GEMS Upgrade from Version 1.2 to 1.3

Current Version: 1.3.0 (February 1,2000)
Previous version: 1.2

This GEMS release deals primarily with:
- Bug fixes
- New meta data standards
- Filtering report routine upon completion of a map project
- Minor changes to accommodate Cartographic Digital Standards (CDS) version 2.2 (documentation due out soon)
- New GSC shadeset and how to upgrade to it from existing symbol numbers
- New commands and enhancements

All patches for version 1.2 have been incorporated in to this release.

A quick thank you to all that submitted errors and bugs. If you have submitted a bug to me via email then it has been fixed in this upgrade. Please continue to provide bugs by trying to recreate the error and record the event in a watch file with echo turned on, then email the watch file as an attachment along with a general description of the error.

Of Immediate Importance To You

Before upgrading GEMS, please exit GEMS and any Arc/Info session you may have open.

Meta data information has been enhanced to include support for various other types of maps, and to support the ArcPlot TITLEBLOCK and CITATION commands. It is important that after upgrading to the latest version of GEMS, the meta data information be updated to reflect the changes as listed below. Generally this will imply ensuring the map number is correct, changing information from uppercase to upper/lower case, ensuring that information entered corresponds to language and bilingual settings, selecting appropriate provincial coverage, checking and including information if publication is associated with other maps, and updating list of primary and secondary authors, and cartographers to new naming format.

The legend info file has the items BEFORE and AFTER replaced with YOUNGER and OLDER. In addition, the item PATTERN has also been added. These changes will be applied automatically when initiating an edit on the legend info file.

The filter report is complete, and must be executed at completion of the map project. This filter will note any discrepancies in the data, particularly between the symbolizing and coding items. Conditions that are checked for are listed below.

A new shadeset has been created allowing for more percentage combinations between cyan, magenta and yellow printing colours. Usage of symbol numbers are explained in the graphics file (gsc/support/gsc_shd.gra). This graphics file can also be plotted or converted to other formats for plotting. The new shadeset is called GSC.SHD and replaces the previous file which has been renamed to GSC_OLD.SHD. Symbol numbers from the old GSC shadeset can be updated automatically by executing the archived AML newgscshd.aml while in ArcEdit.

Known Bug Fixes

Arc Module

- Process Geology with Watermask did not kill a temporary cover when completed.
- Files in sub-workspaces listing as "1, -20"- rather than actual name when creating Meta Data ASCII file.
- Undefined variable error when trying to copy an info file using the Info File Management menu.
- Deleting a record using the menu to edit the legend info file caused a FATAL ERROR, terminating Arc/Info and deleting all records from in the info file. This is a know ESRI bug involving the CURSORs command. The Delete button now executes correctly with a workaround solution using INFO commands.
- French information in the legend info file for bilingual maps not being saved when applying entry.
- Modifying items from Cartographic Digital Standards menu corrects incorrect item definitions but leaves item values blank.
- Creating shape files form the Cartographic Digital Standards menu did not include the legend, level and figure info files.
- After processing geology with watermask cover, any extra info files associated with the geology cover (i.e.: .LEG, .LVL, .AXT or .PXT) did not exist in the newly created GEO cover.

ArcEdit Module

- Unable to put tics to another cover. ArcEdit was waiting to respond to the query "Do you want to append <Y/N>" but you we're unable to respond, ending up in a loop.
- Selecting features using the Same button prompts for two selections when an item is specified.

ArcPlot Module

- TITLEBLOCK command not recognizing GRS1980 spheroid.
- When using the legend COVER command to plot arcs without specifying a symbol or item, previous AP commands used to establish the symbol were being taken into effect.

What is New!

Meta Data Information

Meta data information displayed in the menu as been altered with additional fields to accommodate other types of maps, the TITLEBLOCK and CITATION ArcPlot commands, and the departments geo-data warehousing initiative. The help document from the Meta Data Information menu provides guidelines for entering data into each field.

- The map number should contain only the numeric digits. The cover suffix will be created based on the map number, map type and if any map sheet number exists from a series.
- Information entered in each field must be in upper/lower case as it would appear in the recommended citation. The TITLEBLOCK command will plot the required fields in upper case.
- Fields used by the TITLEBLOCK and CITATION commands must be entered in the specified language. For bilingual maps, entries must be separated by a forward slash with no space on either side.
- Default selections for map type and feature can be made by pressing the right mouse button over these fields and selecting the appropriate string. Custom map types and features can also be entered.
- Provinces are selected from a list and are joined automatically for multiple selections and translated to the correct language when plotted by the TITLEBLOCK and CITATION commands.
- An other area of coverage is available should no provinces be selected. (i.e.: Eastern Canada and Parts of the United States of America).
- Related maps must have their workspace names entered in a list. This applies if the map contains only a legend and/or descriptive notes.
- If the map does not contain a legend, the name of the workspace containing the legend must be specified.

- Primary authors, secondary authors and cartographers are entered into a list in the surname, initial format (i.e.: Smith, J.K.). Primary authors are those that appear in the recommended citation, while secondary authors appear only in the credits.
- A range can be given for years of field work and compilation (i.e.: 1997-1999).
- Page dimensions can be specified in inches or centimeters.
- Magnetic declination information must be included as part of the meta data.
- When applying changes to the meta data, an info file GEO<cover_suffix>.META is also created recording meta data and projection information as the first record.

