Table 9 The Move Method/Field refactoring suggestions for Jmol

Method/Field	Source Class	Target Class
JmolResourceHandler.getIcon	JmolResource Handler	org.openscience.jmol.app.Jmol_new_1
JmolResourceHandler.translate	JmolResource Handler	org.openscience.jmol.app.Jmol_new_1
HelpDialog.show	HelpDialog	org.openscience.jmol.app.ScriptWindow_new_2
FileTyper.setLayout	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.add	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.getType	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.fileType	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.defaultTypeIndex	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.choices	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.fileTypeLabel	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.fileTypeComboBox	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.itemStateChanged	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.setUseFileExtension	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.propertyChange	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.useFileExtension	FileTyper	org.openscience.jmol.app.Vibrate_new_1
FileTyper.useFileExtensionChec kBox	FileTyper	org.openscience.jmol.app.Vibrate_new_1
GuiMap.newJCheckBox	GuiMap	org.openscience.jmol.app.PreferencesDialog_new_1
BoundingBox.pointCorner	BoundingBox	org.openscience.jmol.render.Axes_new_1
BoundingBox.pointOrigin	BoundingBox	org.openscience.jmol.render.Axes_new_1
AxesManager.setShowBoundin gBox	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.showBoundingBo x	AxesManager	org.openscience.jmol.render.Axes_new_1

Method/Field	Source Class	Target Class
AxesManager.colorAxesText	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.colorAxes	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.setColorAxes	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.setColorAxesText	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.modeAxes	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.bbox	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.axes	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.setModeAxes	AxesManager	org.openscience.jmol.render.Axes_new_1
AxesManager.control	AxesManager	org.openscience.jmol.render.Axes_new_1
BoundingBox.getBboxShapes	BoundingBox	org.openscience.jmol.render.Axes_new_1
BoundingBox.bboxShapes	BoundingBox	org.openscience.jmol.render.Axes_new_1
AxesManager.recalc	AxesManager	org.openscience.jmol.render.Axes_new_1
BoundingBox.control	BoundingBox	org.openscience.jmol.render.Axes_new_1
BoundingBox.recalc	BoundingBox	org.openscience.jmol.render.Axes_new_1
BoundingBox.unitBboxPoints	BoundingBox	org.openscience.jmol.render.Axes_new_1
Angle.sameAs	Angle	org.openscience.jmol.app.MeasurementList_new_1
Angle.getAtomList	Angle	org.openscience.jmol.app.MeasurementList_new_1
Angle.toString	Angle	org.openscience.jmol.app.MeasurementList_new_1
Distance.sameAs	Distance	org.openscience.jmol.app.MeasurementList_new_1
Angle.Atoms	Angle	org.openscience.jmol.render.Distance_new_1
Angle.getAngle	Angle	org.openscience.jmol.render.Distance_new_1
Angle.angle	Angle	org.openscience.jmol.render.Distance

Method/Field	Source Class	Target Class
		_new_1
MeasurementManager.angleMeasurements	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.control	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.defineMeasure	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.defineMeasure	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.defineMeasure	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.dihedralMeasurements	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.clearMeasurements	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.defineMeasure	MeasurementManager	org.openscience.jmol.render.Distance_new_1
MeasurementManager.distanceMeasurements	MeasurementManager	org.openscience.jmol.render.Distance_new_1
Angle.static	Angle	org.openscience.jmol.render.Distance_new_1
Angle.angleFormat	Angle	org.openscience.jmol.render.Distance_new_1
Angle.atom_new_4	Angle	org.openscience.jmol.render.Distance_new_1
Angle.atom_new_3	Angle	org.openscience.jmol.render.Distance_new_1
Angle.atom_new_2	Angle	org.openscience.jmol.render.Distance_new_1
Angle.paint	Angle	org.openscience.jmol.render.Distance_new_1
Angle.paintAngleLine	Angle	org.openscience.jmol.render.Distance_new_1
Angle.paintAngleString	Angle	org.openscience.jmol.render.Distance_new_1
Angle.strAngle	Angle	org.openscience.jmol.render.Distance_new_1
AtomPropsMenu.remove	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1
AtomPropsMenu.add	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1
AtomPropsMenu.control	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1

Method/Field	Source Class	Target Class
AtomPropsMenu.propsListener	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1
AtomPropsMenu.list	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1
AtomPropsMenu.bg	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1
AtomPropsMenu.replaceList	AtomPropsMenu	org.openscience.jmol.app.CalculateChemicalShifts_new_1
SharcReader.entryLine	SharcReader	org.openscience.jmol.app.CalculateChemicalShifts_new_1
SharcReader.hasNext	SharcReader	org.openscience.jmol.app.CalculateChemicalShifts_new_1
SharcReader.hasMore	SharcReader	org.openscience.jmol.app.CalculateChemicalShifts_new_1
SharcReader.findNextEntry	SharcReader	org.openscience.jmol.app.CalculateChemicalShifts_new_1
SharcReader.input	SharcReader	org.openscience.jmol.app.CalculateChemicalShifts_new_1
SharcReader.next	SharcReader	org.openscience.jmol.app.CalculateChemicalShifts_new_1
LabelManager.getLabelAtom	LabelManager	org.openscience.jmol.ProteinProp_new_1
CrystalFrame.centerBoundingBox	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.cornerBoundingBox	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.boxEdges	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.getBoxEdges	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.addAtom	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.calcBoundingBox	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.calcRadius	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.setFrameProperties	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.setInfo	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.setBoxEdges	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.getRprimd	CrystalFrame	org.openscience.jmol.app.Animate_n

