

Class	Member Functions	
gui:OpenAI	main()	
gui:AIDesktop	extends JFrame addDataModelListener() addFrame() createNetworkFrameSet() - private displayProperties() fireDataModelEvent() getAIMenuBar() getFrame() getInstance() getModel() getStatusBar() initFrame() - private removeDataModelListener() requestNetworkPaneRefresh() setModel()	
gui:AIFrame	extends JInternalFrame internalFrameActivated() internalFrameClosed() internalFrameClosing() internalFrameDeactivated() internalFrameDeiconified() internalFrameIconified() internalFrameOpened()	implements InternalFrameListener
gui:SplashScreen	dispose() run()	
gui:LogFrame	extends AIFrame append() getAppender() setFormat()	
gui:PropertyFrame	extends AIFrame getPropertyHandler() init() setClientObject() setPropertyHandler()	
gui:NotesPane	extends JInternalFrame	
gui:NotesFrame	extends JInternalFrame getNotesPane() internalFrameActivated()	implements InternalFrameListener

internalFrameClosed()
internalFrameClosing()
internalFrameDeactivated()
internalFrameDeiconified()
internalFrameIconified()
internalFrameOpened()

gui:ImageFrame extends Applet
init()
paint()

gui:data:DataObject (Interface)
getID()
getParent()
getSibling()
setID()
setParent()

gui:data:AbstractDataObject implements DataObject
getID()
getParent()
getSibling() [sic]
setID()
setParent()

gui:data:Drawable
contains()
getSelected()
paint()
setSelected()

gui:data:AbstractDrawable implements Drawable
contains()
getSelected()
setSelected()

gui:data:GUINeuron (Interface) extends DataObject, Drawable
addConnection()
getConnections()
getNeuron()
getScalePosition()
getType()
getX()
getY()
removeConnection()
setX()
setY()

gui:data:GUIConnection extends AbstractDrawable

ceil()
getConnection
getFromNeuron()
getToNeuron()
getValue()
paint()
reconnect()
setValue()

gui:data:AbstractGUINeuron extends AbstractDataObject implements GUINeuron

addConnection()
getConnectionState()
getConnections()
getID()
getLayerID()
getNeuron()
getSelected()
getType()
getX()
getY()
removeConnection()
setID()
setSelected()
setX()
setY()

gui:data:DefaultGUINeuron extends AbstractGUINeuron implements ConnectionEventListener

contains()
handleConnectionEvent()
paint()

gui:data:DataContainer extends AbstractDataObject

get()
iterator()
put()
remove()
reorder()
size()

gui:data:GUILayer extends DataContainer implements NeuronEventListener

addNeuron()
checkNeuronPosition()
getID()
getLayer()
getName()
getNeuron()
getSelected()
getSelectedNeurons()
handleNeuronEvent()

reconnect()
setID()
setSelected()

gui:data:GUINetwork

extends DataContainer
addLayer()
checkConnectionPosition()
checkNeuronPosition()
clearSelection()
getAllConnections()
getAllNeurons()
getLayer()
getNetwork()
getSelectedConnection()
getSelectedLayer()
getSelectedNeurons()
getSettings()
handleLayerEvent()

implements LayerEventListener

gui:data:DataModel

addDrawableObject()
doneRefresh()
getDrawableObject()
getGUINetwork()
getNetwork()
getTestSet()
getTrainingSet()
getWidgets()
isRefreshNeeded()
removeDrawableObject()
requestRefresh()
setGUINetwork()
setNetwork()
setTestSet()
setTrainingSet()

gui:data:NetworkSettings

getLayoutXSpace()
getLayoutYSpace()
getNeuronSize()
getWeightBoundary()
getWeightDigits()
getZoom()
isHideWeights()
isLayoutVerticle()
setHideWeights()
setLayoutVerticle()
setLayoutXSpace()
setNeuronSize()

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setWeightBoundary()
setWeightDigits()
setZoom()
```

```
gui:event:DataModelEvent extends EventListener
    getType()
```

```
gui:event:DataModelListener
    handleDataModelEvent()
```

```
gui:dataeditors:DataSetCellRenderer extends DefaultTableCellRenderer
    getTableCellRendererComponent()
```

