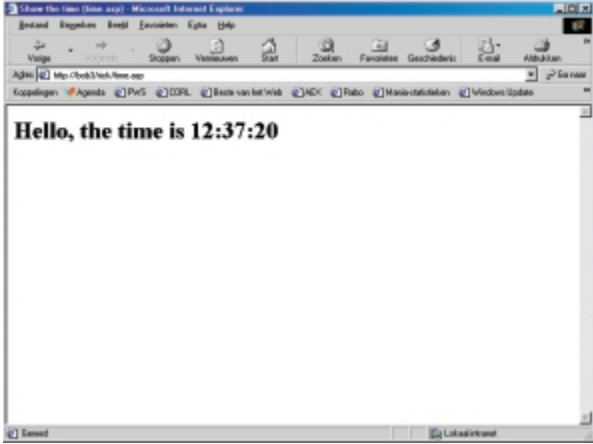
1. Select Use a new database connection.
2. Click Create.
3. Click Add.
4. Enter Admin in the Name box.
5. Select the System data source on Web server button.
6. Click Browse.
7. Select Admin (our ODBC name) and click OK.
8. Click OK.

If you like, you can verify the connection by clicking the Verify button. If everything is OK, the question mark changes into a check mark, as shown in Figure 8.

Click OK to return to the wizard (this was the first step of the wizard). Press Next to go to the next step, where we will enter the selection query. The easiest way would be to select Record source,

Figure 7
Setting the correct directory properties
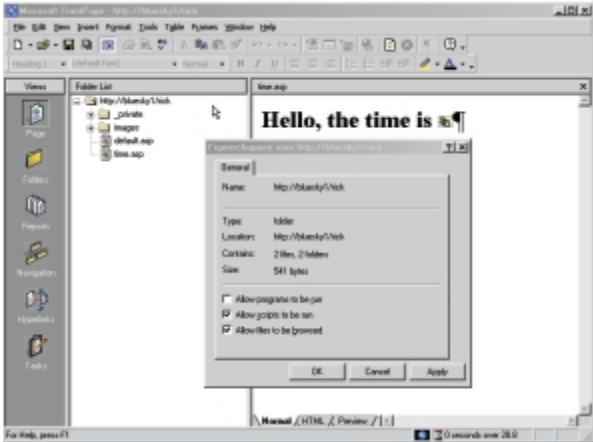
followed by the table you want to display, but we'll take the alternative route and select Custom query, followed by Edit. A dialog box opens, where you can enter your SQL query. If you want to display the name, list price, and number in stock of the available products, ordered by name, you would enter:

SELECT Name, SalesPrice, Stock FROM Products ORDER BY Name

Incidentally, you don't have to use capitals for SQL statements, as they are not case-sensitive.

Click OK, and FrontPage will check your query for errors. If you have entered the SQL statement correctly, you'll be returned to the wizard. Click Next. Now you will be invited to change the displayed fields. If you want to exclude a field from the display, or change the field order, click Edit List. If not, click Next.

Step 4 of the wizard allows you to select a presentation scheme. Choose Table if you want to display the results in a tabular format, or List if you want the information to appear in a list. The third option, Drop-Down list, is only relevant if you are going to use the information in a next page, to search deeper into the database. In this example we'll select Table. Click Next.

On the last page of the wizard, you will be asked how many records will be displayed simultaneously. Limiting the number of records displayed may come in handy if your database is large. If it's not too large, as in our sample, select Display all records together. Once you have done that, click Finish. FrontPage will now show the database component in the Web page. Save the page and click the Preview in browser button, which can be found on the main toolbar. If you want to change anything in the display, return to FrontPage, right-click a yellow part of the database component, and select Database Results Properties, which will return you to the wizard.

Doing It The Hard Way

Believe it or not, using the FrontPage wizard is the easy way. There is a more complex way to achieve the same thing: doing it by hand. This has many advantages, as it is more flexible and it gives you unlimited control. However, programming

Figure 8
The connection has been created and verified.
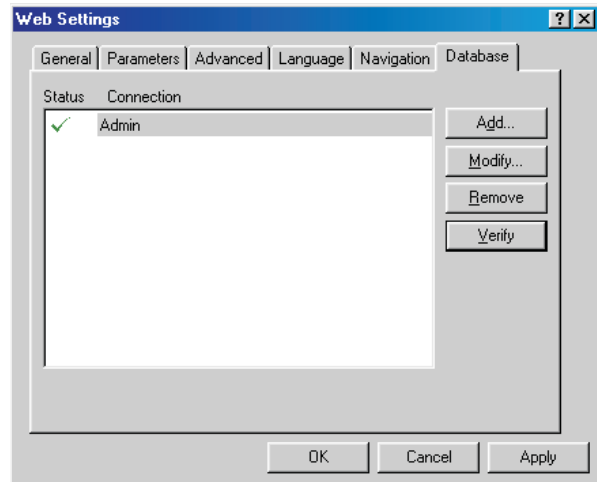
experience is required. In the following example, we will extract the data using a little Visual Basic program, which you can use as a basis for further experiments. Use any editor to enter the program; even Notepad will do. I will use the HTML view in FrontPage.

Start by creating a new page, called data2.asp. In FrontPage, you would click New Page, followed by Save As. Now select the HTML tab in the Edit window; this will give you a Notepad-like look.

To create the part of the program that retrieves the data from our database, you will have to enter your Visual Basic code in the BODY section, between <% and %>. The code, in its simplest form, looks like the lines on the next page.

Figure 9
And yes! It works!

```
<%
Set objConnection =
Server.CreateObject("ADODB.Connection")
objConnection.Open "Admin"
Set RS=objConnection.Execute("SELECT *
FROM Customers")

while not RS.EOF
  response.write RS("Name")
  RS.MoveNext
wend

Set RS=Nothing
%>
```

The first three lines are required, and set up the connection with the data source. Change "Admin" to something else to access a different data source. The third line executes the SQL statement, in this case, SELECT * FROM Customers. To get different results, you would have to enter a different query here.

These first three lines only query the database. The resulting data is returned in a matrix called RS (this is an arbitrary name, defined by Set RS=…). You are free to create multiple matrices, using different SQL statements. You can also reuse the existing RS matrix. This matrix, or record set (hence the abbreviation RS), contains the requested records, each in a separate row. By calling RS.MoveNext, you cycle through these rows. By referencing RS("field name"), you reference a field name in the currently selected row (record). RS("Name") is referenced by response.write, which is the statement to write output to the HTML page. In other words, the name of the customer is written to the HTML page, which results in a list of customer names.

The while…wend construction cycles through every record, until the end of the record set is reached. After that, the record set is destroyed by using Set RS=Nothing.

That's all! It's not pretty, but it works. The reason it is not pretty has to do with the fact that we are using response.write RS("Name") to write to the HTML page, without any formatting commands. This means that the names will be written one after another, without any spaces or line breaks whatsoever. Surely, that does not make a pretty page. A simple enhancement would be:
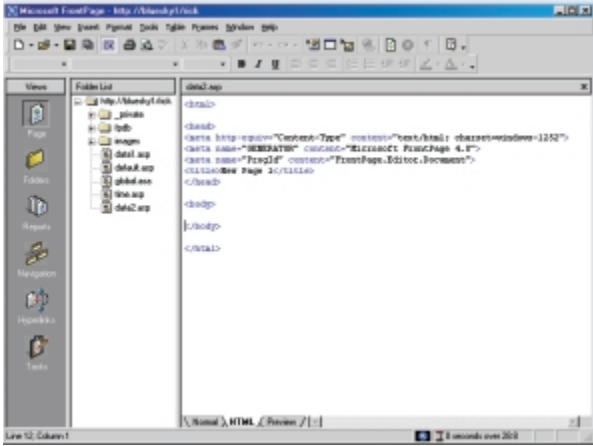
Figure 10
An empty page in
HTML view, in
FrontPage

```
while not RS.EOF
  response.write
RS("Name") & ": " &
RS("Email") & "<BR>"
  RS.MoveNext
wend
```

Here, we write both the customer's name and the corresponding e-mail address to the Web page, separated by a colon and a space. At the same time, the
 HTML tag is written, which results in a new line. Note the use of the & operator to tie everything together in one response.write statement. The result can be verified in data3.asp.

Finally, we'll turn this into a nice table, creating a clickable address at the same time. To do this, you would need the following code:

```
<%
Set objConnection =
Server.CreateObject("ADODB.Connection")
objConnection.Open "Admin"
Set RS=objConnection.Execute("SELECT *
FROM Customers")

response.write "<TABLE>"  & vbCrLf
while not RS.EOF
  response.write "<TR>"
  response.write "<TD>" & RS("Name") &
"</TD>"
  response.write "<TD>" & RS("City") &
"</TD>"
  response.write "<TD>" & RS("State") &
"</TD>"
```

```
   response.write "<TD><A HREF='mailto:" &
RS("Email") & "'>" & RS("Email") &
"</A></TD>"
   RS.MoveNext
   response.write "</TR>" & vbCrLf
wend
response.write "<TABLE>"

Set RS=Nothing
%>
```

This is data4.asp, which you can use from the Conference CD if you don't like typing. Here an HTML <A> tag has been created, which results in a hyperlink. By using mailto:you@yourdomain.com as a parameter for HREF, you create an e-mail link. This example shows the strength of using a database behind your Web site. If an e-mail address changes, you only have to change it one place: in the database.

Experimenting with SQL

On the Conference CD, you will find a page called data5.asp. When you open this page in your browser, you'll be presented with a text box in which you can enter any SQL statement you like. Some examples are:

```
SELECT * FROM Products
```

```
SELECT * FROM Products WHERE Stock<5
```

```
SELECT * FROM Products WHERE Stock<5
ORDER BY Stock DESC
```

```
SELECT * FROM Customers WHERE
State='CA' ORDER BY City, Name
```

Simply hit execute, and see the results appear (the page results.asp is responsible for this; you may want to have a look at it). If you're feeling lucky, try the following:

```
INSERT INTO Customers (Name, Address,
City, State, ZIP, Tel, Email) VALUES ('Bob van
Duuren','PO Box 183','Breukelen','NL','3620
AD','+31 346 550575','bob@inventiv-edu.nl')
```

This will insert a record into the database; in other words, it will add a customer to the Customers table. You will not get any results on the results page, but don't worry. Simply go back, Refresh, and enter the basic query SELECT * FROM Customers (click the appropriate button to do this quickly) to see that it has worked. To update a record, use:

```
UPDATE Products SET Stock=10,
Description='56 k ISDN modem' WHERE
Name='Modem'
```

Notice the difference between the value for Stock (10) and the value for Description ('56 k ISDN modem'). The first parameter is a number, and the second one is a text string.

If you omit the WHERE clause, all records get updated. The following query will set the total stock to 0:

```
UPDATE Products SET Stock=0
```

As you have seen, the combination of a database and some simple programming can add power and reduce the tedium of maintaining a complex Web site.   2000

Figure 11
The results page will automatically convert a .gif extension to an image.

Page Tags: The Undiscovered Paradise

Formatting documents elegantly

The page tag is the ultimate design tool for effective and elegant page layouts. Forget about repeating frames, graphic lines that appear where you don't want them, or multiple stylesheets for different column settings—page tags can take care of all those issues and more in a familiar environment. Page tags allow you to set up different templates, page orientations, or repeating elements within one document. Master them, and you'll master VENTURA. In this session, we'll learn about:

❏ Creating and applying different page tags

❏ Using page tags as place holders

❏ Various possibilities with watermarks

❏ Viewing and managing page tags

❏ So many settings, so many options!

This session is suited for the active VENTURA user who wants to better understand and more effectively use page tags.

The Power of Global Formatting

IF YOU are familiar with paragraph tags in VENTURA, you should feel right at home with page tags. Let's start with a few similarities between page tags and paragraph tags:

- They are both stored in a stylesheet.
- They are both managed from the Tag Window, which means you can apply, rename, delete, create, import, and alter them there.
- Items with the same tag will have the same properties.
- When you change a tag, all items with the same tag change as well.
- You can both override them locally.
- They both have a "default" tag: Body Text for paragraph tags, and Default Page for page tags; these tags can not be renamed or deleted.

However, this is where the similarities end. Setting up a page tag, for example, is quite different from setting up a paragraph tag. For starters, VENTURA gives you a special Page Tag view (Figure 1), which you can use to create and modify your page tags. Unless you are very familiar with the concept and scope of page tags, you should always use the Page Tag view.

To activate the Page Tag view, do any of the following

- Select View | Page Tags.
- Press Alt+F12.
- Click the Page Tag View button in the lower left corner of the screen.

You can always return to the Page Layout view, which is VENTURA's "standard" view. To activate the Page Layout view, do any of the following:

- Select View | Page Layout.
- Press Alt+F11.
- Click the Page Layout View button in the lower left corner of the screen.

The Page Tag view will show you two empty pages, representing the layout for a left page and a right page. Even if your document is single-sided, you will always see a left page and a right page in the Page Layout view. For single-sided documents, you can generally stick to setting up the right side of the page tag only.

You can navigate and zoom in Page Tag view exactly as you would in Page Layout view. In other words, use the familiar zoom tools and buttons to zoom in on specific parts of the page tag. If you do not see the two pages at all, press the Zoom to Page button in the lower left corner of the screen.

The Tag window will show you the page tags that currently exist in your publication. If the page tag is selected (this is indicated by

Figure 1
The Page Tag view for an empty (boring) document

gray handles around either the left or the right page), the Property Bar will show the name of the current page tag in the Page Tag list.

The Tag window behaves the same for page tags as it does for paragraph tags. It will allow you to manage tags in the following ways:

- You can create a new page tag by clicking New Tag.
- You can delete a page tag by selecting it in the tag window and clicking Delete Tag.
- You can change the properties of a page tag by selecting it and clicking Tag Properties.
- You can rename a page tag by selecting it and clicking Rename Tag.
- You can import page tags from other style sheets by clicking Import Tag.
- You can sort tags by clicking on the various column names.

To import page tags from another stylesheet:
1. Click Import Tag.
2. In the Import Page Tags dialog, browse to a publication from which you want to import the tags, select the file, and click Open.

3. In the next dialog (which is also called Import Page Tags), select one or more tags to import.
4. Click Import; the imported tags will appear in the Tag window.

Figure 2
Page tags imported from another publication

Formatting the Default Page

Although importing page tags is a legitimate way to get started, you will normally want to create your own. But before you do that, make sure you set up the default page correctly, since new page tags will be based on this default page.

To set up a few basic properties of your page, like size, orientation, columns, and margins, right-click in the page and select Page Tag Properties. Alternatively, you can click on Tag Properties in the Tag window. The Page Tag Properties dialog appears.

The dialog consists of various tabs, which will allow you to set values for the following major properties:

- Layout (page size, orientation)
- Margins
- Columns (number, gutters, inter-column rules)

Figure 3
Setting page tag properties

Figure 4
The effect of different page tag settings

- Typography (widows & orphans, vertical justification)
- Rules (around and alongside)
- Background color, image, or pattern

Select the various tabs, make changes, and click Apply to see the effect. When you are happy with your changes, you can close the dialog by clicking OK. If you don't like a change, press Undo in the Standard toolbar. If you have been using VENTURA before, this will all look pretty familiar to you.

Depending on some of the settings you have chosen, your pages may not be symmetrical any more after you have closed the dialog. If you are working on a double-sided layout, you can copy or mirror the settings from the left page to the right page, or vice versa.

To copy or mirror settings from one page to another:

1. Right-click in either page.
2. Do one of the following:
   - Choose Copy Properties to Facing Page to copy the settings to the other page, or
   - Choose Mirror Properties to Facing Page to mirror the settings to the other page.

Before we go on to creating a new page tag, there is one more important feature of page tags you should know about: Page tags hold the header and footer for your document. By right-clicking on the page and making sure that Show Header and/or Show Footer is enabled (you will also find these options in the Page Tag Properties dialog, on the Layout tab), you will be able to enter a header and/or footer on the page. To do that, click in the required frame and type your text.

To copy or mirror your header or footer to the other page, right-click once more, but this time click in the text you just entered. Choose Copy Properties to Facing Page to copy the text to the other page, and Mirror Properties to Facing Page to mirror the text to the other page.

Once you have set up the default page tag this way, you can return to the Page Layout view and verify that the settings are active for your document. Because you have altered the default page tag and have not created any other tags yet, all pages will use this tag, and hence look the same. To see the page tag in action:

Figure 5
A footer in the Page Tag view, with a code for the page number inserted

1. Click View | Page Layout View to return to your document.
2. Import any text file and drop it on the page.
3. Check the various pages of your document.

If some pages seem to look different, they may have become detached from the page tag (overridden). To fix this, go to Page | Apply Page Tag, select Current chapter, and click OK. This will apply the Default page tag to every page of the current chapter.

Creating and Applying Different Page Tags

Creating page tags looks a lot like creating paragraph tags: The new tag gets a name and is based on another tag. That is why it is good practice to set up your default page tag before you create any new ones. New page tags are best created in the Page Tag view, so select this view and click New Tag in the Tag window. Enter a name for the new page tag in the dialog box and click OK. That's all there is to it. The new page tag will appear in the document window, and you will be able to use the scroll bars, Zoom tool, and mouse to navigate through the pages.

You can now change the properties of the new page tag in exactly the same way as described before. However, make sure the correct page tag has been selected first by clicking it and verifying the name of the selected page tag in the Tag list or in the Tag window.

Once you have created a set of page tags, you can apply them to any range of pages, to a chapter, or to pages that currently have a different page tag. You can find all of the necessary options in the Page | Apply Page Tag command. However, this command only works in the Page Layout view.

Watermarks and Repeating Elements

Page tags have an additional function: You can use them to create repeating elements. Any element that is included in a page tag will be repeated on every page with that particular tag. Elements that can be placed on a page tag include:

- Frames
- VENTURA graphics
- Guidelines (excellent for creating placeholders)
- Headers and footers (but we knew that already)

Figure 8
This may not be quite
what you expected.

Figure 9
That's much better.

Frames can contain text and/or images, which will allow you to repeat logos and so on.

To create a repeating element, just use the same techniques as you normally would to create the element on the page, but make sure you do them in the Page Tag view and for the correct page tag. Once you have placed your graphics and frames and return to the Page Layout view, you will see that the elements will have appeared on the pages with the affected page tag. However, you will also notice the following:

- Text will flow around frames.
- Graphics will lie on top of the text and hide the text underneath.

The text flow around the frame may come in handy, but if you do not want it, make sure you set the property Text through frame for that frame *in the Page Tag view*. Now the text will flow underneath

the frame, and you will not be able to read it.

This probably isn't what you wanted either. So make sure that the frame or graphic is sent to the back by clicking Order | To Back on the Property Bar (again, in the Page tag view). However, this may create new problems if you are using a background color for the page.

If you are using VENTURA 7 (which calls its page tags Master Pages), you will be able to move repeating objects around on any individual page from Page Layout view without affecting any other pages; the properties for that page alone are altered, and other pages remain unchanged. This means that you can delete a repeating element on a particular page without it being deleted from any other pages. In VENTURA 8, however, you'll find that you will not be able to change the repeating elements on individual pages in this way, because these elements are locked by default. If you want to change a repeating element on a particular page in VENTURA 8, you will have to disable this lock. To do so, follow these steps:

1. Click Publication | Publication properties.

Figure 10
One repeating element
has been changed.

Figure 11
Use of frames, columns, and guidelines to create placeholders

page, even though it has been overridden. For example, changing the orientation of the page tag will still result in a changed page, even when repeating elements have been removed.

It is good to know that, for the most part, all items that can be changed are independent from each other, which means page tags can be a very versatile and powerful tool.

Using Page Tags as Placeholders

Page tags can also be very helpful as placeholders, as shown in Figure 11. Since you can override page tags locally, you can insert text or images on individual pages without affecting other pages or breaking the link for other properties. In Figure 11, the gray frames at the edges are used to hold different text for different pages.

