RAT-STATS 2017

TeamCBTek

Version 1.0

Sun May 7 2017

# Table of Contents

Table of contents

# Namespace Index

## Namespace List

Here is a list of all namespaces with brief descriptions:

[**oig**](#AAAAAAAAAC) pagenum

[**oig::ratstats**](#AAAAAAAAAD) pagenum

[**oig::ratstats::main**](#AAAAAAAAAE) pagenum

[**oig::ratstats::modules**](#AAAAAAAAAV) pagenum

[**oig::ratstats::modules::ssrn**](#AAAAAAAAAW) pagenum

[**oig::ratstats::modules::sva**](#AAAAAAAABN) pagenum

[**oig::ratstats::modules::sva::constants**](#AAAAAAAABY) pagenum

[**oig::ratstats::modules::uaa**](#AAAAAAAACL) pagenum

[**oig::ratstats::modules::uva**](#AAAAAAAADB) pagenum

[**oig::ratstats::ui**](#AAAAAAAADM) pagenum

[**oig::ratstats::ui::UIRStatsUtils**](#AAAAAAAAEA) **(This namespace represents a collection of reusable functions that have access to the Qt classes )** pagenum

[**oig::ratstats::utils**](#AAAAAAAAFF) pagenum

[**oig::ratstats::utils::RStatsUtils**](#AAAAAAAAHB) **(This namespace provides commonly used functions without requiring any dependencies on the Qt SDK )** pagenum

[**oig::ratstats::utils::streams**](#AAAAAAAAJK) pagenum

# Hierarchical Index

## Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

QDialog

oig::ratstats::ui::UIRStatsAbout pagenum

oig::ratstats::ui::UIRStatsErrorMessage pagenum

oig::ratstats::ui::UIRStatsLaunchConfigDialog pagenum

oig::ratstats::ui::UIRStatsScriptProviderConfigDialog pagenum

oig::ratstats::ui::UIRStatsSettingsManager pagenum

QMainWindow

oig::ratstats::main::UIRStatsMain pagenum

oig::ratstats::modules::ssrn::UIRStatsSSRN pagenum

oig::ratstats::modules::sva::UIRStatsSVA pagenum

oig::ratstats::modules::uaa::UIRStatsUAA pagenum

oig::ratstats::modules::uva::UIRStatsUVA pagenum

QShortcut

oig::ratstats::ui::UIRStatsShortcut pagenum

QTableWidget

oig::ratstats::ui::UIRStatsTablePreviewWidget pagenum

QWidget

oig::ratstats::ui::UIRStatsWorkbook pagenum

oig::ratstats::utils::RStatsCell pagenum

oig::ratstats::utils::RStatsConditionLogger pagenum

oig::ratstats::utils::RStatsDataFormatTypeIndex pagenum

oig::ratstats::utils::RStatsMergeCellRange pagenum

oig::ratstats::utils::RStatsModuleProperties pagenum

oig::ratstats::utils::RStatsModuleSessionData pagenum

oig::ratstats::utils::RStatsModuleSessionDataImpl pagenum

oig::ratstats::modules::ssrn::RStatsSSRNSessionData pagenum

oig::ratstats::modules::sva::RStatsSVASessionData pagenum

oig::ratstats::modules::uaa::RStatsUAASessionData pagenum

oig::ratstats::modules::uva::RStatsUVASessionData pagenum

oig::ratstats::utils::RStatsObjectList< T > pagenum

oig::ratstats::utils::RStatsObjectList< int > pagenum

oig::ratstats::utils::RStatsObjectList< RStatsFloat > pagenum

oig::ratstats::utils::RStatsObjectList< RStatsInteger > pagenum

oig::ratstats::utils::RStatsScriptProviderProperties pagenum

oig::ratstats::modules::ssrn::RStatsSSRN pagenum

oig::ratstats::modules::ssrn::RStatsSSRNInputData pagenum

oig::ratstats::modules::ssrn::RStatsSSRNOutputData pagenum

oig::ratstats::modules::ssrn::RStatsSSRNValue pagenum

oig::ratstats::modules::sva::RStatsSVA pagenum

oig::ratstats::modules::sva::RStatsSVAInputData pagenum

oig::ratstats::modules::sva::RStatsSVAOutputData pagenum

oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet pagenum

oig::ratstats::modules::uaa::RStatsUAA pagenum

oig::ratstats::modules::uaa::RStatsUAAOutputData pagenum

oig::ratstats::modules::uva::RStatsUVA pagenum

oig::ratstats::modules::uva::RStatsUVAOutputData pagenum

oig::ratstats::utils::RStatsWorkbook pagenum

oig::ratstats::utils::RStatsWorkbookStream pagenum

oig::ratstats::utils::streams::RStatsCSVWorkbookStream pagenum

oig::ratstats::utils::streams::RStatsDIFWorkbookStream pagenum

oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream pagenum

oig::ratstats::utils::streams::RStatsXLSWorkbookStream pagenum

oig::ratstats::utils::streams::RStatsXLSXWorkbookStream pagenum

oig::ratstats::utils::RStatsWorkbookStreamFactory pagenum

oig::ratstats::utils::RStatsWorksheet pagenum

# Class Index

## Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

[**oig::ratstats::utils::RStatsCell**](#AAAAAAAAIX) **(The** [**RStatsCell**](#AAAAAAAAIX) **struct represents a single cell object for a worksheet )** pagenum

[**oig::ratstats::utils::RStatsConditionLogger**](#AAAAAAAAFE) **(Support for creating warning, informative and error messages based on boolean conditions. This object is used by the modules for realtime error/exception monitoring )** pagenum

[**oig::ratstats::utils::streams::RStatsCSVWorkbookStream**](#AAAAAAAAJJ) **(Support for reading/writing to a CSV file )** pagenum

[**oig::ratstats::utils::RStatsDataFormatTypeIndex**](#AAAAAAAAGD) **(The** [**RStatsDataFormatTypeIndex**](#AAAAAAAAGD) **struct )** pagenum

[**oig::ratstats::utils::streams::RStatsDIFWorkbookStream**](#AAAAAAAAJM) **(Support for reading from and writing to the data interchange format )** pagenum

[**oig::ratstats::utils::RStatsMergeCellRange**](#AAAAAAAAIY) **(The** [**RStatsMergeCellRange**](#AAAAAAAAIY) **struct )** pagenum

[**oig::ratstats::utils::RStatsModuleProperties**](#AAAAAAAAFL) **(Individual module object in RAT-STATS. It provides a method of loading, saving and removing the module to/from disk )** pagenum

[**oig::ratstats::utils::RStatsModuleSessionData**](#AAAAAAAAFN) **(The** [**RStatsModuleSessionData**](#AAAAAAAAFN) **interface is used by each of the modules to provide custom session data for the "Recently Used" feature. This interface represents the common functions that have to be implemented for each module )** pagenum

[**oig::ratstats::utils::RStatsModuleSessionDataImpl**](#AAAAAAAAFQ) **(The** [**RStatsModuleSessionDataImpl**](#AAAAAAAAFQ) **abstract class is a partial base implementation of the** [**RStatsModuleSessionData**](#AAAAAAAAFN) **interface. It implements getters/setters for the common values )** pagenum

[**oig::ratstats::utils::RStatsObjectList< T >**](#AAAAAAAABQ) **(The** [**RStatsObjectList**](#AAAAAAAABQ) **class is used to represent a simple N-dimensional array with similar add/remove syntax with VB/VBA )** pagenum

[**oig::ratstats::utils::RStatsScriptProviderProperties**](#AAAAAAAAGB) **(All the fields neccessary to represent a script provider )** pagenum

[**oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream**](#AAAAAAAAJW) **(Support for reading and writing to space and tab delimited files )** pagenum

[**oig::ratstats::modules::ssrn::RStatsSSRN**](#AAAAAAAAAU) **(Single Stage Random Numbers function. In the model-view-controller paradigm, this class represents the controller )** pagenum

[**oig::ratstats::modules::ssrn::RStatsSSRNInputData**](#AAAAAAAAAT) **(The** [**RStatsSSRNInputData**](#AAAAAAAAAT) **struct )** pagenum

[**oig::ratstats::modules::ssrn::RStatsSSRNOutputData**](#AAAAAAAAAS) **(The** [**RStatsSSRNOutputData**](#AAAAAAAAAS) **struct )** pagenum

[**oig::ratstats::modules::ssrn::RStatsSSRNSessionData**](#AAAAAAAABB) **(Custom session data for single stage random numbers (SSRN) )** pagenum

[**oig::ratstats::modules::ssrn::RStatsSSRNValue**](#AAAAAAAAAR) **(The** [**RStatsSSRNValue**](#AAAAAAAAAR) **struct )** pagenum

[**oig::ratstats::modules::sva::RStatsSVA**](#AAAAAAAABM) **(Stratified variable appraisal function. In the model-view-controller paradigm, this class represents the controller )** pagenum

[**oig::ratstats::modules::sva::RStatsSVAInputData**](#AAAAAAAABJ) **(The** [**RStatsSVAInputData**](#AAAAAAAABJ) **struct represents the input data to the SVA function )** pagenum

[**oig::ratstats::modules::sva::RStatsSVAOutputData**](#AAAAAAAABK) **(The** [**RStatsSVAOutputData**](#AAAAAAAABK) **struct represents the output data for the SVA function )** pagenum

[**oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet**](#AAAAAAAABL) **(The** [**RStatsSVAOutputDataTriplet**](#AAAAAAAABL) **struct )** pagenum

[**oig::ratstats::modules::sva::RStatsSVASessionData**](#AAAAAAAABT) **(Custom session data for stratified variable appraisal (SVA) )** pagenum