```
gui:dataeditors:DataSetTableModel extends javax.swing.AbstractTableModel
    adoptNetworkStructure()
    delete()
    getColumnCount()
    getColumnName()
    getDataSet()
    getRowCount()
    getValueAt()
    insert()
    isCellEditable()
    isDesired()
    isInput()
    isOutput()
    setDataSet()
    setValueAt()
```

```
gui:dataeditors:DataSetEditor extends AIFrame implements AIToolbarListener
    adoptNetworkStructure()
    copyRows()
    createNew()
    getDataSet()
    init()
    loadAsciiDataSet()
    loadDataSet()
    saveDataSet()
    setDataSet()
```

```
gui:dataeditors:TestSetEditor extends DataSetEditor implements DataModelListener
    doCopy()
    handleDataModelEvent()
    setDataSet()
```

```
gui:dataeditors:TrainingSetEditor extends DataSetEditor implements DataModelListener
    doCopy()
    handleDataModelEvent()
    setDataSet()
```

gui:dialogs:AbstractWizard extends JDialog implements ActionListener
actionPerformed()
addButton()
addItem()
buttonClicked()
center()
closeDialog()
setInfo()
show()

gui:dialogs:AddLayer extends AbstractWizard
buttonClicked()
initComponents()
setInsertAt()

gui:dialogs>CreateNetwork extends AbstractWizard
buttonClicked()
createNetwork()
initComponent()

gui:graph:ErrorGraph implements AIFrame, Extends IterationEventListener, AIToolbarListener, DataModelListener
clear()
handleDataModelEvent()
handleIterationEvent()
repaint()

gui:graph:GraphPoint (Interface)
getX()
getY()

gui:graph:GraphPointRender implements GraphRender
convertToGraphPoints()
getGraphData()
getGraphPoints()
setGraphData()

gui:graph:GraphRender (Interface)
getGraphData()
renderGraph()
setGraphData()

gui:graph:GraphViewer extends JPanel
getRender()
paint()
setGraphBounds()
setGraphData()
setRender()

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gui:graph:MultipleGraphViewer      extends JPanel
    addRenderer()
    clear()
    getRenderer()
    paint()
    setGraphBounds()
    setGraphdata()

gui:graph:SegmentGraphPointRenderer  extends GraphPointRenderer
    getColor()
    main()
    renderGraph()
    renderLine()
    setColor()

gui:graph:SimpleGraphPoint implements GraphPoint
    getX()
    getY()
    setX()
    setY()
    toString()

gui:properties:ClassSelector extends javax~JavaComboBox
    getSelectedInstance() [sic]

gui:properties:ClassSelectorM extends javax~AbstractList implements javax~JavaComboBox
    getElementAt()
    getSelectedItem()
    getSize()
    setEntries()
    setSelectedItem()

gui:properties:Property
    getGetter()
    getInfo()
    getName()
    getSelect()
    getSelectionvalue()
    getSetter()
    getType()
    getValue()
    initDescriptor()
    setGetter()
    setInfo()
    setName()
    setSelect()
    setSelectionValue()
    setSetter()
    setType()

```

setValue()

gui:properties:PropertyCellEditor extends javax.swing implements TableCellEditor
getCellEditor()
getTableCellEditorComponent()

gui:properties:PropertyCellRenderer extends DefaultTableCellEditor
getTableCellRendererComponent()

gui:property:PropertyEditor extends javax.swing.JPanel, javax.swing.TreeSelectionListener, javax.swing.TableModelListener
getClassWithoutPackage()
getPropertyHandler()
init()
setClientObject()
setPropertyHandler()
tableChanged()
updateTreeChildren()
valueChanged()

gui:properties:PropertyFile
getLists()
getSelections()
setLists()
setSelections()

gui:properties:PropertyHandler
addPropertyDefinition()
getPropertyList()
getSelectionList()

gui:properties:PropertyList
add()
getClientClass()
getClientClassName()
getProperties()
setClientClassName()
setProperties()

