Looking Inside the Developer's Toolkit: "Best Stuff" from the Advanced RDi Topics

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About The Speaker

With an IT career spanning over 30 years, Charles Guarino has been a consultant for most of them. Since 1995 he has been founder and President of Central Park Data Systems, Inc., a New York area based IBM midrange consulting and corporate training company. In addition to being a professional speaker across the United States and Europe, he is a frequent contributor of technical and strategic articles and webcasts for the IT community. He is a member of COMMON's Speaker Excellence Hall of Fame and also Long Island Software and Technology Network's Twenty Top Techies. In 2015 Charles became the recipient of the Al Barsa Memorial Scholarship Award. Additionally, he serves as a member of COMMON's Strategic Education Team (SET) and is also a past president and monthly Q&A host of LISUG, a Long Island IBM i User's Group www.lisug.org.

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Twitter - @charlieguarino

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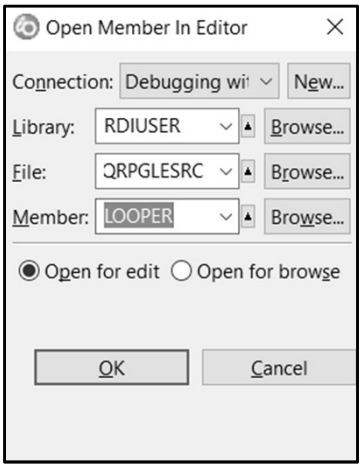
What We'll Cover …

- **Hidden LPEX gems**
- **Climbing down the navigation tree**
- **Object tables**
- **The remote scratchpad**
- **Preferences**
- **Wrap Up**

Quick New Member Open Shortcut!

- **For those times when you want to edit or browse a source member but don't want to create or change a filter**
- **Press CTRL-ALT-Q**



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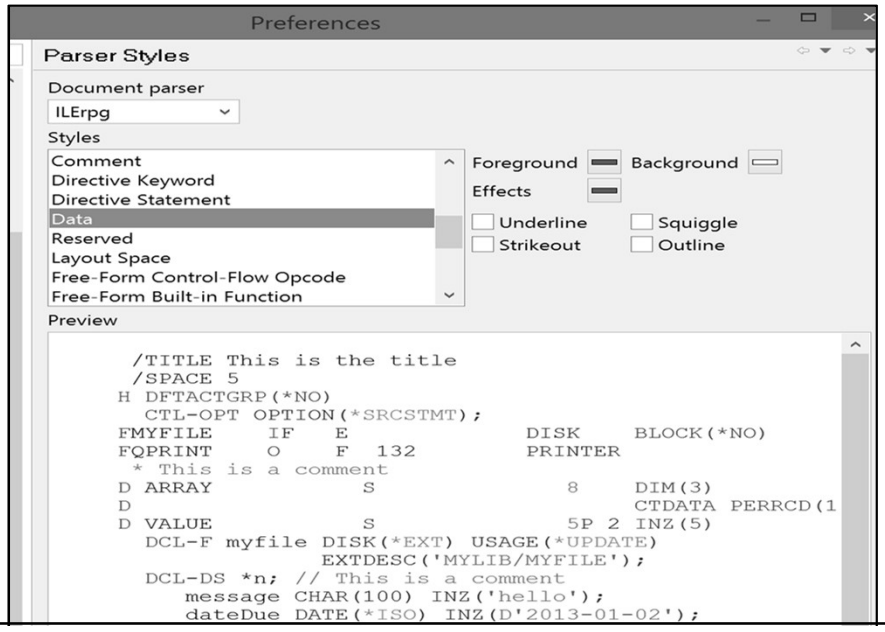
Tokenization !!!

```
ctl-opt bnddir('UTILITIES' : 'QC2LE') dftactgrp(*no) actgrp('QILE')
    option(*srcstmt : *nodebugio) debug(*input);
*
dcl-f  custmast disk(*ext) keyed usage(*update);

dcl-pr secretdata   char(24);
         *n         char(24)  value;
         *n         char(1)   value;
end-pr;

dcl-s   cleardata      char(24);
dcl-s   encrypteddata  char(24);
dcl-s   direction      char(1);


read custmast;
dow not %eof (custmast);

  direction = 'E';    // Value of 'E' tells procedure to ENCRYPT
  cleardata = cclrdata;
  encrypteddata = secretdata(cleardata:direction);

 //  Update file CUSTMAST with encrypted data
  cencdata = encrypteddata;
  update custmstr;

read custmast;
enddo;

*inlr = *on;
return;
```

Parser Styles



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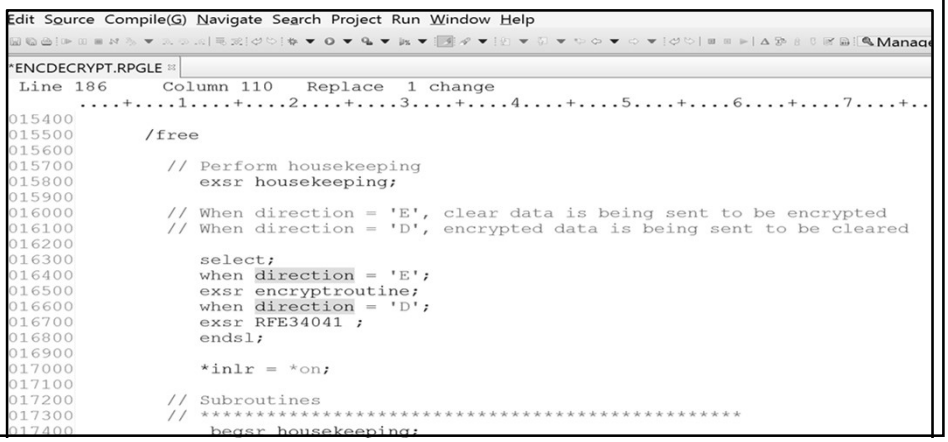
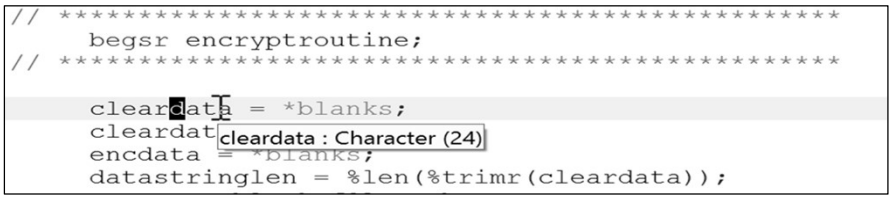
Marking – A quick way to highlight a variable

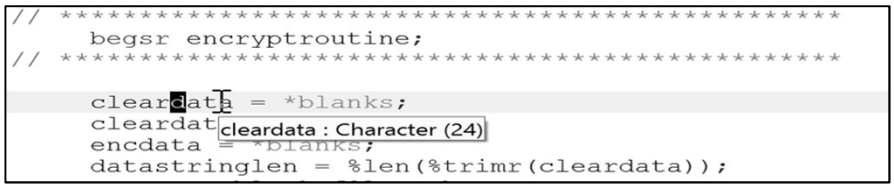


Hyperlinking – A quick way to change a variable definition

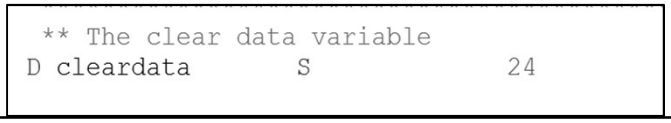
Hover over any variable and LPEX displays the attributes



