Spool-a-Matic

Enhancement Summary
Licensed Program 2A55SAM V2R4M0

Spooled File Conversion

Edition

Thirteenth Edition (April 2011)

GUMBO
Software, Inc.

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809 W Howe St
Seattle, WA 98119
United States of America
Phone:  206-284-5078
Email:  support@gumbo.com
Web:    www.gumbo.com
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Installation Instructions

Follow these instructions to install Spool-a-Matic V2R4M0 on your System i:

Prepare

If you are upgrading a previous release (if Spool-a-Matic is currently installed on your System i) perform these steps before installing the software:

1. Read the Enhancement Summary to determine if any changes affect your installation.
2. Insure that the product is not in use, as the installation process must clear the product's library. This will fail if objects such as menus are in use. If the installation fails, the previous release will be restored.

Install

Note: If you have downloaded this software from the web, instructions specific to installing from the download can be found in the file "readme.htm" which was included.

1. Sign on to the system as the security officer (QSECOFR).
2. Verify that your machine is at IBM i V6R1M0 or later by running:

    DSPDTAARA DTAARA(QGPL/QSS1MRI)

    Note: If you are running a version of IBM i earlier than V6R1M0 you cannot install Spool-a-Matic V2R4M0 on your machine. You must install an earlier version of Spool-a-Matic or upgrade the operating system.

3. Verify that user domain objects are allowed in the libraries SPLAMATIC and QSRV, by running:

    WRKSYSVAL   SYSVAL(QALWUSRDMN)

    Take option 5 to display the value. If the value is not *ALL, use option 2 to add libraries SPLAMATIC and QSRV to the list of libraries where user domain objects are allowed.

    Note: QSRV is required to correctly process PTFs when they are loaded and applied.

4. Insure that IBM i will be able to verify the signatures that we apply to our product's objects by installing our Signing Certificate and Root CA Certificate using Digital Certificate Manager. Alternately, insure that signature verification will not prevent the restore operation by running:

    WRKSYSVAL SYSVAL(QVFYOBJRST)

    Take option 5 to display the value. If the value is 3 or higher, use option 2 to temporarily change the value to 1.

5. Mount the distribution media in the appropriate device.
6. Submit the Restore Licensed Program (RSTLICPGM) command to batch:

    RSTLICPGM   LICPGM(2A55SAM) DEV(device-name) LNG(2924)

    Note: Where "device-name" is the device the media was mounted on and is usually OPT01.

    Note: During the restore operation, the system operator message queue may receive inquiry message CPA3DE4 "Directory not registered. (C G)". Unless you are using a directory naming convention similar to ours (that is the directory specified in the CPA3DE4's second level text is unrelated to our software), you can safely respond with a "G" to reestablish the relationship between the directory and the product. Typically, the message will occur three times.

Finish

When the RSTLICPGM command completes, library SPLAMATIC and directory '/Gumbo/ProdData/2A55SAM' contain the new software. To complete the installation:

1. If you have an Authorization letter with your permanent authorization code, enter it now.

    Note: Spool-a-Matic automatically grants 30 days usage for new installs or 90 days usage for release upgrades.

2. Determine which PTFs were included on the media by entering the following command:

    ```
    DSPPTF  LICPGM(2A55SAM)
    ```

3. Visit www.gumbo.com to determine if newer PTFs are available. If so, download and install them. The bottom of our PTF web page also includes a listing of any IBM PTFs that affect the product.

    Note: *GUMBO* recommends downloading the current cumulative PTF package from www.gumbo.com after installing the software.

4. You can access the Spool-a-Matic menu by entering the following command:

    ```
    GO  MENU(SPLAMATIC/SAM240)
    ```

Enhancements For Spool-a-Matic V2R4M0

What's In This Section

This section provides information on Spool-a-Matic enhancements for release V2R4M0, notes any customer code implications by marking them with a **COMPATIBILITY WARNING**, and describes where to find more information when applicable.

MCH3601 When DLTSPLF(*YES)

*TERASPACE implementation exposed memory error giving MCH3601 Pointer not set for location referenced when DLTSPLF(*YES). The file was created but the spooled file was not deleted.

Graphic Processor Default Added

IBM's Graphics Object Content Architecture (G:OCA) specification references "graphics processor default", i.e. printer dependant, behavior under certain circumstances. For graphics character precision, Spool-a-Matic has historically used "character precision" as the graphics processor default behavior. As it turns out, most physical printers use the more easily implemented "string precision". Spool-a-Matic's output of graphics text can appear different from printed output.

A new parameter, Graphic processor default (GROPRCDFT), has been added to Spool-a-Matic's CHGSAMDFT command. The parameter allows you to specify which processor default behavior should be used.

All existing installations are treated as if *PRECISION2, or character precision, had been specified and the shipped default value is *PRECISION2. Most graphic objects specify the precision needed to correctly render them, and don't depend on a printer's drawing default. In the case where your graphic object does not specify a precision you can match the default supplied by your printer.

