

Table 3 The Extract Class refactoring suggestions for JHotDraw

ifLeafBe(Y/N) represents that if the original class is the leaf node in the inheritance hierarchies; ifLeafBe(Y/N) represents that if the new class is the leaf node in the inheritance hierarchies.

Extract Class Refactoring		
Original Class [ifLeafBe(Y/N)]	Extract Class	
	New Class [ifLeafAf(Y/N)]	Methods/Fields
XMLUtil [N]	XMLUtil_new _1 [N]	XMLUtil() errorInvalidAttributeValue(String,int,String,String,String) errorMissingAttribute(String,int,String,String) errorMissingElement(String,int,String,String) errorMissingPCData(String,int,String) errorUnexpectedAttribute(String,int,String,String) errorUnexpectedElement(String,int,String,String) errorUnexpectedPCData(String,int,String) validationError(String,int,String,String,String,String)
	XMLUtil_new _2 [N]	errorInvalidInput(String,int,String) processCharLiteral(String) scanIdentifier(IXMLReader) scanString(IXMLReader,char,IXMLEntityResolver) errorExpectedInput(String,int,String) errorUnexpectedEntity(String,int,String) errorClosingTagNotEmpty(String,int) errorUnexpectedCDATA(String,int) errorWrongClosingTag(String,int,String,String) scanPublicID(StringBuffer,IXMLReader) scanSystemID(IXMLReader) skipComment(IXMLReader) skipWhitespace(IXMLReader,StringBuffer)

ArrowTip[Y]	draw.ArrowTip_new_1[Y]	innerRadius ArrowTip(double,double,double,boolean,boolean,boolean) getDecoratorPath(Figure) getDecoratorPathRadius(Figure) isFilled() isSolid() isStroked() read(DOMInput) setFilled(boolean) setSolid(boolean) setStroked(boolean) write(DOMOutput)
	draw.ArrowTip_new_2[N]	ArrowTip(double,double,double) angle outerRadius ArrowTip() ArrowTip(double,double,double)
Geom[N]	geom.Geom_new_1[N]	OUT_BOTTOM Geom() OUT_LEFT OUT_RIGHT OUT_TOP angle(double,double,double,double) cap(Point2D,Point2D,double) direction(double,double,double,double) direction(int,int,int,int) east(Rectangle) east(Rectangle2D) grow(Rectangle2D,double,double) intersect(int,int,int,int,int,int,int,int) distanceFromLine(int,int,int,int,int,int) length(int,int,int,int) length2(int,int,int,int) lineContainsPoint(double,double,double,double,double,double,double) lineContainsPoint(int,int,int,int,int,int) lineContainsPoint(int,int,int,int,int,int,double) north(Rectangle) north(Rectangle2D) outcode(Rectangle,Rectangle) pointToAngle(Rectangle,Point) pointToAngle(Rectangle2D,Point2D) center(Rectangle)

DiamondFigure[Y]		ovalAngleToPoint(Rectangle,double) polarToPoint(double,double,double) center(Rectangle2D) ovalAngleToPoint(Rectangle2D,double) polarToPoint2D(double,double,double) angleToPoint(Rectangle2D,double) range(double,double,double) angleToPoint(Rectangle,double) range(int,int,int) south(Rectangle) south(Rectangle2D) west(Rectangle) west(Rectangle2D)
	geom.Geom_new_2[N]	intersect(double,double,double,double,double,double,double,double,double) length(double,double,double,double) length(Point2D,Point2D) length2(double,double,double,double) chop(Shape,Point2D) intersect(double,double,double,double,double,double,double,double,double)
	draw.DiamondFigure_new_1[Y]	rectangle DiamondFigure(double,double,double,double) basicSetBounds(Point2D,Point2D) basicTransform(AffineTransform) clone() contains(Point2D) drawFill(Graphics2D) drawStroke(Graphics2D) findCompatibleConnector(Connector,boolean) findConnector(Point2D,ConnectionFigure) getAttribute(AttributeKey) getBounds() getEndPoint() getFigureDrawBounds() getStartPoint() setAttribute(AttributeKey,Object) getRestoreData() restoreTo(Object)
	draw.DiamondFigure_new_2[N]	isQuadratic() setQuadratic(boolean) static {} DiamondFigure()
DefaultMDIAppli	app.DefaultM	currentProject