gui:properties:PropertyTable extends javax.swing.JTable
getSelectedProperty()
init()
setClientObject()

gui:properties:PropertyTableModel extends javax.swing.AbstractTableModel
getColumnCount()
getColumnName()
getPropertyAt()
getRowCount()
getValueAt()

isCellEditable()
setClientObject()
setValueAt()

gui:properties:PropertyTree extends DefaultTree
getRoot()
setPropertyList()

gui:properties:SelectionEntry
getName()
getValue()
setName()
setValue()

gui:property:SelectionList
getEntries()
getEntryFromName()
getEntryFromValue()
getName()
setEntries()
setName()

gui:scripting:ScriptTree extends widgets.DefaultTree
getSelectedFile()
refresh()
setPath()

gui:scripting:ScriptTreeModel extends widgets.AbstractTreeModel
getFile()
scanDir()

gui:scripting:SourceEditor extends AIFrame implements AIToolbarListener, CaretListener
caretUpdate()
getFileName()
getScriptDirectory()
getScriptFiles()
init()
makeScriptingMenu()
run()
runScript()

gui:topology:AITree extends widgets.D implements KeyListener
keyPressed()
keyReleased()
keyTyped()

gui:topology:AITreeModel extends widgets.A implements LayerEventListener, NeuronEventListener
getModel()
handleLayerEvent()

```

        setModel()

gui:topology:GridLayout    implements Layouter
                           doLayout()

gui:topology:Layouter (Interface)
                           doLayout()

gui:topology:NetworkFrame extends AIFrame implements AIToolbarListener, DataModelListener
                           getNetworkPane()
                           handleDataModelEvent()
                           loadNetwork()
                           repaint()
                           saveNetwork()

gui:topology:NetworkPane extends JPanel
                           getGUINetwork()
                           getModel()
                           paint()
                           setModel()

gui:topology:NetworkPaneRe extends Thread
                           run()
                           setState()

gui:topology:NetworkThread extends Thread implements TerminatedEventListener, IterationEventListener
                           getCounter()
                           haltIteration()
                           handleIterationEvent()
                           handleTerminatedEvent()
                           isIterating()
                           resetCounter()
                           run()
                           setNetwork()
                           singleIteration()
                           starIteration()

gui:topology:NetworkTools implements AIPopupMenuListener
                           addNeuronToLayer()
                           createNewModel()
                           deleteNeuronsFromLayer()
                           doWeightChange()
                           GridLayout()
                           init()
                           removeLayer()
                           selectLayer()
                           selectNeuron()
                           show()
                           showLayerWizzard() [sic]

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gui:widgets:AbstractTreeModel extends DefaultTreeModel
 getNode()
 getPath()

gui:widgets:AIFileRequester
 getFile()

gui:widgets:AIMenuBar extends JMenuBar implements AIToolbarListener
 addMenu()
 appendMenu()
 buildMenus()
 buildToolBar()
 loadProject()
 makeEditMenu()
 makeFileMenu()
 makeHelpMenu()
 makeWindowMenu()
 saveProject()
 setContextToolBar()

gui:widgets:AIMenuItem extends JMenuBar
 addToolBarListener()
 setIcon()

gui:widgets:AIPopupMenu extends PopupMenu
 add()
 addPopupMenuListeners()
 firePopupEvent()
 removePopupMenuListener()

gui:widgets:AIPopupMenuListener extends EventListener

gui:widgets:AIToolbar extends JToolBar
 addToolBarListener()
 defineButton()
 removeActionListener()
 removeAll()
 setButtonEnabled()
 setToolText()

gui:widgets:AIToolbarListener (Interface)

gui:widgets:AITreeCellRenderer extends DefaultTreeCellRenderer
