



What's New with RDi 9.5.1 / 9.5.1.1!

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Agenda

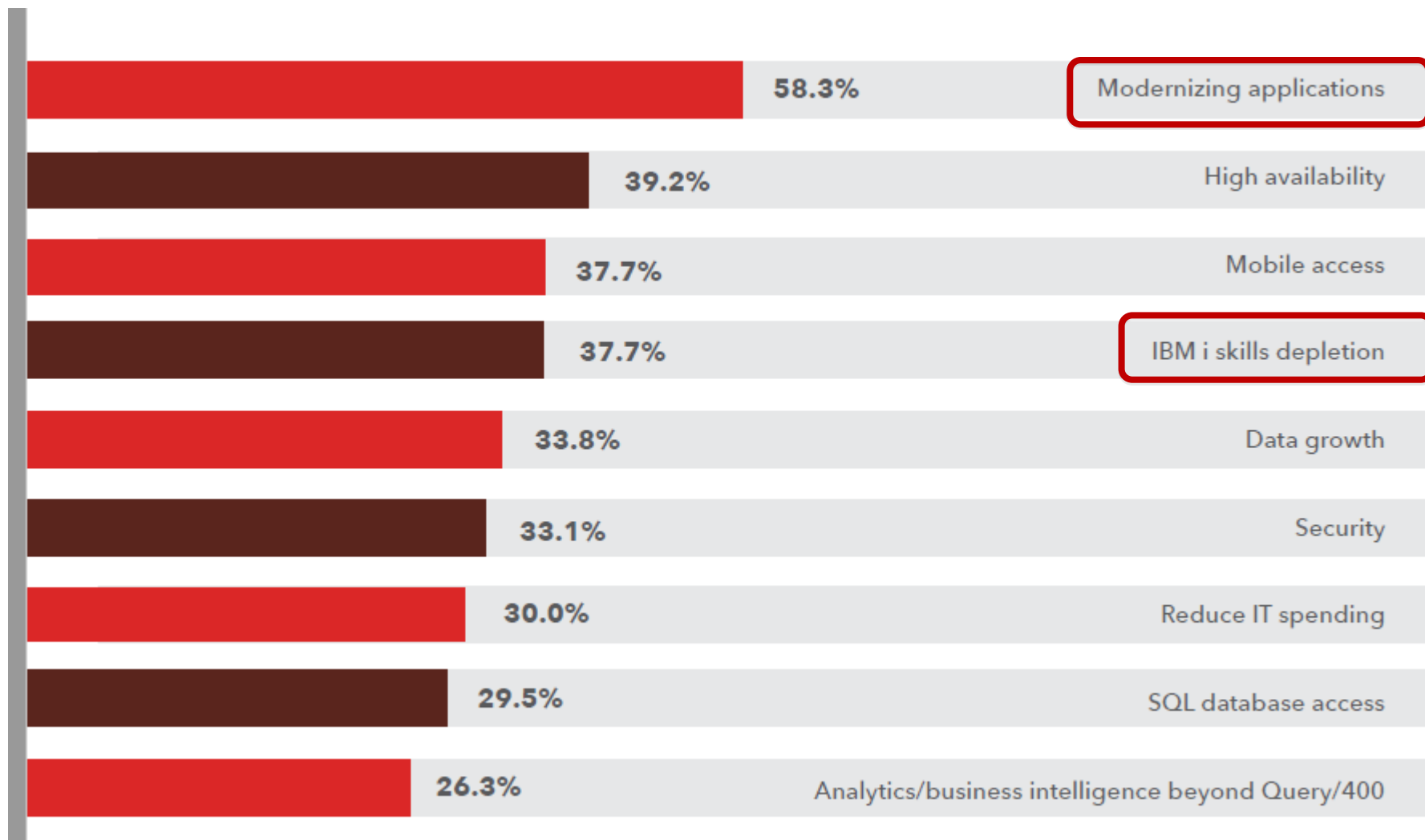
- Why RDi
- RDi 9.5.1 enhancements
- RDi 9.5.1.1 enhancements
- Feedback and direction setting

RD*i* currency

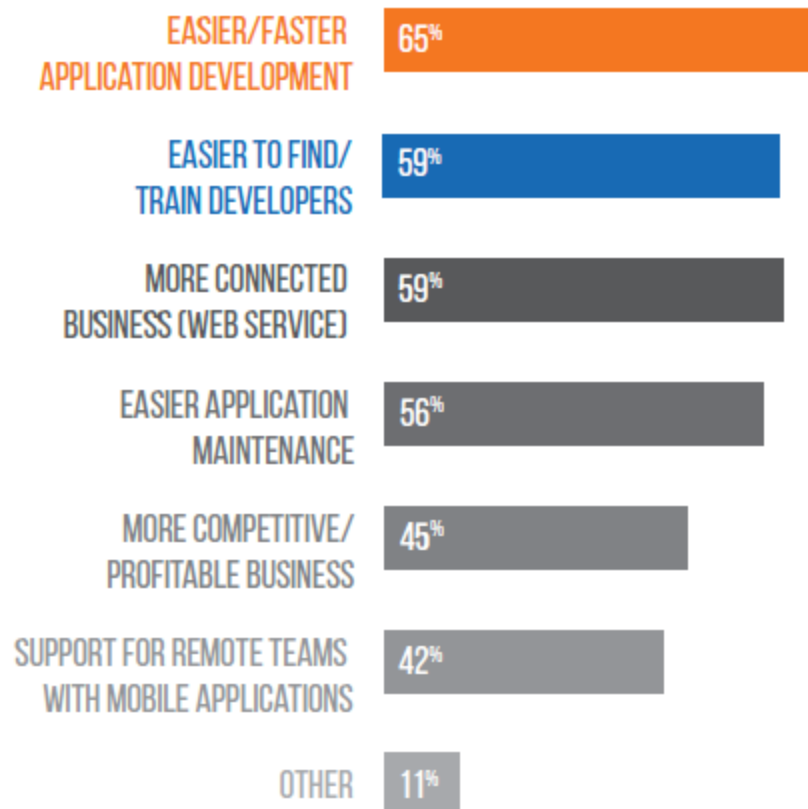
Which is most recent version actively used in your shop?

1. Green screen only (1970-1990)
2. CODE/400 (1990-2000)
3. WDS*c* (2000- 2009)
4. RD Power 7.x or 8x (2010-2012)
5. RD*i* 9.0.x (2013)
6. RD*i* 9.1.x (2014)
7. RD*i* 9.5 (2015 Sep)
8. RD*i* 9.5.1 (2016 Sep)
9. RD*i* 9.5.1.1 (2016 Dec)

Top Concerns for IBM i IT – Help Systems Survey 2016



Improvements from modernization – Profound Logic Survey



Remove 8-80 Column Restriction

Today column 1-8 are reserved (goes back to the punch card days)
Max Column for content is 80 (again....punch card)

```
Line 4      Column 1      Insert      5 changes
█...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...8...+...9..
// Compiler options
// Code and comments can now extend well beyond the 80-column limit, allowing much greater f
ctl-opt ALLOC(*TERASPACE) NOMAIN TEXT('long and meaningful description text for this');

//Files and definitions
dcl-ds progStatus PSDS;
    procedure *proc;
end-ds;
```

- If column 1 of a source line contains '**FREE', the following lines contain free-form RPG code beginning in column 1 and continuing to the end of the line
- If **FREE has not appeared in the source file, the following lines have RPG code in columns 6 – 80.

Roadmap to Modern RPG

- Modern coding style
 - Easier to code and maintain
 - Easier for new programmers
- But older code still works
- Easily express business logic

Value Proposition

Continual Investment and Innovation

7.1

- Free-form H, F, D and P statements
- Removal of 8-80 column limit
- Sort and search data structure arrays
- Sort ascending or descending
- %SCANRPL built-in function
- Support for ALIAS names in files and data structures
- Relaxed rules for data structure I/O
- Faster return values with RTNPARM
- %PARMNUM built-in function
- Optional prototypes
- Implicit CCSID conversion for parameters
- Teraspace storage model
- CCSIDCVT keyword to notify about conversion errors
- Encrypted listing debug view

7.2

- CCSID support for alphanumeric data
- Alphanumeric subfields in external data structures can have the same CCSID as the field in the file
- Implicit CCSID conversion for concatenation
- Option to open database files without CCSID conversion
- /SET and /RESTORE directives to temporarily change the default CCSID or date/time format
- More control for %SUBDT
- 0 and 12 fractional seconds for timestamps

7.3

- New and enhanced built-in functions to improve string processing
- Use ALIAS names for all externally-described files
Relaxed rules for data structures for I/O operations
- Enhancements related to null-capable fields
- Usability enhancements for generated PCML
- Maximum number of parameters for a bound call increased to 16,382

All of these features are NOT supported by SEU!

How is this changing the game?



Hear how Modern RPG and Tools allows a 23 year old developer to be success today!

<http://bit.ly/1WhM7uT>

Development tools....



```

Session A - [24 x 80]
Columns . . . : 6 76          Edit          YANTZI/QRPGLESRC
SEU=>
FMT *
***** Beginning of data *****
0001.00
0002.00
0003.00
0004.00 * Program: ORDENTR
0005.00
0006.00 * This program allows a user to enter and confirm an order. It sends
0007.00 * a print request to a batch job via a data queue. The program only
0008.00 * handles District 1 and Warehouse '0001'.
0009.00
0010.00 * Don was here
0011.00
0012.00 * INDICATOR USAGE:
0013.00 * 03 - F3=Exit
0014.00 * 04 - F4=Prompt
0015.00 * 06 - F6=Accept order
0016.00 * 12 - F12=Cancel

F3=Exit  F4=Prompt  F5=Refresh  F9=Retrieve  F10=Cursor  F11=Toggle
F16=Repeat find  F17=Repeat change  F24=More keys
(C) COPYRIGHT IBM CORP. 1981, 2005.
MA a MM 02/009
    
```

Tried and True, Yes but also SLOW, OLD, No new features

Tools



Speed



Quality



Damage

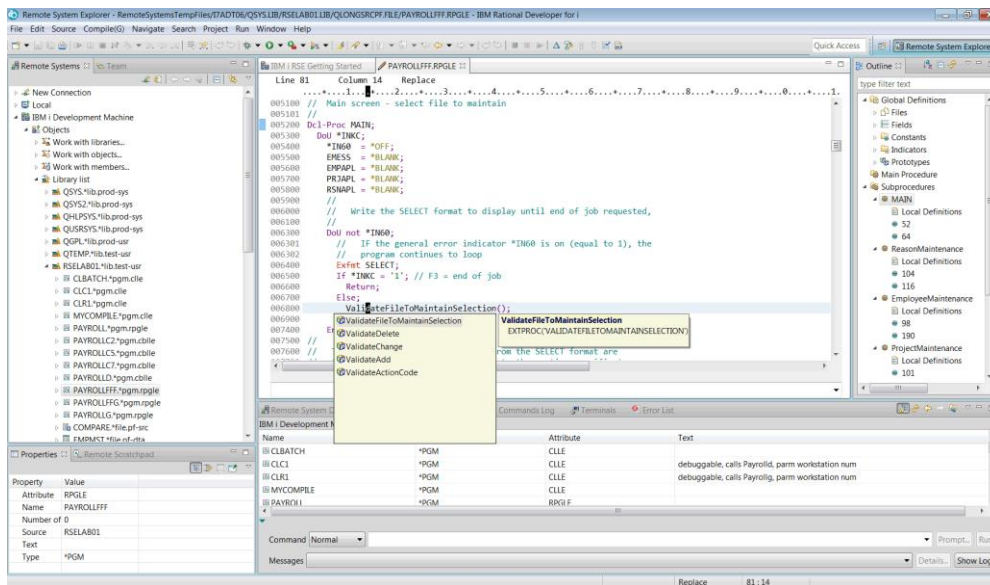
Use the right tool for the job!



Cost \$500

Rational Developer for i

- Modern, Eclipse-based, development tools for IBM i
- Visual editors, outline views, content assist, integrated language help
- Integrated file management, search, edit, compile/build, debug capabilities
- Analysis tools (application diagram, call hierarchies, type hierarchies)
- Easily debug batch, interactive, and Web applications with a common visual debugger – analyze code coverage of tests
- Visual DDS design tools: Screen and Report Designer
- Supports RPG, COBOL, C, C++, SQL, DDS



Use the Right Tool for the Job!

Rational Developer for i RoadMap

- Tightly integrated
- Edit/Compile/Debug
- Program Understanding
- Code Coverage Analysis
- Extensible by IBM
- Extensible by ISVs
- Extensible by open source

Value Proposition

Continual Investment and Innovation

- 8.5.1
 - Live ILE RPG outline view
 - Improved i Project support
 - Inclusion of IBM Data Studio
 - 64-bit operation system support
 - 8 RFEs
 - 36 fixes

- 9.0.0
 - Hover over RPG reference
 - Hyperlink to RPG declaration
 - Improved Content Assist
 - Improved CL support
 - 9 RFEs
 - 39 fixes

- 9.0.0.1
 - 11 fixes

- 9.0.1
 - Free-form ILE RPG declarations
 - Improved syntax highlighting
 - Improved visualization of block nesting
 - 4 RFEs
 - 49 fixes

- 9.1.0
 - Code Coverage
 - Search/Filter within ILE RPG outline view
 - Quick open for browse
 - F1 help on RPG opcode/ keyword/ BIF
 - 7 RFEs
 - 46 fixes

- 9.1.1
 - Push-to-client configuration backup and distribution
 - Code Coverage for interactive jobs
 - SQL formatting improvements
 - Mark occurrences of all RPG declarations in editor
 - 8 RFEs
 - 57 fixes

- 9.1.1.1
 - 14 fixes

- 9.5
 - Fully Free RPG – no column restrictions
 - Integrated 5250 emulator
 - ILE RPG indentation action
 - Dramatic Code Coverage performance improvement
 - Snippet support in push-to-client
 - Improved RPG Content Assist
 - Update Notifier
 - Software Updates
 - Software News
 - Eclipse 4.4.2
 - IBM Java 8
 - 10 RFEs
 - 52 fixes

9.5.0.2

- Improved context-sensitive help in fixed format
- Prototype parameter names in content assist
- Improved indentation support
- 21 fixes

9.5.0.3

- Language support for IBM i 7.3
- Windows 10 support
- [Launch Run SQL Scripts from SQLRPGLE](#)
- [Launch Printer Output from RSE](#)
- [Show block nesting, also shows which procedure/ subroutine](#)
- Syntax highlighting for UIM source
- Push to Client saves custom perspectives
- Enhance language sensitive help for embedded SQL in RPG
- 31 fixes

9.5.1

- Mac Support
- Kerberos Support
- Synchronize Eclipse projects with IFS
- RPGLE outline
 - Full O-Spec support
 - Improved I-Spec support
 - Improved indicator support
 - Filter out unreferenced
 - Comment shortcuts for CLLE and DDS
 - Syntax error annotations
 - More parameter info in content assist
 - Integrated ACS supports Visual Explain
- 18 RFEs
- 4 features
- 19 fixes
- 9.5.1.1
 - RPG Refactoring support
 - Default to browse pref
 - 19 fixes

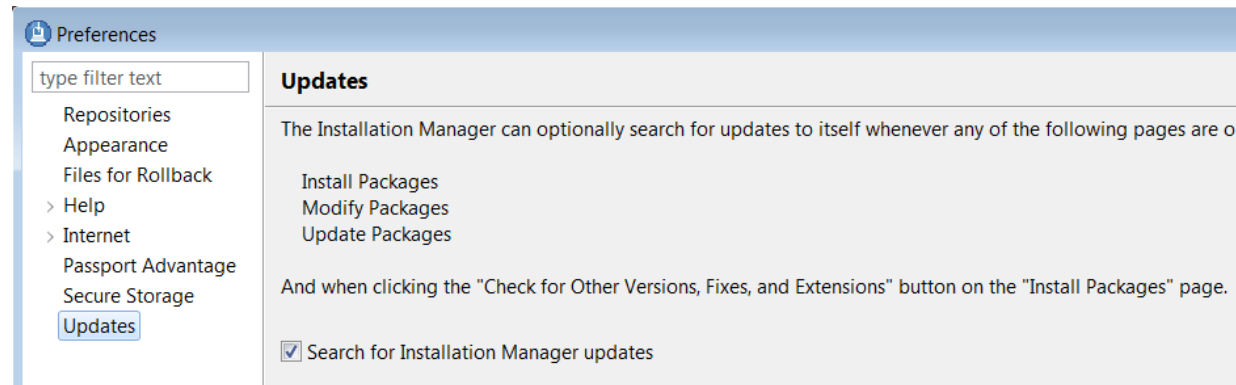
Interim fix available for 9.5.1 ***Included in 9.5.1.1***

- A problem was found using the Find Next Error/Find Previous Error actions in the Remote Systems LPEX Editor.
 - APAR SE65785 RDI 9.5.1 ERROR LIST FIND NEXT ERROR ICONS OR KEYS NOT WORKING IN THE REMOTE SYSTEMS LPEX EDITOR
- Interim fix available from FixCentral

https://www.ibm.com/developerworks/community/blogs/49773f8f-a20d-4816-86f2-44a2d862dbc1/entry/Interim_fix_for_APAR_SE65785_RDI_9_5_1_FIND_NEXT_ERROR_ICONS_OR_KEYS_NOT_WORKING_IN_THE_REMOTE_SYSTEMS_LPEX_EDITOR?lang=en

Update to latest IBM Installation Manager

- In IBM Installation Manager preferences, select 'Search for IBM Installation Manager updates' on Updates page.