Press and hold CTRL and the field turns into a hyperlink



Click on the link and you are immediately brought to the definition



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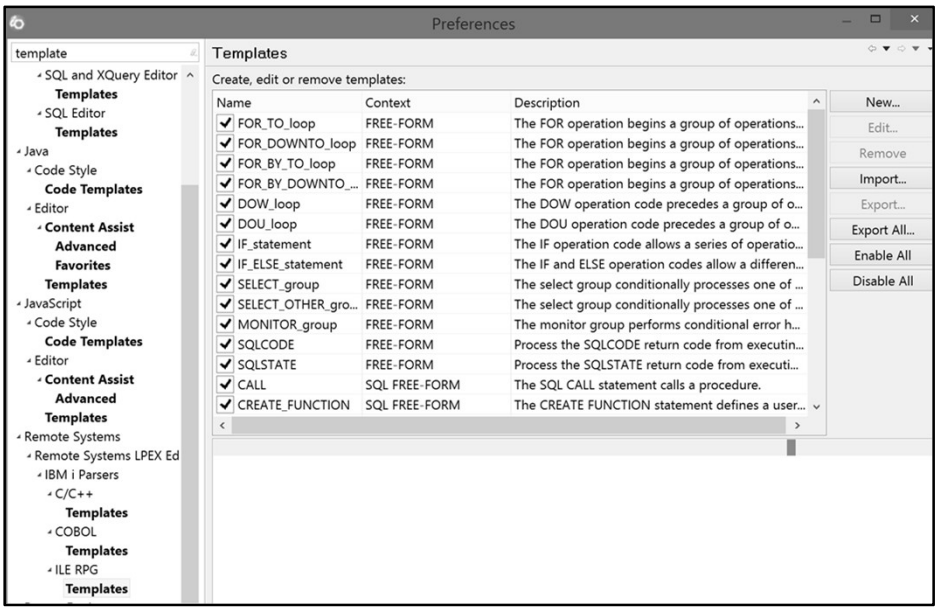
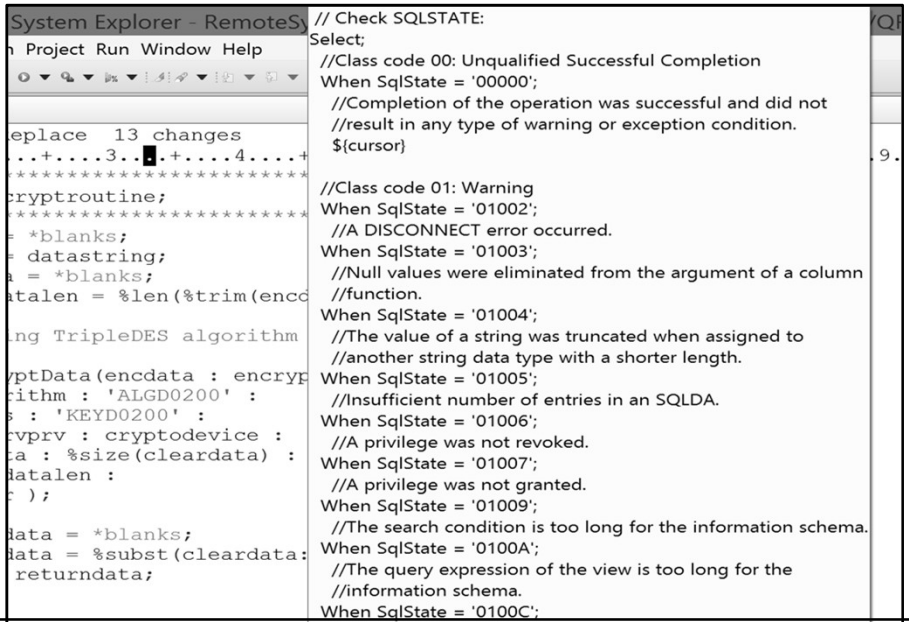
Templates – Short code to complex coding



Templates in action



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Source formatting

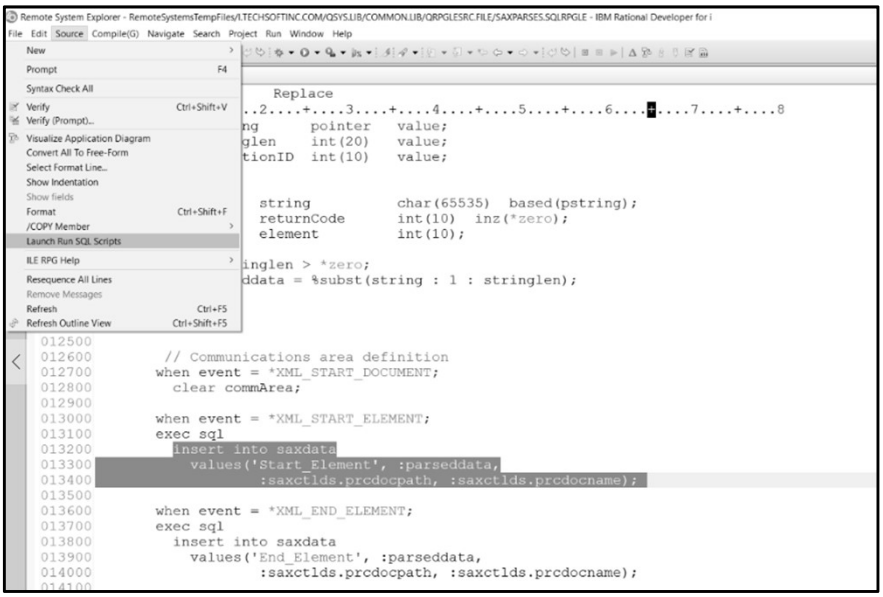
BEFORE

```
if hours > 40;
overtime = hours - 40;
overtimepay = overtime * overtimerate;
if hours > 50;
overtimepay = overtimepay + bonus;
endif;
gross = regularpay + overtimepay;
else;
grosspay = regularpay;
endif;
```

AFTER

```
if hours > 40;
  overtime = hours - 40;
  overtimepay = overtime * overtimerate;
  if hours > 50;
    overtimepay = overtimepay + bonus;
  endif;
  gross = regularpay + overtimepay;
else;
  grosspay = regularpay;
endif;
```

Built-in Run SQL Scripts



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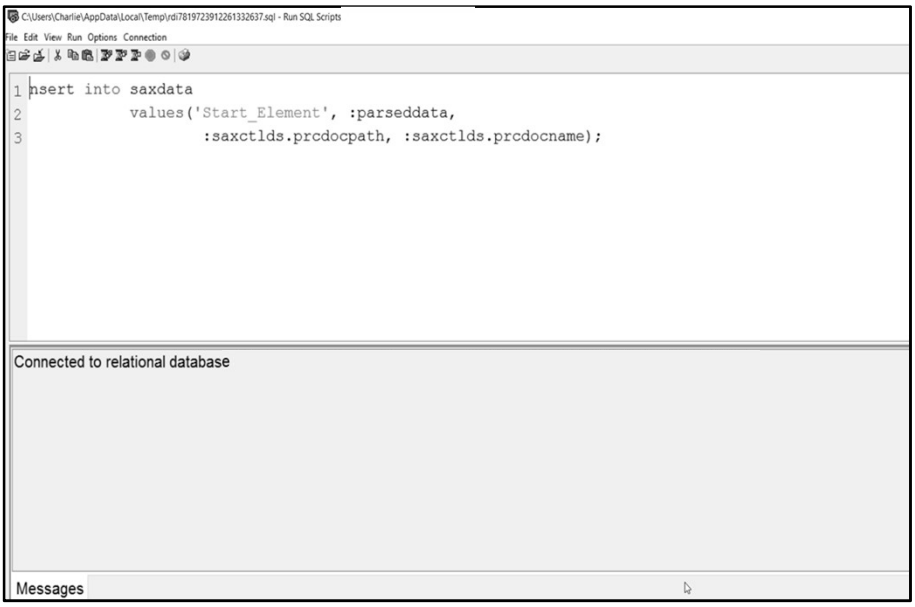
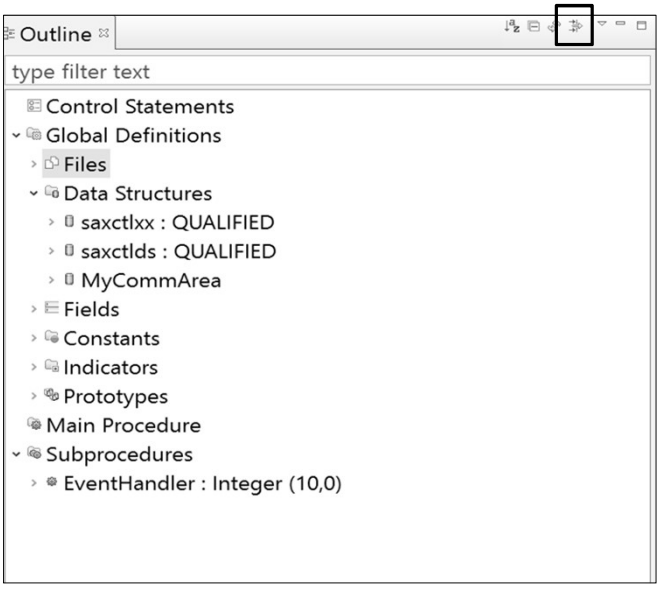
Built-in Run SQL Scripts



