

Limits the Sky With RDi

By: Mike Zaringhalam

Who Am I?

- ▶ Using the IBM i for almost 3 years
- ▶ From P.C. Richard & Son
- ▶ In the office I am known for
 - ▶ RDi
 - ▶ DB2
 - ▶ Modernization
- ▶ Aspiring speaker

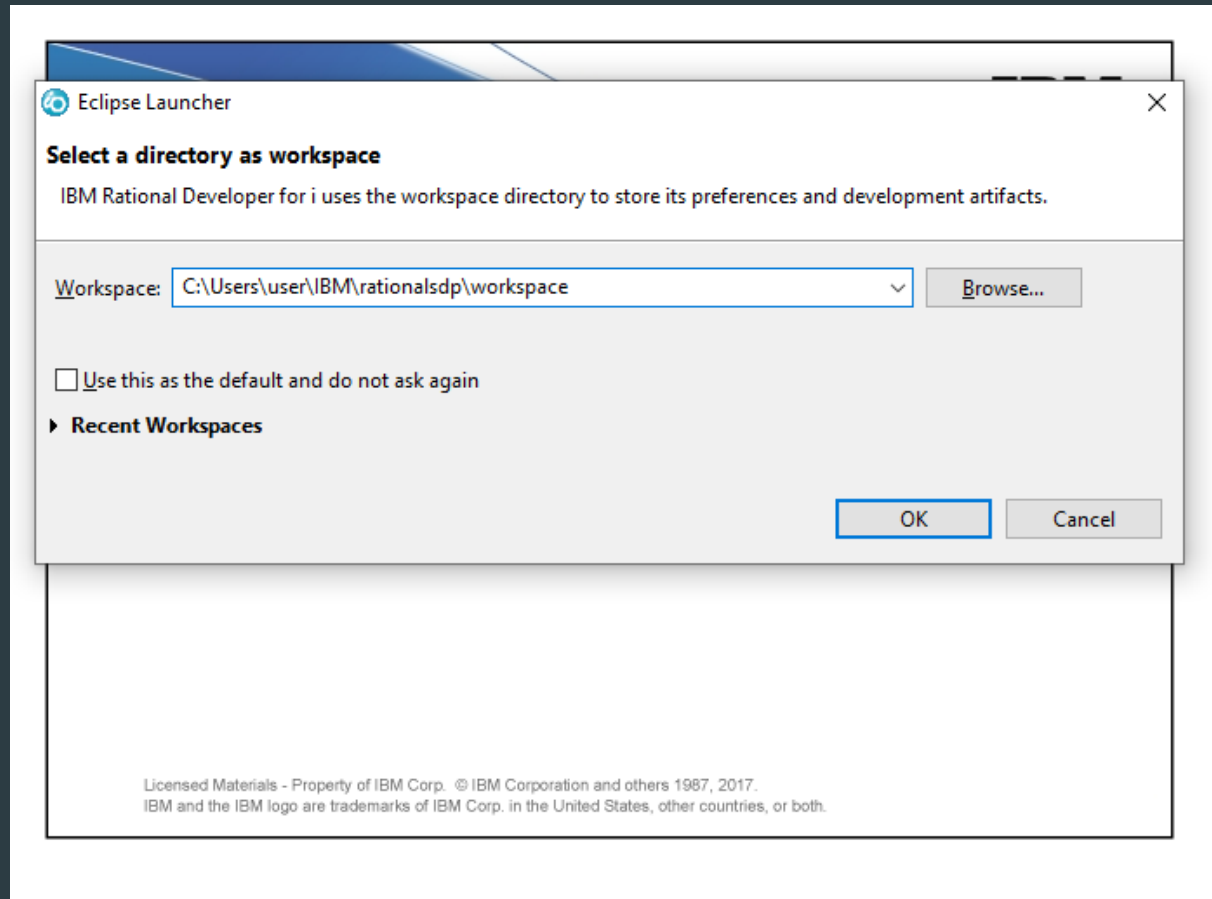
What Will Be Covered?

- ▶ Opening a member
- ▶ Code templating
 - ▶ Snippets
 - ▶ Templates
- ▶ Compiling
- ▶ Debugging
- ▶ Shortcuts

What Will Be Covered? (Continued)

- ▶ Content assist
- ▶ Filters
- ▶ Search tools
- ▶ Comparison tools
- ▶ Open multiples of the same source
- ▶ Help!
- ▶ & More...

Workspace



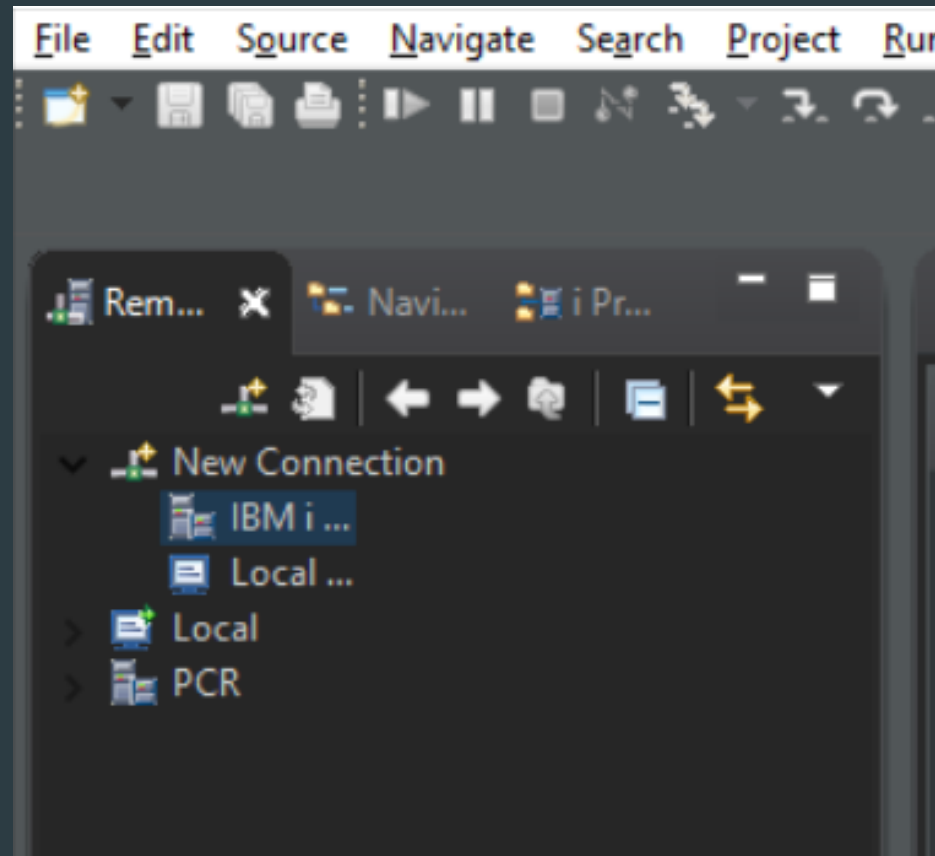
Creating a Connection

- ▶ Welcome tab is shown on first startup of RDi
- ▶ Close this tab to begin setting things up



Creating a Connection (Continued)

- ▶ Locate the “Remote Systems Explorer” view
- ▶ Expand “New Connection”
 - ▶ Double click “IBM I”



Creating a Connection (Continued)

- Fill in connection information

New Connection

Remote IBM i System Connection

Define connection information

Parent profile:

Host name:

Connection name:

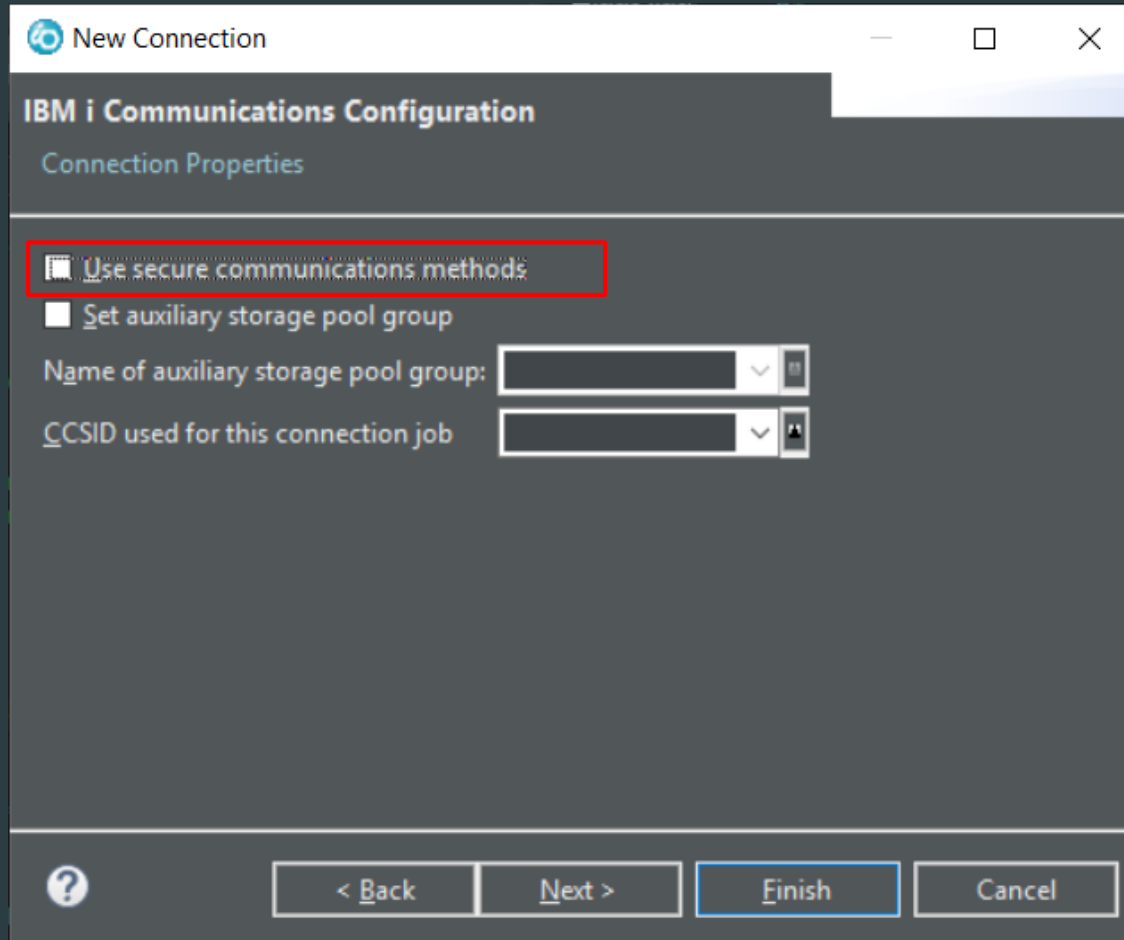
Description:

Verify host name

[Configure proxy settings](#)

Creating a Connection (Continued)

- ▶ SSH option for secure connection



The screenshot shows a window titled "New Connection" with the following content:

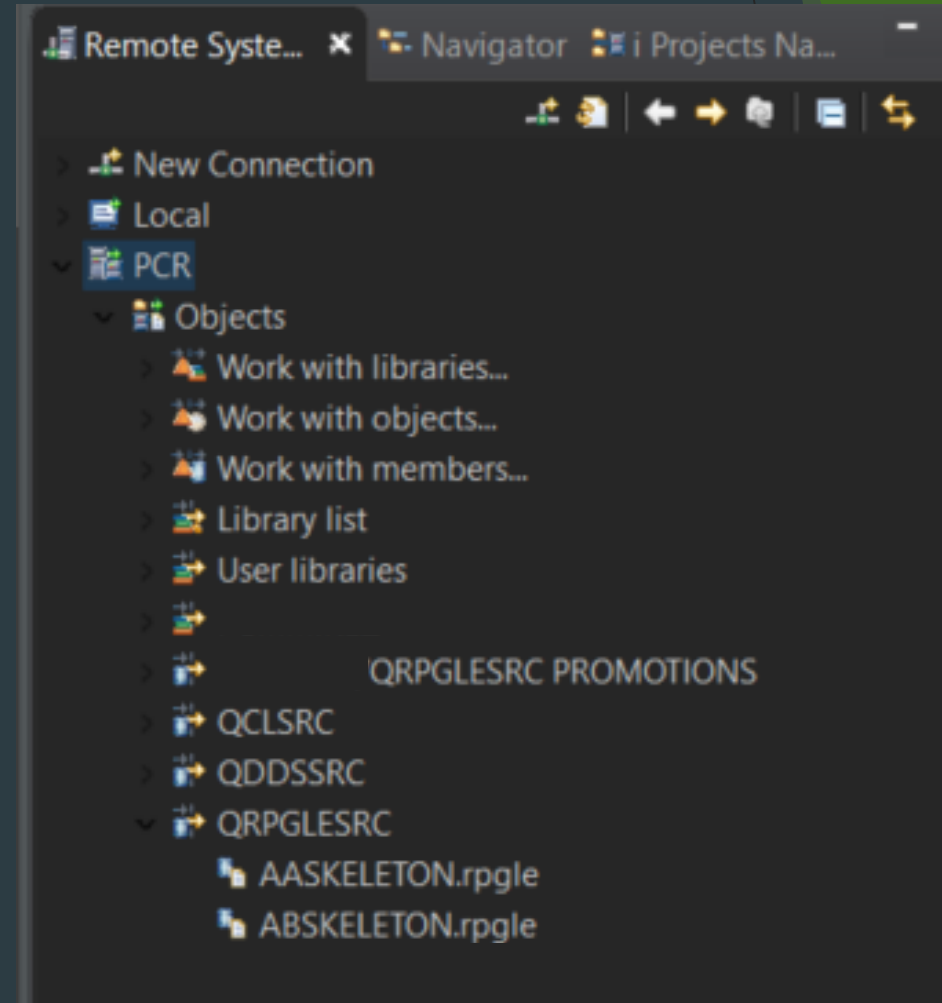
- IBM i Communications Configuration
- Connection Properties
- Use secure communications methods (highlighted with a red box)
- Set auxiliary storage pool group
- Name of auxiliary storage pool group: [dropdown menu]
- CCSID used for this connection job: [dropdown menu]
- Buttons: ? (help), < Back, Next >, Finish (highlighted with a blue border), Cancel

