



Enhancements & Fixes for Halcyon IBM i Product Suites

Covering releases: April to June 2011

(IBM i: 2011.133 to IBM i: 2011.173 inclusive)

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halcyonsoftware
The Experts in Multi-Platform Systems Management

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Company Information

Registered US Office

Halcyon Software, Inc.
16 North Franklin Street
Suite 200B
Doylestown, PA 18901
USA

Tel: +1-215-240-8838
Fax: +1-215-933-1428

Registered UK Office

Halcyon Software
5 The Forum
Minerva Business Park
Lynch Wood
Peterborough
PE2 6FT

Tel: +44 (0)1733 234995
Fax: +44 (0)1733 234994

Registered Australian Office

Halcyon Software (Australia) Pty Ltd
Level 3, IBM Tower
60 City Road
Southbank
Melbourne
VIC 3006

Tel: 613 9495 6600
Fax: 613 9495 6601

Web: www.halcyonsoftware.com
Sales: sales@halcyonsoftware.com
Support: technicalservices@halcyonsoftware.com

Foreword

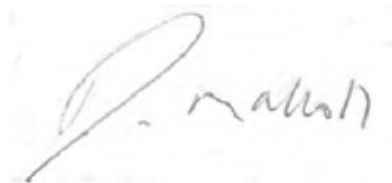
By Donnie MacColl, Technical Services Director

This update covers product enhancements and fixes between April and June 2011 for all Halcyon IBM i Software Suites.

These update notifications are intended to provide customers with the technical release information of all the latest product enhancements and fixes of our software so you can decide if you need to, or wish to, upgrade from your current version of Halcyon Software to a newer version.

Information contained in these documents is aimed at technical analysts, administrators and operations staff responsible for the maintenance of our software on their own systems or their client's IBM i (iSeries) systems.

These release notes will also assist with change and version control by providing the information and reasons as to why an upgrade is required.



Donnie MacColl

About Donnie MacColl



Prior to becoming Director of Technical Services at Halcyon Software Ltd, Donnie MacColl has worked for more than 20 years in the IT industry. He first specialized in the management of IBM i systems, (iSeries, AS400), in general manufacturing and logistics companies. Later on in his career Donnie was Network Manager for one of the largest telecommunications corporation in Europe.

He is regular speaker at international IBM events, including IBM Common in Europe and the USA, as well as the Interaction Conference in Australia.

Donnie specialises in advising companies on how to keep a tight control on the management of operations, critical processes, and core services across increasingly complex infrastructures and multi-platform environments.

He has worked with many industry sectors in his time at Halcyon Software to help improve cost efficiencies by implementing solutions in large European and US data centers in companies such as Computacenter, Parker Hannifin, Cap Gemini, Getronics, Logica, BGL Group (Budget Insurance), Arcadia and SunGard Public Sector.

Halcyon IBM i Product Suites

The following product suites are covered within this document:

Level 1 Message Management Suite



Our entry level suite for the IBM i. Closely monitor all your system messages, key applications and critical business processes.

Featuring:

- Message Monitoring
- FTP Monitoring
- TCP/IP Monitoring
- Output Queue Monitoring
- Device Monitoring
- Job Queue Monitoring
- SLA Reporting

Level 2 Systems Operations Suite



Monitor your IBM i system messages and automate the control of significant events.

All the features, of the Message Management Suite, plus:

- Object Monitoring
- Performance Monitoring
- Distribution Queue Monitoring
- User Profile Monitoring
- Inactivity Monitoring
- Audit Journal Monitoring
- Restricted Tasks Management

Level 3 Advanced Automation Suite



This level enables you to optimize performance, disk space and spool file management on your IBM i.

All the features of the Systems Operations Suite, plus:

- Performance Management
- Performance Snapshots GUI
- Disk Space Management
- Disk Space Explorer GUI
- Spooled File Management

Level 4 Operations Center Suite



Raise your operational control to the ultimate level. Contains all the functionality of the previous levels 1 to 3, plus the most advanced job scheduler available today.

Our flagship software suite contains all the features of the previous three suites, with the addition of:

- Advanced Job Scheduling

How to use this document:

This publication is split into two chapters:

- Product Enhancements
- Product Fixes

Each of these chapters is then split in the following order:

- **Common Library**

These are enhancements and fixes that affect all products suites from Level 1 (Message Management Suite) through to Level 4 (Operations Center Suite).

- **Specialist Products** (listed alphabetically)

These are enhancements and fixes that affect individual products which are contained as modules in one or more of Halcyon's Product Suites.

For example, an enhancement to Audit Journal Manager is only applicable to Level 2 (Systems Operations Suite), Level 3 (Advanced Automation Suite) and Level 4 (Operations Center Suite).

- **Individual HALT Reference**

Within both the Common Library and Specialist Product sections, each enhancement or fix is then listed in numerical HALT Reference order.

Finding information in this PDF

From within Adobe® Acrobat® Reader®, use either the Search window (accessible from menu options; Edit | Search) or the Find toolbar (shown far right in the image below) to search document content.



Type the text that you wish to use for the basis of the search and press Enter.

We recommend using the HALT reference ID number (for example; HALT1234), if known, within the Search or Find parameters as this text is unique within the document.

Need to confirm which Halcyon Products you have installed?