Remove unreferenced objects from Outline view



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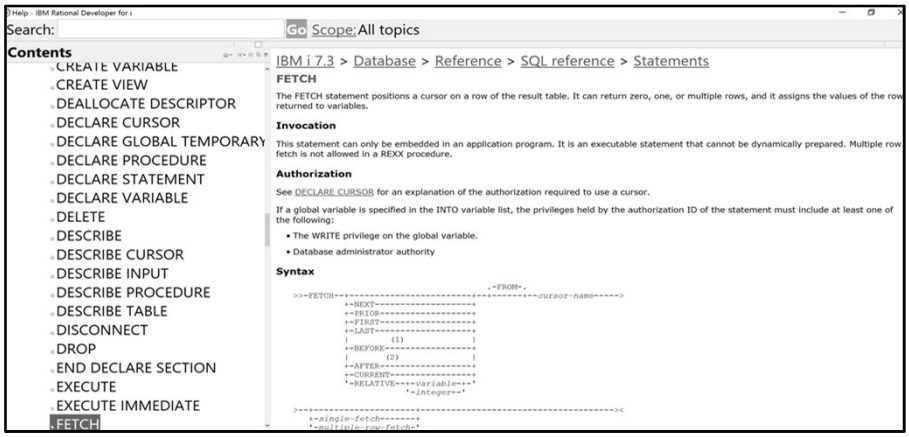
Built in F1 support for embedded SQL

```
exec sql close C1;
exec sql open C1;

exec sql fetch C1 into :saxctlds;
```



What We'll Cover …

- Hidden LPEX gems
- Climbing down the navigation tree
- Object tables
- The remote scratchpad
- Preferences
- Wrap Up

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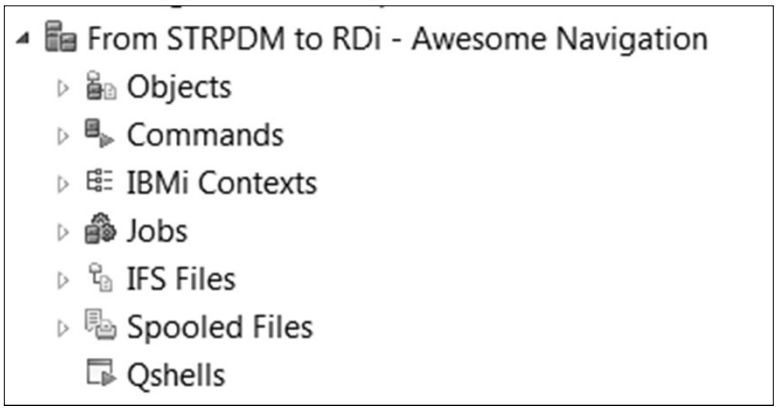
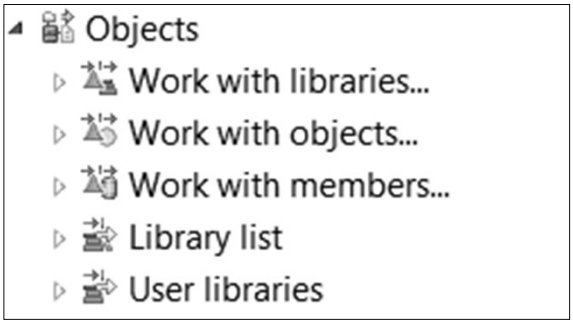
Climbing down the connection navigation tree

- Subsystems are added for each connection that you create
- Let's explore each one and discuss how each one adds value to your tool kit



Introducing Objects Subsystem

- Resequencing filters
- Copying source members
- Using the connection's library list



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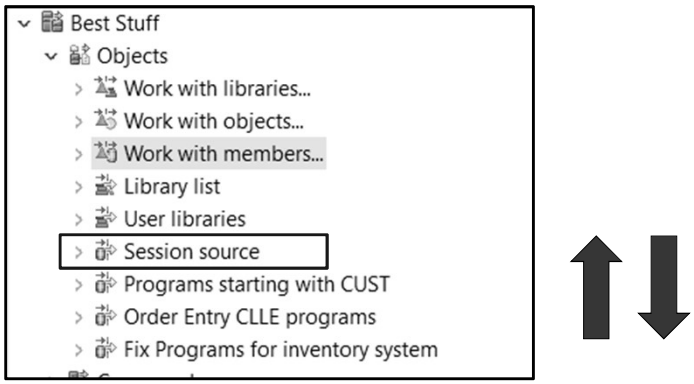
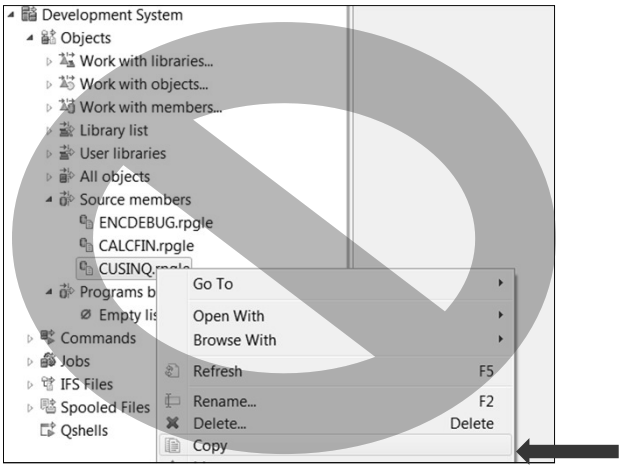
Resequencing Filters

- Filters are appended to the list as you create them
- Prior to RDi 9.5 they could be moved only one level at a time
- Can now be dragged and dropped



Copying source members

- The most obvious method doesn't actually work
  - You can't copy from one filter to another



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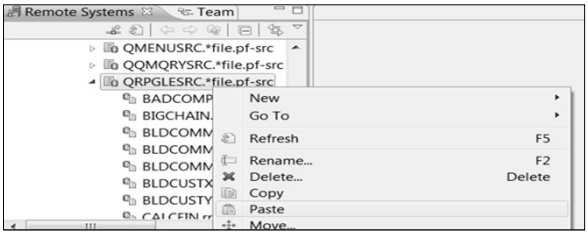
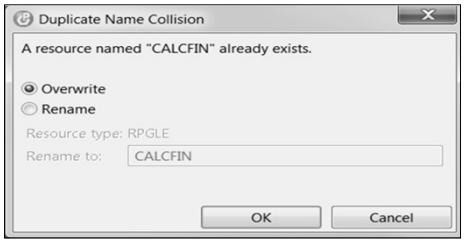
Copying source members (cont.)

