Table 4 The Extract Class refactoring suggestions for Jmol

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
DisplayControl[N]	DisplayControl_new_1[N]	ATOMCHARGE ATOMTYPE AXES_BBOX AXES_NONE AXES_UNIT BOX COLOR DEFORM DELETE INVISIBLE MB_ALWAYS MB_NEVER MB_SMALL MB_WIREFRAME MEASURE NOLABELS NONE NUMBERS PICK POPUP_MENU PROP_CHEM_FILE PROP_CHEM_FRAME QUICKDRAW ROTATE ROTATE_Z SHADING SLAB_PLANE SYMBOLS TYPES WIREFRAME XLATE ZOOM getChemFile() getChemModel() getDebugShowAxis() logError(String)

		makeMenuItem(String) marMultipleBondSmallMaximum measureSelection(int) measureWatcher setMeasureWatcher(MeasureWatcher) getRasmolHeteroSetting() rasmolHeteroSetting setRasmolHeteroSetting(boolean) getRasmolHydrogenSetting() rasmolHydrogenSetting setRasmolHydrogenSetting(boolean) jvm12orGreater getAwtComponent() awtComponent atomRenderer bondRenderer measureRenderer frameRenderer jvm14orGreater distributor colorManager DisplayControl(String,Component) flushCachedImages() imageCache getShowDarkerOutline() getModeAtomColorProfile() getColorVector() getColorRubberband() getColorOutline() getColorLabel() getColorDistance() getColorDihedral() getColorBond() getColorBackground() getColorAngle() getColorTransparent(Color) setColorVector(Color) setColorSelection(Color) setColorOutline(Color) setColorLabel(Color) setColorDistance(Color) setColorDihedral(Color) setColorBackground(String) setColorBackground(Color)

		setColorAngle(Color) getColorAtom(byte,Atom) getColorAtom(Atom) getColorAtomOutline(byte,Color) getColorFromString(String) getColorSelection() getDarker(Color) setModeTransparentColors(boolean) setShowDarkerOutline(boolean) getLabelAtom(Atom) getStyleLabel() getFontOfSize(int) getLabelAtom(byte,Atom) getLabelAtom(String,Atom) getLabelFont(int) labelManager setLabelFontSize(int) setStyleLabel(byte) setColorBond(Color) setModeAtomColorProfile(byte) setStyleBondScript(byte) setColorBondScript(Color) setColorAtomScript(byte,Color) setLabelScript(String) setStyleAtomScript(byte) setStyleMarAtomScript(byte,short) setStyleMarBondScript(byte,short) strJvmVersion transparentBlue() transparentGreen() transparentGrey() transparentRed()
	DisplayControl_new_2[N]	fileManager openFile(String) openFile(File) getInputStreamFromName(String) getURLFromName(String) openStringInline(String) setAppletContext(URL,URL,String)
	DisplayControl_new_3[N]	getModeMouse() getRubberBandSelection() mouseManager setModeMouse(int)
	DisplayControl	getBooleanProperty(String)

	_new_4[N]	getSelectionHaloEnabled() selectionHaloEnabled setSelectionHaloEnabled(boolean)
	DisplayControl _new_5[N]	eval iterNull iterBond() iterAtom() deleteAtom(int) setFrame(ChemFrame) rebond() setFrame(int) setChemFile(ChemFile) getAutoBond() getBondFudge() getBondTolerance() getFrame() getMinBondDistance() setCenterAsSelected() setCenter(Point3d) addPropertyChangeListener(PropertyChangeListener) addPropertyChangeListener(String,PropertyChangeListener) clear() findAtomsInRectangle(Rectangle) findNearestAtomIndex(int,int) getBoundingBoxCenter() getBoundingBoxCorner() getChemFileIterator() getChemFrameIterator(BitSet) getCurrentFrameAtoms() getCurrentFrameNumber() getFrames() getJmolChemFile() getModelName() getNumberOfFrames() getRotationCenter() getRotationRadius() haveFile() modelManager numberOfAtoms() removePropertyChangeListener(PropertyChangeListener) removePropertyChangeListener(String,PropertyC

		hangeListener) setAutoBond(boolean) setBondFudge(double) setBondTolerance(double) setMinBondDistance(double) showChemFile(ChemFile) showChemModel(ChemModel)
	DisplayControl_new_6[N]	setShowAxes(boolean) axesManager getShowBoundingBox() getColorAxesText() getColorAxes() getBoundingBox() getAxes() recalcAxes() getModeAxes() getShowAxes() setModeAxes(byte) setShowBoundingBox(boolean) hasStructuralChange() resetStructuralChange() setStructuralChange() structuralChange
	DisplayControl_new_7[N]	setMarBond(short) setStyleBond(byte) setPercentVdwAtom(int) setStyleAtom(byte) getMarAtom() getPercentVdwAtom() getShowMeasurements() getShowVectors() getWireframeRotation() getArrowHeadRadius() getArrowLengthScale() getShowHydrogens() getMarBond() getModeMultipleBond() getPropertyStyleString() getShowAtoms() getShowBonds() getShowMeasurementLabels() getShowMultipleBonds() getStyleAtom() getStyleBond()