- Windows users should be at 1.8.5.1 at least

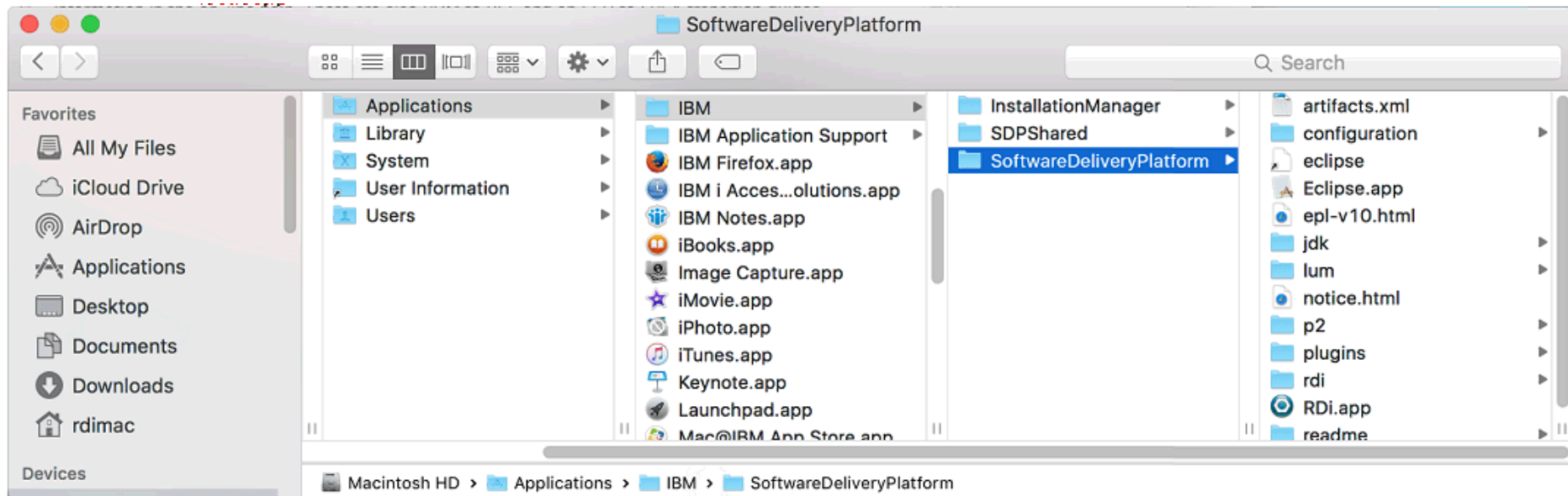
https://www.ibm.com/developerworks/community/blogs/49773f8f-a20d-4816-86f2-44a2d862dbc1/entry/Windows_users_should_update_IBM_Installation_Manager_to_1_8_5_1?lang=en

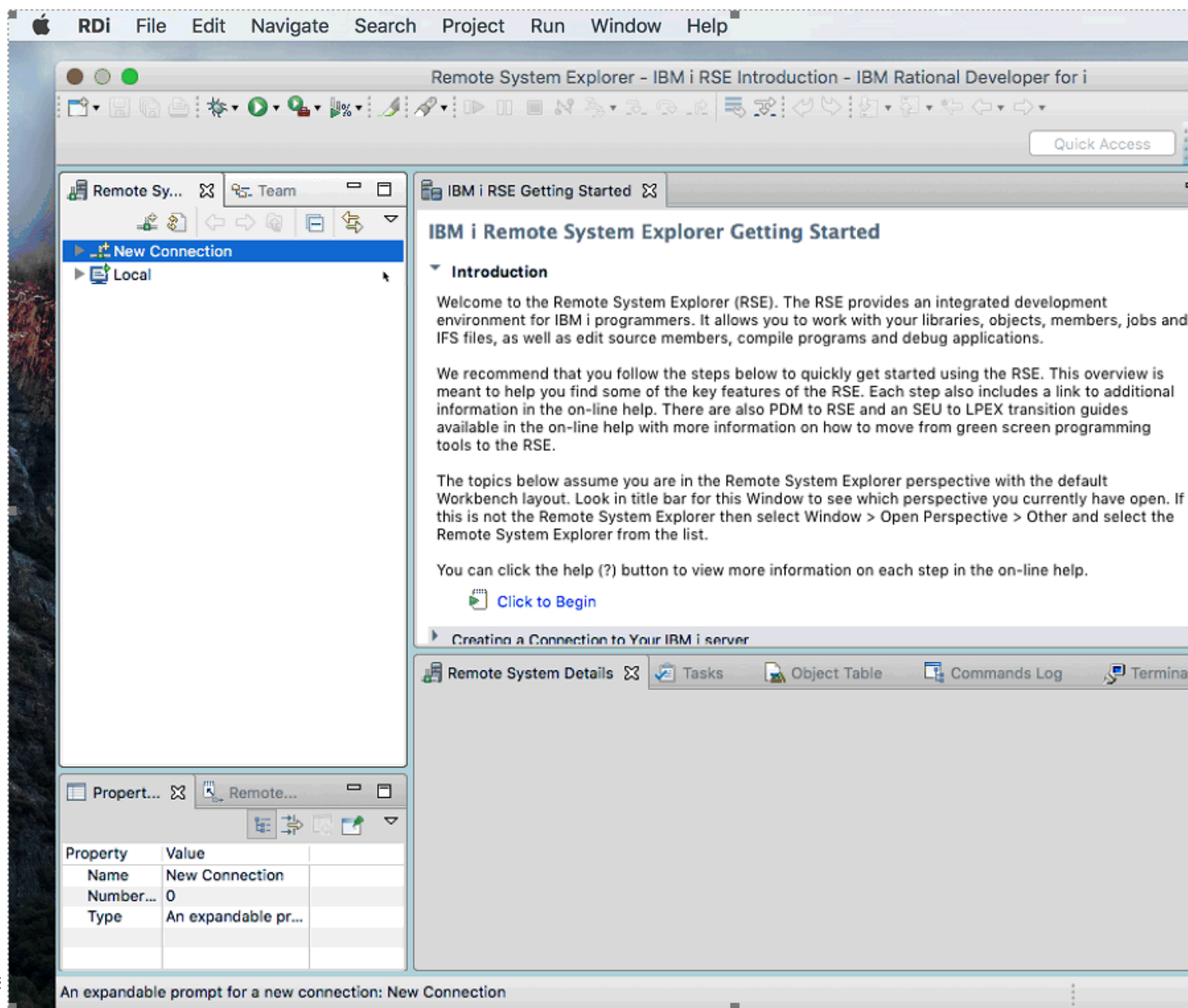
What's new in RDi 9.5.1

- Mac Support
- Kerberos Support
- Synchronize Eclipse projects with IFS
- RPGLE outline
 - Full O-Spec support
 - Improved I-Spec support
 - Improved indicator support
 - Filter out unreferenced
- Integrated ACS supports Visual Explain
- Comment shortcuts for CLLE and DDS
- Syntax error annotations
- More parameter info in content assist
- Improved language sensitive help in embedded SQL

RD i is now on Mac!!!!!!!!!!!!!!!

- After install: start RDi.app





Remote System Explorer - RemoteSystemsTempFiles/17ADT06/QSYS.LIB/RSELABXX.LIB/QLONGSRCPF.FILE/PAYROLLFF.RPGLI

Quick Access

Remote Sy... Team

IBM i RSE Getting Started PAYROLLFF.RPGLE

Line 449 Column 11 Replace Browse

```

.....+...1...+...2...+...3...+...4...+...5...+...6.
045600  /**
045700  /** The following code verifies the delete request. The
045800  /** protect indicator *IN90 is first set on (equal to 1)
045900  /** allow changes to existing data on a delete request.
046000  /**
046100  Dcl-Proc ValidateDelete;
046200  *IN90 = *ON;
046300  IF *IN50;
046400  DisplayError(9);
046600  ELSE;
046700  IF NOT *IN50 AND ACREC = 'D';
046800  DisplayError(10);
047000  ENDIF DisplayError( errCode Unsigned Integer (3,0) )
047100  ENDIF;
047200  End-Proc;
047901  /**
047902  /** Display error at the bottom of the screen with the give
047903  Dcl-Proc DisplayError;
    
```

Remote System Details Tasks Object Table Commands Log Terminals

my IBM i: Filter 'Library list' (7 Objects)

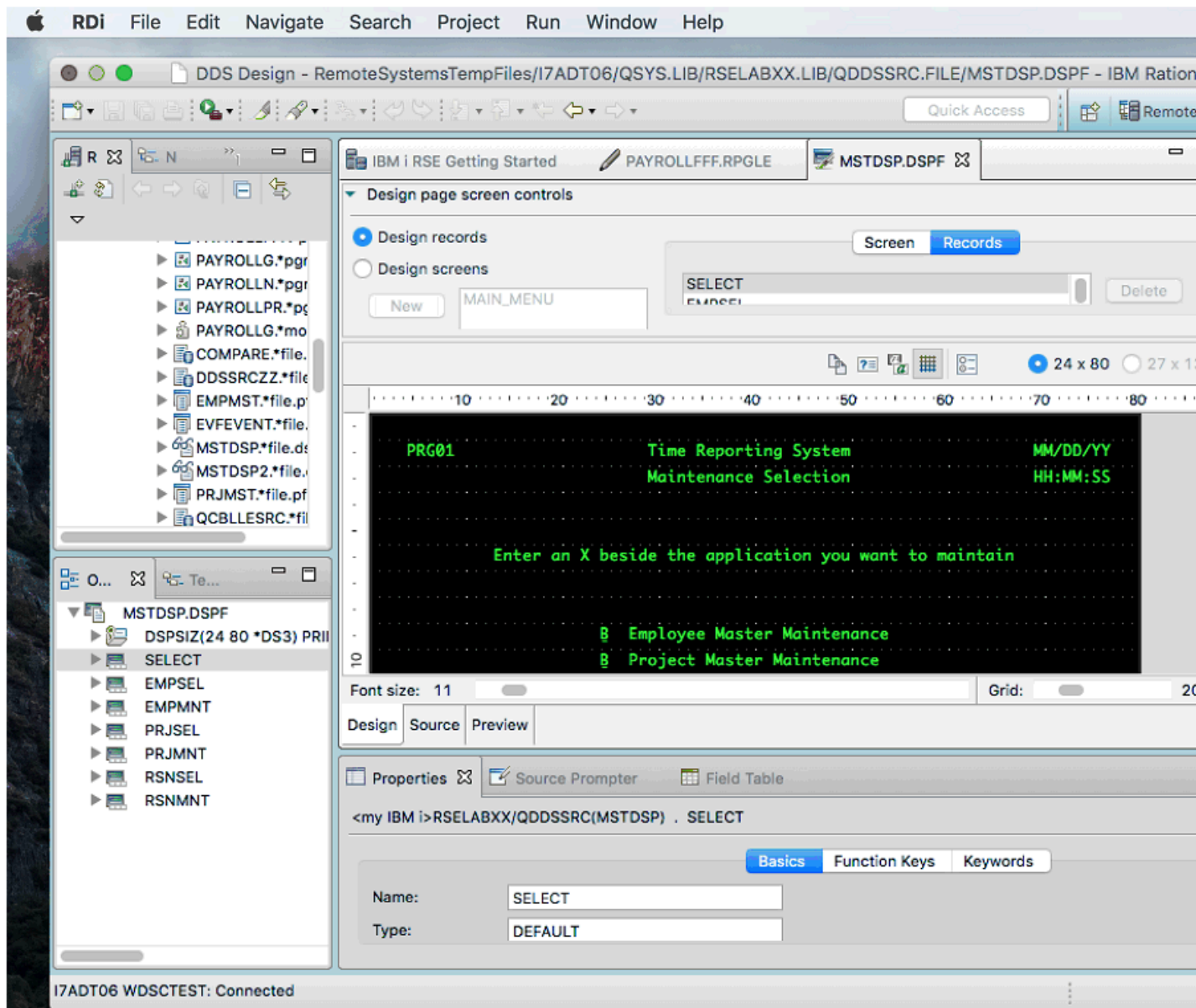
Name	Type	Attribute	Text
QSYS	*LIB	PROD-SYS	SYSTEM LIBRARY
QSYS2	*LIB	PROD-SYS	SYSTEM LIBRARY FOR CPI'S
QHLP SYS	*LIB	PROD-SYS	
QIJSR SYS	*LIB	PROD-SYS	System Library for Users

Property Value

Attribute	SRC
Name	PAYROLLFF
Number...	0
Source	RSELABXX/QLON...
Text	

Browse Replace 449 : 11

DDS Designers on Mac



Application Diagram on Mac



Remote System Explorer - The application diagram for PAYROLLFFF. - IBM Rational Developer for i

.SF NS Text 11 75%

Quick Access Remote System Explorer DDS Design

Remote Sy... Team

- PAYROLLG.*pgm.rpgle
- PAYROLLN.*pgm.rpgle
- PAYROLLPR.*pgm.rpgle
- PAYROLLG.*module
- COMPARE.*file.pf-src
- DDSSRCZZ.*file.pf-src
- EMPMST.*file.pf-dta
- EVFEVENT.*file.pf-dta
- MSTDSP.*file.dspf
- MSTDSP2.*file.dspf
- PRJMST.*file.pf-dta
- QCBLESRC.*file.pf-src
- QCLSRC.*file.pf-src
- QCMSRC.*file.pf-src
- QDDSSRC.*file.pf-src
 - EMPMST.pf
 - MSTDSP.dspf
 - PRJMST.pf
 - REFMST.pf
 - RSNMST.pf

IBM i RSE Getting Started PAYROLLFFF.RPGLE MSTDSP.DSPF PAYROLLFFF

Palette

RECORDREQUEST VALIDATECHANGE

VIOUSLYDELETEDRECORDREQUEST VALIDATEADD

ACTIONCODE VALIDATEDELETE DISPLAYERROF

VALIDATEFILETO MAINTAIN SELECTION

Remote System Details Tasks Object Table Commands Log Terminals

my IBM i: Filter 'Library list' (7 Objects)

Name	Type	Attribute	Text
QSYS	*LIB	PROD-SYS	SYSTEM LIBRARY
QSYS2	*LIB	PROD-SYS	SYSTEM LIBRARY FOR CPI'S
QHLPSYS	*LIB	PROD-SYS	

Command

Property... Remote...