[**oig::ratstats::modules::uaa::RStatsUAA**](#AAAAAAAACK) **(Unrestricted attribute appraisal function. In the model-view-controller paradigm, this class represents the controller )** pagenum

[**oig::ratstats::modules::uaa::RStatsUAAOutputData**](#AAAAAAAACJ) **(The** [**RStatsUAAOutputData**](#AAAAAAAACJ) **struct represents the output produced by the unrestricted attribute appraisal function )** pagenum

[**oig::ratstats::modules::uaa::RStatsUAASessionData**](#AAAAAAAACR) **(Custom session data for unrestricted attribute appraisal (UAA) )** pagenum

[**oig::ratstats::modules::uva::RStatsUVA**](#AAAAAAAADA) **(Unrestricted variable appraisal function. In the model-view-controller paradigm, this class represents the controller )** pagenum

[**oig::ratstats::modules::uva::RStatsUVAOutputData**](#AAAAAAAACZ) **(The** [**RStatsUVAOutputData**](#AAAAAAAACZ) **struct This structure holds data for an single instance of output It is primarly used to populate the worksheet for saving )** pagenum

[**oig::ratstats::modules::uva::RStatsUVASessionData**](#AAAAAAAADD) **(Custom session data for unrestricted variable appraisal (UVA) )** pagenum

[**oig::ratstats::utils::RStatsWorkbook**](#AAAAAAAAIN) **(Simple container for multiple worksheet objects )** pagenum

[**oig::ratstats::utils::RStatsWorkbookStream**](#AAAAAAAAIS) **(The** [**RStatsWorkbookStream**](#AAAAAAAAIS) **interface represents a simple read/write stream for various workbook file formats )** pagenum

[**oig::ratstats::utils::RStatsWorkbookStreamFactory**](#AAAAAAAAIV) **(The** [**RStatsWorkbookStreamFactory**](#AAAAAAAAIV) **static class provides a method for instantiating workbook streams for reading/writing. The extension on the filePath is used to determine which workbook stream implementation to use )** pagenum

[**oig::ratstats::utils::RStatsWorksheet**](#AAAAAAAAEN) **(Attempts to emulate a simple spreadsheet object basic formatting of cells )** pagenum

[**oig::ratstats::utils::streams::RStatsXLSWorkbookStream**](#AAAAAAAAJY) **(Provides read/write support for XLS files )** pagenum

[**oig::ratstats::utils::streams::RStatsXLSXWorkbookStream**](#AAAAAAAAKA) **(Read support for XLSX files. WARNING: The write function is not implemented and will throw an exception if called )** pagenum

[**oig::ratstats::ui::UIRStatsAbout**](#AAAAAAAADL) **(Code-behind for the "About" dialog used in RAT-STATS )** pagenum

[**oig::ratstats::ui::UIRStatsErrorMessage**](#AAAAAAAADO) **(Code-behind for a custom dialog for displaying error/exception messages )** pagenum

[**oig::ratstats::ui::UIRStatsLaunchConfigDialog**](#AAAAAAAADQ) **(Code-behind for editing RStatsModuleProperties )** pagenum

[**oig::ratstats::main::UIRStatsMain**](#AAAAAAAAAB) pagenum

[**oig::ratstats::ui::UIRStatsScriptProviderConfigDialog**](#AAAAAAAADS) **(Code-behind for editing RStatsScriptProviderProperties )** pagenum

[**oig::ratstats::ui::UIRStatsSettingsManager**](#AAAAAAAADU) **(Properties in the settings dialog such as theme management and script provider management )** pagenum

[**oig::ratstats::ui::UIRStatsShortcut**](#AAAAAAAADW) **(Custom overload of QShortcut to provide more useful "activated" signal that returns pointer to shortcut )** pagenum

[**oig::ratstats::modules::ssrn::UIRStatsSSRN**](#AAAAAAAABE) **(Code-behind for the single stage random number user interface. In the model-view-controller pardigm this class represents the view )** pagenum

[**oig::ratstats::modules::sva::UIRStatsSVA**](#AAAAAAAABW) **(Code-behind for the stratified variable appraisal user interface. In the model-view-controller pardigm this class represents the view )** pagenum

[**oig::ratstats::ui::UIRStatsTablePreviewWidget**](#AAAAAAAADY) **(The** [**UIRStatsTablePreviewWidget**](#AAAAAAAADY) **is a custom overload of the QTableWidget to provide the ability ignore the Tab key when viewing results in table. This allows the Tab key to go to the next sibling widget instead of being stuck in the table )** pagenum

[**oig::ratstats::modules::uaa::UIRStatsUAA**](#AAAAAAAACU) **(Code-behind for the unrestricted attribute appraisal user interface. In the model-view-controller pardigm this class represents the view )** pagenum

[**oig::ratstats::modules::uva::UIRStatsUVA**](#AAAAAAAADG) **(Code-behind for the unrestricted variable appraisal user interface. In the model-view-controller pardigm this class represents the view )** pagenum

[**oig::ratstats::ui::UIRStatsWorkbook**](#AAAAAAAAEU) **(Used by the SVA class to provide support for displaying multiple worksheets in the output results )** pagenum

# File Index

## File List

Here is a list of all files with brief descriptions:

**C:/dev/RStats2017/products/RAT-STATS/rstats\_main/inc/**[**UIRStatsMain.h**](#AAAAAAAAAA) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_main/src/**[**main.cpp**](#AAAAAAAAAF) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_main/src/**[**UIRStatsMain.cpp**](#AAAAAAAAAP) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/**[**RStatsSSRN.h**](#AAAAAAAAAQ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/**[**RStatsSSRNSessionData.h**](#AAAAAAAABA) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/**[**UIRStatsSSRN.h**](#AAAAAAAABD) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/**[**main.cpp**](#AAAAAAAAAH) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/**[**RStatsSSRN.cpp**](#AAAAAAAABF) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/**[**RStatsSSRNSessionData.cpp**](#AAAAAAAABG) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/**[**UIRStatsSSRN.cpp**](#AAAAAAAABH) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/**[**RStatsSVA.h**](#AAAAAAAABI) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/**[**RStatsSVASessionData.h**](#AAAAAAAABS) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/**[**UIRStatsSVA.h**](#AAAAAAAABV) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/**[**main.cpp**](#AAAAAAAAAJ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/**[**RStatsSVA.cpp**](#AAAAAAAABX) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/**[**RStatsSVASessionData.cpp**](#AAAAAAAACG) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/**[**UIRStatsSVA.cpp**](#AAAAAAAACH) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/**[**RStatsUAA.h**](#AAAAAAAACI) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/**[**RStatsUAASessionData.h**](#AAAAAAAACQ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/**[**UIRStatsUAA.h**](#AAAAAAAACT) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/**[**main.cpp**](#AAAAAAAAAL) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/**[**RStatsUAA.cpp**](#AAAAAAAACV) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/**[**RStatsUAASessionData.cpp**](#AAAAAAAACW) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/**[**UIRStatsUAA.cpp**](#AAAAAAAACX) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/**[**RStatsUVA.h**](#AAAAAAAACY) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/**[**RStatsUVASessionData.h**](#AAAAAAAADC) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/**[**UIRStatsUVA.h**](#AAAAAAAADF) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/**[**main.cpp**](#AAAAAAAAAN) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/**[**RStatsUVA.cpp**](#AAAAAAAADH) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/**[**RStatsUVASessionData.cpp**](#AAAAAAAADI) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/**[**UIRStatsUVA.cpp**](#AAAAAAAADJ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsAbout.h**](#AAAAAAAADK) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsErrorMessage.h**](#AAAAAAAADN) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsLaunchConfigDialog.h**](#AAAAAAAADP) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsScriptProviderConfigDialog.h**](#AAAAAAAADR) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsSettingsManager.h**](#AAAAAAAADT) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsShortcut.h**](#AAAAAAAADV) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsTablePreviewWidget.h**](#AAAAAAAADX) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsUtils.hpp**](#AAAAAAAADZ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/**[**UIRStatsWorkbook.h**](#AAAAAAAAET) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsAbout.cpp**](#AAAAAAAAEV) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsErrorMessage.cpp**](#AAAAAAAAEW) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsLaunchConfigDialog.cpp**](#AAAAAAAAEX) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsScriptProviderConfigDialog.cpp**](#AAAAAAAAEY) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsSettingsManager.cpp**](#AAAAAAAAEZ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsShortcut.cpp**](#AAAAAAAAFA) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsTablePreviewWidget.cpp**](#AAAAAAAAFB) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/**[**UIRStatsWorkbook.cpp**](#AAAAAAAAFC) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsConditionLogger.h**](#AAAAAAAAFD) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsModuleProperties.h**](#AAAAAAAAFK) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsModuleSessionData.hpp**](#AAAAAAAAFM) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsModuleSessionDataImpl.h**](#AAAAAAAAFP) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsObjectList.hpp**](#AAAAAAAAFR) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsScriptProviderProperties.h**](#AAAAAAAAGA) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsTypes.hpp**](#AAAAAAAAGC) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsUtils.hpp**](#AAAAAAAAHA) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsWorkbook.h**](#AAAAAAAAIM) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsWorkbookStream.hpp**](#AAAAAAAAIR) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsWorkbookStreamFactory.h**](#AAAAAAAAIU) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/**[**RStatsWorksheet.h**](#AAAAAAAAIW) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/**[**RStatsCSVWorkbookStream.h**](#AAAAAAAAJI) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/**[**RStatsDIFWorkbookStream.h**](#AAAAAAAAJL) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/**[**RStatsSpaceOrTabDelimitedWorkbookStream.h**](#AAAAAAAAJV) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/**[**RStatsXLSWorkbookStream.h**](#AAAAAAAAJX) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/**[**RStatsXLSXWorkbookStream.h**](#AAAAAAAAJZ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsConditionLogger.cpp**](#AAAAAAAAKB) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsModuleProperties.cpp**](#AAAAAAAAKC) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsModuleSessionDataImpl.cpp**](#AAAAAAAAKD) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsScriptProviderProperties.cpp**](#AAAAAAAAKE) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsWorkbook.cpp**](#AAAAAAAAKF) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsWorkbookStreamFactory.cpp**](#AAAAAAAAKG) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/**[**RStatsWorksheet.cpp**](#AAAAAAAAKH) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/**[**RStatsCSVWorkbookStream.cpp**](#AAAAAAAAKI) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/**[**RStatsDIFWorkbookStream.cpp**](#AAAAAAAAKO) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/**[**RStatsSpaceOrTabDelimitedWorkbookStream.cpp**](#AAAAAAAAKP) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/**[**RStatsXLSWorkbookStream.cpp**](#AAAAAAAAKQ) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/**[**RStatsXLSXWorkbookStream.cpp**](#AAAAAAAAKR) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/tests/src/**[**test\_RStatsUtils.cpp**](#AAAAAAAAKS) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/tests/src/**[**test\_RStatsWorkbookStreams.cpp**](#AAAAAAAAKX) pagenum

