

Supplement #56

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RSE EXTENSIONS FOR WDSC 5.X

RSE Extensions for WDSC 5.x consists of three handy utilities that enhance your work environment and make it easier for you to work entirely within the WebSphere IDE.

These plug-ins were formerly offered as three separate free plug-ins: the iSeries Spooled Files plug-in, the iSeries Messages plug-in, and the iSeries Editing perspective. They are now bundled and offered as a unit, called the "RSE Extensions."

This document applies to customers using WDSC 5.x only. To get RSE Extensions for WDSC 6.x, go to <u>http://support.softlanding.com/opensource/rse_extensions.exe</u>.

With RSE Extensions, you get fast access to spooled file output, the ability to see and respond to iSeries messages, and a perspective that makes it easier for you to view two source editing windows simultaneously.

INSTALLING RSE EXTENSIONS

Follow these instructions to install the RSE Extensions for WDSC 5.x.

Important!

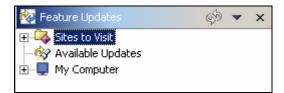
The install instructions for the iSeries Editing perspective on page x require that either the Spooled Files plug-in or the iSeries Messages plug-in be installed first.

Install the free SoftLanding plug-ins for WebSphere Development Studio Client 5.x (WDSC) using WDSC's "Update Manager."

While the Update Manager can install and service plug-ins over a standard HTTP connection, it might not work if you require an HTTP Proxy to access the Internet (depending on what version of WDSC you are running). If this is your situation, send SoftLanding an email, and we will forward the plug-ins to you as an email attachment.

Step One: Open the Update Manager

With WDSC 5.x running, go to the Help menu and choose Software Updates ► Update Manager. This opens the Install/Update perspective. In the bottom left corner, you should see a section entitled Feature Updates. (If you do not see this, go to your menu bar and choose Window ► Reset Perspective.)



Step Two: Create a Site Bookmark

Note:

If you are running the TurnOver plug-ins in WDSC 5.x, then the Spooled File plug-in is already installed, and the update site we are instructing you to create in this step has already been created for you. You can skip to Step Three to install the remaining plug-ins.

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Right-click anywhere within the Feature Updates section and choose New ► Site Bookmark. You will see the following dialog (without the details filled in):

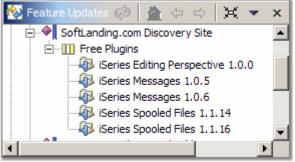
New Site B	ookmark				
New Upda	te Site Bookmark				
Bookmark an update site. Use folders to organize your bookmarks.					
		N			
<u>N</u> ame:	SoftLanding.com				
URL:	http://www.softlanding.com/free_plugins/				
<u>⊂</u> reate in:					
<u>E</u> xisting fol	ders:				
	Einish	Cancel			
	Clush				

Enter any value you want in the Name field and enter the following in the URL field:

http://www.softlanding.com/free_plugins/

Click Finish.

The bookmark you have created now appears in the **Feature Updates** view. Expand the bookmark until you see the free plug-ins. Your panel will look something like this:



Step Three: Install the Plug-ins

Select the plug-in you want from the list. On the right, you will see a screen that describes the plug-in you chose. This is the Spooled File plug-in's description:

E Preview	$\underline{\Diamond} \Leftrightarrow \Rightarrow \mathbf{x}$
iSeries Spooled Files	
Provider SoftLanding Systems, Inc.	
Yersion 1.1.2	
Installed Version Not Installed	
Download Size 72 KB	
Supported Platforms	
Description	
iSeries Spooled Files	
This feature adds the ability to work with iSeries spooled files from IBM's Remote Systems Explorer.	
More Info License Copyright	Install

Click the Install button to launch WDSC's installation wizard.

Note:

If the plug-in you chose is already installed, the **Install** button does not appear. If the version you have is out of date, an **Update** button appears instead.

Repeat this step for each plug-in you want to install.

You will use this same technique in the future to update your installed versions of these plug-ins.

CONFIGURING THE RSE EXTENSIONS

If your version of WDSC 5.x does not readily recognize new subsystems, you might have to delete and recreate your RSE connection. (No filter data will be lost if you do this.)