If you are unsure which Halcyon products you have installed on your system, type the following command onto the command line within your Halcyon environment:

```
DSPPRDINF
```

Alternatively, from within the Halcyon product menu, select option 70=Technical Information Menu followed by option 1=Display Product Information.

If you are still unsure, please contact: technicalservices@halcyonsoftware.com

Enhancements and Fixes

IMPORTANT!!!

Reference: HALT4735 IBM API Problem causes Message Monitor to fail

Halcyon's Message Monitor (standard in Levels 1-4) utilizes the IBM API 'QMHLSTM' which has been found to be defective. This can result, in certain circumstances, in messages potentially being missed by the Halcyon Message Monitor.

IBM have announced the release of a PTF to resolve the defect in their API and Halcyon Software strongly advises that you apply the relevant fix.

V5R4 -> SI38399 (5722SS1)

V6R1 -> SI38400 (5761SS1)

V7R1 -> SI38401 (5770SS1)

Once the fix has been applied, the Halcyon Message Monitor requires restarting.

Product Suite Enhancements

The following enhancements have been made to Halcyon IBM i Product Suites between April and June 2011, covering releases IBM i: 2011.133 to IBM i: 2011.173.

Common Library - Actions

Reference: HALT4635 Send Message Queue Message (SNDMSG) Action now allows substitution variables within message fields

The SNDMSG Action now supports use of Substitution Variables within the following parameters:

- Message ID
- Message file
- Message file library

Reference: HALT4708 SNDTXT, EMAILSPLF and EMAILSTMF Actions now accept substitution values in the email address

The Send Text Message (SNDTXT), Email Spooled File (EMAILSPLF) and Email Stream File (EMAILSTMF) Actions now allow the use of Substitution Variables in the 'Email address' parameter. For example; &JOBUSER@halcyonsoftware.com

Common Library – Action Schedules

Reference: HALT4746 Where Used option now shows Advanced Job Scheduler Job Environments

Option 8 = Where Used within the Work with Actions Schedules display now lists Advanced Job Scheduler Job Environments.

Common Library – Calendars

Reference: HALT4480 System default HAL/STARTDAYOFWEEK is now used for calendar display

The Work with Calendars display now shows the first day of the week as taken from the value specified within System Default HAL/STARTDAYOFWEEK.

Common Library – Install

Reference: HALT4311 HalcyonSolution.exe now displays Level Codes

The Halcyon installer now shows the Level Codes 1-4 as a prefix to the Product Suite names. For example; Message Management Suite becomes Level 1 – Message Management Suite.

Reference: HALT4433 The Halcyon Installer can now update itself from a remote location

A new parameter; Update Installer (UPDINST) has been added to the HALINST/INSTALL command for installations or upgrades from a remote location. This parameter defines whether to check if a new version of the installer library (HALINST) is available from the remote location.

The UPDINST parameter accepts the following values:

- ***PROMPT** - If running interactively the check is performed and if a new version of the installer is found, the user is prompted as to whether or not they want to upgrade the installer. If running in batch it is treated the same as *NO (see below). This is the default value.
- ***NO** - Do not check for a new version of the installer.
- ***YES** - Check for a new version of the installer and if found on the remote location update the local installer from it.

***Note:** *YES can only be used if "Products" is set to *NONE

Also, the PRODUCTS parameter now allows a special value of *NONE so that no Products are installed/ upgraded. Once the installer has updated itself it needs to be run again so that the new version of the installer is used. If running interactively, use F9 once the installer has been upgraded. If running in batch, *PROMPT and *NO will not check for an installer upgrade and *YES will only upgrade the installer itself, not any products.

Example - For an unattended upgrade you would need to run the command twice;

```
HALINST/INSTALL
DEVICE(*FTP)
RMTSYS(XXXX)
RMTUSR(XXXX)
RMTPWD(XXXX)
PRODUCTS(*NONE) <-- Don't upgrade products
UPDINST(*YES) <-- Upgrade installer (if needed)
```

HALINST/INSTALL
DEVICE(*FTP)
RMTSYS(XXXX)
RMTUSR(XXXX)
RMTPWD(XXXX)
PRODUCTS(*UPGRADE) <-- Upgrade products (if needed)
UPDINST(*NO) <-- Don't upgrade installer

Reference: HALT4467 Install/upgrade can now be undertaken using FTPS (FTP-SSL)

The Halcyon installer now supports using FTPS (FTP-SSL) from the Windows installer to the IBM i and also across IBM i systems.

Common Library - Monitors

Reference: HALT4705 Additional ENDTIME control added to the ENDMON command

The End Monitors (ENDMON) command has a new ENDTIME parameter. This defines how long to wait for the Monitors to end normally before forcing an end.

Common Library – Output Queue

Reference: HALT4671 Additional diagnostic logging provided for Output Queue rules

The diagnostic messages that are added to the Halcyon Message Log when you set System Default HEM/OUTMONDIAG to *YES, have been extended. Should a spooled file be omitted, a message is generated for each spooled file omitted, providing the reason why it was omitted.

Reference: HALT4495 Send Spooled File Action no longer errors if the 'System' parameter is blank

If the 'System Name' parameter was blank on a Send Spooled File (SNDSPLF) Action it would fail with an error of Remote Location Not Found. A blank entry in this field is now interpreted as meaning *LOCAL.

