

Merging ETfw and JAXB

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Overview

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 - TAU and PPW_UPC tools using JAXB
 - Adding a new Tool
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Motivation

- Single XML framework for User Interfaces (UI)
 - Provide complete mapping of xml description to Java classes without manually parsing xml
- Simplify Tool development
 - No need to write Java code for most tools, everything specified in xml file
 - Improve control over UI layout and widget selection
 - Re-use widgets and widget controls provided by Resource manager factory classes
- Opportunity to re-visit UI design

Current Work

- Mapping current ETFw xml to JAXB so xml file can be unmarshalled to Java classes without parsing the file inside manually
 - Mapping of UI tags is nearly complete
 - Mapping of compile/analyze/execute tags 50% complete
 - Extension point for new workflow:
org.eclipse.ptp.etfw.jax.workflows

Demonstration – Current ETFw Tools

- TAU and PPW_UPC tool UI's using JAXB widgets from resource manager framework

Demonstration – New ETFw Tool

- Create empty tool xml description file
- Create new extension with tool name and xml description location
- Restart Eclipse PTP

Demonstration – Add UI Widgets

- Add widgets to new tool description file
 - Checkbox and Spinner, checkbox controls spinner enablement
 - Label and Text field

Future Work

- Finish mapping ETFw tags to JAXB to provide complete unmarshalling of description file to Java classes
- Implement Add/Remove workflows for on-the-fly tool creation
- Create framework to take ETFw UI settings and JAXB representation of the workflow and execute it
- Discussion: What is the best approach for including dynamic widgets for both ETFw and Resource Manager?

Conclusion

- Single XML framework for UI
 - All current resource manager UI widgets and controls can be reused in ETFw tools
 - New widgets created for ETFw or the Resource Manager are re-useable
- UI layout and control all done through XML framework most tools
 - No need to write Java code and listeners
 - Easier to update tool UI
- Removes the need to manually parse xml description files