cation[Y]	DIApplication_new_1[Y]	setCurrentProject(Project) initLookAndFeel() scrollPane createMenuBar() toolBarActions updateOpenRecentMenu(JMenu) parentFrame DefaultMDIAApplication() addPropertyChangeListener(PropertyChangeListener) firePropertyChange(String,Object,Object) getComponent() getCurrentProject() getModel() getName() hide(Project) init() initLabels() initProjectActions(Project) isSharingToolsAmongProjects() launch(String[]) projects() recentFiles() show(Project)
	DefaultMDIAApplication_new_2[N]	prefs labels addStandardActionsTo(JToolBar) wrapDesktopPane(Component,LinkedList)
SheetEvent[N]	SheetEvent_new_1[N]	SheetEvent(JSheet,JOptionPane,int,Object,Object) SheetEvent(JSheet,JFileChooser,int,Object) getFileChooser() getOptionPane() getPane() pane
	SheetEvent_new_2[N]	getOption() option SheetEvent(JSheet) getInputValue() inputValue getValue() value
JSheet[N]	JSheet_new_1[N]	requestFocus() isVisible() setBounds(int,int,int,int)

		setLocation(int,int) setVisible(boolean) showOpenSheet(JFileChooser,Component,SheetListener) pack() addWindowListener(WindowListener) firePropertyChange(String,boolean,boolean) fireOptionSelected(JOptionPane) isAnimated JSheet(Dialog) JSheet(Frame) addSheetListener(SheetListener) fireOptionSelected(JFileChooser,int) fireOptionSelected(JOptionPane,int,Object,Object) listenerList removeSheetListener(SheetListener) isAnimated() setAnimated(boolean) addComponentListener(ComponentListener) createSheet(JOptionPane,Component,int) getWindowForComponent(Component) setResizable(boolean) showSheet(JFileChooser,Component,String,SheetListener)
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	JSheet_new_2 [N]	showMessageSheet(Component,Object) showMessageSheet(Component,Object,SheetListener) showConfirmSheet(Component,Object,int,int,Icon,SheetListener) showConfirmSheet(Component,Object,int,int,SheetListener) showConfirmSheet(Component,Object,int,SheetListener) showConfirmSheet(Component,Object,SheetListener) showMessageSheet(Component,Object,int) showMessageSheet(Component,Object,int,Icon,SheetListener) showMessageSheet(Component,Object,int,SheetListener) showOptionSheet(Component,Object,int,int,Icon, Object[],Object,SheetListener) showInputSheet(Component,Object,int,Icon, Object[],Object,SheetListener) showInputSheet(Component,Object,Object,SheetListener) showInputSheet(Component,Object,int,SheetListener) showInputSheet(Component,Object,SheetListener) styleFromMessageType(int) toFront()
	JSheet_new_3 [N]	getContentPane() dispose() getParent() getBounds() hide() hide0() isShowAsSheet() setBounds(Rectangle) show() show0() setTitle(String) setLocation(Point) getWidth() getHeight() setUndecorated(boolean) getRootPane() getOwner()