		getArrowHeadSize() getArrowHeadSize10() getMeasureFont(int) setArrowHeadRadius(double) setArrowHeadSize(double) setArrowLengthScale(double) setModeMultipleBond(byte) setPropertyStyleString(String) setShowAtoms(boolean) setShowBonds(boolean) setShowHydrogens(boolean) setShowMeasurementLabels(boolean) setShowMeasurements(boolean) setShowMultipleBonds(boolean) setShowVectors(boolean) setWireframeRotation(boolean) styleManager
	DisplayControl_new_8[N]	labelRenderer renderStringOffset(String,Color,int,int,int,int,int) renderStringOutside(String,Color,int,int,int) setGraphicsContext(Graphics,Rectangle) bondSelectionModeOr getBondSelectionModeOr() setBondSelectionModeOr(boolean) setChemFile(String,String,ChemFile) jmolStatusListener java12 notifyFileNotLoaded(String,String) notifyFileLoaded(String,String,String,Object) popupMenu(MouseEvent) scriptEcho(String) scriptStatus(String) setJmolStatusListener(JmolStatusListener) evalFile(String) evalString(String) getEval() haltScriptExecution() manageScriptTermination() hasSelectionHalo(Atom,int) hasSelectionHalo(Atom) defaultStroke(Graphics) maybeEnableAntialiasing(Graphics) maybeDottedStroke(Graphics) render(Graphics,Rectangle)

		getUseGraphics2D() getFastRendering() getInMotion() getWantsAntialias() getWantsAntialiasAlways() getWantsGraphics2D() notifyRepainted() popHoldRepaint() pushHoldRepaint() refresh() repaintManager requestRepaintAndWait() setFastRendering(boolean) setInMotion(boolean) setWantsAntialias(boolean) setWantsAntialiasAlways(boolean) setWantsGraphics2D(boolean) takeSnapshot()
	DisplayControl_new_9[N]	getSelectionSet() addSelection(int) addSelection(BitSet) clearSelection() excludeSelectionSet(BitSet) invertSelection() isSelected(int) selectAll() selectionManager setSelectionSet(BitSet) toggleSelection(int)
	DisplayControl_new_10[N]	getAngleMeasurements() getDihedralMeasurements() getDistanceMeasurements() clearMeasurements() defineMeasure(int,int) defineMeasure(int,int,int) defineMeasure(int,int,int,int) defineMeasure(int[]) measurementManager
	DisplayControl_new_11[N]	rotateByX(int) rotateByY(int) toRadians(int) rotateByZ(int) rotateToX(int) rotateToY(int)

		rotateToZ(int) translateByXPercent(int) translateByYPercent(int) translateByZPercent(int) getBoundingBoxCenterX() getBoundingBoxCenterY() getScreenDimension() getPerspectiveDepth() getCameraDepth() getCameraZ() getModeSlab() getSlabEnabled() getSlabPercentSetting() getSlabValue() getZoomPercent() getZoomPercentSetting() translateToZPercent(int) translateToYPercent(int) translateToXPercent(int) calcViewTransformMatrix() getPovRotateMatrix() getPovTranslateMatrix() getTranslationXPercent() getTranslationYPercent() getTranslationZPercent() homePosition() rotate(AxisAngle4d) rotateByX(double) rotateByY(double) rotateByZ(double) rotateFront() rotateToX(double) rotateToY(double) rotateToZ(double) rotateXYBy(int,int) rotateZBy(int) scaleFitToScreen() scaleToScreen(int,double) scaleToScreen(int,int) setCameraDepth(double) setModeSlab(int) setPerspectiveDepth(boolean) setScreenDimension(Dimension) setSlabEnabled(boolean)