VALIDATEDELETE

General Name: VALIDATEDELETE

Type: PROCEDURE

Mac OS X v10.11

- Limitations:
 - ILE RPG source information support in Application Diagram is limited and is restricted to being invoked from within the Editor (not from the RSE view) when ILE RPG live outline view is enabled
 - Invoking help from the editor might launch a new browser tab each time
 - No bidi support in Screen/Report Designer
- Without native Mac-specific code
 - syntax checker is not available for ILE/OPM COBOL, ILE/OPM RPG
 - program verifier is not available for ILE/OPM COBOL, ILE/OPM RPG, DDS
 - ILE RPG static outline view (the 'Update the Outline view when text is changed in the editor' preference on the ILE RPG preference page is not checked) shows 'An outline is not available'. Use the live outline view (ensure the preference is checked).
 - Unable to generate PCML from RPG or COBOL Source
 - creating an IBM i web service from RPG or COBOL source is not supported

Differences on Mac

- Mac is different and RDi is mostly doing it the Mac way
 - Window->Preferences menu item moved to RDi->Preferences
 - Help->About menu item moved to RDi->About
 - ACS emulator is provided instead of Host Connect emulator
 - Ctrl+Space keyboard shortcut might conflict with system shortcut for Spotlight and not invoke content assist in the editor. Workaround: redefine system shortcut for invoking Spotlight or redefine Eclipse shortcut for invoking content assist.
 - Other keyboard shortcuts are not the same as documented
 - *Format RPG* is Cmd+Shift+F instead of Ctrl+Shift+F
 - *Delete line* is Cmd+Backspace instead of Ctrl+Backspace
 - *Save* is Cmd+S instead of Ctrl+S
 - *Insert mode* not there by default, but can click on 'Replace' in editor status line to toggle mode, or can map a key
 - *Refresh* Cmd+F5 conflicts with *voice over*

Differences on Mac

- Keyboard shortcuts detailed:

http://www.ibm.com/support/knowledgecenter/SSAE4W_9.5.1/com.ibm.etools.iseries.rse.doc/topics/keyboard_shortcuts_platforms.html

Shortcuts for Windows and Apple computers available in Rational® Developer for i.

- [General](#)
- [Editing](#)
- [Editor navigation](#)
- [Code block highlighting](#)
- [Debugging](#)

Note: On Apple systems, the shortcuts below that specify using the F_n key may be different depending on the preferences that you have set for your keyboard. For example, in OS X, if you have selected the keyboard preference *Use all F1, F2, etc. keys as standard functions keys*, then you may be able to omit using the F_n key as part of the shortcut. For example, the default shortcut for F1 Help is F_n+F1 . But if you have selected the preference to use the keys as standard function keys, then you can simply press $F1$ instead.

Action	Windows	Apple
General		
Copy	Ctrl+C	Command+C
Cut	Ctrl+X	Command+X
Paste	Ctrl+V	Command+V
Undo	Ctrl+Z	Command+Z

Dependencies on Mac

- Install issues
 - After uninstall, a file might remain in the product install folder. It can be deleted and then the product install folder can be deleted.
 - 'Launchpad can't be opened because it is from an unidentified developer' message appears. Use Ctrl+click or right-click and select Open to be prompted if you want to open it.
 - On the product image, IBM Installation Manager's Install.app or Userinst.app might give an error message saying they are damaged. Instead, open Terminal and run the corresponding script.
- Other product dependencies
 - Limitations of Rational Application Developer components included in RDi
 - Update Notifier is not supported
 - Other products bundled with RDi might not support Mac OS X 10.11 such as IBM Data Studio
 - IBM Rational Team Concert Integration for Rational Developer for i extension requires IBM Installation Manager install of Rational Team Concert Client which is available from version 6.0.3.

For more info

- Detailed blog post on
 - How to install on Mac
 - What function is supported
 - Workarounds for limitations

https://www.ibm.com/developerworks/community/blogs/49773f8f-a20d-4816-86f2-44a2d862dbc1/entry/RFE13454_Mac_OS_X_v10_11_support_in_RDi_9_5_1

Feedback – Mac support

- Which limitations on Mac do you feel need to be addressed before you could deploy Mac in your shop
 1. We don't have Mac in our shop
 2. We can deploy with the stated limitations
 3. We need Web Services/PCML generation support before deploying
 4. We need Application Diagram from Remote Systems Explorer selections
 5. We need Syntax Checker before deploying
 6. We need Program Verifier before deploying
 7. We need all install issues addressed before deploying
 8. There is another limitation that I need addressed before deploying

RDi platform support

- Added Mac OS 10.11
 - We will likely support the latest Mac OS at the time of release.
- Linux
 - Likely to drop support for SUSE in future release

Red Hat (RHEL)	6	64-bit
RHEL	7	64-bit
SUSE (SLED)	11.0	64-bit
SUSE (SLED)	12.0	64-bit
Ubuntu	16.04 LTS	64-bit

- Windows
 - Likely to drop 32-bit Win 7 and 32-bit JDK on 64-bit Windows

Windows	Hardware	JDK
8.1 Enterprise	x86-64	32,64
8.1 Professional	X86-64	32,64
7 Enterprise	X86-32	32
7 Enterprise	X86-64	32,64

Windows support

- Likely to drop 32-bit Win 7 and 32-bit JDK on 64-bit Windows

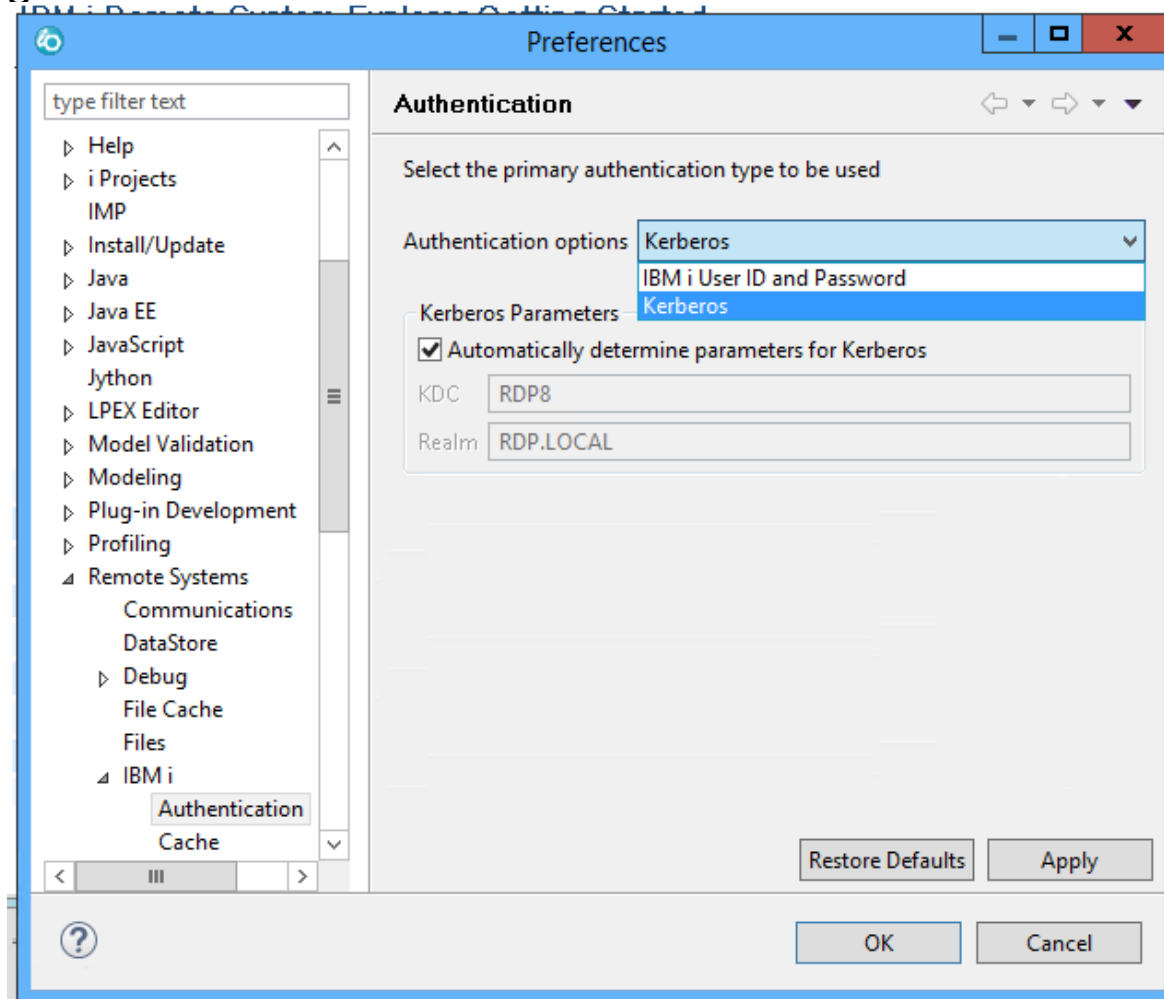
Windows	Hardware	JDK
8.1 Enterprise	x86-64	32,64-Exploit, 64-Tolerate
8.1 Professional	x86-64	32,64-Exploit, 64-Tolerate
7 Enterprise	x86-32	32
7 Enterprise	x86-64	32,64-Exploit, 64-Tolerate
7 Professional	x86-32	32
7 Professional	x86-64	32,64-Exploit, 64-Tolerate
7 Ultimate	x86-32	32
7 Ultimate	x86-64	32,64-Exploit, 64-Tolerate
8 Enterprise	x86-64	32,64-Exploit, 64-Tolerate
8 Professional	x86-64	32,64-Exploit, 64-Tolerate
Server 2012 R2 Essentials	x86-64	32,64-Exploit, 64-Tolerate
10	x86-64	32,64

Feedback - Platform Support

- We want to know if we are supporting the client platforms that your shop needs.
 1. All my client platforms are supported, focus on other enhancements
 2. I still need 32-bit Windows support
 3. I still need 32-bit Linux support
 4. Your Mac support has to improve before I can use it
 5. Forget specific operation systems, I want to edit in a web IDE like Orion
 6. Hey your forgot about the client platform that my shop is using

Kerberos support

- Single Signon: No longer need to provide logon credentials when connecting to IBM i through RDi



Kerberos documentation

- http://www.ibm.com/support/knowledgecenter/SSAE4W_9.5.1/com.ibm.etools.i.series.rse.doc/topics/kerberos_setup_ovr.html

Kerberos authentication requires configuring several resources. Server configurations are usually handled by a system administrator. This topic provides an overview of the setup requirements.

Note: If Kerberos authentication is already a standard practice in your business, server and your personal computer configurations may already be in place. If this is the case, you may only need to [Configure Kerberos authentication in the IDE](#) to work with Kerberos authentication. Consult your system administrator for guidance.

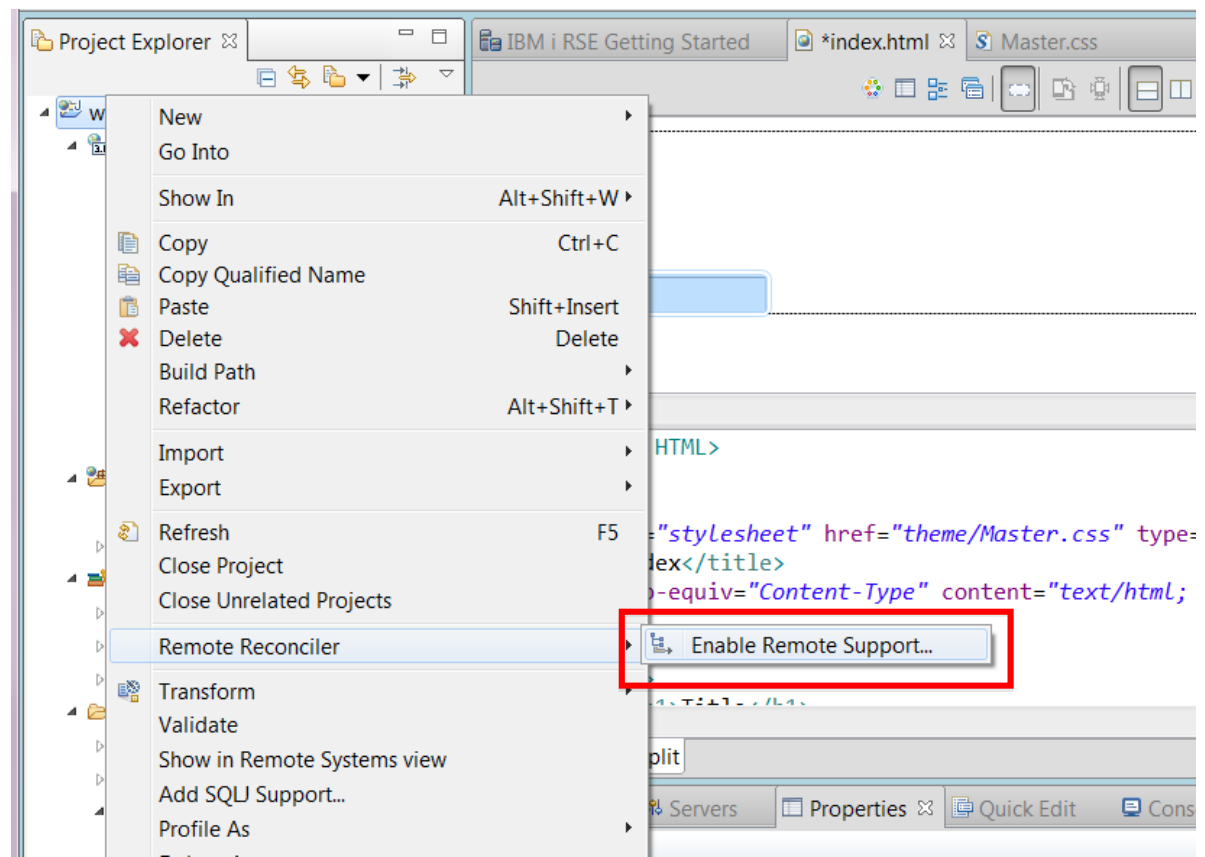
1. **Setup a Kerberos Key Distribution Center (KDC) server.** For more information see: <https://social.technet.microsoft.com/wiki/contents/articles/12370.windows-server-2012-set-up-your-first-domain-controller-step-by-step.aspx>.
2. **Configure the IBM i server for Kerberos authentication.** More specifically, EIM (Enterprise Identify Mapping) needs to be configured to work with Kerberos authentication:
 - a. **Configure LDAP on IBM i.** For more information see: [IBM Tivoli Directory Server for IBM i \(LDAP\)](#).
 - b. **Configure the network authentication service.** For more information, see the section *Configuring network authentication service on the IBM i platform (steps 1-4)* at [Configuring network authentication service](#).
 - c. **Configure single sign-on on IBM i.** For more information see: [Single sign-on](#).
3. **Configure the workstation that the IDE is installed on.** For more information see: [Configure your operating system security policy](#).
4. **Join your workstation to a Kerberos domain** if domain authentication is used in your environment. Consult your system administrator for details about joining a Kerberos domain on your network. For general information about how to join your computer to a domain, see: [How to Join Your Computer to a Domain](#).
5. **Configure the IDE to work with Kerberos authentication.** For more information see: [Configure Kerberos authentication in the IDE](#).