Because guidelines are considered to be graphics, they are also repeated once placed on a page tag. You can use them—as is done in this example—to create column guides that do not contain text. The standard column guides are visible at the outside of the pages (highlighted), and they will contain text that you import into the document. The columns toward the inside of the pages are created with guidelines only, and are therefore not "real" columns; there will be no text in these columns. However, the guides will be visible on every page, and if they are made magnetic (snap turned on), they can be very helpful when trying to align images. 2000

2. Click the General tab.
3. Deselect the Lock page tag objects checkbox.

You will now be able to change repeating elements on individual pages, and have your changes only affect the current page.

Tip: If you like the changes that you have made to an individual page, and you want to apply them globally, there is no need to go back to the Page Tag view. Just select the page, open the Page Tag list, and click Update tag. This will update the page tag and apply your local changes globally.

The Impact of Page Tags

A VENTURA page is linked to its page tag, just as a paragraph is linked to its paragraph tag: If you change a page tag, all pages linked to that page tag will change as well. When you alter an individual page (in VENTURA-speak, *override* it), only the link for the altered item is broken. In other words, deleting a repeating element from an individual page will not break the link between the page and the page tag, only the link with the altered item. This means that any other changes made to the page tag will still be reflected on this

Cascading Style Sheets

The civilized way to format a Web site

One of the marvelous qualities of a Web site is how easy it is to format pages—the commands in most visual programs are easy to use, and the HTML codes in most editors are easy to embed. This is also one of the most dreadful qualities of a Web site—every little bump and wiggle you make involves another morass of HTML code. Thank goodness for cascading style sheets, with their ability to offer global formatting across a page or even an entire site. CSS takes center stage this hour, as we explore:

❏ One size fits all for your headlines, subheads, and body copy.

❏ Unprecedented control over text and graphic elements

❏ A single file can control an entire site.

❏ Create nice, clean code and fast-loading Web pages.

This session is for Web designers who are new to style sheets or want to get a better understanding of them.

Sometimes, Uniformity Can Be a Good Thing

HE STOOD up in the lecture hall and said to me, with just a touch of boast, "I like for my pages to have variety to them." After the seminar, he showed me his version of variety, with three different background colors across eight pages, top-level headings ranging from 14p serif to 22p sans serif, and subheads that were anywhere from light-condensed to bold-italic. Some of his pages had backgrounds, others didn't, and there was no telling what a link was going to look like—blue, red, or tangerine.

It is anyone's prerogative to design the pages of a Web site at random, and it's even within your right to insist that you meant to do it that way. Fortunately, it is also our privilege not to visit it. If you feel that conforming to a style inhibits your Web design creativity, you haven't yet discovered cascading style sheets (CSS) and their big brother, the linked CSS file. With them, you can ensure that your site has a consistent look, while you go about the business of adding the flair.

A cascading style sheet is like a global format that you define for a page or a group of pages. If you know HTML, you can create a style sheet by hand, and if you don't, then you can rely on any good HTML or Web page editor to do it for you. (Examples here will be of the actual HTML code that a page needs.) Styles sheets are version-friendly: Older browsers will simply disregard the CSS code and use default formats for HTML elements, as if you had done nothing at all.

Smaller, Faster, Better

With a style sheet, you can format a headline once instead of every time it occurs. You can designate a typeface for all of your second-level subheads, ask for more space below each paragraph, indent a block of copy, and create a hover for your links.

In each of these cases, you create the format once for all of them, instead of coding each paragraph. Without all of that redundant code, a Web page

Figure 1
One simple line of code can control all of the subheads on this page.

will download faster, you can change it more quickly, and it will display the refinement of a consistent design, even if your tendency is to the contrary.

With an externally linked CSS file, you can ensure that your entire site uses these formats. Then simple edits to one text file affect global change across as many pages as are in your site. This can be as dangerous as it is powerful, so you should ease into global implementation.

Figure 1 shows a simple example of a style sheet in action, with Macromedia Dreamweaver showing the page's appearance on the left and the HTML driving it on the right. The subheads have all been assigned the H2 heading, and without any style information, they would appear according to the defaults of the browser—most likely large, serif, with extra space above and below, and

generally unattractive. Line 6 of the HTML code shows the simple instructions that add a more refined format to them. The command syntax is similar to what you would use next to individual paragraphs in the body of the page, but used this way, they act globally. There could be a hundred H2 heads on this page, and they all would format according to the simple instructions in Line 6.

Line 4 indicates the beginning of the <Style> section in the page header. The comment tags in Lines 5 and 8 insure against old browsers displaying the code as part of the body, and Line 9 indicates the end of the definitions. Line 7 establishes the

Figure 2
This class of <p> sets
selected paragraphs to red.

format for all normal paragraphs (designated by the <p> tag), in this case just removing extra space from atop.

A style sheet can preside over typeface, size, color, background, margins, indents, and dozens of other more ornate attributes. Many HTML tags have parent-child relationships, and style sheet instructions honor that. If you set regular text to be navy blue and then applied the <i> or <b> tag to selected text within, the italicized or emboldened text would be navy also. Of course, you could always define italic text to be yellow or blinking or both, but you wouldn't do that, right?

The CSS specification has a depth and a hierarchy that could make grown men and women cry. I won't take you there in this article, but going just one level below the surface, you will find classes of a tag, allowing you to create a sub-format. Figure 2 shows how the creation of a class can be used to change a given paragraph (we highlighted the relevant parts in the HTML window). The class called .red (classes always begin with a period) simply changes the font color, and the third paragraph finds itself infected by it. This paragraph gets all of its other attributes from the <p> tag, so if you were to change <p> to 18 pixels, you would change the .red paragraph also.

Style sheets not only bring you more control, they also let you do more. In fact, standard HTML formatting is a small subset of the breadth of formatting you can achieve with style sheets. Backgrounds that don't tile…images placed behind paragraphs…complete leading control…paragraph indents—you will gain a whole new treasure chest of toys.

Better Typeface Control with CSS

Observant users will scoff at Figures 1 and 2 and their utopian view of the cyber-universe. The problem? Just how many users who visit your page will have Eras Ultra installed? Those who don't will see a basic serif default.

Thanks to an under-publicized trick, you can maximize the chances that your visitors will see your pages with a typeface that you deem acceptable: You list several of them at once. At altman.com, we identify six typefaces that will display our pages appropriately, after which we

settle for "any sans serif face." If applied directly to a paragraph, the code would look like this:

```
<font face="Verdana, Futura Md BT, Eras
Book, Zurich BT, Tahoma, CastleT,
sans-serif">Text goes here.</font>
```

With this command, we can instruct the browser to start with the first face and keep going down the list until one of those typefaces is found on the visitor's system. If none of them is, our visitors will see generic sans serif, probably Arial. This is one of the most valuable strategies a Web master can employ, but the problem is that every single paragraph must be coded this way, and that would constitute a felony-level of code bloat.

The answer, of course, is to use a style sheet, whereby you would only have to code it once. The syntax changes slightly:

```
p {font-family: Verdana, "Futura Md BT", "Eras
Book", "Zurich BT", Tahoma, CastleT;
sans-serif}
```

Now every paragraph of body copy on your page will benefit from this clever strategy, with none of the dreaded code bloat.

Made-to-Order Links

If you think that the world is passing you by because every site except yours offers rollovers, CSS can assuage your bruised ego. You can define how a text link will look before and after it has been visited, and how it will act when you hover over it or click on it. For instance, the following definition will cause a link to display in yellow against a blue background as you pass your mouse over it:.

```
a:hover {font-weight: bold; color: yellow;
background-color: blue}
```

You can also define a.link, a.visited, and a.active tags, the latter determining what the link looks like as you click on it. These only work for text links, not images, but once you begin using them, you might find yourself using fewer graphics on your pages. Good-looking pages…fewer graphics…that's a good thing.

Going Global

Most Web masters who discover the hidden treasures of style sheets go the extra mile and use linked style sheet files. It's one thing to control the format of elements on a page; it is quite another to control them across an entire site.

To link your page to an external style sheet, you create the definitions in a plain text file, instead of in the header of the Web page. Syntax is identical; you could use cut-and-paste to create your first one. Then you place the following command on each page that is to use the styles:
`<link rel="stylesheet" href="styles.css">`

You decide what you want to call the file. From this point forward, any change you make to styles.css will cascade through all of the files on your site (and you were wondering where the C in CSS came from…).

Linked style sheets will take you to an entirely new playing field, offering you unprecedented control over the critical elements of your site. You can experiment with new formats with breathtaking ease, and effect those changes simply by publishing a new .css file. You can also create multiple .css files and rotate them into use. You could even create a simple script that activates one on Mondays, another on Fridays, and a third one on weekends.

Cascade Caveats

While older browsers do not support styles at all, the more pressing issue is that current browsers do not support them evenly. Elements will look different in Netscape browsers than they will in Internet Explorer, and sometimes the differences are not so subtle. This is particularly so with the more exotic formatting that CSS offers, such as positioning, layering, clipping, and background effects, which suffer various levels of non-support from both browser flavors.

As always, you will need to design to a common denominator and preview early and often. If you have elements that must be designed with precision, you might have to format them locally, rather than by a style tag. (Of course, if you really need precision formatting, don't use HTML at all, but that's for another column.)

By any measure, the rewards of using style sheets far exceed the risks. Using global styles helps keep separate the form and the function of a Web site. Designing in HTML is nobody's idea of fun, and the specification has a long way to go before you feel as if you are working within Adobe Photoshop or CorelDRAW. But style sheets help by bringing definition to both the design component and authoring component of Web mastering.

When using style sheets, I am reminded of a quote that singer/actress Julie Andrews made almost three decades ago: "Discipline is a kind of constraint that sets me free." When you know that your formats are all taken care of, you can focus your creative energy on making your Web site communicate your message as effectively as possible. To a Webmaster, you simply can't put a price on that.   2000

Suggested Links

www.w3.org/Style/CSS/
Unofficial Home of CSS: Tutorials, reference, articles, links

http://webreview.com/pub/guides/style
Browser compatibility chart: Exhaustive list of what works where and what doesn't

http://css.nu/
CSS Pointers Group: Potpourri site with wide breadth of useful information

Web Site Gotchas

A *roundtable discussion*

Stop weaving twisted Webs. Visitors to your site should be entertained, not detained; dazzled, not frazzled; pampered, not hampered; amazed, not mazed. Forethought forestalls foul fate and this fecund faculty of finesse fathoms fashionable, functional, and facile ways to influence yon fair Web surfers. (Put purple prose like this on a Web site and you automatically qualify for Vincent's "Web sites that suck" award…) You'll set the agenda for this discussion with your questions and comments, but here are some likely topics:

❏ Coping with differences between browsers

❏ How cool can a site be before it stops being usable?

❏ The one mistake nearly every Web designer makes

Our surly panel will:

❏ Find terminally cool sites that make designers beam with pride and users cringe in fear

❏ Snarl about techniques that frustrate and annoy visitors

❏ Answer questions, respond to challenges, and seek out new ways to look silly…

COREL WORLD 2000

Advanced Libraries

Fun and games with a serious tool

Libraries are often not given due credit by VENTURA users. Most of us know that VENTURA's libraries are used to store often-used elements, but they are also required when you want to link multiple publications to the same stylesheet or text. This session will show you the ins and outs of libraries, and more, as we explore:

❏ Making life easier with libraries

❏ Checking items in and out

❏ Changing library properties

❏ Linking stylesheets via the library

❏ Displaying multi-user check-out status

❏ Tips, tricks, and traps

If you have never figured out how to link stylesheets and text files in VENTURA, this presentation is the missing link.
[Editor's note: Groan]

The Library Is Open

A LIBRARY is no more than a file that contains various VENTURA objects. In a way, a VENTURA library is a bit like a ZIP archive. First, because a library can contain multiple files, and second, because the items you store in a VENTURA library are automatically compressed. You operate a library from within VENTURA, as we will shortly see. The items you can store in a library are:

- Pictures
- Text (files and clips)
- Frames
- Chapters
- Stylesheets
- OLE objects
- Graphic objects
- Tables
- Tags

To use a library, press the Open VENTURA library button on the main toolbar. Select a library, and click Open. You can now drag items from the library onto your page,

or you can drag items from your page to the library.

If you don't want to edit the existing sample libraries, you may want to create an empty one. You do so by selecting Tools | VENTURA Library | New. Enter a name and press Enter. The empty library appears.

Checking In and Out

The first challenge you'll encounter is checking in and checking out. Before you can make any changes to a library, it has to be checked out. You can drag items to a page from a library that is either checked in or checked out, but

before you can add new items to a library, you will have to press the Check Out button at the bottom of the library window.

The reason for this is simple: multi-user access. Libraries are great resources to share, so in order to avoid duplicate access to a library (two users may want to alter a library at the same time), a user who wants to alter a library has to check it out. From then on, no one else can check it out. Other users will still have access to the library, but this access will be restricted to read-only. You can check if anyone is working on the library by right-clicking an empty space in the library and selecting MultiUser | Check Out Status.

Figure 3
Select which items to display.

Redefining the View

Depending on the number of items in your library, you may wish to alter the view of the contents. You can do so by right-clicking an empty space in the library. Use the View command to display either large icons or small icons. Click Details to switch the descriptive texts on and off.

You can also define which items are displayed, based on a filter. Right-click an empty space in the library and select Filter. The window shown in Figure 3 appears.

Disable the checkboxes of the components you want to hide. VENTURA will only show the components whose checkboxes have been enabled.

Finally, you can change the order in which elements are displayed. Right-click an empty space in the library and select Sort. In the flyout that appears, you can select one of the following sort criteria:

- Name
- Type
- Date
- Size

Note: Changing the view requires that the library be checked out.

If, after using these techniques, you still can't find the element you are looking for, right-click in the library and select Find. This command will allow you to look for an element, based on its description.

Adding Items

To add items to a library, drag them on top of the library window, making sure the library is checked out first. You can also drag items from the Navigator, the Tag window, another VENTURA library, or even Windows Explorer. The following table shows the sources you can use for dragging items to the library.

Source	Item
VENTURA Navigator	chapters, text, graphics, stylesheets, page tags
Tag window	any tag (paragraph, frame, page, rule, or character)
Another library	any item
Your working publication	selected chapters, text, tables, frames, graphic elements
Windows Explorer	graphics and text files
Windows Clipboard	any library item (right-click and select Paste)

Linking Stylesheets via the Library

When you add a library element to a publication, you are making a copy of this element. In other words, when your library contains a stylesheet which you drag to your publication, this stylesheet is copied to the publication. If another user decides to alter the stylesheet in the library, your publication is not affected. However, you can change this behavior. By linking instead of copying the stylesheet to your publication, you create a dynamic link between the stylesheet in the library and your publication. Now, it is possible to update the stylesheet externally, which will result in an update to your publication that is using this linked stylesheet.

To link a stylesheet to a publication, follow these steps:
1. Save your publication.
2. Open an existing library, or create a new one.

3. If you want to link the current stylesheet to the publication, copy it to the library first (by dragging it from the Navigator to the library); make sure the library has been checked out before you do this.
4. Click Check In to check the library in.
5. Press Ctrl and Shift simultaneously and drag the stylesheet you want to link from the library on top of the publication name in the Navigator; you'll see a shortcut icon appear beside the mouse pointer.
6. Release the mouse button. The stylesheet in the Navigator will get a new icon: a label with a little chain, indicating a link.

You can use this technique to link a stylesheet to multiple publications. These publications will share the same stylesheet, which is stored in the library. The same technique can be used to link text files.

CHANGING LINKED ITEMS
As you can imagine, a linked item has to be treated carefully. If you change the properties of a linked stylesheet, each publication that uses this stylesheet will change. But what happens if two users work simultaneously on two different publications that share a linked stylesheet?

The answer is simple: No one can change the stylesheet, because it is checked in. Any user who wants to change the stylesheet will have to first check it out. This can be done by right-clicking the stylesheet in the Navigator, and selecting Linked Item | Check Out. The little chain now changes into a check mark, which means the stylesheet can be edited. Once you are done, don't forget to check in the stylesheet by right-clicking it and selecting Linked Item | Check In. Now when you open any of your other publications that uses this linked stylesheet, the changes will be reflected there.

Figure 4
The stylesheet has been linked.

When a user has checked out a stylesheet, other users can still use it, but they can not check it out (until the first user checks it in). VENTURA will warn a user who tries to check out a shared stylesheet that is already checked out.

If a linked stylesheet is checked out, chances are that another user is actively working on it. That may influence your own work. By right-clicking the stylesheet and selecting Linked Item | Link status, you can obtain more information about who is doing what. To make sure you are working with the latest version of a linked item, right-click it and select Linked Item | Get Latest Version.

To make a linked stylesheet internal (resolve the link), right-click the stylesheet in the Navigator and select Embed. 2000

Figure 5
That's not possible!

Bill Blinn

Thursday • 3:30pm

JavaScript on Loan

Something borrowed; don't be blue

Use JavaScript on your Web pages without knowing JavaScript? All you really need to know is where to find JavaScript code that you can borrow. Entire Web sites are devoted to providing scripts you can use to add data validation, interactive menus, animations, and more to your Web site.

In this session, you'll learn some ways to recognize good JavaScript and see how you can incorporate scripts into your HTML pages with ease. A little JavaScript, judiciously applied, can add life, intelligence, and interactivity to your pages. But beware! JavaScript can be addictive. The more you see what you can do with scripting, the more you'll want to do. In this session we'll help you get started, covering topics including...

❏ How to eliminate that ugly "Submit" button

❏ What to do with browsers that don't understand JavaScript

❏ Creating "rollover" buttons to give users positive feedback

❏ Knowing when enough is too much

This session is for ambitious Webmasters who don't know how to program in JavaScript...and maybe don't want to know...

CoREL WoRLD 2000

JavaScript
Free to a
Good Home

WHEN do-it-yourself types do home repairs and remodeling, they often use pre-assembled parts. Doors, for example. Using a pre-hung door, even I would stand half a chance of installing a portal that would be functional.

You can do something similar with JavaScript (and Perl) on your Web site.

That is, you don't have to be a programmer to use pre-made program components any more than you have to be a petroleum engineer to fill your car's gas tank with fuel. To fuel the car, you just remove the gas cap and pour the stuff in.

JavaScript is like that. Open an HTML file and pour in a little JavaScript. Without knowing anything at all about programming, you'll have a Web page that uses JavaScript.

You will have to read some instructions that came with the script, and you may have to make a few changes. Understanding basic programming concepts certainly won't hurt—particularly when something doesn't work quite the way you expected it to—but isn't necessary.

The hardest part of the process may be just getting started. A lot of us are intimidated by thoughts of complex programs, and just seeing something like this makes us shiver:

```
function valInteger(field) {
  var theseOK = "0123456789";
  var ok = "yes";
  var temp;
  for (var i=0; i<field.value.length; i++) {
    temp = " " + field.value.substring(i, i+1);
    if (theseOK.indexOf(temp) == "-1") ok =
"no";
  }
  if (ok == "no") {
    alert("Sorry! This field must contain
numbers
    only —\nno letters or punctuation.");
    field.focus();
    field.select();
  }
}
```

An experienced JavaScript programmer will recognize immediately that this little script checks an HTML field to ensure that it contains an integer; if that's not the case, it displays an error message and returns the user's cursor to the field. Even a non-programmer who takes a moment to read the script will figure that out from the "alert" message near the bottom.

But many will be put off by things like "i++" or "theseOK.indexOf(temp)." That's OK. You don't need to understand what those are or how they work. All you need to know is where to plug in this little JavaScript snippet and how to make it work in your HTML form. That isn't difficult.

While this article is primarily about JavaScript, I'd also like to call your attention to JavaScript's co-worker (and sometimes competitor) Perl and to mention JavaScript's surly half brother, Java.