		setZoomEnabled(boolean) slabBy(int) slabByPercent(int) slabToPercent(int) transformManager transformPoint(Point3d) transformPoint(Point3d,Point3d) translateXYBy(int,int) zoomBy(int) zoomByPercent(int) zoomToPercent(int)
TransformManager[N]	TransformManager_new_1[N]	getTranslationZPercent() getModeSlab() modeSlab setModeSlab(int) getSlabEnabled() setSlabEnabled(boolean) slabEnabled translateToZPercent(int) setZoomEnabled(boolean) zoomEnabled getZoomPercent() zoomPercent point3dScreenTemp control matrixTransform matrixTemp TransformManager(DisplayControl) calcViewTransformMatrix() rotateByZ(double) rotateByY(double) rotateByX(double) rotate(AxisAngle4d) getPovRotateMatrix() homePosition() matrixRotate rotateFront() rotateToX(double) rotateToY(double) rotateToZ(double) vectorTemp
	TransformManager_new_2[N]	minScreenDimension rotateXYBy(int,int) rotateZBy(int)

		calcSlab() slabBy(int) getSlabPercentSetting() slabByPercent(int) slabPercentSetting slabToPercent(int) slabValue
	TransformManager_new_3[N]	cameraDepth getCameraDepth() setCameraDepth(double) transformPoint(Point3d,Point3d) dimCurrent cameraZ scalePixelsPerAngstrom getCameraZ() scaleToScreen(int,double) scaleToScreen(int,int) screenAtomDiameter(int,Atom,int) screenBondWidth(int,int) getPerspectiveDepth() perspectiveDepth setPerspectiveDepth(boolean) transformPoint(Point3d) scaleFitToScreen() setScreenDimension(Dimension) getScreenDimension() translateToYPercent(int) getTranslationYPercent() getPovTranslateMatrix() getTranslationXPercent() translateToXPercent(int) translateXYBy(int,int) xTranslation yTranslation
	TransformManager_new_4[N]	scaleDefaultPixelsPerAngstrom calcZoom() zoomBy(int) getZoomPercentSetting() zoomByPercent(int) zoomPercentSetting zoomToPercent(int)
Jmol[N]	Jmol_new_1[N]	aboutAction actionSuffix atompropsAction

		checkSuffix closeAction currentFile exitAction exportActionProperty getFrame() getParent() getHistoryFile() historyFile imageSuffix labelSuffix licenseAction mnemonicSuffix newAction newwinAction openAction openFileProperty openurlAction pdfActionProperty popupSuffix povrayActionProperty printActionProperty radioSuffix recentFilesAction revalidate() saveasAction scriptAction selectedSuffix tipSuffix tokenize(String) createToolbar() toolbar uguideAction vibAction whatsnewAction UserPropsFile apm commands getAction(String) control createTool(String) getUserDirectory() setLayout(LayoutManager) setBorder(Border)

		createStatusBar() add(String,Component) atomTypeTable consoleframe UserAtypeFile status scriptWindow saveChooser saveAction recentFiles printAction povrayAction pdfAction openChooser menubar jmolpopup fileTyper exportChooser exportAction chemicalShifts defaultActions crystprop anim resourceHandler currentDir strJvmVersion buttonRotate setRotateButton() static{} createToolbarButton(String) toolbarButtonGroup print() frame doClose() numWindows main(String[]) getJmol(JFrame) screenSize say(String) splash Jmol(Splash,JFrame,Jmol) getActions() makecrystal meas

		mlist pg preferencesDialog transform vib
	Jmol_new_2[N]	addNormalMenuBar(JMenuBar) addHelpMenuBar(JMenuBar) createMenubar() pluginManager
	Jmol_new_3[N]	display createMenu(String,boolean) guimap createMenuItem(String,boolean) getMenuItem(String) menuItems
ScriptWindow[N]	ScriptWindow_new_1[N]	show() ScriptWindow(DisplayControl,JFrame) control getContentPane() setLocationRelativeTo(Component) setSize(int,int)
	ScriptWindow_new_2[N]	hide() console helpButton closeButton haltButton actionPerformed(ActionEvent) executeCommand() layoutWindow(Container) notifyScriptTermination(String,int) enterPressed() runButton scriptEcho(String) scriptStatus(String)
Vibrate[N]	Vibrate_new_1[N]	getNumberFrames() numberFrames setNumberFrames(int) getPreferredSize() setSize(Dimension) speedScale getAction(String) getActions() vibrateAction amplitudeScale

		getAmplitudeScale() setAmplitudeScale(double) centerDialog() getSize() getToolkit() setLocation(int,int) isVisible() pack() getContentPane() addWindowListener(WindowListener) hasVibrations frameIds frameCombo control playing inputFrameNumber inputFile progressSlider vibCombo saveChooser sleepiness setFrame(int,boolean) stop() Vibrate(DisplayControl,JFrame) currentFrame setChemFile(ChemFile) createVibration() setVisible(boolean) run() actionPerformed(ActionEvent) start() propertyChange(PropertyChangeEvent) vibFile vibThread vibrationNumber
	Vibrate_new_2[N]	static {} getVectorScale() setVectorScale(double) vectorScale
	Vibrate_new_3[N]	actionStates addConflictingAction(Action) conflictingActions disableConflictingActions() restoreConflictingActions()