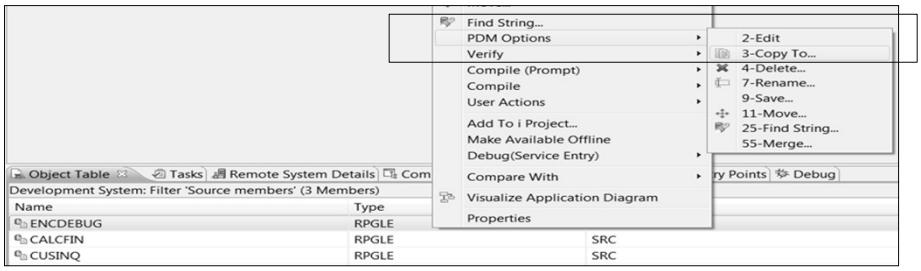
- Instead right-click on the target source physical file
  - Will receive a warning message if source already exists





Copying source members (cont.)

- Another option is to show the filter's content in a table
  - PDM-like options exist from the table's view



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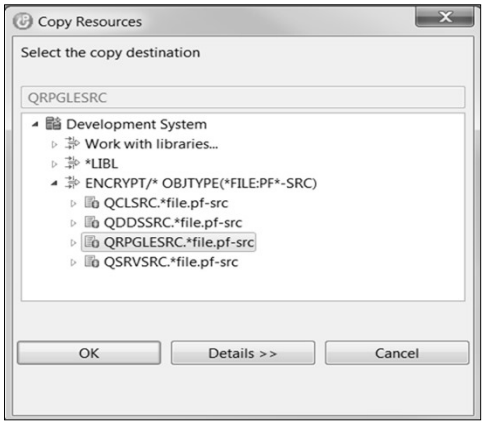
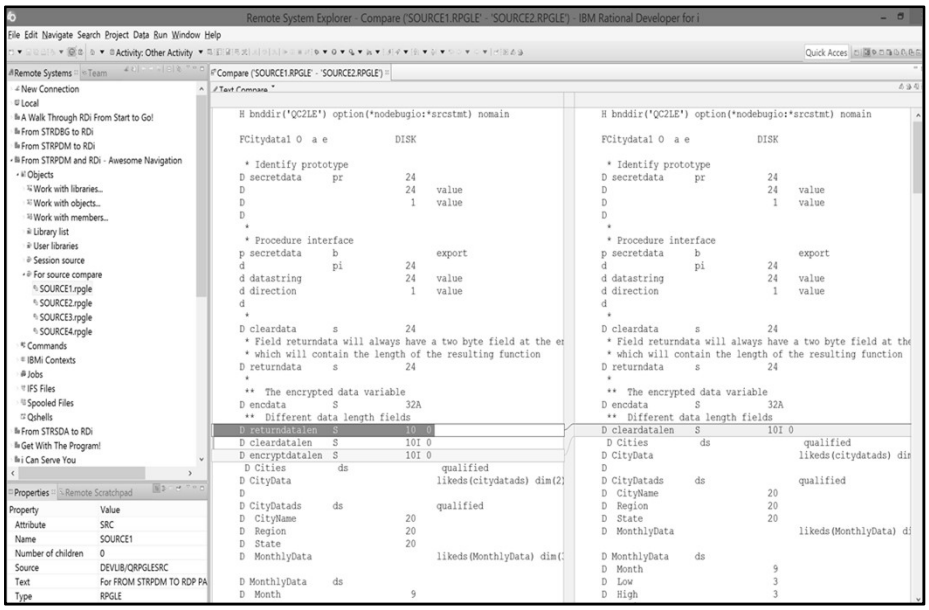
Copying source members (cont.)

- The PDM option 3 displays a more intuitive copy process
  - Can select a different library
  - Can select a DIFFERENT CONNECTION!



Source Compare – Method 1



Source Compare – Method 2

```
OURCE1.RPGLE
Line 36      Column 1     Replace
     .....DName++++++++++ETDsFrom+++To/L+++IDc.Keywords++++++++++++++++++++++++++++++Com
000115     d
000116      *
000117     D cleardata       s             24
000118      * Field returndata will always have a two byte field at the end
000119      * which will contain the length of the resulting function
000120     D returndata      s             24
000121      *
000122      **  The encrypted data variable
000123     D encdata         S             32A
000124      **  Different data length fields
000125     D returndatalen   S             10  0
000126     D cleardatalen    S             10I 0
000127     D encryptdatalen  S             10I 0
000128      D Cities          ds                  qualified
000129     D CityData                            likeds(citydatads) dim(2)
000130     D
000131     D CityDatads      ds                  qualified
000132     D  CityName                     20
000133     D  Region                       20
000134     D  State                        20
000135     D  MonthlyData                        likeds(MonthlyData) dim(3)
```

Introducing Commands and Command Sets

- **A “command” is really a script of multiple commands**
- **There are several pre-defined commands**
- **Here I created a “command” to create a new user profile and also create a default development library for the new user:**

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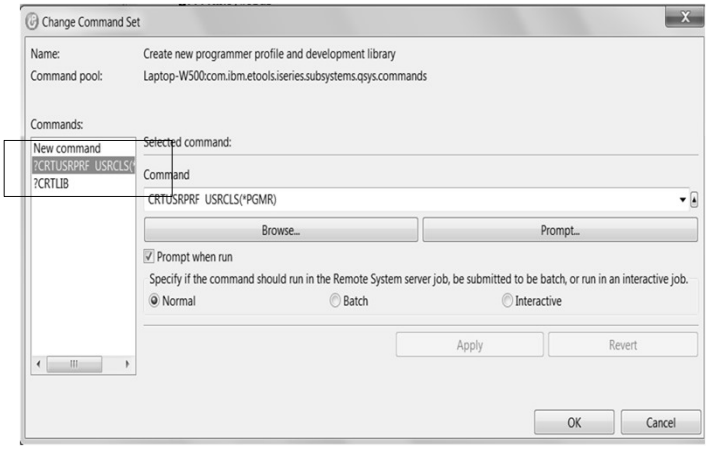
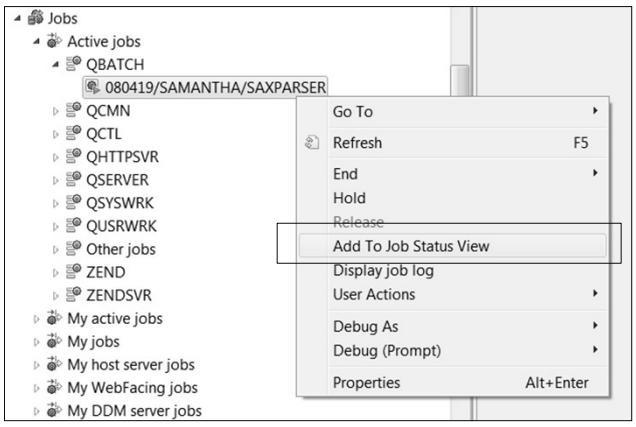
Creating your own command set

- Here I issue CRTUSRPRF and CRTLIB commands
  - The question mark in front of the commands forces a prompt



Introducing Jobs

- The jobs list is segregated into different active subsystems
- Right clicking on a job allows you to control and monitor it