Kerberos issues ***Fixed in 9.5.1.1***

- Users have reported some issues using Kerberos setting in RDi. We are working on the issues.
 - Registry key on Windows
 - Java JAAS library requires access to Windows Local cache to retrieve kerberos tgt. If 'allowtgtsessionkey' in registry is unset (either 0 or doesn't exist), JAAS will a tgt with empty session key (all zeros), which will cause "KrbException 31 - Integrity check on decrypted field failed.
The following command can be used to query the key
`REG QUERY HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Lsa\Kerberos\Parameters /v allowtgtsessionkey`
 - Debug connection does not use Kerberos setting

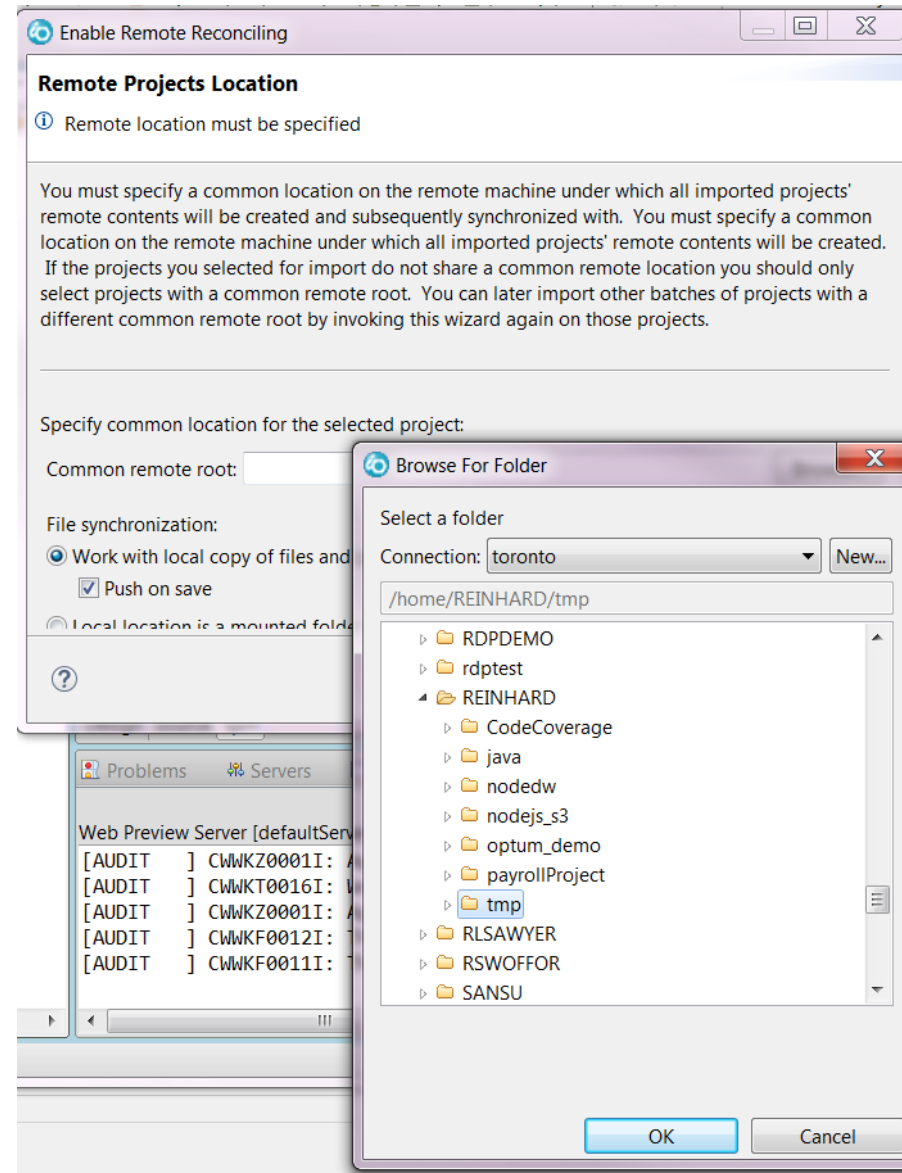
IFS synchronization support for local projects

- RDi has powerful support for many different types of projects
 - Web (Html/Javascript/CSS)
 - Java Etc. etc.
- Wouldn't it be cool if these could be deployed to the IFS at the click of a button?



Remote Reconciler can now be used to synchronize to IFS

- A project can be associated with a Remote Context
- This is an IFS directory that will be synchronized with the local Eclipse project.
- Optionally this can be done on demand or every time a file is saved.



Remote Reconciler view can be used to synchronize

- Can push to IFS, or pull from IFS
- Can compare with IFS
- Ignore files that shouldn't get synchronized, etc.

The screenshot shows the Remote Reconciler view in the IDE. The top pane displays the source code of an HTML page:

```

<!DOCTYPE HTML>
<html>
<head>
<link rel="stylesheet" href="theme/Master.css" type="text/css">
<title>index</title>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
</head>
<body>
<form>

```

The bottom pane shows a table of resources:

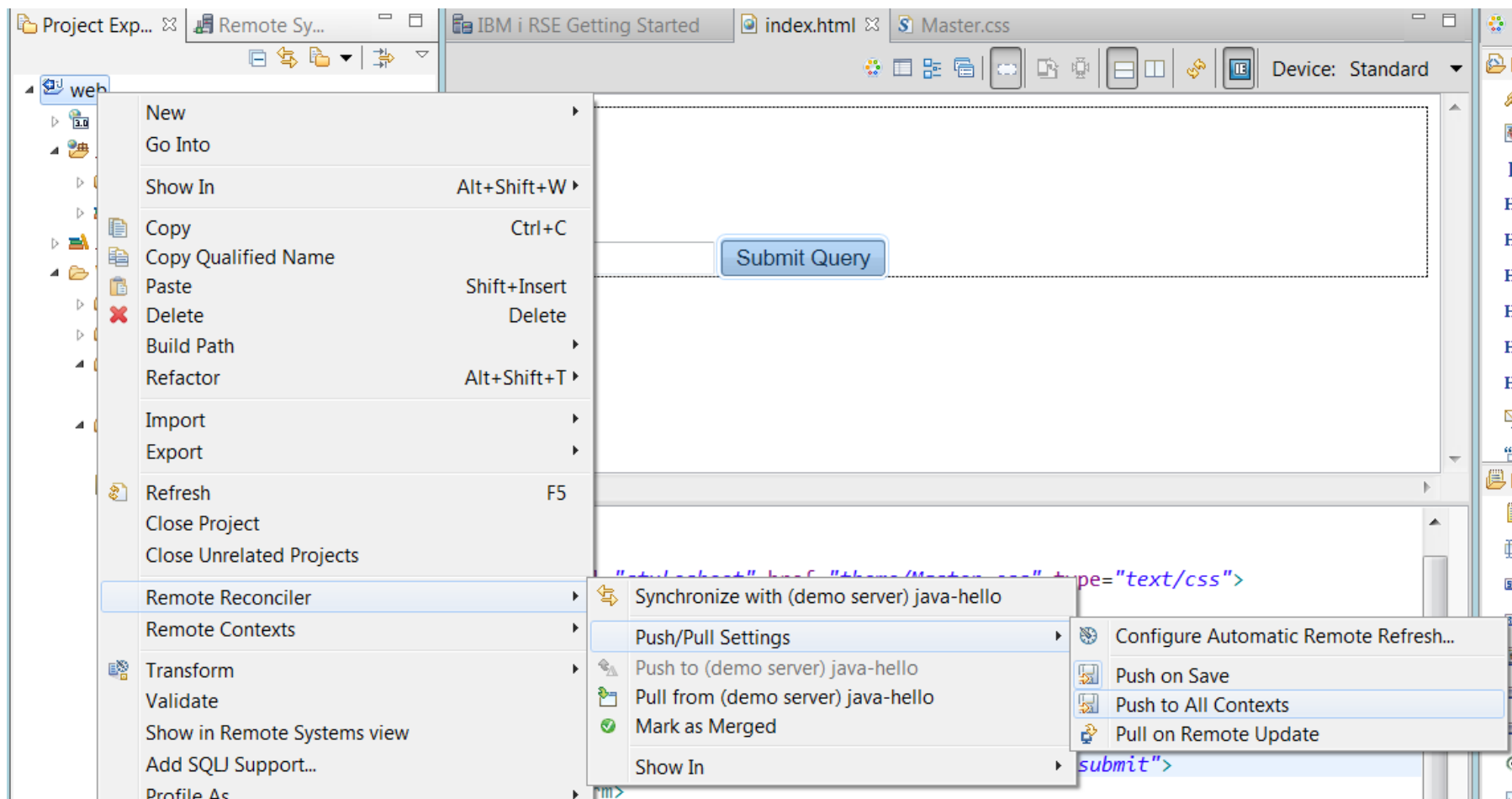
Resource	Project Type	Status	Remote Location
web	Local	Local Only	(toronto) /home/REINHARD/tmp/web
.apt_generated		Local Only	
WebContent		Local Only	
WEB-INF		Local Only	
src		Local Only	

A context menu is open over the table, showing the following options:

- Refresh Remote
- Open
- Show In
- Push To
 - (toronto) web
 - All Contexts
- Pull from (toronto) web
- Launch
- Compare with
- Mark as Merged
- Ignore
- Delete
- Properties

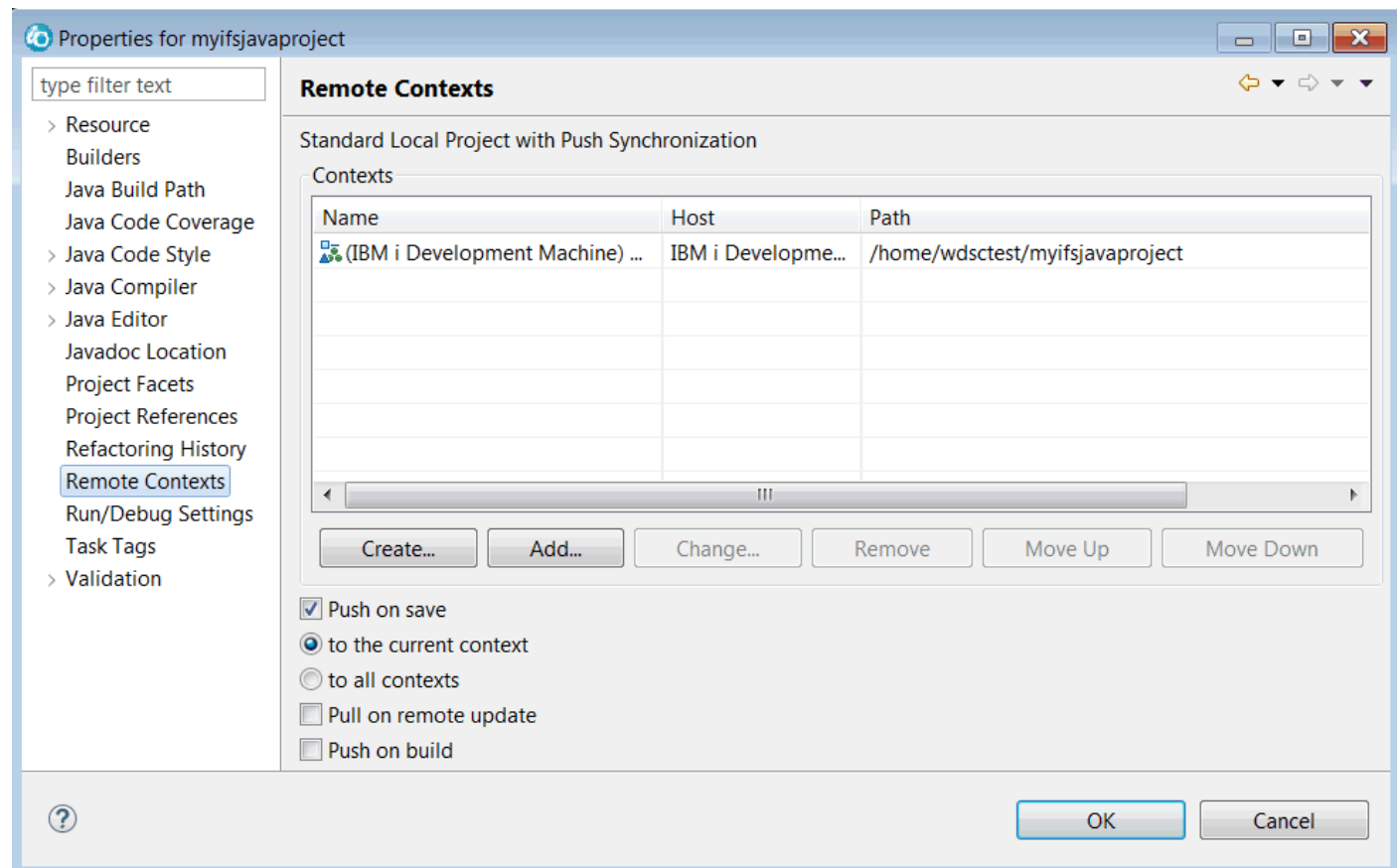
Multiple Remote Contexts can be defined

- This can allow deploying to multiple machines/IFS directories



Detailed blog on how to use IFS synchronization with Java

- [https://www.ibm.com/developerworks/community/blogs/49773f8f-a20d-4816-86f2-44a2d862dbc1/entry/RFE45970 IFS project support using RDi 9 5 1](https://www.ibm.com/developerworks/community/blogs/49773f8f-a20d-4816-86f2-44a2d862dbc1/entry/RFE45970%20IFS%20project%20support%20using%20RDi%209%205%201)



Outline view, references, hover, hyperlink

1. Control Statements section
2. Output Statements section
3. Exception Output section
4. O-Specs: qualified indexed arrays
5. O-Specs: named constants
6. I-Specs: qualified indexed arrays
7. Indexed indicator array references

The screenshot displays the ILE RPG live model editor interface. The main editor window shows the following code:

```
Line 17      Column 39      Insert      62 changes
.....0.....N01N02N03Field+++++YB.End++PConstant/Editword/DTformat++Comments++++
ctl-opt OPTION(*XREF);
dcl-ds qu qualified;
    named int(10);
end-ds;
dcl-s arr int(10) dim(%size(qu.named));
dcl-f file disk(20) usage(*input : *output);
dcl-c output_constant 'Hello world!';
```

Below the code is the I-Spec section:

```
Ifile      ns
I          I      2      4 0arr(qu.named)
```

The C-Spec section shows:

```
C          write      exp1
C          SETON
```

The O-Spec section shows:

```
Ofile      e          exp1
O          output_constant
O          arr(qu.named)
O          *IN(03)      named : Integer (10,0)
```

The Outline view on the right side of the editor shows the following structure:

- Control Statements
- Global Definitions
 - Files
 - Data Structures
 - Fields
 - Constants
 - Indicators
 - *INLR
 - *IN03
 - 18
 - Prototypes
 - Exception Output
 - exp1
 - 12
 - Input Statements
 - Main Procedure
 - Output Statements

Red annotations (1-7) are placed on the image to highlight specific features:

- 1: Points to the Outline view.
- 2: Points to the Output Statements section in the Outline view.
- 3: Points to the Exception Output section in the Outline view.
- 4: Points to the O-Spec section in the code editor.
- 5: Points to the O-Spec section in the code editor.
- 6: Points to the I-Spec section in the code editor.
- 7: Points to the I-Spec section in the code editor.

