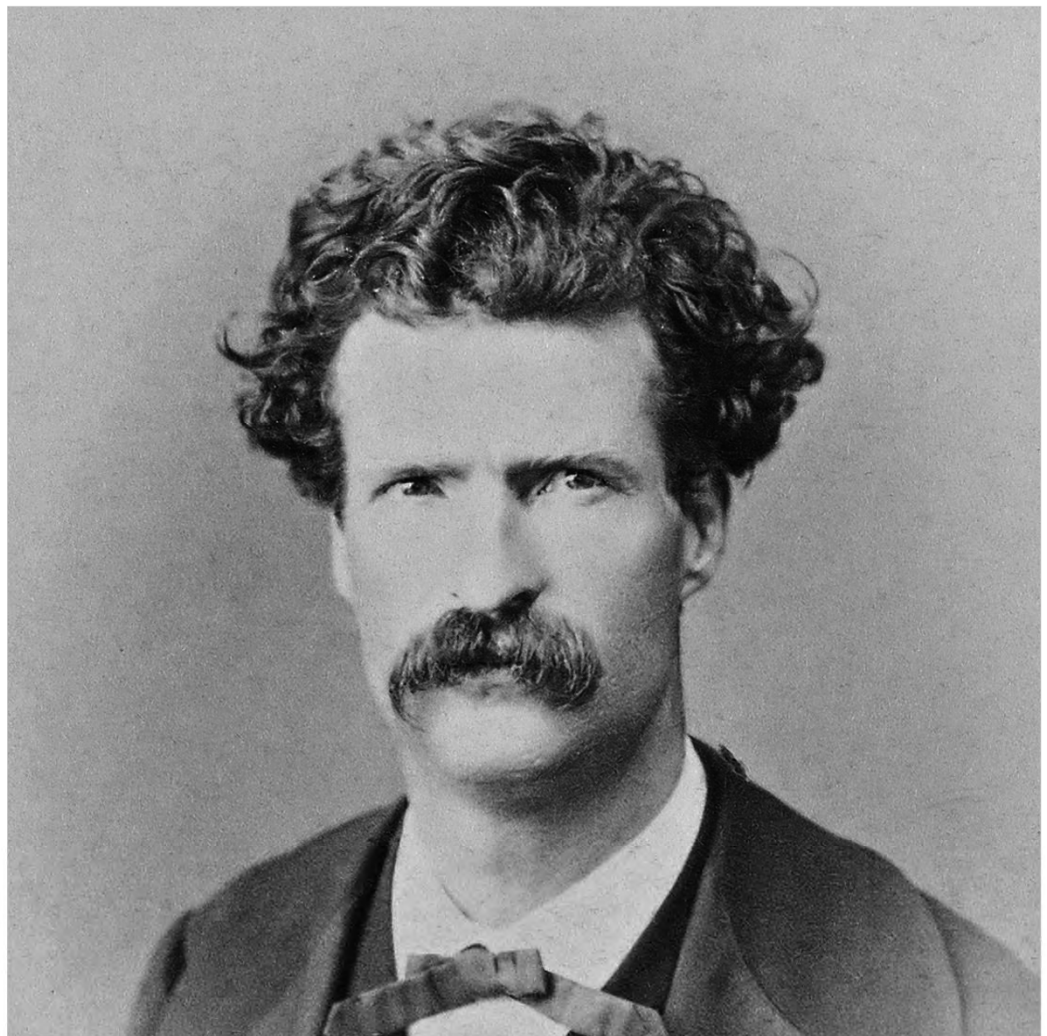# Spool-a-Matic

Enhancement Summary
Licensed Program 2A55SAM V2R7M0

Spooled File Conversion

Edition

Sixteenth Edition (January 2015)

This edition applies to the licensed program Spool-a-Matic (Program 2A55SAM), Version 2 Release 7 Modification 0.

This summary is available as option 1 from the SPLAMATIC menu, in PDF format in directory /Gumbo/Proddata/2A55SAM/doc on your system, and on the web at www.gumbo.com

Cover image: A portrait of the American writer Mark Twain taken by Abdullah Frères in 1867.

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Installation Instructions

Follow these instructions to install Spool-a-Matic V2R7M0 on IBM i using physical media or a virtual image:

Prepare

If you are upgrading a previous release (if Spool-a-Matic is currently installed), 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 are installing from a save file downloaded as a self extracting zip (.exe), use the save file specific "readme.htm" instructions included in the download.

1. Sign on to the system as the security officer (QSECOFR).
2. Verify that your machine is at IBM i V7R1M0 or later by running:

   ```
   DSPDTAARA DTAARA(QGPL/QSS1MRI)
   ```

   Note: If you are running a version of IBM i earlier than V7R1M0 you cannot install Spool-a-Matic V2R7M0 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 physical media or virtual image on 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 where the media or image was mounted 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 or four 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 or Instructions letter with your permanent authorization code, enter the code now.

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

2. Retrieve the current cumulative Spool-a-Matic PTF package by running the following command:

    ```
    SPLAMATIC/RTVGSIPTF
    ```

    Note: *GUMBO* recommends downloading the current cumulative PTF package after installing the software.

3. Visit our PTF page at www.gumbo.com and check the **Additional IBM i PTF Information** section for IBM PTFs you may need to install.
4. You can access the Spool-a-Matic menu by running the following command:

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

Enhancements For Spool-a-Matic V2R7M0

What's In This Section

This section provides information on Spool-a-Matic enhancements for release V2R7M0, notes any customer code implications by marking them with a **COMPATIBILITY WARNING**, and describes where to find more information when applicable.