Java must be mentioned in passing to avoid confusion with JavaScript. Java is not a grown up JavaScript. The two languages share a few things, but Java is a full-fledged programming language while JavaScript is a scripting language. Some people think of "scripting" as simplified programming, and there's some justification for that. One of the primary differences between JavaScript and Java, though, is this: Java programs are compiled and result in a non-human-readable executable file, while JavaScript programs are interpreted each time they're run and remain human-readable. (Programmers who are eavesdropping here should refrain from screaming aloud at this point. There are other differences, but I'm not going to discuss them. Just remember that JavaScript isn't Java.)

Perl is also an interpreted language, at least most of the time. Perl's primary difference from JavaScript involves where the scripts live. JavaScript lives in HTML files that are run on a Web site visitor's computer. Perl scripts live on the Web server and are run there.

Perl can do things JavaScript can't, such as communicate with other processes on the server. JavaScript can do things that Perl can't do efficiently, such as validate data in an HTML form. JavaScript is easier to use because you don't have to deal with server permissions, but it's more likely to fail because of browser peculiarities.

JavaScript and Perl share one important attribute. It's the sole attribute that makes this article possible. Both Perl and JavaScript programmers are generous. They write useful functions and routines; then they post them on Web sites for free. They ask only that you don't strip out their copyright notices if you use their programs.

Once you learn where to find Perl and JavaScript, you'll discover a wealth of opportunities to make your Web sites better, more interesting, and easier to use. There's also the danger that you'll become so impressed by what you can do that you'll make your sites worse, tedious, and impossible to use.

Beware! Icebergs Ahead

It would be easy to write a 1,000-page book on JavaScript or Perl. I know this is true because a lot of people have done just that. I have many of these books, and I've even read some of them.

This does not, however, make me a programmer. It does make me aware of what a talented programmer can do with JavaScript and Perl (particularly Perl). For our purposes, we'll be dealing with the tips of the icebergs and—not to repeat myself more than a dozen times—you don't need to be a programmer.

Which One to Choose

JavaScript is useful when you want to…
- Use animation
- Validate data entered on a form
- Create "rollover" buttons that change when the mouse is over them or when they're pressed
- Use interactive menus that display tree structures when they're clicked. (This is a variant of rollover buttons.)
- Serve or read a cookie

Use Perl when you want to…
- Generate custom pages on the fly (interactive pages)
- Process forms and submit the data to a file on the server or send it via e-mail
- Add a bulletin board, guest book, or chat room function to your Web site
- Serve or read a cookie

Comparing the Scripting Languages

JavaScript	Perl
"Client side" application, meaning that it runs on the computer with the browser.	"Server side" application, meaning that it resides on the machine that serves the Web site and runs there.
Needs nothing special on the server. JavaScript doesn't care whether the server is Unix, NT, or Mac.	Requires ability to install scripts (usually in special directory) and to set "permissions" for those scripts. Perl is totally dependent on the server's operating system.
May not run properly on some browsers.	Will run properly regardless of browser.
Can be written and tested easily on your local computer.	Must be uploaded to the server for testing. (Some local testing is possible if you have a Perl interpreter running.)

Finding the Soft, Chewy Middle

The trick to successfully using JavaScript and Perl is walking the tightrope between improving functionality and showing off. Since either JavaScript or Perl can be used for some tasks, there's the additional challenge of choosing the right tool.

You're in for trouble when you start using either to do too much—to impress visitors with sound and motion. Doing something simply because you can do it isn't a good reason for doing it.

Web visitors don't care about the chrome. They're not amused by the nodding dog whose eyes light up. They've come to your site for information or entertainment. When you can use JavaScript or Perl to help them achieve their goals, and only secondarily to give the site a modern and contemporary look, you're on the right track.

Giving the Submit Button the Boot

Here's a good example of using JavaScript to improve the visitor's experience.

The Submit button on forms is badly flawed. The user who forgets to use the tab key to move from one field to the next and who accidentally presses Enter will submit the form. This is bad design, but it's built into browsers. You can fix the problem by eliminating the default button and using one line of JavaScript as a link.

I prefer to use a graphical button as a link, because then it's possible to add a "roll-over" effect to the button, but you can do it with a plain old text link. After you've deleted the Submit button, add a text or graphic link that says:

```
javascript:document.forms[0].submit();
```

That's it. That's all there is to it. You've just created your first script, and it will submit the form exactly the same way the default submit button would, with this exception: If the user hits the Enter key while in a field, nothing will happen.

You'll be happier because you won't receive half-complete submissions, and visitors will be happy because the form will act the way they expect it to. Everybody wins.

Not bad for one line of script, eh?

JavaScript and Perl give Web pages power

When the Web server serves a page to the browser, elements on the page can communicate with the server, a Perl process on the server, or a JavaScript function on the page.

JavaScript can communicate with the page it's on or serve a new page.

Perl can serve a new page or communicate with a database on the server or the sendmail process.

Many JavaScript and Perl processes are available for free. You can plug them in to your Web site and begin using them to make your pages more lively and interactive.

Web Server
Perl
Database
Sendmail
Web Page
JavaScript
New Page

Does Anybody Know What Time It Is?

Some site designers like to put a digital clock on the page. While this strikes me as useless chrome, since most computers already display a clock, it's an easy way to suggest that your site is up to date. (A better way would be to keep the information on the page up to date, but that is an entirely different topic.)

The quick, easy way to add a clock is to insert a form with one field and no submit button in the Body section, and then couple it to a short JavaScript in the Head section with an onLoad function in the body tag. The script in the Head section does all the work.

Unless you're a programmer or some other sort of masochist, you can just jump right over the sidebar on the facing page…

If you tried to read the code, you may have found it difficult or intimidating. No problem! You don't have to read it. All you have to do is read the instructions, kindly provided by programmer Doug Popeney, to put that script in the HTML document Head and to add onLoad="startclock();" to the body tag:

```
<body onLoad="startclock();">
```

The third part of Popeny's instructions tells you to place the following form where you want the clock to appear:

```
<FORM NAME='jsfrm'>
<INPUT TYPE=text NAME='face' size=35
value=' '  style="BORDER-BOTTOM: 0px;
BORDER-LEFT: 0px; BORDER-RIGHT: 0px;
BORDER-TOP: 0px; READONLY">
</FORM>
```

Without knowing what any of that programmer-speak means and without spending a cent, you can add a functioning clock to your Web site.

Following Instructions

Here are some samples of instructions that you'll need to follow when you plug in borrowed JavaScript routines.

QUOTE OF THE DAY

Display a different quotation each day on your Web site. By itself, this isn't something that will bring visitors back day after day, but it's just one more thing that they might enjoy. You'll have to type the quotations you want to use, of course, but adding this function to your page involves pasting in just one small section of code. It is displayed on the next page and you can get the code from the Conference CD.

DAY REDIRECTION

Let's say you'd like to direct Web site visitors to one page if they arrive on Monday, another on Tuesday, and so on. JavaScript that's included on the Conference CD will do this. Implementing it requires only that you create a specific HTML page for each day of the week, and then paste a

We'll Give You The Time of Day

```javascript
// Copyright © 1999 Doug Popeney
// Created by Doug Popeney
(easyjav@easyjavascipt.com)
// JavaScript Made Easy!! -
http://www.easyjavascript.com
var timerID = null;
var timerRunning = false;
function MakeArray(size) {
  this.length = size;
  for(var i = 1; i <= size; i++) {
      this[i] = "";
  }
  return this;
}
function stopclock (){
  if(timerRunning)
  clearTimeout(timerID);
  timerRunning = false
}
function showtime () {
  var now = new Date();
  var year = "2000";
  var month = now.getMonth() + 1;
  var date = now.getDate();
  var hours = now.getHours();
  var minutes = now.getMinutes();
  var seconds = now.getSeconds();
  var day = now.getDay();
  Day = new MakeArray(7);
  Day[0]="Sunday";
  Day[1]="Monday";
  Day[2]="Tuesday";
  Day[3]="Wednesday";
  Day[4]="Thursday";
  Day[5]="Friday";
  Day[6]="Saturday";
  var timeValue = "";
  timeValue += (Day[day]) + ", ";
  timeValue += ((month > 10) ? " 0" : " ") + month + "-";
  timeValue += date + "-" + year + ", ";
  timeValue += ((hours <= 12) ? hours : hours - 12);
  timeValue += ((minutes < 10) ? ":0" : ":") + minutes;
  timeValue += ((seconds < 10) ? ":0" : ":") + seconds;
  timeValue += (hours < 12) ? " AM" : " PM";
  document.jsfrm.face.value = timeValue;
  timerID = setTimeout("showtime()",1000);
  timerRunning = true
}

function startclock () {
  stopclock();
  showtime()
}
```

Where to put JavaScripts

Scripts can live in any of several locations—in the Head of an HTML file, in the Body of an HTML file, or in an external file that's linked to the HTML file. You can use any or all of these as many times as you wish in any HTML file.

Within the Body section of the HTML file, JavaScript may be a free-standing script or embedded, as you've already seen, in a tag.

Scripts that you plan to use many times are often placed in the Head, then called by something in the Body. If you have some programming experience, think of these as subroutines or functions. Scripts within the document Body run immediately unless they're embedded in a tag.

Except for scripts that are embedded in tags, it's important that you make the scripts invisible to browsers that don't understand them. This is accomplished by placing the entire script, except for the open and close tags, inside an HTML comment:

```
<SCRIPT LANGUAGE="JavaScript">
<!—This line hides scripts from old browsers.
    The script itself goes here.
// Stop hiding the script from old browsers —>
</SCRIPT>
```

An older browser, such as Microsoft Internet Explorer version 2, will see the Script tag and not know what to do with it, but then it will ignore everything between the comment indicators, <!— and —>. If you fail to "comment out" a script, an old browser will simply display the JavaScript instead of running it, and this makes for a very ugly page.

You might wonder about the line beginning with //. The double slash is JavaScript's comment line. Forget that and you'll get a syntax error from the JavaScript interpreter when the interpreter tries to "run" the line that includes the HTML close-comment marker.

dozen lines of JavaScript into the Head section of your site's Index page.

SCROLLING TEXT BAR

Normally, scrolling text appears at the bottom of the screen. It consumes some resources, but only a few users see it because it's small and far from their point of focus. If you really want to make something visible (and potentially most annoying), use a scroll bar that can be anywhere on the page.

MOVABLE MENU

How about adding a menu that scrolls with the page? Even if the user scrolls all the way to the bottom of a very long page, the menu stays on screen. Yes, you could do this with frames, but you don't need frames if you do it with JavaScript. This process is a little more complex. You have to paste one piece of code into the Head. Then you have to add an onLoad event handler to the Body tag. Last, you'll need to paste in the menu and edit it to suit your site. The script is on the Conference CD.

Getting the Script to Run

You've already seen one way to get JavaScript to run—by making it a link. We've used the "onClick()" function without knowing it. This is an example of what's called an event handler, and HTML has a lot of them. Each browser has a few event handlers that the other omits, but both share a common list of essential event handlers.

Think of an event handler this way: Let's say you're working on a complex project and you've asked the receptionist not to interrupt you unless you receive a call from Elmo Biggie at Biggie Client. You close the door and start working. The receptionist is, in essence, an event handler. The first call is from a telemarketer, so the receptionist takes a message, but doesn't bother you. Later, when Elmo Biggie calls, the receptionist passes the call through to you. You interrupt your current task and start talking to Elmo Biggie.

HTML event handlers work the same way. The event-handler process keeps an eye on actions by the user as well as on the overall state of the Web page. When something the process knows about occurs, the event handler examines its list of tasks to see if it's supposed to do anything.

The user who clicks somewhere on the page will trigger an onClick event handler, but nothing will happen unless an event has been defined for the page itself. Likewise if the user clicks on a graphic that has no link attached to it. Clicking on a text field will trigger the onClick handler, which will then move the focus to the text box.

Sources for JavaScript and Perl Information and Scripts

You can find your own sources for free JavaScript and Perl scripts by using one of the search engines. Here are some that I've found useful.

BOOKS
- *JavaScript for the World Wide Web*, Negrino & Smith, Peachpit Press (Superb small book that covers the basics.)
- *Web Design*, Thomas Powell, Osborne McGraw-Hill (This book and Powell's other book below form the core of my HTML reference shelf.)
- *Complete Reference HTML*, Thomas Powell, Osborne McGraw-Hill (Highly recommended.)
- *Web Programming Secrets*, Ed Tittel et al., IDG Books (Now slightly dated, this book covers HTML, Perl, and JavaScript.)
- *JavaScript Bible*, Danny Goodman, IDG Books (As the title suggests, the is the JavaScript book that has it all—chapter and verse, with the information you need to make it work.)
- *JavaScript Cookbook*, Yosef Cohen, Wiley Computer Publishing (This is a book for someone who has already learned the basics.)
- *JavaScript Annotated Archives*, Frentzen & Sobotka, Osborne McGraw-Hill (Good coding samples with working code you can plug in.)
- *JavaScript Essentials*, Jason Manger, Osborne McGraw-Hill (More good coding samples with pieces you can use.)

The gigantic JavaScript Source Web site, with thousands of scripts available for downloading

The following two books weren't yet in print when I wrote this article, but they look promising:

- *Active Perl Developer's Guide*, Osborne McGraw-Hill (July 2000)
- *Debugging Perl*, Osborne McGraw-Hill (September 2000)

Treading Perilously Close to Programming

I've said more than twice that you don't have to be a programmer to use JavaScript in your HTML pages, and that's true, but sometimes it can be helpful to have a little understanding of what's going on under the hood. For that reason, I'll cover some of the basics.

If this is too much for you now, come back and take a look after you've plugged in a few scripts—after you've convinced yourself that using JavaScript doesn't require a degree in rocket science, brain surgery, or black magic. Then you'll be ready to take the next step. That's the step where you discover that most people who write programs are just plain folks like you.

COMMON EVENT HANDLERS

Event handlers are important and easy to understand. There are several dozen, but most of the heavy lifting is done by a scant few. I'll describe the five that are most common in what I've done, and mention most of the other event handlers that are shared by both Microsoft and Netscape browsers.

Unless you can be certain that all visitors to your site will use one specific browser, you should avoid the event handlers that are not available on both major browsers.

- **onLoad** – This one runs when the page has finished loading. It's commonly used to start an animation.
- **onClick** – Probably the most common event handler, this one can be attached to virtually any component of the HTML page.
- **onBlur** and **onChange** – These are most useful for data validation in a form. The blur handler is triggered when the user tabs or clicks out of a field. The change handler is similar to blur,

except that it isn't triggered unless the user has changed the contents of the field.
- **onSubmit** – This is used when a form is submitted, and frequently is used to run whatever process deals with the data from the form.

Other event handlers that are shared by both Microsoft and Netscape browsers include onAbort, onError, onDblClick, onFocus, onKeyDown, onKeyPress, onKeyUp, onMouseDown, onMouseUp, onMouseMove, onMouseOut, onMouseUp, onMouseOver, onReset, onSelect, and onUnload.

If you're developing a headache about now, relax. You don't have to know how these work; you just have to know they're available when you need them. The event handlers aren't part of JavaScript, but they make it possible for your pages to use JavaScript.

USING EVENT HANDLERS

Attaching JavaScript to an event handler makes it easy to control when the script runs. Here are some examples:

```
<body onLoad="doSomeFunction();">
```
"doSomeFunction()" will run as soon as the page loads.

```
<input type="text" name="email" size="30"
onChange="valEmail(this);">
```
This is a text box on a form. When the user tabs out of the text box, if the text in the box has changed, the "valEmail()" function will run. As you might guess from the name, this process will validate an e-mail address.

```
<a href="javascript:checkFields();">
```
Here the "checkFields()" function has been attached to a hypertext link.

FUNNY PUNCTUATION AND CAPITALIZATION?

If you're wondering about the odd punctuation, JavaScript's developers have tried to make life easy for programmers who come to JavaScript from languages where each command must end with a semi-colon. JavaScript doesn't require a semi-colon as long as only one command

is on a line, but it's a good idea to get into the practice of following every command or function call with a semi-colon. Then, should you ever want to put multiple commands on a line, you'll be more likely to remember the semi-colon to separate them. When more than one command is on a line, they must be separated by semi-colons.

What about all those parentheses? Function names end with a pair of parentheses—sometimes filled, sometimes empty. If they're filled, the words inside the parentheses are variables that will be used inside the script. This could easily get into a murky area, so let's just leave it this way: If you decide to tinker with a script, leave the parentheses and semi-colons alone.

Capitalization appears random, but follows some clear guidelines. Functions usually start with a lower-case letter, but internal caps are used to make the function name easier to read. It's easier to read "reallyLongFunctionName()" than "reallylongfunctionname()" isn't it? Variables are usually written in lower-case letters. Long variable names are made easier to read with internal capital letters or underscores – longVariableName or long_variable_name. These are only conventions, not rules.

Beware! If you see a JavaScript error complaining about a missing object, check two things immediately: spelling and capitalization. If you name a function "doThisNow()" and then try to call "dothisnow()" the interpreter won't be able to find it. Spelling and capitalization must match exactly.

If computers were as smart as some people say they are, wouldn't they be able to figure out these simple things?

Browser Incompatibility Blues

Before you unleash a JavaScript-enabled page, it's a good idea to examine it with both Microsoft and Netscape browsers—preferably with more than just the latest version. Try using earlier versions, too. Netscape makes this relatively painless, but running more than one version of Microsoft's Internet Explorer ranges from challenging to impossible.

Sometimes, a process that works just fine in one browser will break in another. Here's an

example that caused me no small amount of vexation this summer.

I borrowed a JavaScript function that could read the date stamp on a file, convert that to plain English, and place it on a page. My intent was to display "This page was last updated on [some date here]" without having to remember to change the text every time I changed the page. The JavaScript would read the file modification date. Easy.

It looked fine in Netscape 4.7 and in Netscape 6 beta. It looked fine in MSIE 5. Because I'm using Windows 2000, MSIE 4 isn't available, so I didn't check it with version 4. Almost immediately I began hearing from people. "Your page says you last updated it in 1900!," they would point out.

I could see nothing wrong with the code, and it worked right on every browser I had. I suspected the users had MSIE 3, a browser that's well known for its strange behavior with JavaScript. Since not too many people still use MSIE 3, I wasn't worried. Then someone at the office said, "Your page says you last updated it in 1900!," and I knew he wasn't using version 3.

He had version 4 and that version is still widely used. I had to find the problem and fix it.

The "getYear()" function returns a 2-digit year for dates between 1900 and 1999. For 2000 and above, it returns a 4-digit year. The function I had borrowed tested for the date and made a decision based on whether the date was 2000 or greater:

- If the year was less than 2000, the function used the returned 2-digit number and added 1900 to it. That means "99" would be converted to "1999". Perfect.
- If the year was 2000 or higher, the function used the returned 4-digit number as is. If it received "2000", it displayed "2000". Also perfect.

After a little tinkering, I discovered that MSIE 4 always returns "0" for the getYear() function. Since 0 is less than 2000, the function took the return date (0) and added 1900 to it. It then displayed "1900" for the year. Not exactly perfect.

A little research on the Web turned up a replacement function, getFullYear(), which supposedly fixed some errors but still returned a 2-digit year for dates before 2000 and a 4-digit year for dates in and after 2000. I plugged it in and

tested it. Netscape and MSIE 5 still had no problems, but now MSIE 4 was telling me the year was 3800.

While the cause seemed obvious, it also seemed impossible: MSIE must be interpreting getFullYear()'s return as 1900. Since 1900 is less than 2000, the function would obediently add 1900 and come up with the year 3800.

Under MSIE 4, getYear() returns zero and getFullYear() is off by a century. I was beginning to feel like Zaeger and Evans ("In the Year Twenty-Five Twenty-Five").