ILE RPG Outline subset to referenced variables

The screenshot displays the IBM ILE RPG development environment. On the left, the source code editor shows the following code:

```

Line 16      Column 1      Insert  2 changes
...+...1...+...2...+...3...+...4...+...5...+...6...+...7
  dcl-f xprodcatt; // lots of fields dragged in but only 1 used
/copy moredefs // imagine how much clutter is being included
  dcl-ds result; // lots of subfields that are not referenced
    lots int(3);
    of int(3);
    unused int(3);
    vars int(3);
    that int(3);
    clutter int(3);
    the int(3);
    namespace int(3);
    referenced int(3);
  END-DS;

referenced = 1;

```

The middle and right panels show the 'Outline' view. The middle panel shows the full outline with many entries under 'Global Definitions' > 'Fields'. The right panel shows the subset view where only the 'referenced : Integer (3,0)' entry is visible. A red box highlights the 'Subset to Referenced' icon in the toolbar of both outline views, and a red arrow points from the middle panel to the right panel.

- 11th highest voted RFE 12353 – only show those definitions in outline view that are actually referenced in the source

ILE RPG Language Sensitive Help for embedded SQL

Hit F1 to get reference information on the SQL command under the cursor

The screenshot shows the IBM Rational Developer for i environment. In the background, an SQL editor window displays the following code:

```
Exec SQL
DECLARE CS_Account CURSOR FOR
SELECT *
FROM ACCOUNT
WHERE BUILDDATEID = :Txyn;
```

A red arrow points from the word "DECLARE" in the code to the "DECLARE CURSOR" entry in the help window's "Contents" pane. The help window, titled "Help - IBM Rational Developer for i", shows the following content:

Search: Go [Scope: All topics](#)

Contents

- CREATE TRIGGER
- CREATE TYPE
- CREATE TYPE (array)
- CREATE TYPE (distinct)
- CREATE VARIABLE
- CREATE VIEW
- DEALLOCATE DESCRIPTOR
- DECLARE CURSOR**
- DECLARE GLOBAL TEMPORARY TABLE
- DECLARE PROCEDURE
- DECLARE STATEMENT
- DECLARE VARIABLE
- DELETE
- DESCRIBE
- DESCRIBE CURSOR

[IBM i 7.3 > Database > Reference > SQL reference > Statements](#)

DECLARE CURSOR

The DECLARE CURSOR statement defines a cursor.

Invocation

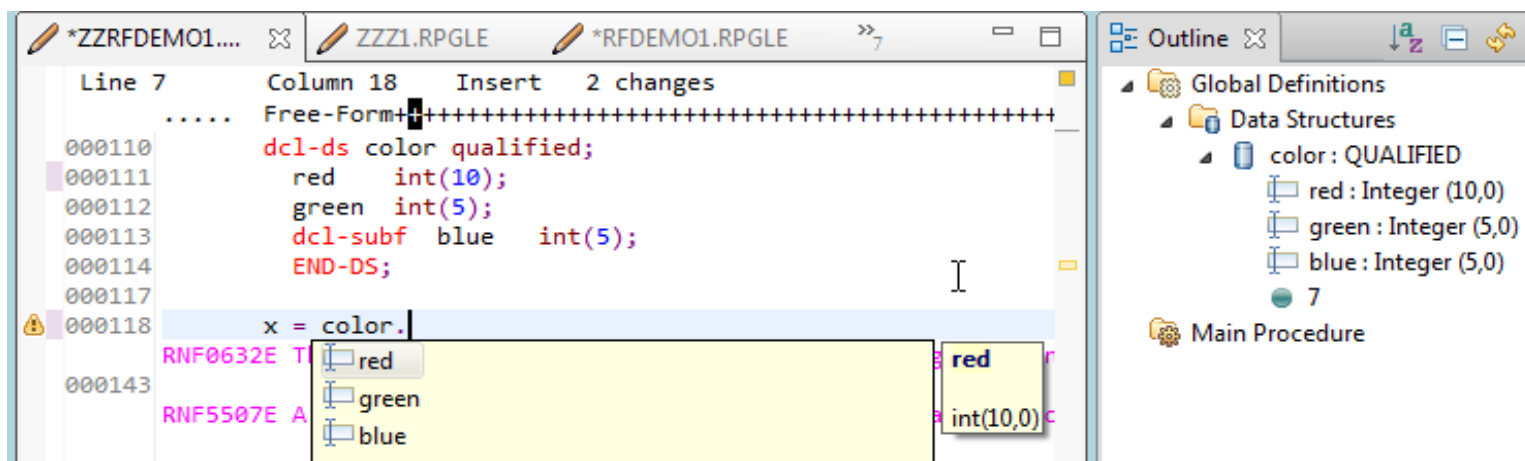
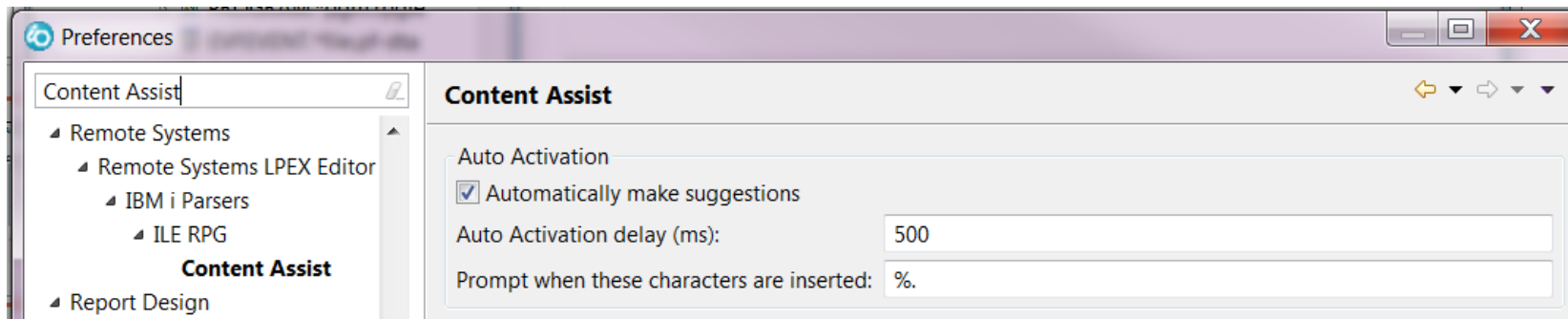
This statement can only be embedded in an application program. It is not an executable statement. It must not be specified in Java™.

Authorization

No authorization is required to use this statement. However to use OPEN or FETCH for the cursor, the privileges held by the authorization ID of the statement must include at least one of the following:

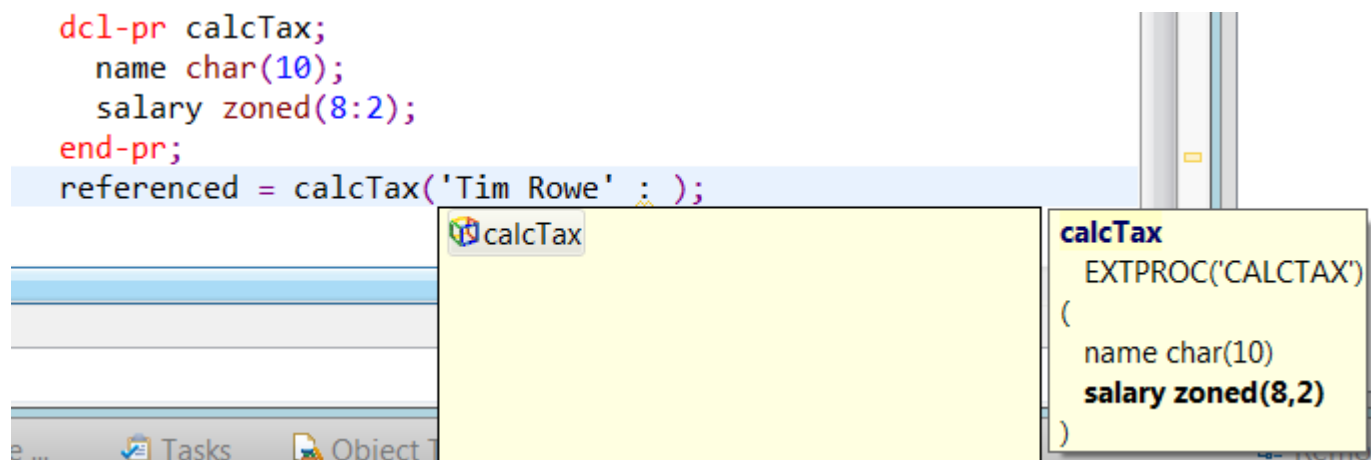
- For each table or view identified in the SELECT statement of the cursor:

ILE RPG Automatic Content Assist is available as a preference



ILE RPG Additional Parameter Info on Content Assist

```
dcl-pr calcTax;  
  name char(10);  
  salary zoned(8:2);  
end-pr;  
referenced = calcTax('Tim Rowe' : );
```



calcTax
EXTPROC('CALCTAX')
(
 name char(10)
 salary zoned(8,2)
)

9.5.0.3 ILE RPG Show block nesting now shows containing Procedure / Subroutine

Ctrl-Shift-O is invoked on a line that is not a control flow statement, it will display nesting for the current subroutine or procedure and also show the name of the current subroutine or procedure in the editor message line.

The screenshot shows an ILE RPG editor window with the following code:

```

Line 87      Column 1      Replace 2 changes
+...1...+...2...+...3...+...4...
005700      PRJAPL = *BLANK;
005800      RSNAPL = *BLANK;
005900      //
006000      // Write the SELECT format to disp
006100      //
006300      DoU not *IN60;
006301      // IF the general error indicato
006302      // program continues to loop
006400      Exfmt SELECT;
006500      If *INKC = '1'; // F3 = end of job
006600      Return;
006700      Else;
006800      ValidateFileToMaintainSelection
006900      EndIf;
007400      EndDo;
007500      //
007600      // The application selection fields fr
007700      // tested and the program will branch
007800      // that application.
008700      Select;
008800      When EMPAPL = 'X';
008900      CallP EmployeeMaintenance();
009000      //
009100      When PRJAPL = 'X';
009200      CallP ProjectMaintenance();
  
```

On the right side of the editor, there is a project tree with the following structure:

- Global Definitions
 - Files
 - Fields
 - Constants
 - Indicators
 - Prototypes
- Main Procedure
- Subprocedures
 - MainMenuScreen
 - ReasonMaintenance
 - EmployeeMaintenan
 - ProjectMaintenance
 - isAddNewRecordRec
 - isAddPreviouslyDele
 - ValidateFileToMaint
 - ValidateActionCode
 - ValidateAdd
 - ValidateChange
 - ValidateDelete
 - DisplayError

At the bottom of the editor, the message line displays "MainMenuScreen".

[IBM Knowledge Center explanation](#)

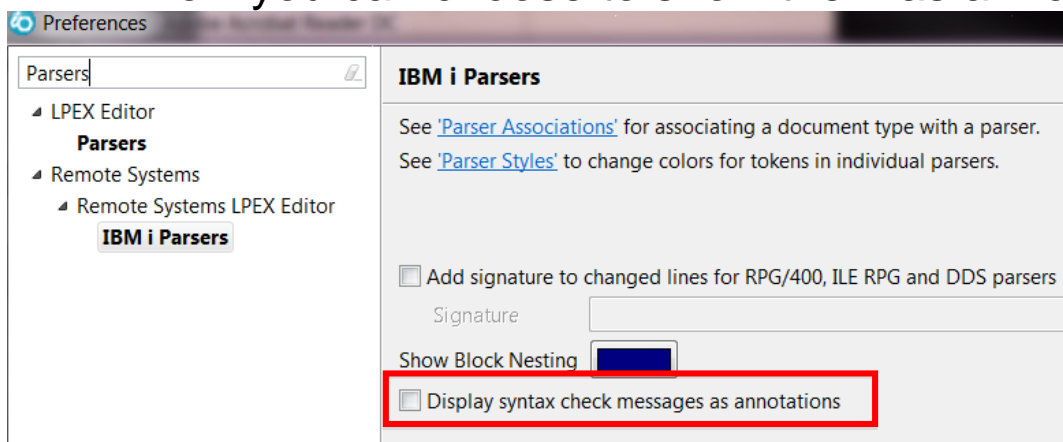
Syntax Errors as Annotations

- Syntax checker errors used to be shown a pink lines inserted into the source

```

DCL-DS *N;
  DCL-SUBF select CHAR(10);
  name CHAS(10);
RNF3308E Keyword name is not valid; the keyword is ignored.
END-D ;
RNF5347E An assignment operator is expected with the EVAL operat
  
```

- Now you can choose to show them as annotations instead



```

DCL-DS *N;
  DCL-SUBF select CHAR(10);
  name CHAS(10);
  DCL-SUBF address CHAR(25);
  
```



```

DCL-DS *N;
  DCL-SUBF select CHAR(10);
  RNF3308E Keyword name is not valid; the keyword is ignored.
  DCL-SUBF address CHAR(25);
  
```

Comment / Uncomment actions in CL and DDS

- Ctrl-/ will comment each individual line selected

```
DCL VAR(&CLIENT) TYPE(*CHAR) LEN(3)
DCL VAR(&CARRY) TYPE(*CHAR) LEN(3)
```

- Becomes

```
/* DCL VAR(&CLIENT) TYPE(*CHAR) LEN(3) */
/* DCL VAR(&CARRY) TYPE(*CHAR) LEN(3)*/
```

- Ctrl-\ will uncomment

- Ctrl+Shift+/- will block comment only the selection

The screenshot illustrates the 'Add Block Comment' action. On the left, a context menu is open over the first line of code, with 'Add Block Comment' (Ctrl+Shift+/-) selected. On the right, the code is shown with only the first line commented, while the second line remains un-commented.

