

# limmaGUI

November 11, 2009

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LGchangeLog	<i>LimmaGUI Change Log</i>
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## Description

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

## Usage

```
LGchangeLog (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

**Description**

Graphical User Interface for the limma microarray package

**Usage**

```
AboutLimmaGUI ()
AboutNormalization ()
BChelp ()
ChooseContrastsParameterization (parameterizationTreeIndex)
ChooseEbayesStatistic ()
ChooseParameterization ()
ChoosePlotSymbolByClicking (spotType, cex)
ChooseSpotType (parameterizationTreeIndex)
ComputeContrasts ()
CopyGraph (img)
CreateNewParameterization ()
DeleteContrastsParameterization ()
deleteItemFromList (list1, itemName = NULL, index = NULL)
DeleteParameterization ()
DupCorBoxPlot ()
ebayesBoxPlots ()
evalRcode ()
ExportHTMLreport ()
ExportTopTable ()
fixSeps (string)
GetBackgroundCorrectionMethod ()
GetBetweenArrayNormalizationMethod ()
GetCoef (parameterizationTreeIndex, whichCoef = "onlyOne")
GetComponentstoExportInHTMLreport (parameterizationIndex = NULL)
GetContrastsParameterizationName ()
GetContrastsParameterizationNames (parameterizationTreeIndex)
GetDEcutoff ()
GetDesignOrContrasts (Design = FALSE, Contrasts = FALSE, NumContrasts = 0,
                      parameterizationIndex = 0)
GetGeneLabelsOptions ()
GetImageAnalysisColumnHeadings ()
GetImageProcessingFileType ()
GetJpegOrPngParams (graphFileType)
GetJpegOrPngX11Params (graphFileType)
GetlimmaDataSetName ()
GetlmFitMethod ()
GetLowessType ()
GetNEWxlim (xlim)
GetNormexpOffsetValue (CurrentNormexpOffsetValue)
GetNumParametersNoTargets ()
getPackageVersion (pkgName)
GetParameterizationName ()
```

```
GetParameterNames(parameterizationTreeIndex)
GetParametersAndOrContrasts(parameterizationTreeIndex, whatFor = "heat")
GetPlotLabels(plottitle = "", xlabel = "", ylabel = "")
GetPlotSize()
GetPlotTitle(plottitle = "")
GetPValueCutoff(p.value = 0.01)
GetReducedDuplicateSpacing(parameterizationTreeIndex)
GetRNATypesFrom.ContrastsFromDropDowns.String(string)
GetSlideNum()
GetSpotTypesForLinearModel()
GetSpotTypesIncludedNames(parameterizationTreeIndex)
GetWithinArrayNormalizationMethod()
GetWtAreaParams()
HeatDiagramDialog(parameterName)
HeatDiagramPlot()
HowManyDups()
HTMLplotUsingFunction(Caption = "", File = .HTML.file,
                      GraphRelativeDirectory = ".", GraphAbsoluteDirectory =
                      NULL, GraphFileName = "", GraphSaveAs = "png",
                      GraphBorder = 1, Align = "center", plotFunction =
                      NULL, Width = 600, Height = 600, PointSize = 12,
                      BG = "white", res = 72, ...)
ImageArrayPlot()
ImageArrayPlotDialog(slidenum)
ImportMA()
ImportMADialog()
initGlobals()
InitNewParameterization()
limmaGUI(BigfontsForlimmaGUIpresentation = FALSE)
limmaHelp()
limmaUsersGuide(view = TRUE)
lmFitMethodHelp()
LogOddsPlot()
MAPlot()
MAPlotAvg()
MBoxPlot()
MMPlot()
NewLimmaFile()
NormalizeNow()
nstrstr(haystack, needle)
onDestroy()
onExit()
OpenALimmaFile(fileName)
OpenGALandTargetsandSpotTypesfiles()
OpenGALFile()
OpenLimmaFile()
OpenSpotTypesFile()
OpenTargetsFile()
plotMAColorCoded()
PlotOptions()
PrintTipGroupMAPlot()
QQTplot()
```

```

read.marrayTools(MFile,AFile, path, verbose, sep, quote, header, ...)
ReadImageProcessingFiles()
Require(pkg)
Resize(img, plotFunction)
SaveAsLimmaFile()
SaveGraphAsJpeg(initialfile, plotFunction)
SaveGraphAsPDF(initialfile, plotFunction)
SaveGraphAsPNG(initialfile, plotFunction)
SaveGraphAsPostscript(initialfile, plotFunction)
SaveLimmaFile()
SelectPlotSymbols(SpotTypes)
SetLayoutParameters()
SetupPlotKeyBindings(tt, img)
SetupPlotMenus(tt, initialfile, plotFunction, img)
SetWD()
showChangeLog()
showCitations()
showGAL()
showTopTable(..., export = FALSE)
SimplifyContrastsExpression(string)
strstr(haystack, needle)
tclArrayVar()
TclRequire(tclPkg)
TryReadImgProcFile(expr)
UpdateSpotTypesStatus()
UpDownOrBoth()
VennDiagramPlot()
ViewDesignOrContrastsMatrixAsPairs(DesignOrContrasts, designOrContrastsList,
                                     parameterizationIndex, contrastsParameterizationIndex
                                     = NULL)
ViewDesignOrContrastsMatrixInTable(DesignOrContrasts, designOrContrastsList,
                                     parameterizationIndex, contrastsParameterizationIndex
                                     = NULL)
ViewExistingContrastsParameterization()
ViewExistingParameterization()
ViewRNATargets()
ViewSpotTypes()

```

## Arguments

BigfontsForlimmaGUIpresentation	If set to TRUE, larger fonts are used. However, some font sizes are not controlled by limmaGUI and so must be adjusted in the operating system, e.g. in the Control Panel in Windows under Display, Appearance.
...	HTMLplotUsingFunction:arg15, showTopTable:arg1
AFile	Flat-file of log-intensities output by marrayTools
Align	HTMLplotUsingFunction:arg8
BG	HTMLplotUsingFunction:arg13
Caption	HTMLplotUsingFunction:arg1
cex	ChoosePlotSymbolByClicking:arg2