		oldLocation shiftBackLocation oldFocusOwner isInstalled init() ownerMovementHandler installSheet() uninstallSheet()
Methods[N]	Methods_new_1[N]	Methods() invoke(Object,String,Class[],Object[]) invoke(Object,String,int) invoke(Object,String,String) invokeGetter(Object,String,boolean) invokeGetter(Object,String,int) invokeGetter(Object,String,Object) invokeGetter(Object,String,long) invoke(Object,String,boolean) invokeIfExists(Object,String,boolean) invoke(Object,String,float) invokeIfExists(Object,String,float) invoke(Object,String,Class,Object) invokeIfExists(Object,String,Class,Object) invokeStatic(Class,String) invokeStatic(String,String) invokeStaticGetter(Class,String,boolean)
	Methods_new_2[N]	invokeStatic(String,String,Class[],Object[],Object) invokeStatic(Class,String,Class[],Object[]) invokeStatic(String,String,Class[],Object[])
ResourceBundleUtil[N]	ResourceBundleUtil_new_1[N]	configureMenu(JMenuItem,String) getLAFBundle(String,Locale) baseClass ResourceBundleUtil(ResourceBundle) getFormatted(String,Object[]) getImageIcon(String,Class) getString(String) getAcc(String) getBundle() getFormatted(String,String) getInteger(String) getKeyStroke(String) getMnem(String) getMnemonic(String) getTip(String) resource

	ResourceBundleUtil_new_2[N]	configureAction(Action,String) configureAction(Action,String,Class) configureButton(AbstractButton,String) configureButton(AbstractButton,String,Class) configureToolBarButton(AbstractButton,String) configureToolBarButton(AbstractButton,String,Class) getBaseClass() setBaseClass(Class)
JPopupMenu[N]	JPopupMenu_new_1[N]	repaint() setEnabled(boolean) setIcon(Icon) setText(String) setFocusable(boolean) add(JMenu) ITEM_FONT static {} addMouseListener(MouseListener) initComponents() getColumnCount() setColumnCount(int,boolean) columnCount JPopupMenu() setItemFont(Font) add(Action) add(JMenuItem) itemFont updateFont(MenuElement)
	JPopupMenu_new_2[N]	addSeparator() getWidth() getParent() getHeight() getInsets() action actionArea performAction(MouseEvent) setAction(Action,Rectangle) getPopupMenu() popupMenu setPopupMenu(JPopupMenu) showPopup(MouseEvent)
PaletteMenuItemUI[N]	PaletteMenuItemUI_new_1[N]	paintBackground(Graphics,JMenuItem,Color) paint(Graphics,JComponent) selectionBackground

		getPreferredSize(JComponent,Icon,Icon,int) PaletteMenuItemUI()
	PaletteMenuItemUI_new_2[N]	defaultTextIconGap checkIcon arrowIcon installDefaults()
VerticalGridLayout[N]	VerticalGridLayout_new_1[N]	isVertical isVertical() setVertical(boolean) cols getRows() rows VerticalGridLayout(int,int,int,int,boolean) layoutContainer(Container) preferredLayoutSize(Container) minimumLayoutSize(Container) getColumns() setColumns(int) setRows(int) toString()
	VerticalGridLayout_new_2[N]	addLayoutComponent(String,Component) removeLayoutComponent(Component) getHgap() hgap setHgap(int) getVgap() setVgap(int) vgap VerticalGridLayout(int,int) VerticalGridLayout(int,int,int,int) VerticalGridLayout(int,int,int,int)
ToolBarButtonFactory[N]	ToolBarButtonFactory_new_1[N]	ToolBarButtonFactory() addAlignmentButtonsTo(JToolBar,DrawingEditor) addToolTo(JToolBar,DrawingEditor,Tool,String,ResourceBundleUtil) createToggleGridButton(DrawingEditor) createToggleGridButton(DrawingView) addZoomButtonsTo(JToolBar,DrawingEditor) createZoomButton(DrawingEditor) createZoomButton(DrawingView)