My solution is a kludge, but it will work for the next 70 years, which is long enough that I won't have to worry about it again. I left getFullYear() in the JavaScript because it returns a number other than zero with MSIE 4 and changed the test slightly:

- If the returned date is greater than 1970 and also less than 2000, we assume that we're running on a browser that knows what year it is, but we know that we'll get a 2-digit year back. To display the right date, we have to add 1900 to the year.
- If the returned date is greater than 1899 and also less than or equal to 1970, we assume that we must be on MSIE 4, and the date we have is 100 years off. To display the right date, we have to add 100 to the year.
- If both of those tests are false, we have received a date greater than 2000, so we assume that it's correct and display it as is.

Programmers frequently have to work with situations like this—figuring out why a function doesn't work as it's supposed to and then finding a way to make it work anyway without breaking something else.

A String of Perls

JavaScript does a lot, but there are some things it can't do—mostly functions that involve communicating with processes that run on the server. For that you need something else; you need a common-gateway-interface language.

A CGI language typically takes output from a Web form and does something useful with it. That something might involve taking the input from an e-commerce site and stuffing it into a database. Or it might take that same information and generate an e-mail message. It may do both. It could accept input from a prospective customer and then generate an entirely new Web page on the fly, a page exactly suited to the Web user. Or it could add a chat or guest book function to a Web site.

Perl was invented by Larry Wall, who thought he was writing a "glue language" for Unix, combining bits and pieces of Unix commands to give programmers a useful tool. It's turned out to be a little more than that: Perl is the most used CGI language on the Internet.

Perl is a robust language and one that gives unsuspecting users many ways to shoot themselves in the foot. Probably Perl's greatest danger, when it's performing as a CGI language, is the requirement that the programmer validate all data before using it. Failure to do so can provide crackers a gaping hole to walk through.

After you've used JavaScript, you may want to start writing your own procedures. Or you may decide to make changes to existing scripts. Do it! But before you start writing entire Perl functions from scratch, spend some time to learn the dangers.

In the meantime, I recommend checking out Matt Wright's well written and well documented Perl scripts at worldwidemart.com/scripts/. Besides being useful, they're also free. Wright's scripts include a form processor, a guest book, a discussion board, a random image displayer, graphical and text counters, and more. (You probably don't want to know that he wrote most of these when he was in high school.)

Because they're widely used, most of the security holes have been patched. As others are reported, Wright fixes them and updates the scripts. 2000

Go Deeper

Numerous scripts are here on the Conference CD for you to use and learn from. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\web\javascript.

Secrets of Successful Newsletters

Techniques that say "pros at work"

It's easy to tell the difference between amateur newsletters and those produced by professionals. This workshop pinpoints and helps you understand the little—and not-so-little—things that make that difference. You will leave with a better understanding of typographic techniques and terminology, guides to writing effective headlines, basic design concepts, how printing methods affect your newsletter, the pros and cons of electronic newsletters, and more. Topics include:

❏ Readability: A picture may be worth 1,000 words, but 1,000 words are useless if they can't be read!

❏ Consistency: Adopt a style sheet, follow "rule of two."

❏ Contrast: Balance is fine for editorial content, but dull when it comes to design.

❏ Photos and clip art: Depending on your output method, photos can be a boon or a bust, but clip art can be an editor's best friend.

❏ Typography: Ransom note publishing is the surest sign of an amateur.

This workshop is for anyone who publishes newsletters.

COREL WORLD 2000

Bob van Duuren

Friday • 9:45am

X Marks the X-Ref

Cross-referencing for the masses

VENTURA's cross-referencing capabilities are outstanding. If you want to reference a figure or a table on a different page, VENTURA can take care of that for you, just as it can easily take care of references to other sections or chapters. And if you change your page, chapter, figure, or table numbering, you can automatically update your references. That is…if you know how to! If you don't, this session is for you, with topics including:

❏ Creating cross-references to figures

❏ Creating cross-references to pages, sections, and chapters

❏ Updating cross-references

❏ Using the Navigator to check your references

❏ Surprising PDF facts about cross-references

This session is suited for the active VENTURA user who wants to know more about cross-references.

COREL WORLD 2000

Finding Needles in Haystacks

KEEPING TRACK of page and figure numbers is a tedious task. When new pages or illustrations are inserted in your document, you should not have to worry about references to existing pages or figures. This is where VENTURA's cross-referencing capabilities can be of great help. With cross-referencing, you can reference an item (image, table, paragraph…) on another page. When your layout changes, VENTURA will be able to recalculate your references at the click of a button, making sure that your references do not end up in limbo.

In VENTURA, you can reference the following items:

- Page number
- Chapter number
- Figure number
- Table number
- Section number
- Caption text
- Chapter and page number
- Chapter and section number
- Page and section number

Furthermore, VENTURA allows you to reference multiple instances ("See … on pages x, y, and z"). And you can use different referencing methods, such as numerical ("page 1") or alphabetical ("page one").

Simple References: Illustrations

The easiest cross-reference you can make is to an illustration. To do so, make sure you first have imported any illustration and placed it in a frame, anywhere in your document. If you want to reference this illustration (e.g., "see the illustration on page X"), do the following:

1. Type your reference text ("see the illustration on page "), including a space after the word "page."
2. Select Insert | Number/Cross-Reference.
3. Select Page Number in the Display list.
4. Select the name of the illustration in the For list.
5. Click OK.

Figure 1
Inserting the cross-reference

The page number where the illustration currently resides appears in your document. When you move the illustration to another page, nothing happens at first. However, when you select Publication | Update Publication (or click the Update Publication button in the main toolbar), the reference will be updated.

Figure 2
Updating the publication after making changes will update your cross-references.

Figure 3
Creating a marker

If the page you are referencing contains many illustrations, you can decide to fine-tune your reference. Navigate to the page where the illustration resides, and follow these steps:

1. Select the illustration.
2. Open the Add Caption list in the property bar.
3. Select Below.
4. Type a caption in the caption frame of the illustration.

Now go back to your original reference and insert the cursor between the word "illustration" and the word "on," and follow these steps:

1. Type a quotation mark.
2. Select Insert | Number/Cross-Reference.
3. Select Caption Text in the Display list.
4. Select the name of the illustration in the For list.
5. Click OK.
6. Type another quotation mark and insert the necessary spaces.

Your reference should now read something like "See the illustration 'Nice doggie' on page 4."

Referencing a Marker

The type of reference described above is an easy one, as there is a fixed item you can reference: The name of the illustration. But what happens if you want to reference a subject on another page (e.g., "for more information, see page X")? In that case, there is no named, identifiable item to reference, and you will have to create a marker.

Markers are usually created at the beginning of a paragraph, and if a paragraph (subject) has a heading, it is advisable to create a marker with the same name as the heading. Once you have created a marker, you can reference this marker. Because

the marker is a symbolic name for a subject, it is unwise to create markers with ambiguous or irrelevant names like marker1, marker 2, etc. If I had to create a marker for this section of the article, I would insert it in or below the heading, and call the marker by the section name "Referencing a Marker."

To create a marker, follow these steps:

1. Place the insertion point where you want to create a marker.
2. Select Insert | Marker.
3. Type a name for the marker in the Name box.
4. Click OK.

Once you have created one or more markers, you can reference them, using the now-familiar steps:

1. Type your referencing text (like "for more info, see page…").
2. Select Insert | Number/Cross-Reference.
3. Select Page Number in the Display list.
4. Select the marker name in the For list.
5. Click OK.

Here's a quick way to insert a marker for a heading from the keyboard:

1. Select the heading.
2. Press Ctrl+C (Copy).
3. Press the Right arrow.
4. Press Ctrl+Shift+K (Insert marker).
5. Press Ctrl+V (Paste).
6. Press Enter (OK).

Figure 4
Selecting the marker name in the For list

Types of References

In the examples above, we have referenced page numbers and captions. But in VENTURA, you can also use various other types of references. They are selected in the Display list, in the Insert Number/Cross-Reference dialog. The table below give examples of each type.

Reference Type	Example
Chapter Number	For more information, see Chapter 4.
Figure Number	As you can see in Figure 5, the ...
Table Number	Table 4-12 lists the various options*
Section number	See section 5.1**
Chapter and page number	See page 4-5.
Chapter and section number	See chapter 1 - 1.1 (This format can not be altered.)
Page and section number	See page 1 - 1.1 (This format can not be altered.)

*for this to work, you will have to number a table using a caption, name the frame via Frame Properties, General, and insert two cross-references: one to the chapter number for the frame name, then insert a hyphen (manually) and then insert another cross-reference, to the table number for the frame name).

**for this to work, auto-numbering must be on).

Let's take a closer look at some of these examples. To create a reference to a table like "table 4-12," do the following:

1. Create a frame to hold the table.
2. Insert your table in the frame.
3. Right-click the frame and select Frame Properties.
4. Select the General tab.
5. Select Below in the Caption list.
6. Type a name for the frame in the Name box.

Figure 5
Defining a frame name

7. Click OK.
8. Click inside the caption frame.
9. Type a caption like "Table," and type a space.
10. Click the Insert button in the property bar and click the Insert Table Number button (the fourth button); a "1" will appear.
11. Navigate to the location where you want to reference this table.
12. Type your reference text, like "See table."
13. Select Insert | Number/Cross-Reference.
14. Select Chapter Number in the Display list.
15. Select the frame name in the For list.
16. Click OK.
17. Type a hyphen.
18. Select Insert | Number/Cross-Reference.
19. Select Table Number in the Display list.
20. Select the frame name in the For list.
21. Click OK.

Your text should now look something like "See table 1-1." It is a bit of work, but it is worth it. If you change the chapter number (Publication | Chapter Properties, on the Counters tab), the cross-reference will update immediately. If you change the table number (right-click in the caption and select Table Numbering), the same will happen.

You can refine your reference even more, e.g., to read "See table 1-1 on page 12." To do this, you would have to insert a third reference to a page number for the (same) frame name.

To create a reference like "section 5.1" do the following:

1. Create a tag to hold section headings, like "Section heading," and apply it to one or more paragraphs.
2. Select Publication | Chapter Properties.
3. Select the AutoNumbering tab.
4. Enable the AutoNumbering checkbox.
5. Select "Section heading" from the Paragraph Tag list.

6. Click the Prefix box and click Insert | Chapter Number.
7. Type a period (.).
8. Click OK.

Setting Up Auto-Numbering

Now your sections are automatically numbered by VENTURA, you can use the section numbers in a reference:

1. Insert a marker in any section, as outlined above.
2. Navigate to a location in your document where you want to insert a reference.
3. Type your reference text, like "See section."
4. Select Insert | Number/Cross-Reference.
5. Select Section Number in the Display list.
6. Select the marker name in the For list.
7. Click OK.

Your text will now look something like "See section 4.2". When you change the chapter number (Publication | Chapter Properties on the Counters tab), the reference will adjust. If not, click Update Publication.

Note: You may also need to update auto-numbering by pressing F2.

Figure 7
Referencing the current chapter

Additional Features

Occasionally it may be useful to reference the current page or chapter; in that case, you won't have to create a marker. If you need a reference like that, make sure to select Current Page or Current Chapter in the For list of the Insert Number/Cross-Reference dialog.

You would reference the current chapter, for example, when using the "See illustration 4-1" construction, where 4 is the current chapter number (in other words, when the illustration will always remain in this chapter). The current page can be referenced in a frame that you place in the margin of a page, to create a page number (the current page number) outside the header or footer frame.

So far, we have used numbers as references. But it is possible to use letters, words, or Roman numerals, if you like. To do so, choose a style in the Numbering Style list of the Insert Number/Cross-Reference dialog. For any of the 'one, two' options, you can also choose a language in the Language list.

Finally, the Insert Number/Cross-Reference dialog contains a checkbox called Reference all occurrences. If you enable this checkbox, VENTURA will reference multiple markers. For example, if you have various sidebars throughout your publication, you could create multiple markers called Sidebar. At the reference location, you would insert a cross-reference, using the following specs.

Now your text could read something like "See the sidebars on pages 2, 12, and 23."

Figure 8
Referencing multiple instances

Note: The available formats are limited and can not be altered.

Maintaining Cross-References

When working with cross-references, it is possible for some of them to get broken. For example, when a document is heavily edited, markers could be deleted. In that case, a reference to a marker would not be valid anymore. This is where the VENTURA Navigator comes to the rescue.

To have the Navigator show the markers and cross-references, select Markers/Cross-References in the top list. Next, click Refresh at the bottom of the Navigator; a list with markers and references appears (Figure 9).

The pencils in the Navigator denote manually inserted markers. Pencils in a little square denote frame names or image names. The two little

Figure 9
The VENTURA Navigator in Markers/Cross -References view

rectangles (indented) denote cross-references. VENTURA displays the type of reference (e.g. Page, Caption, Table) and the chapter in which the marker or reference resides. Missing markers are indicated by a red cross.

You can quickly edit markers or references by double-clicking them in the Navigator. The insertion point will be placed on the selected marker or cross-reference, after which you can press the Edit Item button (in the main toolbar) to edit it.

Surprising PDF Facts About Cross-References

There is one more interesting fact you should know about cross-references: VENTURA can automatically convert them into hyperlinks for Acrobat (PDF) documents. And the best part is

Figure 10
Creating hyperlinks for Acrobat

that you don't have to do anything to accomplish that. Well…that's not quite true. When updating your publication, make sure the Generate Hyperlinks for Adobe Acrobat checkbox is enabled (Figure 10).

Once you have done this, you can create a PDF file the normal way. When you open the PDF file in Acrobat Reader, the mouse will turn into a hand when you move over one of your cross-references. Clicking the cross-reference will navigate to the appropriate page.   2000

Stop Spinning Your Wheels

Using Dreamweaver's templates and libraries

Regular VENTURA Publisher users know how the program's page tags and libraries control formats and track elements for you. CorelDRAW users have styles and the Scrapbook. If you are journeying from one of those applications to Web design, you'll feel right at home with Macromedia Dreamweaver's system of templates and libraries. This session introduces you to the power and control these tools can offer. Topics include:

❏ Change it once, change it everywhere.

❏ Like an element? Stash it in the library!

❏ Mix and match—add libraries to templates.

❏ All about editable and non-editable zones

This session is for new Dreamweaver users, or anyone seeking an introduction to the concept of template-driven design.

COREL WORLD 2000

I Dream of Dreamweaver

MACROMEDIA's Dreamweaver is one of the most popular—and powerful—Web page design applications on the market today. Much of its power, and ease of use, comes from two features—templates and libraries. In this article, we'll look at some of the reasons this is true, and see how you can make them work for you.

Templates

You can use templates to create Web pages with a common structure and appearance. Templates are useful when you want to ensure all of the pages in a site share certain characteristics.

Once you apply a single template to a group of pages, you can edit information on the group of pages by editing the template and then reapplying it to those pages. While elements unique to each page (such as text describing an item for sale) remain unchanged, common template elements (such as navigation bars) are updated on all of the pages that use the template.

TEMPLATES IN ACTION

The best way to understand templates in Dreamweaver is to observe them in action. For this exercise, you will create a new template that will be used for third-level pages.

Look at the layout of SWC President's Message in a browser.

There is a common navigational bar that is used by all levels except the home page. All images on third-level pages are on the left and occupy 220 pixels, and the text occupies 380 pixels. You will use the President's Message to design a template that allows for dynamic modifications to call third-level pages across the enterprise.

Basically, a template ensures that your Web pages will have an identical layout and format. These exercises assume the use of the practice files we have placed on the Conference CD. You'll find them in \ files \ web \ dreamweaver \ practice. Also note the FinishedSite folder which you can puruse to see how a site might be built around templates..

CREATING THE TEMPLATE

You will now create a template from the SWC President's Message page. You'll then use this template to create additional SWC pages.

1. Open Dreamweaver; you will see an Untitled Document. Choose File | Open. Locate the folder you downloaded, and open the AboutSouthwesternCollege folder. In that folder, select PresidentsMessage, and open the index.htm file. Once you have the index page open, choose File | Save as Template.
   The Save As Template dialog box appears.

   You'll create your own version of this template.

2. In the Save As field, change the template name to 3rdLevelPage, then click Save.

3. A new document appears in the Document window. Notice the Template identifier as well has the file extension .dwt.

MODIFYING THE TEMPLATE

At this point, your new template is the same as the page from which you saved the template. The layout for certain page areas needs to be the same on each present page. You'll see how to define these areas in your template.

Each template contains both locked and editable regions. Locked regions can be edited only

inside the template itself; they appear in a highlight color on all pages the template is applied to. Editable regions are placeholders for the content that is unique to each page the template is applied to. In an applied template, the editable regions are highlighted.

1. In the .dwt template in the Document window, select and delete both of the PresidentsMessage's images; then type "Insert image here" in the table cell.
2. Select the text you just typed.
3. Choose Modify | Templates | New Editable Region.

   The New Editable Region dialog box appears.

4. In the Name field, type Image as the name for this region of the template.

5. Click OK.

   Notice the text is now highlighted, indicating this is an editable region of the template.
6. In the next cell, highlight the text, and delete it. Type "Insert Text Here." Then, choose Modify | Template | New Editable Region. In the Name field in the New Editable Region dialog box, type Name and click OK.

   In the Document window, the region is highlighted and identifiable by the region name you gave it.
7. Choose File | Save to save your template.

The Update Pages dialog box appears, asking if you want to update all documents in your local site. Selecting Yes would update the pages in the completed SWC site, which you don't want to do.

8. Click No, and then click Close to close the Update Pages dialog box.
9. Close the template.

APPLYING THE TEMPLATE

Now you'll use the template to create a new SWC page.

1. Choose File | New from Template.

   The Select Template dialog box appears.

2. In the Templates list, select 3rdLevelPage as the template to apply, and then click Select.

   A new untitled document appears.

   The darker regions of the document are editable; all other regions of the document are locked and cannot be edited.
3. Save your document, and name the file test1.htm.

EDITING THE DOCUMENT

With the editable regions set, updating pages is easy. You'll replace the words "Insert Image Here" for any image you choose, and "Insert Text Here" for the text you want to include for that specific page.

1. Place the insertion point in the Image region.
2. Choose Insert | Image, and in the dialog box that appears select an image you want to place. Then click Select to select the image.
3. Delete the Image placeholder "Insert image here" text.
4. In the Document window, in the "Insert Text here" region, type anything that relates to the

page you intend on creating, and delete the placeholder.

5. Save your document.
6. Close the document.

ADDITIONAL TEMPLATE FEATURES

- META properties

META tags are HEAD elements that record information about the current page, such as the character encoding, author, copyright, and keywords. META tags can also be used to give information to the server, such as the expiration date, refresh interval, and PICS rating for the page. (PICS, the Platform for Internet Content Selection, provides a method for assigning ratings, like movie ratings, to Web pages.)

Attributes specify whether the META tag contains descriptive information about the page (NAME) or HTTP header information (HTTP-EQUIV).

Content is the actual information. For example, if you specified level as the Value, Content might be beginner, intermediate, or advanced.

Keywords can be added to the page by manually typing the meta tag and the keywords after the <title> tag in the source code. To add keywords to a page created from a template do the following:

1. Open the HTML source code (Window | HTML).
2. Locate the <title> section that begins with the following comment line

```
<!--#BeginEditable "doctitle" -->
```

Refer to the following example code:

- Code Example

```
<html>
<!--#BeginTemplate
"/Templates/myTemplate.dwt" -->
<head>
<!--#BeginEditable "doctitle" -->

<title>Untitled Document</title>
```

```
<!--#EndEditable -->
<meta http-equiv="Content-Type"
content="text/html;
charset=iso-8859-1">

</head>
<body bgcolor="#FFFFFF">
```

3. Type the following code after the <title> line and before the EndEditable comment line, typing your keywords separated by commas between the empty quotes.

```
<meta name="keywords" content=" ">
```

Refer to the following example for correct placement of the line of code.

