



# iSphere for WDSCi 7.0/RDi 8.0+

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## Overview

The following features are provided by iSphere for WDSCi 7.0/RDi 8.0+.

- Binding Directory Editor for editing binding directory entries within a binding directory.
- Data Area Editor for editing data areas.
- User Space Editor for editing user spaces.
- Data Queue Viewer.
- Message File Editor for editing message descriptions of a message file.
- Message File Compare Editor for comparing message files.
- Message File Search for searching message descriptions in message files.
- An extremely fast search feature for searching source files. Searching a member filter in the Remote Systems Explorer with iSphere Source File Search is about 60 times faster than searching with the original RSE Search.
- Compare/Merge Editor for comparing/merging source physical file members.
- A spooled file subsystem with the ability to open spooled files in Text, HTML and PDF format.
- LPEX Task Tags for source physical file members.
- Host Object Decorator to display object descriptions in the RSE tree as well in i projects.
- RSE Filter Management to import and export all or single filters.
- Views for monitoring data areas and user spaces.
- Message Subsystem.
- 5250 Emulator.
- Job Log Explorer.



### **Change Log 3.1.5.b001** (13.01.2018)

- Added menu option to start source compare from the context menu of the Lpex editor (Source -> Compare...).
- Changed compare editor to honor the state of the view/edit button of the "iSphere Source File Search" view.

### **Change Log 3.1.4.r** (11.01.2018)

- Fixed "StringIndexOutOfBoundsException" in Journal Explorer view, when opening an output file with entry specific data less than 200 bytes.
- Changed Journal Explorer to only parse journal entries, which are a result of a record level operation (BR, DL, DR, IL, PT, PX, UB, UP, and UR).

### **Change Log 3.1.3.r** (02.12.2017)

- Fixed CCSID issue in iSphere Compare Editor, when saving a source member to the host.

### **Change Log 3.1.2.r** (17.11.2017)

- Fixed CCSID issue in iSphere Compare Editor.

### **Change Log 3.1.1.r** (06.11.2017)

- Enhanced the "export to filter" option of the search result views to extend existing filters.
- Fixed problem that the "Save" dialog did not display existing files when saving a spooled file.

### **Change Log 3.1.0.r** (23.10.2017)

This version requires updating your iSphere library to v3.1.0, because of:

- New Journal Explorer plug-in.
- Update of STRPREPRC to v1.15.

- Added options to indent/unindent source lines. (See help text of "iSphere Add-Remove Comments" feature for details.)
- Added option to retrieve the binder source from a service program.
- Added iSphere "Journal Explorer" plug-in. Refer to the iSphere help pages for details.
- Added button "Map Keys..." to TN5250j preferences page.
- Added menu option "Compare Source Members" to iSphere main menu.



- Added menu option "Compare Source Members" to the "members" section of the result view of the "iSphere Source File Search".
- Added tooltip showing the search options to search result tabs.
- Added context menu with option "Display Search Options" to search result tabs.
- Added option to reset the "Copy Members" dialog.
- Updated STRPREPRC utility to v1.15. Improved compatibility with CMOne command XCRTSQLOBJ. See iSphere help for details.
- Change iSphere compare dialog to load/store member values when called from the iSphere main menu (no members passed to compare dialog)
- Fixed bug in BUILD\_CRT that cleared the ISPHERE library, when the production and development library names were equal.
- Fixed problem that the date and time values were not preserved when copying members between two systems.
- Renamed "Add-Remove Comments" plug-ins and feature to "Lpex Editor Extensions".

### **Change Log 3.0.6.r** (27.07.2017)

- Added the iSphere specific TN5250J keys to "KeyMapper" to fix the issue of the hidden fast cursor up/down keys.
- Updated iSphere help with instructions how to enable SSL sessions.

### **Change Log 3.0.5.r** (19.07.2017)

- Enabled the "Delete" key to delete spooled files of the iSphere Spooled Files subsystem. (Not yet for WDSCi)
- Fixed performance issue that has been introduced with bug fix of ticket #42.