Opening a Member

- ▶ Remote Systems View
- ▶ Shortcut - CTL + ALT + Q
- ▶ PDM perspective
 - ▶ Object Table view

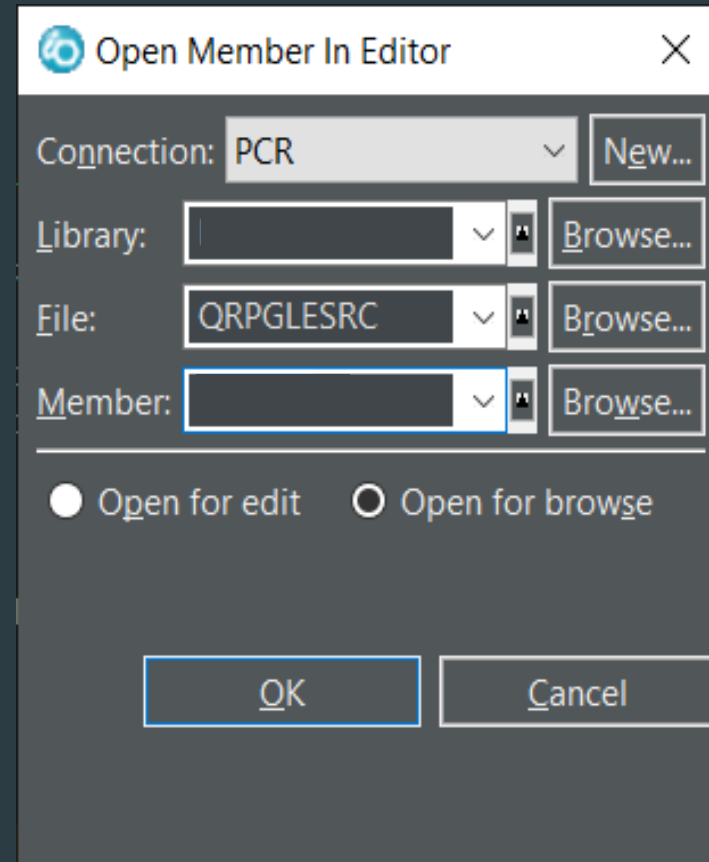
Opening a Member: Remote Systems View

- ▶ Large number of members will cause delay
- ▶ Drop down lists
- ▶ Typing jumps to source



Opening a Member: Shortcut

- ▶ Shortcut - CTL + ALT + Q
- ▶ Quick and easy
- ▶ Saves recent values
- ▶ Options:
 - ▶ Edit
 - ▶ Browse



Opening a Member: Object Table View

The screenshot shows the IBM i Object Table interface. The main window displays a list of members with columns for Option, Name, Type, and Text. The filter string is '*CURLIB/QRPGLESRC(TST*) MBRTYPE(*) MBRTEXT(*)' (29 Members). A configuration panel on the right is highlighted with a red box, showing settings for opening a member.

Option	Name	Type	Text
	TSTALIAS	RPGLE	
	TSTCLOB	SQLRPGLE	
	TSTCMBFLD	SQLRPGLE	
	TSTDATES	SQLRPGLE	
	TSTDYNSQL	SQLRPGLE	
	TSTEML	SQLRPGLE	
	TSTFORMS	RPGLE	

PCR: Filter string '*CURLIB/QRPGLESRC(TST*) MBRTYPE(*) MBRTEXT(*)' (29 Members)

Command: Normal [] Prompt... Run

Messages: Library SURVEYOR added to library list. Details... Show Log

Filter Subset

Mode: Member

Connection: PCR

Library: *CURLIB

File: QRPGLESRC

Member: TST*

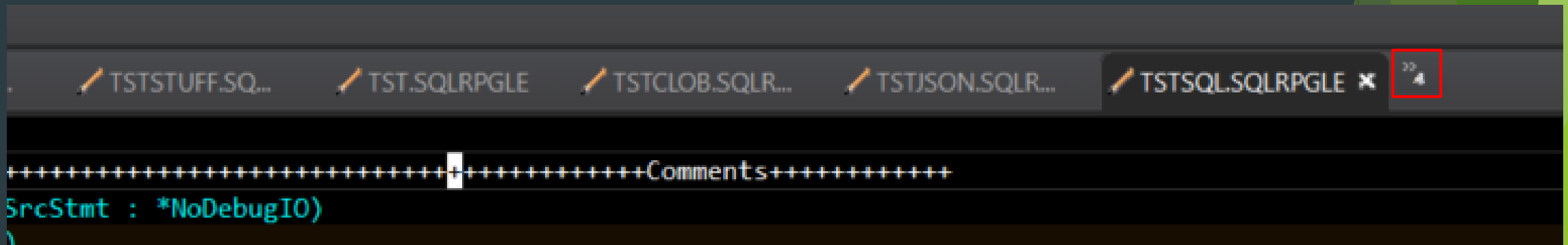
Type: *

Attribute: *

Text: *

Opening a Member (Continued)

- ▶ Open multiple members at once
- ▶ Working member is highlighted
- ▶ Easy to switch



The screenshot shows a code editor interface with a dark theme. At the top, there is a tab bar with five open files: 'TSTSTUFF.SQ...', 'TST.SQLRPGLE', 'TSTCLOB.SQLR...', 'TST/JSON.SQLR...', and 'TSTSQL.SQLRPGLE'. The 'TSTSQL.SQLRPGLE' tab is active and highlighted in a lighter shade. A red box highlights the number '4' in the top right corner of the active tab. Below the tab bar, the code editor displays a line of text: '+++++Comments+++++' followed by a line of code: 'SrcStmt : *NoDebugIO)' and a closing parenthesis ')' on the next line. A white cursor is positioned at the end of the 'SrcStmt : *NoDebugIO)' line.

Code Templating

- ▶ What is it?
 - ▶ Functionality for inserting repeated code
- ▶ Why use it?
 - ▶ Reusability
 - ▶ Minimal typing
 - ▶ Less errors
 - ▶ Faster
 - ▶ Easy to use

Code Templating: Types

- ▶ 2 types of templates in RDi:
 - ▶ Templates - static
 - ▶ Snippets - dynamic or static

Code Templating: Templates

- ▶ Where are they located?
 - ▶ Open RDi preferences (Window -> Preferences)
 - ▶ Search for “Templates”
 - ▶ Choose Templates under “ILE RPG”
- ▶ Recommendation - rename templates to begin with “Template_”
 - ▶ Easier to find using content assist

Code Templating: Templates (Continued)

Preferences

type filter text

- Remote Reconciler
- Remote Systems LPEX Editor
 - IBM i Parsers
 - C/C++
 - CL
 - COBOL
 - DDS
 - ILE RPG
 - Content Assist
 - Formatter
 - Free-form SQL Form
 - Key Behavior
 - Templates**
 - RPG/400
 - SSL/TLS
 - Report Design
 - Run/Debug
 - Selection Feedback
 - Server
 - Team

Templates

Create, edit or remove templates:

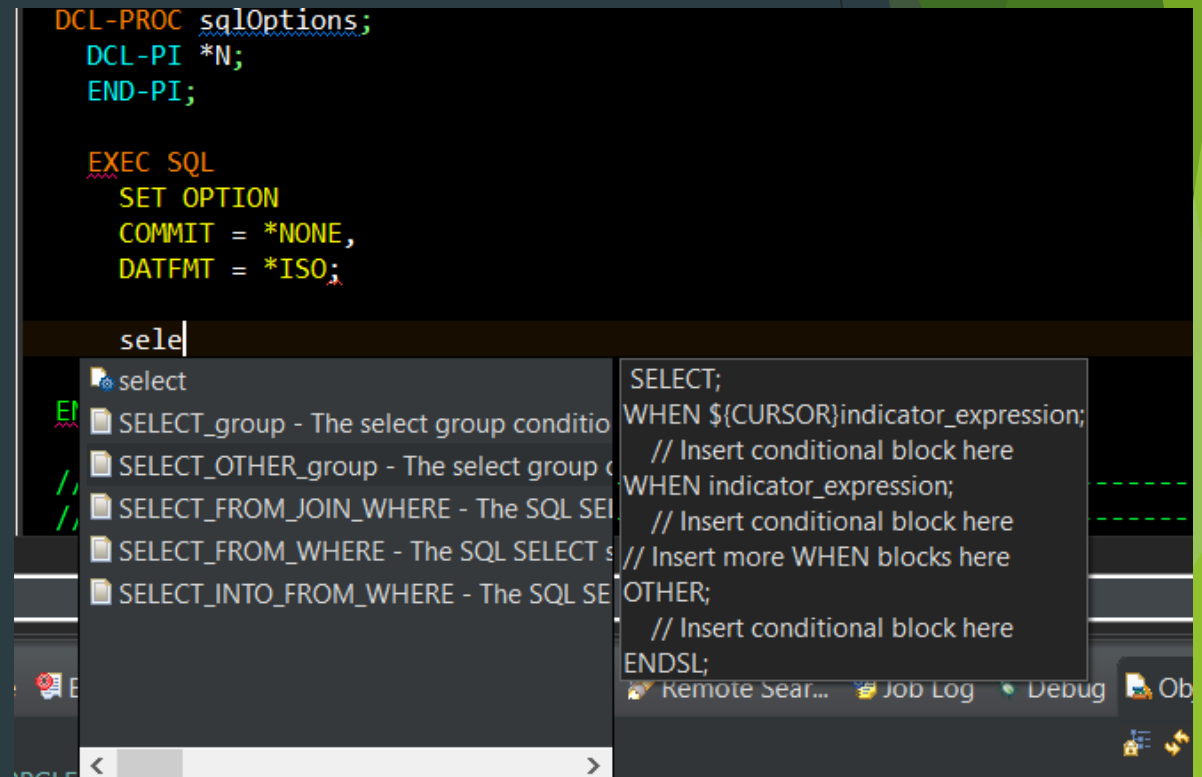
Name	Context	Description
<input checked="" type="checkbox"/> FOR_TO_...	FREE-FORM	The FOR operation begins a ...
<input checked="" type="checkbox"/> FOR_DO_...	FREE-FORM	The FOR operation begins a ...
<input checked="" type="checkbox"/> FOR_BY_...	FREE-FORM	The FOR operation begins a ...
<input checked="" type="checkbox"/> FOR_BY_...	FREE-FORM	The FOR operation begins a ...
<input checked="" type="checkbox"/> DOW_lo...	FREE-FORM	The DOW operation code pr...
<input checked="" type="checkbox"/> DOU_lo...	FREE-FORM	The DOU operation code pr...
<input checked="" type="checkbox"/> IF_state...	FREE-FORM	The IF operation code allow...
<input checked="" type="checkbox"/> IF_ELSE_...	FREE-FORM	The IF and ELSE operation c...
<input checked="" type="checkbox"/> SELECT_...	FREE-FORM	The select group conditiona...

New...
Edit...
Remove
Import...
Export...
Export All...
Enable All
Disable All

```
SELECT;  
WHEN ${CURSOR}indicator_expression;  
    // Insert conditional block here  
WHEN indicator_expression;  
    // Insert conditional block here  
// Insert more WHEN blocks here  
ENDSL;
```

Code Templating: Templates (Continued)

- ▶ How do I use it?
 - ▶ Use content assist for template selection
- ▶ Template contents displayed when highlighted



```
DCL-PROC sqlOptions;  
DCL-PI *N;  
END-PI;  
  
EXEC SQL  
SET OPTION  
COMMIT = *NONE,  
DATFMT = *ISO;
```

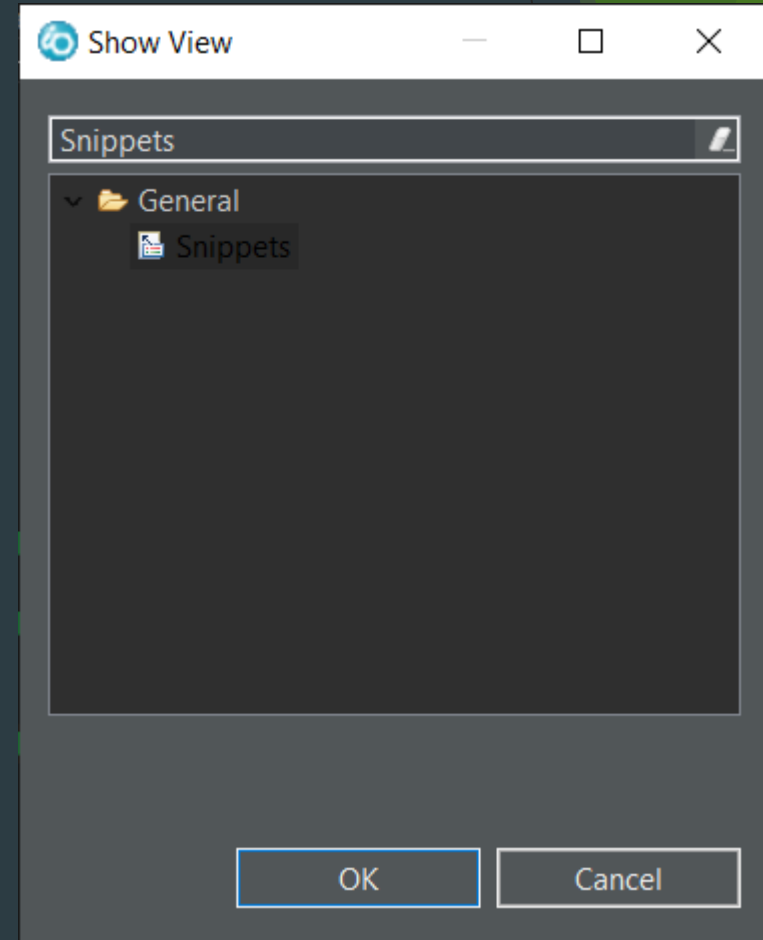
select

- select
- SELECT_group - The select group condition
- SELECT_OTHER_group - The select group condition
- SELECT_FROM_JOIN_WHERE - The SQL SELECT statement
- SELECT_FROM_WHERE - The SQL SELECT statement
- SELECT_INTO_FROM_WHERE - The SQL SELECT statement

```
SELECT;  
WHEN ${CURSOR}indicator_expression;  
// Insert conditional block here  
WHEN indicator_expression;  
// Insert conditional block here  
// Insert more WHEN blocks here  
OTHER;  
// Insert conditional block here  
ENDSL;
```