Action	Shortcut
Comment	Ctrl+/-
Uncomment	Ctrl+\
Add Block Comment	Ctrl+Shift+/-
Remove Block Comment	Ctrl+Shift+\
Show Block Nesting	Ctrl+Shift+O
Select Block	Ctrl+M
Jump To Block End	Ctrl+Shift+M
Hex edit line	Alt+Shift+H

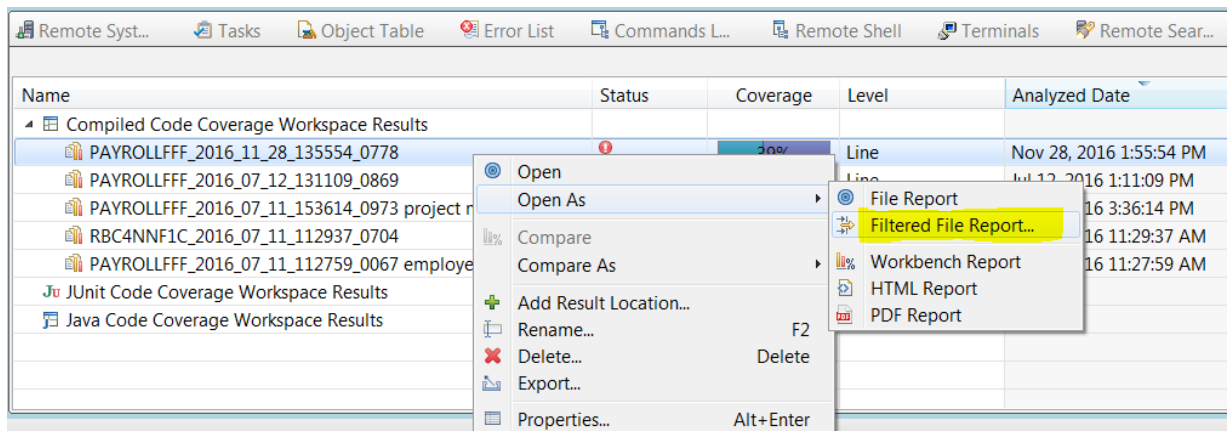
```
DCL VAR(&CLIENT) TYPE(*CHAR) LEN(3)
DCL VAR(&CARRY) TYPE(*CHAR) LEN(3)
```

→

```
/* DCL VAR(&CLIENT) TYPE(*CHAR) LEN(3) */
DCL VAR(&CARRY) TYPE(*CHAR) LEN(3)
```

Code Coverage – Filtered File Report

- After running code coverage, open as a Filtered File report option is available



- Specify a filter string and the report will show code coverage results for lines that match the filter string

- File report

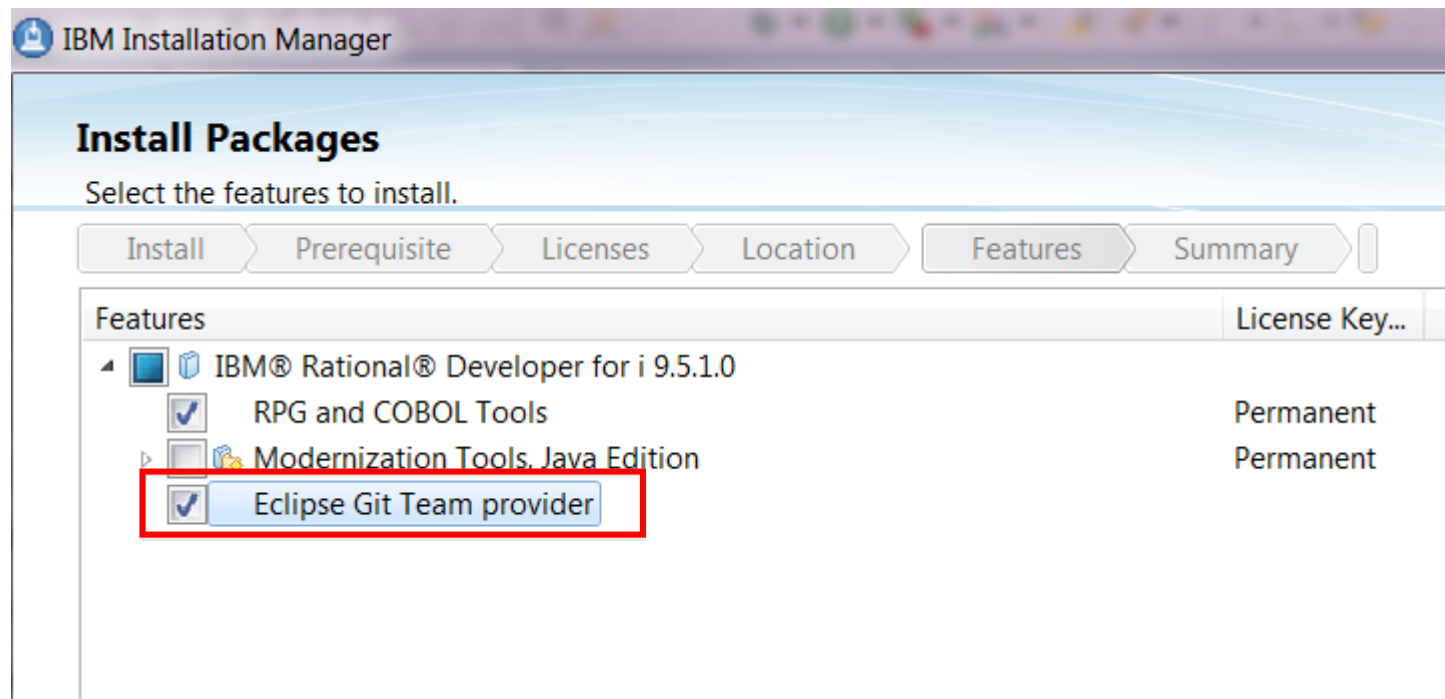
Results				
Name	Coverage	Lines Covered	Uncovered Lines	Total Lines
▶ PAYROLLFFF.RPGLE	39%	95	148	243

- Filtered report

Results				
Name	Coverage	Lines Covered	Uncovered Lines	Total Lines
▶ PAYROLLFFF.RPGLE	60%	6	4	10

EGit is now available on the base RPG/COBOL package

- Git is a very powerful and free source control system that is now available on IBM i
- EGit is a free user interface for Git that is integrated with Eclipse.
- RDi ships this for free with the base package (before this release it was shipped with the Java Modernization package) but better to install from Eclipse Marketplace (via Help menu)

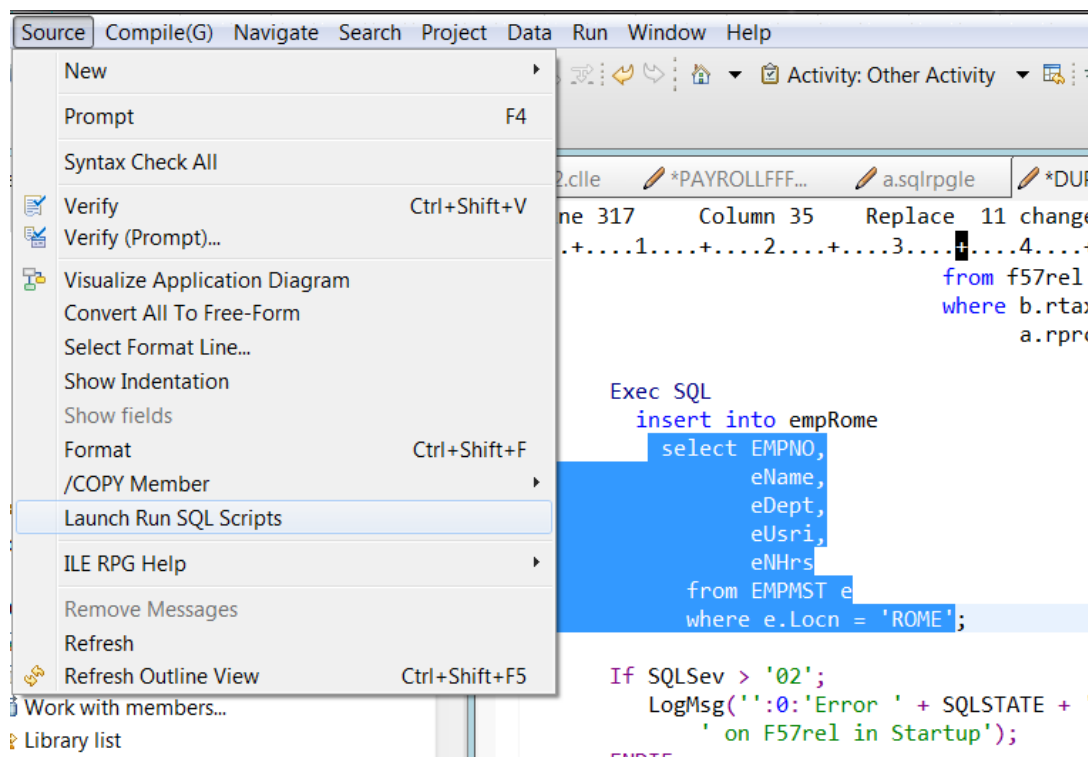


Why ACS and which ACS

- ACS is being invested in heavily by IBM and will continue to see enhancements.
 - The emulator is best of breed
 - There is now SQL Performance Center
 - There is integration with web-based Navigator for i
 - Visual Explain is available as of 1.1.6
 - It installs and runs anywhere (using Java)
- RDi will launch the version of ACS you already have installed if it is recent enough – and you have access to all its other functions
(it is free from <http://www-03.ibm.com/systems/power/software/i/access/solutions.html>)
- If ACS is not installed, RDi will launch a copy shipped with RDi. As of RDi 9.5.1, the bundled version of ACS is 1.1.6

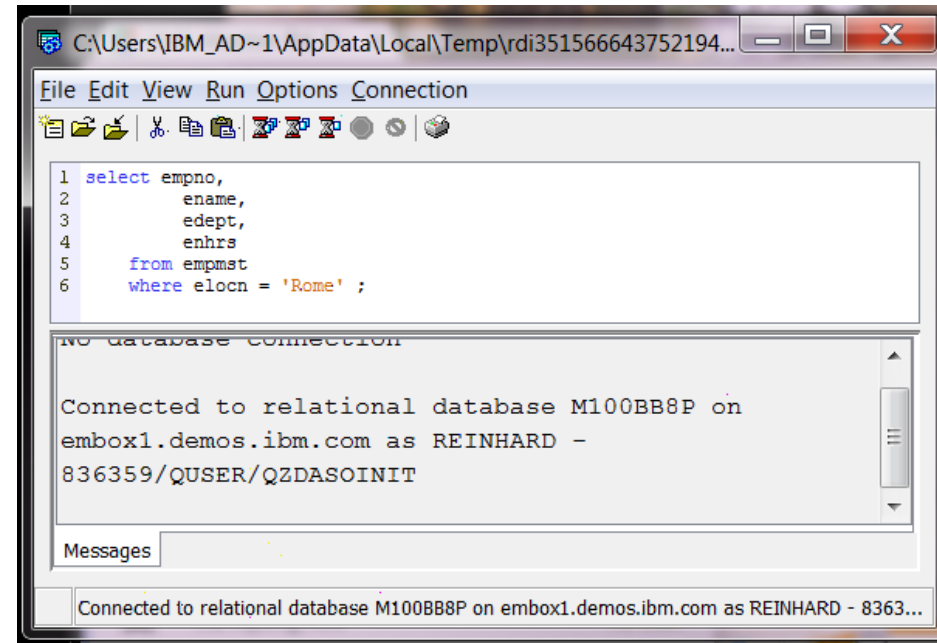
9.5.0.3 Run SQL queries from the selection in your editor

- Access Client Solutions ([ACS](#)) now has Run SQL Support. RDi provides tight integration with it.
- Select the SQLRPGLE source in the editor
- From the Source menu
 - ‘Launch Run SQL Scripts’



9.5.0.3 Run SQL queries from the selection in your editor

- Launches the ACS Run SQL Statements
- Connects to the database on the system that the member was on
- Some editing may be required to replace RPG variables with literals, etc.



```
1 select empno,
2     ename,
3     edept,
4     enhrs
5 from empmst
6 where elocn = 'Rome' ;
```

Connected to relational database M100BB8P on embox1.demos.ibm.com as REINHARD - 836359/QUSER/QZDASOINIT

Messages

Connected to relational database M100BB8P on embox1.demos.ibm.com as REINHARD - 8363...

9.5.0.3 Configuring Run SQL Statements for unqualified file names in SQL

- However RSS does not set up the same LIBL as in RSE
- You can do this using one of the following commands:

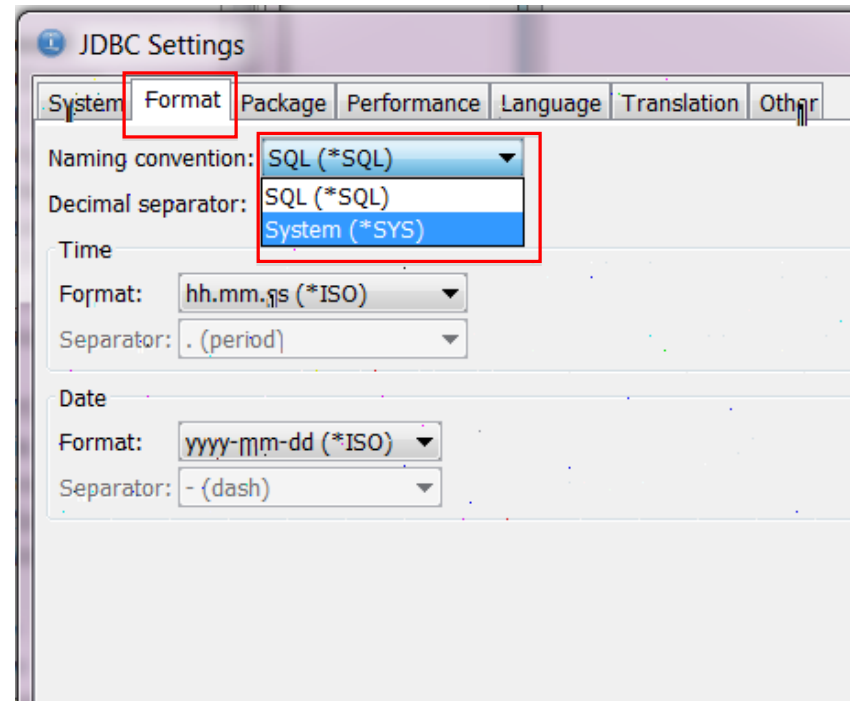
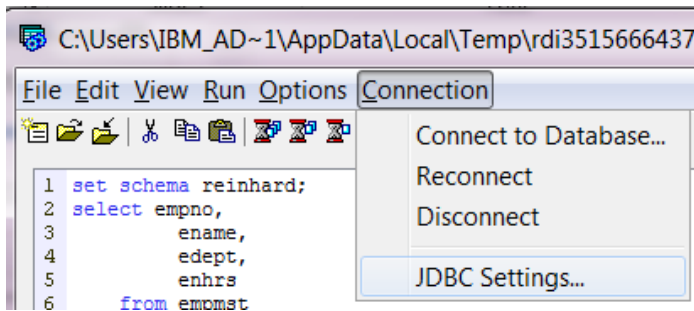
```
cl:chglibl lib1 lib2 lib3
```

```
cl:call setmylib; 1 set schema reinhard;|
```

```
set schema prodlib;
```

```
2 select empno,
```