Common Library - Reports

Reference: HALT4534 New Message Manager Rules (basic detail) report available

A new List Message Queue Rules report is now available. This can be accessed via option 12 on the Message Manager Reports menu and/or via the LSTMSGGRUL command. The new report provides a basic list of all the Message Manager Rules in this environment.

Common Library - Rules

Reference: HALT4601 New Audit Journal Groups/Rules are added upon install and upgrade

New example Audit Journal Groups/Rules have been made available as follows;

Group: AUTFAIL IBM i Authorization Failures

Rules:

5000 AF: Authority failures

5010 CV: Connection ended abnormally

5020 CV: Connection rejected

5030 DI: Authority failures
5040 DI: Password failures
5050 GR: Function registration operations
5060 KF: An incorrect password was entered
5070 IP: Authority failure for an IPC request
5080 PW: Invalid passwords
5090 VC: Connection rejected incorrect password
5100 VO: Unsuccessful validation
5110 VN: Network logon rejected
5120 VP: Incorrect network password
5130 X1: Delegate of identity token failed

Group: SECURITY IBM i Security Related Functions

Rules:

5000 AD: Auditing of a DLO changed with CHGDLOAUD
5010 AD: Object changed with CHGOBJAUD or CHGAUD
5020 AD: Scan attribute change by CHGATR or API
5030 AD: Auditing for user changed with CHGUSRAUD
5040 X1: Delegate of identity token successful
5050 X1: Get user from identity token successful
5060 AU: EIM configuration change
5070 CA: Changes to autl or object authority
5080 CP: User profile changed by QSYRESPA API
5090 CQ: A *CRDQ object was changed
5100 CV: Connection established
5110 CV: Connection ended normally
5120 CV: Connection rejected
5130 CY: Access Control function
5140 CY: Facility Control function
5150 CY: Master Key function
5160 DI: Audit change
5170 DI: Successful bind
5180 DI: Authority change
5190 DI: Password change
5200 DI: Ownership change
5210 DI: Policy change
5220 DI: Successful unbind
5230 DO: Object deleted not under commit control
5240 DO: Pending object delete was committed
5250 DO: Pending object create rolled back
5260 DO: Object delete is pending
5270 DO: Pending object delete rolled back
5280 DS: DST QSECOFR password reset request
5290 DS: DST profile changed
5300 EV: Add
5310 EV: Change
5320 EV: Delete
5330 EV: Initialize environment variable space
5340 GR: Exit program added
5350 GR: Exit program removed
5360 GR: Function registration operation
5370 GR: Exit program replaced
5380 GS: Socket descriptor given to another job

5390 GS: Receive descriptor
5400 GS: Unable to use descriptor
5410 IP: Create an IPC object
5420 IP: Delete an IPC object
5430 IP: Get an IPC object
5440 JD: USER parameter of a jobd was changed
5450 KF: Certificate operation
5460 KF: Key ring file operation
5470 KF: Trusted root operation
5480 NA: Network attribute was changed
5490 OW: Ownership object was changed
5500 PA: Program changed to adopt owner authority
5510 PG: Primary group for an object was changed
5520 PS: Profile swap during pass-through
5530 PS: User ended work on behalf of another
5540 PS: Profile handle generated through API
5550 PS: All profile tokens were invalidated
5560 PS: Maximum profile tokens generated
5570 PS: Profile token generated for user
5580 PS: Profile tokens for user removed
5590 PS: Work started on behalf on another user
5600 PS: User profile authenticated
5610 SE: Subsystem routing entry was changed
5620 SO: Add entry
5630 SO: Change entry
5640 SO: Remove entry
5650 SV: System value was changed
5660 SV: Service attributes were changed
5670 SV: Change to system clock
5680 SV: Change to option
5690 SV: Change to system-wide journal attribute
5700 VA: Access control list changed successfully
5710 VA: Change to access control list failed
5720 VO: Successful verify validation list entry
5730 VU: Group record changed
5740 VU: User profile global information changed
5750 VU: User record changed
5760 X0: Network authentication

Group: SERVICE IBM i Service Commands & APIs

Rules:

5000 ST: Service tool used
5010 VV: Changing service status

Group: SYSMGT IBM i System Management Tasks

Rules:

5000 DI: Configuration changes
5010 DI: Create instance
5020 DI: Delete instance
5030 DI: Replication management
5040 SM: Systems management changes
5050 VL: Account limit exceeded

Please Note

The new Audit Journal Groups/Rules are installed upon a new install or upgrade. If you do not want these Groups/Rules then you must manually delete them after an install or upgrade.

These Groups/Rules are installed in Held status. If you wish to use them, you must release them.

These Groups/Rules are only installed once per Environment. Deleting them after an install or upgrade does not result in them being re-installed.

Common Library – Substitution Variables

Reference: HALT4471 Substitution Variable for Current User is now available

A new Substitution Variable; &CURUSER has been made available. This returns the Current User Profile for the job. This may not be the same as the Job User if a profile swap is in currently in effect.