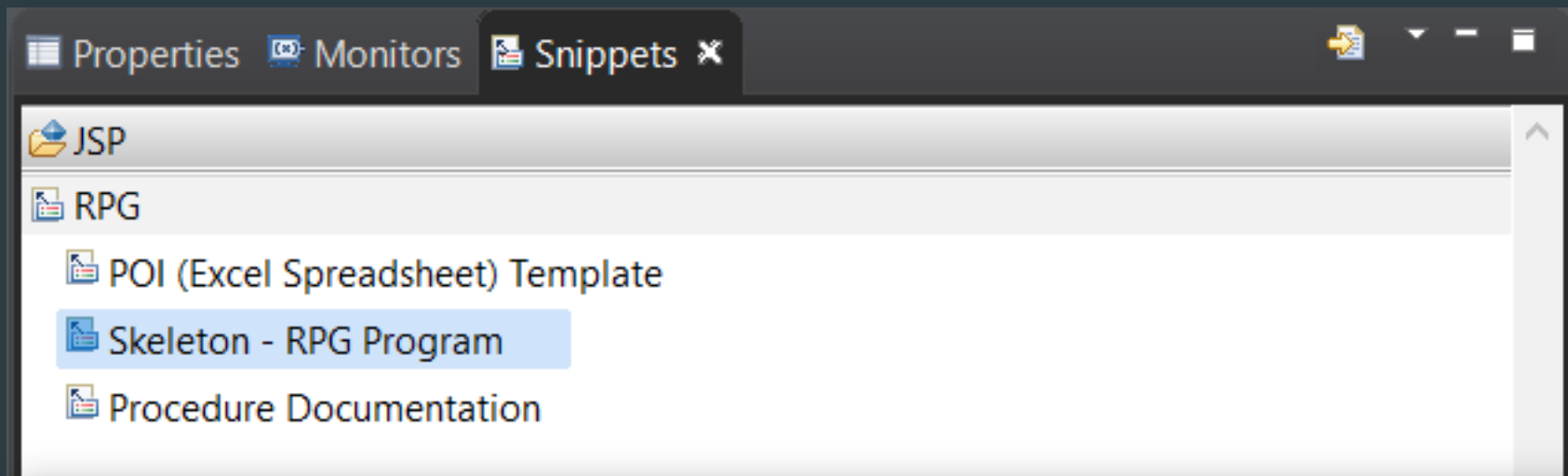
Code Templating: Snippets

- ▶ Where are they located?
 - ▶ Open all RDi views
(Window -> Show View -> Other)
 - ▶ Search for “Snippets”
- ▶ Recommendation - add this view to a perspective
 - ▶ Save the perspective



Code Templating: Snippets (Continued)

- ▶ To edit/add snippets, right click within the view and choose “Customize”



Code Templating: Snippets (Continued)

- ▶ Options to add, update, and delete
- ▶ Select a snippet to be displayed

The screenshot shows a configuration window for a code snippet named "Skeleton - RPG Program". The window is divided into several sections:

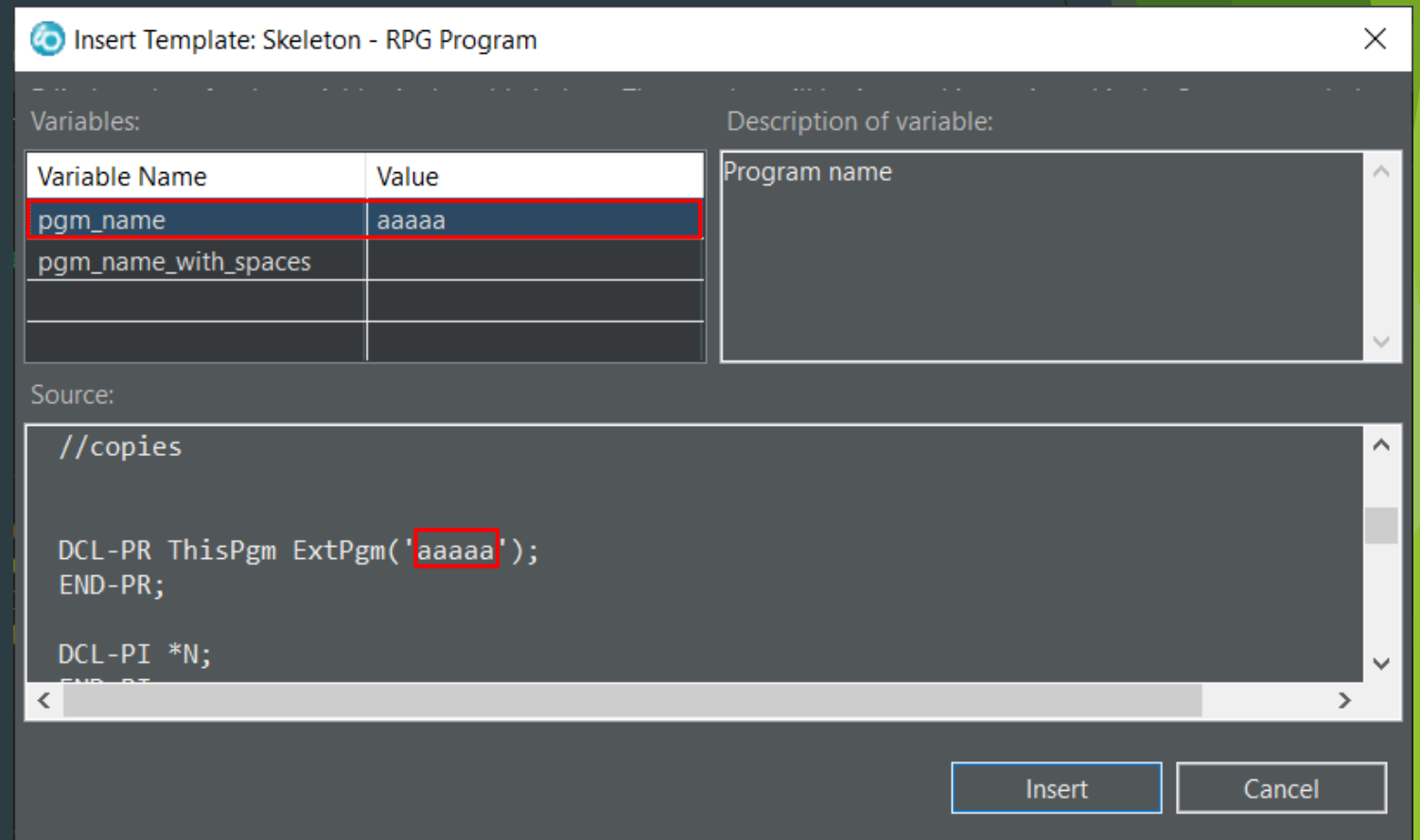
- Toolbar:** Contains icons for New, Delete, Move Down, Move Up, Import, and Export.
- Tree View:** Shows a project structure with folders for JSP and RPG. Under the RPG folder, there are three items: "POI (Excel Spreadsheet) Template", "Skeleton - RPG Program" (which is selected), and "Procedure Documentation".
- Name:** A text field containing "Skeleton - RPG Program".
- Description:** A text field containing "skeleton for an RPG program".
- Hide:** A checkbox that is currently unchecked.
- Variables:** A table with three columns: Name, Description, and Default Value.

Name	Description	Default Value
pgm_name	Program name	
pgm_name_with_spaces	progam name with 3 spaces...	
- Template:** A text area containing the following code:

```
**FREE
//-----
//
//                               ${pgm_name_with_spaces}
//
// Programmer: Mike Z
// Date      :
//
// Title     :
// Project   :
```
- Footer:** A button labeled "Insert Variable Placeholder..."

Code Templating: Snippets (Continued)

- ▶ How do I use it?
 - ▶ Double click within the Snippets view
- ▶ Snippet variables will be prompted before code insertion



Insert Template: Skeleton - RPG Program

Variables:

Variable Name	Value
pgm_name	aaaaa
pgm_name_with_spaces	

Description of variable:

Program name

Source:

```
//copies  
  
DCL-PR ThisPgm ExtPgm('aaaaa');  
END-PR;  
  
DCL-PI *N;  
END-PI;
```

Insert Cancel

Compile Commands

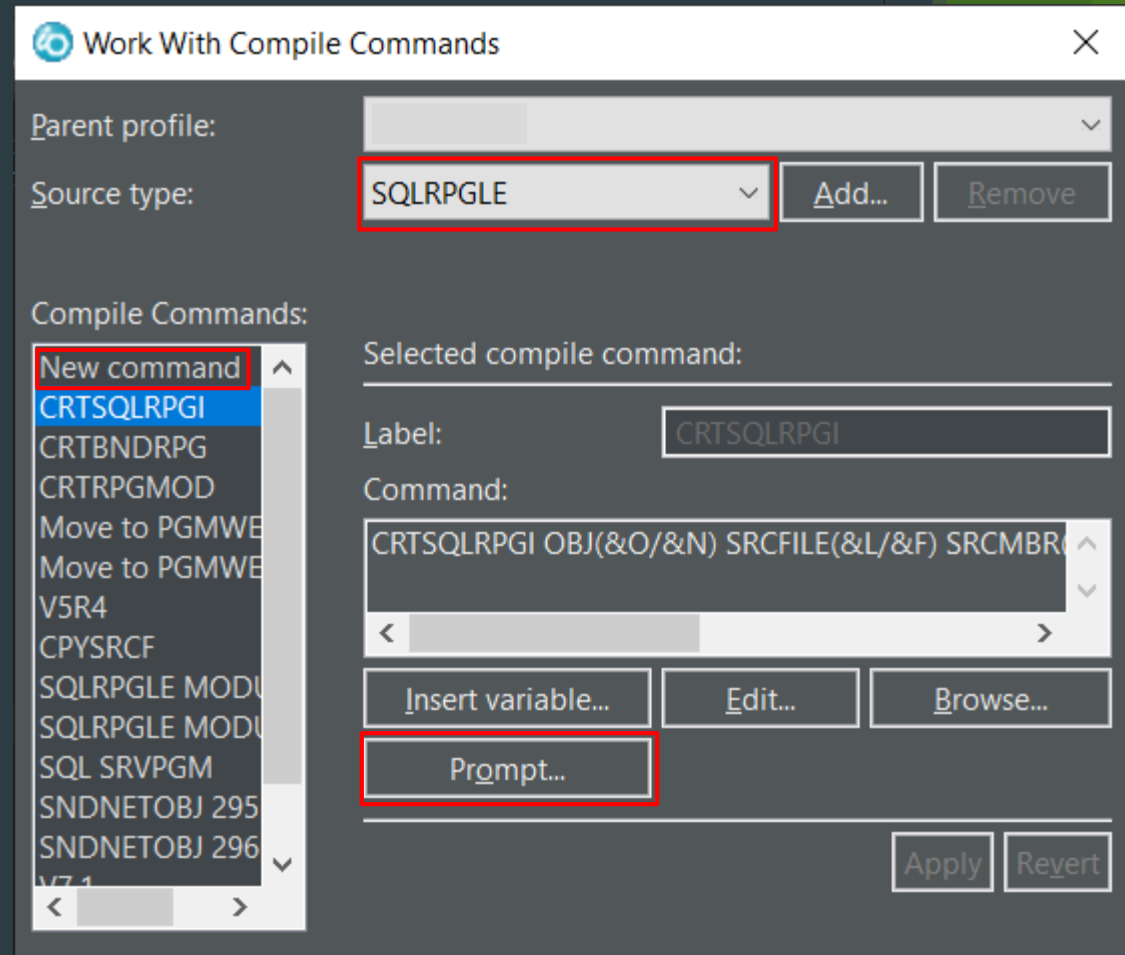
- ▶ Compiling in RDi WILL simplify the compile process
- ▶ Save commands (Per object type)
- ▶ Any system command can be an RDi compile command
 - ▶ CPYSRCF
- ▶ Compile commands shown are based on the active source's type (member type)
 - ▶ SQLRPGLE, RPGLE, CLLE, DSPF, ETC...