- Code Example with Keywords

```
<html>

<!--#BeginTemplate
"/Templates/myTemplate.dwt" -->
<head>
<!--#BeginEditable "doctitle" -->

<title>Untitled Document</title>

<meta name="keywords" content="astrology,
stars, horoscope">

<!--#EndEditable -->
<meta http-equiv="Content-Type"
content="text/html;
charset=iso-8859-1">

</head>
<body bgcolor="#FFFFFF">
```
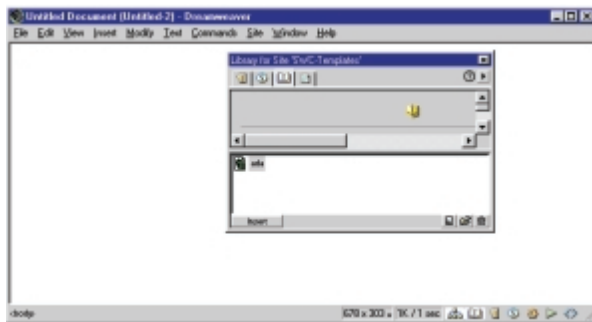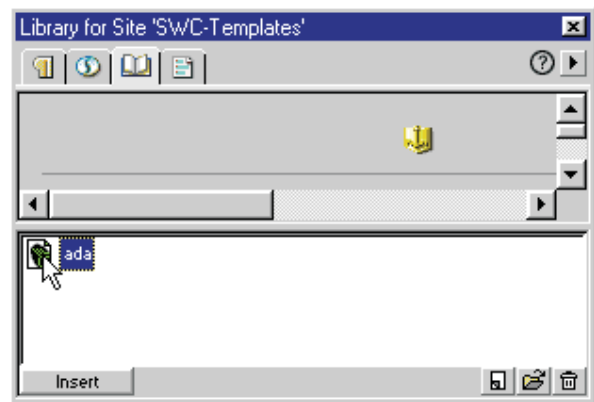
Libraries

CREATING A LIBRARY ITEM

When you create a library item, you select a portion of a document's BODY section, and Dreamweaver converts the selected area into a library item.

Library items can include any BODY element, including text, tables, forms, images, Java applets, plugins, and ActiveX elements. Dreamweaver stores only a reference to linked items such as images. The original file must remain at the specified location for the library item to work correctly.

Library items can also contain behaviors, but there are special requirements for editing the behaviors in library items. Library items cannot contain timelines or style sheets, because the code for these elements is part of the HEAD section.

To create a library item:

1. Open Dreamweaver; you will see an Untitled Document. Choose File | Open. Locate the folder you downloaded, and open the AboutSouthwesternCollege folder. In that folder, select PresidentsMessage, and open the index.htm file.

2. Scroll all the way down, and select the ADA to save as a library item:

3. Do one of the following:
   - Choose Window | Library. In the Library palette, click the context menu button, then select New Library Item.

   - Click the New Library Item icon in the lower right area of the Library palette.
   - Choose Modify | Library | Add Object to Library.

4. Enter a name for the new library item.

LIBRARY PREFERENCES

You can customize the highlight color for library items and show or hide the highlight color in Highlighting preferences.

To change the highlight color for library items:

1. Choose Edit | Preferences and select Highlighting.

2. Click the color box to select a color for library items.

3. Select Show to toggle the display of the library highlight color. View | Invisible Elements must also be on for the library highlight color to be visible in the Document window.

4. Click OK to close the Preferences dialog box.

ADDING A LIBRARY ITEM TO A PAGE

When you add a library item to a page, the actual content is inserted in the document along with a reference to the original item.

After the content has been inserted, the original item does not have to be present for the content to be displayed.

To add a library item:

1. Place the insertion point in the Document window where you want the specified library item to be placed.

2. Choose Window | Library or click the Library button on the Launcher.
3. Drag an item from the Library palette to the Document window, or select an item and click Insert.

To insert the item's content without creating an instance of the item in the document, press Control (Windows) or Option (Macintosh) while dragging an item out of the Library palette.

EDITING A LIBRARY FILE

Editing a library item changes the original item file. Dreamweaver lets you choose to update the edited item in all documents in the current site,

rename items to break their connection with documents or templates, and delete items from a library.

To edit a library item:

1. Choose Window | Library or click Library on the Launcher.
2. Select a library item and click the Open icon (the folder icon) at the bottom of the palette, or double-click the item.

Dreamweaver opens a new window for editing the library item.

3. Edit the library item and then save your changes.
4. In the dialog box that appears, choose whether to update the documents on the local site with the edited library item:
    -   Choose Update to update all documents in the local site with the edited library item.
    -   Choose Don't Update to avoid changing any documents until you use Modify | Library | Update Current Page or Update Pages.

To update pages that use an edited library item:

1. Choose Modify | Library | Update Pages.
2. In the dialog box that appears, choose the files that you want to update.

Choose "Entire Site" to update all documents on the specified site.

3. Click Start.

The content of the library item is replaced in the specified documents.

To rename a library item:

1. Select a library item in the Library palette.
2. Click inside the item name, until its text is highlighted and editable.
3. Enter a new name.
4. When you click OK, Dreamweaver asks if you want to update files that use the item.

If you click Yes, all documents that previously used the item will update their references to the new name.

If you click No, documents that have references to the item under its old name will not automatically update their references to the new name.

To delete a library item from a library:

1. Choose Window | Library or click the Library button on the Launcher.
2. Select an item in the Library palette.
3. Click the trash icon or press Delete.

Deleting a library item removes the item from the library, but doesn't change the content of any documents.

MODIFYING A LIBRARY ITEM

Library items can appear on more than one template or page in a site. When you modify a library item, you then have the option of applying the changes to all occurrences of the item throughout the site, regardless of the template on which the item appears.

You can also make a library item editable in the current document, and break the link between the item in the document and the library. When you make a library item editable, the changes you make to the item affect the current document only.

To modify a library item in a template:

1. With the template displayed in Dreamweaver, select the library image you want to modify. The Property inspector indicates the source file for the selected library item.
2. In the Property inspector, click Open to open the library item file.
3. In the library item document window, select the object in the library item you want to modify and do one of the following:
   - To modify selected text in a library item, enter the new text.
   - To modify a selected image in a library item, insert a new image.
4. With the library item file active in Dreamweaver, choose File | Save.
5. In the Update Library Item dialog box, click Update to apply the changes to all occurrences of the library item in the site.

To make a library item editable in the current document only:

1. Select the library item in the document.
2. In the Property Inspector, click Detach From Original.   2000

The Morning Muse

Reserved for on-site requests

One of the most valuable aspects of less structured presentations is how agile we can be with them. If a lot of you are asking the same questions at the Help Center, we'll create a workshop on that topic. From Tuesday through Friday, the first session each day in the Corner Pub will be devoted to a topic that you have requested. We will take input from the previous day and post the daily topic before breakfast that morning.

How Did They Do That?

Turnkey VENTURA at Nicholas-Applegate

When one of the largest investment consulting firms in downtown San Diego called on us to assist with an upgrade from VENTURA 4.2 to 8, we were excited. When we learned of the scope of the project, we were mortified. What if we set everything up right and the program fails? What if the program is up to the task but we design the system poorly? So many variables! This session chronicles the four-month process of converting to VENTURA 8 a publishing department that produces over 200 proposals each week. We could probably do an entire two days just on this case study, but instead we'll fit into the hour such topics as:

❏ Four chapters down to one publication, 128 tags down to 30

❏ Sharing stylesheets, graphics, text, and tables

❏ Keeping text external—clear as mud

❏ The chief strategy: How do you sculpt an elephant? You chisel away everything that doesn't look like an elephant…

This session is for advanced users.

Turning the Key:
Nicholas-Applegate

"WE USE several chapters for each book so we can get around the 128-tag limitation."

It was then that it became clear to me that this would be a substantial project. It was then that I knew that this would not be a simple conversion.

Nicholas-Applegate Capital Management is one of the premier investment consulting firms in the country, and they are based here in San Diego. They also are one of the more prominent VENTURA houses around, producing over 200 publications each week, all with VENTURA. This was not completely by chance—when NACM hired Jorge Jiron to lead the graphics department, he was fresh off of a six-year stint with Ventura Software, Inc., the Xerox subsidiary that was in charge of Ventura Publisher. Jiron knew the program about as well as anyone, and he formed his team at NACM around that expertise.

But with NACM's success came the need to produce more proposals, more client portfolios, and more reviews. Jiron and company were barely able to tread water, let alone swim upstream a bit to see what the potential of the software offered. Before long, they found themselves three versions behind, using Ventura 4.2 for all of their work. It is a credit to the software that it could hold up to such extreme demands, and a credit to the people using it that they could improvise so cleverly. But the strain was evident. Convoluted stylesheet schemes, elaborate template control, non-existent tag management, and an interface that only allowed one file open at a time—it was like seismic pressure building up, heading to an inevitable release.

NACM is an ambitious and focused company, but its wheels turn at a decidedly corporate rate. It

Figure 1
If developing a new process required that I understood the current one, then I was to be in big trouble.

Current Process

took Jiron almost a year of persistence until his supervisors agreed to review the graphics process and bring it up to the modern age. Jorge contacted me for assistance, but it all had to be done through proper channels, and my first contact was with an administrative liaison who all but spoke a different language. Figure 1 shows you how the current process was described to me; if you understand any of it, you are a better person than I. Nonetheless, the mission was clear: To go from the morass that is Figure 1 to a turnkey system whereby the software all but reads minds to deliver a finished book. My job was to get as close to mind reading as was possible.

Once we cut through all of the bureaucracy, Jorge and I spent an entire day reviewing the current process, and it was then that I began to see what he and his team were going through. Some of you may not even be able to remember back to Ventura 4.2…

- You opened chapters, not publications. There was little that organized individual chapters into a larger unit. That was your job.
- You were limited to 128 tags in a stylesheet, and with no tag overrides available, it was easy to chew through tags. NACM needed three individual stylesheets to create each 50-page book.
- Sharing elements was next-to-impossible without drag-and-drop and MDI capability. Jorge and company worked around this by running multiple copies of Ventura under NT, but it was a far cry from today's Navigator and libraries.
- No scripts, no customizable interface, no page tags, primitive frame tags, limited color palettes, no color calibration.

Jorge was delighted when I told him, "Moving to VENTURA 8 will cut your time in half, even if we don't change your workflow process at all." He was not nearly so happy with me when I also told this to his superiors. "They're going to hold you to that, you big dummy!" Indeed, the bar of expectation was raised quite high, and I had only one month…

The Publication

Our first focus was the prospectus that NACM representatives take with them to meet with prospective clients. The company offers dozens of different portfolios, and each prospective client fits a particular type. But within that type, there are countless permutations. Therefore, each book contains a bit of standard text and graphs, customized charts and tables, various disclosure statements, and then more boilerplate.

Figure 2 on the next page shows a sampling of pages from a typical book. When the marketing team feels that a specific emphasis is warranted, it asks the graphics team to create a custom book. And because Ventura 4.2 is not modular (i.e., it does not allow you to take bits and pieces of a publication and move them around), custom books needed to be built essentially from scratch.

Each of the pages in Figure 2 could potentially be customized for a particular client type. That means that Jorge and his team needed to have many different versions of graphics available, track several text file "one-offs," as they liked to call them, and keep careful watch over each units.

Adding to the complication was keeping straight when a change was for a particular client, for a category of clientele, or for the entire organization. We devoted an entire day to determining those variables, after which I still didn't totally get it.

THE STRATEGY

But what was becoming clear was the undeniable notion that this project needed a library of elements—a reservoir from which the graphics team could pluck out the various elements asked for and assemble them into a book. The key word here, of course, is *library*, and I began the mission with the firm notion that we would build libraries of elements. We would determine:

- Which parts of the book would never change—those would be placed into a template publication.
- Which parts of the book would be assembled from customized parts or from one of several variations—those would be collected in a library.

Figure 2

Nothing so complicated about these pages, except for the
fact that any one of them could change at a moment's notice.

Figure 3
Ordering off the
menu—libraries are
perfect for this type of
project…almost.

Friday

11:15am

Figure 3 shows the fruits of this effort with the *Emerging Growth* book, one of over three dozen specific client proposals that NACM creates. In Navigator, you see the permanent parts of the book; in the corresponding library, you see the parts of the book that are ordered *a la carte* off the menu, if you will. In other words, for each book, the marketing team asks for a specific variation of the customized pages, and graphics picks the appropriate chapter out of the library.

Like showing a cellular phone to scientists of a century ago, you can only imagine the kind of reception this technique drew. When I first showed this to the team, jaws were dropping all over the floor, as I effortlessly dragged pieces of a publication from the library into Navigator—each one taking its rightful place, page numbering accurate, formatting in place.
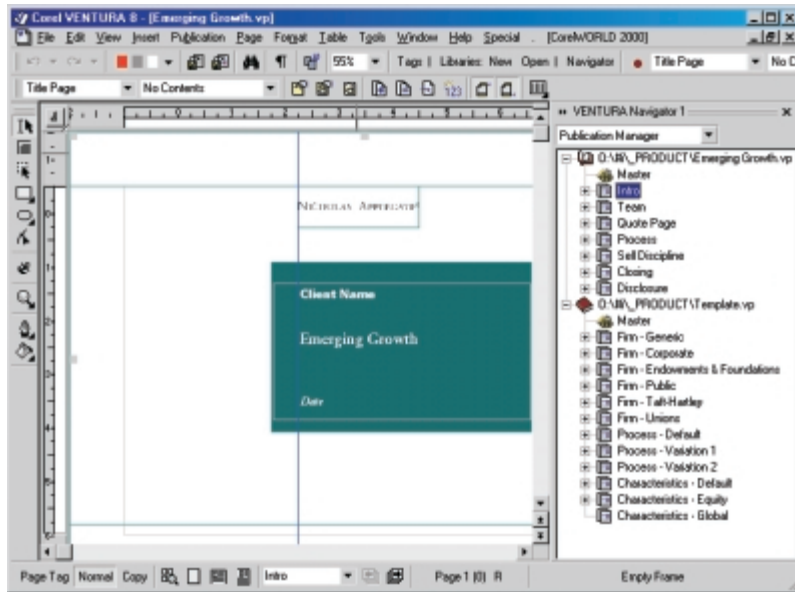
Remember, this group had never dragged and dropped anything—they were forced to build the book as one entire chapter (until they ran out of tags and had to build a second chapter, with a second stylesheet). When they first saw how modular a VENTURA 8 project could be, they were amazed.

It was a most impressive demo, and Jorge asked his superiors to watch. To simulate the process, we asked the marketing team to pick a few variables, we dragged and dropped them from the library into a fresh copy of the template, and five minutes later, the book was done. It was revolutionary. It was dramatic. It was incredible.

It was also a total failure.

Alas, we learned something very important about VENTURA's libraries through this process. The chapters stored in the library contained frames that hold external text and graphics. These external files are crucial, as they maintain the global links to text that is organization-wide. When, for example, the three criteria for divesting of a fund become four criteria, it is crucial that every element referencing those criteria be current.

Well, guess what—while frames with external graphics behave just fine, frames with externally-linked text lose their links during their journey through a library. Whenever we dragged a chapter from a library into a publication under development, the text automatically became embedded. This was a dangerous failure, because it required close inspection of the file in Navigator to even see that anything was wrong. The demo

Figure 4
You can drag and drop from a second publication just as easily as from a library, but we were no closer to solving the puzzle.

Hah! I learned very quickly that linking text files through a library is the electronic equivalent of a house of cards: If I leaned the wrong way in my seat, VENTURA might crash. Or lose the link…and then we're back where we started. I learned many things throughout this project, and one of those lessons was not to link text files through the library.

TAKE THREE

Okay, so VENTURA's Library function wouldn't work for this project. Never mind that we had used the word "library" about a thousand times during briefing sessions and never mind that our original demo evoked emotions on par with the Beatles' appearance on the Ed Sullivan Show. The most important factor was a strategy that worked, which we didn't yet have.
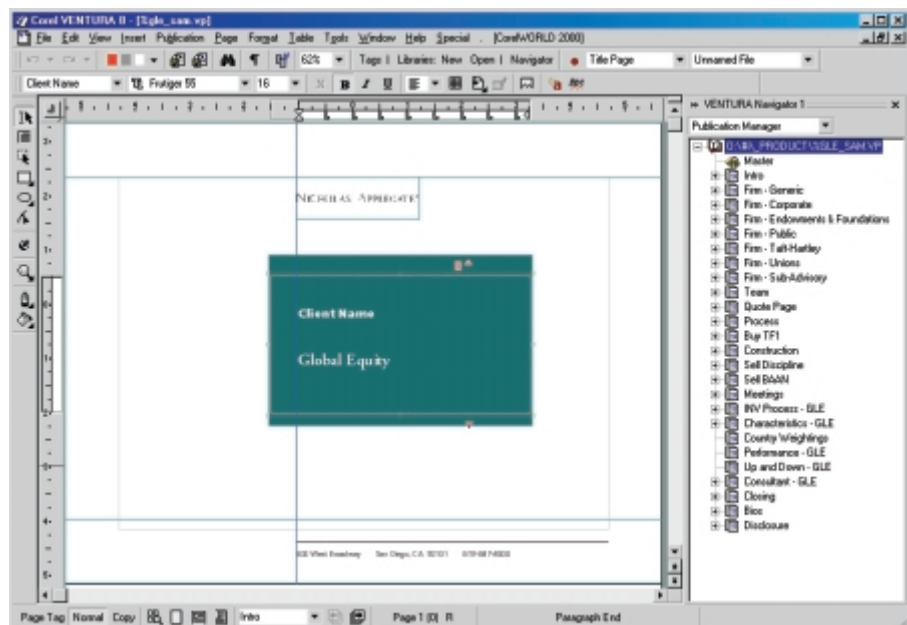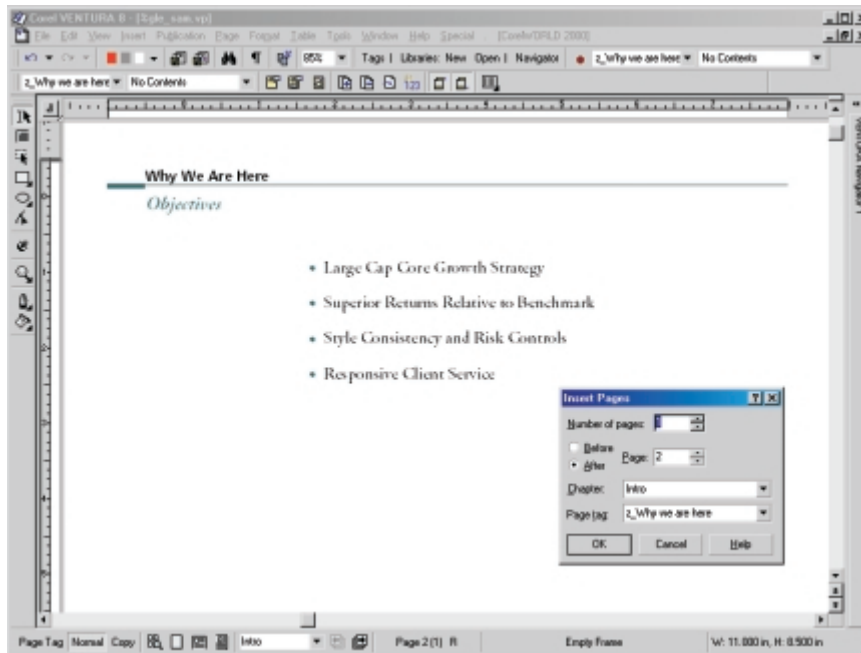
Figure 4 shows Take Three—instead of dragging and dropping from a library to a publication, we would do it from one publication to another. The template.vp file is essentially identical to the library in Figure 3—the

looked great, and the text came in just fine, with the correct filename and everything. But with its external link lost, catastrophe awaited the first time that boilerplate text was updated.

TAKE TWO

Still sold on the idea of using libraries, I worked almost 24 hours straight one day investigating alternatives. I concocted elaborate schemes for linking text files and tables through library files, so that they could be updated globally within VENTURA. I disregarded the warnings of colleagues that linking text files through a library is problematic. What was the big deal—after all, I linked the stylesheet through a master library, to be used by every publication in the organization. This should be much easier.