	ToolBarButtonFactory_new_2[N]	addSelectionToolTo(JToolBar,DrawingEditor,Collection,Collection) createDrawingActions(DrawingEditor) addSelectionToolTo(JToolBar,DrawingEditor) createSelectionActions(DrawingEditor)
	ToolBarButtonFactory_new_3[N]	addStrokeWidthButtonTo(JToolBar,DrawingEditor) addStrokeDashesButtonTo(JToolBar,DrawingEditor) DEFAULT_COLORS addAttributesButtonsTo(JToolBar,DrawingEditor) addColorButtonsTo(JToolBar,DrawingEditor) addStrokeButtonsTo(JToolBar,DrawingEditor) addStrokeDecorationButtonTo(JToolBar,DrawingEditor) addStrokePlacementButtonTo(JToolBar,DrawingEditor) addStrokeTypeButtonTo(JToolBar,DrawingEditor) static {}
ColorChooserAction[Y]	ColorChooserAction_new_1[Y]	colorChooser actionPerformed(ActionEvent) ColorChooserAction(DrawingEditor,AttributeKey,String,Icon) getDrawing() getEditor() getView() setEnabled(boolean) changeAttribute(Color) key labels
	ColorChooserAction_new_2[N]	ColorChooserAction(DrawingEditor,AttributeKey) ColorChooserAction(DrawingEditor,AttributeKey,String) putValue(String,Object) selectionChanged(FigureSelectionEvent) ColorChooserAction(DrawingEditor,AttributeKey,Icon)
DefaultDrawingView[Y]	DefaultDrawingView_new_1[Y]	selectedFigures addFigureSelectionListener(FigureSelectionListener) addNotify(DrawingEditor) addPropertyChangeListener(PropertyChangeListener) addToSelection(Collection)

		addToSelection(Figure) areaInvalidated(DrawingEvent) areaInvalidated(HandleEvent) clearSelection() copy() cut() delete() drawingToView(Point2D) drawingToView(Rectangle2D) duplicate() figureAdded(DrawingEvent) figureRemoved(DrawingEvent) findFigure(Point) findFigures(Rectangle) findFiguresWithin(Rectangle) findHandle(Point) getCompatibleHandles(Handle) getConstrainer() getContainer() getDrawing() getDrawingToViewTransform() getHandleDetailLevel() getScaleFactor() getSelectedFigures() getSelectionCount() getTools() handleRequestRemove(HandleEvent) handleRequestSecondaryHandles(HandleEvent) isFigureSelected(Figure) paste() removeFigureSelectionListener(FigureSelectionList ener) removeFromSelection(Figure) removeNotify(DrawingEditor) selectAll() setConstrainer(Constrainer) setDrawing(Drawing) setHandleDetailLevel(int) setScaleFactor(double) toggleSelection(Figure) viewToDrawing(Point) viewToDrawing(Rectangle)
	DefaultDrawi ngView_new_	domFactory firePropertyChange(String,Object,Object)

	2[N]	getDOMFactory() setDOMFactory(DOMFactory)
	DefaultDrawingView_new_3[N]	repaint() drawGrid(Graphics2D) getBackground() getWidth() getHeight() getEmptyDrawingMessage() setEmptyDrawingMessage(String) emptyDrawingLabel drawing paintComponent(Graphics) getPreferredSize() scaleFactor drawDrawing(Graphics2D) drawBackground(Graphics2D) translate
	DefaultDrawingView_new_4[N]	drawHandles(Graphics2D) drawTool(Graphics2D) editor firePropertyChange(String,double,double) getParent() getToolkit() fireSelectionChanged() listenerList invalidate() invalidateDimension() preferredSize secondaryHandleOwner getSelectionHandles() selectionHandles repaint(Rectangle2D) detailLevel repaint(Rectangle) constrainer buttonGroup1 initComponents() setBackground(Color) setLayout(LayoutManager) setFocusable(boolean) addFocusListener(FocusListener) rainbow dirtyFigures handlesAreValid