Compile Commands (Continued)

- ▶ Where are they located?
 - ▶ Open up the “Work With Compile Commands” window (Compile -> Work With Compile Commands)
- ▶ Recommendation - Use RDi’s compile variables
 - ▶ Dynamic commands
- ▶ Recommendation - Prompt compile commands
 - ▶ Prevents error

Compile Commands (Continued)

- ▶ Choose source type
- ▶ Choose a compile command to edit
- ▶ Select “New Command” for... new commands
- ▶ Use content assist for compile variables
 - ▶ Variable description will be displayed



Compile Commands Variables

&F - Name of file containing selected member

&L - Object or member library name

&N - Name of selected resource

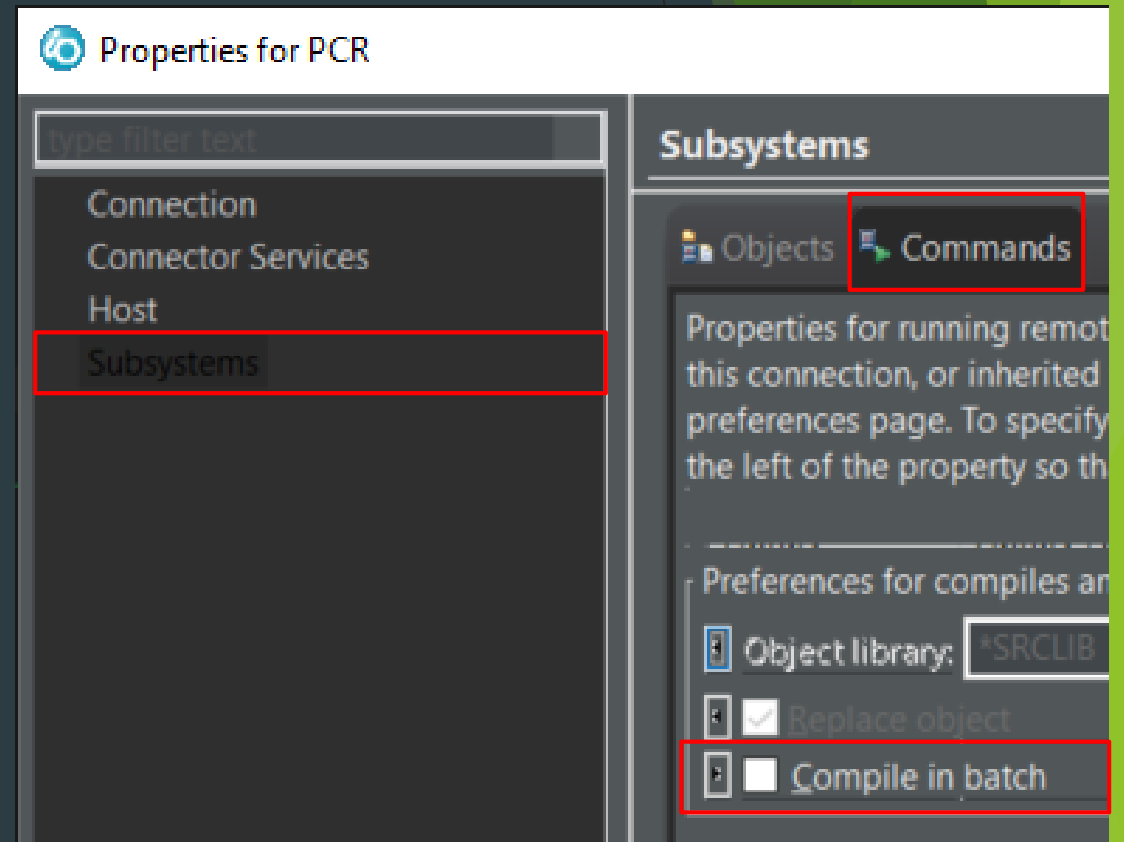
&O - Object library, from Command Execution properties

&R - Replace object when compiling. *YES or *NO. From Command

&X - Object or member text, in single quotes

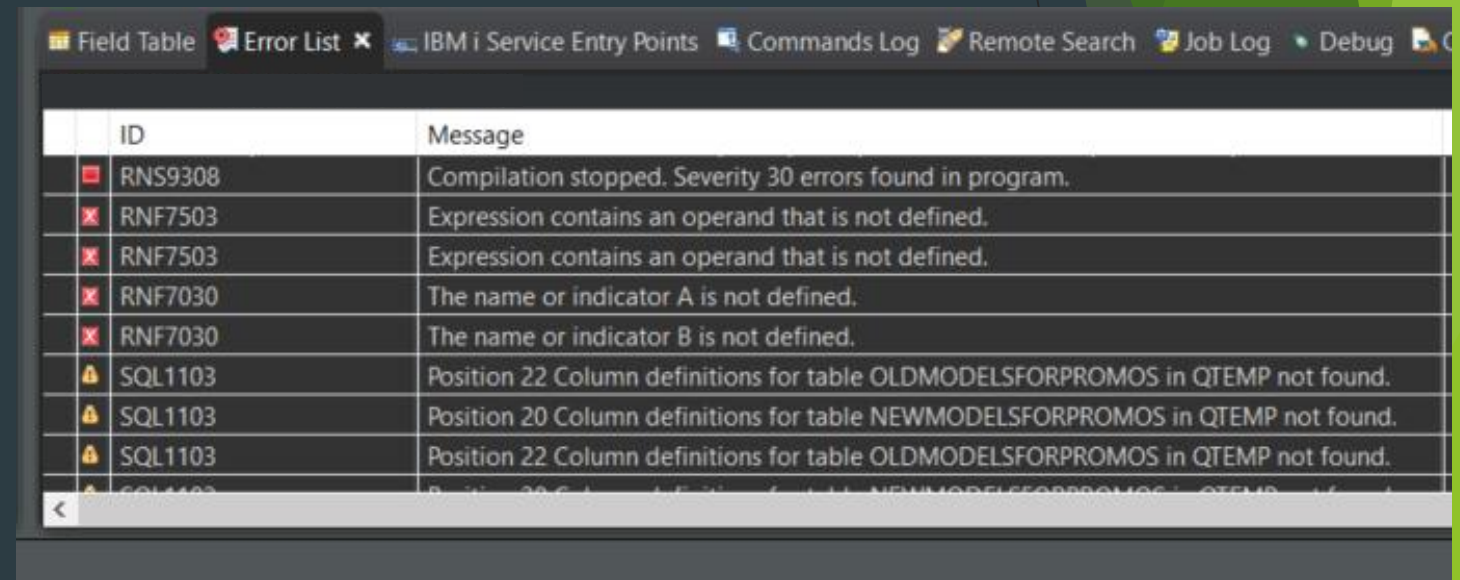
Compile Interactively

- ▶ By default, RDi compiles in batch
- ▶ To compile interactively
 - ▶ Go to your connections properties
 - ▶ Choose “Subsystems” and select the “Commands” tab
 - ▶ De-select “Compile in batch”



Compile Interactively (Continued)

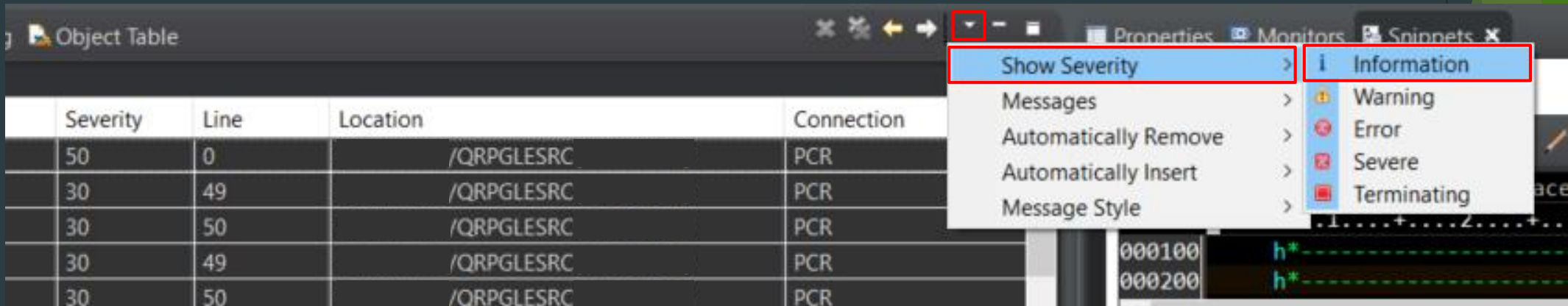
- ▶ See compile errors
 - ▶ No need to search spool files!
 - ▶ Errors appear in the Error List view
 - ▶ Double click errors to jump to bad code



ID	Message
RNS9308	Compilation stopped. Severity 30 errors found in program.
RNF7503	Expression contains an operand that is not defined.
RNF7503	Expression contains an operand that is not defined.
RNF7030	The name or indicator A is not defined.
RNF7030	The name or indicator B is not defined.
SQL1103	Position 22 Column definitions for table OLDMODELSFORPROMOS in QTEMP not found.
SQL1103	Position 20 Column definitions for table NEWMODELSFORPROMOS in QTEMP not found.
SQL1103	Position 22 Column definitions for table OLDMODELSFORPROMOS in QTEMP not found.
SQL1103	Position 20 Column definitions for table NEWMODELSFORPROMOS in QTEMP not found.

Compile Interactively (Continued)

- ▶ Recommendation - hide information messages
 - ▶ Less displayed messages



The screenshot shows a table of messages in an IDE. The table has columns for Severity, Line, Location, and Connection. A context menu is open over the table, with 'Show Severity' selected. The 'Show Severity' submenu is also open, showing options for Information, Warning, Error, Severe, and Terminating. The 'Information' option is highlighted in blue.

Severity	Line	Location	Connection
50	0	/QRPGLESRC	PCR
30	49	/QRPGLESRC	PCR
30	50	/QRPGLESRC	PCR
30	49	/QRPGLESRC	PCR
30	50	/QRPGLESRC	PCR

Context Menu Options:

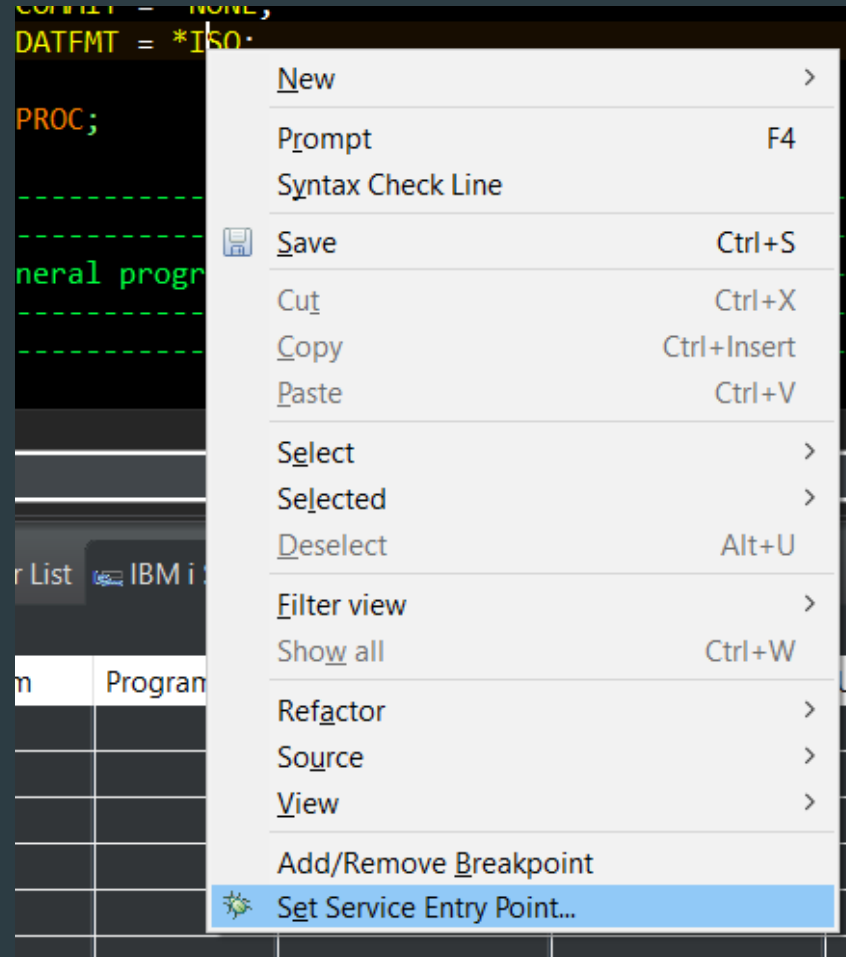
- Show Severity >
- Messages >
- Automatically Remove >
- Automatically Insert >
- Message Style >

Show Severity Submenu:

- Information
- Warning
- Error
- Severe
- Terminating

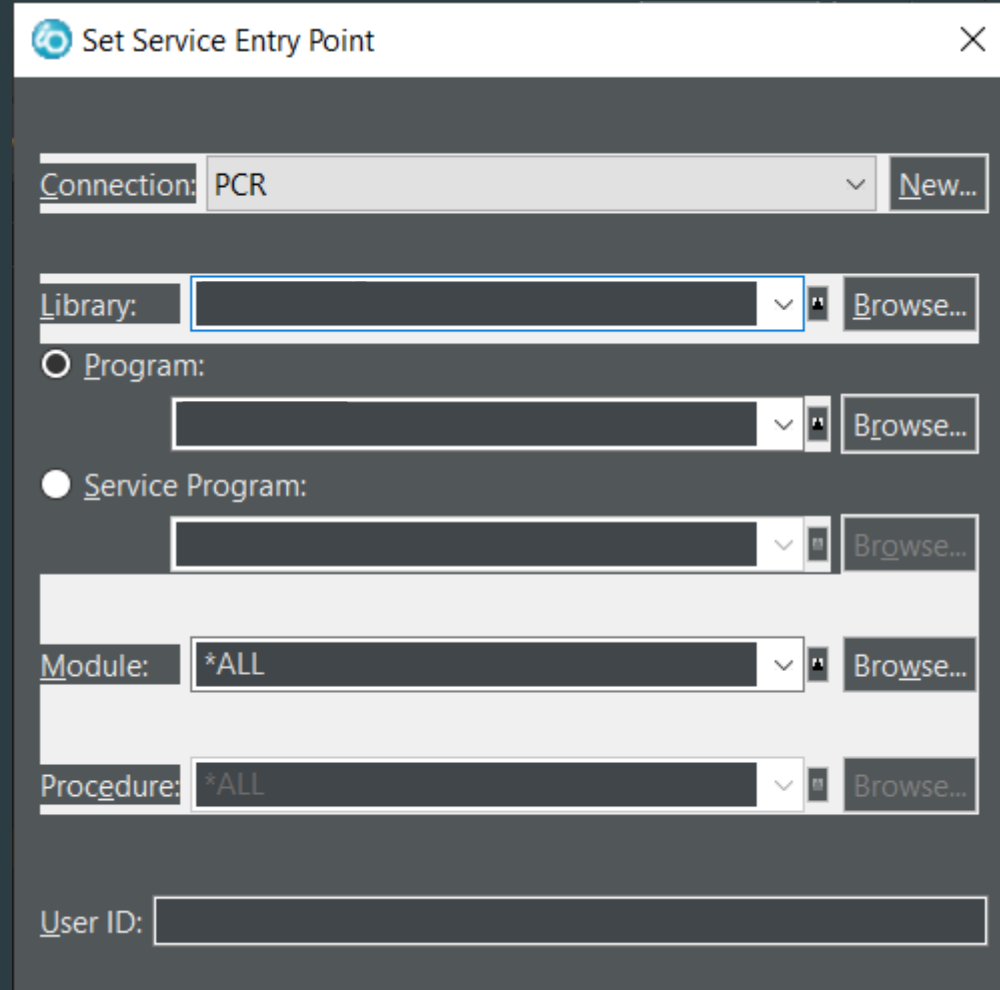
Debugging: Service Entry Points

- ▶ What is it?
 - ▶ Entry breakpoint for a program
- ▶ How do I use it?
 - ▶ Right click the source you wish to debug
 - ▶ Select “Set Service Entry Point”