### **Change Log 3.0.4.r** (14.07.2017)

- Fixed problem that non-source files have been searched when the "iSphere Source File Search" was started for a member filter.
- Fixed problem that the iSphere Source Compare editor did not check member locks when comparing members in edit mode.
- Fixed problem that the right source member was always editable when comparing source members with WDSCi.
- Added wait time between two connections, because some systems (e.g. PUB400.COM) seem to reject connections when they come too close after each other.

### **Change Log 3.0.3.r** (16.06.2017)

- Fixed "org.eclipse.swt.SWTException: Widget is disposed" error in WDSCi, when trying to reopen a previously closed 5250 view.



## Change Log 3.0.2.r (15.06.2017)

This version does not necessarily require updating your iSphere library unless you need:

- The English user interface of the STRPREPRC utility.
- Fixed broken "save" action of WDSCi compare/merge editor.
- Fixed broken STRPREPRC installer.

## Change Log 3.0.0.r (02.04.2017)

This version requires updating your iSphere library to v3.0.0

- Added "iSphere Add-Remove Comments" feature mainly intended to be used with WDSCi 7.0. (See help text for details.)
- Added new feature "iSphere Job Log Explorer".
- Added option "Match message ID" to the iSphere Message File Search.
- Added option "Send message" to the iSphere Data Queue Monitor.
- Added preference option to specify how to open spooled files that have been downloaded to the PC. Options: Viewer|Editor. (iSphere Spooled Files → Conversion)
- Added button to show/hide replacement variables. (iSphere Spooled Files → Conversion)
- Added text decoration of source files of i Projects.
- Added option "Include message id" to the iSphere Message File Search. (Requires updating the library.)
- Added special search mode "Search for specific message IDs" to the iSphere Message File Search. Please refer to the iSphere help for details. (Requires updating the library.)
- Added existence check for the message queue, when the "iSphere Message Monitor" starts.
- Added scrollbars to the "IBM i Message" dialog box of the "iSphere Message Monitor".
- Added menu option "Send Message" to the context menu of the "iSphere Message Subsystem".
- Added preferences page "Message Monitor".
- Added option to the global "iSphere Source File Search" dialog to select a RSE filter that is used to specify the items that are used for the search.
- Added option to the global "iSphere Message File Search" dialog to select a RSE filter that is used to specify the items that are used for the search.
- Added option to use a SSL connection for the 5250 emulator.



- Changed STRPREPRC plug-in to properly remove user actions on shutdown.
- Fixed problem that "Do not ask me again" messages could not be disabled.
- Fixed problem, that the filter string was not reset, when restoring the attributes of the "iSphere Message Monitor".
- Fixed problem that the "User Space Editor" did not properly save the data to the user space.

### **Change Log 2.9.3** (26.10.2016)

- Fixed problem that 5250 key bindings are applied to RSE items with RDi 9.5.
- Disabled Eclipse F1 key (Help) for 5250 vies and editors.
- Updated STRPREPRC utility to report errors in the header tags to RDi.
- Fixed problem, that certain key strokes followed by the [tab] key made the 5250 view to lose focus.

### **Change Log 2.9.2** (07.10.2016)

- Changed spooled file editor back to an editor instead of being a browser, because the search option is more comfortable. The editor is read-only, now.
- Fixed problem, that messages, retrieved from a data queue, were not correctly copied to the clipboard.
- Added option to specify the maximum number of messages to retrieve from a data queue.
- Added option to specify a replacement character that is used to replace non-displayable characters when retrieving messages from a data queue.
- Added warning message for data queue messages exceeding the 259 table column boundary of MS Windows.
- Added additional demo/test data queues to the iSphere library.
- Added option to use the font size of the spooled file viewer (Colors and Fonts: Basic -> Text Font) to compute the page size when converting a spooled file to PDF.
- Fixed problems when adding a STRPREPRC header to a source member.

### **Change Log 2.9.1** (20.09.2016)

- Fixed IllegalArgumentException when producing the spooled file description for a spooled file containing dollar (\$) characters in the name.



## Change Log 2.9.0 (16.09.2016)

This version requires updating your iSphere library to v2.9.0

This version requires re-enabling the iSphere RSE decorator.

We are sorry to let you know that we no longer have an option to create the iSphere library for V5R4. Beta version 2.9.0.b003 is the last V5R4 library. All newer versions will be compiled for V6R1. Please refer to the iSphere help to read how to install the library from an i Project.