- You also should then set the naming to *SYS



9.5.0.3 Select Run All and see the results

- Select Run All either from the toolbar or menu
- The results are shown in a tab on the bottom
- The Messages tab shows the log of commands and results

The screenshot shows the IBM DB2 Command Editor interface. The main window displays a SQL query:

```

1 set schema reinhard
2 select empno,
3     ename,
4     edept,
5     enhrs
6 from empmst
7 where elocn = 'ROME' ;

```

The 'Run All' button in the toolbar is highlighted with a yellow box. Below the query, the results are displayed in a table:

EMPNO	ENAME	EDEPT	ENHRS
42154	PATRIZIO	2DFAD	40.0

Below the table, it says "Done. 1 rows retrieved." The Messages pane at the bottom shows the executed command: "select empno, ename, edept, enhrs from empmst where elocn = 'ROME'".

```

> set schema reinhard

Statement ran successfully (902 ms)

> select empno, ename, edept, enhrs from empmst
where elocn = 'ROME'

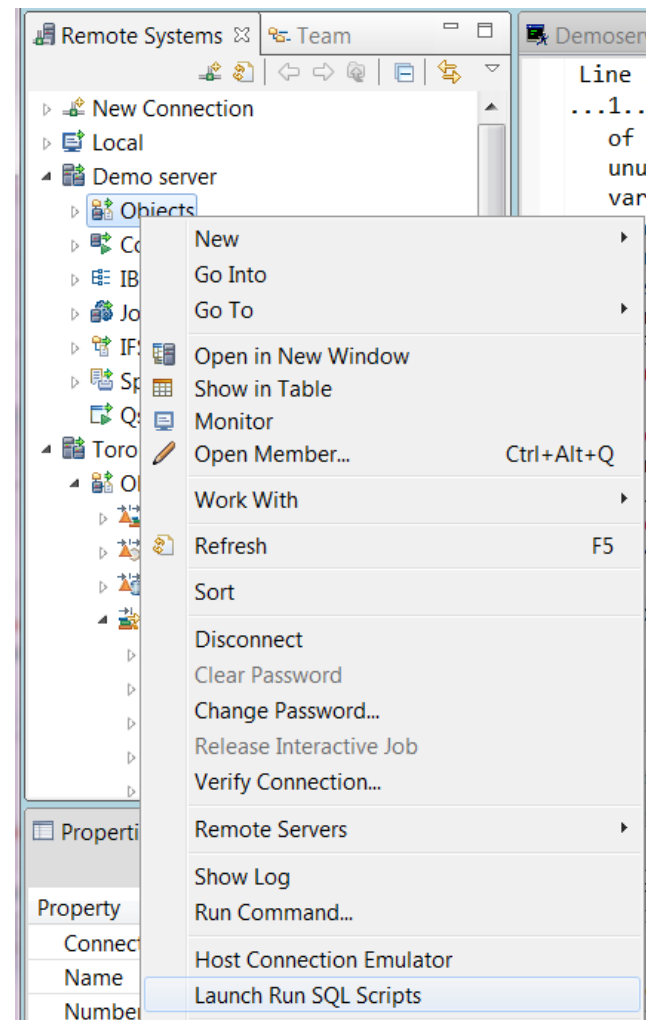
Statement ran successfully (1,686 ms = 1.686
sec)

```

Messages select empno, ename, edept, enhrs from empmst where elocn = 'ROME'

9.5.1 Run SQL Scripts can be launched at any time

As on 9.5.1 the RSS can be launched from the Objects Subsystem and is not restricted to SQLRPGLE members



9.5.1 Visual Explain through ACS

The screenshot shows the 'Visual Explain' window in ACS. A red arrow points from the 'Run and Explain' menu option in the 'Run' menu to the 'Visual Explain' window. The window displays a query plan diagram and a table of execution statistics.

Query Plan Diagram:

```

graph RL
    A[User-Defined Table Function] -- 900 --> B[Temporary Sorted List]
    B -- 900 --> C[Sorted List Scan]
    C --> D[Rank]
    D --> E[Final Select]
  
```

Execution Statistics Table:

Attribute	Value
Query Engine...	SQE
Time Infor...	
Timestamp...	2016-09-...
Statement S...	2016-09-...
Statement E...	2016-09-...
Total Estim...	1.956
Actual Run...	
Optimizatio...	2
Run Time (...)	Not Available
Statement O...	Not Available
Statement F...	Not Available
Statement C...	Not Available

SQL Query Text:

```

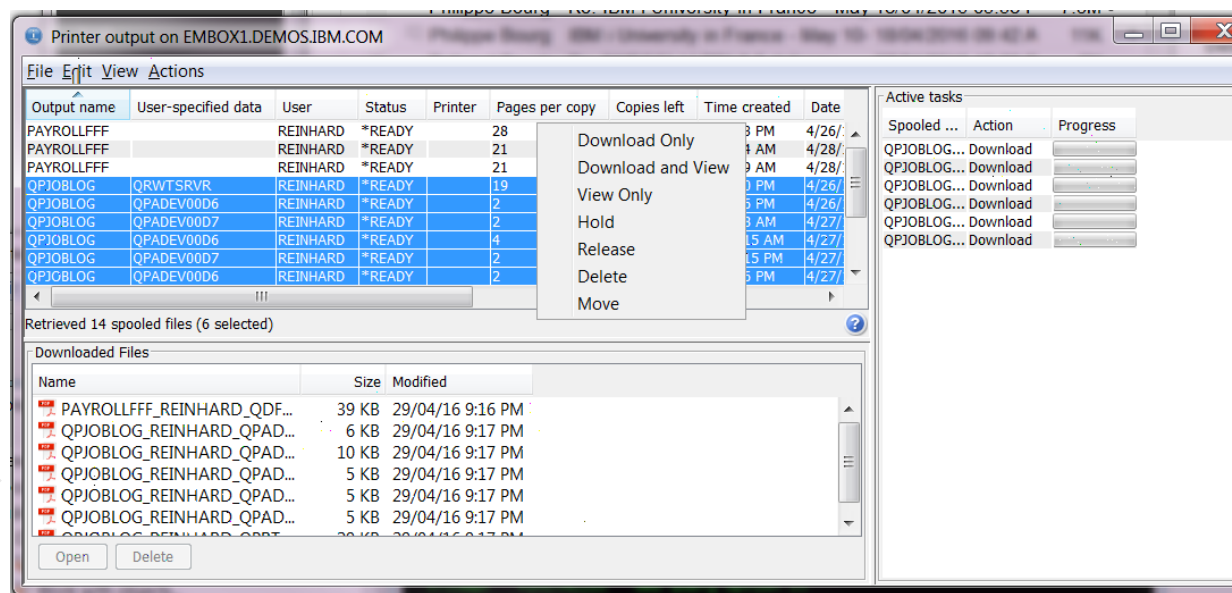
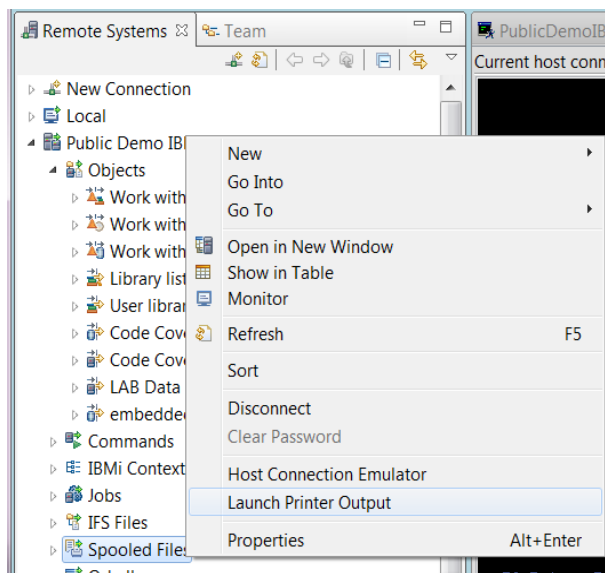
With TOP_CONSUMERS(JOB_NAME, MEMORY_POOL, AUTHORIZATION_NAME, FUNCTION_TYPE, Function,
TEMPORARY_STORAGE, RANK)
As (Select JOB_NAME, MEMORY_POOL, AUTHORIZATION_NAME, FUNCTION_TYPE, Function,
TEMPORARY_STORAGE, RANK()
OVER(Partition By MEMORY_POOL Order By TEMPORARY_STORAGE Desc)
From Table(QSYS2.ACTIVE_JOB_INFO()) X
Where JOB_TYPE <> 'SYS')
Select JOB_NAME, MEMORY_POOL, AUTHORIZATION_NAME, FUNCTION_TYPE CONCAT '-' CONCAT Function
As Function, TEMPORARY_STORAGE From TOP_CONSUMERS Where RANK In (1,2,3,4) Order By
MEMORY_POOL Desc
  
```

Buttons at the bottom: **Statement text** | **Optimizer Messages**

IBM i specific SQL
query optimization

9.5.0.3 Launch Printer Output from 'Spooled Files' subsystem

- Customers requested better spool file management.
- ACS already contains robust spool file support
- Now there is a convenient way to get from here to there
- Sortable columns
- Download, View as PDF
- Hold/Release/Delete/Move actions
- Filtering options



What's new in RDi 9.5.1.1

- Refactoring capability – Rename ILE RPG declarations
- Preference for default open member action to be browse versus edit
- 2 Kerberos APAR fixes
 - Debug fixes require host PTFs
 - V7R1M0 PTF SI53473
 - V7R2M0 PTF SI63271
 - V7R3M0 PTF SI55962
- 17 other APAR fixes

Rename ILE RPG Declaration Refactoring

- RPG refactoring is the highest voted RFE
- Refactoring is the process of changing code without changing the function of the code. The purpose of refactoring is to make the code more readable and maintainable.
- Rename refactoring allows the user to rename all and only the symbols in an ILE RPG file that are related to the user-defined name containing the cursor or selection.
- This works for any user-defined name including file, record format, standalone variables, data structures, subfields, procedures.
- It works within fixed, free and fully free (**FREE) source.

Rename Refactoring – Invocation

- Place the cursor or select the name to rename in the Remote Systems LPEX editor.

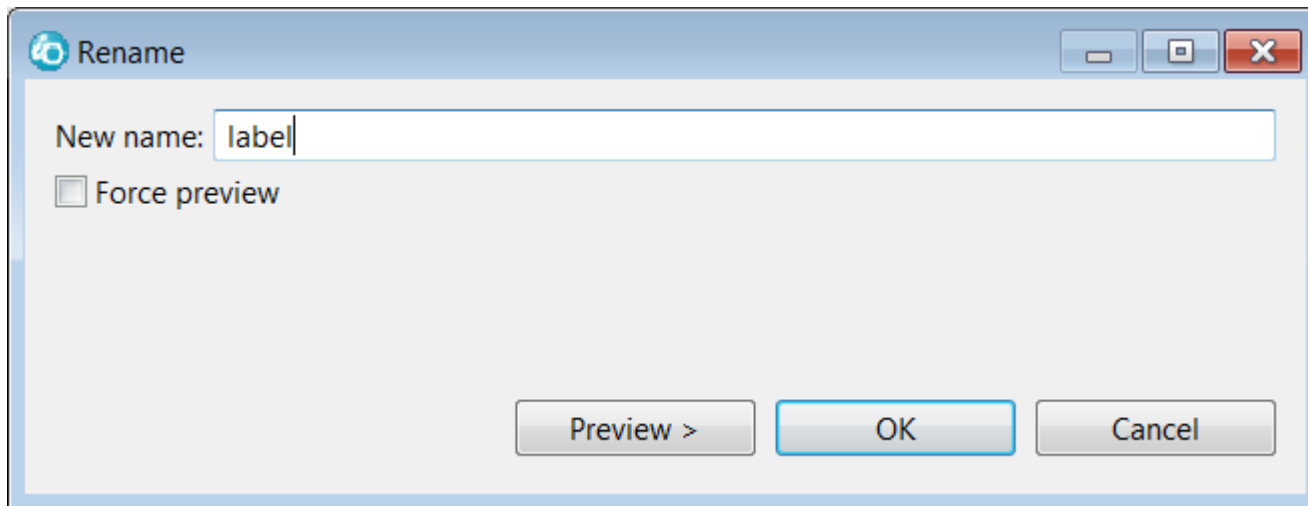
```

dcl-s name int(10);
dcl-s arr
dcl-f file
dcl-ds qua
name ch
end-ds;
D x
Ifile n
I
I
x = na
x = ar
qual.n
C
C name
C arr(na
Ofile t
O
O
dcl-proc
name = 1;
end-proc;
dcl-proc sub2;
dcl-s name int(10);
  
```

- Either right click or pull down the *Source* menu and select *Refactor->Rename*, or press *Alt+Shift+R*.
- If the name is not a valid user-defined name, the *Source->Refactor->Rename* will be disabled

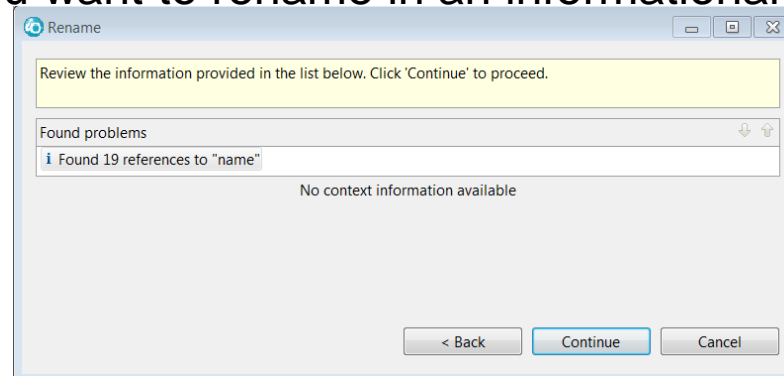
Rename Refactoring – Specify new name

- After selecting the menu item, a dialog will appear prompting for the new name.
- The OK and Preview buttons will only enable once the new name is different than the old one.
- Click OK to complete the process, click Preview to preview the changes that will occur, or select Force preview and then OK to ensure that the changes are previewed.
 - If you select Force preview, this option will become the default for the next time that you use the wizard.

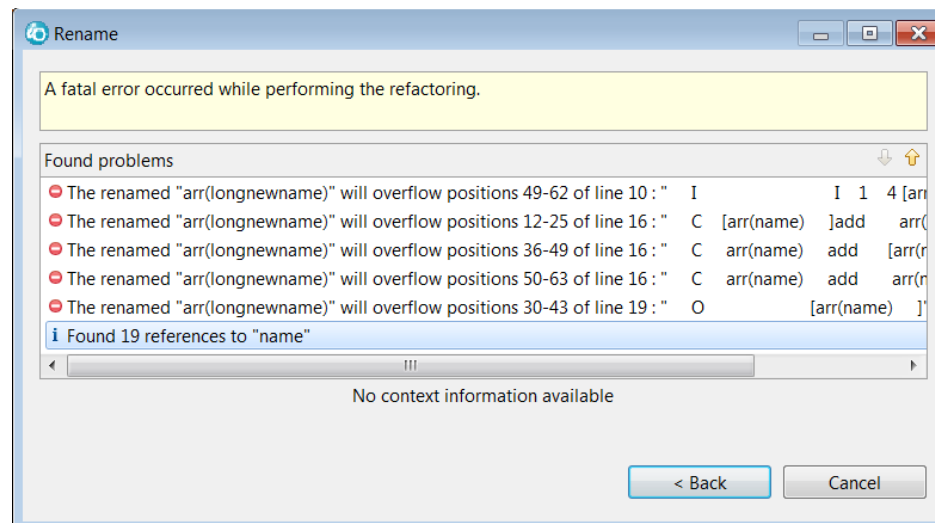


Rename Refactoring – Preview

- The initial preview panel shows how many references there are to the declaration that you want to rename in an informational message.