SPLAMATIC Menu Corrected

SPLAMATIC menu was calling wrong program for option 70 resulting in "Program SMCL815 in library *LIBL not found."

CHGSAMDFT POP Updated

CHGSAMDFT command's prompt override program is updated to include new PDFFNTIMB() single values.

PDF Open Options

Three new elements have been added to the PDF document open options (PDFDOCOPN) parameter. The elements add further control over the documents interaction with the viewer.

Element 12: Page scaling CHAR(1)

Specifies the page scaling option to be selected when a print dialog is displayed for this document.

    *DEFAULT   Use the current print scaling. Value x'00'.
    *NONE   The print dialog should reflect no page scaling. Value '1'.

Element 13: Duplex CHAR(1)

Specifies the paper handling option to use when printing the file from the print dialog.

    *DEFAULT   Use the current setting. Value x'00'.
    *SIMPLEX   Print single-sided. Value '1'.
    *SHORTEDGE   Print duplex and flip on the short edge of the sheet. Value '2'.
    *LONGEDGE   Print duplex and flip on the long edge of the sheet. Value '3'.

Element 14: Pick tray by page size CHAR(1)

Specifies whether the PDF page size is used to select the input paper tray. This setting influences only the preset values used to populate the print dialog presented by a PDF viewer application.

Note: This setting has no effect on Mac OS systems, which do not provide the ability to pick the input tray by size.

    *NO   Selection as defined by the PDF viewer application. Value '0'.
    *YES   Check box in the print dialog associated with input paper tray is checked. Value '1'.

Spool Interface Rewritten

Our WRKGSISPLF and WRKGSIOUTQ commands have been rewritten to employ newer and speedier APIs from IBM. They now more closely emulate the IBM analogues. Performance improvement is particularly noticeable with very large lists. See additional enhancements listed below.

*LASTCRT Corrected

Something wiggled. *LASTCRT processing has been incorrect but working since 2005. Code compiled TGTRLS(V7R1M0) reveals the error with CPF1061 "Time not valid" when *LASTCRT was specified on the SPLCONVERT, DMPPIP, DSPPAGDTA, and RTVPAGDTA commands.

Add JOBSYSNAME() And CRTDATE()

Two new parameters, JOBSYSNAME() and CRTDATE(), have been added to the SPLCONVERT command. These have the same meaning and usage as those found on IBM's spooled file related commands and allow you to select specific spooled files when file/job/user/jobnbr/splfnbr are not unique.

Configuration Processor Changes

- Processing logic modified to allow a spooled file's IPDSPASTHR() parameter to suppress IPDS page re-size logic when *YES specified, even when other requirements are not met. This allows spooled files that depend on the pre AFP logic to print correctly to be correctly converted.

Font Processor Changes

- Improved internal handling of TrueType fonts.
- Malformed codepage *FNTRSC caused MCH3601 after parsing. The malformed codepage is now treated as if it does not exist.
- Font processing was sending message id FNT0013, FNT0016, CPF9801 and CPF33CF when a code page font resource could not be found for a grid specified font. Now the message is postponed until the missing code page is needed and thus avoiding the messages when the missing code page doesn't matter.
- Font processing was sending message id FNT0022 when a host character set could not be found for a grid specified font. Now the message is postponed until the missing character set is needed and thus avoiding the message when the missing character set doesn't matter.

MODCA Processor Changes

- Missing return code processing corrected. It was exposed during testing of another component.
- Incorrect processing of Begin Page's Page Position Information triplet resulted in wrong overlay applied to page in some instances.

PDF Generator Changes

- When a single TrueType font is specified in multiple sizes, sizing of each after the first is incorrect.
- *AUTO font imbedding not working for TrueType fonts.
- Unicode data inappropriately processed for unprintable xFF resulting in mangled unicode data.
- Mishandled character usage maps could result in missing glyphs when subsetting DNCS fonts.
- PDFFNTIMB(*ALL) was not working.

- Under reasonably convoluted conditions involving multiple overlays on a page, the page content construction was mishandled resulting in malformed page contents. In the example from the problem report, the printed content was missing.
- We internally specified an erroneous GRID for the default underscore font while implementing the new font engine causing diagnostic messages FNT0019 and FNT0022 to be issued during resolution. The GRID's GCSGID has been corrected.
- An error was introduced in pdf generation. When an ASCII codepage is specified by a spooled file (or one of its resources), and when the codepage is not present on the system, and when PDFFNTIMB(*NONE) is specified, the results are erroneous. The error has been corrected and the old behavior restored.

Program Distribution Changes

- RTVGSIPTF command failed when there were no PTFs issued for the product.
- CDROM no longer contains older releases in addition to the current releases.

Space Management Changes

- SpcRetrieveSpaceName() was generating avoidable MCH3601 Pointer not set error messages under some error situations. The MCH3601 did not affect processing but was a distraction during problem determination.

Spool User Interface Changes

- Holding a spooled file from WRKGSIOUTQ panel using option 3 failed to update the status to *HLD. The status is now updated.
- WRKGSISPLF command's SELECT() parameter has been extended and enhanced. Generic processing has been added for the User and User data elements. New elements have been added for ASP and Spooled file.
- WRKGSISPLF command has been extended to include a JOB() parameter and a PERIOD() parameter mirroring changes in IBM's WRKSPLF command.