

# affyImGUI

February 9, 2012

---

ALGchangeLog

*affyImGUI Change Log*

---

## Description

Write as text the most recent changes from the affyImGUI package changelog.

## Usage

```
ALGchangeLog (n=20)
```

## Arguments

n                    integer, number of lines to write of changelog.

## Value

No value is produced, but a number of lines of text are written to standard output.

## Author(s)

Gordon Smyth

---

affyImGUI

*Graphical User Interface for the limma microarray package*

---

## Description

Graphical User Interface for Affy analysis using the limma microarray package

**Usage**

```

AboutaffyilmGUI()
affyHelp()
affyilmGUI(BigfontsForaffyilmGUIpresentation=FALSE)
affyilmGUIhelp()
affyPlotMA()
affyPlotMAcontrast()
ALGlimmaUsersGuide(view=TRUE)
ChooseCDF()
ChooseContrastParameterization()
chooseDir()
ChooseEbayesStatistic()
ComputeContrasts()
ComputeLinearModelFit()
CopyGraph(img)
DeleteContrastParameterization()
deleteItemFromList(list1,itemName=NULL,index=NULL)
DensityPlot()
DensityPlotAll()
evalRcode()
ExportHTMLreport()
ExportNormalizedExpressionValues()
ExportTopTable()
fixSeps(string)
generalPlotFunction(code="",WindowTitle="")
GetComponentstoExportInHTMLreport(contrastParameterizationIndex=NULL)
GetContrast(contrastParameterizationIndex)
GetContrastNamesForHeatDiagram(numContrasts=2,ContrastNames=c("Contrast 1","Cont
GetContrastParameterizationName()
GetContrasts(NumContrasts=0)
GetDEcutoff()
GetGeneLabelsOptions()
GetJpegOrPngParams(graphFileType)
GetJpegOrPngX11Params(graphFileType)
GetlimmaDataSetName()
GetLogPLMDataChoice()
GetMultipleContrasts(contrastParameterizationIndex)
GetNormalizationMethod()
getPackageVersion(pkgName)
GetParameterizationName()
GetPlotLabels(plottitle="",xlabel="",ylabel="")
GetPlotSize()
GetPlotTitle(plottitle="")
GetPValueCutoff(p.value=0.01)
GetResidualTypeChoice()
GetRNATypesFrom.ContrastsFromDropDowns.String(string)
GetSetNames(numSets=2,set1="",set2="",set3="")
GetSlideNum(all=FALSE)
GetSlideNums()
GetWhichProbes(includeBoth=FALSE)
GetWtAreaParams()
GetWtFlagParams()

```

```
HeatDiagramDialog(parameterName)
HeatDiagramPlot()
HTMLplotUsingFunction(Caption = "", File = .HTML.file, GraphRelativeDirectory =
ImageArrayPlot()
ImageQualityResidualPlot()
ImageQualityWeightPlot()
initGlobals()
IntensityHistogram()
IntensityHistogramAll()
limmaHelp()
LogOddsPlot()
NewLimmaFile()
NormalizedIntensityBoxPlot()
NormalizeNow()
nstrstr(haystack, needle)
NUSEPlotAll()
onDestroy()
onExit()
OpenALimmaFile(FileName)
OpenCDFandTargetsfiles()
OpenCDFFile()
OpenLimmaFile()
OpenTargetsFile()
PlotOptions()
QQTplot()
RawIntensityBoxPlot()
Require(pkg)
Resize(img, plotFunction)
RLEPlotAll()
RNADegradationPlotAll()
SaveAsLimmaFile()
SaveGraphAsJpeg(initialfile, plotFunction)
SaveGraphAsPDF(initialfile, plotFunction)
SaveGraphAsPNG(initialfile, plotFunction)
SaveGraphAsPostscript(initialfile, plotFunction)
SaveLimmaFile()
SetupPlotKeyBindings(tt, img)
SetupPlotMenus(tt, initialfile, plotFunction, img)
SetWD()
showChangeLog(n = 20)
showCitations()
showTopTable(..., export=FALSE)
SimplifyContrastsExpression(string)
strstr(haystack, needle)
tclArrayVar()
TclRequire(tclPkg)
topTable2(fit, coef = 1, number = 10, genelist = NULL, adjust.method = "holm", so
toptable2(fit, coef = 1, number = 10, genelist = NULL, A = NULL, eb = NULL, adjus
Try(expr)
TryReadImgProcFile(expr)
UpDownOrBoth()
vennDiagramaffyImGUI(object, include = "both", names, cex = 1.5, mar = rep(1, 4)
```

```

VennDiagramPlot ()
ViewContrastsMatrixAsPairs (contrastsMatrix, contrastsMatrixList, contrastParameterizationIndex = 1)
ViewContrastsMatrixInTable (contrastsMatrixList, contrastParameterizationIndex = 1)
ViewExistingContrastParameterization ()
ViewRNATargets ()