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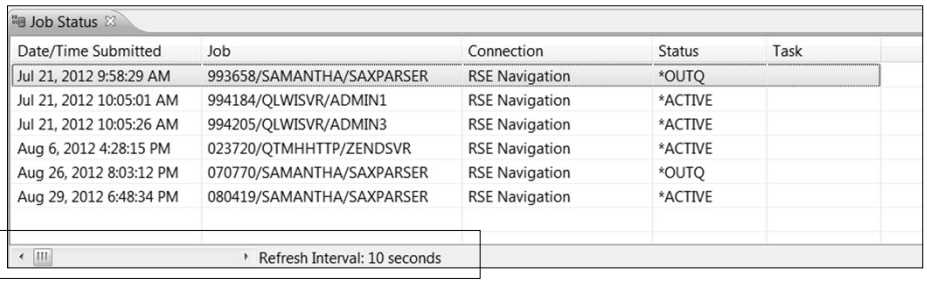
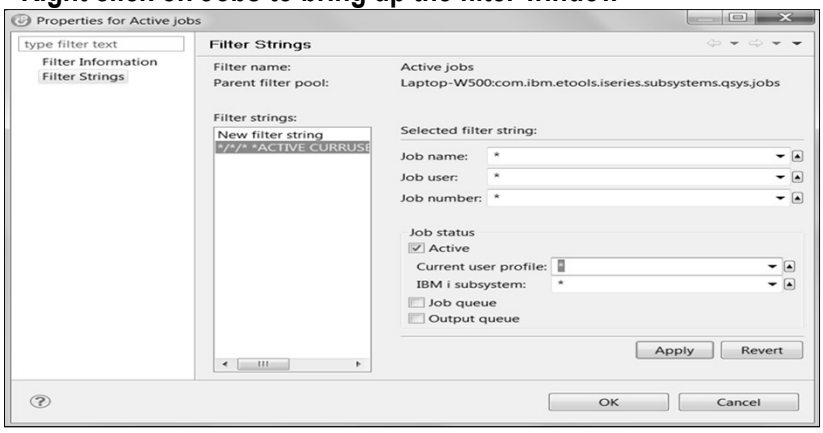
Jobs (cont.)

- The jobs status view allows you to subset the active jobs regardless of the subsystem it is running in.
- Click on a column heading to sort that particular column
- There is a refresh slider bar with a range of 10 seconds to 5 hours to Never Refresh



Jobs (cont.)

- The default view of the Jobs subsystem is to show ALL jobs.
- A Job Filter allows you to hone in on a particular job, job name or user profile
- Right click on Jobs to bring up the filter window



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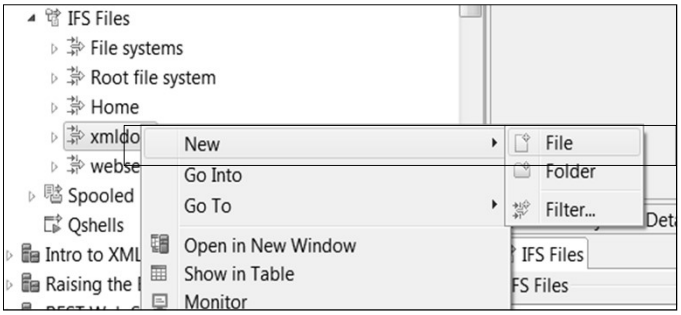
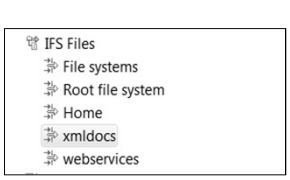
Introducing IFS

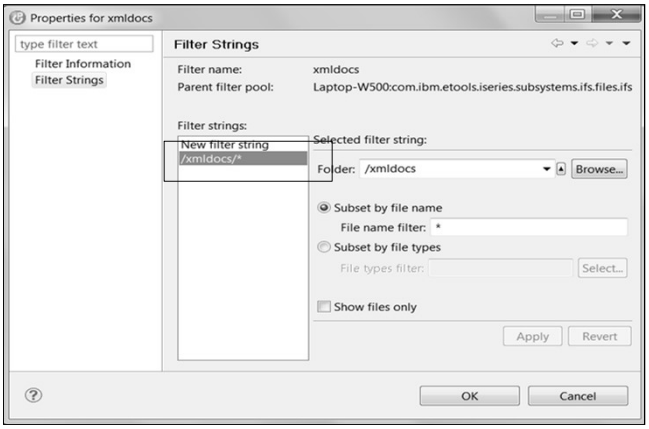
- A very easy way to navigate through the IFS
- Can create filters as a shortcut to a particular folder
- Makes copying documents to folders a snap using copy and paste
- Can also easily create files and folders in a particular directory



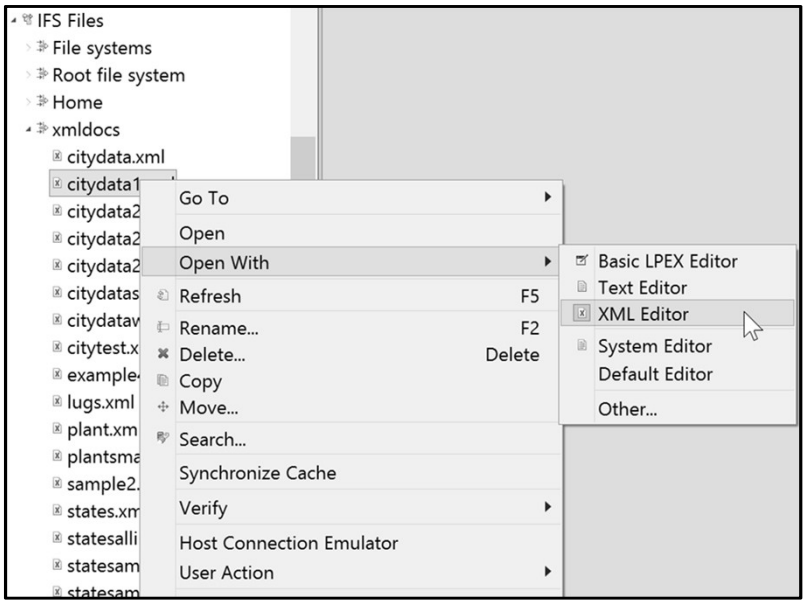
IFS Filters

- An IFS filter allows you quick access to a selected folder(s)
- Can specify which file types will be shown in the filter
- Can limit a filter to show files only, very helpful