 getTreeCellRendererComponent()
 setProperties()

gui:widgets:AITreeNode extends DefaultMutableTreeNode
 getChildFromID()

	<ul style="list-style-type: none"> getComponent() getID() getIcon() getName() setComponent() setID() setIcon() setName() toString()
gui:widgets:DefaultTree	<ul style="list-style-type: none"> extends Jtree expandNode() getSelectedNode()
gui:widgets:FrameSwitcher	<ul style="list-style-type: none"> extends Jtoolbar get() getButton() iterator() put()
gui:widgets:Icons	<ul style="list-style-type: none"> getIcon()
gui:widgets:SimpleFileFilter	<ul style="list-style-type: none"> extends FileFilter implements java.io.FileFilter accept() addExtension() getDescription() isExtensionListInDescription() setDescription() setExtensionListInDescription()
gui:widgets:StatusBar	<ul style="list-style-type: none"> extends JPanel clear() info() initComponents() setText1() setText2()
architecture:Architecture	<ul style="list-style-type: none"> implements Serializable connectAll() connectNetwork() createDefaultConnections() disconnectAllFrom() disconnectAllTo() iterateNetwork() reconnectNetwork()
architecture:FeedForwardArc	<ul style="list-style-type: none"> extends Architecture addConnectionEventListener()

connectAll()
connectNetwork()
createDefaultConnections()
db()
disconnectAllFrom()
disconnectAllTo()
fireConnectionEvent()
iterateNetwork()
printConnections()
printNetworkConnections()
reconnectNetwork()
removeConnectionEventListener()

data:DataElement

implements Serializable
getDesired()
getInput()
getOutput()
setDesired()
setInput()
setOutput()
toString()

data:DataSet

implements Serializable
addElement()
addElementAt()
addInputCategory()
addOutputCategory()
checkElement()
cloneStructure()
getElements()
getInputCategories()
getNewElement()
getOutputCategories()
isEmpty()
remove()
removeInputCategory()
removeOutputCategory()
setElements()
setInputCategories()
setOutputCategories()
size()

error:ErrorType

implements Serializable
calculateError()
db()

error:MeanSquarErrorType

extends ErrorType
calculateError()

input:DotProductionInputFu	extends InputFunction calculateInput()
input:InputFunction	implements Serializable calculateInput() db()
iterator:BatchNetworkIterato	extends NetworkIterator db() iterate()
iterator:IterateException	extends Exception
iterator:NetworkIterator	implements Serializable getIterationTerminator() iterate() setIterationTerminator()
iterator:SequentialNetworkItu	extends NetworkIterator db() iterate()
learning:BackPropagationLea	extends LearningRule adjustWeights() calculateError() correctLayer() getAlpha() getBeta() isOutputLayer() ready() setAlpha() setBeta() setOutputLayer()
learning:LearningRule	implements Serializable correctLayer() db() ready()
network:BiasNeuron	extends Neuron implements Serializable
network:Connection	implements Serializable getFromNeuron() getToLayerID() getToNeuron() getToNeuronID() getWeight() setFromNeuron() setToLayerID()

setToNeuron()
setToNeuronID()
setWeight()
toString()

network:Layer

implements Serializable
addBias()
addNeuron()
addNeuronEventListener()
calculate()
clear()
db()
fireNeuronEvent()
getID()
getInputFunction()
getLayerType()
getLearningRule()
getName()
getNetwork()
getNeuronForID()
getNeurons()
getNextNeuronID()
getSize()
getTransferFunction()
isUniqueID()
learn()
readyToLearn()
removeNeuron()
removeNeuronEventListener()
seedNeurons()
setID()
setInputFunction()
setLayerType()
setLearningRule()
setName()
setNetwork()
setNextNeuronID()
setSize()
setTransferFunction()
toString()

network:Network

implements Serializable
addIterationEventListener()
addLayer()
addLayerEventListener()
addTerminatedEventListener()
bshScripter()
connect()
db()

fireIterationEvent()
fireLayerEvent()
fireTerminatedEvent()
getArchitecture()
getConnected()
getDataElement()
getDataSet()
getDebug()
getError()
getErrorType()
getHiddenLayers()
getInputLayer()
getLayerAt()
getLayerForID()
getLayers()
getLearning()
getLearningOrder()
getnetworkIterator()
