

Spool-a-Matic

Enhancement Summary

Licensed Program 2A55SAM V2R5M0



Spooled File Conversion

Edition

Fourteenth Edition (March 2012)

GUMBO

Software, Inc.

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

© Copyright Gumbo Software, Inc. 1998, 2012. All Rights Reserved.

Contents

Edition	ii
Contents	iii
Installation Instructions	5
Enhancements For Spool-a-Matic V2R5M0	7
What's In This Section	7
AES-256 Encryption Implemented	7
*HTMLCSS Transform Added	7
Retrieve Gumbo PTF (RTVGSIPTF) Command Added	7
New SRCCSID *SPLF Special Value	8
Font Processor Changes	8
Integrated File System Changes	8
National Language Support Changes	8
Logical Printer Miscellaneous Changes	8
PDF Generator Changes	8
Program Distribution Changes	9
Spool Indexing Changes	9
Spool Management Changes	9

Installation Instructions

Follow these instructions to install Spool-a-Matic V2R5M0 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 V2R5M0 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 (QVfyOJBjRST)
```

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. Retrieve the current cumulative PTF package by running the following command:

```
SPLAMATIC/RTVGSIPTF
```

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

3. You can access the Spool-a-Matic menu by running the following command:

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

Enhancements For Spool-a-Matic V2R5M0

What's In This Section

This section provides information on Spool-a-Matic enhancements for release V2R5M0, notes any customer code implications by marking them with a **COMPATIBILITY WARNING**, and describes where to find more information when applicable.

AES-256 Encryption Implemented

Encryption using 256-bit Advanced Encryption Standard (AES) has been added to Element 7: Encryption specification of the PDF document security (PDFDOCSEC) parameter. To encrypt PDF documents with AES256, specify *V5. The generated document can be viewed with Acrobat Reader 9.0 or later.

*HTMLCSS Transform Added

New transform *HTMLCSS has been added. The transform updates html to the current standards and allows a custom style sheet to be included. A related new parameter, Style sheet (HTMCSS), has also been added.

With the parameter you can include a cascading style sheet to provide custom styling. The contents of the stream file are copied, unaltered and uninspected, into the generated html. The contents are placed within a <style></style> tag pair in the head section of the document.

If no style sheet is specified the default is included:

```
body { background-color: #f7f7f7; }
pre {
  background-color: #ffffff;
  border: 1px solid #f1f1f1;
  line-height: 92%;
  border-radius: .05em;
  box-shadow: 3px 3px 2px #d3d3d3;
  padding: .3em .3em .3em .3em;
}
tr { float: left; }
@media print { tr { float: none; page-break-after: always; } }
```

The behavior of transform *HTMLBASIC is unaltered.

Retrieve Gumbo PTF (RTVGSIPTF) Command Added

Previously, loading and applying PTFs for Spool-a-Matic required a visit to www.gumbo.com, downloading a file and many manual steps. We've added a command to automate the process.

The Retrieve Gumbo PTF (RTVGSIPTF) command checks a remote system for new product PTFs, and, if available, downloads and installs them.

The command assumes that the System i has connectivity to the PTF server. Unless you are running your own internal server hosting our PTFs, this means that the System i has access to the internet and that FTP is not blocked by a firewall.

The command first checks the availability of new PTFs by retrieving a product and release specific file (Ex. q2a50LastPtf.txt) from the remote system and comparing its contents to the last PTF applied locally. If newer PTFs are available, a product and release specific PTF save file (Ex. q2a50all.svf) is downloaded, and the PTFs it contains are loaded and applied.

Note: **GUMBO** only delivers immediate PTFs. Immediate PTFs do not require an IPL and an IPL is never performed by the command.

The previous method of supplying PTFs will be supported until all supported product releases contain RTVGSIPTF and until the vast majority of customers are using RTVGSIPTF. At a minimum this will be several years.

New SRCCSID *SPLF Special Value

A new special value, *SPLF, has been added to the coded character set id (SRCCSID) parameter. When specified, the spooled file's attributes are inspected to determine its CCSID. This is beneficial on systems that support multiple languages.

Font Processor Changes

- Enhanced processing for api QGSLRSC. Previously, processing was ended if the api issued any error. Now the spooled file resource list is inspected for useable data after an error is returned.
- Corrected message handling when api QGSLRSC returns an error. Previously the error returned by api QGSLRSC was either replaced by another or dropped.
- An erroneous entry in an internal font table resulted in incorrect FGID substitution for user defined FGIDs in the range 65280 to 65379.
- Previously, font parsing could produce errors or failed processing. The problem situation arose when identically named, but different, font resources were simultaneously parsed and the timing of the processing was unlucky. Luck is no longer required to get correct results.

Integrated File System Changes

- Added missing message id IFS1014 and IFS1016.
- Corrected usage of message id IFS1014 and IFS1016.
- Functions were added for creating and removing hard links for stream files.

National Language Support Changes

- Added new function to resolve ccsid of a spooled file from its attributes.

Logical Printer Miscellaneous Changes

- A new section was added the manual's Implementation chapter to describing authority adoption used by Gumbo Logical Printers and how to remove it.

PDF Generator Changes

- Previously, bit mapped images with more than 1 bit per pel resulted in an unviewable file. Now all bit depths are processed correctly.
- Previously, applying *EXACT to an unknown *FGID resulted in incorrect processing of the substituted *FGID.
- Previously when imbedding type 3 fonts, scaling of raster font character bit images into font space assumed that the B_space dimension was coincident with the left and right edge of the raster bounding box. This is true for almost all, but not all, fonts. Now scaling is calculated based on a conversion from raster space to font space.
- The range of the length element of the PDF bookmark data source (PDFBKMSRC) parameter has been increased to 255 from 64.
- PTF changes introduced an error. If TXTRELPOS() was set to *EXACT or *EXACTMOD, and a monospace font was specified in an *AFPDS or *IPDS spooled file, positioning errors could occur. The error is corrected.

Program Distribution Changes

- A new object signing certificate, to replace the previously used and expiring one, was placed into service on our development systems. If you are using CHKOBJTG to verify the integrity of objects in our software, load the new certificate into the *SIGNATUREVERIFICATION certificate store.

Spool Indexing Changes

- The range of the length element of the Page data (PAGDTA) parameter has been increased to 255 from 64.

Spool Management Changes

- Enhanced processing for api QGSLRSC. Previously, processing was ended if the api issued any error. Now the spooled file resource list is inspected for useable data after an error is returned.
- Corrected message handling when api QGSLRSC returns an error. Previously the error returned by api QGSLRSC was either replaced by another or dropped.