The following topics describe additional configuration that is required to use your plug-ins.

Spooled Files plug-in and iSeries Editing perspective

No additional configuration is required for these plug-ins.

iSeries Messages plug-in

Follow these instructions to configure the iSeries Messages plug-in.

Preparing for message queue monitoring

Message queue monitoring runs on a thread in the background. When you create your new **iSeries Messages** connection, the iSeries Messages plug-in starts the background thread, which uses an API to allocate your message queue and receive messages as they arrive. Some things you should know about the background thread are:

- To receive messages, the thread must be able to allocate your message queue. This means you will have to connect with RSE before you sign on to any 5250 sessions.
- If you have defined multiple RSE connections to the same physical iSeries server, you can set up only one of them to monitor your message queue.
- If the thread cannot allocate your message queue, it just displays an error message to notify you that it could not allocate the message queue, and then it ends.

Additional details about message queue monitoring

For the most part, the job for this background thread remains on your iSeries in a **MSGW** status as it waits for a message to arrive in your message queue. However, every 30 seconds it returns control to the thread so that the thread can see if you have done something within WDSC, such as disconnect your RSE connection. You might want to disconnect your RSE connection to stop the monitor and de-allocate your message queue. Just remember that it can take up to 30 seconds from the time you disconnect the RSE connection until the message queue monitor ends. If you close WDSC, the Java Virtual Machine (JVM) will handle automatically ending the thread as part of its normal function.

Turning on and setting up message queue monitoring

To turn on message queue monitoring, you must perform the following steps:

- 1. Right-click the iSeries Messages subsystem within RSE.
- 2. Choose **Properties** from the menu.
- 3. On the Properties for iSeries Messages panel, choose **Message Queue Monitoring** from the list of Property pages on the left.

The message queue monitoring settings appear on the right, as shown here:

Properties for iSeries Mess	sages 📃 🗖 🔀
Command Execution	Message Queue Monitoring
 Initial Library List Message Queue Monitoring Subsystem 	 Monitor message queue Remove informational messages after notification Inquiry message notification:
	Informational message notification: eMail
	eMail: youraddress@yourcompany.com
	From: Message Queue Monitor
	Host: mailserver.yourcompany.com Port: 25
	Test
	Restore Defaults Apply
	OK Cancel

Descriptions of the settings for message queue monitoring follow:

Setting	Description
Monitor message queue	Specify whether or not you want your message queue monitored. Check this box to indicate that you want your message queue monitored. (Leave this box unchecked if you do not want your message queue monitored.) Note that monitoring occurs only for the message queue of the user profile you use to connect to your RSE connection.

Setting	Description			
Remove informational messages after notification	Specify whether or not you want messages removed from the message queue once you receive them. Check this box to indicate that you want messages removed from the message queue after you receive them. (Leave this box unchecked if you do not want messages removed.)			
	Generally, it is a good idea to remove messages. Because the message queue monitor allocates the message queue, if you conthave the messages removed, the only time you will be ab to remove them is when RSE is not connected. If you choose not to have messages removed, you do not have to be concerned about seeing them again because the message queue monitor marks them as old.			
Inquiry message notification/ Informational message notification	Specify how you want to be notified when you receive inquiry and informational messages. Your choices are:			
3	Method The message queue monitor			
	Dialog	Displays the message in a dialog pop-up panel. This method is particularly suitable for inquiry messages. (For additional information, see <i>Inquiry message notification</i> on page 12.)		
	EMAIL	Sends you the message as an email message. This method is particularly suitable for informational messages. (For additional information, see <i>Informational message</i> <i>notification</i> on page 13.)		
	Веер	Emits a "beep" when you receive a message. (For additional information, see <i>More about the Beep method</i> on page 8.)		

The eMail, From, Host, and Port settings apply to eMail method and are described on page 13. Once you have specified all your settings, click the Test button to test them. You receive a test email that uses your settings.

Notes:

- 1. Whether or not you choose the **Dialog** method might depend on how many messages you receive daily. If you receive numerous messages, you might find a dialog pop-up to be disruptive while you work within WDSC.
- 2. Inquiry messages are NOT removed from the message queue once you receive them.