The following monitor changes apply:

- **Message Manager:** Within Message Manager, &CURUSER returns the Current User from the Job that raised the message that caused the Alert
- **Performance:** Within Performance Monitor &CURUSER returns the Current User from the Job that has caused the Alert for *JOB Rules ONLY
- **Other Monitors:** In all other situations &CURUSER will return the Current User of the Job, which is normally the user running the Monitor that raised the Alert

Reference: HALT4559 Change Substitution Variable now accepts another Variable as the 'To' value

The Change Substitution Variable (CHGSBSVAR) command now accepts another Variable name as the value to which the change is made. In order for the variable name to be accepted, it must be enclosed in single quotes. This is required to prevent problems within a CLP program.

For example;

```
CHGSBSVAR VAR(TEST) VALUE('&DATE').
```

Reference: HALT4604 && now indicates the literal '&' rather than a Substitution Variable

In previous releases, there was no way to use the character '&' within a Command Action, within Alert text or within a command in Advanced Job Scheduler because it was treated as a Substitution Variable.

This is now possible via the use of && to indicate a literal of &.

For example;

```
SNDDMSG MSG('Today && Tomorrow') TOUSR(USER)
results in a message with text of;
Today & Tomorrow
```

Common Library – System Defaults

Reference: HALT4577 New System Defaults added to support future enhancements

New System Defaults have been added to support future enhancements of the Spooled File Manager product;

- HEM/SPLGUIINZTIMOUT Spooled File Manager GUI Server initialization time-out
- HEM/SPLGUILOGDATA Log Spooled File Manager GUI server transactions
- HEM/SPLGUILOGLIFE Number of days to retain data in the Spooled File Manager GUI data log
- HEM/SPLGUIMONPTY Spooled File Manager GUI server run priority
- HEM/SPLGUIMONUSER Spooled File Manager GUI server user profile
- HEM SPLWEBINZTIMOUT Spooled File Manager WEB agent initialization time-out
- HEM SPLWEBLOGDATA Log Spooled File Manager WEB agent transactions
- HEM SPLWEBLOGLIFE Number of days to retain data in the Spooled File Manager WEB data log
- HEM SPLWEBMONPTY Spooled File Manager WEB agent run priority
- HEM SPLWEBMONUSER Spooled File Manager WEB agent user profile

Please Note

These System Defaults are not used at present. They are being implemented for future use.

Reference: HALT4706 New system default added that defines if archive members can be re-used

A new system default; HEM/DFTARCREUSE has been added to control whether deleted Archive Members for archived spooled files can be re-used for another archived spooled file;

- ***NO** Deleted Archive members are not re-used. This is the default value
- ***YES** Re-use deleted Archive members

When you delete an Archived Spooled File either via 4=Delete within Work with Archived Spooled Files or via a Purge (DLTARCSPLF) the member is not re-used if this default is set to *NO. If set to *YES then the member is re-used.

Please Note

This new System Default only has an effect within Spooled File Manager. However, it still appears if you have any Event Manager Product installed.

Advanced Job Scheduler

Reference: HALT4526 Alerts can now be defined at Environment level

Advanced Job Scheduler now allows Alerting to be defined at Environment level as well as at Group and Job level. Work with Job Environments (Option 3 from within the Advanced Job Scheduler Configuration menu) now includes default Group and Job Alerts definitions on Page 8 (after the library list).

Groups now allow *DFT to be set for the Action for Group and Job Alerts, meaning the Action will be determined from the Job Environment.

Reference: HALT4528 CVTJOBSCDE imports jobs even if Omit Dates are in the past

Advanced Job Scheduler; Convert IBM Job Schedule Entries (CVTJOBSCDE) command now import jobs if they have Omit Dates that are specified in the past.

Reference: HALT4564 Jobs can now be verified after import

The Work with Groups (WRKGRP) command within Advanced Job Scheduler now allows *VERIFY for 'Group'. This performs a verification of all Jobs and prompts for any that are found to have issues.

Reference: HALT4587 Start and End Times have been added to the Job Statistics display

Page 9 – Statistics, within the Work with Groups display, has had the actual Job Start and End times added to the last 10 runs.

Reference: HALT4643 *CMD Job command has been extended to allow 3,000 characters

Advanced Job Scheduler now allows up to 3,000 characters to be entered for the command in a *CMD Job.

The initial screen is now input inhibited and shows "..." if the command is too long to be shown in full.

You can see and edit the full command by use of new function key; F22=Full command

Within the Full Command display, the command can be split across multiple pages. Inserting extra characters or deleting characters only affects the current displayed page which could then cause the command to be invalid as subsequent pages are not updated. To prevent this issue arising, you can use the following new function keys to insert and delete which makes the relevant positional changes on the subsequent screens to ensure the command remains valid:

- F7=Insert: Inserts a single blank space
- F8=Delete: Deletes the character under the cursor
- F19=Insert 10: Inserts 10 blank spaces
- F20=Delete 10: Deletes 10 characters from the cursor position onwards

Function key F9=Top is also available. This re-positions the command so that the line on which the cursor is positioned is moved to the top of the display. This allows better positioning of the command for viewing.

You can also use F4=Prompt and F16=Substitution Variables within this display.

Please Note

1. The use of a single quote reduces the length of the allowed command by 1 additional character - in effect it takes up 2 characters. This is because of the way the IBM i processes single quotes when passed as part of a parameter.
2. The final page shows more characters than are actually available. It is not possible to prevent this.
3. If you enter a command that is too long due to (1) or (2) an error is shown, reading 'Command too long.'

