Report on Identified Refactoring Opportunities for (SC/ST) Refactoring

The tool identifies the Control-Fields and conditional constructs (Switch/If) that use these Control-Fields to simulate the (SC / ST) refactoring. It prioritizes the Control-Fields (refactoring opportunities) based on the following criteria:

1. Number of conditional constructs that switch on Control-Field
   Group i represents i different conditional constructs where the Control-Field is used
2. Average size of the conditional body
3. Number of control values
   2-3 control values
   3-6 control values
   6-n control values
4. Presence of conditional constructs with respect to the class of declaration (COD) of Control-Field
   In COD (A)
   Outside (B)
   Mixed (C)
5. Qualified for SC or ST
6. Static Field
7. Have subclasses already

Input Benchmark Statistics:

No. Of Classes: 219
No. Of Primitive Felds: 176
No. Of Control-Fields for Subclass Pattern: 13
No. Of Control-Fields for State pattern: 4
Total No. Of Control-Fields: 17

Uses	Replace Type Code with Subclass (SC)	
10	<net.sourceforge.jocular.properties.EnumProperty, m_enum>	(B)
8	<net.sourceforge.jocular.properties.BooleanProperty, m_value>	(B)
3	<net.sourceforge.jocular.graphs.GraphAxis, log>	(A)
	<net.sourceforge.jocular.photons.WranglerEvent,m_type>	(B)
	<net.sourceforge.jocular.photons.Photon,m_photonSource>	(B)
	<net.sourceforge.jocular.project.ProjectUpdatedEvent,m_type>	(B)
2	<net.sourceforge.jocular.math.Complex, m_imag>	(A)
	<net.sourceforge.jocular.math.Vector3D, x>	(B)
	<net.sourceforge.jocular.splines.SplinePointTableModel, m_object>	(A)
	<net.sourceforge.jocular.gui.panel3d.OpticsSceneGraphComponent, m_isTransparent>	(B)
	<net.sourceforge.jocular.undo.PropertyEdit, m_owner>	(A)
	<net.sourceforge.jocular.project.OpticsProject, m_dirtyFlag>	(B)
	<net.sourceforge.jocular.graphs.GraphAxis, gridLineSpacing>	(A)

Uses	Replace Type Code with State (ST)	
2	<net.sourceforge.jocular.photons.PhotonTrajectory, i>	(A)
	<net.sourceforge.jocular.objects.AbstractOpticsObject, m_selected>	(B)
	<net.sourceforge.jocular.math.SimpleMinimumSolver, m_running>	(A)
	<net.sourceforge.jocular.math.MultiMinimumSolver, m_running>	(A)

Back To Top