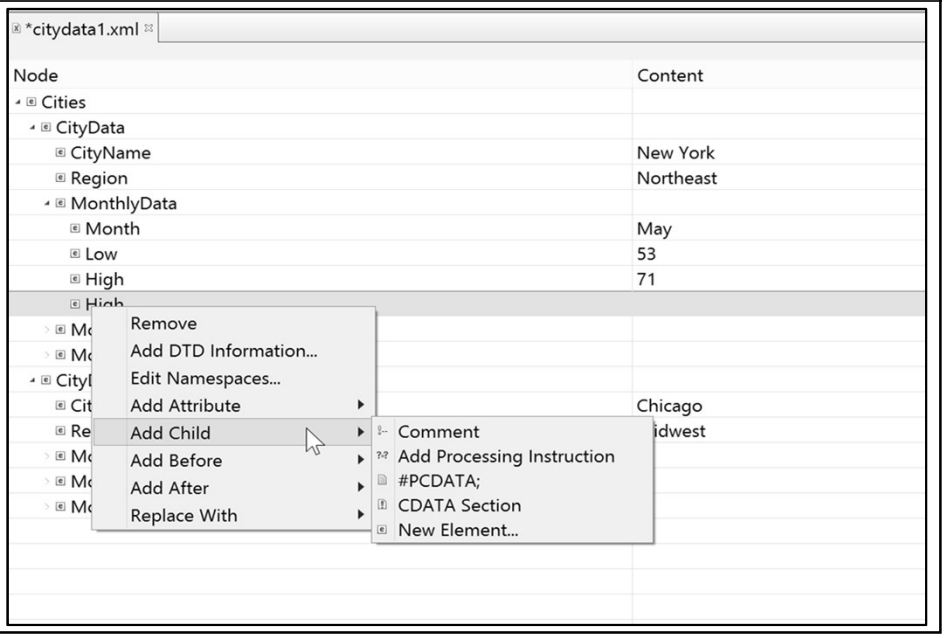




IFS – RDi has an easy to use built in XML Editor



IFS – The editor understands XML



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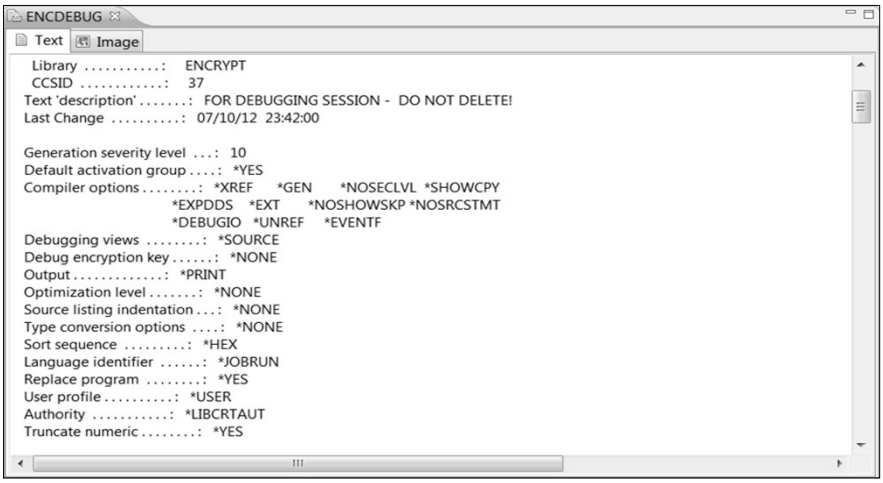
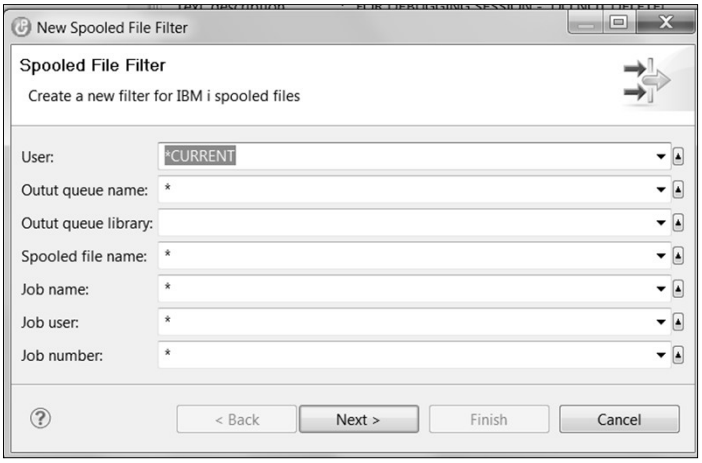
Introducing Spooled Files

- A built-in spool file viewer is available
- Once again system authority fully applies



Spooled Files

- Multiple filters can be created to further speed up your searches



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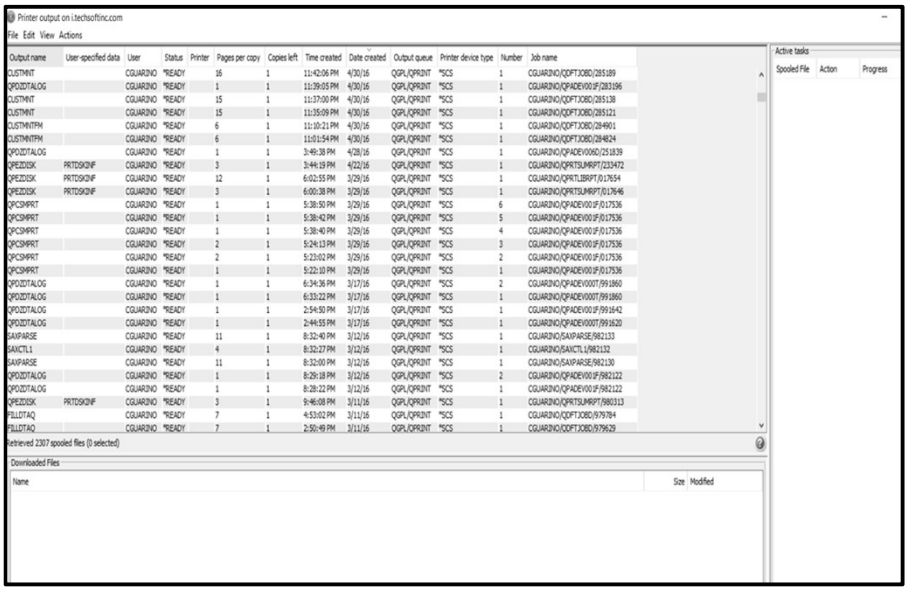
Launch Printer Output



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- Climbing down the navigation tree
- **Object tables**
- The remote scratchpad
- Preferences
- Wrap Up

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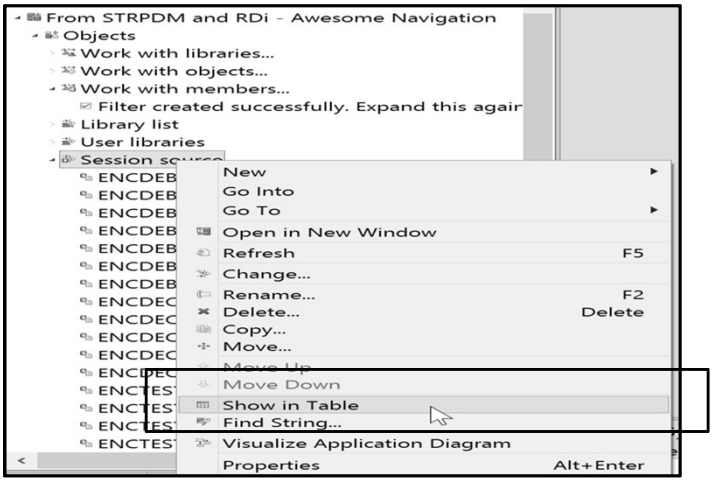
Object Tables

- The object table is available from many locations within RDi.
- Experiment! Right click and select “Show in Table”



Object Tables (cont…)

- Click on any column heading to sort the table
- Double click for a reverse sort
- Right click on any table entry for member specific options

Remote System Details | Tasks | Object Table | Commands Log | Terminals | Job Status | Error List | Compiled Code Coverage Results

From STRPDM and RDi - Awesome Navigation: Filter 'Session source' (16 Members)

Name	Type	Attribute	Text	Last modified	Created	File	Library
ENCDEBUGZ	RPGLE	SRC	FOR DEBUGGING SESSION FREE FORM - DO NOT ...	Apr 18, 2015 6:43 PM	Apr 18, 2015 4:16 PM	QRPGLESRC	ENCRYPT
ENCTEST3	RPGLE	SRC	FOR DEBUGGING SESSION FIXED FORM- DO NOT ...	Nov 29, 2014 6:58 PM	Nov 29, 2014 6:17 PM	QRPGLESRC	ENCRYPT
ENCTEST2	RPGLE	SRC	FOR DEBUGGING SESSION FIXED FORM- DO NOT ...	Nov 29, 2014 6:14 PM	Nov 29, 2014 6:14 PM	QRPGLESRC	ENCRYPT
ENCTEST1	RPGLE	SRC	FOR DEBUGGING SESSION FIXED FORM- DO NOT ...	Nov 29, 2014 6:12 PM	Nov 29, 2014 6:10 PM	QRPGLESRC	ENCRYPT
ENCDEBUG2	RPGLE	SRC	FOR DEBUGGING SESSION FREE FORM - DO NOT ...	Nov 29, 2014 5:17 PM	Nov 29, 2014 5:00 PM	QRPGLESRC	ENCRYPT
ENCDECRYPT	RPGLE	SRC	DEMONSTRATION SERVICE PROGRAM - DO NOT D...	Sep 23, 2014 7:52 PM	Apr 25, 2009 8:43 PM	QRPGLESRC	ENCRYPT