```

## Arguments

```

BigfontsForaffyImGUIpresentation
    affyImGUI:arg1: If set to TRUE, larger fonts are used. However, some font sizes
    are not controlled by affyImGUI and so must be adjusted in the operating sys-
    tem, e.g. in the Control Panel in Windows under Display, Appearance.
...
HTMLplotUsingFunction:arg14:and:showTopTable:arg1:and:toptable2:arg9:and:vennDiagramaffyImGUI:arg10
Align
    HTMLplotUsingFunction:arg8
all
    GetSlideNum:arg1
BG
    HTMLplotUsingFunction:arg12
Caption
    HTMLplotUsingFunction:arg1
code
    generalPlotFunction: arg1: a code
ContrastNames
    GetContrastNamesForHeatDiagram:arg2
contrastParameterizationIndex
    GetComponentsToExportInHTMLreport:arg1:and:contrastParameterizationIndex:arg1:and:GetContrastNames:arg2
export
    showTopTable:arg2
expr
    Try:arg1:and:TryReadImgProcFile:arg1
File
    HTMLplotUsingFunction:arg2
FileName
    OpenALimmaFile:arg1
GraphAbsoluteDirectory
    HTMLplotUsingFunction:arg4
GraphBorder
    HTMLplotUsingFunction:arg7
GraphFileName
    HTMLplotUsingFunction:arg5
graphFileType
    GetJpegOrPngParams:arg1:and:GetJpegOrPngX11Params:arg1
GraphRelativeDirectory
    HTMLplotUsingFunction:arg3
GraphSaveAs
    HTMLplotUsingFunction:arg6
haystack
    nstrstr:arg1:and:strstr:arg1
Height
    HTMLplotUsingFunction:arg11
img
    Resize:arg1:and:SetupPlotMenus:arg4:and:CopyGraph:arg1:and:SetupPlotKeyBindings:arg2
includeBoth
    GetWhichProbes:arg1
index
    deleteItemFromList:arg3:an index
initialfile
    SetupPlotMenus:arg2:and:SaveGraphAsJpeg:arg1:and:SaveGraphAsPDF:arg1:and:SaveGraphAsPNG:arg1
itemName
    deleteItemFromList:arg2:an item name
list1
    deleteItemFromList:arg1:a list
needle
    nstrstr:arg2:and:strstr:arg2