Method/Field	Source Class	Target Class
		ew_1
CrystalFrame.rprimd	CrystalFrame	org.openscience.jmol.app.Animate_new_1
CrystalFrame.setRprimd	CrystalFrame	org.openscience.jmol.app.Animate_new_1
LoopedStreams.startByteArrayReaderThread	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
LoopedStreams.byteArrayOS	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
LoopedStreams.getOutputStream	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
LoopedStreams.getInputStream	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
LoopedStreams.pipedIS	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
LoopedStreams.keepRunning	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
LoopedStreams.pipedOS	LoopedStreams	org.openscience.jmol.app.ConsoleTextArea_new_1
SphereG2D.maxShadingBufferSize	SphereG2D	org.openscience.jmol.render.ShadedSphereRenderer_new_1
SphereG2D.minShadingBufferSize	SphereG2D	org.openscience.jmol.render.ShadedSphereRenderer_new_1
SphereG2D.drawClippedSphereG2D	SphereG2D	org.openscience.jmol.render.ShadedSphereRenderer_new_1
SphereG2D.imageSphereG2D	SphereG2D	org.openscience.jmol.render.ShadedSphereRenderer_new_1
Atom.getAtomicNumber	Atom	org.openscience.jmol.render.AtomVectorShape_new_1
ChemFrameRenderer.paint	ChemFrameRenderer	org.openscience.jmol.render.AtomVectorShape_new_1
ChemFrameRenderer.shapes	ChemFrameRenderer	org.openscience.jmol.render.AtomVectorShape_new_1
ChemFrameRenderer.shapesVector	ChemFrameRenderer	org.openscience.jmol.render.AtomVectorShape_new_1
ChemFrameRenderer.static	ChemFrameRenderer	org.openscience.jmol.render.AtomVectorShape_new_1
ChemFrameRenderer.zeroPoint	ChemFrameRenderer	org.openscience.jmol.render.AtomVectorShape_new_1
Atom.isHydrogen	Atom	org.openscience.jmol.render.AtomVectorShape_new_1
Atom.getDimValue	Atom	org.openscience.jmol.ModelManager_new_1

Method/Field	Source Class	Target Class
Atom.getPoint3D	Atom	org.openscience.jmol.ModelManager_new_1
AtomShape.atom	AtomShape	org.openscience.jmol.render.AtomRenderer_new_1
AtomShape.colorAtom	AtomShape	org.openscience.jmol.render.AtomRenderer_new_1
AtomShape.setColorAtom	AtomShape	org.openscience.jmol.Distributor_new_1
Atom.getVanderwaalsRadius	Atom	org.openscience.jmol.render.AtomShape_new_1
Distributor.setStyleMarAtom	Distributor	org.openscience.jmol.render.AtomShape_new_1
Distributor.setMarAtom	Distributor	org.openscience.jmol.render.AtomShape_new_1
Distributor.setStyleAtom	Distributor	org.openscience.jmol.render.AtomShape_new_1
Distributor.setColorBond	Distributor	org.openscience.jmol.render.AtomShape_new_2
Distributor.setStyleMarBond	Distributor	org.openscience.jmol.render.AtomShape_new_2
Distributor.setMarBond	Distributor	org.openscience.jmol.render.AtomShape_new_2
Distributor.setStyleBond	Distributor	org.openscience.jmol.render.AtomShape_new_2
AtomShape.isBondClipVisible	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.rectTemp	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.static	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.setLabel	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.strLabel	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.x	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.y	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.diameter	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.z	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.isClipVisible	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.renderBonds	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.toString	AtomShape	org.openscience.jmol.Atom_new_1
AtomShape.transform	AtomShape	org.openscience.jmol.Atom_new_1
LabelRenderer.colorLabel	LabelRenderer	org.openscience.jmol.Atom_new_1
LabelRenderer.isLabelAtomColor	LabelRenderer	org.openscience.jmol.Atom_new_1
Compiler.atokenCommand	Compiler	org.openscience.jmol.script.Eval_new_1

