# SPOOLMAIL

Enhancement Summary V2R2M0
Program Number 2A55SM1

## Installation Instructions

**Restoring the new release**

Read the Enhancement Summary to determine if any changes affect your installation.

Follow these instructions to install SpoolMail V2R2M0 on your iSeries Server:

**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 is included in the download.

1. Sign on to the system as the security officer (QSECOFR).

2. Verify that your machine is at i5/OS (OS/400) V5R2M0 or later by running:

    DSPDTAARA DTAARA(QGPL/QSS1MRI)

    **Note:** If you are running a version of i5/OS (OS/400) earlier than V5R2M0 you can not install SpoolMail V2R2M0 on your machine. You must install an earlier version of SpoolMail or upgrade the operating system.

3. Verify that user domain objects are allowed in the libraries SPOOLMAIL 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 SPOOLMAIL and QSRV to the list of libraries where user domain objects are allowed.

4. Mount the distribution media in the appropriate device.

5. Submit the Restore Licensed Program (RSTLICPGM) command to batch:

    RSTLICPGM  LICPGM(2A55SM1) DEV(device-name) LNG(2924)

    **Note:** "device-name" is the device the media was mounted  on and is usually OPT01.
    **Note:** You may receive message CPA3DE4 "Directory not registered. (C G)" (three times). If so, take option "G".

6. Enter your permanent authorization code.

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

    DSPPTF  LICPGM(2A55SM1)

8. Visit [www.gumbo.com](www.gumbo.com) to determine if newer PTFs are available.

# Enhancements For SpoolMail V2R2M0

**What's In This Section**

> This section provides information on SpoolMail enhancements for the current release, notes any customer code implications, and describes where to find more information when applicable.

**Addressing Enhancement**

> The requirement for a primary recipient has been removed. You can send e-mail entirely to Blind Ccs or Ccs as long as at least one recipient of any is specified.

**\*CURRENT Added to CC(), BCC(), And REPLYTO()**

> A new special value, \*CURRENT, has been added to the CC(), BCC(), and REPLYTO() parameters of the SNDSPLMAIL command. When specified, the e-mail address associated with the sending user profile is substituted.

**Ping SMTP Mail Server (PINGMAIL) Command Enhanced**

> The Ping SMTP Mail Server (PINGMAIL) command has been enhanced to include a from address and to allow SMTP authentication username and password.

> Previously, only one e-mail address was accepted by the command and it was used as both the originator and the recipient of the test message. This limited some of the cases of SMTP server behavior that could be test.

> Some internet service providers require SMTP authentication before they will accept out going e-mail from an account. To date, IBM has not implemented this in i5/OS's SMTP stack. When a username and password are specified, PINGMAIL uses them to perform SMTP authentication (PLAIN only). In many cases, you can use this feature to perform SMTP authentication for your eServer i5 (iSeries) and i5/OS's SMTP stack will then be able to use the connection to send e-mail through the internet service provider.

**Retrieve Page Data (RTVPAGDTA) Command Added**

> A new command, Retrieve Page Data (RTVPAGDTA), has been added to SpoolMail. The command allows you to retrieve selected data from within a spooled file.

> For example, by retrieving the page position of the customer number in a spooled file containing an invoice, you can determine the customer number for which the invoice was generated from within a CL program.

> The command takes the identity of a spooled file, a CL variable name, page data selection and a page number as input. The page data parameter allows you to specify the line, position, and length of the data to be retrieved from the page. Additionally, the page data parameter allows you to specify that "off page" data, such as that specified on the DDS STRPAGGRP() and DOCIDXTAG() keywords, should be retrieved.

**Product Integrity Enhancements**

> Objects and the save files that contain them are digitally signed by Gumbo when they are created on our development system. You can verify that their contents have not been altered or corrupted since they were produced. You do this by first importing the our root certificate

authority (CA) and object signing certificates to your system and then running the Check Object Integrity (CHKOBJITG) command against them. For detailed instruction on importing certificates for signature verification using the CHKOBJITG command, see IBM's manual "Digital Certificate Manager RZAH-U000".

**Note:** We uniquely name our digital certificates to simplify their management on your system. If you have previously imported digital certificates from us with the same name as those included in this package, you do not need to repeat this step.

