

Non-Inheritance Extract Class Refactoring Suggestions		
Original Class [N <sub>split</sub> ]	Extract Class	
	New Class [Superclass] [Subclass]	Methods/Fields
XMLElement [3]	XMLElement_new_1 [-] [-]	getLineNr() lineNr getStringAttribute(String,String) getStringAttribute(String) NANOXML_MINOR_VERSION parseCharArray(char[], int, int, int) parseCharArray(char[], int, int) NANOXML_MAJOR_VERSION serialVersionUID parseString(String) parseString(String, int, int) parseString(String, int) XMLElement() XMLElement(HashMap) XMLElement(boolean) XMLElement(HashMap, boolean) parseString(String, int, int, int) XMLElement(HashMap, boolean, boolean, boolean) XMLElement(HashMap, boolean, boolean) parseFromReader(Reader) toString() print(PrintWriter) isEncodeUnicodeCharacters writeEncoded(Writer,String) setContent(String) getContent() contents XMLElement(HashMap, boolean, boolean, boolean, boolean) getName() setName(String) name parseFromReader(Reader, int) print(PrintWriter, int) write(Writer) addChild() removeChild() getChildren()

		children iterateChildren() countChildren()
	XMLElement_new_2 [-] [-]	createElement(String) getAttribute(String) getIntAttribute(String, int, int, int) getIntAttribute(String) getDoubleAttribute(String) getStringAttribute(String, HashMap, String, boolean) getBooleanAttribute(String, boolean) createElement() ignoreCase attributes enumerateAttributeNames() setAttribute(String, Object) getBooleanAttribute(String, String, String, boolean) getAttribute(String, Map, String, boolean) getDoubleAttribute(String, double) getAttribute(String, Object) getDoubleAttribute(String, HashMap, String, boolean) getIntAttribute(String, HashMap, String, boolean) removeAttribute(String) setIntAttribute(String, int) setDoubleAttribute(String, double) getIntAttribute(String, int)
	XMLElement_new_3 [-] [-]	reader charReadTooMuch unreadChar(char) readChar() expectedInput(String) unknownEntity(String) syntaxError(String) unexpectedEndOfData() invalidValue(String, String) invalidValueSet(String) parserLineNr resolveEntity(StringBuffer) entities skipSpecialTag(int) skipComment() scanWhitespace() checkLiteral(String)

		scanPCData(StringBuffer) scanString(StringBuffer) scanWhitespace(StringBuffer) ignoreWhitespace scanElement() scanIdentifier(StringBuffer) checkCDATA(StringBuffer)
DefaultDrawingView [3]	DefaultDrawingView_ new_1 [HandleListener] [-]	repaint(Rectangle2D\$Double) firePropertyChange(String,Object,Object) getBackground() getHeight() getWidth() getPreferredSize() preferredSize invalidateDimension() translate drawBackground(Graphics2D) drawDrawing(Graphics2D) emptyDrawingLabel getEmptyDrawingMessage() setEmptyDrawingMessage(String) addFocusListener(FocusListener) getToolkit() listenerList fireSelectionChanged() secondaryHandleOwner getDOMFactory() setDOMFactory(DOMFactory) domFactory addToSelection(Collection) handleRequestSecondaryHandles(HandleEvent) getTools() removeFigureSelectionListener(FigureSelectionList ener) getCompatibleHandles(Handle) addNotify(DrawingEditor) copy() delete() getHandleDetailLevel() setHandleDetailLevel(int) duplicate() removeFromSelection(Figure) selectAll() addToSelection(Figure)

		getSelectionCount() viewToDrawing(Rectangle) clearSelection() findFigure(Point) addFigureSelectionListener (FigureSelectionListener) findFigures(Rectangle) isFigureSelected(Figure) drawingToView(Point2D\$Double) drawingToView(Rectangle2D\$Double) removeNotify(DrawingEditor) figureAdded(DrawingEvent) cut() paste() addPropertyChangeListener (PropertyChangeListener) areaInvalidated(HandleEvent) handleRequestRemove(HandleEvent) findHandle(Point) toggleSelection(Figure) getContainer() areaInvalidated(DrawingEvent) findFiguresWithin(Rectangle) getDrawingToViewTransform() viewToDrawing(Point) figureRemoved(DrawingEvent) getDrawing() setDrawing(Drawing) drawing getSelectedFigures() selectedFigures getScaleFactor() setScaleFactor(double) scaleFactor getConstrainer() setConstrainer(Constrainer) constrainer
	DefaultDrawingView_ new_2 [-] [-]	firePropertyChange(String, double, double) invalidate() getParent() repaint() repaint(Rectangle) detailLevel setFocusable(boolean)

