PDM and SEU to RSE and LPEX Transition
Violaine Batthish

WebSphere software
Agenda

- PDM Beginnings & How to start in RSE
- Table View
- Running commands
- Compiling
- Searching iSeries files
- Basic editing with SEU & LPEX
- LPEX Syntax checkers, verifiers and outline views
- Other LPEX tricks & features
- Comparing source

- Questions
Starting with PDM

♣ There are two ways to start PDM:
  ‣ STRPDM, or
  ‣ WRKxxxPDM commands
♣ Only the last entries are remembered
♣ Work with multiple programs, libraries etc, you might have more than one emulator running so you can work with all your items at the same time
How to begin in RSE

♣ When you first start WDSC workbench, you will be prompted for a workspace. This is where all the definitions of your RSE preferences and workbench configuration information and files will reside.

♣ Once the workbench is started, ensure that you are in the Remote System Explorer Perspective
  - Window->Open Perspective-
    - >Remote System Explorer

♣ Next you will need a connection…
Creating a connection

- Expand the iSeries icon in the New Connection Filter
- Leave the default profile name
- Specify host name and connection name
- Ensure Verify connection is selected
- Push Finish
Subsystems

Expanding a connection lists the subsystems within that connection:

- Objects: used to access libraries, objects and members
- Commands: predefined commands you can use to run against remote objects. You can also define command sets. Results are logged in the Commands log view
- Jobs: display various jobs, subset by job attributes, and perform job operations
- IFS Files: explore IFS file and folder structure and perform actions on them.
- Qshells: lists the active running qshells for the connection
Filters

Filters are named lists of items that you can specify, reuse and share.

Expanding the Work with… items opens the appropriate filter creation dialog

Specify the list of libraries, objects, or members you want RSE to retrieve.

Give the filter a name

Choose whether or not you want the filter to be only for the specified connection

Choose whether or not you would like to share the filter with others
Filter Strings

♣ When first created, a filter is created with only one filter string
♣ By modifying the properties of a filter, you can add additional filter strings
  ▸ In PDM you could only list the members in one source physical file in one library.
  ▸ In RSE you can use filters and filter strings to list members in different files and even in different libraries.
♣ In PDM only the last WRKxxxPDM setting is remembered. In RSE all filters are persisted between sessions.
RSE Tree View

♣ Filters appear in the tree view
♣ Drill down like File Explorer in Windows
♣ Drag & drop, copy, paste, delete rename actions
♣ Actions appear in popup (right-click)
Table View

- More comfortable interface for PDM users
- Launch table view from RSE Tree view by using the **Show in Table View** action
- Use the Work with menu option to access list same way as you would using the WRKxxxPDM commands
- Work with menu keeps a small list of previously displayed lists specifications
Table View Actions

♣ Use the Show in Table action from inside Table View to go from a list of libraries to a list of objects etc.
♣ A list of familiar PDM Options
♣ Use the User actions menu to create and add your own actions
♣ Double click on member to edit it
User Actions (F16)

♣ Define your own action
♦ Prompt the command to define and also optionally when executing
♦ Use the same substitution variables as PDM and several more
♦ Specify if the action should refresh the views
♦ Specify when action applies when a single object is selected
♦ Specify Invoke once to group the items into one command execution
♦ Refine them to apply to the appropriate types (add your own)
Command Line

- Use the command line to run any command
- Specify additional parameters for PDM Options
- Results displayed in the messages field
- Use familiar keys:
  - F9: repeat last command
  - F4: prompt command
- Use the Show Log button to view iSeries commands Log view.
- Use the STRRSESVR command to handle interactive commands
- Batch option uses the SBMJOB command
Compiling (option 14,15)

Compile actions are grouped in two menus (with and without prompting)

Users can add their own commands to the compile commands

Compile actions are different from other actions:
- Results of the command itself appear in the Command Log
- Errors appear in the Error List view

Additional command execution preferences can be found in the Window->Preferences->Remote Systems->iSeries->Command Execution preference page (F18)
Searching (Option 25)

- Two ways to search:
  - Search->iSeries menu
  - Find String… action
- Search filters, not just libraries, files, members. This means that you can create very flexible search patterns.
- Results appear in the Remote Search view.
- Double click on a result to open the member in Remote Systems LPEX Editor and position to the match
- The popup menu for the members in the list has similar actions to the table view (rename, move, etc)
- View has a history of searches
Launching Remote Systems LPEX Editor

- From RSE, or Table view:
  - Double-click
  - Open (option 2), or
  - Browse (option 5) using menus
- Tokenization: the colouring of language tokens
- Prefix area: can use all the SEU commands
- Show date: use the context menu
- Outline view: shows the outline of your program. Used to navigate within your program
Remote Systems LPEX Editor vs SEU Basics

♣ SEU
  ▶ Full screen mode when browsing (F13)
  ▶ Split screen and browse

  ▶ Date area: at the right

  ▶ Print: STRSEU and Option 6

♣ Remote Systems LPEX Editor
  ▶ Full screen mode for both edit and browse: double click on editor tab
  ▶ Split screen for edit and browse: there are two options
    • Drag and drop the editor tab to view two different members
    • Use editor popup or Ctrl+2 to split the current LPEX view to work with different parts of the same member (up to 5 splits)
  ▶ Date appears next to sequence numbers. Can be enabled by a preference or by popup
  ▶ Print: from File Menu or Ctrl+P
Split Screens And Date Area
Syntax Checking, Help & Prompting