		fovSlider modeAtomColorProfile pNo pYes getActions() prefsAction show() antialias getAction(String) commands showDarkerOutline isLabelAtomColor isBondAtomColor colorVector colorText colorSelection colorOutline colorBond colorBackground graphics2D dispose()
PreferencesDialog[N]	PreferencesDialog_new_1[N]	ok() setTitle(String) pack() getRootPane() getContentPane() abNo bButton aProps btSlider bdSlider bRender abYes aRender arSlider aLabel alSlider ahSlider tButton pButton oButton eButton cbIsLabelAtomColor cbIsBondAtomColor

		cbDarkerOutline cbWireframeRotation cbShowBoundingBox cbShowAxes cbPerspectiveDepth cbGraphics2D cV cM cH cbAntialiasAlways cbAntialias vButton cancel() bwSlider sfSlider guimap checkBoxListener buildColorsPanel() buildBondPanel() buildAtomsPanel() cRender buildVectorsPanel() ResetPressed() control PreferencesDialog(JFrame,GuiMap,DisplayControl) actionPerformed(ActionEvent) applyButton cancelButton okButton resetButton buildDispPanel() setEnabledGraphics() updateComponents() buildVibratePanel() vasSlider vfSlider vvsSlider
	PreferencesDialog_new_2[N]	save() defaults() props static {}
	PreferencesDialog_new_3[N]	centerDialog() getSize()

		getToolkit() setLocation(int,int)
	PreferencesDialog_new_4[N]	antialiasAlways bondTolerance VibrationFrames VibrateVectorScale VibrateAmplitudeScale Perspective FieldOfView AutoBond AtomPropsMode ArrowLengthScale ArrowHeadSize ArrowHeadRadius initVariables() marBond minBondDistance percentVdwAtom perspectiveDepth showAxes showBoundingBox showHydrogens showMeasurements showVectors styleAtom styleBond styleLabel wireframeRotation
WhatsNewDialog[N]	WhatsNewDialog_new_1[N]	OKPressed() setVisible(boolean) show() hyperlinkUpdate(HyperlinkEvent) getRootPane() getContentPane() WhatsNewDialog(JFrame) html linkActivated(URL) pack()
	WhatsNewDialog_new_2[N]	centerDialog() getSize() getToolkit() setLocation(int,int)
RecentFilesDialog[N]	RecentFilesDialog_new_1[N]	MAX_FILES show()

		windowActivated(WindowEvent) windowClosed(WindowEvent) windowDeactivated(WindowEvent) windowDeiconified(WindowEvent) windowIconified(WindowEvent) notifyFileOpen(String) getContentPane() pack() okButton cancelButton fileList actionPerformed(ActionEvent) files addFile(String) RecentFilesDialog(Frame) getFiles() props saveList() cancel() getFile() selectedFileName setLocationRelativeTo(Component)
	RecentFilesDialog_new_2[N]	windowClosing(WindowEvent) hide() close() ready windowOpened(WindowEvent)
ColorManager[N]	ColorManager_new_1[N]	getDarker(Color) htDarker getColorAtom(Atom) getModeAtomColorProfile() modeAtomColorProfile setColorForeground(String) setModeAtomColorProfile(byte) setShowDarkerOutline(boolean) showDarkerOutline transparency setColorBackground(Color) setColorBackground(String) setColorAngle(Color) colorAngle colorBackground setColorBond(Color) colorBond

		setColorDihedral(Color) colorDihedral setColorDistance(Color) colorDistance setColorLabel(Color) colorLabel getColorRubberband() colorRubberband colorVector getColorVector() setColorVector(Color) setIsBondAtomColor(boolean) isBondAtomColor colorOutline setColorOutline(Color) colorSelectionTransparent control colorProfiles colorSelection ColorManager(DisplayControl) flushCachedColors() getColorTransparent(Color) htTransparent getColorSelection() setColorSelection(Color) getColorAtomOutline(byte,Color) getColorAtom(byte,Atom) modeTransparentColors setModeTransparentColors(boolean)
	ColorManager_new_2[N]	colorNames colorArgbs getColorFromString(String) mapHtmlColors static {}
DisplayPanel[N]	DisplayPanel_new_1[N]	X_AXIS Y_AXIS Z_AXIS componentHidden(ComponentEvent) componentMoved(ComponentEvent) getHeight() getWidth() getMenuListener() menuListener print(Graphics)