**C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/tests/src/**[**test\_RStatsWorksheet.cpp**](#AAAAAAAALE) pagenum

**C:/dev/RStats2017/products/test\_TeamCBTek/src/**[**test\_RStatsUtils.cpp**](#AAAAAAAAKU) pagenum

# Namespace Documentation

## oig Namespace Reference

### Namespaces

[ratstats](#AAAAAAAAAD)

## oig::ratstats Namespace Reference

### Namespaces

[main](#AAAAAAAAAE)

[modules](#AAAAAAAAAV)

[ui](#AAAAAAAADM)

[utils](#AAAAAAAAFF)

## oig::ratstats::main Namespace Reference

### Classes

class [UIRStatsMain](#AAAAAAAAAB)

## oig::ratstats::modules Namespace Reference

### Namespaces

[ssrn](#AAAAAAAAAW)

[sva](#AAAAAAAABN)

[uaa](#AAAAAAAACL)

[uva](#AAAAAAAADB)

## oig::ratstats::modules::ssrn Namespace Reference

### Classes

class [RStatsSSRN](#AAAAAAAAAU)

*The* [*RStatsSSRN*](#AAAAAAAAAU) *class represents the Single Stage Random Numbers function. In the model-view-controller paradigm, this class represents the controller.* struct [RStatsSSRNInputData](#AAAAAAAAAT)

*The* [*RStatsSSRNInputData*](#AAAAAAAAAT) *struct.* struct [RStatsSSRNOutputData](#AAAAAAAAAS)

*The* [*RStatsSSRNOutputData*](#AAAAAAAAAS) *struct.* class [RStatsSSRNSessionData](#AAAAAAAABB)

*The* [*RStatsSSRNSessionData*](#AAAAAAAABB) *class represents the custom session data for single stage random numbers (SSRN)* struct [RStatsSSRNValue](#AAAAAAAAAR)

*The* [*RStatsSSRNValue*](#AAAAAAAAAR) *struct.* class [UIRStatsSSRN](#AAAAAAAABE)

### *The* [*UIRStatsSSRN*](#AAAAAAAABE) *class represents the code-behind for the single stage random number user interface. In the model-view-controller pardigm this class represents the view.* Enumerations

enum [RStatsSSRNOrderType](#AAAAAAAAAX) { [RStatsSSRNOrderType::SequentiallyOrdered](#AAAAAAAAAY), [RStatsSSRNOrderType::RandomlyOrdered](#AAAAAAAAAZ) }

### Variables

static const std::string [c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAABC) = "modules\_ssrn"

### Enumeration Type Documentation

#### enum [oig::ratstats::modules::ssrn::RStatsSSRNOrderType](#AAAAAAAAAX)[strong]

##### Enumerator:

|  |  |
| --- | --- |
| SequentiallyOrdered |  |
| RandomlyOrdered |  |

### Variable Documentation

#### const std::string oig::ratstats::modules::ssrn::c\_RECENT\_SESSION\_EXTENSION = "modules\_ssrn"[static]

#### 

## oig::ratstats::modules::sva Namespace Reference

### Namespaces

[constants](#AAAAAAAABY)

### Classes

class [RStatsSVA](#AAAAAAAABM)

*The* [*RStatsSVA*](#AAAAAAAABM) *class represents the stratified variable appraisal function. In the model-view-controller paradigm, this class represents the controller.* struct [RStatsSVAInputData](#AAAAAAAABJ)

*The* [*RStatsSVAInputData*](#AAAAAAAABJ) *struct represents the input data to the SVA function.* struct [RStatsSVAOutputData](#AAAAAAAABK)

*The* [*RStatsSVAOutputData*](#AAAAAAAABK) *struct represents the output data for the SVA function.* struct [RStatsSVAOutputDataTriplet](#AAAAAAAABL)

*The* [*RStatsSVAOutputDataTriplet*](#AAAAAAAABL) *struct.* class [RStatsSVASessionData](#AAAAAAAABT)

*The* [*RStatsSVASessionData*](#AAAAAAAABT) *class represents the custom session data for stratified variable appraisal (SVA)* class [UIRStatsSVA](#AAAAAAAABW)

### *The* [*UIRStatsSVA*](#AAAAAAAABW) *class represents the code-behind for the stratified variable appraisal user interface. In the model-view-controller pardigm this class represents the view.* Typedefs

typedef std::vector< [RStatsSVAOutputDataTriplet](#AAAAAAAABL) > [RStatsSVAOutputDataList](#AAAAAAAABO)

typedef std::vector< [RStatsSVAInputData](#AAAAAAAABJ) > [RStatsSVAInputDataList](#AAAAAAAABP)

typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< int > [RStatsSVAFlagList](#AAAAAAAABR)

### Variables

static const std::string [c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAABU) = "modules\_sva"

### Typedef Documentation

#### typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)<int> [oig::ratstats::modules::sva::RStatsSVAFlagList](#AAAAAAAABR)

#### typedef std::vector<[RStatsSVAInputData](#AAAAAAAABJ)> [oig::ratstats::modules::sva::RStatsSVAInputDataList](#AAAAAAAABP)

#### typedef std::vector<[RStatsSVAOutputDataTriplet](#AAAAAAAABL)> [oig::ratstats::modules::sva::RStatsSVAOutputDataList](#AAAAAAAABO)

### Variable Documentation

#### const std::string oig::ratstats::modules::sva::c\_RECENT\_SESSION\_EXTENSION = "modules\_sva"[static]

#### 

## oig::ratstats::modules::sva::constants Namespace Reference

### Variables

static const [RStatsFloat](#AAAAAAAABZ) [ZVAL80](#AAAAAAAACA) = 1.281551565545

static const [RStatsFloat](#AAAAAAAABZ) [ZVAL90](#AAAAAAAACB) = 1.644853626951

static const [RStatsFloat](#AAAAAAAABZ) [ZVAL95](#AAAAAAAACC) = 1.95996398454

static const size\_t [EXAMINE](#AAAAAAAACD) = 0

static const size\_t [AUDIT](#AAAAAAAACE) = 1

static const size\_t [DIFF](#AAAAAAAACF) = 2

### Variable Documentation

#### const size\_t oig::ratstats::modules::sva::constants::AUDIT = 1[static]

#### const size\_t oig::ratstats::modules::sva::constants::DIFF = 2[static]

#### const size\_t oig::ratstats::modules::sva::constants::EXAMINE = 0[static]

#### const [RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::constants::ZVAL80 = 1.281551565545[static]

#### const [RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::constants::ZVAL90 = 1.644853626951[static]

#### const [RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::constants::ZVAL95 = 1.95996398454[static]

#### 

## oig::ratstats::modules::uaa Namespace Reference

### Classes

class [RStatsUAA](#AAAAAAAACK)

*The* [*RStatsUAA*](#AAAAAAAACK) *class represents the unrestricted attribute appraisal function. In the model-view-controller paradigm, this class represents the controller.* struct [RStatsUAAOutputData](#AAAAAAAACJ)

*The* [*RStatsUAAOutputData*](#AAAAAAAACJ) *struct represents the output produced by the unrestricted attribute appraisal function.* class [RStatsUAASessionData](#AAAAAAAACR)

*The* [*RStatsUAASessionData*](#AAAAAAAACR) *class represents the custom session data for unrestricted attribute appraisal (UAA)* class [UIRStatsUAA](#AAAAAAAACU)

### *The* [*UIRStatsUAA*](#AAAAAAAACU) *class represents the code-behind for the unrestricted attribute appraisal user interface. In the model-view-controller pardigm this class represents the view.* Enumerations

enum [RStatsUAAConfidenceIntervalType](#AAAAAAAACM) { [RStatsUAAConfidenceIntervalType::OneSidedUpper](#AAAAAAAACN), [RStatsUAAConfidenceIntervalType::OneSidedLower](#AAAAAAAACO), [RStatsUAAConfidenceIntervalType::TwoSided](#AAAAAAAACP) }*The RStatsUAAConfidenceIntervalType enum.*

### Variables

static const std::string [c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAACS) = "modules\_uaa"

### Enumeration Type Documentation

#### enum [oig::ratstats::modules::uaa::RStatsUAAConfidenceIntervalType](#AAAAAAAACM)[strong]

The RStatsUAAConfidenceIntervalType enum.

