**PUBLISHING SERVICES SUB-DIVISION
CARTOGRAPHIC SERVICES SECTION**

**QUALITY ASSURANCE INSTRUCTIONS
CSS-09 On-demand Plotting**

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APPROVED: **September 29, 2005**

**1.0   PURPOSE**

  1.1   The purpose of this document is to describe the activities performed for on-demand
        plotting of products.

**2.0   SCOPE**

  2.1   The scope of this document is to provide an on-demand plotting service for ESS clients to
        produce hardcopy products on various media.

**3.0   RESPONSIBILITIES**

  3.1   Plotter Operator is responsible for having a working knowledge of this QAI.

  3.2   Plotter Operator is responsible for ensuring all necessary steps outlined in this QAI are
        adhered to and the product is released in a timely manner.

  3.3   The designated manager of this QAI is responsible for considering all DCRs and NCRs
        issued against this QAI, writing new instructions when necessary and informing end-
        users of the changes made.

  3.4   The Webmaster is responsible for updating the controlled version of this QAI on the
        Internet in a timely manner.

  3.5   ESSInfo Publishing Services employees and other users of this QAI are encouraged to
        provide feedback to the Quality Management Representative, Production Coordinator,
        and Head Publishing Services on its accuracy, completeness, simplicity, and usefulness
        by issuing a Document Change Request or Quality System Improvement Request.

**4.0 INSTRUCTIONS**

4.1 ORIGINAL FILE SUBMISSION

- The client connects to the On-demand Plotting System website. A user account is required for entry into this website.
- The client must ensure final postscript file is an acceptable format for submission to plotters, refer to the "Submission Info" section of the On-demand Plotting System website.

4.1.1 FILE FORMAT RULES

- The file must be in postscript format with a .ps extension.
- In all cases, use lowercase letters for file names, no spaces or dashes allowed.
- UNIX users can submit a compressed or uncompressed postscript file.
- PC and MAC users can only submit a compressed file.
- If file is compressed, the name of the compressed file must be exactly the same as the uncompressed file. This is case sensitive. (e.g. testplot.zip ~ testplot.ps)
- For compression types and file extensions expected, refer to the "Submission Info" section of the On-demand Plotting System website.

4.2 ARCHIVED FILE SUBMISSION

- The client connects to the On-demand Plotting System Archive website.
- A user account is required for entry into this website.
- Access is limited to GSC Bookstore personnel, Division Coordinators, Head of Publishing Services Sub-Division, Production Coordinator and Plotter Operator.

4.3 AUTO-CHECK USER ACCOUNT

- The system checks if the client has a user account to proceed with the plot submission.

4.3.1 CHECK FOR ACCOUNT TO SUBMIT AN ORIGINAL FILE

- If the client's user account exists, then they can proceed with the plot submission process.
- If the client's user account does not exist, then the client must acquire an account from the Cartographic Applications Specialist.

4.3.2 CHECK FOR ACCOUNT TO SUBMIT AN ARCHIVED FILE

- If the client's user account exists, then they can proceed with the archived plot submission process.
- If the client's user account does not exist, then entry is denied.

4.4 ACQUIRE USER ACCOUNT

- The client connects to the On-demand Plotting System Account website.
- The client fills out the form and submits the information, which is forwarded to the Cartographic Applications Specialist.
- The Cartographic Applications Specialist reviews the request for an account.
- If the request is accepted, the Cartographic Applications Specialist emails confirmation to the client.

4.5 PLOT SUBMISSION

- The client follows on-line instructions supplied at both On-demand Plotting System websites for file submission.

4.6    RIP PROCESS

- The original postscript file enters a generic queue, which monitors three RIP queues.
- The generic queue then submits the file to the first available RIP queue for processing.
- The client can follow the progress of the file by monitoring relevant queues at the On-demand Plotting System website.

4.6.1    PENDING

- If the file is flagged as "pending", this means all three RIP queues are currently busy and the user's file is awaiting an opening.

4.6.2    EXECUTING

- If the file is flagged as "executing", this means it has been submitted into a RIP queue and is being processed.

4.6.3    COMPLETED

- If the file is flagged as "completed", this means it has finished the RIP process and has been submitted into the plotting queue.