- Added filter option "spooled file name" to the iSphere spooled file subsystem.
- Added filter options "starting date/time" and "ending date/time" to the iSphere spooled file subsystem.
- Added options for changing the text (displayed next to the name of the spooled file) to the context menu of the iSphere Spooled File subsystem.
- Added options group "auto-refresh delay" to the iSphere "Appearance" preferences page. By default that delays auto-refresh when filtering large message files.
- Added option to "pin" the 5250 view.
- Added option to disable/enable 5250 multi session views.
- Added option to group 5250 sessions by connections or to open individual views for each session.
- Added option "Copy Members to" to source file objects and member filters.
- Changed option "Copy Members to..." to copy members between different connections (systems).
- Fixed "Copy Members to" to copy member between source files with different source line lengths.
- Changed iSphere Compare Editor to ignore members that have been already opened, when started in "Browse" mode. Removed message "Member is already open in an editor".
- Changed object decorator to optionally display the library and file name of file members.
- Fixed class "SpooledFile" to use the time formatter specified in the preferences.
- Disabled "Delete Session" option (RSE context menu), when one or more 5250 sessions are still connected.
- Fixed problem that 5250 sessions were not disconnected when closing a tab of the sessions view.
- Now displaying an error message, when a 5250 session configuration file could not be found.



## Change Log 2.8.1 (12.04.2016)

This version does not necessarily require updating your iSphere library but it is recommended to do so to get the following fixes and enhancements:

- Update of STRPREPRC utility to v1.9
  - New, more intuitive 'IMPORTANT' tags of the STRPREPRC utility
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- Added new iSphere STRPREPRC plug-in.
  - Added option to filter messages by message ID in the iSphere message file editor.
  - Now messages can be removed from a monitored message queue from the RSE tree.
  - Changed message filter to use wildcard characters.
  - Changed the TN5250J view to restore the previous state of the key filter on part activation.
  - Changed "Open spooled file as text" to display the spooled file with a browser instead of an editor to work the same as with HTML and PDF.
  - Updated the STRPREPRC utility to v1.9.1.
  - Fixed problems when restarting a message monitor.
  - Fixed iSphere notifier to follow HTTP redirects.
  - Fixed various bugs with Copy & Paste for the iSphere data space editors.
  - Fixed wrong "member not found" message when comparing multiple members against another library or source file.

## Change Log 2.8.0 (31.01.2016)

This version does not necessarily require updating your iSphere library but it is recommended to do so to get the following fixes and enhancements:

- iSphere handler to start the LPEX editor from an iSphere 5250 session
  - Removed hard-links between service programs
  - Bugfix in STRPREPRC utility
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- Added iSphere 5250 emulator (based on TN5250J).
  - Added iSphere specific connection properties.
  - Added iSphere User Space editor.
  - Added "Copy members" option to the iSphere Source File Search result view.
  - Added option for downloading spooled files asynchronously.
  - Added options "Page size" and "Adjust font size" for spooled file transformation to PDF.
  - Added filter properties to the message monitor.
  - Added warning message "iSphere Compare Filters for RDi 9.5+ are not installed" to the options window of the iSphere Compare/Merge editor.



- Added "OK to All" button to the "iSeries Message" popup window of the message monitor.
- Added option to display all pending informational messages in a list, when the message monitor starts.
- Added option to specify a suggested file name, when saving a spooled file to the local PC.
- Added option 'Delete LPEX task tags' to the context menu of the LPEX tasks to remove all tasks associated to the selected resource.
- Added option "Copy Member(s) to" to the context menu of IBM i source members.
- Added handler to set a service entry point (SEP) from an iSphere 5250 session.
- Moved status line items of data area and compare message file editors to standard Eclipse status line.
- Fixed problem of lost change dates of source members saved from the iSphere Compare/Merge editor. (Only for RDi 9.5+, requires installing the iSphere Compare Filters plug-in.)
- Fixed problem of missing German "Umlaute" when transforming spooled files.