##### Enumerator:

|  |  |
| --- | --- |
| OneSidedUpper |  |
| OneSidedLower |  |
| TwoSided |  |

### Variable Documentation

#### const std::string oig::ratstats::modules::uaa::c\_RECENT\_SESSION\_EXTENSION = "modules\_uaa"[static]

#### 

## oig::ratstats::modules::uva Namespace Reference

### Classes

class [RStatsUVA](#AAAAAAAADA)

*The* [*RStatsUVA*](#AAAAAAAADA) *class represents the unrestricted variable appraisal function. In the model-view-controller paradigm, this class represents the controller.* struct [RStatsUVAOutputData](#AAAAAAAACZ)

*The* [*RStatsUVAOutputData*](#AAAAAAAACZ) *struct This structure holds data for an single instance of output It is primarly used to populate the worksheet for saving.* class [RStatsUVASessionData](#AAAAAAAADD)

*The* [*RStatsUVASessionData*](#AAAAAAAADD) *class represents the custom session data for unrestricted variable appraisal (UVA)* class [UIRStatsUVA](#AAAAAAAADG)

### *The* [*UIRStatsUVA*](#AAAAAAAADG) *class represents the code-behind for the unrestricted variable appraisal user interface. In the model-view-controller pardigm this class represents the view.* Variables

static const std::string [c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAADE) = "modules\_uva"

### Variable Documentation

#### const std::string oig::ratstats::modules::uva::c\_RECENT\_SESSION\_EXTENSION = "modules\_uva"[static]

#### 

## oig::ratstats::ui Namespace Reference

### Namespaces

[UIRStatsUtils](#AAAAAAAAEA)

### *This namespace represents a collection of reusable functions that have access to the Qt classes.* Classes

class [UIRStatsAbout](#AAAAAAAADL)

*The* [*UIRStatsAbout*](#AAAAAAAADL) *class represents the code-behind for the "About" dialog used in RAT-STATS.* class [UIRStatsErrorMessage](#AAAAAAAADO)

*The* [*UIRStatsErrorMessage*](#AAAAAAAADO) *class represents the code-behind for a custom dialog for displaying error/exception messages.* class [UIRStatsLaunchConfigDialog](#AAAAAAAADQ)

*The* [*UIRStatsLaunchConfigDialog*](#AAAAAAAADQ) *class represents the code-behind for editing RStatsModuleProperties.* class [UIRStatsScriptProviderConfigDialog](#AAAAAAAADS)

*The* [*UIRStatsScriptProviderConfigDialog*](#AAAAAAAADS) *class provides code-behind for editing RStatsScriptProviderProperties.* class [UIRStatsSettingsManager](#AAAAAAAADU)

*The* [*UIRStatsSettingsManager*](#AAAAAAAADU) *class represents the properties in the settings dialog such as theme management and script provider management.* class [UIRStatsShortcut](#AAAAAAAADW)

*The* [*UIRStatsShortcut*](#AAAAAAAADW) *class is a custom overload of QShortcut to provide more useful "activated" signal that returns pointer to shortcut.* class [UIRStatsTablePreviewWidget](#AAAAAAAADY)

*The* [*UIRStatsTablePreviewWidget*](#AAAAAAAADY) *is a custom overload of the QTableWidget to provide the ability ignore the Tab key when viewing results in table. This allows the Tab key to go to the next sibling widget instead of being stuck in the table.* class [UIRStatsWorkbook](#AAAAAAAAEU)

*The* [*UIRStatsWorkbook*](#AAAAAAAAEU) *class is used by the SVA class to provide support for displaying multiple worksheets in the output results.*

## oig::ratstats::ui::UIRStatsUtils Namespace Reference

This namespace represents a collection of reusable functions that have access to the Qt classes.

### Functions

void [desktopOpen](#AAAAAAAAEB) (const std::string &url)

*desktopOpen Opens files and web urls on the desktp*

void [launchHtml](#AAAAAAAAEC) (const std::string &content)

*launchHtml Displays html content in system web browser*

void [launchHelp](#AAAAAAAAED) (const std::string &pdf)

*launchHelp Builds a url to the pdf item. Launches system pdf viewer with url as filePath.*

void [setCurrentText](#AAAAAAAAEE) (QComboBox \*combo, const std::string &text)

*setCurrentText*

QPixmap [getPixmap](#AAAAAAAAEF) (const std::string &pixmapFileName)

*getPixmap*

QIcon [getIcon](#AAAAAAAAEG) (const std::string &iconFileName)

*getIcon*

std::string [getCurrentTheme](#AAAAAAAAEH) ()

*getCurrentTheme*

void [loadThemeSettings](#AAAAAAAAEI) (QApplication \*app)

*loadThemeSettings*

void [highlightErrorInValidationConsole](#AAAAAAAAEJ) (QListWidget \*widget)

*highlightErrorInValidationConsole Ensures that the next error in the validation console is highlighted/focused.*

void [populateWithColumns](#AAAAAAAAEK) (const std::set< size\_t > &columns, QComboBox \*comboBox)

*populateWithColumns Populates combobox widget with column headers*

void [populateWithRows](#AAAAAAAAEL) (const std::set< size\_t > &rows, QComboBox \*comboBox)

*populateWithRows Populates combobox widget with row numbers*

void [bindUIToSheet](#AAAAAAAAEM) (QTableWidget \*table, [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sheetOut)

*bindUIToSheet*

void [bindSheetToUI](#AAAAAAAAEO) (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sheetIn, QTableWidget \*table, bool checkableHeader=false, int padRows=0, int padColumns=0, int numDecimalPlaces=-1, bool readOnly=false)

*bindSheetToUI This function copies fields in the model class (RStatsWorksheet) into the view object (QTableWidget)*

QString [setOutputFile](#AAAAAAAAEP) (QCheckBox \*checkBox, const QString &title, const QString &extension)

*setOutputFile Common code used by all the modules for saving output file*

template<typename ModuleType > std::pair< QActionGroup \*, QAction \* > [buildRecentSessions](#AAAAAAAAEQ) (QWidget \*parent, QAction \*menuRecentAction, std::map< std::string, [utils::RStatsModuleSessionDataPtr](#AAAAAAAAFO) > &sessionMapOut, const std::string &sessionExtension)

*buildRecentSessions Constructs the "Recently Used" menu used by the modules*

void [initAction](#AAAAAAAAER) (QAction \*action, const QString &icon, const QString &shortcut, const QFont &font=QFont())

*initAction*

void [initButton](#AAAAAAAAES) (QPushButton \*button, const QString &icon, const QFont &font=QFont(), int height=32)

*initButton*

### Detailed Description

This namespace represents a collection of reusable functions that have access to the Qt classes.

### Function Documentation

#### void oig::ratstats::ui::UIRStatsUtils::bindSheetToUI (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *sheetIn*, QTableWidget \* *table*, bool *checkableHeader* = false, int *padRows* = 0, int *padColumns* = 0, int *numDecimalPlaces* = -1, bool *readOnly* = false)[inline]

bindSheetToUI This function copies fields in the model class (RStatsWorksheet) into the view object (QTableWidget)

##### Parameters:

|  |  |
| --- | --- |
| *sheet* | The (model) worksheet input |
| *table* | The (view) table widget output |
| *padRows* | Number of extra (blank) rows to add |
| *padColumns* | Number of extra (blank) columns to add |
| *numDecimalPlaces* | Number of decimal places to round numeric values |
| *readOnly* | Makes the output table cells read only |

#### void oig::ratstats::ui::UIRStatsUtils::bindUIToSheet (QTableWidget \* *table*, [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *sheetOut*)[inline]

bindUIToSheet

##### Parameters:

|  |  |
| --- | --- |
| *table* |  |
| *sheetOut* |  |

#### template<typename ModuleType > std::pair<QActionGroup \*, QAction\*> oig::ratstats::ui::UIRStatsUtils::buildRecentSessions (QWidget \* *parent*, QAction \* *menuRecentAction*, std::map< std::string, [utils::RStatsModuleSessionDataPtr](#AAAAAAAAFO) > & *sessionMapOut*, const std::string & *sessionExtension*)[inline]

buildRecentSessions Constructs the "Recently Used" menu used by the modules

##### Parameters:

|  |  |
| --- | --- |
| *parent* |  |
| *menuRecentAction* |  |
| *sessionMapOut* |  |
| *sessionExtension* |  |

##### Returns:

#### void oig::ratstats::ui::UIRStatsUtils::desktopOpen (const std::string & *url*)[inline]

desktopOpen Opens files and web urls on the desktp

##### Parameters:

|  |  |
| --- | --- |
| *url* | Location of item to open |

#### std::string oig::ratstats::ui::UIRStatsUtils::getCurrentTheme ()[inline]

getCurrentTheme

##### Returns:

#### QIcon oig::ratstats::ui::UIRStatsUtils::getIcon (const std::string & *iconFileName*)[inline]

getIcon

##### Parameters:

|  |  |
| --- | --- |
| *iconFileName* |  |

##### Returns:

#### QPixmap oig::ratstats::ui::UIRStatsUtils::getPixmap (const std::string & *pixmapFileName*)[inline]

getPixmap

##### Parameters:

|  |  |
| --- | --- |
| *pixmapFileName* |  |

##### Returns:

#### void oig::ratstats::ui::UIRStatsUtils::highlightErrorInValidationConsole (QListWidget \* *widget*)[inline]

highlightErrorInValidationConsole Ensures that the next error in the validation console is highlighted/focused.