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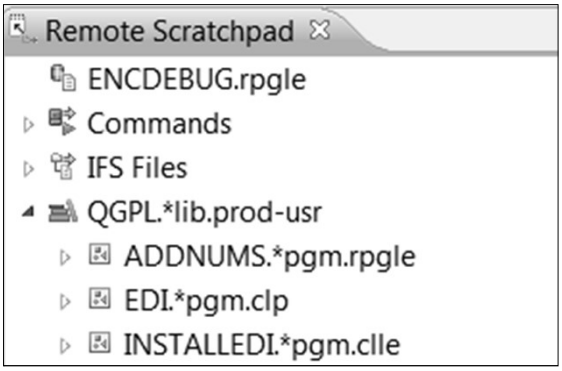
The Remote Scratchpad

- The graphical equivalent to a yellow sticky note
  - Provides a convenient place to temporarily store objects
  - Contents are removed from the scratchpad when you exit RDi



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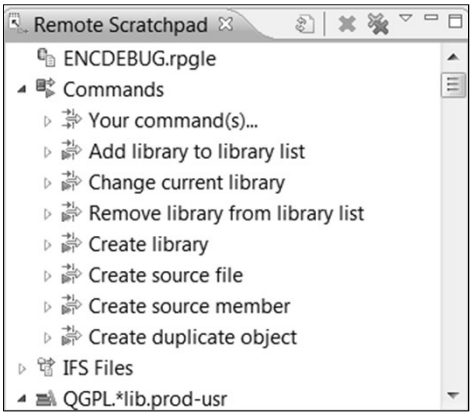
The Remote Scratchpad (cont.)

- Objects remain “live” while on the scratchpad
  - Objects can be used on the scratchpad as if they were in the normal RSE tree



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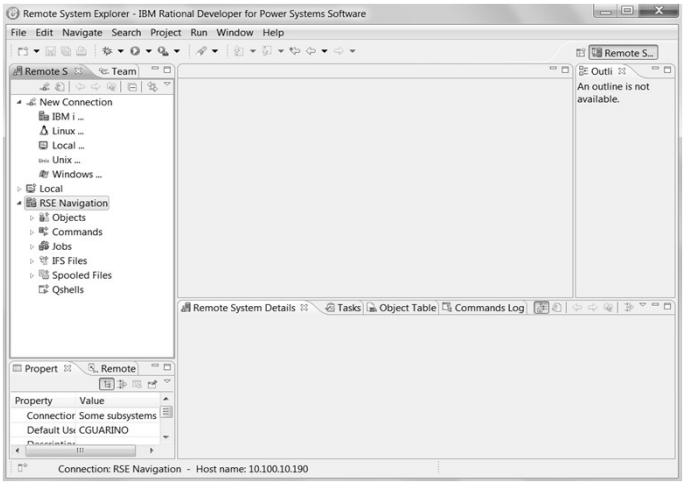
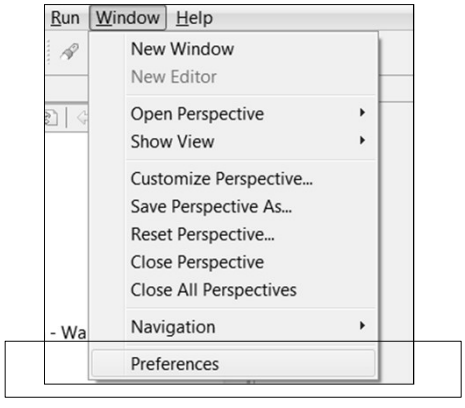
A world of options – What's your Preference?

- Here is the workbench with only one defined connection
- Many "hidden" options, you need to know where to find them!



Preferences

- There are MANY available in RDi
  - Not all apply to RPG and COBOL development
  - Preferences 'stick' to a particular workspace
  - To access them click Window>Preferences



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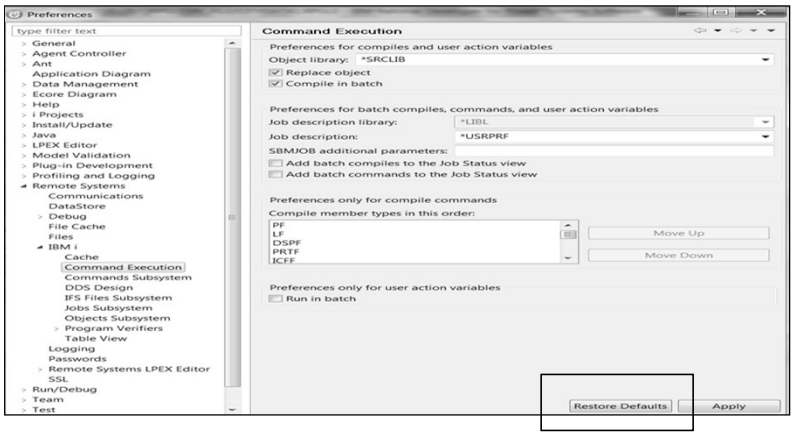
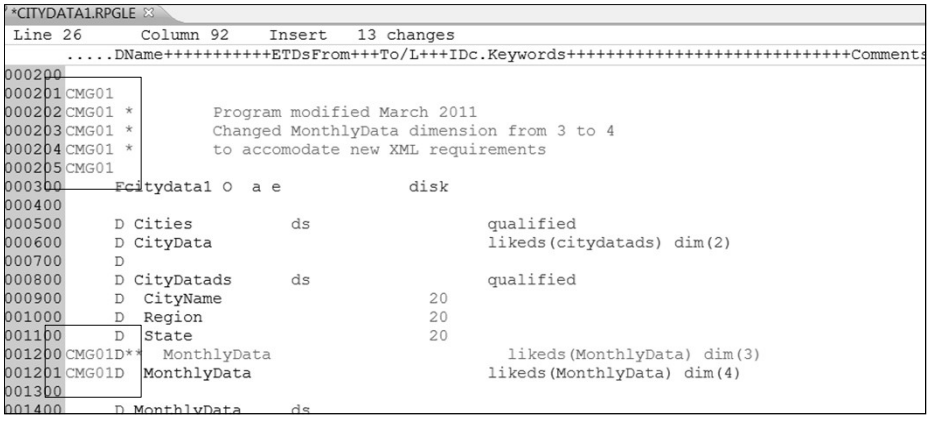
What's your preference?

- A Filter Text window is available to help you find what you need
  - A "Restore Defaults" exists in most so don't be afraid!
  - Window>Preference>Remote Systems>IBM i > Command Execution



Tagging your mods – How often do you do this?