Method/Field	Source Class	Target Class
Compiler.badArgumentCount	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.residueSpecificationExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.identifierOrResidueSpecificationExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.invalidAtomSpecification	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.resnoSpecificationExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.unrecognizedExpressionToken	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.invalidChainSpecification	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.badRGBColor	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.integerExpectedAfterHyphen	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.integerExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.comparisonOperatorExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.numberExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.leftParenthesisExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.commaExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.rightParenthesisExpected	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.tokPeek	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.compileExpression	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.compileColorParam	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.compileCommand	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseResName	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseAtomSpec	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.processIdentifier	Compiler	org.openscience.jmol.script.Eval_new

Method/Field	Source Class	Target Class
		_1
Compiler.clausePrimitive	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseResNo	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseChain	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseComparator	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseInteger	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.compileRGB	Compiler	org.openscience.jmol.script.Eval_new_1
Compiler.clauseWithin	Compiler	org.openscience.jmol.script.Eval_new_1
Eval.evalError	Eval	org.openscience.jmol.script.ScriptException_new_1
Eval.filename	Eval	org.openscience.jmol.script.ScriptException_new_1
JmolPopup.popupSwing	JmolPopup	org.openscience.jmol.ui.JmolPopupAwt_new_1
JmolPopup.popupAwt	JmolPopup	org.openscience.jmol.ui.JmolPopupAwt_new_1
JmolPopup.show	JmolPopup	org.openscience.jmol.ui.JmolPopupAwt_new_1
JmolPopup.useSwing	JmolPopup	org.openscience.jmol.ui.JmolPopupAwt_new_1
ABINITInputReader.acell	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.angdeg	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.crystalFile	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.fieldVal	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.info	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.inputBuffer	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.line	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.natom	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1

Method/Field	Source Class	Target Class
ABINITInputReader.ntype	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.repVal	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.st	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.rprim	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.nextAbinitInputToken	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
ABINITInputReader.read	ABINITInputReader	org.openscience.jmol.UnitCellBox_new_1
BaseAtomType.getMaxBondOrder	BaseAtomType	org.openscience.jmol.AtomTypeList_new_3
BaseAtomType.getBondOrderSum	BaseAtomType	org.openscience.jmol.AtomTypeList_new_3
AtomTypesModel.elements	AtomTypesModel	org.openscience.jmol.AtomTypeList_new_1
AtomTypesModel.getRowCount	AtomTypesModel	org.openscience.jmol.AtomTypeList_new_1
AtomTypeList.SaveAtypes	AtomTypeList	org.openscience.jmol.BaseAtomType_new_1
AtomTypesModel.getValueAt	AtomTypesModel	org.openscience.jmol.BaseAtomType_new_1
AtomTypesModel.setValueAt	AtomTypesModel	org.openscience.jmol.BaseAtomType_new_1
AtomTypesModel.update	AtomTypesModel	org.openscience.jmol.app.AtomTypeTable_new_1
AtomTypeTable.setUpDoubleEditor	AtomTypeTable	org.openscience.jmol.app.DecimalNumberField_new_1
AtomTypeTable.setUpIntegerEditor	AtomTypeTable	org.openscience.jmol.app.WholeNumberField_new_1
MathUtil.arrayToMatrix3D	MathUtil	org.openscience.jmol.CrystalFile_new_1
MathUtil.intInf	MathUtil	org.openscience.jmol.CrystalFile_new_1
MathUtil.intSup	MathUtil	org.openscience.jmol.CrystalFile_new_1
MathUtil.mulVec	MathUtil	org.openscience.jmol.CrystalFile_new_1
BandPlotG2DRenderer.setGraphics2D	BandPlotG2DRenderer	org.openscience.jmol.app.BandPlotPanel_new_1
BandPlot.BIGSEP	BandPlot	org.openscience.jmol.app.CrystalPro

Method/Field	Source Class	Target Class
		pertiesDialog_new_2
BandPlot.NONE	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.VLINE	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.minE	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.maxE	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.ticSize	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.fontsize_new_3	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.roundScheme	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.nRound	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.fontsize_new_2	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.fontsize_new_4	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.bigSepSize	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
EnergyBand.energyUnits	EnergyBand	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
EnergyBand.getEnergyUnits	EnergyBand	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.yLabel	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.nvtics	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.nhtics	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.fermiE	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.conversionFactor	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.energyBand	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.bandPlotSections	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2
BandPlot.bigSepNumber	BandPlot	org.openscience.jmol.app.CrystalPro pertiesDialog_new_2

Method/Field	Source Class	Target Class
BandPlot.energyUnits	BandPlot	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
BandPlot.parse	BandPlot	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
BandPlot.plotDef	BandPlot	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
Units.getCF	Units	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
Units.getConversionFactor	Units	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
EnergyBand.fermiE	EnergyBand	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
EnergyBand.getFermiE	EnergyBand	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
EnergyBand.setFermiE	EnergyBand	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
BandPlotG2DRenderer.getJPanel	BandPlotG2DRenderer	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
Units.getEnergyList	Units	org.openscience.jmol.app.CrystalPropertiesDialog_new_2
Units.getFormatedEnergyList	Units	org.openscience.jmol.app.CrystalPropertiesDialog_new_2