		firePickedMeasure(int) measure setMeasure(Measure) addComponentListener(ComponentListener) start() getSize() guimap displaySpeed setDoubleBuffered(boolean) frontAction deselectallAction deleteAction defineCenterAction bwireframeAction bshadingAction bquickdrawAction boundboxAction bottomAction bondsAction bnoneAction bboxAction axesAction awireframeAction atomsAction ashadingAction aquickdrawAction anoneAction ainvisibleAction actypeAction acchargeAction DisplayPanel(StatusBar,GuiMap) getActions() homeAction hydrogensAction leftAction measurementsAction numbersAction perspectiveAction pickAction plainAction rightAction rotateAction selectallAction symbolsAction

		topAction typesAction vectorsAction wireframerotationAction xlateAction zoomAction
	DisplayPanel_new_2[N]	componentShown(ComponentEvent) componentResized(ComponentEvent) createImage(int,int) fmt(int) run inMotion showPaintTime control rectClip showMemoryUsage() status g2ScreenBuf biScreenBuf dimCurrent allocScreenBuf(Dimension) takeSnapshot() static{} timeLast showTimes() recordTime(int) resetTimes() timeCount timeTotal timeBegin stopPaintClock() paint(Graphics) startPaintClock() setDisplayMenuState() setDisplayControl(DisplayControl) rotate(int,double) getFrame() getDisplayControl() propertyChange(PropertyChangeEvent) setRotateMode() updateSize() wereInMotion
SharcShielding[N]	SharcShielding_new_1[N]	getOptimizationBasisSet() optimizationBasisSet

		setOptimizationBasisSet(String) separator getOptimizationMethod() optimizationMethod setOptimizationMethod(String) basisSet abInitioMethod getAbInitioMethod() setAbInitioMethod(String) getBasisSet() setBasisSet(String) SharcShielding() SharcShielding(String) getMethod() getNMRMethod() nmrMethod setNMRMethod(String)
	SharcShielding_new_2[N]	containsElement(String) getShielding(String) setShielding(String,double) shieldings
ProteinProp[N]	ProteinProp_new_1[N]	getAtomID() getAtomName() isAtomNameMatch(String) atomid ProteinProp(String) getChain() getName() getResno() getTemperature() isHetero() isResidue(String) recordPdb
	ProteinProp_new_2[N]	isResidueNameMatch(String) getResID() getResidue() resid
Preferences[N]	Preferences_new_1[N]	getInstance() instance static{} putLong(String,long) putInt(String,int) putDouble(String,double) putBoolean(String,boolean)

		put(String,String) Preferences() get(String,String) getBoolean(String,boolean) getDouble(String,double) getInt(String,int) getLong(String,long) properties storeValue(String,String) sync()
	Preferences_new_2[N]	addPreferenceChangeListener(PreferenceChangeListener) firePreferenceChange(String,String) listeners removePreferenceChangeListener(PreferenceChangeListener)
PropertyGraph[N]	PropertyGraph_new_1[N]	actionPerformed(ActionEvent) getPreferredSize() actionStates PropertyGraph(JFrame) addConflictingAction(Action) conflictingActions disableConflictingActions() restoreConflictingActions()
	PropertyGraph_new_2[N]	GPs dataFound hasGraphableProperties inputFile centerDialog() getSize() getToolkit() setLocation(int,int) pack() addWindowListener(WindowListener) gl findData() makeNewGraph() panel setContentPane(Container) setSize(int,int)
	PropertyGraph_new_3[N]	propertyChange(PropertyChangeEvent) isVisible() setChemFile(ChemFile) getAction(String)

		getActions() graphAction setVisible(boolean)
TransformDialog[N]	TransformDialog_new_1[N]	actionPerformed(ActionEvent) oldCenter show() propertyChange(PropertyChangeEvent) hasFile setVisible(boolean) control commands TransformDialog(DisplayControl,JFrame) setChemFile(ChemFile) close() getActions() transformAction
	TransformDialog_new_2[N]	pack() getContentPane() addWindowListener(WindowListener) directionTXF angleTXF makeTransformDialog() pointTXF centerDialog() getSize() getToolkit() setLocation(int,int)
	TransformDialog_new_3[N]	direction center angle rotate()
BondRenderer[N]	BondRenderer_new_1[N]	showAtoms intersectCircleLine(int,int,int,int,int,int,int,double[]) radius1 mag3d2 mag2d2 halfMag2d dz2 dz dy2 dx2 offsetAxis1 dyStep2