Reference: HALT4713 Journaling now enabled for Groups and Jobs

The Advanced Job Scheduler Group (HJSGP) and Jobs (HJSJB) files now have journaling enabled. At present, the only way to display these journal entries is via the DSPJRNENT command.

Reference: HALT4744 CVTJOBSCDE now imports commands of up to 512 characters

Advanced Job Scheduler; Convert IBM Job Schedule Entries (CVTJOBSCDE) now imports up to 512 characters for the command. Previous release only allowed the import of up to 400 characters.

Reference: HALT4745 Creating a new Group sets default Alert attributes and action to the environment default

When creating a new Advanced Job Scheduler Group, the default attributes for the "Alerts" have an Alert value of blank (i.e. No Alert) and an Action value of *DFT.

The value of *DFT for the Alert Action means use the value specified on the Environment setting.

Authority Swapper

Reference: HALT4673 Users that have swapped to a profile with *ALLOBJ *SECADM can now maintain Halcyon User Authority

Halcyon Authority Swapper would not allow you to maintain Halcyon user authorities if you had swapped to a *ALLOBJ *SECADM authority user.

This has been enhanced so that you are now allowed to maintain Halcyon user authorities EXCEPT for HEM/AUTHSWAP. You can only set this authority to *UNDEF, *EXCL or *USE.

Please Note

You can only set permission HEM/AUTHSWAP to *ALL or *CHG if your actual user profile has *ALLOBJ *SECADM authority.

Message Manager

Reference: HALT4321 Function key F14=Top now available within Work with Messages Review

A new function key, F14=Top, has been added to the Work with Messages Review display to position the view to the top of the list.

Reference: HALT4594 Purge Message Review History is now run by the Action Monitor

When the Message Monitor was started it checked for and cleared expired Message Review data, based upon the setting within system default HMM/LRMLOGLIFE. This could result in a delay in message processing on message queues.

The Message review data is now purged by the Action Monitors once a day just after midnight.

Reference: HALT4692 Messages Review now allows you to review only today's messages

Message Manager Message Review now allows you to just review messages raised today. This is achieved by specifying the new value *TODAY within the 'Days' parameter.

Restricted Tasks Manager**Reference: HALT4504 ENDJOBABN command is used if a restricted state not reached**

Processing of the End System Phase within Restricted Tasks Manager has been changed as follows:

1. Issue a controlled end request to all jobs.
2. When the End System Phase times out, any jobs that are still active are ended *IMMED.
3. 20 minutes after (2); any jobs that are still active are ended abnormally using ENDJOBABN command.

Reference: HALT4694 New 'Task Labels' parameter added to Restricted Tasks for use in Alerts

Restricted Tasks Manager now includes a new 'Task label' parameter on the Add Restricted Task display. The 'Task label' is output as part of the messages sent when a Restricted Tasks Group is running and is shown immediately after the Group and Task on the following messages. (Where GROUP is the Group, TSK is the Task No. and LABEL is the new Task Label):

- HRT8007 - Restricted Task GROUP/TSK (LABEL) is being processed
- HRT8008 - Restricted Task GROUP/TSK (LABEL) failed with ERROR
- HRT8009 - Restricted Task GROUP/TSK (LABEL) recovery option is OPTION
- HRT8019 - Restricted Task GROUP/TSK (LABEL) completed

Spooled File Manager**Reference: HALT4350 Building or Deleting an Index can be submitted to batch**

The Work with Archived Spooled Files display has the new function F19=Submit to batch available when confirming the creation or deletion of spooled file indexes.

Reference: HALT4361 Display Archived Spooled File allows generic Index values

Generic index values are now accepted within the Display Archived Spooled File display. A generic value is denoted by the use of a wildcard character, asterisk (*), at the end of the index value.

Reference: HALT4398 %USRDTA function added to spooled file scripting

Spooled File Manager scripting now has a %USRDTA Function available. This returns the User Data against the spooled file.

Please Note

User Data can include characters that are not valid in IFS file names.

Reference: HALT4447 Archived spooled files that need their indexes rebuilt are highlighted

Archived Spooled Files that need their indexes rebuilt are now highlighted on the Work with Archived Spooled Files display. This is due to changes to Report Types.

Reference: HALT4453 Archived Spooled Files can be retained or removed by age

Spooled File Manager now has the ability to retain Archived Spooled Files for a specific amount of days.

The number of days to retain an Archived Spooled File is determined at the time when the spooled file is archived. The following options can be used to specify the retention period:

- Manually specified number of days on the ARCSPLF command, ARCOUQ command or ARCHIVE Action.
- Number of Days specified on the Report Type that matches the criteria for the spooled file if the 'Retain days' parameter is set to *RPTTYP on the ARCSPLF command, ARCOUQ command or ARCHIVE Action. If no matching Report Type found then the value in new system default HEM/DFTARCRETAIn is used.
- Number of Days specified in new system default HEM/DFTARCRETAIn if the 'Retain days' parameter is set to *DFT on the ARCSPLF command, ARCOUQ command or ARCHIVE Action.