		DefaultDrawingView() invalidateHandles() fireViewTransformChanged() getSecondaryHandles() secondaryHandles validateHandles()
DrawProject[Y]	DrawProject_new_1[Y]	add(Component,Object) scrollPane undo DrawProject() clear() createOpenChooser() createSaveChooser() init() initComponents() putAction(String,Action) read(File) setHasUnsavedChanges(boolean) setLayout(LayoutManager) write(File) initActions()
	DrawProject_new_2[N]	editor getDrawingEditor() getEditor() setEditor(DrawingEditor) setDrawingEditor(DrawingEditor) view
XMLElement[N]	XMLElement_new_1[N]	NANOXML_MAJOR_VERSION NANOXML_MINOR_VERSION getLineNr() lineNr serialVersionUID getName() name setName(String) XMLElement(HashMap,boolean) XMLElement(HashMap) XMLElement(boolean) XMLElement() getStringAttribute(String) getStringAttribute(String,String) XMLElement(HashMap,boolean,boolean,boolean) getAttribute(String) createElement(String)

		toString() getIntAttribute(String,int,int,int) getIntAttribute(String) skipComment() skipSpecialTag(int) checkLiteral(String) checkCDATA(StringBuffer) scanIdentifier(StringBuffer) scanWhitespace(StringBuffer) getStringAttribute(String,HashMap,String,boolean) getBooleanAttribute(String,boolean) getDoubleAttribute(String) scanPCData(StringBuffer) scanString(StringBuffer) resolveEntity(StringBuffer) contents attributes entities isEncodeUnicodeCharacters ignoreWhitespace scanElement(XMLElement) getContent() setContent(String) createElement() enumerateAttributeNames() setAttribute(String,Object) getAttribute(String,Map,String,boolean) getAttribute(String,Object) getBooleanAttribute(String,String,String,boolean) getDoubleAttribute(String,double) getIntAttribute(String,int) getDoubleAttribute(String,HashMap,String,boolean n) getIntAttribute(String,HashMap,String,boolean) ignoreCase removeAttribute(String) setDoubleAttribute(String,double) setIntAttribute(String,int) XMLElement(HashMap,boolean,boolean,boolean, boolean) print(PrintWriter,int) iterateChildren() getChildren()
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		countChildren() addChild(XMLElement) children removeChild(XMLElement) write(Writer) writeEncoded(Writer,String)
	XMLElement_new_2[N]	parseString(String) parseString(String,int) parseString(String,int,int) parseCharArray(char[],int,int) parseCharArray(char[],int,int,int) parseString(String,int,int,int) scanWhitespace() charReadTooMuch reader parseFromReader(Reader,int) readChar() expectedInput(String) invalidValue(String,String) invalidValueSet(String) parserLineNr syntaxError(String) unexpectedEndOfData() unknownEntity(String) unreadChar(char)
MoveHandle[Y]	MoveHandle_new_1[Y]	east(Figure) geometry north(Figure) south(Figure) west(Figure) trackEnd(Point,Point,int) MoveHandle(Figure,Locator) draw(Graphics2D) drawRectangle(Graphics2D,Color,Color) fireUndoableEditHappened(UndoableEdit) getOwner() oldPoint trackStart(Point,int) trackStep(Point,Point,int) view
	MoveHandle_new_2[N]	addMoveHandles(Figure,Collection) northEast(Figure) northWest(Figure) southEast(Figure)

		southWest(Figure)
TextAreaFigure[Y]	TextAreaFigure_new_1[Y]	textLayout TextAreaFigure(String) basicSetBounds(Point2D,Point2D) basicTransform(AffineTransform) clone() contains(Point2D) createHandles(int) drawFill(Graphics2D) drawStroke(Graphics2D) drawText(Graphics2D) getAttribute(AttributeKey) getBounds() getEndPoint() getFillColor() getFont() getFontRenderContext() getFontSize() getInsets() getLabelFor() getRestoreData() getStartPoint() getTabSize() getText() getTextColor() getTextColumns() getTool(Point2D) isEditable() read(DOMInput) readAttributes(DOMInput) restoreTo(Object) setAttribute(AttributeKey,Object) setFontSize(float) setText(String) validate() write(DOMOutput) writeAttributes(DOMOutput)
	TextAreaFigure_new_2[N]	drawParagraph(Graphics2D,AttributedCharacterIterator,float,float,float,float[],int) editable setEditable(boolean) dashes static {} bounds