Font Processor Changes

- Previously, when processing fonts specified using DDS' FONTNAME() keyword, only IBM supplied fonts could be located. Now, the search for fonts follows the method used by IBM i, and user supplied fonts are correctly located and processed.
- For DBCS data, font size is ordinarily specified; usually by the QIGCCDEFNT system value. In the absence of a DBCS font specification, a value is calculated based on the spooled file's other attributes. The value calculated resulted in characters that overlapped from line to line in some circumstances. The calculation has been modified to avoid this.
- Horizontal Scale Factor triplet was being applied to GRID specified font mappings in *AFPDS spooled files and shouldn't have been. Most GRID based font mappings don't include the triplet, but those that did ended up with incorrectly sized fonts.

FreeType Changes

- Added functions to open and close font file paths coded in any CCSID.

Graphic Object Processing Changes

- Enable external control of the device default behavior of the graphics processor.

Integrated File System Changes

- An internal table was missing '\' code points for CCSIDs 1130, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1153, 1154, 1155, 1156, 1157, 1158, 1160, 1164, 1388, 1399, 4971, and 5026. As a result, path normalization from '\' to '/' did not work correctly in these ccsids.

National Language Support Changes

- Added new function to open conversion descriptors that track conversion substitution counts.

Logical Printer Miscellaneous Changes

- CRTDEVGLP and CRTDEVGLP check the existence of command STRSEU to determine if PDM is installed and EDTF should be used instead. IBM added a STRSEU proxy command to QSYS so the check was always positive, even if PDM is not installed, causing the commands to fail on machines without PDM. The check is now qualified to library QPDA.

PDF Generator Changes

- Previously, PDF/A implemented the draft standard with regard to XMP metadata similar to Acrobat 7.0. The implementation has been updated to reflect ISO 19005-1:2005 as accepted.
- Media overlays were being placed on the page out of order. Unless there were overlapping page segments or overlays on the page, the misordering had no visual affect. Overlapped resources were presented incorrectly. The order has been corrected.
- IBM Graphic Objects typically specify details of the required rendering but can and sometimes do depend on "device default" behavior. Previously, our pdf processor's default behavior was the more detailed "character precision". For graphic objects that depend on a default behavior of "string precision", this can give odd results. The pdf processor has been updated to enable the user selectable default behavior implemented in our Graphics Processor.
- Previously, when processing fonts specified using DDS' FONTNAME() keyword, and the data stream did not supply a code page, irrelevant diagnostic messages were generated. These messages have been suppressed.
- Text stored in the "Application" attribute of the "General" "Document properties" of generated PDF files has been updated. Previously, "i5/OS program ..." was stored. Now "IBM i program ..." is stored to reflect the renaming of the operating system.
- PDF now honors TXTRELPOS(*EXACT) setting for improved underlining of SCS typographic fonts.
- Sizing of DBCS fonts when found in *SCS spooled files subject to computer output reduction (*COR), was too generous, resulting characters that overlapped. The size has been corrected.
- Jpeg images with density specified in centimeters were being sized incorrectly.

Print Data Stream Processor Changes

- Added print data stream sink facility to allow clients to request that a message identifying the created spooled file be sent to the joblog.

Program Distribution Changes

- Fine tuning of the Trouble Shooting chapter's instruction for clearing a product from a machine to get to a stable state.

- Service programs now take advantage of deferred activation introduced at release V6R1 of IBM i. Only the service programs that are needed are activated, at the point at which they are needed. Unnecessary activations are avoided
- Added object text to user space containing resolved product directory.

Conversion Processor Changes

- New transform *NONEPDF was added. Processing is identical to transform *NONE, i.e. no conversion, but with an implied default extension of .pdf. This is useful for processing *USERASCII spooled files containing .PDF documents, such as those generated by JD Edwards.

SCS Processor Changes

- Added export and changes to allow more accurate position calculations when *EXACT specified, benefiting underline of variable typographic fonts.

Spool Indexing Changes

- Propagating special values such as *DOCIDXGRPP and *STRPAGGRPP failed to properly propagate for the first page group.

Spool Management Changes

- At V7R1M0, IBM's List Spooled File AFPDS Resources (QGSLRSC) API changes behavior with regards to missing resources. Changes were made in our logic to account for the difference in order to give the same results when resolving resources used by spooled files.
- CRTSPLSAVF command now includes user defined objects specified on the spooled file when creating the save file.
- Processing of AFPDS spooled files containing BNG/ENG structure field bounded page groups with field tags resulted in mismatched tags under some merge/split/copy operations.
- Added copy cursor facility to allow clients to request that a message identifying the created spooled file is sent to the joblog.
- Added *FORMTYPE path special value which substitutes the spooled file's form type.