You are able to remove Archived Spooled Files by using 'Delete Archived Spooled Files' either from the Spooled File Manager Utilities menu or via command DLTARCSPLF:

1. Run Type: *AUTO. If you use an *AUTO Run Type, Archived Spooled Files older than their assigned Retention are removed.
2. Run Type: *RETAIN. If you use a *RETAIN Run Type, it forcibly removes Archived Spooled Files older than the specified Number of Days regardless of their assigned Retention.

Reference: HALT4454 Ability to retain nn generations of the same report within Archive

Spooled File Manager now has the ability to retain a certain number of copies, known as Generations, of a specific report within an Archive Group. This is controlled by use of Report Types.

Within Work with Report Types (Option 1 from the Spooled File Manager Configuration menu) a new parameter, 'Generations to keep' has been added for this purpose.

Having archived spooled files that match the Report Type definitions you are able to remove older Generations by running "Delete Archived Spooled Files" either from the Spooled File Manager Utilities menu or via command DLTARCSPLF.

Please Note

Only Delete Archived Spooled Files run with a 'Run Type' of '*AUTO' removes old generations. A 'Run Type' of *RETAIN removes Archived Spooled Files based on Days.

Reference: HALT4484 'Program Name' parameter added to Report Type selection criteria

The 'Program name' parameter has been added to Report Types within Spooled File Manager. This allows Report Type selections by the program that initially created the spooled file.

Reference: HALT4505 Deletion of indexes possible from within Work with Report Types

Option 21= Delete Indexes is now available from within the Work with Report Types display. Use of this option deletes the indexes for all indexed, archived spooled files that were built from the selected Report Type.

Reference: HALT4551 Retention level description added to Work with Archived Spooled Files

The Work with Archived Spooled Files display now shows for how many days and how many generations an Archived Spooled File will be retained. This information is available on a new view which can be accessed using F11=Alt View.

Example;

File	Program	Retain	Keep
PRTCMMNRSC	HMC2810R	31 days	3 gens
PRTCMMNRSC	HMC2810R	365 days	3 gens
PRTCMMNRSC	HMC2810R	*NOMAX	3 gens
PRTRULES	HAM_PRTRUL	7 days	*NOMAX

Reference: HALT4552 F4=Prompt is now available for 'PC Name' parameter in Display Data Log options

F4=Prompt for the 'PC Name' parameter has been made available within the following options within the Spooled File Manager – Utilities menu:

- 30 Display SFM GUI Server Data Log
- 31 Display SFM Web Agent Data Log

Reference: HALT4553 Option added to Save Archive File within Work with Archive Files

A new option; 10=Save, has been added to the Work with Archive Files display. Use of this option, prompts the Save Archive File (SAVARCF) command for the selected Archives.

Reference: HALT4571 New function available in order to submit Retrieved Spooled File to batch

A new function; F19=Submit to batch, has been added to the Confirm Retrieve Spooled Files display, following the use of option 9=Retrieve on the Work with Archived Spooled Files display.

Reference: HALT4580 The quantity of archive files that can be saved with SAVARCF has been increased

Previously the Save Archive File (SAVARCF) command was restricted to saving 50 files per Archive Group. This has been increased to 500 files per Archive Group. This means that an Archive Group of over 16 million Archived Spooled Files can now be saved.

Reference: HALT4582 Line Notes, Sticky Notes and Highlights can now be used within Archived Spooled Files

It is now possible to use Line Notes, Highlights and Sticky Notes within an Archived Spooled File. Please see the following notes:

Limitations

- Only one Line Note per line
- Multiple Sticky Notes per line are allowed as long as there are no overlaps with other Sticky Notes or Highlights
- Multiple Highlights per line are allowed as long as there are no overlaps with other Highlights or with Sticky Notes.

Authority

Authority is controlled by User Permission HEM/ARCNOTES. Users with *USE Authority can only view Notes. *CHG authority is required to be able to add and delete Notes within the Work with Archived Spooled Files display.

If *ITEM level permission is set for HEM/ARCNOTES, then use of F16=Item Authority within Work with User Authority lists all of the existing Note 'AuthorizationID' codes for which relevant permission can be granted. New *ITEM level 'AuthorizationID' codes can only be created within Display Archived Spooled File by adding a new code to an existing or new Line Note.

Line Note

To create a Line Note, position the cursor on the required line within the Archived Spooled File, press F2=Note and then select option 1 for Line Note. You are then prompted for the Note text. Via F6=Set Authority, you can also assign an 'AuthorizationID'. If the 'AuthorizationID' you enter already exists, your permission to use this code will be verified. If it does not exist then the code is added and made available within *ITEM level authority, accessed from within Work with User Authority (WRKUSRAUT) for HEM/ARCNOTES.

Sticky Note

To create a Sticky Note, position the cursor on the required line within the Archived Spooled File at the top left position where you want the Sticky Note to appear. Press F2=Note and then select option 2 for Sticky Note. You are then prompted for the Sticky Note text. Once the text is entered, a yellow highlighted Sticky Note is shown at the position selected.

Use of F2=Note while the cursor is positioned on an existing Sticky Note will open the Sticky Note for editing.

Highlight

To highlight a range of text within the Archived Spooled File, position the cursor to the beginning of the text that you wish to highlight, press F2=Note and then select 3=Highlight. You are then prompted for the Width, Height and Color for the Highlight.