		readBounds(DOMInput) writeBounds(DOMOutput) TextAreaFigure()
Insets2DDouble[Y]	Insets2DDouble_new_1[Y]	bottom right left toString() read(DOMInput) write(DOMOutput) equals(Object) hashCode() top
	Insets2DDouble_new_2[N]	Insets2DDouble() clone() initIDs() Insets2DDouble(double,double,double,double)
TaskFigure[Y]	TaskFigure_new_1[Y]	LAYOUT_INSETS applyAttributes(Figure) getLayer() setBounds(Point2D,Point2D) startTime dependencies TaskFigure() add(Figure) clone() createHandles(int) getBounds() getChild(int) getPresentationFigure() read(DOMInput) readAttributes(DOMInput) setAttributeEnabled(AttributeKey,boolean) setLayouter(Layer) write(DOMOutput) writeAttributes(DOMOutput) addDependency(DependencyFigure) getDependencies() removeDependency(DependencyFigure)
	TaskFigure_new_2[N]	getNameFigure() setName(String) getPredecessors() isDependentOf(TaskFigure) getDurationFigure() getName()

		toString() getDuration() getSuccessors() setDuration(int) getStartTime() getStartTimeFigure() fireAreaInvalidated() updateStartTime()
ConnectionHandle[Y]	ConnectionHandle_new_1[Y]	getTargetFigure() setTargetFigure(Figure) targetFigure ConnectionHandle(Figure,Locator,ConnectionFigure) draw(Graphics2D) drawCircle(Graphics2D,Color,Color) fireUndoableEditHappened(UndoableEdit) getLocationOnDrawing() getOwner() createConnection() prototype
	ConnectionHandle_new_2[N]	edit getStartConnector() findConnectableFigure(Point2D,Drawing) findConnectionTarget(Point2D,Drawing) currentConnection getConnection() setConnection(ConnectionFigure) trackEnd(Point,Point,int) trackStart(Point,int) trackStep(Point,Point,int) view
BezierNodeHandle[Y]	BezierNodeHandle_new_1[Y]	edit oldNode index BezierNodeHandle(BezierFigure,int) basicGetBounds() createSecondaryHandles() draw(Graphics2D) drawCircle(Graphics2D,Color,Color) drawDiamond(Graphics2D,Color,Color) drawRectangle(Graphics2D,Color,Color) fireAreaInvalidated(Rectangle) fireHandleRequestRemove(Rectangle) fireHandleRequestSecondaryHandles()

		getDrawBounds() getHandlesize() getOwner() isCombinableWith(Handle) trackDoubleClick(Point,int) trackEnd(Point,Point,int) trackStart(Point,int) trackStep(Point,Point,int)
	BezierNodeHandle_new_2[N]	getBezierFigure() getLocation() fireAreaInvalidated(BezierPath) view
CompositeEdit[N]	CompositeEdit_new_1[N]	CompositeEdit(String) CompositeEdit(String,boolean) CompositeEdit() setSignificant(boolean) CompositeEdit(boolean) isSignificant isSignificant()
	CompositeEdit_new_2[N]	redo() undo() addEdit(UndoableEdit) end() isInProgress() isVerbose setVerbose(boolean)
	CompositeEdit_new_3[N]	getPresentationName() getRedoPresentationName() getUndoPresentationName() presentationName
SVGDrawing[Y]	SVGDrawing_new_1[Y]	readAttributes(DOMInput) SVGDrawing() add(Figure) getFigures() read(DOMInput) write(DOMOutput) getTitle() setTitle(String) title
	SVGDrawing_new_2[N]	firePropertyChange(String,Object,Object) description getDescription() setDescription(String)
BezierPath[N]	BezierPath_new	C1C2_MASK