Figure 5
Everything, and the kitchen sink

the publication boundary was the poison in the drink. They had to stay in the same pub.

And then the light bulb came on. I instantly thought of the old saying about how a sculptor creates an elephant, by chiseling away everything that doesn't look like an elephant. What if we created gigantic templates, with every conceivable permutation built in. Five "Firm" chapters, three "Process" chapters, four "Characteristics" chapters. Instead of dragging in the chapters that are to be used, we remove the ones that weren't to be used. Figure 5 shows what the starting point would look like.

Each finished book would contain only about six chapters, but those six would be culled from the boneyard you see in Figure 5. One Firm chapter…one of the Sell chapters…either Process or Characteristics, Performance or Up and Down…and some with Consultant included, some without it. Deleting unwanted chapters is not nearly as dramatic as a drag-and-drop, but we completely eliminated the issue of lost text links. And each chapter was set with page numbering of N+1, so the book would always stay paginated and chapters could be rearranged at will.

Thanks to VENTURA 8 and its modularity, a book that required two hours and careful editing in 4.2 could now be done in 15 minutes, sometimes less. And you can bet that caught the attention of the higher-ups, libraries or no.

Other Tactics

We made liberal use of many of VENTURA 8's other features, the likes of which had not been seen at all by this group. In particular…

PAGE TAGS

Even something as simple as a landscape page in a portrait book required a separate chapter and style sheet for the NACM group in the bad old days. With V8, however, a few well-crafted page

Figure 6
Page tags can carry content as well as formatting, and that comes in handy for occasional-use pages such as this one.

chapters simply reside in a publication instead of in the library. They drag and drop just the same.

Unfortunately, they do *everything* the same—including lose their text links. When you drag a chapter from one publication to another, text files that were previously saved externally are automatically embedded.

You can only imagine our frustration, being so close, only to be tripped up by one snag. On more than one occasion, I was tempted to shout, "Just forget about the links—who cares if the text is inaccurate!" Good thing the suits didn't hear; I would have been out on my ear.

How Do You Sculpt an Elephant?

I explored the use of a script that would restore the links lost during the transfer, but there was a line in the sand of complexity that I could not cross. This team of nine publishers had never laid eyes on VENTURA 8, and they would be expected to continue, and exceed, the pace they were originally at. No scripts, no automation, no magic.

But there were those damn text links. The only way the links would stay live was if the text stayed in the same publication. Dragging across

tags completely dismissed tasks that were otherwise quite tedious. Half of the books, for instance, required a page immediately after the title that discussed the objective of the meeting. This so-called Why We Are Here page was the perfect opportunity for a page tag. When the page is required, one need only issue the command shown in Figure 6.

VARIABLES AND CONDITIONS

Many of the items that required careful customizations with 4.2 were such arcane items as client names, dates, asset values, and number of people working on a portfolio team. While NACM could have used Ventura 4.2's Variable Definition function for this, it works much better in V8, and we made extensive use of it. (You can see in Figure 3 "Client Name" on the title page—that and about a dozen other references pivot on one variable.) There is also a collection of fine print in the back of the book that is either used or discarded, based on various conditions. How nice it is to always have the content there and be able to turn it off with the flick of a Condition switch.

Figure 7
Four elements become one, with V8's advanced table and frame formatting.

Killing Many Birds

Ventura 4.2 formatted tables pretty well, but not like V8. And while the Box Text function allowed the overlaying of text atop graphics, it doesn't hold a candle to V8's ability to place text and graphics in the same frame, or to group two or more frames.

Figure 7 shows off both of these features. This table is designed to look like a piece of torn paper (we'll debate the aesthetic value of this later…), and in Ventura 4.2, it required four frames—one each for the angled headings (which were created as graphics), the table, the torn paper graphic, and the footer text (which was actually placed in a frame footer, but for all intents and purposes, that is a separate element).

But now it could all be housed in one frame. First, the angled header is simply the first row of the table, thanks to V8's Skew Row function. And the footer is nothing more than the final row of the table, with ruling lines hidden. The torn paper graphic is loaded into the same frame and shifted upward until it sits at the correct position. One frame, four elements.

So Fewer Tags

It's ironic that V8 could have easily handled the problem of a publication requiring more than 128 tags—with V8, far fewer tags are required to get the job done. Thanks to tag overrides, page tags that contain formatting, better rules, and more versatile shading, you just don't eat through as many tags as in 4.2.

When Jorge uttered the now-famous quotation that leads this article, I bet him a lunch that we could get inside 128. He accepted, and my conscience has been bothering me ever since. It was really an unfair bet; it would have been even money if I bet him that we could get by with *half* the number of tags. And indeed, this publication, even with very few paragraph overrides used, now comes in under 60 tags.

Jorge made the bet before learning VENTURA 8's feature set, but a bet is a bet—I think we'll do George's by the Cove in La Jolla… 2000

Cheaper by the Dozen

Recycle code, pages, and sites with FrontPage

Tired of re-inventing the same old wheels, our FrontPage maven developed a cookie-cutter approach to develop more than 20 sites for the same client. The client, a printer, needed pages that customers could use to order personalized stationery items—business cards, letterheads, envelopes, and notepads.

Bill was working in Perl to develop a site with a shopping cart, but the printer wanted a preliminary site that customers could start using immediately. Some of the techniques he developed for this series of sites have found their way into sites for other clients. They include:

❏ Re-using standard JavaScript routines

❏ Setting up a Web site template

❏ Speeding development with global search and replace

This session is for FrontPage users who need to automate Web page development.

The Recycle Truck Comes to the Web

RECYCLING isn't just for newspapers. When I had to set up several dozen similar Web pages for a client, I used recycling to speed the process. Instead of inventing each site from scratch, I used a combination of graphics, external JavaScript, HTML files, and templates. Along the way I found some other tricks that can be applied to more general Web site development.

The client is a print shop (the name has been disguised here to protect the client's business and the client's customers) that wanted to allow its customers to place orders on the Web for business cards, stationery, and other personalized and generic items. I'll call the client BlueBird Printing.

The printer installed a server at their location. Our recommendation was that they use a co-hosted system because it would provide 24/7 monitoring and redundant connections to the Internet, but that's another story.

The sample company we'll take a look at is the Big Ugly Test Company— BUTCO.

Each customer is given its own directory on the server so that those who order personalized items will see only the items for their company. Some of the printer's customers want orders to be processed on a server with a Verisign certificate and some want their directory protected with a user ID and password, so these are implemented as needed.

When an order is received, the server generates a confirming e-mail message and stores the order information in a MySQL database. The database, under Perl script control, creates input files for a Mac-based publishing program that shall remain nameless (but I can tell you that when anyone says the name, I think of a duck).

This is not an article about Perl or MySQL, or even about the integration of this Linux-based application with the printer's Unix-based Progress database that creates invoices. I mention them to illustrate the scope of the project. Each component was developed independently, and the other developers were adamant that my HTML and JavaScript work with their Perl, databases, and Progress. In other words, they wanted consistency. That was my primary goal at first—consistency, not speed. Faster development was simply a welcome byproduct of developing a development plan.

Let's start with the key players on my team in the recycling game, and why I decided to use some

Figure 1
BUTCO on the Web

and let others sit on the sidelines. I'll take you through my development process for a sample site.

The printer insists (and rightly so) that I not discuss in detail the Perl script that operates the site or the database schema. Neither of these is essential to understanding the procedures I've established to develop the Web sites. Think of them as "black boxes" that accept input, do something with it, and return output.

Style Sheets

I decided to use style sheets even though some browsers implement them improperly, because they make global changes easy, just as they do in VENTURA, Word, or WordPerfect. I could have used a FrontPage theme (which relies on style sheets), but wanted to maintain the ability to migrate the sites away from FrontPage.

Some style sheet attributes, particularly those that deal with spacing, aren't handled right by Netscape prior to version 6, but the display errors don't create serious problems. Netscape 6 (still in development, but available as a public beta when I wrote this article) seems to provide solid style sheet implementation.

Because style sheet attributes that a browser doesn't understand are simply ignored, the risks involved in using style sheets are minimal and the added control afforded for browsers that do understand them is substantial.

Using an external style sheet (and calling it the same thing for every site) makes a consistent site-to-site appearance easy to maintain. While it would have been possible use a single style sheet for all customer sites, I decided not to do that because the link reference would be ugly and I wanted to have the option to make site-specific changes as needed.

Common Data Elements

Field names from the Web site must be matched to fields in a MySQL database and those fields are then exported to the publishing program that reminds me of the sound a distressed duck makes. I create the HTML. A second person creates the field names for the Linux-based database. A third person generates the publishing templates. Information from the order header

(billing and shipping information) must match to a Progress database created by a fourth person.

Using "name" for one site, "card_name" for another site, and "name_to_print" for a third site (and it's incredibly easy to do something like that) would create no small amount of distress for the printing company's employees. Since the client is located about 2,000 feet from my office, it seemed reasonable to avoid stress by using standardized data element names.

Virtually every business card has at least these fields: name_to_print, title, address_1, city, state, postal_code, main_phone, main_fax, and email. The company name and company Web site are often part of the template and need not be submitted by the Web ordering system. Other common fields for business cards include department, address_2, direct_phone, direct_fax, mobile_phone, and pager.

These data element names are identical to those used in the MySQL database, except that header data elements include the prefix "header_" and detail data elements include the prefix "detail_". The Perl script deals with those differences.

When the elements are passed to the printing program, they get new names that identify them by text block, step-and-repeat position, and front or back of card. Only a few of the printer's client use two-sided cards.

Validation, or Why Not to Use FrontPage's Code

FrontPage can perform data validation whether or not it's running on a server with FrontPage Extensions. It does this by maintaining internal information as comments and then by generating JavaScript (or VBScript) when pages are uploaded to the server.

I chose not to use FrontPage's validation for several reasons. The most compelling reason is the sheer bloat of FrontPage's JavaScript. A page with 10 to 20 validated fields will grow by tens of thousands of bytes. While that's not much for users who access the Internet via a corporate LAN, a cable modem, or DSL, it could be significant for BlueBird customers who still have dial-up connections.

Second is my concern that FrontPage's validation procedures, while surprisingly flexible, are not flexible enough. It's not possible, for example, to have FrontPage check the length of a field unless that field is mandatory. Some customers have optional phone number fields, so I don't care if the fields blank, but if something has been filled in, I want to ensure that the entry is seven characters long. Custom JavaScript validation could also check to be sure that the phone field's entry consists of three digits, a dash, and four more digits—nothing else. E-mail addresses are often optional; but if they're present, they need to be checked to confirm that what's entered at least looks more or less like a valid address.

My third reason for ruling out FrontPage's data validation was the consideration that the sites might someday migrate from FrontPage to Dreamweaver. That is, in fact, exactly what has happened. Because validation didn't rely on FrontPage, the migration process was much easier than it might have been.

JavaScript—External and Internal

Two external JavaScript files (submit.js and validate.js) do most of the heavy lifting. Submit.js and validate.js are the same for every site. Each page that requires page-specific validation has some internal JavaScript. An HTML template file that's a starting point for each site includes skeleton JavaScript that validates the fields most of the printer's customers use for business cards. In some cases, the skeleton script is used exactly as is, while for others it's modified to fit the customer's needs.

The skeleton script validates name, title, address_1, city, state, and postal_code fields, because it's reasonable to assume that every business card will have these fields and every company will want this information to be mandatory. For order header information, the internal script confirms that all components of the mailing address have been filled in, along with the name and e-mail address of the person who is placing the order. The e-mail address is used later by the Perl script to send a confirming e-mail message. In some cases, the header validation refuses to submit an order if the person placing the

order doesn't provide a cost center or other billing code that the printer's customer wants to use to track costs.

I wrote the validate.js file, and the database engineer who developed the MySQL components and the Perl scripts that run the database wrote the submit.js file, which simply runs a Perl script and passes the script some information about what to do.

Common HTML Files

Each site has several standard HTML files: cancel.html (displayed if the user cancels the order), checkout.html (displays the contents of the shopping cart and allows the user to fill out billing and shipping information, to continue shopping, or to cancel the order), confirm.html (displays after the order has been submitted successfully), error.html (of course, the user should never see this because our HTML and Perl scripts are all perfect), index.html (the standard entry point), order_cards.html (the starting point for card orders), and order_template.html (used to create ordering pages that cannot reasonably be adapted from order_cards.html).

By maintaining a template directory and duplicating this directory as the first step of creating a customer site, I eliminate the need to create an identical directory structure and files time after time. A complete list of what's in the template directory is below in "Putting it all together with a template directory."

Common Graphics and Standard Sizes

Nearly all customer Web sites have a standard BlueBird graphic at the top of each page; the only exceptions are a couple of sites that were developed prior to development of the MySQL database. Those sites have retained their previous appearance. In a few cases, BlueBird's clients have asked that the ordering site appear within a frame on their intranet, so the appearance has been modified to suit the client; the underlying HTML, JavaScript, and Perl script remain the same.

The template's Images directory contains the standard BlueBird banner and the standard (add, cancel, continue, check out, and submit) buttons.

Each site has illustrations of the printed items the company buys from BlueBird—business cards, letterhead, envelopes, labels, and such. Each illustration is provided in two sizes—a small image that appears on the order page and a larger image that opens in a separate window if the user clicks the small image. For smaller items, the scroll bars are eliminated.

At the request of BlueBird's president (and against my recommendations) we assume that every user has a computer with 24-bit color and a monitor that's at least 800 x 600 pixels. Based on those assumptions, I established a list of standard sizes for various products. The large views of large items, such as letterhead, are too long for the screen, so the display window includes scroll bars.
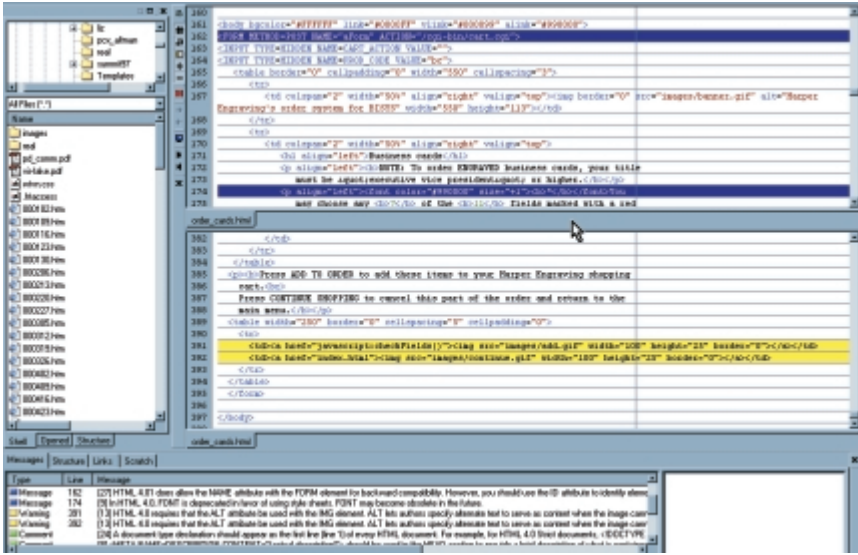
Site-Wide Search and Replace

The HTML title and a headline on each page consist of the customer company's name. Because a few pages are served by Perl, those pages need a "base" reference in the HTML's Head section. To make global search and replace possible, these are coded as #CLIENT# and #BASE# in all template files.

I'll explain this further in the "Putting it all together with a template directory" section.

Helper Applications

FrontPage and Dreamweaver are both powerful applications, but to avoid using a screwdriver when I need a hammer, I've added some other tools to my toolbox.

The hyperlinks in this article will take you to Web sites where you can download the most recent versions. There are also trial or shareware copies of many of these programs on the Conference CD.

Figure 2
Validation is an important part of Web site development.
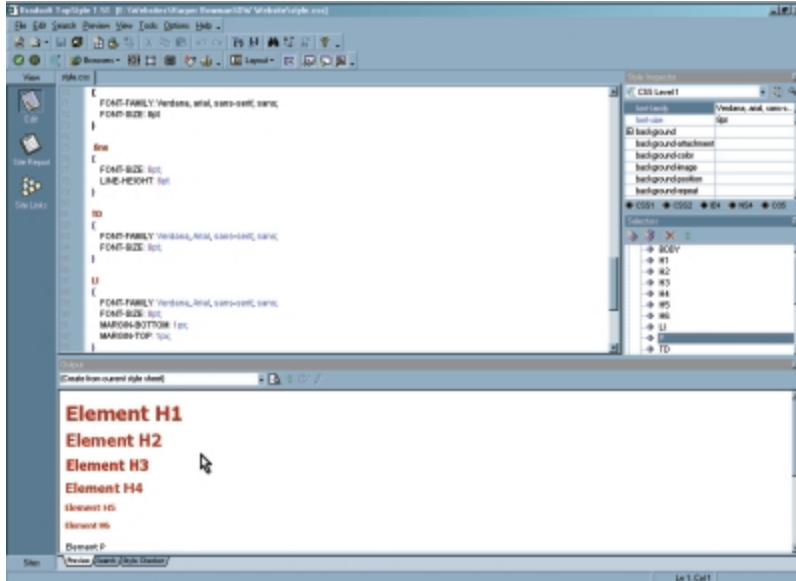
CSE HTML VALIDATOR

Browsers are forgiving. Too forgiving, probably. When they encounter bad coding, they just ignore it. Generally, they figure out what you wanted to do and do it. But HTML standards are becoming stricter. Within a few years, bad coding will probably generate error messages.

Now is a good time to make sure your HTML is correct, clean, and compact. HTML Validator from AI Internet Solutions is my favorite application for HTML analysis. It's available as a free version or as a more capable professional version. The free version omits link checking, a built-in HTML/text editor, a batch wizard, better syntax checking, and some other high-end features.

HTML Validator reveals mistakes that might otherwise cause your visitors some problems, and classifies these mistakes in order of severity—comment, message, warning, or error. Comments and messages can be ignored; warnings and errors indicate serious issues that should be resolved.

For example, if you insert an image but omit the ALT tag, you see the warning: "[13]. HTML 4.0 requires that the ALT attribute be used with the IMG element." ALT lets authors specify alternate text to serve as content when the image cannot be displayed. Use ALT=" " when alternate

Figure 3
Validation isn't just for
links and site structure.

the standards you feel are most important. Comprehensive summaries include errors, warnings, and comments that allow you to fine-tune the style sheet.

Most of us write for current versions of Netscape and Microsoft browsers, meaning that we must forego certain style options. But the Web designer who is preparing an intranet site for users who all have a specific browser can tell TopStyle to validate for that one browser.

If you use cascading style sheets, TopStyle is a necessity. Go to bradsoft.com/topstyle/index.asp and download the program. It's shareware. After you've decided that you can't live without it, TopStyle will cost you just $50.

text is not appropriate, such as when images are intended to format a page.

Correct HTML makes Web pages better and more accessible. I can recommend HTML Validator without reservation. For more information, see http://www.htmlvalidator.com/.

HTML TIDY

HTML Tidy is a free program, but it runs only from the command line and sometimes it makes mistakes when it tries to fix faulty HTML. While it's free, HTML Tidy's functionality is limited when compared to a program such as HTML Validator.

HTML Tidy can help with bloated HTML files from Microsoft Word 2000, though. It fixes some problems and alerts you to other problems that it recognizes but can't decide how to fix.

Tidy's greatest advantage is that it works with Windows, DOS, UNIX, Mac, and virtually every other operating system that's in use today. For more information, see http://www.w3.org/.