Certificates can be found in downloads that contain save files as well as in the product's /doc directory after it is installed.

**AFP Processor Corrections And Updates**

o  Enhance print data stream processing to distinguish header info from between page data.

o  AFP data stream processing now bypasses garbage found at the end of some old print resources.

**AFP Print File Generator Corrections And Updates**

o  New transform *AFPPRINTFILE2 has been added. The transform is similar to *AFPPRINTFILE but includes any font resource specified by the spooled file in the generated output file.

**Authorization Component Corrections And Updates**

o  Check SpoolMail Authorization (CHKSM1AUT) command added. The command exercises the product's authorization verification function. This allows you to determine whether the product is authorized for use. If the product is not permanently authorized, the generated messages allow you to determine when the temporary authorization will expire. You may specify a message queue to receive messages generated when the product is not permanently authorized.

**Font Processor Corrections And Updates**

o  Corrected recent list processing to return the same return code on all calls.

o  Font base definition tables were extended to include i5/OS fonts for the new DDS FONTNAME() keyword.

o  New functions added to process DDS FONTNAME() keyword.

o  Detection for DBCS spooled files has been improved for spooled files that specify IGCDTA(*NO) but in fact contain DBCS data.

o  DBCS font selection improved for spooled files that specify IGCCDEFNT(*SYSVAL) on a machine where the QIGCCDEFNT system value has not been set. Selection now depends on IGCCPI() and CPI() values specified on the spooled file.

o  Previously font processing interpreted a spooled file's "DBCS data" attribute to mean there was DBCS data in the file and grew alarmed when it could not find the related font specification (i.e. failed). Some applications (i.e. BPCS) always have the flag set, even on single byte machines. Processing has been updated to interpret "DBCS data" to mean

"might have" if the source ccsid is single byte.

o When the definition of a character set is needed to process a font, an internal table is consulted. The internal table contains information on a large number of IBM and some Elixir fonts. Previously if the table did not contain a particular character set, default values were used. Now, an attempt is made to retrieve the definition directly from the character set when it is not found in the table. This provides better support for home brew fonts.

o The base font used by a spooled file that does not otherwise specify a font was calculated incorrectly for all spooled files other than character set 697, codepage 37.

o Updated font base data table with additional character set data for Greek, Cyrillic, etc.

o Updated font base data table with additional *FGID imbedding data for Greek, Cyrillic, etc.

**HPT Processor Corrections And Updates**

o Processor updated to include new drawer information on the api call and several additional tiff transforms were added. Each of these includes paper size information that is passed to the i5/OS api for its consideration. The new transforms are:

   *TIFFLETTER
   *TIFFLEGAL
   *TIFFEXECUTIVE
   *TIFFLEDGER
   *TIFFA3
   *TIFFA4
   *TIFFA5
   *TIFFB4
   *TIFFB5
   *TIFFCONT80
   *TIFFCONT132

**Integrated File System Component Corrections And Updates**

o The maximum stream file size that can be generated has been increased to 256 Gig from 2 Gig.

**IPDS Processor Corrections And Updates**

o Enhance print data stream processing to distinguish header info from between page data.

o Page size miscalculated for some spooled files when multiple font specified.

**MODCA Processor Corrections And Updates**

o MO:DCA data stream processor now processes MDR (Map Data Resource) SFIs for font specifications.

o MO:DCA specifies that a print text descriptor is required in an environment group. However some generators (Elixir) omit the descriptor. This is now tolerated when processing the data stream.

o Enhance print data stream processing to distinguish header info from between page data.

o MO:DCA data stream processing now bypasses garbage found at the end of some old print resources.

o Spooled file resource processing was extended to optionally include font processing.

**Logical Printer Miscellaneous Corrections And Updates**

o The Edit File (EDTF) command is now used to edit source code, while creating or changing a logical printer, when Start Source Entry Utility (STRSEU) command is not available on a system.