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When you specify the eMail method, you must also specify some additional settings:

Setting	Description
EMAIL	The email address where you want the message queue monitor to send the messages.
From	The name that will appear as the From address (the address itself will be what you specified for eMail above). You will probably use this setting with message rules in your email client to process the messages the way you consider most appropriate.
Host	The TCP/IP name or address of your mail server. Your mail server (as do most mail servers) must support SMTP messaging.
Port	The SMTP port of your mail server. Normally this will be 25.

More about the Beep method

When you use the **Beep** method, you cannot remove the messages as you receive them. If you use this method, you will probably view the messages using the "**My Messages**" filter that was created for you in the iSeries Messages subsystem. However, because the message queue monitor allocates the message queue, you will be unable to remove the messages from your message queue using the filter. (For more information, see *Defining Message Queue Filters* on page 9.)

Defining Message Queue Filters

In addition to its monitoring component, the iSeries Messages plug-in installs an iSeries Messages subsystem within RSE, which allows you to define filters for the messages in message queues. Keep in mind that these filters work differently from the message queue monitor discussed in the previous section. They do not allocate the message queue; instead, they just use APIs to retrieve all messages in the queue that meet the filter criteria. These filters act like a more powerful **DSPMSG (Display Messages)** command. You will probably use the iSeries Messages subsystem primarily to monitor the QSYSOPR message queue; however, you can use it for any message queue.

The basic filter concept and workflow is the same as the rest of RSE. You can define any number of named filters and, to see the results of a filter, you either expand or refresh the filter. Options are available within the filter for working with the individual filtered messages. For example, you can answer an Inquiry message, you can delete a message if the message queue is not allocated, or you can just display the message and see its help.

To create a fi	lter, rigł	nt-click o	n the	iSeries	Messages	subsystem	and choose	New 🕨	Message
Filter.									

Wew	
Message Filter Create a new filter to	list messages
Message queue:	
Library:	QUSRSYS
From user:	*
Message ID:	*
Severity threshold:	*
From job:	*
From job number:	*
From program:	*
Message text contains:	*
Message type:	Any
	< Back Next > Einish Cancel

At a minimum, you must specify a valid message queue and library. There are then just a series of additional optional filter criteria you can provide. For example, you might build a filter that displays Inquiry messages in QSYSOPR, to see messages that are waiting for a reply. (Note: The QSYSOPR message queue is normally in QSYS, not QUSRSYS.)

After you specify your criteria, click **Next**. Then provide a name for your filter and click **Finish**. Once you define the filter, you work with it as you would any other RSE filter.

USING RSE EXTENSIONS

These topics describe the tools that make up the RSE Extensions and explain briefly how to use each one.

Spooled Files Plug-in

The Spooled Files plug-in integrates itself as a seamless part of WDSC's Remote System Explorer (RSE). As you can see, "**iSeries Spooled Files**" is added as another "subsystem" under your iSeries connection:



Note

If your RSE connection does not readily recognize the new subsystem, delete and recreate your connection. (Your existing filters will remain intact.)

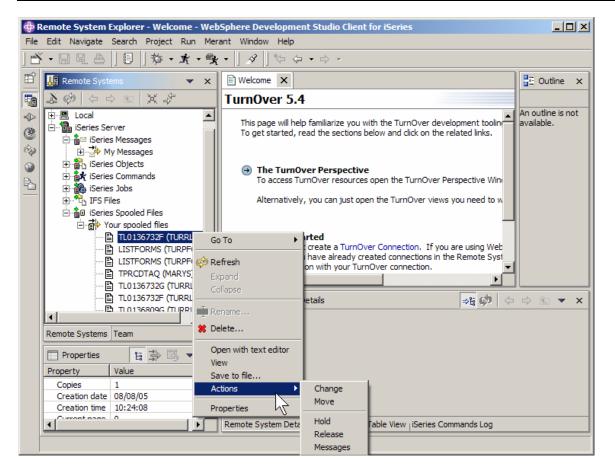
The Spooled Files subsystem works pretty much like other WDSC subsystems. Define filters to identify the spooled files you want to see. You can then see them by expanding the tree or by right clicking the filter and choosing **Show in Table**.