TOPSTYLE

Style sheets should be validated, too. TopStyle (Figure 3) is a multi-function program that helps with style sheet generation, and then tests the resulting style sheet to confirm that it conforms to
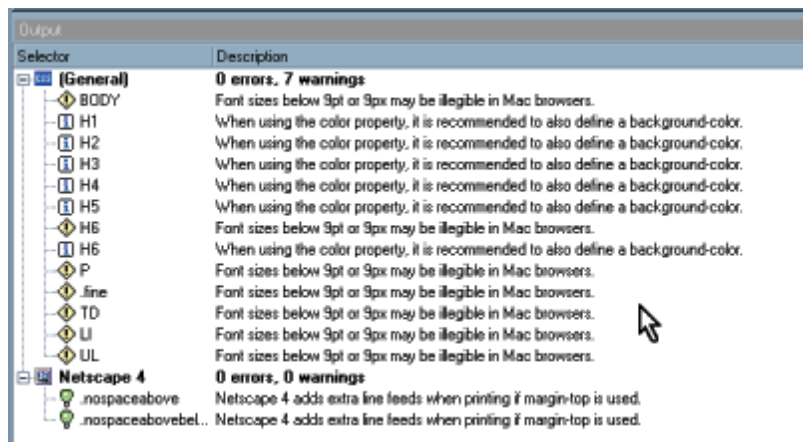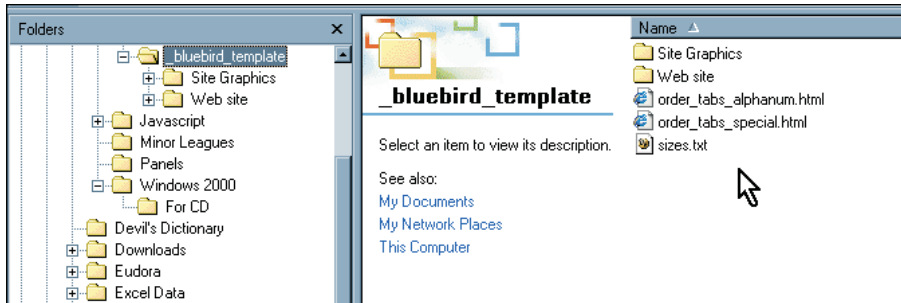
ULTRAEDIT

This has been my favorite ASCII (and hex) editor for close to a decade. It's quick. It's easy to learn. It color-codes text for virtually every programming language known. And it's capable of performing search-and-replace (including "regular expressions") for any open file or files as

Figure 4
TopStyle can generate
browser- and platform-
specific error messages.

Figure 5
The BUTCO Web site template

well as for all files matching a specific pattern in a directory or multiple directories.

Download the shareware copy from http://www.ultraedit.com/.

ABSOLUTEFTP AND CUTEFTP

FrontPage includes a "publish" function and, if you're using FrontPage Extensions, it's critical that you use FrontPage to upload the site. If you're not using the extensions, or if you're using an editor other than FrontPage, you may need a File Transfer Protocol client. I like both of these FTP clients. They offer similar functions, including the ability to resume failed transfers, and synchronization to ensure that local and server files are identical. The primary difference between the two programs is their user interface.

AbsoluteFTP: http://www.vandyke.com
CuteFTP: http://www.cuteftp.com/

Note that the shareware version of CuteFTP will install an application on your computer to download ads that display when the program is running. Some people don't like this.

ALLAIRE HOMESITE

Sometimes it's helpful to open the raw HTML file and examine it. Front Page and Dreamweaver both include raw HTML editing, or you could use UltraEdit. HomeSite is still a more powerful option. In fact, Dreamweaver ships with a full version of HomeSite.

At first glance, HomeSite looks like an old-fashioned plain text HTML editor, but it also offers a WYSIWYG design mode that compares favorably to FrontPage and Dreamweaver. If you're learning JavaScript, you'll find HomeSite's script templates and wizards useful and educational. HomeSite includes a code validator,

but works seamlessly with HTML Validator if the installer finds it on your computer.
HomeSite is uncommonly helpful when you really need to get under the hood and tinker. For more information, see http://www.allaire.com/.

Putting it All Together With a Template Directory

The key to speedy development is the directory structure template that lives in the print shop directory on (E:\Websites\bluebird\). It's named "_bluebird_template" (the leading underscore ensures that it'll be at the top of the list). When I'm ready to start a new site, I copy and rename the directory. Since I'm showing you the Big Ugly Test Company, the directory will be called "butco" and the printer's customer will log onto http://www.blue-bird-printing.com/butco/. (The site is on the Conference CD, but it doesn't exist on the Internet!)

With a single act, I create containers for all the files that will appear on the site or will be used in its development – and even some of the files:

```
E:\Websites\bluebird\butco
        order_tabs_alphanum.html
        order_tabs_special.html
        sizes.txt
        Website (directory)
                images (directory)
                        add.gif
                        cancel.gif
                        checkout.gif
                        clear.gif
                        continue.gif
                        std_banner.jpg
                        submit.gif
```

```
            view.gif
        cancel.html
        checkout.html
        confirm.html
        error.html
        index.html
        order_cards.html
        order_template.html
        style.css
        submit.js
        validate.js
    Site Graphics (directory)
        Original (directory)
        Working (directory)
                10-env-border.tif
                11-env-border.tif
                12-env-border.tif
                9-env-border.tif
                card-border.tif
                monarch-env-border.tif
                monarch-lh-border.tif
                std-lh-border.tif
```

The HTML template files all contain <TITLE>C#CLIENT#</TITLE> in the Head section and <h3>#CLIENT#</h3> at the top of the Body section. The pages that will be served by a Perl script (cancel, checkout, confirm, and error) include a base reference: <base href="http://orders.bluebird.com/#BASE#/">. If this is omitted from the pages served by Perl, the HTML won't be able to find its graphics.

UltraEdit's multi-file search-and-replace feature is a time saver, but beware. This is a powerful tool that can rip through hundreds of files in a minute, and it's totally unforgiving. There is no undo for search-and-replace when it's applied to a

directory. I use this feature to replace all instances of #CLIENT# with the customer's name (Big Ugly Test Company) and then to replace all instances of #BASE# with the customer's directory name (butco). In just a few seconds, I have a series of starter files that contain the customer's name and directory information.
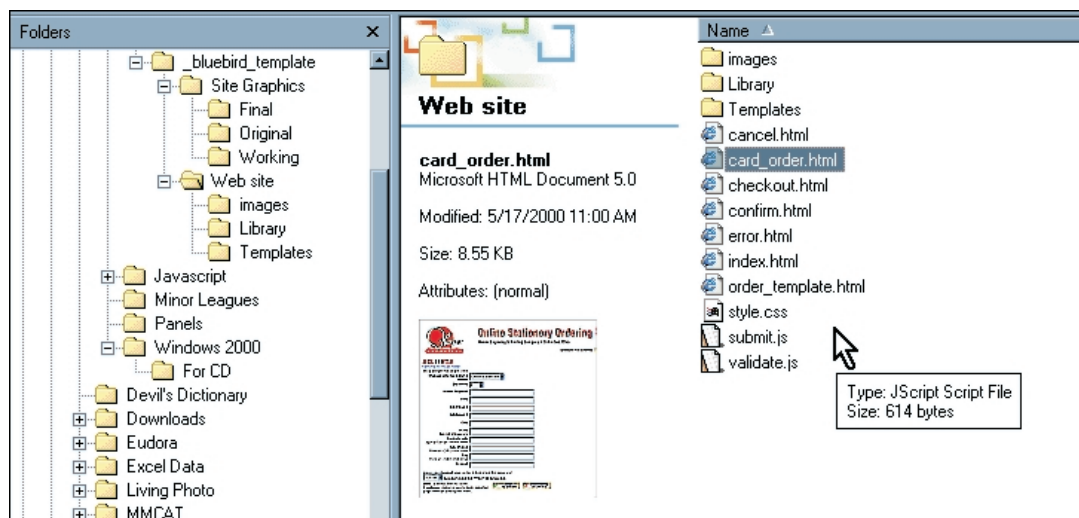
Each page also includes a link to the std_banner.jpg file, that puts BlueBird Printing's logo at the top of the page. The logo is 750 pixels wide and includes a warning that the site has been developed for monitors at least 800 x 600. I usually recommend against doing this, but BlueBird's president insisted.
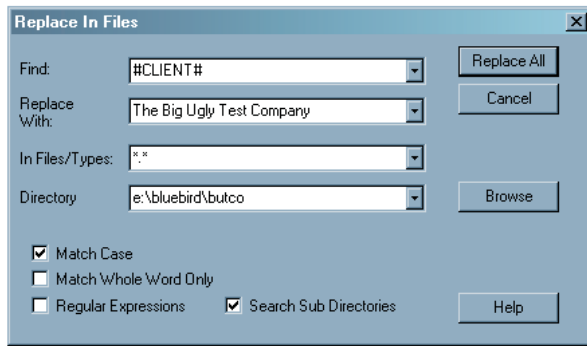
The next step is to create sample graphics that display the items the customer will order. I use standard sizes for these graphics. Large business card samples are always 500 pixels wide and 285 pixels tall, and small samples are reduced to 175 x 100 pixels. The smaller image is a clickable link that (with a little JavaScript help) opens a new Windows that contains the larger image.

CorelDRAW files (and occasionally PHOTO-PAINT files) go in the Working directory under Site Graphics. Finished images to be used on the site are exported to the Images directory.

Because the sites all have white backgrounds and many companies use white stationery, I've created a series of grayscale TIFF images that consist of nothing more than a

Figure 6
Creating files and containers

Figure 7
Helping the HTML file keep track of its graphics

2-pixel-wide 50% gray border—one at full size for each printed product. While I could save a little disk space by keeping these files in a common location, I feel that the small amount of space I would save (less than 10KB for all the files) is less important than the convenience of having these files in my working directory.

Each site begins life with an order_cards.html file, because virtually every client orders business cards. Business cards have more data elements than any other product, so using the business card page as a starting point creates a page that can be saved with another name (order_letterhead.html, for example) and then edited to remove fields and validation code not needed for the letterhead. This recycling within recycling saves a surprising amount of time.

The final steps involve using CSE's HTML Validator to ensure that the code is clean. If the style sheet has been changed (so far, it never has been) it will be checked with TopStyle.

When the printing company's employees set up the BUTCO account on the Unix and Linux systems, we submit and review test orders. Once we're satisfied that the site is functioning properly, it's released to BlueBird's customer for use.

How You Can Use Recycling

You can use these techniques even if you don't create cookie-cutter sites for printers. After I developed the process to simplify project development, I found that I could adapt some of the procedures to other sites.

Every site I create will probably have my copyright notice with a link to my site. Every site

will include meta tags in the HTML Head. Every site will have an index.html file and an Images subdirectory. Outside the Web site directory, there will be a Site Graphics directory with Original and Working subdirectories. These skeleton components are all included in a template directory (less extensive than BlueBird's template directory) that I duplicate and rename at the beginning of each project.

Some meta tags change from site to site, of course, but having even an empty tag in place not only eliminates the need to add the tag but also serves as a reminder for me to add the meta-tag values.

The result: Faster and more consistent development. Oh…and fewer errors! 2000

Go Deeper

You will find the files used in Bill's presentation here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\web\cheaper.

C_TECHniques

Database Publisher

Corel's volunteer support team will be in the Help Center throughout the conference, and each day, one of its members will lead a panel discussion and demonstration about a particular topic. These sessions will take place right before lunch on Monday, Tuesday, Wednesday, and Friday. Check the Help Center bulletin board for updates on topics. Currently scheduled for Friday:

❏ Database Publisher: The basics, and beyond, with VENTURA's powerful partner for formatting raw data

These sessions are for users seeking an introduction to the particular topic scheduled for that day.

COREL WORLD 2000

Nirvana with Navigator

Making the most out of publication management

The Navigator is the heart of VENTURA. Whether you are creating simple documents or complex publications, you invariably end up using Navigator. This session will go beyond the basics and explore other, sometimes hidden, uses of this tool. We will investigate using the Navigator to:

- ❏ Externally link text files

- ❏ Display linked file locations

- ❏ Tame multi-chapter publications

- ❏ Work with page tags

- ❏ Create and manage Table of Contents and Index entries

- ❏ Update markers and cross-references

This session is designed for intermediate to advanced users who want to maximize their use of the Navigator.

COREL WORLD 2000

Finding Nirvana with Navigator

IF THERE is one tool you need to master in Ventura 7/8, it's the Navigator. In addition to its basic use for arranging the components of your publication, this feature allows you to compose publication elements, page tags, tables of contents, indexes, scripts, and cross-references.

An Overview of the Navigator

The Navigator displays the contents of any opened documents using a tree-like structure similar to Windows Explorer, providing a quick way to move around your publications and to perform common procedures. Up to five Navigator windows can be open at the same time, each with a different display option showing. You can open and import files, move within and between your publications, and maintain tables of contents and indexes.

Figure 1
A sample Navigator window, displaying two opened publications and their components

Navigator Option...	Displays...
Publication Manager	All open publications, as well as all the text files and pictures they contain
Table of Contents	The table of contents file and all entries for each open publication
Index	The index file(s) and all index entries for each open publication
Markers/ Cross-references	Cross-references and cross-reference markers contained in all open publications. Navigator indicates which cross-references and markers are unresolved.
Page Tags	The page tags in all open publications and the picture files they contain
Scripts	All externally saved scripts and all internal scripts for open publications

Icon See

Here is a list of some Publication Manager icons displayed in the Navigator window, and what each indicates. Right-click the Navigator and select Navigator Properties to show full paths for external files and filename extensions.

- An open, but not active publication
- A stylesheet
- A chapter
- An embedded text file
- A linked text file
- An embedded picture file
- An external picture file
- A missing external picture file

Externally Linking Text

By choosing to externally link your text files in the publication, you can edit the text outside of VENTURA with a word processor. Any changes you make to the file appear the next time you open the publication.

External linking is achieved through the Export on save command. VENTURA lets you export to ASCII, ASCII 8-bit, ANSI, or RTF. Set the default options in the Publication Properties dialog box (Publication | Publication Properties, Text Defaults tab). For RTF, you can also select markup options for the text file (Figure 3).

Export on Save offers a choice of the following file export locations:

- **With Publication:** Saves to the same folder where the publication is stored.
- **Use Original:** Saves to the folder where the imported file originally resided.
- **Other:** Click the Browse button to set the location of the file.

To export text when saving:

1. Do one of the following:
   - Select the frame or page in which the text is placed, right-click, and select Text | Text File Properties.
   - Activate the Navigator window, right-click on the desired text file, and choose Text File Properties.
2. In the Text Properties dialog box, enter the desired filename in the New Name box and click Browse to select the desired folder in which to save the file.
3. Check Export on Save.
4. Choose the desired format in the Text Format list (i.e., RTF or ASCII). If needed for RTF, click Options.
5. Click OK.

   Note: You can also check Export on Save in the Import Text dialog box. This option appears at the bottom of the dialog.

You can also export text files individually to ASCII, ANSI, or RTF formats, with or without the markup codes. Select File | Export Text.

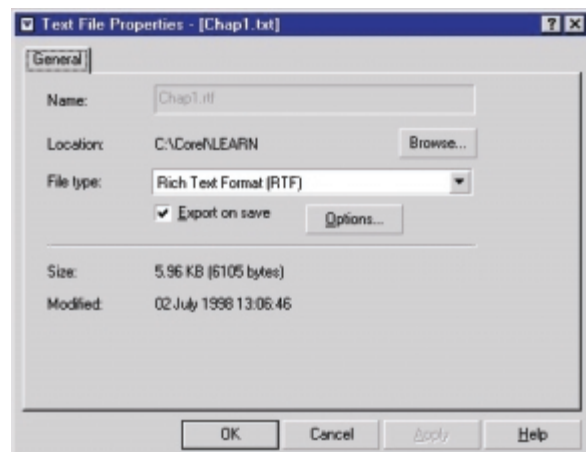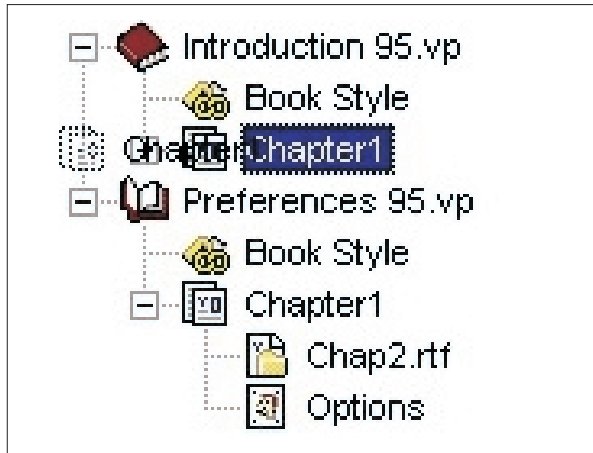To make all text files in the current publication linked externally, run the Enable

Export On Save script
(Tools | Corel SCRIPT |
Run/Manage Scripts).

Figure 3
The Options button for RTF offers a choice of markup options.

Creating a Multi-Chapter Publication

Most simple publications contain only one chapter. However, in the case of long documents such as technical manuals and books, you may need to add multiple chapters within the same publication. You can

Figure 4
The Export On Save dialog box for externally linking text files

add either a new chapter or add an existing chapter from another publication.

When you add an existing chapter from another publication, all its component files (text, graphics, and page tags) are added as well. If the publications use different headers and footers, a new page tag is automatically created for each one.

Each chapter you add is placed at the end of the publication. To re-arrange the chapters, drag the chapter to the desired location in the publication. To quickly go to a chapter, double-click the chapter listed in the Navigator.

Here are some reasons you may want to create a multi-chapter publication:

- Document requires separate chapters (e.g., one for Table of Contents, one for Introduction, and so on)
- Header and footer require a separate chapter number reference
- Manageability

To add a new chapter to a publication:
1. Make sure the publication you want to add chapters to is currently open.
2. Activate the Navigator and right-click on the Publication name.
3. Select New Chapter.
4. Type in a name for the chapter.
5. Save and update the publication.

Figure 5
Drag the chapter from one publication to another within the Navigator to copy it.

To add a chapter from another publication:
1. Make sure the publications that you want to copy chapters from and to are currently open.
2. Activate the Navigator, drag the chapter from the source document, and drop it on the destination publication's filename.
3. Save and update the publication.

Paragraph tags in the source document that don't exist in the destination document appear in the Tag list, but assume the properties of Body Text. To correct this, use the Tag window and import the tags.
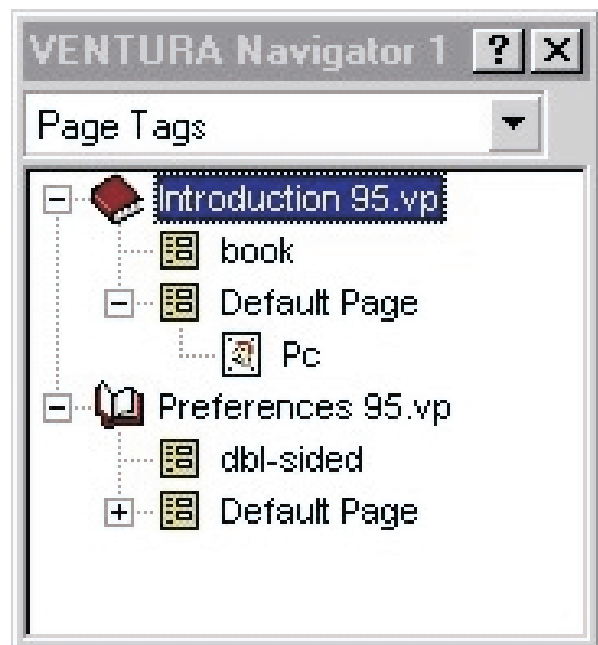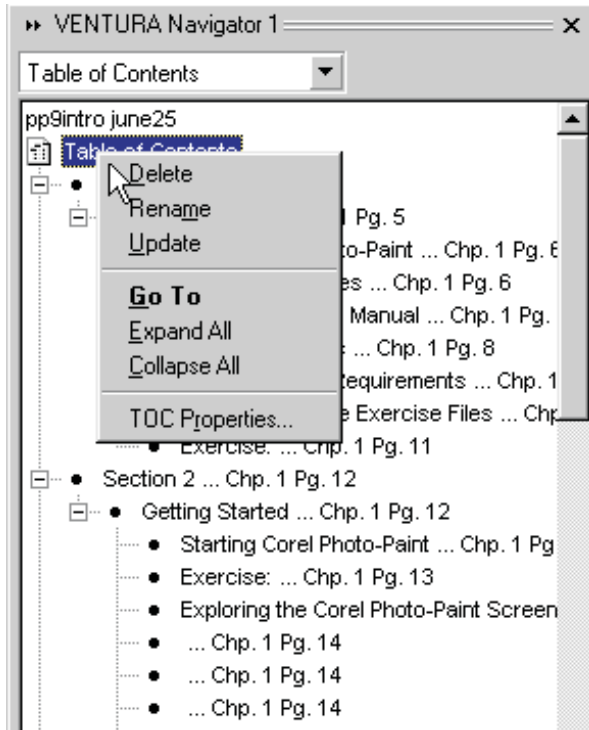
Working With Page Tags

You can work with page tags directly in the Navigator. Select Page Tags in the list at the top of the Navigator window.