4.6.4    FAILED

- If the file is flagged as "failed", this means the postscript file is corrupt or in an unacceptable format

4.7    POSTSCRIPT ERROR

- If the file "failed" in RIP process, the client should check to make sure file format rules outlined in section 4.1.1 were followed and then re-submit the file.
- If the file fails a second time, it is most likely a corrupt postscript file and the client should generate a new postscript for submission.
- If three files fail in any one queue, the RIP program will automatically "halt" that queue, disabling use by others until the Plotter Operator cleans up the corrupt files and re-starts the queue.

4.8    RIP BY-PASS

- Since an archived RTL file has already been through the RIP process, a special by-pass queue is used to submit the file directly to the plotting queue.

4.9    PLOTTING PROCESS

- The RTL output from the RIP process enters a generic queue, which monitors all plotters.
- The generic queue then submits the file to the first available plotter of the client specified width (36" or 54") for plotting.
- If the client specified the use of a paper other than the standard paper used (such as clear film, canvas, photo paper), then the RTL file is placed in a special halted queue. The Plotter Operator will then change the standard paper on a plotter and activates the special queue until empty. The Plotter Operator then replaces the standard paper on the plotter and halts the special queue.
- If an error occurs on any plotter (out of paper or ink), mechanisms are in place for the Plotter Operator to repair the error and re-queue the plot that was in progress.
- Files that are not specified for archival are kept in a holding directory until the plot is delivered, and then deleted by the Plotter Operator.

4.10  DELIVER PLOT

- If the client specified "local pickup", then the plot is placed in a bin outside of Room 440 at 601 Booth Street for the client to pick up at their leisure.
- If the client specified that the plot be laminated, the Plotter Operator will deliver the plot to the laminating room and fill out the appropriate form. The client can then pick up the laminated plot from the out box in the laminating room.
- If the client specified either "ship by internal mail" or "ship by courier", then the plot is packaged and sent to the address supplied by the client.

4.11  ARCHIVE AND STORAGE

- If the client specified the file to be archived, then the system copies the postscript, RTL and parameter files to an archive directory.
- The Plotter Operator updates a list of archived files at the On-demand Plotting System Archive website for future plotting.

4.12  MONTHLY PLOTTING REPORTS

- At the end of each month, the system automatically creates a report listing the number of plots made by each client/division.
- This list is used for cost recovery purposes.

**5.0  REFERENCES**

- On-demand Plotting System website
- On-demand Plotting System archive website
- On-demand Plotting System account website
- Document Change Request (DCR)
- Quality System Improvement Request (NCR)

**6.0   WORKFLOW CHART**

```
┌──────────────┐        ┌──────────────┐
│     4.1      │        │     4.2      │
│ Original File│        │ Archived File│
│  Submission  │        │  Submission  │
└──────────────┘        └──────────────┘
        │                       │
        └───────────┬───────────┘
                    ▼
┌──────────────┐  ┌──────────────┐
│     4.4      │◄─│     4.3      │
│ Acquire User │  │  Auto-Check  │
│   Account    │  │ User Account │
└──────────────┘  └──────────────┘
                          │
                          ▼
                  ┌──────────────┐
                  │     4.5      │
                  │     Plot     │──────────┐
                  │  Submission  │          │
                  └──────────────┘          │
                          │                 │
                          ▼                 ▼
┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│     4.7      │◄─│     4.6      │  │     4.8      │
│  Postscript  │  │     RIP      │  │     RIP      │
│    Error     │  │   Process    │  │   By-Pass    │
└──────────────┘  └──────────────┘  └──────────────┘
                          │                 │
                          ▼                 │
                  ┌──────────────┐          │
                  │     4.9      │◄─────────┘
                  │   Plotting   │
                  │   Process    │
                  └──────────────┘
              ┌───────────┼───────────┐
              ▼           ▼           ▼
      ┌───────────┐ ┌───────────┐ ┌───────────┐
      │   4.10    │ │   4.11    │ │   4.12    │
      │  Deliver  │ │  Archival │ │  Monthly  │
      │   Plot    │ │           │ │  Reports  │
      └───────────┘ └───────────┘ └───────────┘
```