```

```

NumContrasts  GetContrasts:arg1
numContrasts  GetContrastNamesForHeatDiagram:arg1
numSets       GetSetNames:arg1
p.value       GetPValueCutoff:arg1:A p-value cutoff.
parameterName
              HeatDiagramDialog:arg1
pkgName       getPackageVersion:arg1
pkg           Require:arg1
plotFunction  Resize:arg2:and:HTMLplotUsingFunction:arg9:and:SetupPlotMenus:arg3:and:SaveGraphAsJpeg:ar
plottitle     GetPlotLabels:arg1:and:GetPlotTitle:arg1
res           HTMLplotUsingFunction:arg13
set1          GetSetNames:arg2
set2          GetSetNames:arg3
set3          GetSetNames:arg4
string        fixSeps:arg1:A character string:and:GetRNATypesFrom.ContrastsFromDropDowns.String:arg1:and:
tclPkg        TclRequire:arg1
tt            SetupPlotMenus:arg1:and:SetupPlotKeyBindings:arg1
view          ALGlimmaUsersGuide:arg1:A boolean determinig if the users'd guide will be
              viewed
Width         HTMLplotUsingFunction:arg10
WindowTitle   generalPlotFunction: arg2: a title
xlabel        GetPlotLabels:arg2
ylabel        GetPlotLabels:arg3
fit           topTable2:arg1:and:toptable2:arg1
coef          topTable2:arg2:and:toptable2:arg2
number        topTable2:arg3:and:toptable2:arg3
genelist      topTable2:arg4:and:toptable2:arg4
A             toptable2:arg5
eb            toptable2:arg6
adjust.method
              topTable2:arg5:and:toptable2:arg7
sort.by       topTable2:arg6:and:toptable2:arg8
object        vennDiagramaffyImGUI:arg1
include       vennDiagramaffyImGUI:arg2
names         vennDiagramaffyImGUI:arg3
cex           vennDiagramaffyImGUI:arg4
mar           vennDiagramaffyImGUI:arg5
contrastsMatrix
              ViewContrastsMatrixAsPairs:arg1
contrastsMatrixList
              ViewContrastsMatrixAsPairs:arg2:and:ViewContrastsMatrixInTable:arg1
n             showChangeLog:arg1
PointSize     HTMLplotUsingFunction:arg12

```

**Details**

This function launches a Graphical User Interface for the limma package by Gordon Smyth. The GUI uses Tk widgets (via the R TclTk interface by Peter Dalgaard) in order to provide a simple interface to the limma functions for linear modelling of microarrays and identification of differentially expressed genes.