Debugging: Service Entry Points (Continued)

- ▶ Form will be filled in
 - ▶ Alter as needed

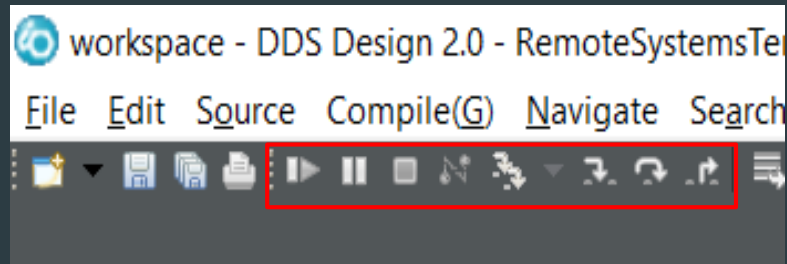


The screenshot shows a dialog box titled "Set Service Entry Point" with a close button (X) in the top right corner. The dialog contains several input fields and buttons:

- Connection:** A dropdown menu showing "PCR" and a "New..." button.
- Library:** A dropdown menu (currently empty) and a "Browse..." button.
- Program:** A radio button, a dropdown menu (currently empty), and a "Browse..." button.
- Service Program:** A radio button (selected), a dropdown menu (currently empty), and a "Browse..." button.
- Module:** A dropdown menu showing "*ALL" and a "Browse..." button.
- Procedure:** A dropdown menu showing "*ALL" and a "Browse..." button.
- User ID:** A text input field.

Debugging

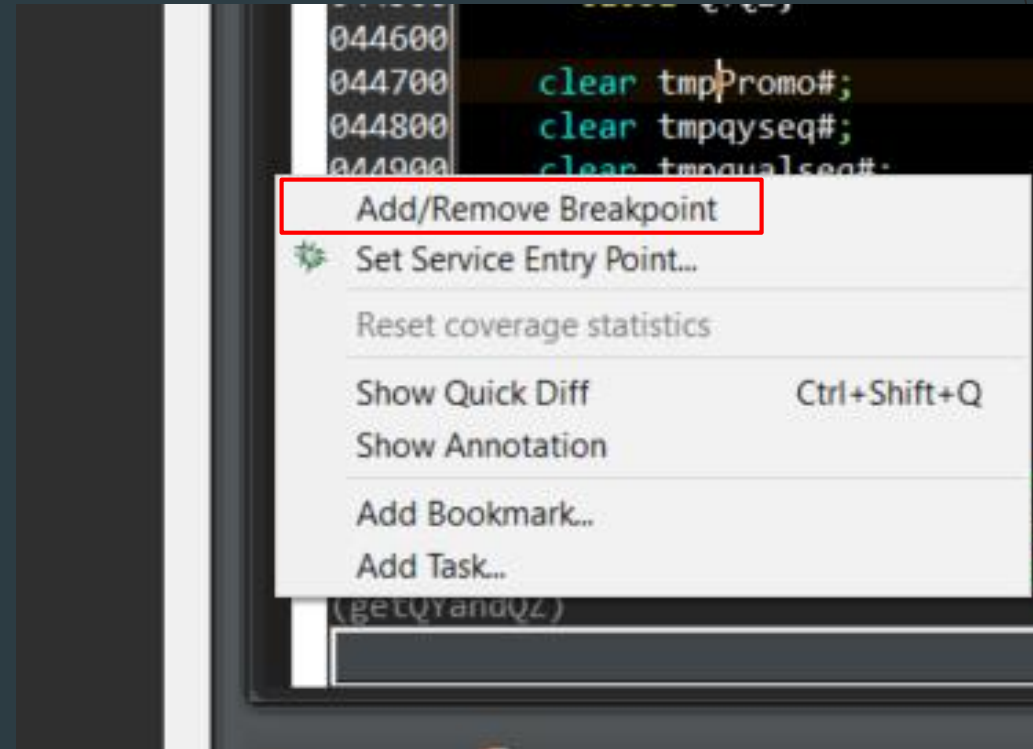
- ▶ How do I know when I am debugging?
 - ▶ Debug perspective will open
 - ▶ Debugged program will show a highlighted line
 - ▶ The following buttons will light up



- ▶ **TERMINATE EXECUTES CODE UNTIL PGM ENDS**

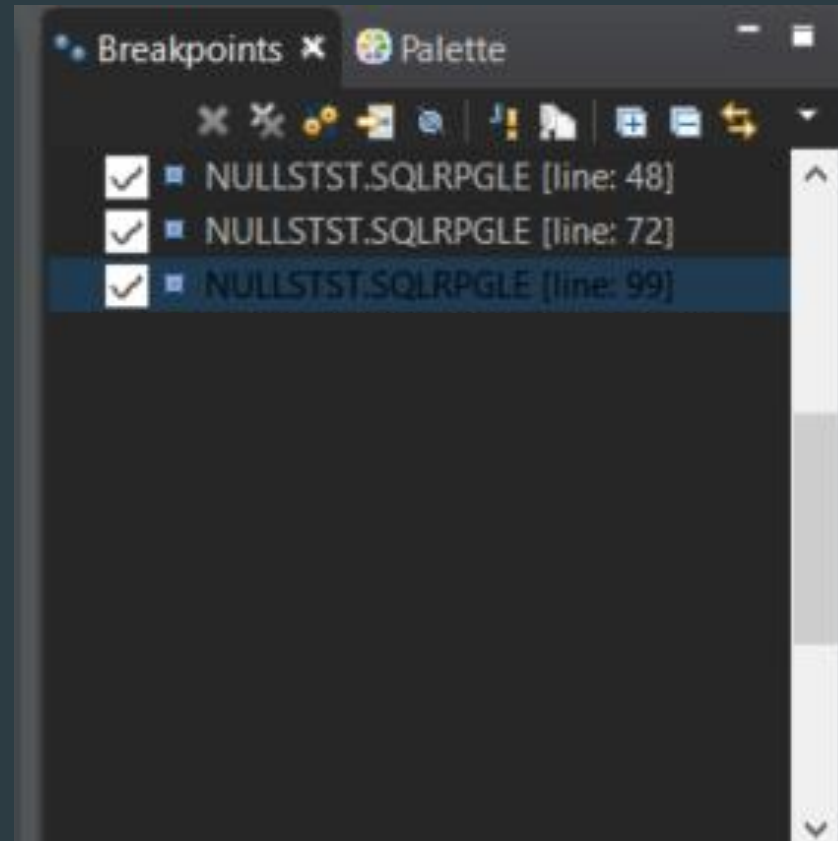
Debugging: Breakpoints

- ▶ Right click desired line
 - ▶ Select “Add/Remove Breakpoint”
- ▶ Double click margin
 - ▶ Toggles breakpoint



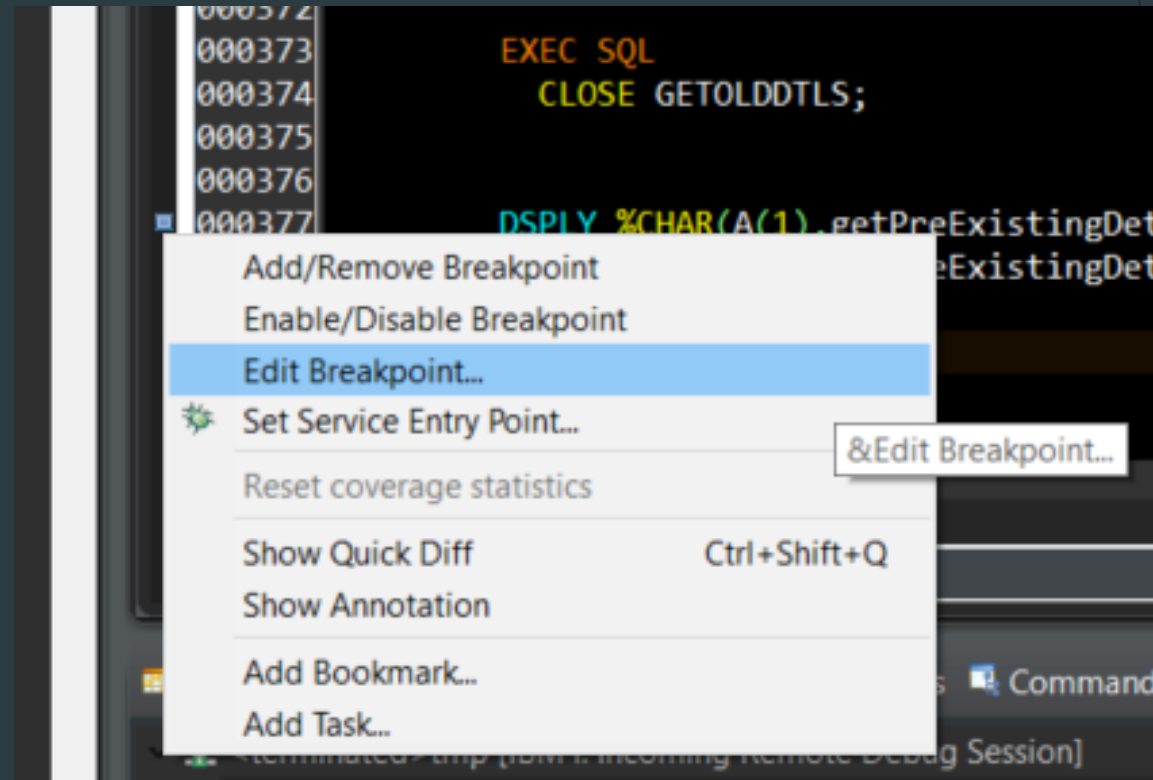
Debugging: Breakpoints (Continued)

- ▶ Breakpoints view
 - ▶ Quickly edit breakpoints
 - ▶ Stay until removed
- ▶ Easy to get around
 - ▶ Jump to line
 - ▶ Open member





Debugging: Breakpoint Conditions

- ▶ Right click breakpoint (works in view as well)
 - ▶ Select “Edit Breakpoint...”



Debugging: Breakpoint Conditions (Continued)

 Edit a Line Breakpoint

Optional parameters 

Make the breakpoint conditional upon the following parameters

Frequency


From:

To:

Every:

Expression:

Suspend all threads when the breakpoint is hit



Shortcuts



Shortcuts - Generic

- ▶ Ctrl + S - Save
- ▶ Ctrl + C - Copy
- ▶ Ctrl + X - Cut
- ▶ Ctrl + V - Paste
- ▶ Ctrl + Z - Undo
- ▶ Ctrl + Y - Redo

Shortcuts - Useful

- ▶ Ctrl + Backspace - delete the line your cursor is on
- ▶ Ctrl + Delete - delete everything to the right of the cursor
- ▶ Ctrl + D - duplicate current line
- ▶ Ctrl + A - select all
- ▶ Ctrl + F - find/Replace
- ▶ Ctrl + W - show all lines. Resets any filters
- ▶ Ctrl + Shift + D - search lines by the date it was changed

Shortcuts - Useful (Continued)

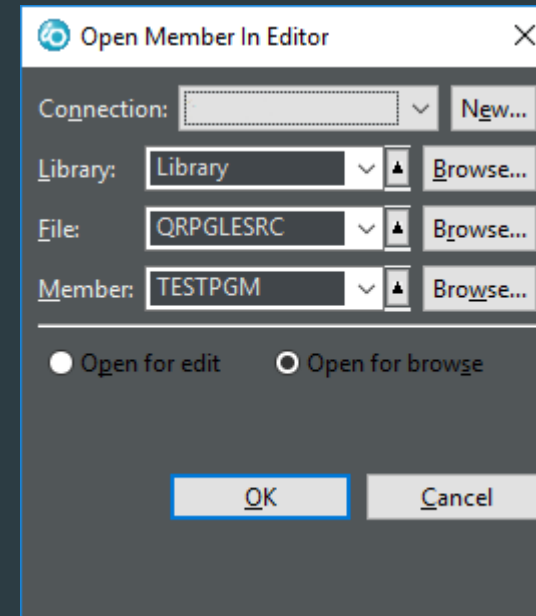
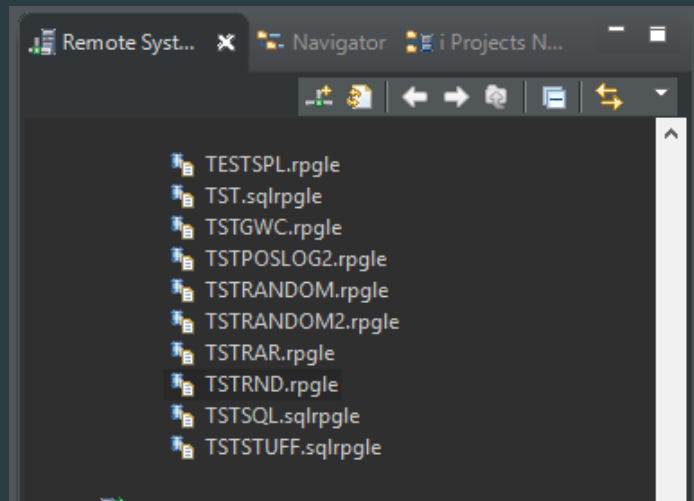
- ▶ Ctrl + Shift + C - compile using the last used compile command
- ▶ Ctrl + F5 - removes any syntax/compile errors within the editor
- ▶ Ctrl + / - comment out the current line
- ▶ Ctrl + \ - uncomment the current line
- ▶ Ctrl + Space - content assist