		dirtyFigures rainbow handlesAreValid DefaultDrawingView() invalidateHandles() getSelectionHandles() selectionHandles getSecondaryHandles() secondaryHandles fireViewTransformChanged() validateHandles() buttonGroup1 initComponents() setLayout(LayoutManager) setBackground(Color)
	DefaultDrawingView_ new_3 [-] [-]	drawGrid(Graphics2D) paintComponent(Graphics) editor drawTool(Graphics2D) drawHandles(Graphics2D)
TriangleFigure [2]	TriangleFigure_new_1 [AttributedFigure] [-]	TriangleFigure(AttributeKeys\$Orientation) TriangleFigure() TriangleFigure(double, double, double, double) rectangle drawStroke(Graphics2D) clone() createHandles(int) findConnector(Point2D\$Double, ConnectionFigure) basicTransform(AffineTransform) contains(Point2D\$Double) findCompatibleConnector(Connector, boolean) getBounds() getStartPoint() basicSetBounds(Point2D\$Double, Point2D\$Double) TriangleFigure(double, double, double, double, AttributeKeys\$Orientation) drawFill(Graphics2D) getFigureDrawBounds() getEndPoint()
	TriangleFigure_new_1 [-] [-]	getLocation() getBezierPath() restoreTo(Object) getRestoreData()
ToggleProjectPropert	ToggleProjectProperty	projectListener

yAction [2]	Action_new_1 [AbstractProjectAction] [-]	installProjectListeners(Project) uninstallProjectListeners(Project) ToggleProjectPropertyAction(Application,String, Class,Object,Object) getCurrentProject()
	ToggleProjectProperty Action_new_2 [-] [-]	ToggleProjectPropertyAction(Application,String) putValue(String,Object) propertyName setterName deselectedPropertyValue selectedPropertyValue getterName getCurrentValue() updateSelectedState() actionPerformed(ActionEvent) parameterClass
BezierPath [2]	BezierPath_new_1 [-] [-]	outlineContains(Point2D\$Double, double) contains(Point2D) getPointOnPath(double, double) getBounds2D() getPathIterator(AffineTransform, double) getPathIterator(AffineTransform) contains(Rectangle2D) getBounds() getBounds2DDouble() intersects(double, double, double, double) contains(double, double) contains(double, double, double, double) chop(Point2D\$Double) intersects(Rectangle2D) generalPath validatePath() invalidatePath() indexOfOutermostNode() outer BezierPath() get(int, int)
	BezierPath_new_1 [-] [-]	C1_MASK C1C2_MASK C2_MASK add(int,Point2D\$Double,Point2D\$Double,Point2D\$ Double) addPoint(double, double) add(Point2D\$Double)

		getCenter() iterator() transform(AffineTransform) set(int, int,Point2D\$Double) set(int,Object) clone() joinSegments(Point2D\$Double, float) setTo() remove(int) toPolygonArray() add(Object) size() add(int,Object) splitSegment(Point2D\$Double, float) findSegment(Point2D\$Double, float) toGeneralPath() isClosed() isClosed setClosed(boolean) clear() quadTo(double, double, double, double) moveTo(double, double) lineTo(double, double) curveTo(double, double, double, double, double, double) get(int)
ConnectionHandle [2]	ConnectionHandle_ne w_1 [LocatorHandle] [-]	createConnection() fireUndoableEditHappened(UndoableEdit) getOwner() getLocationOnDrawing() draw(Graphics2D) drawCircle(Graphics2D,Color,Color) ConnectionHandle(Figure,Locator, ConnectionFigure)
	ConnectionHandle_ne w_2 [-] [-]	prototype findConnectableFigure(Point2D\$Double,Drawing) setConnection(ConnectionFigure) getConnection() currentConnection getStartConnector() getTargetFigure() setTargetFigure(Figure) targetFigure trackEnd(Point,Point, int)

		trackStart(Point, int) view trackStep(Point,Point, int) edit findConnectionTarget(Point2D\$Double, Drawing)
JSheet [3]	JSheet_new_1 [-] [-]	setBounds(int, int, int, int) isVisible() addNotify() requestFocus() setLocation(int, int) setVisible(boolean) showInputSheet(Component, Object, SheetListener) showInputSheet(Component, Object, int, SheetListener) showSaveSheet(JFileChooser, Component, SheetList ener) showOpenSheet(JFileChooser, Component, SheetLi stener) showInputSheet(Component, Object, Object, SheetLi stener) showSheet(JOptionPane, Component, SheetListen er) fireOptionSelected(JOptionPane) showOptionSheet(Component, Object, int, int, Icon, Object[], Object, SheetListener) showInputSheet(Component, Object, int, Icon, Object[], Object, SheetListener) styleFromMessageType(int) toFront() showSheet(JFileChooser, Component, String, SheetLi stener) addWindowListener(WindowListener) pack() firePropertyChange(String, boolean, boolean) JSheet(Frame) JSheet(Dialog) isAnimated setAnimated(boolean) isAnimated() addSheetListener(SheetListener) fireOptionSelected(JOptionPane, int, Object, Object) fireOptionSelected(JFileChooser, int) removeSheetListener(SheetListener) listenerList