- If there are issues with the rename, warning or fatal messages will be shown. If fatal messages, only Back and Cancel buttons are available.



Rename Refactoring – Preview

- Preview shows the changes that will be made before you apply them to the editor.

The screenshot shows the 'Rename' dialog box with the following content:

Changes to be performed

- Rename

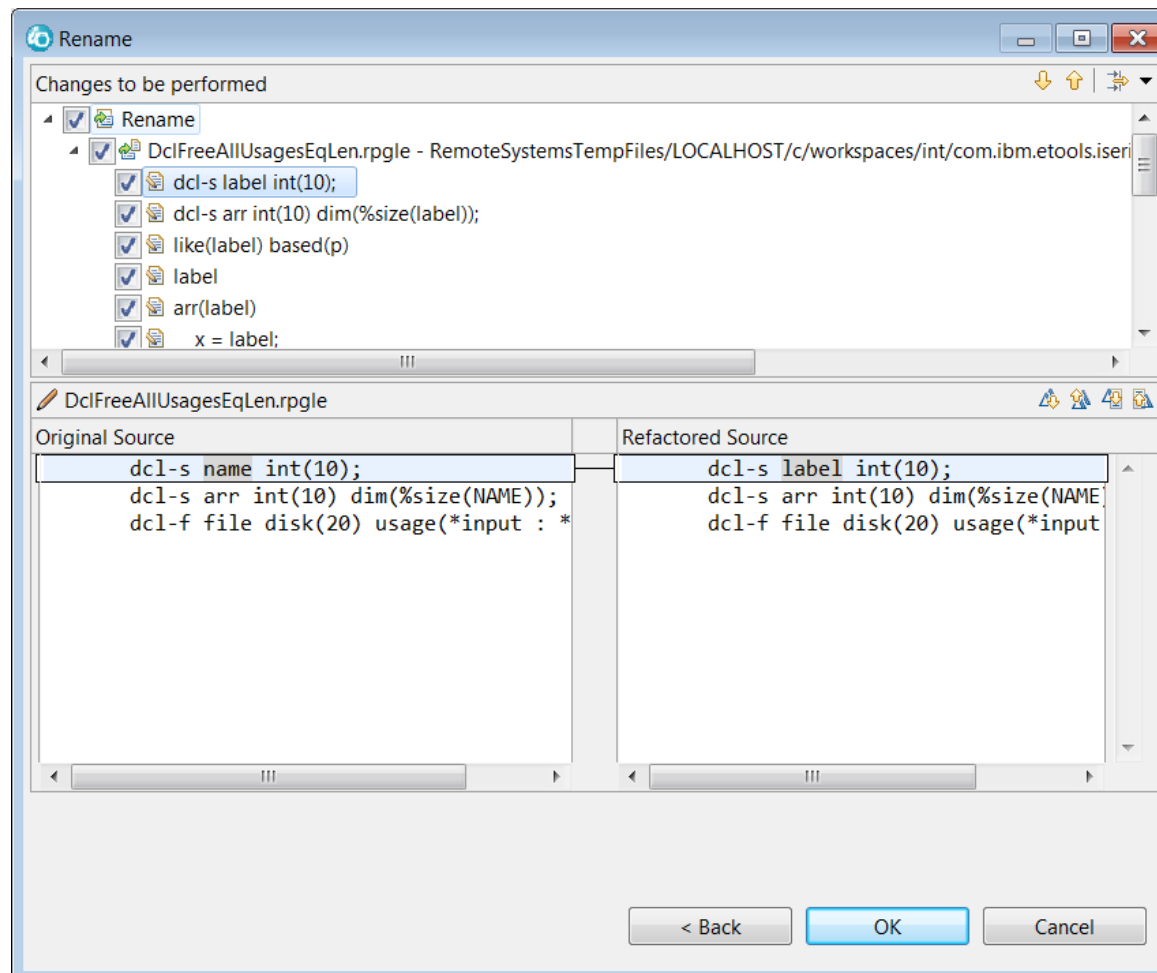
DclFreeAllUsagesEqLen.rpgle

Original Source	Refactored Source
dcl-s name int(10);	dcl-s label int(10);
dcl-s arr int(10) dim(%size(NAME));	dcl-s arr int(10) dim(%size(label));
dcl-f file disk(20) usage(*input : *output);	dcl-f file disk(20) usage(*input : *output)
dcl-ds qual qualified;	dcl-ds qual qualified;
name char(10) dim(3);	name char(10) dim(3);
end-ds;	end-ds;
D x s like(name)	D x s like(la
Ifile ns	Ifile ns
I I 1 4 0name	I I 1 4 0la
I I 1 4 0arr(Nk	I I 1 4 0ar
x = name;	x = label;
x = arr(Name);	x = arr(label);
qual.name(name) = 'a';	qual.name(label) = 'a';
C eval name = arr(name)	C eval label = arr(lab
C name add name nAMF	C label add label l

Buttons: < Back, OK, Cancel

Rename Refactoring – Preview

- Expand the list of previewed changes to work with changes individually. Clear the checkbox if you do not want a specific change to be performed.



Rename Refactoring

- Click OK to update the editor.
 - /COPY members are not updated.
 - Code that is excluded by /IF /ELSE statements will not be renamed.
 - Only renames within a line are supported
- Use Undo if you want to revert the changes.
- Documentation available at:
 - https://www.ibm.com/support/knowledgecenter/SSAE4W_9.5.1/com.ibm.etools.iseries.rs.e.doc/topics/refactor.html

```

dcl-s label int(10);
dcl-s arr int(10) dim(%size(label));
dcl-f file disk(20) usage(*input : *output);
dcl-ds qual qualified;
      name char(10) dim(3);
end-ds;
D x          s          like(label) based(p)
Ifile      ns
I          I  1  4 0label
I          I  1  4 0arr(label)
      x = label;
      x = arr(label);
      qual.name(label) = 'a';
C          eval      label = arr(label)
C  label      add      label      label
C  arr(label) add      arr(label)  arr(label)
Ofile      t
O          label
O          arr(label)
dcl-proc sub;
      label = 1;
end-proc;

```

Default all opens to be browse or edit mode

- When opening a member in the Remote Systems view, members can be opened in edit or browse mode
- Now there is a preference to default to either browse or edit mode on the Remote Systems>IBM i>Objects Subsystem preference page

The image shows two screenshots from the Eclipse IDE. The main screenshot is the 'Preferences' dialog, specifically the 'Objects Subsystem' page. In the left-hand tree, 'Objects Subsystem' is selected. In the main area, the 'Member saving behavior' section has three radio buttons: 'Save directly to original member', 'Save to a temporary member and then copy to original member' (which is selected), and 'Open source in browse mode'. This last option is circled in red. Below this, there is a checkbox for 'Open source in browse mode' which is currently unchecked. The second screenshot is the 'Open Member In Editor' dialog. It shows a connection named 'i7adt06', a library 'ECLIPSTEST', and a file 'QRPGLSRC'. The 'Member' field is set to 'ALIGN'. At the bottom, there are two radio buttons: 'Open for edit' (selected) and 'Open for browse'.

- The Open Member in Editor dialog now also preserves Open for edit / Open for browse value

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122 votes

RPG refactoring ability

Would like to be able to perform refactoring on RPG code similar to the refactoring Eclipse can do with C++.

Refactor > Rename
Refactor > Extract Local Variable
Refactor > Extract Constant
Refactor >...

Uncommitted Candidate

118 votes

Function to indent/format existing code similar to how "Source/Convert All ...

Would like to see a function to indent/format existing code. Could work similarly to how "Source/Convert All to Free-Form" works now, as well as "Convert Selection to Free-Form. on the context menu.

Delivered

89 votes

support for mac in rdp

i want to be able to run the RDP on my mac native.

→ Voted

Delivered

75 votes

Identify where in the code you are at.

When editing or browsing through a source member in the LPEX editor, it would be helpful to know in what subroutine or procedure you are at. This would eliminate the need to find BEGSR Previous. Sim...

Delivered

Your ideas matter!

As of today:

5 new
2 planned
99 delivered

195 users
3913 votes
1988 comments

Spotlight

- RFE Community is updated (Release 18)
- IBM Commerce adds Payments (FTM) products to the RFE Community
- IBM Security adds MaaS360 products to the RFE Community

→ See all announcements

Give us feedback

Participate in the [RFE Community survey](#) to help us improve your experience.

http://ibm.biz/rdi_rfe



Delivered in 9.5.1.1

Delivered in 9.5

Delivered in 9.5.1

Delivered in 9.5.1

Delivered in 9.0.1

65
votes

Live Update of Content Assist

In RDP 8.5, we received live outline refresh, which is great. However for me, I always associated the outline with content assist. Except the content assist does not have visibility of the live outl...

Delivered

Delivered in 9.5.0.3

55
votes

Integration of IBM i Access database functions into RD Power

While bringing back the Database perspective was a step in the right direction, the IBM i Access database functions are much more complete, especially Visual Explain . I'd like to see the IBM i Acces...

Delivered

Delivered in 9.5.1.1

54
votes

Add preference to default all opens to be browse only.

I want all my opens from features that allow a choice to default to browse unless I choose other wise on that open selection.

✓ Vote

Uncommitted Candidate

Delivered in 8.5.1

51
votes

Update outline view constantly

The outline view should be constantly updated with the new information from the editor when the user changed the source code in the LPEX editor. At the moment the user has to click the refresh button...

Delivered

46
votes

Trim Leading Spaces when joining lines (alt-J)

Being able to join lines with alt-J is very nice. It would be preferable if the join would trim off leading spaces of what is being joined and possibly add a single space so the join doesn't but up d...

✓ Vote

Uncommitted Candidate

46
votes

From a SQLxxxLE source, a "SQL prompter" on SQL lines

From a SQLxxxLE source, a "SQL prompter" on SQL lines as we can have in SEU with the F4 function key

✓ Vote

Uncommitted Candidate

Delivered in 9.5.1

44
votes

Filter Outline by Referenced/Unref

Provide a means to filter fields/procedures/prototypes/etc by whether or not the module uses them.

Delivered

Delivered in 9.5.1

42
votes

Automatic Content assist should be available as a preference

In the early days of WDSC content assist was automatic as it is with most other tools based on Eclipse. That capability was removed and we now have to use Ctrl/Space to activate. This makes sense for ...

Delivered

RDi Fix List – RFEs delivered

http://ibm.biz/rdi_fix_list shows RFEs and APARs delivered by release/fixpack

- 2 RFEs delivered in RDi 9.5.1.1

[RFE31305](#)

Refactoring support for ILE RPG

[RFE14402](#)

Add preference to default all opens to be browse only.

- 18 RFEs delivered in RDi 9.5.1

RFE13454	Mac OS X v10.11 support									
RFE12100	Kerberos authentication for Rdi. User can now use single-sign-on and enterprise identity mapping based on Kerberos to eliminate the need to provide logon credentials when connection to the IBM i using Rational Developer for i.									
RFE12353	Add toolbar button to ILE RPG outline view to toggle filtering out unreferenced fields/prototypes/data structures/procedures/files in the outline view									
RFE31745	Support ILE RPG O-Specs in dynamic outline and hyperlink/hover within RDi editor									
RFE11119	Identify where in the code you are at - enhanced Show Block Nesting for SQL ILE RPG and ILE RPG									
RFE64933	ILE RPG Live outline now supports *IN(nn) indicators									
RFE56254	From ILE RPG Outline View position to O-Specs and track references to EXCEPT names									
RFE29561	RDP 8.5 live outline view does not show field if used in internally described printer output									
RFE23954	ILE RPG Outline view not showing indicator usage in program defined output specs									
RFE74859	Context-sensitive help for embedded SQL in ILE RPG - F1 on SQL statement will go to the particular statements help in the reference manual									
RFE45970	Consolidated Project View - remote reconciler with remote contexts on IFS All projects in RDi except for i Projects can now be associated with an IFS location. From the project, right click Remote Reconciler -> Enable Remote Support... to select the IFS location with the same name as the project. Use the Remote Reconciler view and disable the icon "Hide files and folders that do not have pending changes" to view existing remote IFS files that can be imported into your General Project. From the Remote Reconciler view, files can be pushed to and pulled from the IFS location. See RFE45970 - IFS project support using RDi 9.5.1 blog post for additional information.									
RFE87369	Always make Run SQL Scripts available, not just when in SQLRPGLE source - Objects subsystem popup menu has Run SQL Scripts action									
RFE38930	Display additional parameter information in RPGLE content assist									
RFE77454 & RFE77455	RFE77454: Change ctrl-f to function like eclipse find RFE77455: Make ctrl-f function the same way in both block and stream modes NOTE: Restrict search to selection is now enabled for both Block and Stream selection modes.									
RFE23938	Automatic Content assist should be available as a preference									
RFE60989 CAAC AD0424	add commenting key shortcuts/actions for CL and DDS (like RPG) <table border="1" data-bbox="575 1278 1491 1363"> <thead> <tr> <th>Name</th> <th>Function</th> <th>Keyboard Shortcut</th> </tr> </thead> <tbody> <tr> <td>Comment</td> <td>Comment all lines containing the current selection.</td> <td>Ctrl + /</td> </tr> <tr> <td>Uncomment</td> <td>Uncomment all lines containing the current selection.</td> <td>Ctrl + \</td> </tr> </tbody> </table>	Name	Function	Keyboard Shortcut	Comment	Comment all lines containing the current selection.	Ctrl + /	Uncomment	Uncomment all lines containing the current selection.	Ctrl + \
Name	Function	Keyboard Shortcut								
Comment	Comment all lines containing the current selection.	Ctrl + /								
Uncomment	Uncomment all lines containing the current selection.	Ctrl + \								
	NOTE: The solution includes CL, CLLE and DDS source, but does not include OPM RPG or COBOL source.									
RFE86909	Regular expression scan and replace									

Conclusion

- RPG is evolving rapidly and RDi is keeping pace (SEU is not)
- Free-form RPG and RDi solves skill-depletion
- Lot's of goodies in RDi 9.5.1/9.5.1.1 – worth upgrading
- We are prioritizing investment according to your feedback via RFE



With RDi, IBM i programming is cool and productive!

Resources

- Rational Developer for i
 - http://ibm.biz/rdi_product – purchase, what's new
 - http://ibm.biz/rdi_product_evolution – is this an update, technical details
 - http://ibm.biz/rdi_web_install – simplest install for individuals
 - http://ibm.biz/rdi_install – options for enterprise installation
 - http://ibm.biz/rdi_roi – personalized business case generator
 - http://ibm.biz/rdi_wiki_self_learning - lots of online learning resources
 - http://ibm.biz/rdi_documents - documentation and notices
- How to stay in touch
 - https://ibm.biz/rdi_hub – community, blog, announcements, wiki, links, resources
 - <https://ibm.biz/wdsci-l> - very active discussion group
 - http://ibm.biz/rdi_rfe - request for enhancements
 - [COMMON](#)