Shortcuts - Jumping Around

- ▶ F3 OR Ctrl + Click - jump to declarations
- ▶ Alt + Left Arrow - jump to previous positions
- ▶ Alt + Right Arrow - jump to positions jumped from
- ▶ Combine the effects of F3 and Alt + left arrow
- ▶ Ctrl + E - reveal a list of all program tabs open
 - ▶ Type to make the list more concise

Shortcuts - Finding Files

- ▶ Ctrl + Alt + Q - open Member menu
- ▶ Typing in Remote Systems Explorer will jump to any files that you have available



Shortcuts - Select Rectangle

- ▶ Alt + R - begin rectangle block selection
- ▶ Alt + R OR Click and Drag - finish rectangle block selection
- ▶ Once the block is selected:
 - ▶ Alt + U - deselect block (or double click anywhere)
 - ▶ Alt + D - delete selection
 - ▶ Alt + C - paste selection at cursor position (code shifts right)
 - ▶ Alt + Z - paste selection at cursor position (overwrites code)
 - ▶ Alt + M - paste selection at cursor position and delete selection

Shortcuts - Flow and Indentation

- ▶ Ctrl + Shift + M - skips to the end/start of a block of code
- ▶ Ctrl + M - selects the block
- ▶ Ctrl + Shift + F - auto format code based on YOUR indent settings
- ▶ Ctrl + Shift + O - display the flow of the selected statements (Ctrl + F5 resets the arrows)

Shortcuts - Debugging

- ▶ F5 - step into
- ▶ F6 - step over
- ▶ F7 - step return
- ▶ F8 - resume program
- ▶ Ctrl + F2 - terminate program

Shortcuts - Shortcut of All Shortcuts

- ▶ Ctrl + Shift + L - shows all shortcuts

Shortcuts - Creating your own

- ▶ Preferences -> General -> Keys
- ▶ Create/alter shortcuts

Preferences

Keys

Scheme: Default

Command	Binding	When	Category
Surround With Quick Menu	Alt+Shift+Z	In Windows	Source
a-space	Alt+Space	LPEX/emacs	LPEX
a-t	Alt+T	LPEX/eclipse	LPEX
a-t	Alt+T	LPEX/emacs	LPEX
a-t	Alt+T	LPEX/Ipex	LPEX
Terminal view insert	Alt+T	Terminal widget ...	Terminal view co...
a-u	Alt+U	LPEX/eclipse	LPEX
a-u	Alt+U	LPEX/emacs	LPEX
a-u	Alt+U	LPEX/Ipex	LPEX
Move Lines Up	Alt+Up	Editing Text	Text Editing
Page Up	Alt+V	LPEX/emacs	Text Editing
Paste	Alt+V	In Windows	ASA 9.x table sch...
Terminal view insert	Alt+V	Terminal widget ...	Terminal view co...

Copy Command Unbind Command Restore Command

Name: Page Up

Description: Go up one page

Binding: Alt+V

When: LPEX/emacs

Content Assist

- ▶ What is it?
 - ▶ Autocompletion list
 - ▶ Provides helpful details
- ▶ Why use it?
 - ▶ Less errors
 - ▶ Fast
 - ▶ Detailed descriptions

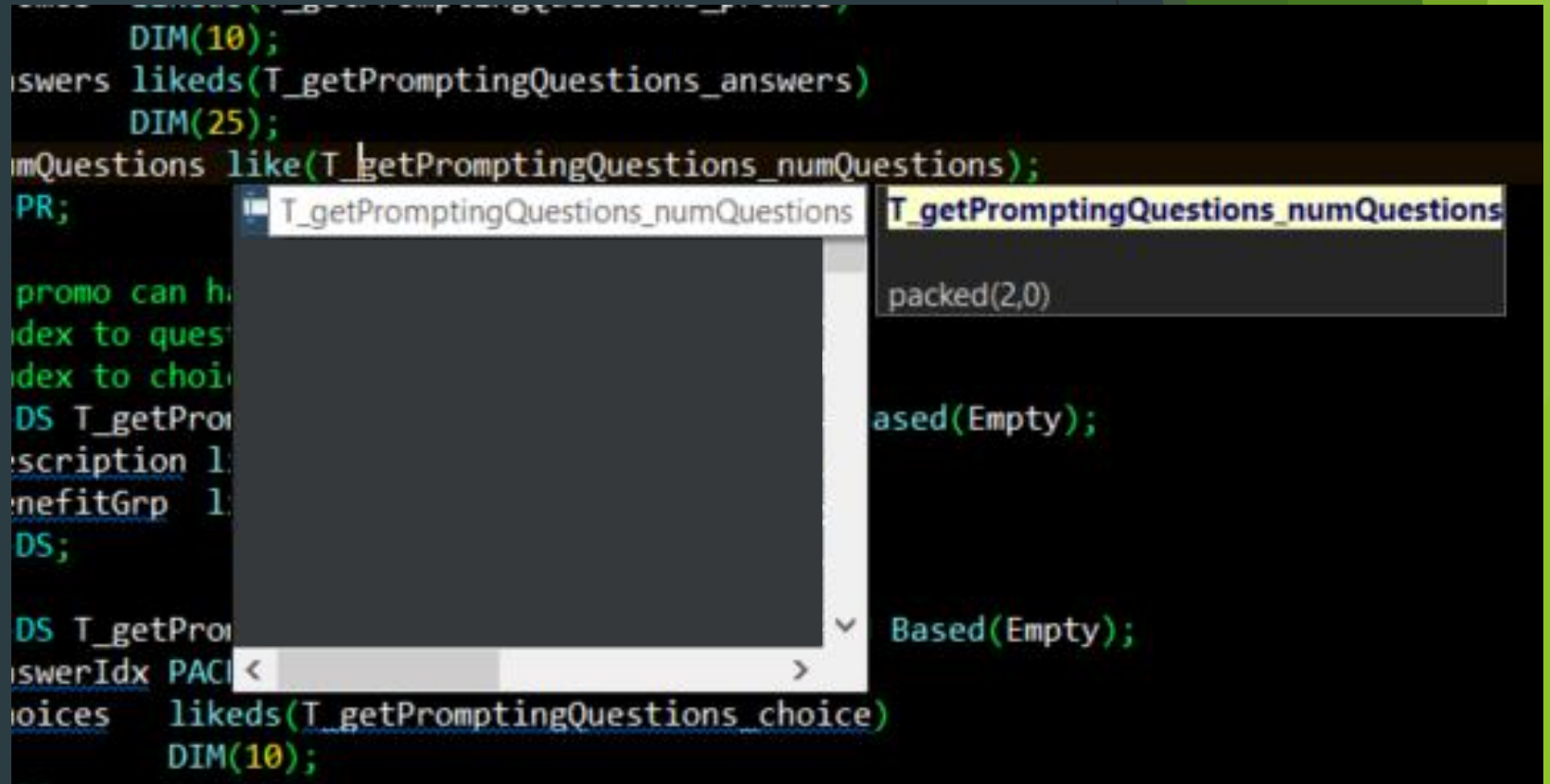
Content Assist (Continued)

- ▶ Useful with longer names

```
remove
removeNewItemsPreventingOriginalPromo
removeNewItemsPreventingOriginalPromo
removePromo
removePromos
removePromotion
removePromotionsWithReturningItems
removepromos
removeNewItemsPreventingOriginalPromoItemsFromQualifying
  EXTPROC('REMOVENEWITEMSPREVENTINGORIGINALPROMOITEMSFROMQUALIFYING')
  (
    promo packed(9,0) CONST
    numOriginalItemsThatNoLongerQualify packed(3,0) CONST
    TPRMI LIKEDS(PRMI)
    TPRMO LIKEDS(PRMO)
    CPNRIPi packed(3,0) DIM(MAXCPNRIPISIZE) CONST
    numCPNRIPi packed(2,0) CONST
  )
```

Content Assist (Continued)

- ▶ How do I use it?
 - ▶ CTL + Space
 - ▶ Hit Enter for selection
- ▶ Hover to show entire item



The screenshot shows a code editor with a content assist popup. The background code includes variable declarations and function calls. The popup is triggered over the variable `T_getPromptingQuestions_numQuestions`. The popup title is `T_getPromptingQuestions_numQuestions`. The popup content shows the full declaration of the variable: `packed(2,0)`. Below this, there are two entries for `Based(Empty);`. The popup also features a scrollbar and navigation arrows.

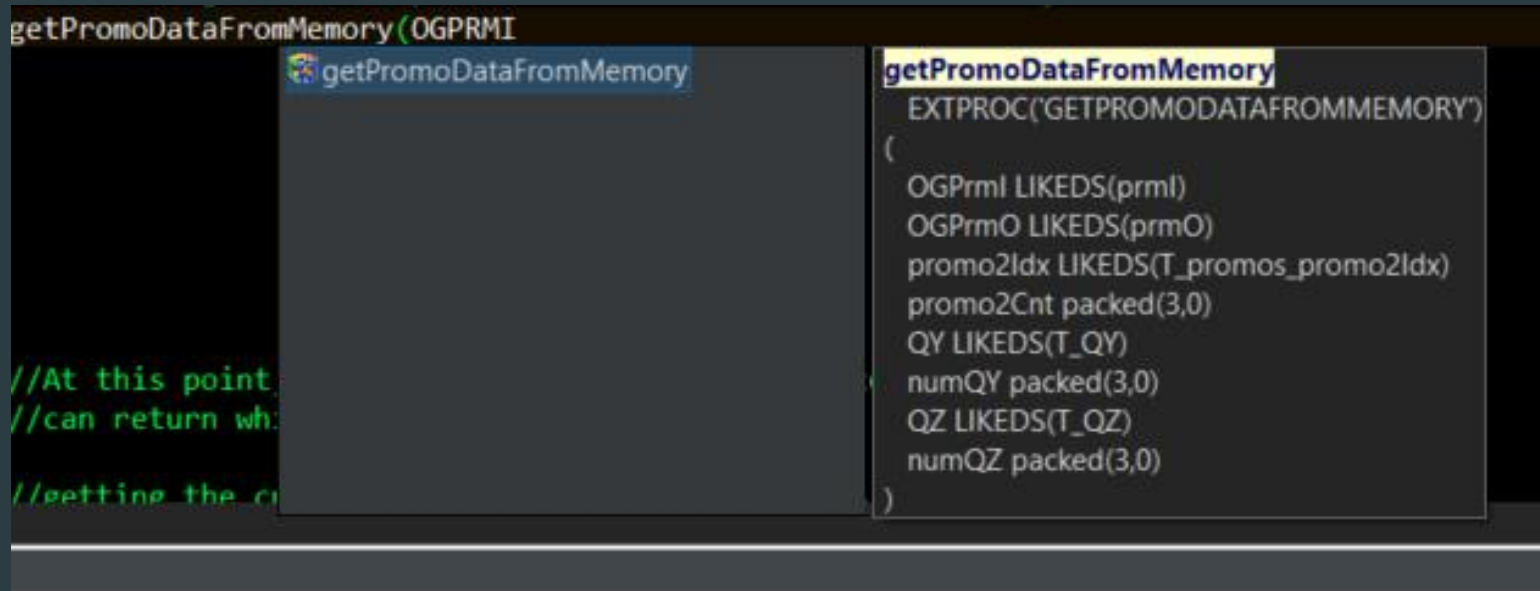
```
DIM(10);
answers likes(T_getPromptingQuestions_answers)
DIM(25);
mQuestions like(T_getPromptingQuestions_numQuestions);
PR;

promo can h
dex to ques
dex to choi
DS T_getPro
description l
enefitGrp 1:
DS;

DS T_getPro
swerIdx PACI
choices likes(T_getPromptingQuestions_choice)
DIM(10);
```

Content Assist (Continued)

- ▶ Recommendation - use Content Assist when calling a procedure
 - ▶ Displays parameter list



The screenshot shows an IDE window with a code editor on the left and a content assist popup on the right. The code editor contains the following text:

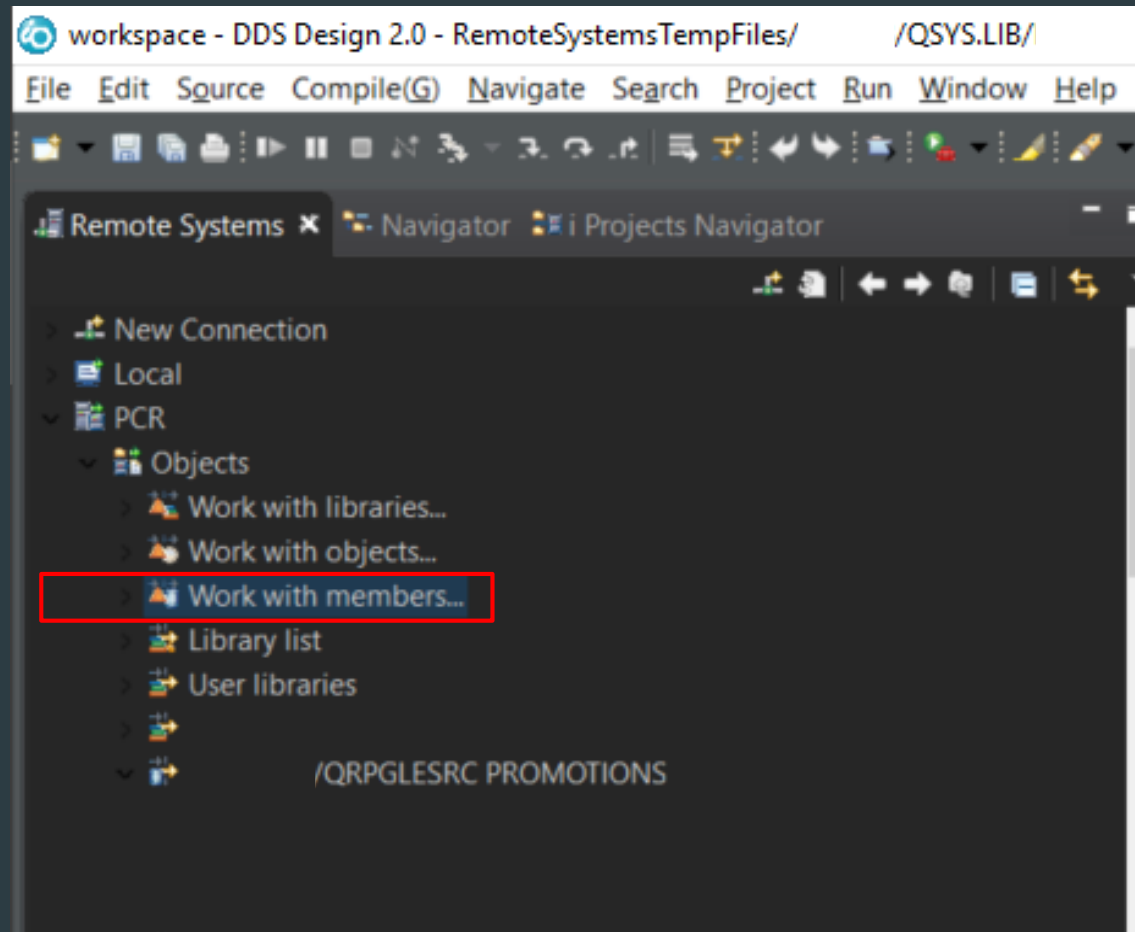
```
getPromoDataFromMemory(OGPRMI  
  
//At this point  
//can return wh  
  
//getting the c
```

The content assist popup displays the signature for the procedure `getPromoDataFromMemory`:

```
getPromoDataFromMemory  
EXTPROC("GETPROMODATAFROMMEMORY")  
(  
  OGPrmI LIKEDS(prmI)  
  OGPrmO LIKEDS(prmO)  
  promo2Idx LIKEDS(T_promos_promo2Idx)  
  promo2Cnt packed(3,0)  
  QY LIKEDS(T_QY)  
  numQY packed(3,0)  
  QZ LIKEDS(T_QZ)  
  numQZ packed(3,0)  
)
```

Filters

- ▶ Find members faster



Filters (Continued)

- ▶ Asterisk (*) used as a wildcard
 - ▶ Substitute one or more characters

New Member Filter

Member Filter
Create a new IBM i member filter

Library: Browse...

File: * Browse...

Member filter: * Browse...

Member text: *

Member type: * Browse...

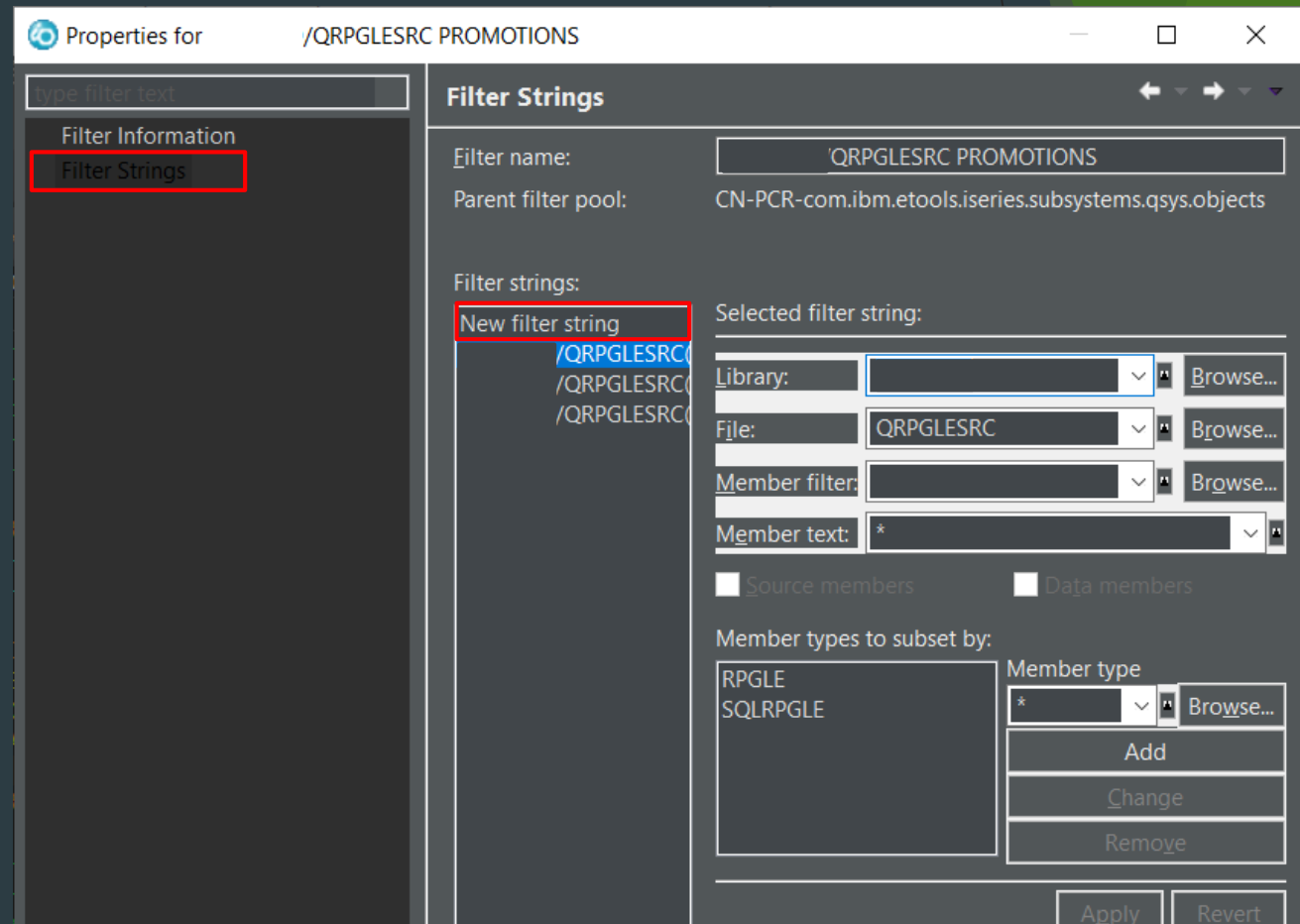
More Types >>

Source members Data members

? < Back Next > Finish Cancel

Multiple Criteria Filters

- ▶ Create a filter that will find 1 source
- ▶ Right click filter and select properties
 - ▶ Select “Filter Strings”
- ▶ Use “New filter string”

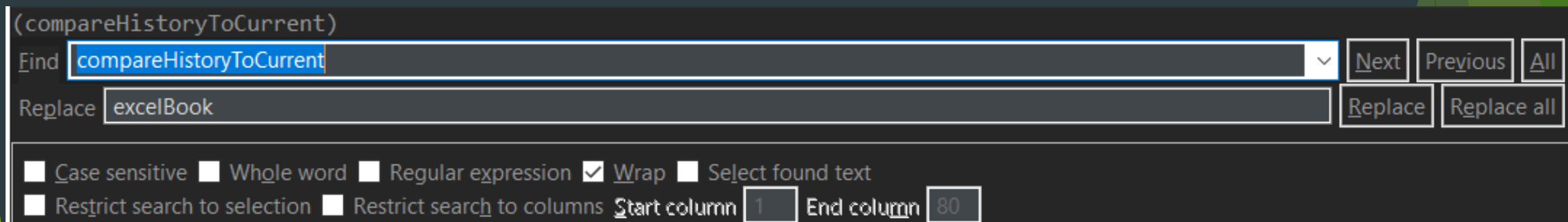


Search Tools

- ▶ What is it?
 - ▶ Functionality that returns lines of code that matches your search criteria
- ▶ How do I use it?
 - ▶ CTL + F - String search
 - ▶ CTL + SHIFT + D - Date search

Search Tools - Strings

- ▶ Search for a string with many options
- ▶ String replacement



Search Tools - Dates

- ▶ Search for lines of code using altered date
- ▶ Different search options given

RSLG0604: Date 200119 not found

Find Date (YMMDD):

To (YMMDD):

Equal to Less than Greater than Range Wrap

Comparison Tools

- ▶ RDi provides 2 code comparison tools
- ▶ What is it?
 - ▶ Functionality to view changes between 2 sources
- ▶ How do I use it?
 - ▶ 1. Select 2 members in the Remote System Explorer, right click, and choose compare
 - ▶ 2. Select the following symbol in the toolbar



Comparison Tools (Continued)

- ▶ Recommendation - Use the Remote System Explorer Comparison
 - ▶ Capability to copy code differences from one member to another
 - ▶ Sadly, the background is white

Open Multiples of the Same Source

- ▶ What is it?
 - ▶ Capability of having the same member open multiple times (maximum of 5)
- ▶ How do I use it?
 - ▶ CTL + 2 - open view
 - ▶ CTL + 0 - close view
- ▶ Why use it?
 - ▶ Prevent jumping around code
 - ▶ All sources kept in sync

Multiples of the same source (Continued)

```

/QRPGLESRC(TSTPOI1): 1
Line 23      Column 1      Replace 3 changes
...+...1...+...2...+...3...+...4...+...5...+...6...+...
000135      dsply 'not found';
000136      ELSE;
000137      dsply 'found';
000138      endif;
000139
000140      //Book = ss_open(templateLoc);
000141      Book = hssf_open(templateLoc);
000142
000143
000144      if Book = *Null;
000145          ss_end_object_group();
000146          *inlr = '1';
000147          return;
000148      endif;
000149
000150      str = New_String('Sheet1');
000151      Sheet = SSWorkbook_getSheet(book:str);
000152
000153      num = SSSheet_getLastRowNum(Sheet); //last row with data in
000154      dsply num;
000155      num = SSSheet_getPhysicalNumberOfRows(Sheet); //# of rows wi
000156      dsply num;
000157
000158      ss_end_object_group();
000159      RETURN;
000160
000161      /end-free

```

```

/QRPGLESRC(TSTPOI1): 2
Line 20      Column 38      Replace 3 changes
...+...1...+...2...+...3...+...4...+...5...+...6...+...
000120
000121      d sheet          s          like(sssheet)
000122      d num            s          like(JINT)
000123      d Str            s          like(jString)
000125
000126
000127      /free
000130
000131      ss_begin_object_group(10000);
000133
000134      if @checkIFS(templateLoc) < 0;
000135          dsply 'not found';
000136      ELSE;
000137          dsply 'found';
000138      endif;
000139
000140      //Book = ss_open(templateLoc);
000141      Book = hssf_open(templateLoc);
000142
000143
000144      if Book = *Null;
000145          ss_end_object_group();
000146          *inlr = '1';
000147          return;
000148      endif;
000149
000150      str = New_String('Sheet1');

```

Help!

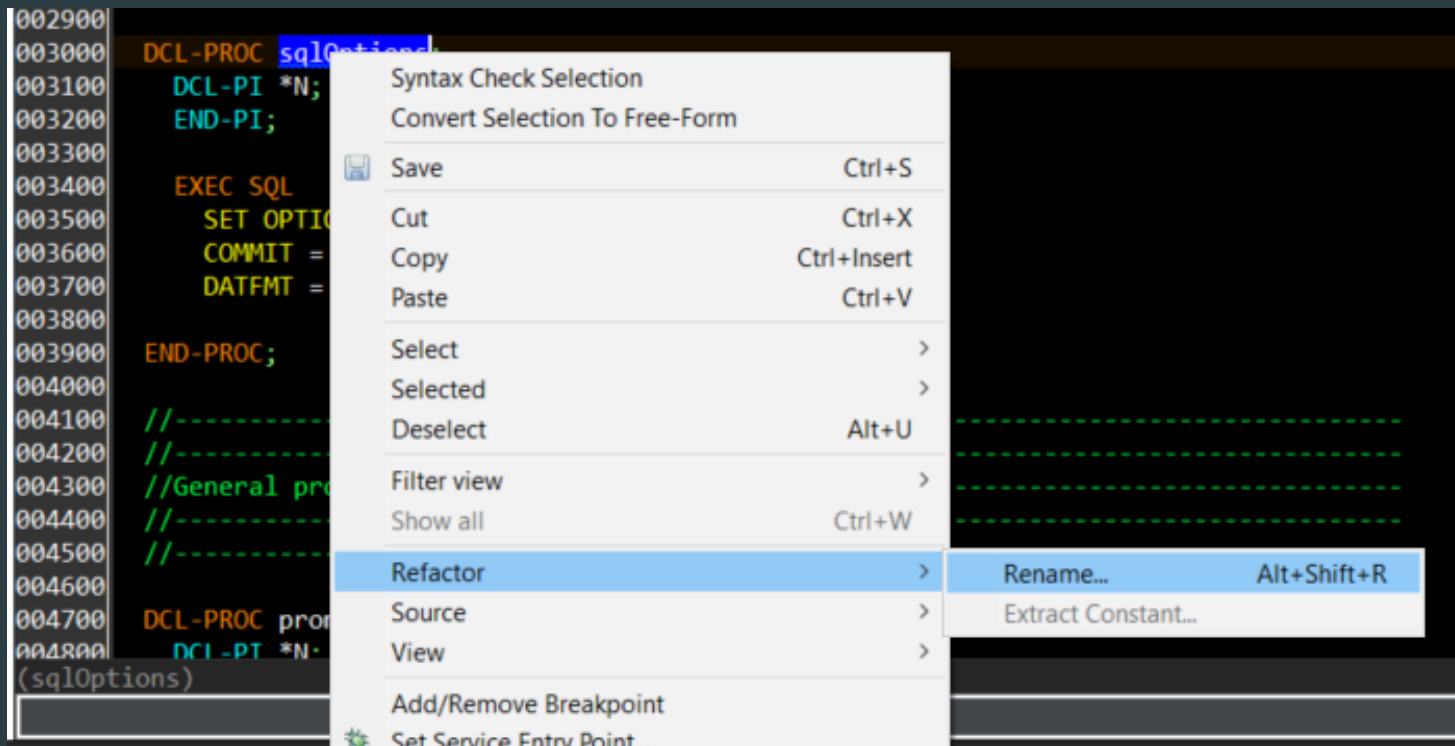
- ▶ Editor help
 - ▶ Help -> Help Contents
- ▶ Code help
 - ▶ Source -> ILE RPG HELP
- ▶ Open help window
 - ▶ F1