Reference: HALT4581 Sticky Notes can now be expanded and collapsed

Sticky Notes can now be collapsed/expanded from within the Display Archived Spooled File via the use of a new function key; F11=Toggle notes.

Please Note

Sticky Notes are automatically expanded whenever a new Sticky Note is added.

Reference: HALT4605 Mouse clicks can now be used to define Report Type Indexes

Spooled File Manager now has the ability to define Report Type Indexes by use of the mouse via a new Report Types "Viewer".

On the Indexes page, from within the Work with Report Types display, you can now use F20=Viewer. This presents a list of spooled files that have already been archived and match the criteria for the Report Type.

Having used 5=Display against an archived spooled file, you can then use a single left- button mouse click at the beginning and at end of the value you wish to use as part of an Index. This highlights the selected value.

Then use a single right-button mouse click within the highlighted area to define to what the value relates;

- Control Text
- Alternative Display Text
- Index Value

Having exited the Viewer, the Report Type Index definitions are updated accordingly. You must press Enter to save any changes.

Reference: HALT4606 Support added for 80 character display in Display Archived Spooled File

The Display Archived Spooled File display now supports 80 character width displays.

Reference: HALT4609 Preceding blanks/spaces now removed from Index value

Spooled File Indexing now removes preceding blanks/spaces from Index values. This increases the possibility of finding a match when using the Index search facility.

Reference: HALT4640 New option '20=Build Indexes' added to the Work with Report Types display

A new option; '20=Build indexes' has been added to the Work with Report Types display.

Reference: HALT4651 The ARCHIVE Action for 'Retain days' now defaults to value *RPTTYP

The ARCHIVE Action for 'Retain Days' now defaults to *RPTTYP.

Reference: HALT4654 New system default HEM/SPLJOBQ to define Job Queue used for Spooled File Manager

A new system default; HEM/SPLJOBQ (Spooled File Manager Job Queue) has been added. This system default defines which job queue is used within Spooled File Manager when tasks are submitted to batch, such as building archived spooled file indexes.

Reference: HALT4664 Large print characters can now be defined for use in Bundling

Spooled File Manager now includes the ability to define a Character Map which is used to convert Bundle and Segment Names in to large print.

This is achieved by allowing input of the output for the character as an 8x8 grid. As an example, the character "e" can be mapped as;

```

* * *
*   *
* * * *
*
* * *

```

Mappings are defined in a new option '3=Work with 8x8 Character Mappings' which can be found in the Spooled File Manager Configuration menu.

To help define a character map it is possible to use the left mouse click to add a foreground character and the right mouse click to add a background character.

New system defaults have been added to define which character is used when output as part of a Bundle:

- HAL/BANNERBACKGRD - This defines the character to use when no foreground character is defined. By default this is blank.
- HAL/BANNERFOREGRD – This defines the character to use in the foreground. By default this is an asterisk (*).

Reference: HALT4663 Bundling 8x8 character mappings are defined by Set ID

The Spooled File Manager 8x8 Character Mappings are now stored within a 'Set'. This allows multiple definitions to be used.

From within the Work with Bundles display (option 2 from the Spooled File Manager Configuration menu) you are now able to select which Set to use for the Bundle.

Reference: HALT4665 Add ability to 'Segment' spooled files and combine in to 'Bundles'

Spooled File Manager now includes the ability to 'Segment' and 'Bundle' archived spooled files. This is controlled via a new option '2=Work with Bundles' from the Spooled File Manager Configuration Menu.

Segmenting

Segmenting allows you to define, by use of Report Types, how to split an archived spooled file in to multiple parts - some or all of which can then be included in a 'Bundle'. These multiple parts are known as 'Segments'.

For example, if your Report Type has an Index based on 'Customer', you can use this to split an archived Invoices spooled file into a Segment for each Customer.

Note: Segmenting does not produce an actual spooled file. It is the ability to extract part of an archived spooled file based on Indexes defined within Report Types.

Bundling

Bundling allows you to combine multiple Segments in to a single spooled file, known as a 'Bundle'. The Segments can be from multiple archived spooled files which do not have to be the same.

It is possible to include special instructions and large text banners at the top of the Bundle and subsequently for each Segment.

For example, if you have an Invoice spooled file and an Accounts Receivable Customer Statement spooled file you can Segment and Bundle them to produce a single spooled file containing both the Invoices and Statements for the same customer. This can have large text banners at the top of each Segment to highlight the Segment contents.

Reference: HALT4675 Archive File Group can now be subsetted in Work with Archived Spooled Files

The Work with Archived Spooled Files display now provides the ability to subset by a specific Archive Group, Archive File and Archive Member.

Reference: HALT4702 Work with Subset Templates menu option moved to Configuration menu

The Work with Subset Templates menu option has been moved from option 13 on the Utilities menu to option 5 on the Configuration menu.

System Event Manager

Reference: HALT4401 Performance improvements made to Event Manager Products

Event Manager Rules are now stored using ZML rather than XML in order to improve performance of the monitor(s). The following Monitors/ Rules are affected:

- Output Queue
- Device
- Job Queue
- Performance
- User
- Distribution Queue
- Inactivity
- Object

Note that the Import Environment (IMPENV) command only works if the source and destination environments are at the same PTF Level.