- RSE, like SEU has auto-syntax checking
  - See all the errors, not just the first one
- Help (F1) is available for the errors, but also for the source!
  - Context sensitive help directly linked to the reference manuals
  - Manuals quickly accessible from the Source menu
- Prompting (F4) appears either in the iSeries Source Prompter view or (for CL) in a dialog. F1 context sensitive help available from the prompt view or the CL prompter.
Verifiers & Error List

- COBOL, RPG & DDS have a program verifier (Ctrl+Shift+V)
- Syntax & semantic checking (no code generation)
- Verifiers generate the same error messages as the compiler
- Use Source->Verify (Prompt) to specify additional options or modify default verify preferences.
- Errors appear in the Error List View as for compile.
  - Insert errors into source
  - F1 help for errors
  - Filter errors
  - Use as a TODO list
  - In editor,
    * use Ctrl+F5 to Refresh (removes all errors, clears any excluded lines), or
    * Source->Remove messages to remove errors
Content assist and Templates

♣ Content assist (Ctrl+Space): propose, display and insert code completions at the cursor position
  - Can be used to provide context information
  - RPG: Refresh the outline view
♣ Templates: type the name of the template and press Ctrl+Space
  - Add your own templates
RPG Wizards

♣ Three RPG wizards available to facilitate programming:
  - D Specification Wizard
  - Procedure Wizard
  - Java Method Call Wizard
♣ Accessed via Source menu or by popup in source and selecting appropriate option in the New submenu
♣ Specify all needed information using a graphical interface and source is then generated
Additional LPEX parser options and features

♣ Preferences
  ▶ Column sensitive editing
  ▶ Signatures
  ▶ Auto-uppercasing
  ▶ Auto-indent
  ▶ Auto-formatting
  ▶ Enter Key behaviour

♣ Parser specific functions:
  ▶ Open copy member/book
  ▶ Convert to free form (RPG)
  ▶ Convert to ILE (RPG)
  ▶ Show indentation (RPG)
Compiling from Remote Systems LPEX

- Ctrl+Shift+C runs the default compile command
- Toolbar button for compiling
- Toolbar buttons for next (Ctrl+Shift+H) and previous error (Ctrl+Shift+Y)
- Compile menu is available to select
- Must be connected to compile
Jobs

- Use the tree view to see jobs
- Add to the iSeries Job Status view by job, or by default using the preferences
- Access job information, properties using popup
- Perform other basic operations such as end, display job log
- Debug and add user actions too
Search and Replace in LPEX

- Ctrl+F bring up the Find function in LPEX (ctrl)
- Specify search string, and optionally replace string
- Specify Regular expression to allow you to search for a pattern:
  - this|that  (search for this or that)
- Ensure column sensitive editing is on, if you don’t want your text shifted
- Use Ctrl+N or Shift+F4 to find next match
Printing (Option 6)

- Ctrl+P, print button, File->Print
- Various print options can be found in
  - Window->Preferences->LPEX Editor->Print
- Note that line numbers are not the same thing as sequence numbers
- Substitution variable allowed in the header & footer:
  - %p: page number
  - %n: source name, base file name, or document name
  - %f: full-path file name or document name
  - %d: date
  - %t: time
Compare (Option 54)

♣ Open member
  ‣ Edit->Compare->Compare to file
  ‣ Compare button in toolbar
♣ Source appears merged with differences flagged in different colours
♣ Only permitted to modify the source that is opened
♣ Ctrl+Shift+N for next mismatch
♣ Ctrl+Shift+P for previous mismatch
♣ Specify any preferences in LPEX:
  ‣ Columns to include
  ‣ Ignore sequence numbers
  ‣ Ignore blanks
♣ Ctrl+Sift+R to refresh the compare
♣ Edit->Compare->Clear to end
## Additional Useful LPEX Keys

<table>
<thead>
<tr>
<th>Key Combination</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Home</td>
<td>Go to the top</td>
</tr>
<tr>
<td>Ctrl+End</td>
<td>Go to the end</td>
</tr>
<tr>
<td>Ctrl+L</td>
<td>Go to line number</td>
</tr>
<tr>
<td>Alt+S</td>
<td>Split a line</td>
</tr>
<tr>
<td>Alt+J</td>
<td>Join a line</td>
</tr>
<tr>
<td>Alt+L</td>
<td>Select a line</td>
</tr>
<tr>
<td>Alt+R</td>
<td>Select a rectangle</td>
</tr>
<tr>
<td>Ctrl+Z</td>
<td>Undo</td>
</tr>
<tr>
<td>Ctrl+Y</td>
<td>Redo</td>
</tr>
<tr>
<td>Ctrl+S</td>
<td>Save</td>
</tr>
<tr>
<td>Ctrl+M</td>
<td>Match</td>
</tr>
<tr>
<td>Ctrl+Shift+M</td>
<td>Find match</td>
</tr>
</tbody>
</table>
Internet Resources

❖ Web page:
  ▶ www.ibm.com/software/awdtools/wdt400

❖ Newsgroup:
  ▶ news.software.ibm.com/ibm.software.websphere.studio400

❖ Mailing list:
  ▶ To subscribe, unsubscribe, or change list options, visit:
    • http://lists.midrange.com/mailman/listinfo/wdsci-l
  ▶ or email: WDSCI-L-request@midrange.com
  ▶ Before posting, please take a moment to review the archives at
    http://archive.midrange.com/wdsci-l