```

contrastsParameterizationIndex
    ViewDesignOrContrastsMatrixInTable:arg4, ViewDesignOrContrastsMatrixAsPairs:arg4
Contrasts    GetDesignOrContrasts:arg2
CurrentNormexpOffsetValue
    GetNormexpOffsetValue:arg1
designOrContrastsList
    ViewDesignOrContrastsMatrixInTable:arg2, ViewDesignOrContrastsMatrixAsPairs:arg2
DesignOrContrasts
    ViewDesignOrContrastsMatrixInTable:arg1, ViewDesignOrContrastsMatrixAsPairs:arg1
Design    GetDesignOrContrasts:arg1
export    showTopTable:arg2
expr      TryReadImgProcFile:arg1
FileName  A file name.
File      HTMLplotUsingFunction:arg2
GraphAbsoluteDirectory
    HTMLplotUsingFunction:arg4
GraphBorder HTMLplotUsingFunction:arg7
GraphFileName
    HTMLplotUsingFunction:arg5
graphFileType
    GetJpegOrPngParams:arg1, GetJpegOrPngX11Params:arg1
GraphRelativeDirectory
    HTMLplotUsingFunction:arg3
GraphSaveAs HTMLplotUsingFunction:arg6
haystack   nstrstr:arg1, strstr:arg1
header     See help for read.table
Height     HTMLplotUsingFunction:arg11
img        SetupPlotMenus:arg1, Resize:arg1, CopyGraph:arg1, SetupPlotKeyBindings:arg2
index      deleteItemFromList:arg1
initialfile SaveGraphAsJpeg:arg1, SaveGraphAsPDF:arg1, SaveGraphAsPNG:arg1, SaveGraphAsPostscript:arg1, SetupPlotMenus:arg2
itemName   deleteItemFromList:arg1
list1      deleteItemFromList:arg1
MFile      Flat-file of log-ratios output by marrayTools
needle     nstrstr:arg2, strstr:arg2
NumContrasts GetDesignOrContrasts:arg3
p.value    A p-value cutoff.
parameterizationIndex
    GetDesignOrContrasts:arg4, GetComponentsToExportInHTMLreport:arg1, GetDesignOrContrasts:arg4, ViewDesignOrContrastsMatrixInTable:arg3, ViewDesignOrContrastsMatrixAsPairs:arg3

```

parameterizationTreeIndex	GetParametersAndOrContrasts:arg1, ChooseContrastsParameterization:arg1, ChooseSpotType:arg1, GetCoef:arg1, GetParameterNames:arg1, GetReducedDuplicateSpacing:arg1, GetContrastsParameterizationNames:arg1, GetSpotTypesIncludedNames:arg1
parameterName	HeatDiagramDialog:arg1
path	Path to the directory containing the MFile and AFile
pkgName	getPackageVersion:arg1
pkg	Require:arg1
plotFunction	SetupPlotMenus:arg1, HTMLplotUsingFunction:arg9, Resize:arg1, SaveGraphAsJpeg:arg2, SaveGraphAsPDF:arg2, SaveGraphAsPNG:arg2, SaveGraphAsPostscript:arg2
plottitle	GetPlotLabels:arg1, GetPlotTitle:arg1
PointSize	HTMLplotUsingFunction:arg12
quote	See help for read.table
res	HTMLplotUsingFunction:arg14
sep	Column separator. ("t" for tab-delimited text)
slidenum	ImageArrayPlotDialog:arg1
spotType	ChoosePlotSymbolByClicking:arg1
SpotTypes	SelectPlotSymbols:arg1
string	fixSeps:arg1, SimplifyContrastsExpression:arg1, GetRNATypesFrom.ContrastsFromDropDowns.Stri
tclPkg	TclRequire:arg1
tt	SetupPlotKeyBindings:arg1, SetupPlotMenus:arg1
verbose	Optional diagnostic messages
view	limmaUsersGuide:arg1
whatFor	GetParametersAndOrContrasts:arg2
whichCoef	GetCoef:arg2
Width	HTMLplotUsingFunction:arg10
xlabel	GetPlotLabels:arg2
xlim	GetNEWxlim:arg1
ylabel	GetPlotLabels:arg3

### 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

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