Cartographic Digital Standards

- BEFORE and AFTER items in GEO<cover_suffix>.LEG info file changed to YOUNGER and OLDER. These items will be altered automatically when initiating to edit the info file from the Cartographic Digital Standards menu.
- Item PATTERN added to GEO<cover_suffix>.LEG info file. This item will be added automatically when initiating to edit the info file from the Cartographic Digital Standards menu.
- When processing points, all tics from the selected point covers are deleted and replaced with the tics from the NTL<cover_suffix> cover.
- In the menu to edit the legend info file, a button now exists to load the values of the item CODE from all existing CDS covers. Values that are the same from multiple covers will only appear as a single record/entry. Values that already exist in the legend info file will not be added.
- In the NTL<cover_suffix>.PAT, all items passed the NTL-SYM are deleted. These items recorded the publication projection and were to be used for archiving the map. A simpler method of creating the archive.prj projection file is used now as its replacement. This projection file can be created from the Create a Projection File menu by selecting Archive as the output projection and defining the input projection as the publication projection. By default the file will be called archive.prj.
- The legend ASCII file used to create the legend should be named leg<cover_suffix>.asc (i.e.: leg1234.asc).
- Any plotting AML or menu file used to create the final publication should also be named plt<cover_suffix>.aml or menu. (i.e.: plt1234.aml and plt1234.menu)
- At the completion of a map, creating a filter report checks for the following conditions:
  - compares meta data map number and sheet number with cover suffix
  - checks name of workspace
  - checks that NTL (neatline) cover exists
  - checks for standard and non-standard covers
  The following are checked on all CDS covers:
  - checks for same projection parameters
  - checks tics IDs and coordinates are the same
  - checks that no edit masks exists
  - checks for correct topology
  - checks for dangles in polygon covers
  - checks for label errors in polygon covers
  - checks that geology has been processed with water mask cover
  - checks for required feature attribute tables
  - checks for required items in feature attribute tables
  - checks for correct item definition and structure in feature attribute tables
  - verifies existence of external tables
  - extracts values from item CODE and checks for duplications between covers
  - compares values from item CODE against values form item –SYM, ensuring features are uniformly symbolized
  - checks for existence of legend info file and it is in the latest format
  - compares values of item CODE in legend info file with those from the covers, ensuring all values in covers exist in the legend info file, and vice versa
  - checks for existence of level info file
  - checks that all levels in legend info file exist in level info file
  - checks content of e00s folder
  - checks content of shps folder

- checks for required files
- checks for custom symbolsets and required IGL fonts
- checks for miscellaneous info files
- checks for existence of meta data info file

Arc Module

- Menu for converting DXF files to a cover has been revamped, thus eliminating the error encountered when too many DXF layers exist in a file. Instead if selecting DXF layers and its entities using check boxes, they can now be selected from a scrolling list.
- Conversions between DBase and INFO files.
- Display Columns command added to Info File Management menu.
- Option to include 1:7,500,000 drainage of Canada as part of the NTS index map.
- When creating Postscript or RTL files option to specifying a networked printer when submitting plot file to printer after it has been created. (this primarily effects NT users)
- Routine to copy GSC symbolsets and IGL fonts downloaded with GEMS to your existing Arc/Info symbols and IGL (igl63exe) folders.

ArcEdit Module

- A verification to ensure digitizer is connected before proceeding to use a digitizer. Without this query ArcEdit would hang, thus you would have to terminate your editing session.
- The Calculate Table menu now has the option to automatically list the unique values from the selection item into the input fields. A limit of ten fields exists, however should more than 10 unique values exist a range can be selected.

ArcPlot Module

- TITLEBLOCK command accepts spheroid WGS84.
- The TITLEBLOCK command has been modified to accept the changes with the meta data, as well as adhering to the latest design specifications. Specifically the use of a forward slash to separate languages on bilingual maps and the use of the en dash to join multiple provinces. (i.e.: BRITISH COLUMBIA/COLOMBIE-BRITTANIQUE – ALBERTA)
- New CITATION command plots the recommended citation based on meta data information. The syntax is: **CITATION {page_x} {page_y} {note}**
  Arguments {page_x} and {page_y} specify the lower right corner of the recommended citation note. The text will automatically be positioned to fit the maximum width of the note, which is 3½ ". If no page coordinates are entered, or they are skipped, the recommended citation will be positioned ¾" from the lower-right corner of the current page size.
- The GSCLOGO command incorporates a new shoreline with greater detail, as well as a new colour scheme. The OPAQUE argument will mask any underlying imagery behind the crest. Command syntax is now:
  GSCLOGO <UC | CC | LC | BORDER> <x> <y> {BW | COLOUR | GRAY} {E | F}
  {crest_size} {point_size | NOTEXT} {OPAQUE}
- New GOTO and LABEL legend commands. Syntax for each command is:
  GOTO <name> and **LABEL <name>**
  When plotting a legend using the LEGEND command, if the AML encounters a line beginning with GOTO <name> in the legend ASCII file, all subsequent lines will be ignored until it encounters a line beginning with LABEL <name>, with the same name, or it reaches the end of the legend ASCII file. This works similar to AML directives &GOTO and &LABEL, and the current legend SKIP command yet with greater control.
- The COPIESOF command has Ottawa as an option, rather than always being plotted. The new syntax is:
  COPIESOF <left_x left_y> <right_x right_y> <angle> {E | F | EF | FE} {year}
  {OTTAWA...CALGARY...VANCOUVER...SAINTE-FOY...DARTMOUTH}
  If not city is given as an argument, then Ottawa will be plotted.
- The LOCATIONMAP command by default will not plot the latitude and longitude lines (default argument is now GRIDOFF), and plot the colour of the dot in red rather than black.
- Default flag colour for CNDLOGO and NRLOGO commands is now red rather than black.