**PDF Generator Corrections And Updates**

o DDS AFPRSC (AFP Resource) keyword implemented for JPG images.

o Previously, all resources such as page segments and overlays were processed and placed in the generated file even if page selection criteria such as page range or page data processing rendered them pointless. Now unused resources are omitted from the generated file reducing file size in some cases.

o Image processing realloc() pseudo memory leak caused heap exhaustion.

o Image data in a MODCA graphics object caused PDF conversions to fail in some cases.

o Implement conversion of fonts specified with DDS FONTNAME() keyword. Initial support is "map to fgid" as follows:

| Typeface | Fgid |
|---|---|
| Monotype Sans | 2304 |
| Monotype Sans Duospace | 416 |
| Times New Roman | 2308 |
| Thorndale Duospace | 416 |

o A new transform name, *PDFPAGESIZE, was added. The transform derives the paper size of the document from the spooled file's attributes making it suitable for use only with spooled files that do not include print resources such as overlays.

o Corrected barcode generation for Code 128 code points FNC1, FNC2, FNC3, and FNC4.

o Bookmarks in the presence of a constant back overlay were pointing at the wrong pages.

o CMAP used when the target ccsid is 950 (*BIG5) was changed from Adobe's ETenms-B5-H to HKscs-B5-H to include the HKSCS-2001 Hong Kong suplemental characters. This change requires that *BIG5 users have Acrobat Reader 5.0 or higher in order to properly view the generated files.

o Processing for the following bar code types was added:

Australian Post Bar Code
Royal Mail RM4SCC
Royal Mail Dutch KIX
Japan Postal

o Blank pages were generated in rare cases for SCS spooled files.

**Print Data Stream Processor Corrections And Updates**

   o Corrected and & or operations on mismatched page maps.

   o Add function and export to allow mapping of document header data in spooled files.

   o Default print data stream manager's internal buffering now buffers entire spooled file regardless of size. This greatly increases performance when traversing very large spooled files multiple times.

   o Open spooled files are now closed as soon as final buffer is pulled, effectively raising the number of spooled that can be processed "simultaneously".

**PTOCA Processor Corrections And Updates**

   o Odd Elixir splitting of print text data in print resources (*PAGSEG *OVL) was previously mishandled resulting in missing data. Parser now correctly handles straddling unchained control sequences.

**Conversion Processor Corrections And Updates**

   o Page marking flag implemented to prevent blank pages in oddly constructed SCS spooled files.

**SCS Processor Corrections And Updates**

   o Enhance print data stream processing to distinguish header info from between page data.

   o Parser was updated to correct processing of Set Line Density control code affecting the bottom margin in rare spooled files.

   o Parser was updated to introduce the notion of marks being placed on a page outside of the data stream. This affects page ejection in the presence of overlays.

   o Character set and code page (gcsgid/cpgid) for default fonts now set correctly for all languages.

**Spool Indexing Corrections And Updates**

   o Spool indexing now accounts for the difference between document header data and data that is "before the first page" and segregates them.

   o Dump Page Index Positions (DMPPIP) command fails with MCH1210 unless page range end specified.

   o Dump Page Index Positions (DMPPIP) command report heading "Ending page" was misspelled.

**Send Mail Component Corrections And Updates**

   o Removed requirement for a primary recipient. This allows all recipients to be specified as CCs or BCCs only.

   o Implemented RFC3490 Internationalizing Domain Names in Applications (IDNA). This allows mailing to domains that contain non US-ASCII characters for example schöpe.de.

o E-mail address parser now supports use of characters outside the US-ASCII range.

o E-mail address processor now supports *CURRENT special value for CC(), BCC(), and REPLYTO() parameters.

o E-mail address processor now allows multiple comma separated addresses per address line. This is handy, for instance, for passing more than one address out of a user written address mapping program.

**Spool Component Corrections And Updates**

o Target release processing in the Create Spooled Save File (CRTSPLSAVF) command has been improved to insure a save is produced.

o The Create Spooled Save File (CRTSPLSAVF) command now includes product and release information in the saved materials.

**Spool User Interface Corrections And Updates**

o WRKGSISPLF and WRKGSIOUTQ panels have been enhanced. Previously when option 15=Merge was entered for multiple spooled files, multiple MRGSPLF commands were prompted. One for each spooled file. Now, all spooled files are included on a single MRGSPLF command.

**Text Generation Corrections And Updates**

o "Real" blank pages were being suppressed for *SCS spooled files.