##### Parameters:

|  |  |
| --- | --- |
| *widget* | The validation console list widget |

#### void oig::ratstats::ui::UIRStatsUtils::initAction (QAction \* *action*, const QString & *icon*, const QString & *shortcut*, const QFont & *font* = QFont())[inline]

initAction

##### Parameters:

|  |  |
| --- | --- |
| *action* |  |
| *icon* |  |
| *shortcut* |  |
| *font* |  |

#### void oig::ratstats::ui::UIRStatsUtils::initButton (QPushButton \* *button*, const QString & *icon*, const QFont & *font* = QFont(), int *height* = 32)[inline]

initButton

##### Parameters:

|  |  |
| --- | --- |
| *button* |  |
| *icon* |  |
| *font* |  |
| *height* |  |

#### void oig::ratstats::ui::UIRStatsUtils::launchHelp (const std::string & *pdf*)[inline]

launchHelp Builds a url to the pdf item. Launches system pdf viewer with url as filePath.

##### Parameters:

|  |  |
| --- | --- |
| *pdf* | The filename portion of full url path |

#### void oig::ratstats::ui::UIRStatsUtils::launchHtml (const std::string & *content*)[inline]

launchHtml Displays html content in system web browser

##### Parameters:

|  |  |
| --- | --- |
| *content* | The html content to display |

#### void oig::ratstats::ui::UIRStatsUtils::loadThemeSettings (QApplication \* *app*)[inline]

loadThemeSettings

##### Parameters:

|  |  |
| --- | --- |
| *app* |  |

#### void oig::ratstats::ui::UIRStatsUtils::populateWithColumns (const std::set< size\_t > & *columns*, QComboBox \* *comboBox*)[inline]

populateWithColumns Populates combobox widget with column headers

##### Parameters:

|  |  |
| --- | --- |
| *columns* | Unique set of columns |
| *comboBox* | The combobox widget to populate |

#### void oig::ratstats::ui::UIRStatsUtils::populateWithRows (const std::set< size\_t > & *rows*, QComboBox \* *comboBox*)[inline]

populateWithRows Populates combobox widget with row numbers

##### Parameters:

|  |  |
| --- | --- |
| *rows* | Unique set of rows |
| *comboBox* | The combobox to populate |

#### void oig::ratstats::ui::UIRStatsUtils::setCurrentText (QComboBox \* *combo*, const std::string & *text*)[inline]

setCurrentText

##### Parameters:

|  |  |
| --- | --- |
| *combo* |  |
| *text* |  |

#### QString oig::ratstats::ui::UIRStatsUtils::setOutputFile (QCheckBox \* *checkBox*, const QString & *title*, const QString & *extension*)[inline]

setOutputFile Common code used by all the modules for saving output file

##### Parameters:

|  |  |
| --- | --- |
| *checkBox* |  |
| *title* |  |
| *extension* |  |

##### Returns:

## oig::ratstats::utils Namespace Reference

### Namespaces

[RStatsUtils](#AAAAAAAAHB)

*This namespace provides commonly used functions without requiring any dependencies on the Qt SDK.*  [streams](#AAAAAAAAJK)

### Classes

struct [RStatsCell](#AAAAAAAAIX)

*The* [*RStatsCell*](#AAAAAAAAIX) *struct represents a single cell object for a worksheet.* class [RStatsConditionLogger](#AAAAAAAAFE)

*The* [*RStatsConditionLogger*](#AAAAAAAAFE) *class provides support for creating warning, informative and error messages based on boolean conditions. This object is used by the modules for realtime error/exception monitoring.* struct [RStatsDataFormatTypeIndex](#AAAAAAAAGD)

*The* [*RStatsDataFormatTypeIndex*](#AAAAAAAAGD) *struct.* struct [RStatsMergeCellRange](#AAAAAAAAIY)

*The* [*RStatsMergeCellRange*](#AAAAAAAAIY) *struct.* class [RStatsModuleProperties](#AAAAAAAAFL)

*The* [*RStatsModuleProperties*](#AAAAAAAAFL) *class represents a individual module object in RAT-STATS. It provides a method of loading, saving and removing the module to/from disk.* class [RStatsModuleSessionData](#AAAAAAAAFN)

*The* [*RStatsModuleSessionData*](#AAAAAAAAFN) *interface is used by each of the modules to provide custom session data for the "Recently Used" feature. This interface represents the common functions that have to be implemented for each module.* class [RStatsModuleSessionDataImpl](#AAAAAAAAFQ)

*The* [*RStatsModuleSessionDataImpl*](#AAAAAAAAFQ) *abstract class is a partial base implementation of the* [*RStatsModuleSessionData*](#AAAAAAAAFN) *interface. It implements getters/setters for the common values.* class [RStatsObjectList](#AAAAAAAABQ)

*The* [*RStatsObjectList*](#AAAAAAAABQ) *class is used to represent a simple N-dimensional array with similar add/remove syntax with VB/VBA.* class [RStatsScriptProviderProperties](#AAAAAAAAGB)

*The* [*RStatsScriptProviderProperties*](#AAAAAAAAGB) *class represents all the fields neccessary to represent a script provider.* class [RStatsWorkbook](#AAAAAAAAIN)

*The* [*RStatsWorkbook*](#AAAAAAAAIN) *class represents a simple container for multiple worksheet objects.* class [RStatsWorkbookStream](#AAAAAAAAIS)

*The* [*RStatsWorkbookStream*](#AAAAAAAAIS) *interface represents a simple read/write stream for various workbook file formats.* class [RStatsWorkbookStreamFactory](#AAAAAAAAIV)

*The* [*RStatsWorkbookStreamFactory*](#AAAAAAAAIV) *static class provides a method for instantiating workbook streams for reading/writing. The extension on the filePath is used to determine which workbook stream implementation to use.* class [RStatsWorksheet](#AAAAAAAAEN)

### *The* [*RStatsWorksheet*](#AAAAAAAAEN) *class attempts to emulate a simple spreadsheet object basic formatting of cells.* Typedefs

typedef std::shared\_ptr< [RStatsModuleSessionData](#AAAAAAAAFN) > [RStatsModuleSessionDataPtr](#AAAAAAAAFO)

typedef float [float32\_t](#AAAAAAAAFS)

typedef double [float64\_t](#AAAAAAAAFT)

typedef long double [float128\_t](#AAAAAAAAFU)

typedef [RStatsObjectList](#AAAAAAAABQ)< std::int64\_t > [RStatsInt64List](#AAAAAAAAFV)

typedef [RStatsObjectList](#AAAAAAAABQ)< [float32\_t](#AAAAAAAAFS) > [RStatsFloat32List](#AAAAAAAAFW)

typedef [RStatsObjectList](#AAAAAAAABQ)< [float64\_t](#AAAAAAAAFT) > [RStatsFloat64List](#AAAAAAAAFX)

typedef [RStatsObjectList](#AAAAAAAABQ)< [float128\_t](#AAAAAAAAFU) > [RStatsFloat128List](#AAAAAAAAFY)

typedef [RStatsObjectList](#AAAAAAAABQ)< std::string > [RStatsStringList](#AAAAAAAAFZ)

typedef [oig::ratstats::utils::float64\_t](#AAAAAAAAFT) [RStatsFloat](#AAAAAAAABZ)

*Provides typedef for commonly used types in RAT-STATS.*

typedef std::int64\_t [RStatsInteger](#AAAAAAAAGE)

typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< [RStatsFloat](#AAAAAAAABZ) > [RStatsFloatList](#AAAAAAAAGF)

typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< [RStatsInteger](#AAAAAAAAGE) > [RStatsIntegerList](#AAAAAAAAGG)

typedef std::shared\_ptr< [RStatsWorkbookStream](#AAAAAAAAIS) > [RStatsWorkbookStreamPtr](#AAAAAAAAIT)

*RStatsWorkbookStreamPtr Typedef of shared pointer for this interface.*

typedef std::map< std::pair< size\_t, size\_t >, [RStatsCell](#AAAAAAAAIX) > [RStatsCellMap](#AAAAAAAAIZ)

typedef std::map< [RStatsMergeCellRange](#AAAAAAAAIY), [RStatsCell](#AAAAAAAAIX) > [RStatsMergedCellMap](#AAAAAAAAJA)

typedef std::shared\_ptr< [RStatsWorksheet](#AAAAAAAAEN) > [RStatsWorksheetPtr](#AAAAAAAAJB)