We have also added a **Spooled Files** menu option to the iSeries Jobs filters. When you display a list of jobs there, you can right click on a job to see any spooled files it generated.

Working with Spooled Files

Options are available for most of the standard spooled file actions. The View option uses the Spooled File Viewer that is part of the IBM Java Toolbox. You can also open a spooled file as a plain text file in the Workbench, or save one as plain text file or as a TIFF graphic. The latter option produces very large files, but it does retain all of the proper formatting if you need to print a file.

These plug-ins give you access to your compile listings and job logs. Once you open a file in the WDSC Text Editor, you can use the options provided to find strings or print. Keep in mind that when printing, formatting options such as page breaks are not retained in the output.



As shown in the above screenshot, all of the standard spool file functions are available for use against the spooled files appearing in an expanded filter.

The spooled file plug-in is ready to use upon installation, and requires no additional configuration.

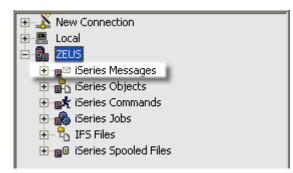
iSeries Messages plug-in

Even with a 5250 session active, you don't always know when a message has arrived in your message queue, and it can be inconvenient to frequently interrupt your work to see if you have received job completion messages and inquiry messages from submitted jobs.

This is where the iSeries Messages plug-in comes into play. It provides a way for developers who want to work primarily (or even exclusively) within WDSC to monitor their message queue for messages.

The iSeries Messages plug-in contributes a subsystem to the Remote Systems Explorer view.

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These are two examples of ways WDSC can notify you of incoming messages:

Inquiry and informational message notification example

WDSC can notify you of inquiry and informational messages using a dialog, like this:



(For inquiry messages, the dialog panel includes an input field for your response that is not shown here.)

Informational message notification example

For informational messages, you will likely use the **eMail** notification method. With this method, the message queue monitor sends you the message as an email message similar to this:

```
From:
       Message Queue Monitor
                                    markp
       <markp@softlanding.com>
Subject: Job 632479/QUSER/QGYSERVER cc:
  From:
                OUSER
  Message ID: CPF1241
  Severity: 0
  Message type: Completion
  Date sent: Tue Oct 21 09:30:43 EDT 2003
  From job: QGYSERVER
    Number:
                632479
  From program: QWTMCEOJ
  Job 632479/QUSER/QGYSERVER completed normally on 10/21/03 at 09:30:43.
```

To configure your notification choices and other operational preferences for the iSeries Messages plug-in, see *Configuring the RSE Extensions* on page 5.

Editing perspective plug-in

The iSeries Editing Perspective plug-in contributes an iSeries Editing perspective to WDSC. The iSeries Editing perspective comes with a unique and visible icon (\square), and it provides a prearranged collection of windows and views that improve WDSC's source editing features.

In particular, this arrangement makes it easier for you to view two source editing windows at once. Follow these instructions to use this perspective.

Open some source

First, open a couple of members for editing in RSE. This will make it easier to see the perspective's features.

Open the Perspective

To open the perspective for the first time, choose **Open Perspective > Other**. A screen like this appears:



Select the iSeries Editing perspective.

Note that once the perspective is open, it is easy to quickly switch between open perspectives. Just use the perspective switcher that appears in the top-right hand corner of WDSC (visible in the next screen).

The perspective looks like this:

	ng - CHGOBJ.RPGLE - IBM Rational Software Development Platform					
📬 🖌 🔛 🖻] 💁 ▾] 🖋 🐎 ▾ ↔ ▾] 🖑 ♡ 🗷 🖉 🕨 Δ 🐇 👫 🛃 🐘 🗡 🛱 Series Editing					
/CHGIFSATR.R						
Line 1	Column 1 Replace					
	/1+2+3+4+5+6+7+8.					
000121	/TITLE ChgObj - Change object CPP.	~				
000200	***************************************	* * 📳				
000300	* Copyright (C) 2001 David M. Morris	=				
000302	* This file is part of the iSeries-toolkit					
000303	* The iSeries-toolkit is free software; you can redistribute it and/or					
000304	* modify it under the terms of the GNU General Public License version 2,					
000305	* as published by the Free Software Foundation.					
000306	* The iseries toolkit is distributed in the hope that it will be useful,	* The iseries toolkit is distributed in the hope that it will be useful,				
000307	* but WITHOUT ANY WARRANTY; without even the implied warranty of	* but WITHOUT ANY WARRANTY; without even the implied warranty of				
000308	* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.					
000309	* See the GNU General Public License for more details.					
000310	*					
000311	* You should have received a copy of the GNU General Public License					
000312	* along with this file; if not, write to the Free Software Foundation,					
000313	* Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307, USA.					
000314	* You might find a version at http://www.gnu.org/licenses/gpl.txt					
000315	*					
000316	* Module - ChgObj					
000400	* By - David Morris					
000500	* Purpose - Command processor for CHGOBJ command.					
000600	* Compile - CRTRPGMOD MODULE(objlib/CHGOBJ)	~				
<		>				
 18: # 🕠 (

This perspective allowing the editors to use more screen real estate, and condenses other useful non-editing views into a set of toolbar icons at the bottom of the window.

You can un-stack and re-stack the editing windows. (You might do this to see two source members side by side, or one over the other.) To do this, just click and drag one of the editor tabs to any window edge. The icon changes to tell you when to drop the Window. To undo the effect, just drag and drop onto another editor, and WDSC will go back to stacking them.

Remember those icons we mentioned, on the bottom toolbar in the previous screenshot? Those are all of the common views you would typically need to access. We have converted them to something WDSC calls a "Fast View."

To see an example, click the icon for the Outline view. Your screen now looks something like this:

🕑 iSeries Editing - CHGOBJ.RPGLE - IBM Rational Software Development Platform					
File Edit Source Compile Navigate Se					
🖸 • 🔛 🗁 💁 • 🔗 🐤 🤇	⊃ • ↔ •] 🖓 ↔ 🛛 🖬 🕨 🛕 🗑 🗛 🗑 🐘 👘 👔 🚰 iSeries Editing 🔷				
🗄 Outline 🛛 🧔 👘 🗖					
🖃 🧠 Global Definitions	Replace				
🕀 🄄 Data Structures	-+ETDsFrom+++To/L+++IDc.Keywords++++++++++++++++++++++++++++++++++++				
🕀 🦳 Indicators	10I 0 CONST				
Fields	10I 0 CONST				
Constants	10I O CONST				
😟 🦓 Prototypes 🖃 🍓 Main Procedure	********				
	variables *				
Parameters ObjLib : Character (20)					
DbjTyp : Character (7)					
SrcLib : Character (10)					
- Ē SrcFil : Character (10)					
- 🛱 SrcMbr : Character (10)					
Txt : Character (50)					
└──∰ UsrDfnAtr : Character (10)	Replace				
	·····				
	ObjTyp)				
	cors, list incomplete or records being returned.				
	DOW LISts <> '3' AND				
	(LISts <> '2' OR				
	LICnt > LIFstRcd + LIRtnCnt)				
	ch of records if not at end.				
I 📴 📕 痛 🖫 🍳 I					

Notice how the Outline view "slides" into place on top of your editors? From this view, you can expand the outline and click on a field's or procedure name's line number. This takes you to that part of the source, and the Outline view slides back out of sight. (You can also click the minimize button in the view, or click back in your editor, to close the view.)

Of course, the perspective switcher makes it easy to just switch back to your other perspective to access to the views there.

UPDATING RSE EXTENSIONS

Use WDSC's Install/Update perspective to check for and install updates for the RSE Extensions.

- 1. In the Feature Updates view of the Install/Update perspective, expand the Sites to Visit bookmark.
- 2. Expand the SoftLanding.com Discovery Site bookmark; then expand Free Plugins.
- 3. Locate and click on the entry for the latest numbered version of an RSE Extension plug-in, and check the description page to see if it is newer than your installed version.
 - a. If no button appears on the page, the version you have is the most current.
 - b. If an Update button appears, the selected version is newer than yours.
- 4. Click the Update button to install updates, and follow the wizard's instructions.
- 5. Repeat these instructions for each RSE plug-in.

As always, contact SoftLanding Technical Support if you have any questions about the information in this document.