## **Change Log 2.7.0** (31.10.2015)

**This version requires updating your iSphere library to v2.7.0**

- Added the iSphere Messages Subsystem.
- Added option "regular expression" to source file search.
- Added checkbox to select whether the message help text is displayed as formatted text when displaying a message description in the iSphere Message File Editor.
- Added "Appearance" preferences page to specify date and time formats different from the locale RDi has been started with.
- Now the version of the iSphere library is displayed on the "Library" preferences page.
- Updated utility STRPREPRC to latest version.
- Changed message description editor to allow resizing of message help text and message field formats areas.
- Changed RSE filter manager to automatically add file name extensions when selecting a filter repository.
- Fixed NPE when the RSE plug-in is not installed.
- Fixed problem that negative values could not be entered when editing data spaces.
- Fixed problem that errors and warnings were not removed from the data space monitor view after the problem had been fixed.
- Fixed problem of empty messages boxes of the data space editor and monitor.
- Renamed save file ISPHERE to ISPHERE.SAVF to ease Drag & Drop from the RSE tree, when installing the library by hand.





- Fixed filter manager to preserve the order of the filter strings of a filter.
- Fixed problem that underscore characters were lost when opening or saving a spooled file.
- Fixed invalid time values when working with spooled files.

### **Change Log 2.6.2** (08.07.2015)

This version requires updating your iSphere library to v2.6.2 in order to fix the "iSphere Source File Search" bug.

- Fixed problem that "iSphere Source File Search" did not return a result when the search arguments were all set to "contains-not".
- Fixed problem that spooled file transformation cannot be used with V5R3. Now using default conversion instead.

### **Change Log 2.6.1** (16.06.2015)

- Fixed problem that exporting all RSE filters (option 'Single filter pool' not checked) did not work.

### **Change Log 2.6.0** (06.06.2015)

This version requires updating your iSphere library to v2.6.0

This version requires V5R4 for restoring the save file.

- Changed build process to produce a V5R4 save file.
- Added iSphere Data Queue Monitor view.
- Added iSphere Message File Compare editor.
- Added option to delete existing objects to the iSphere library uploader.
- Added option to the result view of the iSphere Source File Search to specify the mode (\*EDIT/\*BROWSE) the Lpex editor is started for when double-clicking a source member.
- Added popup menu to the statements table of the iSphere Source File Search view.
- Added view menu to the iSphere Source File Search view with options for loading and saving search results.
- Added options to the preferences page and the "iSphere Source File Search" and "iSphere Message File Search" views for automatically saving search results when the view is closed.
- Added preferences page for label decorations of the RSE tree.
- Added key bindings (Ctrl+I,M) and (Ctrl+I,S) for the iSphere source file and message file dialogs.
- Added commands to assign key bindings to: "Data Space Editor Designer", "RSE Filter Management", "Transfer iSphere Library",



"Open message file search dialog" and "Open source file search dialog".

- Added menu option "Help" to the iSphere menu.
- Added "Close" button the iSphere Source File Search and Message File Search result views.
- Added option "Copy selected" to the context menu of the iSphere search result views (source file members/message files).
- Added keyboard shortcuts CTRL-A (select all) and CTRL-C (copy) and a context menu to the iSphere Transfer Library dialog to copy the displayed messages to the clipboard for easier error reporting.
- Added I Project label decorator to show the object descriptions in an i Project.
- Added dialog for selecting the filter pool when exporting a search result to a member or object filter.
- Changed the iSphere Compare feature, so that more than two members can be selected for easily comparing members with the same name in different source files.
- Now the iSphere search dialogs show up in the Eclipse "Search" menu.
- Fixed bug, that the decimal data area editor did not allow negative values
- Fixed double print problem when converting a spooled file to TEXT, HTML or PDF.
- Fixed minor page break problem when converting a spooled file to HTML.
- Fixed bug that the character preceding a form feed (FF) was not converted to text, html and pdf when saving or displaying a spooled file.
- Fixed formatting problem in message preview view.
- Fixed problem that the designer repository was not properly saved as UTF-8 stream.
- No dropping an object on a pinned view is rejected.
- Now dropping a data space object is rejected when auto-refresh is on.
- Now properly disabling auto-refresh options when there is no object in a view.
- Removed the need for the QGPL/ISPHERE data area. That data area can be safely deleted, now. We now use the QSZRTVPR API to get the release level of the operating system.
- Added Eclipse update sites:  
RDi: <http://isphere.sourceforge.net/eclipse/rdi8.0/>  
WDSCi: <http://isphere.sourceforge.net/eclipse/wdsci7.0/>
- Added Eclipse update sites for beta version:  
RDi: <http://isphere.sourceforge.net/beta-version/eclipse/rdi8.0/>  
WDSCi: <http://isphere.sourceforge.net/beta-version/eclipse/wdsci7.0/>