To add a new page tag:
1. Select Page Tags in the list at the top of the Navigator window.
2. Right-click on the publication name and select New Page Tag.

Figure 6
A sample display of the Page Tags option in the Navigator. Note the available page tags, and the graphics contained within each.

Long Document Features

The Navigator also includes Table of Contents, Index, and Markers/Cross-References view options. The Table of Contents view displays the table of contents file and all entries for each open publication. The Index view displays the index file(s) and all index entries for each open publication. The Markers/Cross-References view displays the cross-references and cross-reference markers contained in all open publications. The Navigator also indicates which cross-references and markers are unresolved.

Tip: To quickly go to a reference, double-click it. in the Navigator.

Creating Table of Contents and Index Entries

You can also use the Navigator to create a new Table of Contents or Index. Choose what you would like to work with in the list at the top of the Navigator, and right-click the publication. From the pop-up menu, choose either New Table of Contents or New Index. Without the Navigator, you would select Publication | Table of Contents/Index.
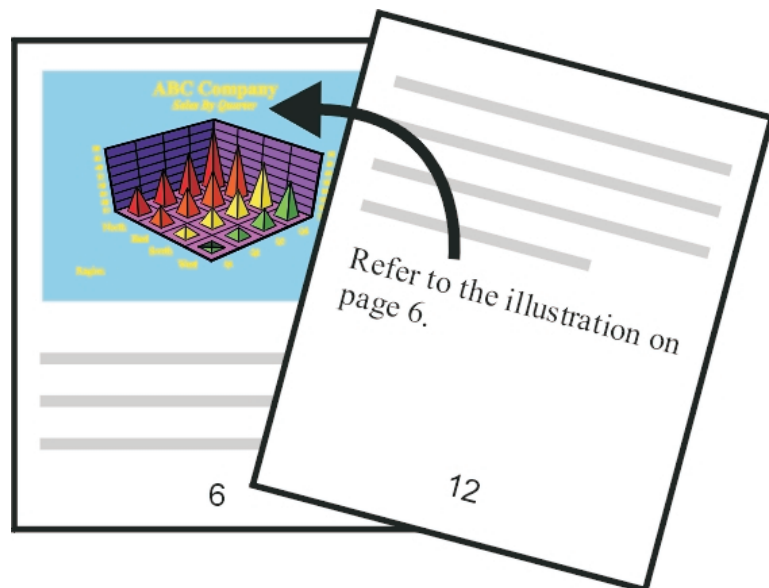
3. Modify the page tag properties as desired.

    To delete a page tag:
1. Select Page Tags in the list at the top of the Navigator window.
2. Right-click on the Page Tag in the Navigator and select Delete, or click on the Page Tag icon and press Delete.
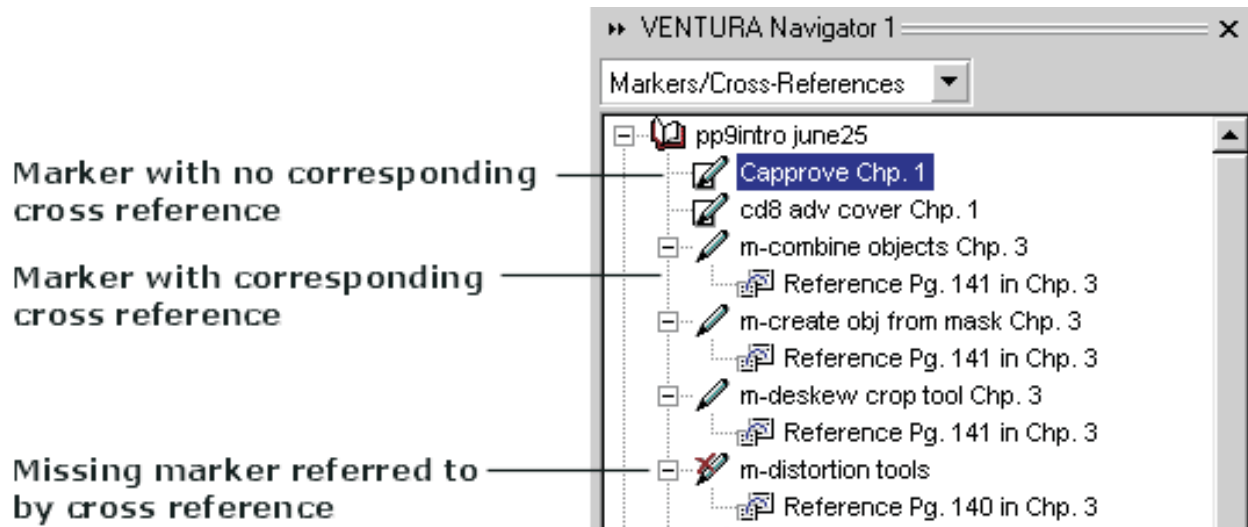3. Click OK in the Delete Page Tag dialog box.

To delete graphics on a page tag:
1. Select Page Tags in the list at the top of the Navigator window.
2. Right-click on the Page Tag graphic displayed in the Navigator and select Delete, or click on the graphic icon and press Delete.
3. Say Yes to the "Are you sure?" prompt.

Figure 8
An example of a cross-reference to a
frame on a previous page

Marker with no corresponding cross reference —

Marker with corresponding cross reference —

Missing marker referred to by cross reference —

Figure 9
Markers, cross references, and missing pairs listed in Navigator.

Navigator is an especially powerful way to work with these features after they have been set up. For example, to quickly update a TOC, right-click the publication in the Navigator and select Update (or for Indexes, click the Update button at the bottom of the Navigator).

Right-click and choose Expand All to expand all sub-levels of the TOC and Index (Figure 7). This provides you with a roadmap of your entries, much like bookmarks in an Adobe PDF file. Now you can double-click any entry in the Navigator to jump to that location in the publication. No more need to scroll or use the Go To command.

Updating Markers and Cross-References

Creating cross-references requires three steps:

1. Place the marker code in the desired text or name the frame (Frame Properties dialog box, Placement tab).
2. Move to the desired location and insert a cross-reference code.
3. Update autonumbering (Ctrl+F2)

Once you've created cross-references, you can use the Navigator to visually see the marker and corresponding cross-reference and determine whether there are any missing links. Missing links are indicated with an "X" on the marker icon. If

you find any, double-click the missing icon to go to that code within the publication and make any edits necessary. In most cases, the cross-reference refers to a marker that no longer exists.

Be sure you click the Refresh button at the bottom of the Navigator to update the Markers/Cross Reference list. If you don't, VENTURA will falsely indicate no markers or cross-references when in fact they now exist.

To understand the Navigator is to understand Corel Ventura 7/8. Think of it as the control center when creating your documents. Not only does it list the components of the publication such as the stylesheet and chapter elements, but it also allows you to display Table of Contents, Index, and Markers/Cross-Reference elements. Also, you can use the Navigator to drag and drop document elements from one publication to another. One great tool, one heckuva work horse! **2000**

VENTURA and the Web

From .vp to .html

One of the biggest challenges facing electronic publishers today is maintaining the integrity of a document as it moves from print to the Web. Anyone who has dabbled with HTML knows the issues and problems associated with that. VENTURA Publisher has two uncommon strengths in this area: rendering an accurate page to HTML, as well as publishing an entire document. This presentation brings these two capabilities to center stage. And who better to discuss this subject than Allan Shearer, former Product Development Manager for VENTURA. Topics will include:

❏ HTML vs. CSS

❏ VENTURA's Publish to HTML options

❏ WYSIWYG formating without frames or tables

❏ Tips, tricks, and gotchas

This session is for anyone interested in publishing VENTURA documents as HTML files for the Web.

COREL WORLD 2000

*.VP to *.HTML for the WWW

PUBLISHING to the World Wide Web has taken the computer world by storm, and VENTURA Publisher is an ideal tool for the job.
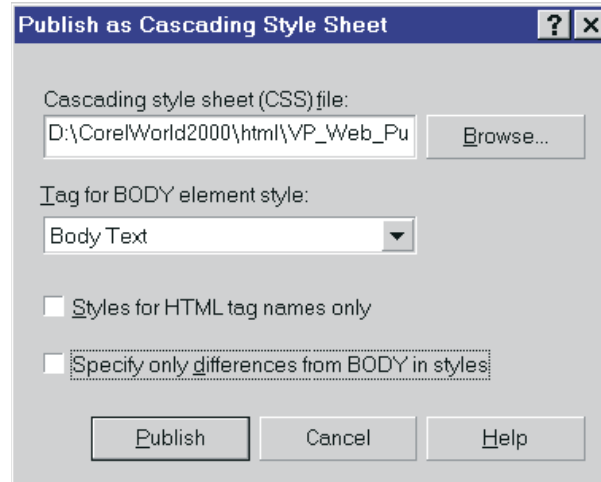
There are two main options to choose from when publishing your VP document to HTML format, CSS and HTML

CSS (Cascading Style Sheets)

Publishing as CSS simply generates a CSS file which you can later use with other HTML files. Essentially, when you publish using this option, you won't really see anything happen, but a *.css file will be created on your hard disk. You can view and edit this file in a simple text editor (Notepad, Wordpad, etc.) if you wish. Here's an example of what your CSS file may look like:

```
</STYLE>
{};/* This dummy style is needed for linked
stylesheets. Otherwise, the first style is
rendered incorrectly. */
P
{
font-family : Times New Roman;
font-size : 12.00000pt;
font-style : normal;
font-weight : normal;
text-decoration : none;
text-align : left;
3text-indent : 0.00000in;
color : #1f1a17;
};
</STYLE>
```

This is an example of just one style (the CSS counterpart to VENTURA's tags); normally you'll see more styles than what you s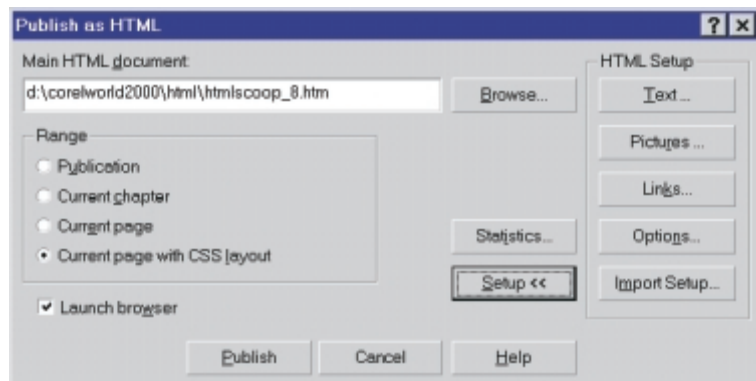ee above. In this case, when a paragraph uses the P tag, it will inherit all of its properties such as Times New Roman, 12 pt, Left align, etc. This saves a considerable amount of HTML coding…and re-coding. If you wish to change one property of a tag, simply edit it in the CSS file and the HTML files (which point to this CSS file, or which have this CSS file embedded) will automatically reflect the changes.

Figure 1
The Publish as Cascading Style Sheet dialog

HTML

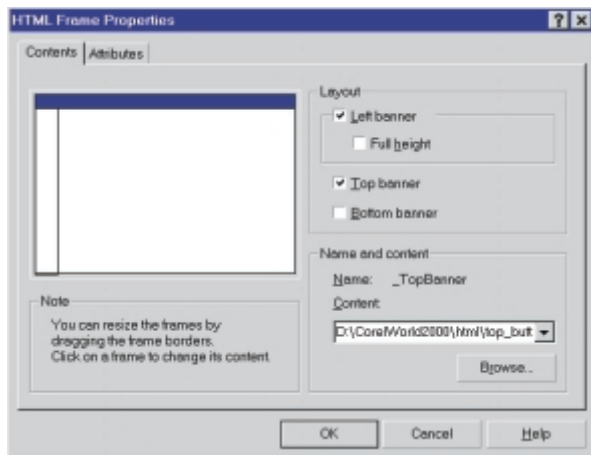Publishing as HTML offers you a number of routes to take. You can publish the…

- Publication
- Current chapter
- Current page
- Current page with CSS layout

Figure 2
The Publish as HTML dialog

PUBLICATION

By default, this will publish your entire publication—including Table of Contents, Index, multiple chapters, etc—to a set of HTML files which are linked together and displayed in frames in your browser, thus offering a navigation view to your publication. You can customize this quite a bit, choosing whether to use frames at all, whether to publish the Table of Contents or not, etc. Use the dialog shown in Figure 3 to assign the properties of the Top, Left, and Main frames.
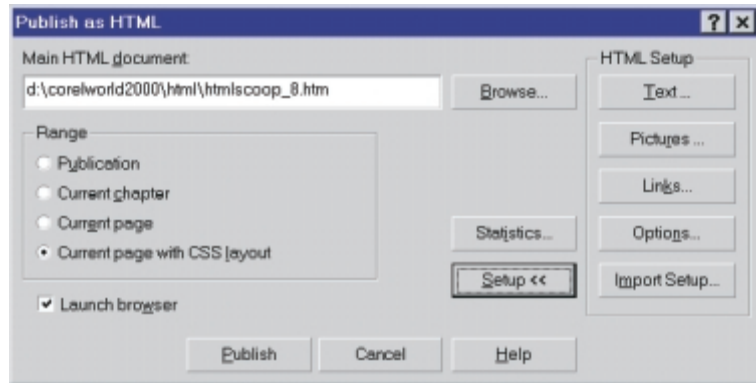

Figure 3
Publishing the entire publication allows you to use HTML frames.

CURRENT CHAPTER

Allows you to publish all of the pages in the chapter at once. You will not be able to define frames as you could when publishing the entire Publication.

CURRENT PAGE

Publishes the current page. This option allows you to use CSS, but not "CSS with layout." The difference is obvious in the end product. I would consider this option "basic" output, whereas

Figure 4
Using the Current page with CSS layout option

"CSS with layout" will allow you to publish a page which looks very similar to the way it did in VENTURA.
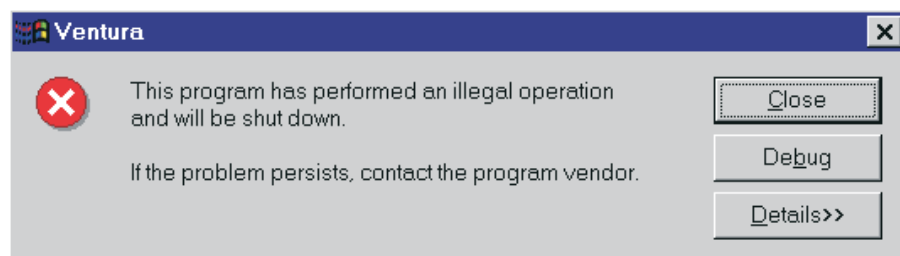
CURRENT PAGE WITH CSS LAYOUT

While this last option will only let you publish one page at a time, you may be surprised at just how well it works, at least as far as giving you true WYSIWYG output without the standard loss of control. For instance, you can wrap text around an irregular shaped object, have multiple columns of text, and much more, all without having to use tables and/or convert your text to images. This is all due to the usage of the HTML SPAN command/tag.

As with all VENTURA-related subjects, there are tricks and shortcuts that ease the process of using the Current page with CSS layout publishing option. Here are a few that I've discovered.

■ Convert your images to GIF rather than JPEG, particularly if you're trying to wrap text around an irregular-shaped object (or

Figure 5
Not an unusual result from the Browse button

any object that's not a rectangle). If you use JPEG images, the background become opaque, and the text wrapping around the object will be blocked out by the rectangular shape of the object's background. However, if you choose GIF, the image's background will be transparent, allowing the text flowing around the object to display quite nicely.

■ Beware of the Browse button. Actually, this applies to most Browse buttons in VENTURA's HTML Publishing options, with the exception of the Browse button in the main Publish as HTML dialog, which seems to have been fixed.

If you click the Browse button to locate a file—to browse to a linked CSS file, for example—you may be in for an unpleasant surprise with you close the Browse dialog. So your tip is: *Type* the path/filename for the file you were going to locate using the Browse button. Don't use the Browse button unless you really have to, and even then, make sure you save your work before you do so. I found it handy to use the Start | Run dialog in Windows, where I would drag and drop the file I

want into the Run command line, then copy and paste this path/filename into the appropriate window in VENTURA's HTML Publishing dialog. This ensures that you get the accurate path, that you don't have to tediously type it, and that you avoid the Browse button and the pain that it can inflict.

- VENTURA's justify paragraph alignment doesn't seem to do anything when publishing to HTML with CSS…at least this is the case with a single page using the CSS layout option. If you're happy with left-aligned, use it instead of Justify.
- To avoid generating hundreds of images, make sure your filled objects (solid fill, fountain fill, etc.) are *images* before you publish to HTML. This way, a single image can be output (even linked to, in the case of external images), rather than a whole bunch of generated GIFs or JPEGs.
- You may find that the Indent value applied to CSS styles does not reflect the same value that you had set in VENTURA. In particular, you may notice this if you have paragraph with an indent *and* a first line in/outdent. A single value will be used, and may not be precisely what you were after. Simply edit the CSS file afterwards and assign the appropriate value.
- While there may not be a specific Script command for automating the publishing of a Single page using CSS layout, you can still script the operation. However, you must publish the page manually once first. After you've done that, the Script command .FilePublishAsHTML will remember the last used settings, and will use these (whether you like it or not!). That means you can write a short script to publish ALL pages using the CSS layout option, rather than having to repeat the process manually for each page. It's still not a perfect solution, but it's a definite time (and frustration) saver.
- If you find you're crashing every time you publish to HTML, try exporting the text that's on the page you're trying to publish, and re-import it onto the same page, and try again. I spent hours trying to nail down a particular crash, only to find out that it mysteriously went away when I tried this. That tells me that

somewhere in the text stream was a character which was causing the crash, and upon re-importing it, that character disappeared. I could not see the character, but I knew by process of elimination that it was there. Try it…it might just help!   2000

Go Deeper

You will find several finished examples and practice files here on the Conference CD. Use the built-in navigation aids on the corelworld.htm page, or navigate your way to \files\ventura\vp2html.

The Script Shop

Turbo-charging VENTURA with automation

Corel SCRIPT is a utility that you may never have used unless you are into programming. But this little gem can make life a lot easier, even for a non-programmer. Automation need not solely rely on programming; recording can, in many cases, work just as well. This session will show you how to use SCRIPT once you have recorded a few actions in VENTURA. But it will also go beyond that, by showing you how you can create your own scripts, and how you can add interactivity with self-constructed dialog boxes. Highlights include:

❏ Recording macros

❏ Exploring Corel SCRIPTs

❏ Modifying a recorded macro

❏ Script writing basics

❏ Creating a dialog box

❏ Your reference: The Help file

This session is meant for experienced VENTURA users.