Multi-line code shift

- ▶ Highlight lines of code to be shifted based on indentation settings
- ▶ Tab - shift code right
- ▶ Shift + Tab - shift code left

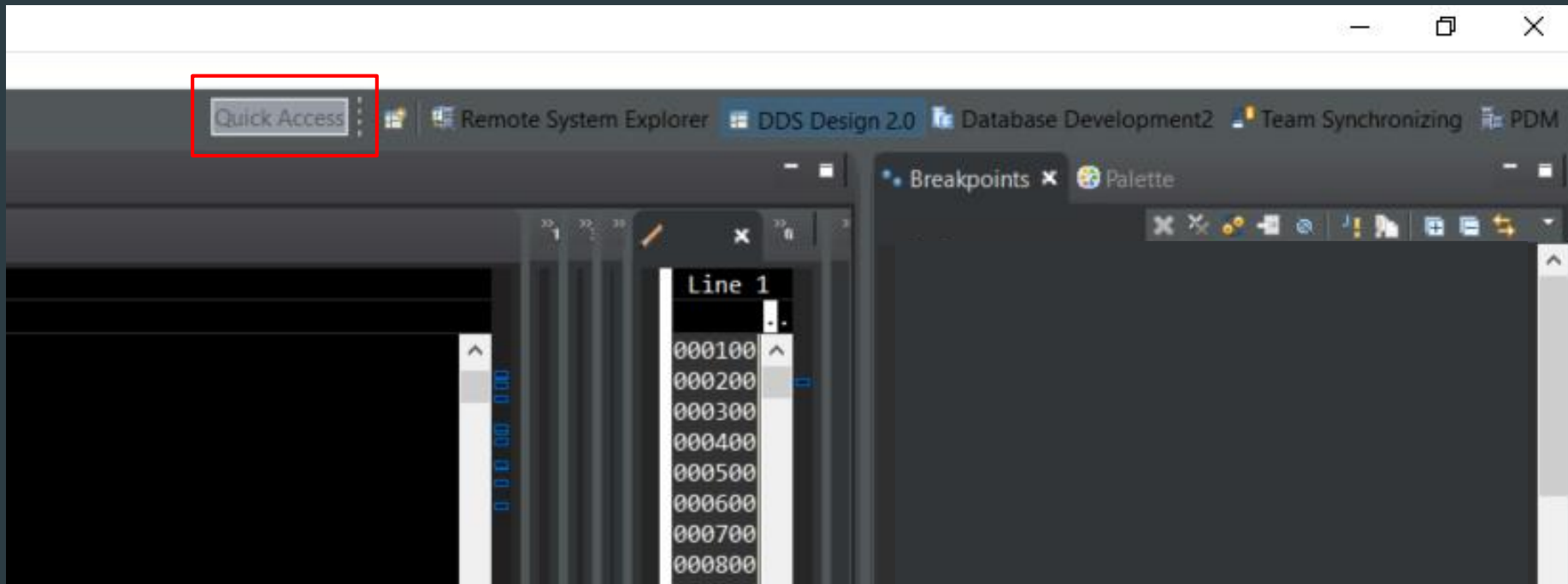
Refactoring

► Renaming an item



Quick Access

- ▶ Search bar for almost anything



Hovering

```
//Retrieving the saved promotion data structures from memory
getPromoDataFromMemory(OGPRMI
getPromoDataFromMemory( OGPrmI LIKEDS(prmI):
  OGPrmO DIM(49) LIKEDS(prmO):
  promo2Idx DIM(5) LIKEDS(T_promos_promo2Idx):
  promo2Cnt PACKED(3: 0): QY DIM(49) LIKEDS(T_QY):
  numQY PACKED(3: 0): QZ DIM(49) LIKEDS(T_QZ):
  numQZ PACKED(3: 0) )
  EXTPROC ( 'GETPROMODATAFROMMEMORY' )
-----
This procedure will be used to retrieve the saved promotion information
from memory.
-----
//At this point we have the recreation of PRMO and PRMI (OGPRMO and OGPRMI) structures along
```

Press 'F2' for focus

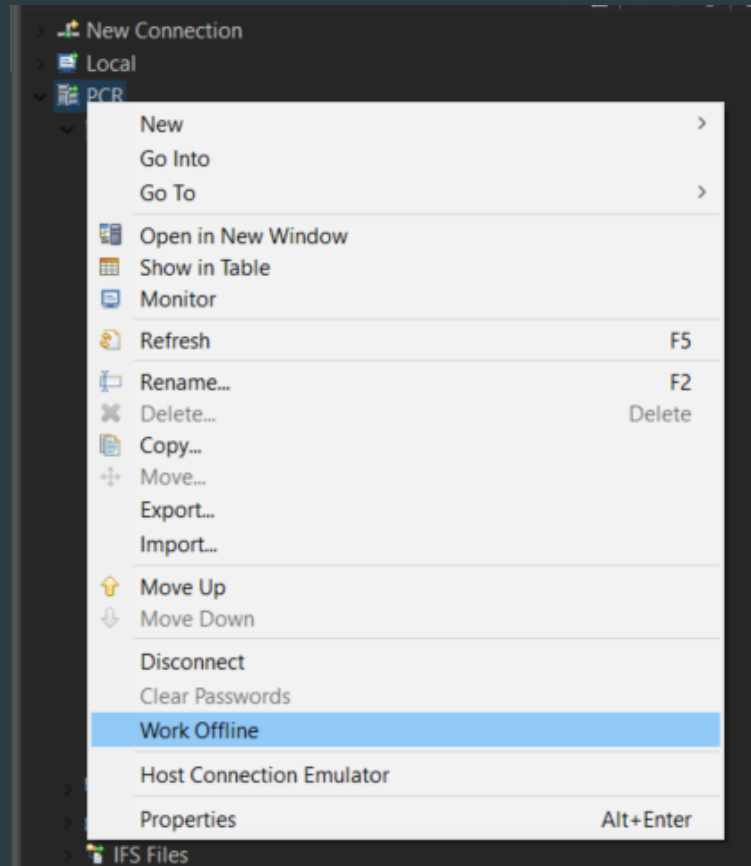
Current Code Location

- ▶ Displays procedure/subroutine based on cursor position

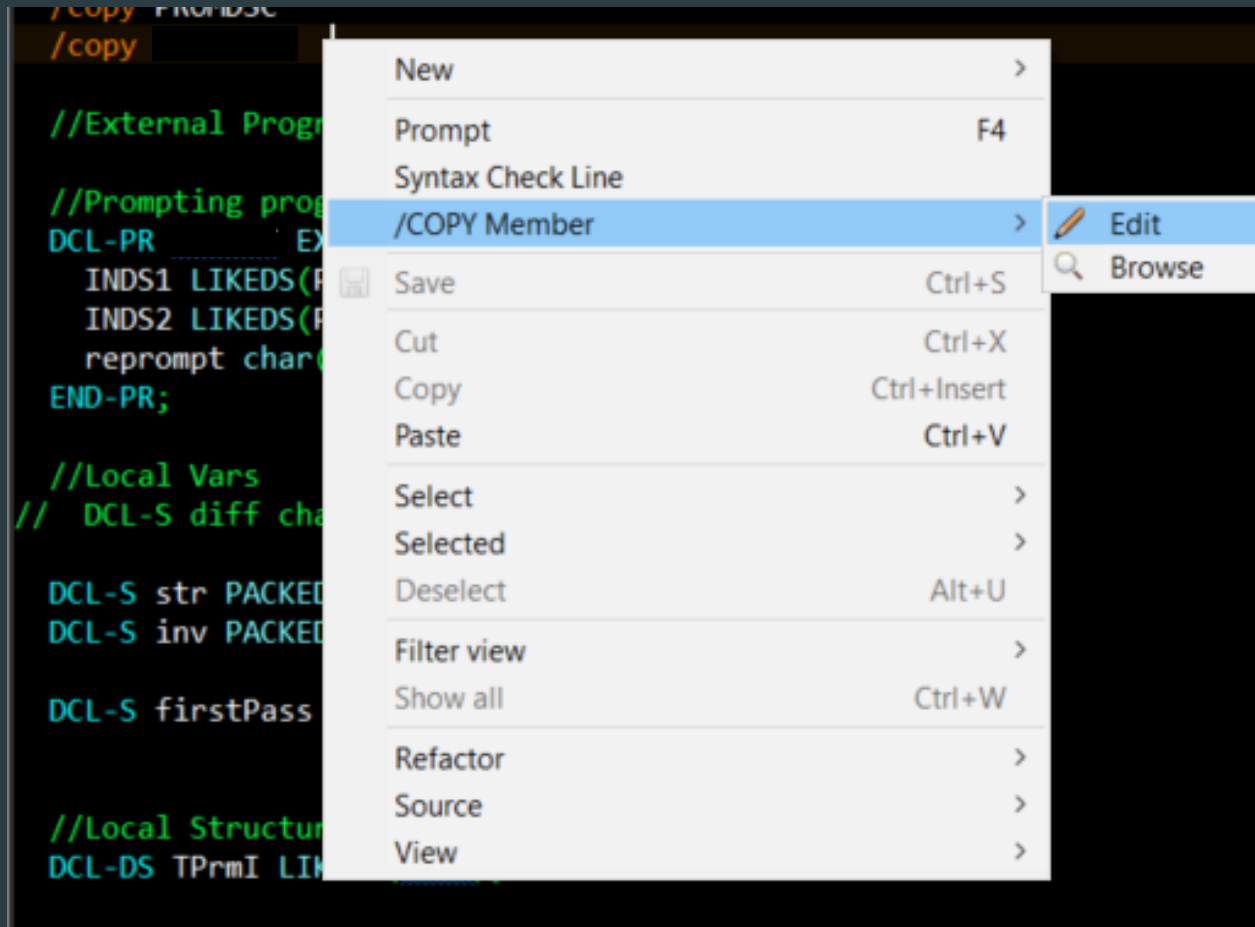
```
002800 //-----
002900
003000 DCL-PROC sqlOptions;
003100 DCL-PI *N;
003200 END-PI;
003300
003400 EXEC SQL
003500 SET OPTION
003600 COMMIT = *NONE,
003700 DATFMT = *ISO;
003701 |
003900 END-PROC;
004000
004100 //-----
004200 //-----
004300 //General program calls-----
004400 //-----
004500 //-----
004600
004700 DCL-PROC promoEngine EXPORT;
004800 DCL-PI *N;
004900 mode CHAR(20) const:
(sqlOptions)
```

Work Offline

- ▶ Right Click your connection
 - ▶ Select “Work Offline”



Opening Copy Member

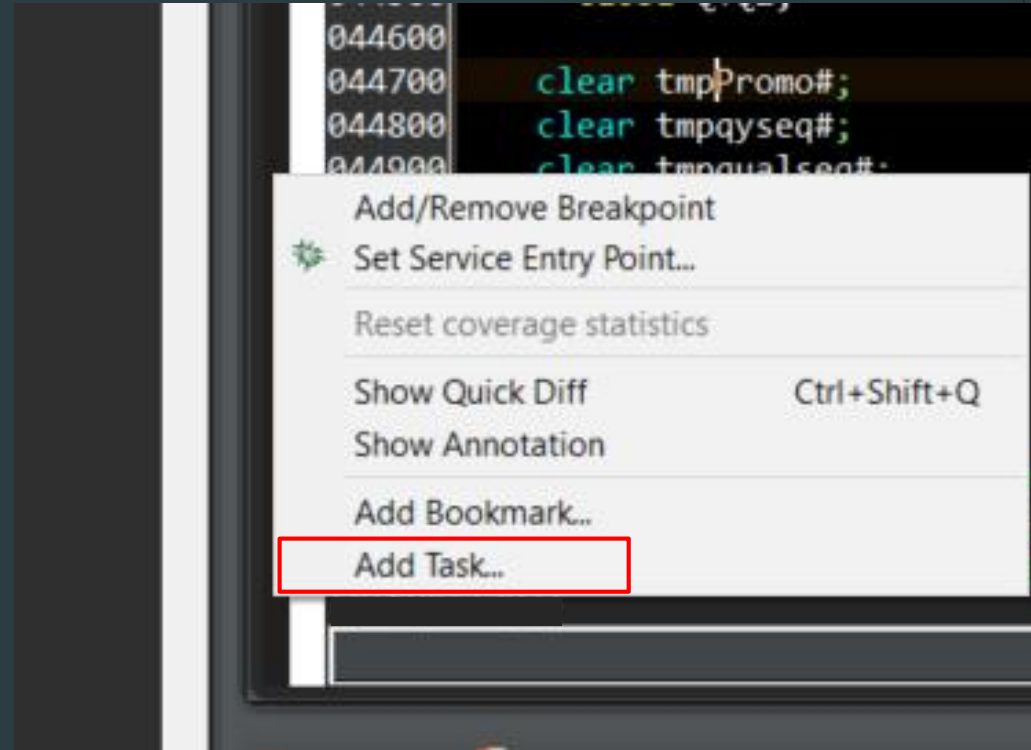


Tasks

- ▶ Program errands
- ▶ Marks specific line
- ▶ Priority levels

Tasks: Adding a Task

- ▶ Right click program margin
 - ▶ Select “Add Task...”
- ▶ Right click within Tasks view
 - ▶ Select “Add Task...”



The End!

Any Questions?

Contact info:
Mike.Zaringhalam@pcrichard.com