		dyStep1 drawLineInside(Graphics,int,int,int,int) dxStep2 dxStep1 otherHalf2 half2 dyWidth2 dyWidth1 dyOtherHalf2 dyOtherHalf1 dyHalf2 dyHalf1 dxWidth2 dxWidth1 diameter2 dxOtherHalf2 dxOtherHalf1 dxHalf2 dxHalf1 dy dx bondOrder space2 space1 step2 step1 color2 color1 ySurface1 xSurface1 radius2 mag3d distanceSurface2 mag2d offsetAxis2 distanceExit diameter1 outline2 outline1 mag2dLineSquared styleAtom2 styleAtom1 dyLine dxLine

		xSurface2 sameColor width1 xExit showAxis mag2dLine width2 y1 x1 yAxis1 xAxis1 xAxis2 calcSurfaceIntersections() stepAxisCoordinates() calcMag2dLine() calcExitPoint() lineBond() drawEndCaps() polyBond(byte) render(AtomShape,int,AtomShape,int,int) renderBond() renderHalo() resetAxisCoordinates(boolean) x2 y2 yAxis2 yExit ySurface2 z1 z2
	BondRenderer_ new_2[N]	dot(int,int,Color) g drawEndCap(int,int,int,Color,Color) shadedSphereRenderer styleBond
	BondRenderer_ new_3[N]	fastRendering colorSelection clip setGraphicsContext(Graphics,Rectangle) getRenderBondOrder(int) marBond modeMultipleBond showMultipleBonds
	BondRenderer_	applyDrawInsideCorrection

	new_4[N]	applyLineInsideCorrection calcSurface1 doffset getShades(Color,Color) htShades initializeDebugColors() maxShade offset1 offset2 control intersectionCoords drawInside(Graphics,Color,int,int[],int[]) drawInside1(Graphics,boolean,int,int,int,int) ayPoly axPoly pctLight BondRenderer(DisplayControl) serial calcLightPoint(int,int) step lenMax dyRTop dyRBot dyR dyLTop dyLBot dyL dxRTop dxRBot dxR dxLTop dxLBot dxL polyBond1(byte,Color,Color) calcNumShadeSteps() stepPolygon() xL xR yL yR
Atom[N]	Atom_new_1[N]	getCovalentRadius() getCharge() setAtomTypeName(String) setAtomicNumber(int)

		setBondOrderSum(double) setCovalentRadius(double) setExactMass(double) setMaxBondOrder(double) setProperty(Object,Object) getProteinProp() pprop setProteinProp(ProteinProp) setSymbol(String) setVanderwaalsRadius(double) setX3D(double) setY3D(double) setZ3D(double) toString() static{} zeroPoint getAtomTypeName() getSymbol() atomShape getAtomNumber() setAtomNumber(int) atomNumber baseAtomType control getScreenZ() getScreenY() getScreenX() getAtomShape() bondedAtoms Atom(DisplayControl,Atom,int,double,double,do uble,ProteinProp) Atom(DisplayControl,Atom) getBondedCount() getBondedAtoms() delete() deleteBondedAtom(Atom) clearBondedAtoms() addBondedAtom(Atom,int) bondOrders getBondOrder(Atom) getBondedAtom(int) isBondedAtom(Atom) getScreenDiameter() getScreenRadius()

	Atom_new_2[N]	getVectorMagnitude() getScaledVector() getVector() hasVector() setVector(Point3d) vector
	Atom_new_3[N]	hasProperty(String) addProperty(PhysicalProperty) getAtomicProperties() getProperty(String) properties setProperties(Vector)
ModelManager[N]	ModelManager_new_1[N]	getModelName() getNumberOfFrames() nframes currentFrameNumber getCurrentFrameNumber() setMinBondDistance(double) setBondTolerance(double) setBondFudge(double) setAutoBond(boolean) autoBond bondFudge bondTolerance minBondDistance chemframe chemfile control getChemFile() getChemFileIterator() getFrames() getRotationCenter() getRotationRadius() ModelManager(DisplayControl) setCenterAsSelected() numberOfAtoms() rebond() getCurrentFrameAtoms() getChemFrameIterator(BitSet,boolean) getChemFrameIterator(BitSet) findNearestAtomIndex(int,int) findAtomsInRectangle(Rectangle) deleteAtom(int) getBoundingBoxCenter()