	w_1[N]	C1_MASK C2_MASK clear() getCenter() BezierPath() indexOfOutermostNode() outer iterator() transform(AffineTransform)
	BezierPath_new_2[N]	quadTo(double,double,double,double) moveTo(double,double) lineTo(double,double) addPoint(double,double) add(Point2D) add(int,Point2D,Point2D,Point2D) add(Object) curveTo(double,double,double,double,double,double) toPolygonArray()
	BezierPath_new_3[N]	set(int,int,Point2D) get(int,int) clone() set(int,Object) joinSegments(Point2D,float) remove(int) setTo(BezierPath) size() get(int) add(int,Object) splitSegment(Point2D,float) findSegment(Point2D,float) isClosed isClosed() setClosed(boolean) toGeneralPath()
	BezierPath_new_4[N]	invalidatePath() outlineContains(Point2D,double) getPointOnPath(double,double) intersects(Rectangle2D) intersects(double,double,double,double) getPathIterator(AffineTransform,double) getPathIterator(AffineTransform) getBounds2DDouble() getBounds2D()

		getBounds() chop(Point2D) contains(double,double) contains(double,double,double,double) contains(Point2D) contains(Rectangle2D) generalPath validatePath()
MDIDesktopPane [Y]	MDIDesktopP ane_new_1[Y]	add(Component) firePropertyChange(String,Object,Object) remove(Component) setDragMode(int) setDesktopManager(DesktopManager) setAlignmentX(float) isVisible() getParent() getBounds() getAllFrames() FRAME_OFFSET static {} getArrangement() setArrangement(Arrangeable) arrangeFramesCascading() MDIDesktopPane() arrangeFramesHorizontally() arrangeFramesVertically() checkDesktopSize() manager tileFramesHorizontally() tileFramesVertically()
	MDIDesktopP ane_new_2[N]	setSize(int,int) setSize(Dimension) setBounds(int,int,int,int) setMaximumSize(Dimension) setMinimumSize(Dimension) setPreferredSize(Dimension)
ConnectionTool[Y]	ConnectionTo ol_new_1[Y]	findConnectionStart(Point2D,Drawing) createdFigure findConnectableFigure(Point2D,Drawing) getCreatedFigure() setCreatedFigure(Figure) connection getConnection() setConnection(ConnectionFigure)

		findConnector(Point2D,Figure,ConnectionFigure) attributes findSource(Point2D,Drawing) findTarget(Point2D,Drawing) createFigure() canConnect(Figure) ConnectionTool(java.lang.String,Map) ConnectionTool(ConnectionFigure) ConnectionTool(ConnectionFigure,Map) activate(DrawingEditor) deactivate(DrawingEditor) draw(Graphics2D) figureAdded(FigureEvent) figureAreaInvalidated(FigureEvent) figureAttributeChanged(FigureEvent) figureChanged(FigureEvent) figureRemoved(FigureEvent) figureRequestRemove(FigureEvent) fireAreaInvalidated(Rectangle2D) fireToolDone() getDrawing() getEditor() getView() mouseDragged(MouseEvent) mouseMoved(MouseEvent) mousePressed(MouseEvent) mouseReleased(MouseEvent) viewToDrawing(Point) canConnect(Figure,Figure) getPrototype() prototype trackConnectors(MouseEvent)
	ConnectionTool_new_2[N]	ConnectionTool(String) anchor editedConnection findConnection(Point2D,Drawing) isPressed isWorking endConnector getEndConnector() setEndConnector(Connector) splitPoint getStartConnector() setStartConnector(Connector)