## **Change Log 2.5.2** (11.02.2015)

- Added menu option "Transfer iSphere Library". Default values are: Library ISPHERE and FTP port number 21. The defaults can be changed on the "iSphere/Library" preference page.
- Improved error logging of FTP transfer.

## **Change Log 2.5.1** (10.02.2015) (Internal test release)

- Fixed bug that substitution variables were not properly retrieved by the new IQMHRTVM API.
- Fixed NullPointerException in the iSphere Message File Editor, when using the DEL key to delete message descriptions.
- Fixed ClassCastException in AbstractViewManager when closing views that are not an instance of IPinnableView.

## **Change Log 2.5.0** (08.02.2015)

**This version requires updating your iSphere library to v2.5.0**

- Added the iSphere Data Area Editor.
- Added the iSphere User Space Editor.
- Added view for monitoring data areas and user spaces.
- Added the iSphere Data Space Editor Designer for defining the structure of data areas and user spaces.
- Added Italian translation.
- Fixed bug that the message description was not updated in the table viewer on a double-click change event.
- Fixed bug, which dropped newly added messages from the list when the filter had been changed afterwards.
- The length of a message will be displayed in the iSphere Message File Editor.
- Extended the "Search for updates" feature to optionally search for beta versions.
- Now the iSphere Search Pages (CTRL+H) remember the last used connection.
- Changed structure of iSphere zip file so that it can be used as an archived update site.
- iSphere RSE Filter Management with special support for filter pools.
- Added option to remove items from the "iSphere Source File Search" and the "iSphere Message File Search" result views.
- Added option to invert the selection of the "iSphere Source File Search" and the "iSphere Message File Search" result views.
- Added iSphere "Retrieve Message (IQMHRTVM) API" to speed up loading large message files.



## **Change Log 2.4.0** (12.09.2014)

- New Feature "iSphere RSE Filter Management" to import and export all or single filters.
- New Feature "Search for updates" to search for new iSphere versions when the IDE starts.
- Fixed bug in iSphere Compare/Merge Editor when using the flag "Ignore case". Whether or not this flag will be set, it will not be considered.
- Fixed bug in iSphere Source File Search. Flags "Include first level text" and "Include second level text" will be provided. In iSphere Source File Search this is wrong and has fixed.

## **Change Log 2.3.0** (22.08.2014)

- Added option "include 1. level text" to "iSphere Message File Search Page".
- Added options "Include first level text" and "Include second level text" to "iSphere Message File Search" from the RSE tree.
- Now storing the current values of the "iSphere Message File Search" from the RSE tree.
- Enhanced the iSphere Message File Editor to use a multiline text field instead of a small combo box.
- Added options to the iSphere Message File Editor to filter messages by first and/or second level text.

## **Change Log 2.2.0** (19.08.2014)

- Fix invalid length property when adding a message description with a \*VARY field.
- Fixed iSphere Compare Editor to ignore trailing spaces.
- Added port number for FTP transfer to preferences page.
- Enabled source member compare editor to work on two selected members.
- Added "iSphere Message File Search Page" (CTRL+H)
- Added "iSphere Source File Search Page" (CTRL+H)
- Enhanced "iSphere Message File Search" from the RSE tree to allow logical AND/OR combinations of multiple search strings.
- Enhanced "iSphere Source File Search" from the RSE tree to allow logical AND/OR combinations of multiple search strings.
- Added option to change attributes "Severity" and "Ccsid" of a message description.
- Added RSE object decorator to show the object descriptions in the RSE tree.
- Added view "iSphere Message Description" to show the formatted text of a message description of the RSE tree or "iSphere Message File Editor".