### Enumerations

enum [ConditionType](#AAAAAAAAFG) { [ConditionType::Warning](#AAAAAAAAFH), [ConditionType::Informative](#AAAAAAAAFI), [ConditionType::Error](#AAAAAAAAFJ) }

enum [RStatsCalculationType](#AAAAAAAAGH) { [RStatsCalculationType::Subtract](#AAAAAAAAGI), [RStatsCalculationType::Multiply](#AAAAAAAAGJ), [RStatsCalculationType::Add](#AAAAAAAAGK), [RStatsCalculationType::Divide](#AAAAAAAAGL) }*The RStatsCalculationType enumeration provides states for adding, multipling, subtracting and dividing.*

enum [RStatsDataFormatType](#AAAAAAAAGM) { [RStatsDataFormatType::Examine](#AAAAAAAAGN), [RStatsDataFormatType::Audit](#AAAAAAAAGO), [RStatsDataFormatType::Difference](#AAAAAAAAGP), [RStatsDataFormatType::ExamineAndAudit](#AAAAAAAAGQ), [RStatsDataFormatType::ExamineAndDifference](#AAAAAAAAGR), [RStatsDataFormatType::AuditAndDifference](#AAAAAAAAGS) }*The RStatsDataFormatType enumeration provides types to represent the data formats used by the SVA and UVA modules.*

enum [RStatsConditionalOperatorType](#AAAAAAAAGT) { [RStatsConditionalOperatorType::Equal](#AAAAAAAAGU), [RStatsConditionalOperatorType::NotEqual](#AAAAAAAAGV), [RStatsConditionalOperatorType::LessThan](#AAAAAAAAGW), [RStatsConditionalOperatorType::LessThanOrEqualTo](#AAAAAAAAGX), [RStatsConditionalOperatorType::GreaterThan](#AAAAAAAAGY), [RStatsConditionalOperatorType::GreaterThanOrEqualTo](#AAAAAAAAGZ) }*The RStatsConditionalOperatorType enum.*

enum [RStatsWorkbookMergeDirection](#AAAAAAAAIO) { [RStatsWorkbookMergeDirection::MergeBottom](#AAAAAAAAIP), [RStatsWorkbookMergeDirection::MergeRight](#AAAAAAAAIQ) }

enum [RStatsTextAlignment](#AAAAAAAAJC) { [RStatsTextAlignment::AlignLeft](#AAAAAAAAJD), [RStatsTextAlignment::AlignMiddle](#AAAAAAAAJE), [RStatsTextAlignment::AlignRight](#AAAAAAAAJF) }*The RStatsTextAlignment enum.*

enum [RStatsCellFormat](#AAAAAAAAJG) { [RStatsCellFormat::ThousandsSeperator](#AAAAAAAAJH) }*The RStatsCellFormat enum.*

### Typedef Documentation

#### typedef long double [oig::ratstats::utils::float128\_t](#AAAAAAAAFU)

#### typedef float [oig::ratstats::utils::float32\_t](#AAAAAAAAFS)

#### typedef double [oig::ratstats::utils::float64\_t](#AAAAAAAAFT)

#### typedef std::map<std::pair<size\_t, size\_t>, [RStatsCell](#AAAAAAAAIX)> [oig::ratstats::utils::RStatsCellMap](#AAAAAAAAIZ)

#### typedef [oig::ratstats::utils::float64\_t](#AAAAAAAAFT) [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ)

Provides typedef for commonly used types in RAT-STATS.

#### typedef [RStatsObjectList](#AAAAAAAABQ)<[float128\_t](#AAAAAAAAFU)> [oig::ratstats::utils::RStatsFloat128List](#AAAAAAAAFY)

#### typedef [RStatsObjectList](#AAAAAAAABQ)<[float32\_t](#AAAAAAAAFS)> [oig::ratstats::utils::RStatsFloat32List](#AAAAAAAAFW)

#### typedef [RStatsObjectList](#AAAAAAAABQ)<[float64\_t](#AAAAAAAAFT)> [oig::ratstats::utils::RStatsFloat64List](#AAAAAAAAFX)

#### typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)<[RStatsFloat](#AAAAAAAABZ)> [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF)

#### typedef [RStatsObjectList](#AAAAAAAABQ)<std::int64\_t> [oig::ratstats::utils::RStatsInt64List](#AAAAAAAAFV)

#### typedef std::int64\_t [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE)

#### typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)<[RStatsInteger](#AAAAAAAAGE)> [oig::ratstats::utils::RStatsIntegerList](#AAAAAAAAGG)

#### typedef std::map<[RStatsMergeCellRange](#AAAAAAAAIY), [RStatsCell](#AAAAAAAAIX)> [oig::ratstats::utils::RStatsMergedCellMap](#AAAAAAAAJA)

#### typedef std::shared\_ptr<[RStatsModuleSessionData](#AAAAAAAAFN)> [oig::ratstats::utils::RStatsModuleSessionDataPtr](#AAAAAAAAFO)

#### typedef [RStatsObjectList](#AAAAAAAABQ)<std::string> [oig::ratstats::utils::RStatsStringList](#AAAAAAAAFZ)

#### typedef std::shared\_ptr<[RStatsWorkbookStream](#AAAAAAAAIS)> [oig::ratstats::utils::RStatsWorkbookStreamPtr](#AAAAAAAAIT)

RStatsWorkbookStreamPtr Typedef of shared pointer for this interface.

#### typedef std::shared\_ptr<[RStatsWorksheet](#AAAAAAAAEN)> [oig::ratstats::utils::RStatsWorksheetPtr](#AAAAAAAAJB)

### Enumeration Type Documentation

#### enum [oig::ratstats::utils::ConditionType](#AAAAAAAAFG)[strong]

##### Enumerator:

|  |  |
| --- | --- |
| Warning |  |
| Informative |  |
| Error |  |

#### enum [oig::ratstats::utils::RStatsCalculationType](#AAAAAAAAGH)[strong]

The RStatsCalculationType enumeration provides states for adding, multipling, subtracting and dividing.

##### Enumerator:

|  |  |
| --- | --- |
| Subtract |  |
| Multiply |  |
| Add |  |
| Divide |  |

#### enum [oig::ratstats::utils::RStatsCellFormat](#AAAAAAAAJG)[strong]

The RStatsCellFormat enum.

##### Enumerator:

|  |  |
| --- | --- |
| ThousandsSeperator |  |

#### enum [oig::ratstats::utils::RStatsConditionalOperatorType](#AAAAAAAAGT)[strong]

The RStatsConditionalOperatorType enum.

##### Enumerator:

|  |  |
| --- | --- |
| Equal |  |
| NotEqual |  |
| LessThan |  |
| LessThanOrEqualTo |  |
| GreaterThan |  |
| GreaterThanOrEqualTo |  |

#### enum [oig::ratstats::utils::RStatsDataFormatType](#AAAAAAAAGM)[strong]

The RStatsDataFormatType enumeration provides types to represent the data formats used by the SVA and UVA modules.

##### Enumerator:

|  |  |
| --- | --- |
| Examine |  |
| Audit |  |
| Difference |  |
| ExamineAndAudit |  |
| ExamineAndDifference |  |
| AuditAndDifference |  |

#### enum [oig::ratstats::utils::RStatsTextAlignment](#AAAAAAAAJC)[strong]

The RStatsTextAlignment enum.

##### Enumerator:

|  |  |
| --- | --- |
| AlignLeft |  |
| AlignMiddle |  |
| AlignRight |  |

#### enum [oig::ratstats::utils::RStatsWorkbookMergeDirection](#AAAAAAAAIO)[strong]

##### Enumerator:

|  |  |
| --- | --- |
| MergeBottom |  |
| MergeRight |  |

## oig::ratstats::utils::RStatsUtils Namespace Reference

This namespace provides commonly used functions without requiring any dependencies on the Qt SDK.

### Functions

std::pair< std::string, std::string > [getDataFormatTypeStr](#AAAAAAAAHC) ([RStatsDataFormatType](#AAAAAAAAGM) type)

*getDataFormatTypeStr Gets the string representation of the data format type enumeration value*

template<class T > [RStatsInteger](#AAAAAAAAGE) [vbRound](#AAAAAAAAHD) (T value)

*vbRound This function attempts to simulate VB / VBA bankers rounding*

template<typename Integer > Integer [ipow](#AAAAAAAAHE) (Integer base, Integer exp)

*ipow Custom pow function for integers*

bool [isEqual](#AAAAAAAAHF) ([RStatsFloat](#AAAAAAAABZ) value1, [RStatsFloat](#AAAAAAAABZ) value2)

*isEqual Compares to floating point values*

template<typename Number > Number [getSum](#AAAAAAAAHG) (const [RStatsObjectList](#AAAAAAAABQ)< Number > &values, size\_t dimension=0)

*getSum Return sum of list of numbers*

template<typename Float > Float [getSumRaisedTo](#AAAAAAAAHH) (const [RStatsObjectList](#AAAAAAAABQ)< Float > &values, Float power, size\_t dimension=0)

*getSumRaisedTo Return sum of values raised to power*

template<typename Number > size\_t [getNumItemsThatMatchCondition](#AAAAAAAAHI) ([RStatsConditionalOperatorType](#AAAAAAAAGT) condition, const [RStatsObjectList](#AAAAAAAABQ)< Number > &values, Number value, size\_t dimension=0)

*getNumItemsThatMatchCondition Attempts to return the number of items in values that match the condition. Conditions can be =, !=, >, <, >= or <=*

template<typename Number > void [calculate](#AAAAAAAAHJ) (const [RStatsObjectList](#AAAAAAAABQ)< Number > &input1, const [RStatsObjectList](#AAAAAAAABQ)< Number > &input2, [RStatsObjectList](#AAAAAAAABQ)< Number > &result, [RStatsCalculationType](#AAAAAAAAGH) calculation, size\_t dimension=0)

*calculate This function takes in to* [*RStatsObjectList*](#AAAAAAAABQ) *structures and performs calculations on each element. The result is returned back in a third* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > [RStatsObjectList](#AAAAAAAABQ)< Number > [getNumbersAdded](#AAAAAAAAHK) (const [RStatsObjectList](#AAAAAAAABQ)< Number > &input1, const [RStatsObjectList](#AAAAAAAABQ)< Number > &input2, size\_t dimension=0)

*getNumbersAdded This function adds together two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > [RStatsObjectList](#AAAAAAAABQ)< Number > [getNumbersSubtracted](#AAAAAAAAHL) (const [RStatsObjectList](#AAAAAAAABQ)< Number > &input1, const [RStatsObjectList](#AAAAAAAABQ)< Number > &input2, size\_t dimension=0)