		setResizable(boolean) createSheet(JOptionPane,Component, int) addComponentListener(ComponentListener) getWindowForComponent(Component)
	JSheet_new_2 [-] [-]	fileOpened(Project,File,Object) showMessageSheet(Component,Object) showMessageSheet(Component,Object, SheetListener) showMessageSheet(Component,Object, int,SheetListener) showMessageSheet(Component,Object, int,Icon,SheetListener) showMessageSheet(Component,Object, int)
	JSheet_new_3 [-] [-]	showConfirmSheet(Component,Object, int,SheetListener) showConfirmSheet(Component,Object,SheetListen er) showConfirmSheet(Component,Object, int, int,SheetListener) showConfirmSheet(Component,Object, int, int,Icon,SheetListener) dispose() getContentPane() hide0() hide() getBounds() getParent() show0() show() setBounds(Rectangle) setUndecorated(boolean) getRootPane() isShowAsSheet() getWidth() setLocation(Point) setTitle(String) getHeight() getOwner() oldLocation shiftBackLocation isInstalled oldFocusOwner ownerMovementHandler init()

		uninstallSheet() installSheet()
UndoRedoManager [2]	UndoRedoManager_new_1 [-] [-]	editToBeUndone() undoOrRedo() redo() undoOrRedoInProgress undo() addEdit(UndoableEdit)
	UndoRedoManager_new_2 [-] [-]	DISCARD_ALL_EDITS static {} DEBUG discardAllEdits() getRedoPresentationName() getUndoAction() undoAction getRedoAction() redoAction updateActions() getLabels() labels setLocale(Locale) canUndo() getUndoPresentationName() canRedo() setHasSignificantEdits(boolean) hasSignificantEdits hasSignificantEdits() UndoRedoManager() firePropertyChange(String, boolean, boolean) addPropertyChangeListener(PropertyChangeListener) propertySupport firePropertyChange(String, Object, Object) addPropertyChangeListener(String, PropertyChangeListener) removePropertyChangeListener(String, PropertyChangeListener) firePropertyChange(String, int, int) removePropertyChangeListener(PropertyChangeListener)
MoveHandle [2]	MoveHandle_new_1 [LocatorHandle] [-]	north(Figure) east(Figure) south(Figure) geometry

		west(Figure) trackEnd(Point,Point, int) fireUndoableEditHappened(UndoableEdit) getOwner() drawRectangle(Graphics2D,Color,Color) MoveHandle(Figure,Locator) draw(Graphics2D) view trackStart(Point, int) trackStep(Point,Point, int) oldPoint
	MoveHandle_new_2 [-] [-]	southWest(Figure) addMoveHandles(Figure,Collection) southEast(Figure) northEast(Figure) northWest(Figure)
ToolBarButtonFactory y [2]	ToolBarButtonFactory_new_1 [-] [-]	createZoomButton(DrawingEditor) addZoomButtonsTo(JToolBar,DrawingEditor) createZoomButton(DrawingView) createToggleGridButton(DrawingView) createToggleGridButton(DrawingEditor) ToolBarButtonFactory() addAlignmentButtonsTo(JToolBar,DrawingEditor) addColorButtonTo(JToolBar,DrawingEditor, AttributeKey,Map, int,String,ResourceBundleUtil) addFontButtonsTo(JToolBar,DrawingEditor) addColorButtonsTo(JToolBar,DrawingEditor) DEFAULT_COLORS static {} addAttributesButtonsTo(JToolBar,DrawingEditor) addStrokeDashesButtonTo(JToolBar,DrawingEditor) addStrokeWidthButtonTo(JToolBar,DrawingEditor) addStrokePlacementButtonTo(JToolBar,DrawingEditor) addStrokeButtonsTo(JToolBar,DrawingEditor) addStrokeTypeButtonTo(JToolBar,DrawingEditor) addStrokeDecorationButtonTo(JToolBar,DrawingEditor)
	ToolBarButtonFactory_new_2 [-] [-]	addToolTo(JToolBar,DrawingEditor,Tool,String,ResourceBundleUtil) addSelectionToolTo(JToolBar,DrawingEditor) createDrawingActions(DrawingEditor)

		createSelectionActions(DrawingEditor) addSelectionToolTo(JToolBar,DrawingEditor,Collection,Collection)
FigureEvent [2]	FigureEvent_new_1 [-] [-]	getNewValue() newValue getOldValue() oldValue getAttribute() attribute FigureEvent(Figure,AttributeKey,Object,Object)
	FigureEvent_new_2 [-] [-]	getInvalidatedArea() invalidatedArea FigureEvent(Figure,Rectangle2D\$Double) getSource() getFigure()