## **Change Log 2.1.0** (10.04.2014)

- Changed build process to produce a V5R3 save file.
- Added Dutch translation.

## **Change Log 2.0.0** (02.04.2014)

- In view "iSphere Source File Search", which contains the search results, the member description will now be displayed next to the member.
- If you export the search results displayed in view "iSphere Source File Search" to Excel, the output contains now also the column "Member Description".
- If you export the search results displayed in view "iSphere Message File Search" to Excel, the output contains now also the column "Message File Description".
- iSphere Source File Search can now run in background. When starting the search a progress window appears. Here you can press the button "Run in Background".
- iSphere Message File Search can now run in background. When starting the search a progress window appears. Here you can press the button "Run in Background".
- Deleting spooled files can now run in background. When starting the delete task, a progress window appears. Here you can press the button "Run in Background".
- When opening a member via the view "iSphere Source File Search" the LPEX editor will be used by default. When you now open a member with type DSPF, MNUDDS or PRTF iSphere asks you to use the LPEX editor, the screen designer or the report designer.
- The search results of iSphere Source File Search can now be exported to a member filter
- The search results of iSphere Message File Search can now be exported to an object filter
- By default spooled files are converted by spooled file transform and workstation customization objects, now.
- The binding directory editor has been changed to let you double-click a binding directory entry for editing.
- The binding directory entry and the message description editor have been changed to remember their size and position.
- Added new "iSphere Task Tags" plugin. Now you can add your own task tags to your source member, e.g. TODO, FIXME, etc.
- Now a list of spooled files based on spooled file filters can be shown in view "Remote System Details" by selecting "Show in Table" in the context menu of the spooled file filter.



## **Change Log 1.4.2** (23.03.2014)

When opening a spooled file it can occur that the contents of the spooled file will not be displayed. This error has fixed.

## **Change Log 1.4.1**

For the iSphere client the right iSphere library has to be installed on the host. If not, then a window should pop up with a specific message. This window doesn't pop up. This error has now fixed.

## **Change Log 1.4.0**

- A new spooled file subsystem with the ability to open spooled files in Text, HTML and PDF format.
- The search results of iSphere Source File Search and iSphere Message File Search can be exported now to Excel.

## **Change Log 1.3.0**

- A new extremely fast search feature for searching message files.

## **Change Log 1.2.2**

- When comparing two members with the Compare/Merge Editor and trying to save the left member after changing it an error occurs in RDi 8.5 and RDi 9.0 that the save operation has failed. This has fixed.

## **Change Log 1.2.0**

- A new extremely fast search feature for searching source files.

## **Change Log 1.1.1**

- Making the Binding Directory Editor work for servers which are not running at least V6R1M0.

## **Change Log 1.1.0**

- For the Message File Editor you now can specify to search by the filter case sensitive or not.
- A new Binding Directory Editor for editing binding directory entries within a binding directory is provided.



## iSphere On The Internet

Homepage	<a href="http://isphere.sourceforge.net/index.php">http://isphere.sourceforge.net/index.php</a>
SourceForge	<a href="https://sourceforge.net/projects/isphere/">https://sourceforge.net/projects/isphere/</a>
Help	<a href="http://isphere.sourceforge.net/help/">http://isphere.sourceforge.net/help/</a>
WDSCi 7.0 Update Site	<a href="http://isphere.sourceforge.net/eclipse/wdsci7.0/">http://isphere.sourceforge.net/eclipse/wdsci7.0/</a>
RDdi 8.0+ Update Site	<a href="http://isphere.sourceforge.net/eclipse/rddi8.0/">http://isphere.sourceforge.net/eclipse/rddi8.0/</a>
Help Beta	<a href="http://isphere.sourceforge.net/beta-version/help/">http://isphere.sourceforge.net/beta-version/help/</a>
WDSCi 7.0 Beta Update Site	<a href="http://isphere.sourceforge.net/beta-version/eclipse/wdsci7.0/">http://isphere.sourceforge.net/beta-version/eclipse/wdsci7.0/</a>
RDdi 8.0 Beta Update Site	<a href="http://isphere.sourceforge.net/beta-version/eclipse/rddi8.0/">http://isphere.sourceforge.net/beta-version/eclipse/rddi8.0/</a>