		getBoundingBoxCorner() haveFile haveFile() setChemFile(ChemFile) setFrame(int) setRotationCenter(Point3d)
	ModelManager_new_2[N]	addPropertyChangeListener(PropertyChangeListener) addPropertyChangeListener(String,PropertyChangeListener) pcs removePropertyChangeListener(PropertyChangeListener) removePropertyChangeListener(String,PropertyChangeListener) setFrame(ChemFrame)
AtomShape[Y]	AtomShape_new_1[N]	setMarAtom(short) marAtom setStyleMarAtom(byte,short) getRasMolRadius() setStyleAtom(byte) styleAtom
	AtomShape_new_[N]	bondWidths colorBonds numBonds marBonds setColorBond(Color,int) setColorAllBonds(Color) setMarBond(short,int) setMarAllBonds(short) deleteBond(int) setStyleMarAllBonds(byte,short) setStyleMarBond(byte,short,int) setStyleAllBonds(byte) setStyleBond(byte,int) styleBonds
Compiler[N]	Compiler_new_1[N]	getLineIndices() lineIndices getLineNumbers() lineNumbers strToken clauseAnd() clauseNot() clauseOr()

		clauseWildcard() endOfExpressionExpected() atokenInfix loadFormats logMessages Compiler() addTokenToPostfix(Token) ltokenPostfix compileExpression(int) clauseResSpec() itokenInfix tokenNext()
	Compiler_new_2[N]	invalidResidueNameSpecification(String) invalidExpressionToken(String) commandExpected() cannotShow(String) cannotSet(String) aatokenCompiled getAatokenCompiled() filename errorLine ichToken lineCurrent getErrorMessage() compileError(String) error errorMessage ichCurrentCommand cchScript cchToken compile(String,String) lookingAtLoadFormat() compile0() lookingAtComment() lookingAtEndOfLine() lookingAtEndOfStatement() lookingAtLeadingWhitespace() lookingAtLookupToken() lookingAtNegativeInteger() lookingAtPositiveDecimal() lookingAtPositiveInteger() lookingAtSpecialString() lookingAtString() script

		unrecognizedToken()
Eval[N]	Eval_new_1[N]	animatePlay(boolean) background() control logMessages scriptLevelMax notImplemented(int) statement hasTerminationNotification() resetTerminationNotification() terminationNotification getExecutionWalltime() timeBeginExecution timeEndExecution predefine(Token[]) lookupValue(String,boolean) variables errorLoadingScript(String) unrecognizedSetParameter() setspecialShouldNotBeHere() numberExpected() unrecognizedSubcommand() badAtomNumber() unrecognizedExpression() undefinedVariable() colorExpected() filenameExpected() booleanOrNumberExpected() booleanOrPercentExpected() axisExpected() booleanExpected() invalidArgument() integerExpected() badArgumentCount() getTemperature(Atom) getResno(Atom) getResID(Atom) getAtomID(Atom) copyBitSet(BitSet) numberOutOfRange() compiler loadScript(String,String) run() Eval(DisplayControl)

		getResidueWildcard(String) getResidueSet(String) loadScriptFileInternal(String) refresh() zap() reset() notSet(BitSet) getSpecNumber(int) getSpecName(String) getSpecChain(char) getSpecAtom(String) getResidueSet(int,int) getResidueSet(int) getHydrogenSet() getHeteroSet() isWithin(double,Point3d,BitSet) restrict() setWireframerotation() setShowVectors() setShowSelections() setShowMeasurements() setShowHydrogens() setPerspectivedepth() setMonitor() setHydrogen() setHetero() setDisplay() setBoundbox() setBonds() unrecognizedCommand(Token) withinInstruction(Token,BitSet,BitSet) define() clearDefinitionsAndLoadPredefined() script() select() center() notImplemented(Token) label() getSetBoolean() set() getColorParam(int) getColorOrNoneParam(int) setBondmode() setAxes()

		colorAtom(int) color() move() setFontsize() monitor() rotate() slab() translate() load() echo() instructionDispatchLoop() animate() delay() spacefill() comparatorInstruction(Token,BitSet) expression(Token[],int) wireframe() zoom()
	Eval_new_2[N]	IOError(String) loadScriptString(String) loadScriptFile(String) FileNotFound(String) aatoken stack getErrorMessage() clearState() LoadError(String) error errorMessage hadRuntimeError() scriptLevel lineIndices script getLine() getLinenumber() linenumbers pc popContext() pushContext() toString()
	Eval_new_3[N]	interruptExecution haltExecution() clearMyThread() isActive()

		myThread start()
BaseAtomType[N]	BaseAtomType_new_1[N]	getAtomicNumber() getAtomTypeName() getVanderwaalsRadius() getSymbol() getExactMass() getCovalentRadius() setVanderwaalsRadius(double) setExactMass(double) setCovalentRadius(double) setAtomicNumber(int) getID() atomicNumber color equals(Object) setColor(Color) getColor() get(AtomType) BaseAtomType(String,String) hashCode hashCode() toString() setSymbol(String)
	BaseAtomType_new_2[N]	get(String,String,int,double,double,double) set(String,int,double,double,double) exists(String) get(int) get(String,String) static{} typePool
AtomTypeList[N]	AtomTypeList_new_1[N]	SAU AtomTypeList() AtomTypeList(File) getElementAt(int) ReadAtypes(String) addElement(BaseAtomType) data elements() getSize() removeAllElements() setElementAt(BaseAtomType,int)
	AtomTypeList_new_2[N]	getInstance() getInstance(File)