- Add an automatic signature to every changed line!
- Windows>Preferences>type "parsers">IBM i parsers
  - The signature is placed in columns 1 through 5



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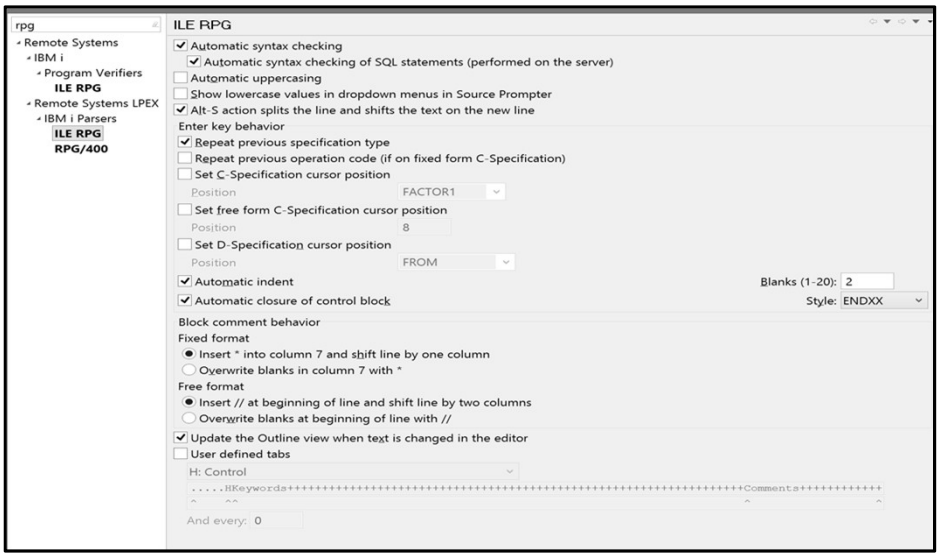
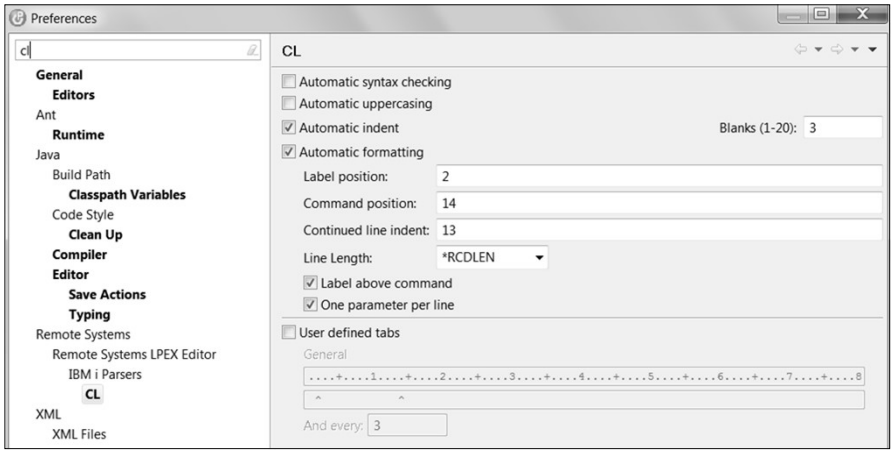
RPG Parsers – What they mean and how to use them

- **Window>Preferences>type "rpg" > ILE RPG**



CL Parser – What it means and how to use it

- **Window>Preferences>type "CL"**



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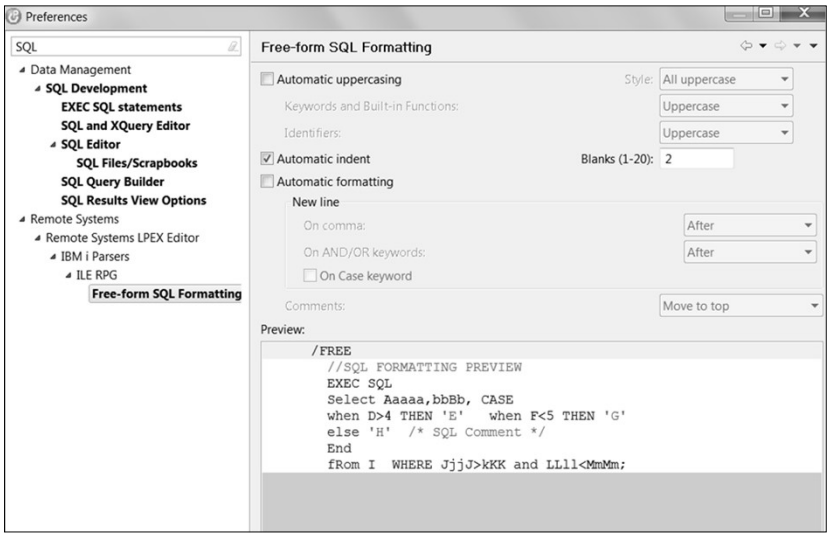
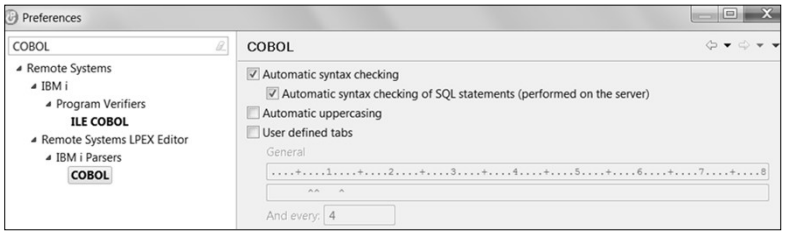
SQL Parser – What it means and how to use it

- **“SQL Formatting” or Window>Preferences>type “SQL”**

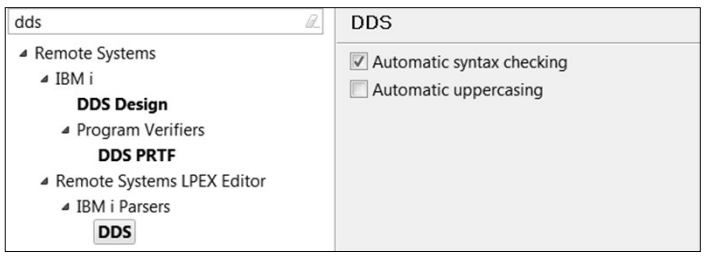


COBOL and DDS Parsers- What they mean and how to use them

- **Window>Preferences>type “COBOL”**



Window>Preferences>type “DDS”



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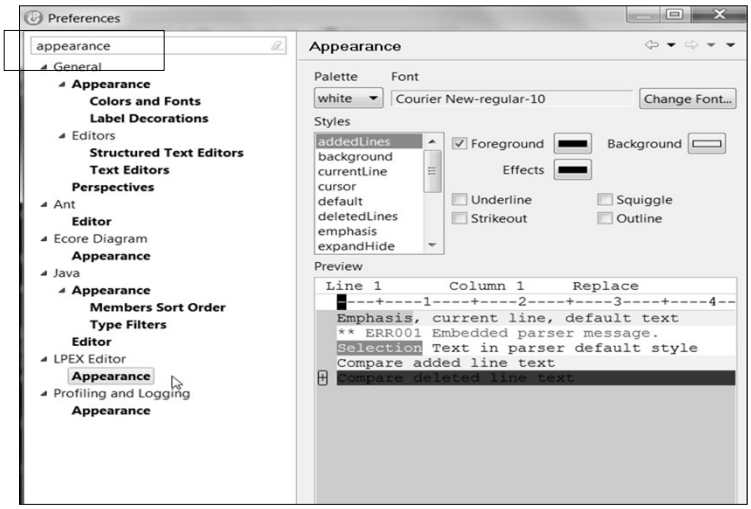
LPEX Preferences

- **Windows>Preferences>type "appearance" > LPEX Editor > Appearance**



What We'll Cover …

- **Hidden LPEX gems**
- **Climbing down the navigation tree**
- **Object tables**
- **The remote scratchpad**
- **Preferences**
- **Wrap Up**

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Looking Inside the Developer's Toolkit:
"Best Stuff" from the Advanced RDi Topics

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THANK YOU !!!

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