*getNumbersSubtracted This function subtracts two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > [RStatsObjectList](#AAAAAAAABQ)< Number > [getNumbersMultiplied](#AAAAAAAAHM) (const [RStatsObjectList](#AAAAAAAABQ)< Number > &input1, const [RStatsObjectList](#AAAAAAAABQ)< Number > &input2, size\_t dimension=0)

*getNumbersMultiplied This function multiplies two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > [RStatsObjectList](#AAAAAAAABQ)< Number > [getNumbersDivided](#AAAAAAAAHN) (const [RStatsObjectList](#AAAAAAAABQ)< Number > &input1, const [RStatsObjectList](#AAAAAAAABQ)< Number > &input2, size\_t dimension=0)

*getNumbersDivided This function divides two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

std::string [getValidPath](#AAAAAAAAHO) (const std::string &pathToValidate)

*getValidPath RAT-STATS makes use of external files and this function attempts to find a valid path for input files. To remain portable and self-contained, RAT-STATS checks the following places for external files: (1) The execution directory - This is where the RAT-STATS main menu and RAT-STATS internal modules are located.*

std::string [getModulePropertiesPath](#AAAAAAAAHP) ()

*getModulePropertiesPath Return valid path to module XML config directory*

std::string [getConfigPath](#AAAAAAAAHQ) ()

*getConfigPath Return valid path to config directory*

std::string [getContribPath](#AAAAAAAAHR) ()

*getContribPath Return valid path to contrib directory*

std::string [getScriptProviderPropertiesPath](#AAAAAAAAHS) ()

*getScriptProviderPropertiesPath Return valid path to script provider XML config directory*

std::string [getResourcePath](#AAAAAAAAHT) ()

*getResourcePath*

std::string [getThemeSettingsFilePath](#AAAAAAAAHU) ()

*getThemeSettingsFilePath*

std::vector< [RStatsModuleProperties](#AAAAAAAAFL) > [getModulePropertiesList](#AAAAAAAAHV) ()

*getModulePropertiesList Read all module properties from disk*

std::vector< std::string > [getModuleCategories](#AAAAAAAAHW) ()

*getModuleCategories Get list of all module categories*

std::vector< [RStatsScriptProviderProperties](#AAAAAAAAGB) > [getScriptProviderPropertiesList](#AAAAAAAAHX) ()

*getScriptProviderPropertiesList Get list of all parsed script provider from disk*

size\_t [getColumnIndexFromLabel](#AAAAAAAAHY) (const std::string &columnLabel)

*RStatsWorksheet::getColumnIndexFromLabel.*

std::string [getColumnLabelFromIndex](#AAAAAAAAHZ) (size\_t columnIndex)

*RStatsWorksheet::getColumnLabelFromIndex.*

std::pair< size\_t, size\_t > [getCellIndexFromAddress](#AAAAAAAAIA) (const std::string &cellAddress)

*getCellIndexFromAddress*

void [createValidPath](#AAAAAAAAIB) (const std::string &pathToCreate)

*createValidPath*

std::string [getValidSessionPath](#AAAAAAAAIC) ()

*getValidSessionPath*

std::vector< std::string > [getRecentSessions](#AAAAAAAAID) (const std::string &sessionExtension)

*getRecentSessions*

void [saveRecentSession](#AAAAAAAAIE) ([RStatsModuleSessionDataPtr](#AAAAAAAAFO) sessionPtr)

*saveRecentSession*

void [clearRecentSessions](#AAAAAAAAIF) (const std::string &sessionExtension)

*clearRecentSessions*

[RStatsFloat](#AAAAAAAABZ) [divideValues](#AAAAAAAAIG) ([RStatsInteger](#AAAAAAAAGE) value1, [RStatsInteger](#AAAAAAAAGE) value2)

*divideValues*

std::string [getAuditName](#AAAAAAAAIH) ()

*getRandomAuditName Generates random audit name for use when none is provided*

std::string [getApplicationName](#AAAAAAAAII) ()

*getApplicationName Returns name of application*

std::string [getCellLabel](#AAAAAAAAIJ) (size\_t row, size\_t column)

*getCellLabel Gets the spreadsheet cell label (A1, B4, etc) from 0-based row and column indices*

std::string [getValidModule](#AAAAAAAAIK) (const std::string &modulePath)

*getValidModule Returns string path to validated module*

bool [isValidModule](#AAAAAAAAIL) (const std::string &modulePath)

*isValidModule Determines if a module path can be validated*

### Detailed Description

This namespace provides commonly used functions without requiring any dependencies on the Qt SDK.

### Function Documentation

#### template<typename Number > void oig::ratstats::utils::RStatsUtils::calculate (const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input1*, const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input2*, [RStatsObjectList](#AAAAAAAABQ)< Number > & *result*, [RStatsCalculationType](#AAAAAAAAGH) *calculation*, size\_t *dimension* = 0)[inline]

calculate This function takes in to [RStatsObjectList](#AAAAAAAABQ) structures and performs calculations on each element. The result is returned back in a third [RStatsObjectList](#AAAAAAAABQ)

##### Parameters:

|  |  |
| --- | --- |
| *input1* | The first number list |
| *input2* | The second number list |
| *result* | Reference to the output list result |
| *calculation* | The calculation to perform |
| *dimension* | The dimension to perform the calculation in |

#### void oig::ratstats::utils::RStatsUtils::clearRecentSessions (const std::string & *sessionExtension*)[inline]

clearRecentSessions

##### Parameters:

|  |  |
| --- | --- |
| *sessionExtension* |  |

#### void oig::ratstats::utils::RStatsUtils::createValidPath (const std::string & *pathToCreate*)[inline]

createValidPath

##### Parameters:

|  |  |
| --- | --- |
| *pathToCreate* |  |

#### [RStatsFloat](#AAAAAAAABZ) oig::ratstats::utils::RStatsUtils::divideValues ([RStatsInteger](#AAAAAAAAGE) *value1*, [RStatsInteger](#AAAAAAAAGE) *value2*)[inline]

divideValues

##### Parameters:

|  |  |
| --- | --- |
| *value1* |  |
| *value2* |  |

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getApplicationName ()[inline]

getApplicationName Returns name of application

##### Returns:

Returns name of application

#### std::string oig::ratstats::utils::RStatsUtils::getAuditName ()[inline]

getRandomAuditName Generates random audit name for use when none is provided

##### Returns:

Return newly created random audit name

#### std::pair<size\_t,size\_t> oig::ratstats::utils::RStatsUtils::getCellIndexFromAddress (const std::string & *cellAddress*)[inline]

getCellIndexFromAddress

##### Parameters:

|  |  |
| --- | --- |
| *cellAddress* |  |

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getCellLabel (size\_t *row*, size\_t *column*)[inline]

getCellLabel Gets the spreadsheet cell label (A1, B4, etc) from 0-based row and column indices

##### Parameters:

|  |  |
| --- | --- |
| *row* | The row index |
| *column* | The column index |

##### Returns:

Return string with cell label (A1, B4, etc)

#### size\_t oig::ratstats::utils::RStatsUtils::getColumnIndexFromLabel (const std::string & *columnLabel*)[inline]

RStatsWorksheet::getColumnIndexFromLabel.

##### Parameters:

|  |  |
| --- | --- |
| *columnLabel* |  |

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getColumnLabelFromIndex (size\_t *columnIndex*)[inline]

RStatsWorksheet::getColumnLabelFromIndex.

##### Parameters:

|  |  |
| --- | --- |
| *columnIndex* |  |

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getConfigPath ()[inline]

getConfigPath Return valid path to config directory

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getContribPath ()[inline]

getContribPath Return valid path to contrib directory

##### Returns:

#### std::pair<std::string,std::string> oig::ratstats::utils::RStatsUtils::getDataFormatTypeStr ([RStatsDataFormatType](#AAAAAAAAGM) *type*)[inline]

getDataFormatTypeStr Gets the string representation of the data format type enumeration value

##### Parameters:

|  |  |
| --- | --- |
| *type* | The enumeration value to convert to string |

##### Returns:

Return string representation of data format type enumeration

#### std::vector<std::string> oig::ratstats::utils::RStatsUtils::getModuleCategories ()[inline]

getModuleCategories Get list of all module categories

##### Returns:

Return vector of module category names

#### std::vector<[RStatsModuleProperties](#AAAAAAAAFL)> oig::ratstats::utils::RStatsUtils::getModulePropertiesList ()[inline]

getModulePropertiesList Read all module properties from disk

##### Returns:

Return vector of all parsed module properties

#### std::string oig::ratstats::utils::RStatsUtils::getModulePropertiesPath ()[inline]

getModulePropertiesPath Return valid path to module XML config directory

##### Returns:

#### template<typename Number > [RStatsObjectList](#AAAAAAAABQ)<Number> oig::ratstats::utils::RStatsUtils::getNumbersAdded (const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input1*, const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input2*, size\_t *dimension* = 0)[inline]

getNumbersAdded This function adds together two RStatsObjetList structures and returns the result in another [RStatsObjectList](#AAAAAAAABQ)

##### Parameters:

|  |  |
| --- | --- |
| *input1* | The first number list |
| *input2* | The second number list |
| *dimension* | The dimension to add |

##### Returns:

Return number list of added results

#### template<typename Number > [RStatsObjectList](#AAAAAAAABQ)<Number> oig::ratstats::utils::RStatsUtils::getNumbersDivided (const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input1*, const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input2*, size\_t *dimension* = 0)[inline]

getNumbersDivided This function divides two RStatsObjetList structures and returns the result in another [RStatsObjectList](#AAAAAAAABQ)

##### Parameters:

|  |  |
| --- | --- |
| *input1* | The first number list |
| *input2* | The second number list |
| *dimension* | The dimension to divide |