		instance static {}
	AtomTypeList_new_3[N]	get(int) get(String) configure(Atom) logger
AtomTypesModel[N]	AtomTypesModel_new_1[N]	fireTableRowsUpdated(int,int) isCellEditable(int,int) fireTableRowsDeleted(int,int) nextEmptyRow clear() AtomTypesModel() isValidRow(int) numRows
	AtomTypesModel_new_2[N]	NUM_COLUMNS getColumnCount() classes getColumnClass(int) getColumnName(int) isValidColumn(int) names static {}
BandPlotEPSRenderer[Y]	BandPlotEPSRenderer_new_1[Y]	ebp replaceCharString(String,char,String) scalex scaley x xorigin y yorigin dummyFrame BandPlotEPSRenderer(BandPlot,double,double,File) drawHorizontalSeparation(int,double,double) drawHorizontalTics(int,double,double,int) drawHorizontalTicsLabel(double,String,int) drawLineA(double,double,double,double,int) drawLineR(double,double,double,double,int) drawText(String,int,double,double,int,double) drawVerticalAxisLabel(String,int) drawVerticalSeparation(int) drawVerticalTics(int,boolean,int) drawVerticalTicsLabels(int,int) getMaxFontHeight(String,int)

		getX() getX(double) getY() getY(double) render() setFont(String,int) setLineWidth(int)
	BandPlotEPSRenderer_new_2[N]	file generateEPS() plotHeight plotLength w writeLine(String)
CrystalPropertiesDialog[N]	CrystalPropertiesDialog_new_1[N]	actionPerformed(ActionEvent) chooser makeSpaceGroupPanel() show() centerDialog() getSize() getToolkit() setLocation(int,int) tabbedPane commands getAction(String) setVisible(boolean) isShowing() errorDialog(String) pack() getContentPane() addWindowListener(WindowListener) currentFrame jNatomInClipLBL jNatomInBoxLBL crystalBox jNatomInCellLBL basisVector_ApplyToWhichFrameCBO basisVectorType_CBO unitCellBox chemFile jUnitBox_VEC_LBL jBondBox_VEC_LBL jAtomBox_VEC_LBL jRprim_VEC_LBL jEdges_VEC_LBL

		jAngles_VEC_LBL jAcell_VEC_LBL hasFile applyToList basisVectorTableModel crystalBox_ApplyToWhichFrameCBO crystalFile control jUnitBox_VEC_TXF jBondBox_VEC_TXF jRprim_VEC_TXF jEdges_VEC_TXF jAngles_VEC_TXF jAcell_VEC_TXF jAtomBox_VEC_TXF currentFrameIndex origAtomsOnlyCKB setCrystalBoxState() thisDialog primitiveVectors_ApplyToWhichFrameCBO primitiveVectorTypeCBO makeBasisVectorsPanel() propertyChange(PropertyChangeEvent) getActions() close() crystpropAction hasCrystalInfo updateCurrentFrameIndex() setChemFile(ChemFile) restoreInFile() updateBasisVectorsPanel() updateDialog() updateCrystalBoxPanel() makeCrystalBoxPanel() commitChange() updateBarePanels() CrystalPropertiesDialog(DisplayControl,JFrame) makePrimVectorsPanel() setPrimVectorsState() updatePrimVectorsPanel()
	CrystalPropertiesDialog_new_2[N]	hasEnergyBand energyLinesTableModel energyBand fermiETXF

		minETXF maxETXF unitsComboOldIndex updateEnergyBandPanel() unitsCBO fileChooserReturnVal bandPlot fontsize3TXF fontsize2TXF fontsize1TXF sectionSepTXF roundSchemeCBO resolutionTXF ratioTXF plotDefTXF nvTicsTXF nhTicsTXF nRoundTXF makeEnergyBandPanel() showEnergyBandPlot() ticSizeTXF yLabelTXF yLabels
AppletCanvas[N]	AppletCanvas_new_1[N]	AppletCanvas() allocateBuffer() dimCurrent isDoubleBuffered() isOpaque()
	AppletCanvas_new_2[N]	update(Graphics) control setDisplayControl(DisplayControl) graphicsOffscreen bufferOffscreen paint(Graphics) updateSize()