**Author(s)**

James Wettenhall

# Index

## \*Topic IO

affyilmGUI, 1

## \*Topic documentation

ALGchangeLog, 1

AboutaffyilmGUI (*affyilmGUI*), 1

affyHelp (*affyilmGUI*), 1

affyilmGUI, 1

affyilmGUIhelp (*affyilmGUI*), 1

affyPlotMA (*affyilmGUI*), 1

affyPlotMAcontrast (*affyilmGUI*), 1

ALGchangeLog, 1

ALGlimmaUsersGuide (*affyilmGUI*), 1

ChooseCDF (*affyilmGUI*), 1

ChooseContrastParameterization  
(*affyilmGUI*), 1

chooseDir (*affyilmGUI*), 1

ChooseEbayesStatistic  
(*affyilmGUI*), 1

ComputeContrasts (*affyilmGUI*), 1

ComputeLinearModelFit  
(*affyilmGUI*), 1

CopyGraph (*affyilmGUI*), 1

DeleteContrastParameterization  
(*affyilmGUI*), 1

deleteItemFromList (*affyilmGUI*), 1

DensityPlot (*affyilmGUI*), 1

DensityPlotAll (*affyilmGUI*), 1

evalRcode (*affyilmGUI*), 1

ExportHTMLreport (*affyilmGUI*), 1

ExportNormalizedExpressionValues  
(*affyilmGUI*), 1

ExportTopTable (*affyilmGUI*), 1

fixSeps (*affyilmGUI*), 1

generalPlotFunction (*affyilmGUI*), 1

GetComponentstoExportInHTMLreport  
(*affyilmGUI*), 1

GetContrast (*affyilmGUI*), 1

GetContrastNamesForHeatDiagram  
(*affyilmGUI*), 1

GetContrastParameterizationName  
(*affyilmGUI*), 1

GetContrasts (*affyilmGUI*), 1

GetDEcutoff (*affyilmGUI*), 1

GetGeneLabelsOptions (*affyilmGUI*),  
1

GetJpegOrPngParams (*affyilmGUI*), 1

GetJpegOrPngX11Params  
(*affyilmGUI*), 1

GetlimmaDataSetName (*affyilmGUI*), 1

GetLogPLMDataChoice (*affyilmGUI*), 1

GetMultipleContrasts (*affyilmGUI*),  
1

GetNormalizationMethod  
(*affyilmGUI*), 1

getPackageVersion (*affyilmGUI*), 1

GetParameterizationName  
(*affyilmGUI*), 1

GetPlotLabels (*affyilmGUI*), 1

GetPlotSize (*affyilmGUI*), 1

GetPlotTitle (*affyilmGUI*), 1

GetPValueCutoff (*affyilmGUI*), 1

GetResidualTypeChoice  
(*affyilmGUI*), 1

GetRNATypesFrom.ContrastsFromDropDowns.String  
(*affyilmGUI*), 1

GetSetNames (*affyilmGUI*), 1

GetSlideNum (*affyilmGUI*), 1

GetSlideNums (*affyilmGUI*), 1

GetWhichProbes (*affyilmGUI*), 1

GetWtAreaParams (*affyilmGUI*), 1

GetWtFlagParams (*affyilmGUI*), 1

HeatDiagramDialog (*affyilmGUI*), 1

HeatDiagramPlot (*affyilmGUI*), 1

HTMLplotUsingFunction  
(*affyilmGUI*), 1

ImageArrayPlot (*affyilmGUI*), 1

ImageQualityResidualPlot  
(*affyilmGUI*), 1

ImageQualityWeightPlot  
(*affyilmGUI*), 1

initGlobals (*affyilmGUI*), 1

IntensityHistogram (*affylmGUI*), 1  
 IntensityHistogramAll  
     (*affylmGUI*), 1  
  
 limmaHelp (*affylmGUI*), 1  
 LogOddsPlot (*affylmGUI*), 1  
  
 NewLimmaFile (*affylmGUI*), 1  
 NormalizedIntensityBoxPlot  
     (*affylmGUI*), 1  
 NormalizeNow (*affylmGUI*), 1  
 nstrstr (*affylmGUI*), 1  
 NUSEPlotAll (*affylmGUI*), 1  
  
 onDestroy (*affylmGUI*), 1  
 onExit (*affylmGUI*), 1  
 OpenALimmaFile (*affylmGUI*), 1  
 OpenCDFandTargetsfiles  
     (*affylmGUI*), 1  
 OpenCDFFile (*affylmGUI*), 1  
 OpenLimmaFile (*affylmGUI*), 1  
 OpenTargetsFile (*affylmGUI*), 1  
  
 PlotOptions (*affylmGUI*), 1  
  
 QQTplot (*affylmGUI*), 1  
  
 RawIntensityBoxPlot (*affylmGUI*), 1  
 Require (*affylmGUI*), 1  
 Resize (*affylmGUI*), 1  
 RLEPlotAll (*affylmGUI*), 1  
 RNADegradationPlotAll  
     (*affylmGUI*), 1  
  
 SaveAsLimmaFile (*affylmGUI*), 1  
 SaveGraphAsJpeg (*affylmGUI*), 1  
 SaveGraphAsPDF (*affylmGUI*), 1  
 SaveGraphAsPNG (*affylmGUI*), 1  
 SaveGraphAsPostscript  
     (*affylmGUI*), 1  
 SaveLimmaFile (*affylmGUI*), 1  
 SetupPlotKeyBindings (*affylmGUI*),  
     1  
 SetupPlotMenus (*affylmGUI*), 1  
 SetWD (*affylmGUI*), 1  
 showChangeLog (*affylmGUI*), 1  
 showCitations (*affylmGUI*), 1  
 showTopTable (*affylmGUI*), 1  
 SimplifyContrastsExpression  
     (*affylmGUI*), 1  
 strstr (*affylmGUI*), 1  
  
 tclArrayVar (*affylmGUI*), 1  
 TclRequire (*affylmGUI*), 1  
  
 topTable2 (*affylmGUI*), 1  
 toptable2 (*affylmGUI*), 1  
 Try (*affylmGUI*), 1  
 TryReadImgProcFile (*affylmGUI*), 1  
  
 UpDownOrBoth (*affylmGUI*), 1  
  
 vennDiagramaffylmGUI (*affylmGUI*),  
     1  
 VennDiagramPlot (*affylmGUI*), 1  
 ViewContrastsMatrixAsPairs  
     (*affylmGUI*), 1  
 ViewContrastsMatrixInTable  
     (*affylmGUI*), 1  
 ViewExistingContrastParameterization  
     (*affylmGUI*), 1  
 ViewRNATargets (*affylmGUI*), 1