Product Suite Fixes

The following product fixes have been resolved within Halcyon Product Suites between April and June 2011, covering releases IBM i: 2011.133 to IBM i: 2011.173.

Common Library – Action Schedules

Reference: HALT4444 *PASS Condition no longer treats Cnd-Wait as a *PASS

Action Schedules with Conditioned Actions that check for *PASS Status on previous Actions no longer treat 'Cnd-Wait' (Condition Wait) as *PASS, instead of waiting for the actual outcome.

Reference: HALT4600 Incorrect Actions in Action Schedules no longer being triggered

Action Schedules were triggering incorrect Actions in some circumstances. This has been fixed.

Common Library – Inactivity Rules

Reference: HALT4543 Alerting on Function Type now issues message should IBM API fail

An Inactivity Rule set for 'Function type' would sometimes incorrectly raise an alert due to a failing IBM API.

This has now been fixed. In the event of the IBM API failing, a message is logged in the Halcyon Message Log.

Common Library – Output Queue Rules

Reference: HALT4451 Emailing PDF of spooled file when using *DSTSRV no longer fails

If system default HMC/EMAILMETHOD is set to *DSTSRV, then an attempts to email a spooled file with an EMAILSPLF Action no longer result in failure.

Common Library – Performance Group Rules

Reference: HALT4607 *JOB Status Rule with Occurrences and Suspend Time now takes account of suspend time setting

A Performance *JOB Rule would continue to Alert at every check interval for the same Job even if a Suspend Time was specified. This has been fixed.

Advanced Job Scheduler

Reference: HALT3842 Level Check failure removed when swapping between Legacy and New Generation versions of Advanced Job Scheduler

If you have both Legacy and New Generation versions of Halcyon Advanced Job Scheduler installed, swapping between the two versions no longer causes a level check failure.

Reference: HALT4525 ENDJOB fails if Alert defined

Using option 4=End against a Job which has failed and that has an outstanding alert, no longer causes an error.

Reference: HALT4567 F22=Print no longer fails within the Work with Schedule display

Using F22=Print from within the Work with Schedule display no longer fails.

Reference: HALT4687 Log CL Commands no longer causes failure

Jobs set to log CL commands, LOGCLPGM(*YES), which subsequently failed would cause the Monitor to crash when the Inquiry message for the failure was responded to. This has been fixed.

Please Note

LOGCLPGM(*YES) results in 2 job logs being produced; 1 for the job and 1 for Advanced job Scheduler monitoring.

Disk Space Manager

Reference: HALT4511 Multiple migrations of Disk Builds no longer fail with 'In use' error

If multiple Disk Build Migrations are run at the same time they no longer fail with an 'In use' locking issue.

Reference: HALT4644 Quick setup correctly updates system default settings for clearing and deleting builds

The Quick Setup routine now updates the system values specified for Reduce Analysis Detail /Delete Analysis Builds after, according to the following system default settings:

HDM/DLTBLDAFTER	Delete build after
HDM/DLTBLDUNITS	Delete build units
HDM /RMVDTLAFTER	Remove analysis detail after
HDM/RMVDTLUNITS	Remove detail units

Disk Analysis Builds are now being cleared as expected.

Message Communicator

Reference: HALT4470 Escalation list works correctly when using an escalate timer

The escalation time set within an Escalation List is now applied correctly so that messages are sent at the specified intervals.

Reference: HALT4650 Call Schedules no longer delay until end time

Messages that are sent to a Call Rota are now dispatched at the specified time and not the end time defined on the Call Rota.

Please Note

A Message Manager message with severity 30 or above is treated as *HIGH priority. These are always sent even if the device has "Delay sending" set to Y.

Message Manager**Reference: HALT4491 Message Monitor errors gracefully if user profile runs out of object space**

The Message Monitor would fail attempting to open QPDSPLOG if the user profile the Monitor was running under ran out of space for object references.

Although the Message Monitor now checks for this error and ends gracefully, the issue is not resolved without owned objects being removed from the User Profile under which the Monitor is run. To determine how 'full' the User Profile is you can use the command PRTPRFINT as provided by IBM.

Reference: HALT4537 Reset Rule Action works correctly on 'Not received' Rule

A Reset Rule Action on a Message Manager 'Not received' Rule now resets the specified Rule correctly.

Restricted Tasks Manager**Reference: HALT4492 Task Group no longer fails causing hung system**

In certain situations Restricted Tasks Manager would fail while in restricted state leaving an IPL as the only possible course of Action to resolve. This has been fixed.

Reference: HALT4595 *STRSYS now restarts the system on Task Group completion

In certain instances Restricted Tasks Manager failed to restart the System when the Task Group(s) had completed. This has been fixed.

Spooled File Manager**Reference: HALT4347 Blank indexes can now be used in the Display Archived Spooled File display**

Within the Display Archived Spooled File display, it is now possible to leave Index fields blank, rather than having to provide a value.

Reference: HALT4699 Jobs that use a different CCSID to 37 or 65535 no longer cause buffer error

Displaying an Archived Spooled File no longer fails with a buffer error if the user's job is using a different CCSID to 37 (USA) or 65535.

*****REPORT ENDS*****