		startConnector getTargetFigure() setTargetFigure(Figure) target getTargetConnector() setTargetConnector(Connector) targetConnector
FigureEvent[N]	FigureEvent_new_1[N]	getAttribute() attribute FigureEvent(Figure,AttributeKey,Object,Object) getNewValue() newValue
	FigureEvent_new_2[N]	getFigure() getSource() FigureEvent(Figure,Rectangle2D) getInvalidatedArea() invalidatedArea getOldValue() oldValue
DefaultOSXApplication[Y]	DefaultOSXApplication_new_1[Y]	currentProject initLookAndFeel() setCurrentProject(Project) paletteHandler DefaultOSXApplication() addPropertyChangeListener(PropertyChangeListener) firePropertyChange(String,Object,Object) getComponent() getCurrentProject() getModel() getName() hide(Project) init() initLabels() initProjectActions(Project) isSharingToolsAmongProjects() launch(String[]) projects() recentFiles() removePropertyChangeListener(PropertyChangeListener) show(Project) addPalette(Window) removePalette(Window)

	DefaultOSXApplication_new_2[N]	initScreenMenuBar() createMenuBar(Project) paletteActions updateOpenRecentMenu(JMenu)
GridConstrainer[Y]	GridConstrainer_new_1[Y]	toString() getHeight() height constrainPoint(Point2D) draw(Graphics2D,DrawingView) isVisible() getWidth() width
	GridConstrainer_new_2[N]	minorColor majorColor static {} GridConstrainer(double,double)
ToggleGridAction[Y]	ToggleGridAction_new_1[Y]	actionPerformed(ActionEvent) ToggleGridAction(DrawingView,Constrainer,Constrainer) getView() setEditor(DrawingEditor) offConstrainer onConstrainer
	ToggleGridAction_new_2[N]	ID ToggleGridAction(DrawingEditor) label ToggleGridAction(DrawingEditor,Constrainer,Constrainer) ToggleGridAction(DrawingEditor)
UndoRedoManager[N]	UndoRedoManager_new_1[N]	editToBeUndone() addEdit(UndoableEdit) redo() undo() undoOrRedo() undoOrRedoInProgress
	UndoRedoManager_new_2[N]	DEBUG hasSignificantEdits() setHasSignificantEdits(boolean) hasSignificantEdits getRedoAction() redoAction DISCARD_ALL_EDITS static {} getUndoAction()

PertProject[Y]		undoAction UndoRedoManager() addPropertyChangeListener(PropertyChangeListener) addPropertyChangeListener(String,PropertyChangeListener) firePropertyChange(String,boolean,boolean) firePropertyChange(String,int,int) firePropertyChange(String,Object,Object) propertySupport removePropertyChangeListener(PropertyChangeListener) removePropertyChangeListener(String,PropertyChangeListener)
	UndoRedoManager_new_3[N]	discardAllEdits() getUndoPresentationName() getRedoPresentationName() canUndo() canRedo() getLabels() labels setLocale(Locale) updateActions()
	PertProject_new_1[Y]	add(Component,Object) scrollPane undo PertProject() clear() createOpenChooser() createSaveChooser() firePropertyChange(String,boolean,boolean) init() initComponents() putAction(String,Action) read(File) setHasUnsavedChanges(boolean) setLayout(LayoutManager) write(File) initActions()
	PertProject_new_2[N]	invisibleConstrainer prefs firePropertyChange(String,double,double) editor getDrawingEditor()

		getEditor() setGridVisible(boolean) isGridVisible() setEditor(DrawingEditor) setDrawingEditor(DrawingEditor) setScaleFactor(double) getScaleFactor() view visibleConstrainer
TextTool[Y]	TextTool_new_1[Y]	typingTarget TextTool(Figure,Map) TextTool(TextHolder) deactivate(DrawingEditor) fireToolDone() getAddedFigure() getCreatedFigure() getDrawing() getView() mouseDragged(MouseEvent) mousePressed(MouseEvent) mouseReleased(MouseEvent)
	TextTool_new_2[N]	