getNextLayer()
getOutputLayer()
getUseBias()
insertLayer()
insertRangeOfLayers()
iterate()
iterateNetwork()
learning()
loadConfiguration()
loadTrainingData()
main()
orderLearning()
randomize()
reconnect()
removeIterationEventListener()
removeLayer()
removeLayerEventListener()
removeRangeOfLayers()
removeTerminatedEventListener()
reset()
setArchitecture()
setConnected()
setDataElement()
setDataSet()
setDebug()
setError()
setErrorType()
setLayerAt()
setLayerTypes()
setLayers()
setLearning()

setLearningOrder()
setNetworkIterator()
setNextLayerID()
setSize()
toString()

network:NetworkConfigurati extends NetworkException

networkNetworkException extends Exception

network:Neuron implements Serializable
addConnectionFrom()
addConnectionTo()
clearConnectionsFrom()
clearConnectionsTo()
getConnectionTo()
getConnections()
getConnectionsFrom()
getConnectionsTo()
getError()
getID()
getIDString()
getInput()
getLayer()
getLayerID()
getOutput()
getTransferFunction()
isErrorSet()
setError()
setErrorFlag()
setID()
setInput()
setLayer()
setOutput()
setTransferFunction()
toString()
transfer()
updateConnectionPool()

network:Weight implements Serializable
addWeightChangeListener()
fireWeightChangeEvent()
getLastDelta()
getSeed()
getValue()
randomizeWeight()
removeWeightChangeListener()
resetRandomNumberGenerator()
resetWeight()

setLastDelta()
setSeed()
setValue()
toString()

network:event:AbstractNNEvent extends EventObject
getType()

network:event:CommunicationEvent extends AbstractNNEvent
getConnection()

network:event:ConnectionEventListener (Interface)
handleConnectionEvent()

network:event:CriterionReachedEvent extends EventObject
getCriterion()

network:event:IterationEvent extends EventObject

network:event:IterationEventListener (Interface)
handleIterationEvent()

network:event:IterationLimitReachedEvent extends EventObject
getIteration()

network:event:IterationLimitReachedEventListener (Interface)
handleIterationLimitReachedEvent()

network:event:LayerEvent extends AbstractNNEvent
getLayer()

network:event:LayerEventListener (Interface)
handleLayerEvent()

network:event:NeuronEvent extends AbstractNNEvent
getNeuron()

network:event:NeuronEventListener (Interface)
handleNeuronEvent()

network:event:NeuronRemovedEvent extends AbstractNNEvent
getNeuron()

network:event:WeightChangeEvent extends AbstractNNEvent
getWeight()

network:event:WeightChangeListener (Interface)
handleWeightChangeEvent()

parser:Data

addColumnNames()
addRow()
getColumnNames()
getRows()
setColumnNames()
setRows()
toString()

parser:DataParser

db()
main()
parseData()

parser:Parser

getConfigFile()
loadConfiguration()
main()
printDocument()
printNode()
setConfigFile()

parser:XMLParser (Interface)

getXML()
parseXML()
printXML()
setXML()

persistance:Persistance

addMapping()
deserialize()
retrieve()
serialize()
store()

terminator:IterationTerminator (Abstract)

implements Serializable

getEvent()
haltIteration()
isCompleted()

terminator:TerminateOnCriterion

extends IterationTerminator

getCriterion()
getEvent()
isCompleted()
getEvent()
isCompleted()
setCriterion()

terminator:TerminateOnUnchage()

extends IterationTerminator

getEvent()
getUnchangeCount()
isCompleted()
setUnchangeCount()

terminator:event:TerminatedEvent extends EventObject

terminator:event:TerminatedEventListener (Interface)
handleTerminatedEvent()

terminator:event:TerminatedOnCriterionEvent extends TerminatedEvent
getCriterion()
getErrorReached()
setCriterion()
setErrorReached()

terminator:event:TerminateOnHaltEvent extends TerminatedEvent
getErrorReached()
getIteration()
setErrorReached()
setIteration()

terminator:event:TerminateOnUnchangeEvent() extends TerminatedEvent

transfer:SigmoidTransferFunction extends TransferFunction
getDerivative()
transfer()

transfer:TanhTransferFunction extends TransferFunction
getDerivative()
transfer()

transfer:TransferFunction (Abstract) implements Serializable
db()
getDerivative()
transfer()