##### Returns:

Return number list of divided results

#### template<typename Number > [RStatsObjectList](#AAAAAAAABQ)<Number> oig::ratstats::utils::RStatsUtils::getNumbersMultiplied (const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input1*, const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input2*, size\_t *dimension* = 0)[inline]

getNumbersMultiplied This function multiplies two RStatsObjetList structures and returns the result in another [RStatsObjectList](#AAAAAAAABQ)

##### Parameters:

|  |  |
| --- | --- |
| *input1* | The first number list |
| *input2* | The second number list |
| *dimension* | The dimension to multiply |

##### Returns:

Return number list of multiplied results

#### template<typename Number > [RStatsObjectList](#AAAAAAAABQ)<Number> oig::ratstats::utils::RStatsUtils::getNumbersSubtracted (const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input1*, const [RStatsObjectList](#AAAAAAAABQ)< Number > & *input2*, size\_t *dimension* = 0)[inline]

getNumbersSubtracted This function subtracts two RStatsObjetList structures and returns the result in another [RStatsObjectList](#AAAAAAAABQ)

##### Parameters:

|  |  |
| --- | --- |
| *input1* | The first number list |
| *input2* | The second number list |
| *dimension* | The dimension to subtract |

##### Returns:

Return number list of subtracted results

#### template<typename Number > size\_t oig::ratstats::utils::RStatsUtils::getNumItemsThatMatchCondition ([RStatsConditionalOperatorType](#AAAAAAAAGT) *condition*, const [RStatsObjectList](#AAAAAAAABQ)< Number > & *values*, Number *value*, size\_t *dimension* = 0)[inline]

getNumItemsThatMatchCondition Attempts to return the number of items in values that match the condition. Conditions can be =, !=, >, <, >= or <=

##### Parameters:

|  |  |
| --- | --- |
| *condition* | The condition to check |
| *values* | List of values |
| *value* | Number to compare to list of values |
| *dimension* | Dimension of values to check |

##### Returns:

total count of values that match condition

#### std::vector<std::string> oig::ratstats::utils::RStatsUtils::getRecentSessions (const std::string & *sessionExtension*)[inline]

getRecentSessions

##### Parameters:

|  |  |
| --- | --- |
| *sessionExtension* |  |

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getResourcePath ()[inline]

getResourcePath

##### Returns:

#### std::vector<[RStatsScriptProviderProperties](#AAAAAAAAGB)> oig::ratstats::utils::RStatsUtils::getScriptProviderPropertiesList ()[inline]

getScriptProviderPropertiesList Get list of all parsed script provider from disk

##### Returns:

Return vector of script provider properties

#### std::string oig::ratstats::utils::RStatsUtils::getScriptProviderPropertiesPath ()[inline]

getScriptProviderPropertiesPath Return valid path to script provider XML config directory

##### Returns:

#### template<typename Number > Number oig::ratstats::utils::RStatsUtils::getSum (const [RStatsObjectList](#AAAAAAAABQ)< Number > & *values*, size\_t *dimension* = 0)[inline]

getSum Return sum of list of numbers

##### Parameters:

|  |  |
| --- | --- |
| *values* | List of numbers to sum |
| *dimension* | Dimension of numbers to sum |

##### Returns:

total sum of all values

#### template<typename Float > Float oig::ratstats::utils::RStatsUtils::getSumRaisedTo (const [RStatsObjectList](#AAAAAAAABQ)< Float > & *values*, Float *power*, size\_t *dimension* = 0)[inline]

getSumRaisedTo Return sum of values raised to power

##### Parameters:

|  |  |
| --- | --- |
| *values* | List of numbers to sum |
| *power* | The power to raise each number to |
| *dimension* | The dimension of the numbers to sum |

##### Returns:

total sum of all raised values

#### std::string oig::ratstats::utils::RStatsUtils::getThemeSettingsFilePath ()[inline]

getThemeSettingsFilePath

##### Returns:

#### std::string oig::ratstats::utils::RStatsUtils::getValidModule (const std::string & *modulePath*)[inline]

getValidModule Returns string path to validated module

##### Parameters:

|  |  |
| --- | --- |
| *modulePath* | Initial (unvalidated) path to module |

##### Returns:

Returns validated path to module

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if modulePath could not be validated |

#### std::string oig::ratstats::utils::RStatsUtils::getValidPath (const std::string & *pathToValidate*)[inline]

getValidPath RAT-STATS makes use of external files and this function attempts to find a valid path for input files. To remain portable and self-contained, RAT-STATS checks the following places for external files: (1) The execution directory - This is where the RAT-STATS main menu and RAT-STATS internal modules are located.

(2) The users application folder - This is different per platform but it represents a folder that is readable/writable by the current user.

(3) The users home folder - As a last resort this folder is checked for the location of the file. If none of these paths are valid then an exception is thrown.

##### Parameters:

|  |  |
| --- | --- |
| *pathToValidate* | The path to look for in the above 3 locations |

##### Returns:

Returns validated path to "pathToValidate" item

##### Exceptions:

|  |  |
| --- | --- |
| *FileAccessException* | if a valid path could not be found |

#### std::string oig::ratstats::utils::RStatsUtils::getValidSessionPath ()[inline]

getValidSessionPath

##### Returns:

#### template<typename Integer > Integer oig::ratstats::utils::RStatsUtils::ipow (Integer *base*, Integer *exp*)[inline]

ipow Custom pow function for integers

##### Parameters:

|  |  |
| --- | --- |
| *base* | The base value |
| *exp* | The exponential value |

##### Returns:

Computed base raised to exp

#### bool oig::ratstats::utils::RStatsUtils::isEqual ([RStatsFloat](#AAAAAAAABZ) *value1*, [RStatsFloat](#AAAAAAAABZ) *value2*)[inline]

isEqual Compares to floating point values

##### Parameters:

|  |  |
| --- | --- |
| *value1* | First floating point value |
| *value2* | Second floating point value |

##### Returns:

True if the floats are equal, false otherwise

#### bool oig::ratstats::utils::RStatsUtils::isValidModule (const std::string & *modulePath*)[inline]

isValidModule Determines if a module path can be validated

##### Parameters:

|  |  |
| --- | --- |
| *modulePath* | Initial path to module |

##### Returns:

Returns true if path exists, false otherwise

#### void oig::ratstats::utils::RStatsUtils::saveRecentSession ([RStatsModuleSessionDataPtr](#AAAAAAAAFO) *sessionPtr*)[inline]

saveRecentSession

##### Parameters:

|  |  |
| --- | --- |
| *sessionData* |  |
| *sessionExtension* |  |

#### template<class T > [RStatsInteger](#AAAAAAAAGE) oig::ratstats::utils::RStatsUtils::vbRound (T *value*)[inline]

vbRound This function attempts to simulate VB / VBA bankers rounding

##### Parameters:

|  |  |
| --- | --- |
| *value* | The value to round |

##### Returns:

rounded integer value

## oig::ratstats::utils::streams Namespace Reference

### Classes

class [RStatsCSVWorkbookStream](#AAAAAAAAJJ)

*The* [*RStatsCSVWorkbookStream*](#AAAAAAAAJJ) *class provides support for reading/writing to a CSV file.* class [RStatsDIFWorkbookStream](#AAAAAAAAJM)

*The* [*RStatsDIFWorkbookStream*](#AAAAAAAAJM) *class provides support for reading from and writing to the data interchange format.* class [RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAAAJW)

*The* [*RStatsSpaceOrTabDelimitedWorkbookStream*](#AAAAAAAAJW) *class provides support for reading and writing to space and tab delimited files.* class [RStatsXLSWorkbookStream](#AAAAAAAAJY)

*The* [*RStatsXLSWorkbookStream*](#AAAAAAAAJY) *class Provides read/write support for XLS files.* class [RStatsXLSXWorkbookStream](#AAAAAAAAKA)

### *The* [*RStatsXLSXWorkbookStream*](#AAAAAAAAKA) *class provides read support for XLSX files. WARNING: The write function is not implemented and will throw an exception if called.* Enumerations

enum [RStatsDIFParseStates](#AAAAAAAAJN) { [RStatsDIFParseStates::Start](#AAAAAAAAJO), [RStatsDIFParseStates::ReadColumnCount](#AAAAAAAAJP), [RStatsDIFParseStates::ReadRowCount](#AAAAAAAAJQ), [RStatsDIFParseStates::ReadDummyData](#AAAAAAAAJR), [RStatsDIFParseStates::ReadRowData](#AAAAAAAAJS), [RStatsDIFParseStates::ReadStringData](#AAAAAAAAJT), [RStatsDIFParseStates::End](#AAAAAAAAJU) }*The RStatsDIFParseStates enum List of DIF parse states.*

enum [RStatsCSVDataParseTypes](#AAAAAAAAKJ) { [RStatsCSVDataParseTypes::Start](#AAAAAAAAKK), [RStatsCSVDataParseTypes::Empty](#AAAAAAAAKL), [RStatsCSVDataParseTypes::NotQuoted](#AAAAAAAAKM), [RStatsCSVDataParseTypes::Quoted](#AAAAAAAAKN) }

### Enumeration Type Documentation

#### enum [oig::ratstats::utils::streams::RStatsCSVDataParseTypes](#AAAAAAAAKJ)[strong]

##### Enumerator:

|  |  |
| --- | --- |
| Start |  |
| Empty |  |
| NotQuoted |  |
| Quoted |  |

#### enum [oig::ratstats::utils::streams::RStatsDIFParseStates](#AAAAAAAAJN)[strong]

The RStatsDIFParseStates enum List of DIF parse states.

##### Enumerator:

|  |  |
| --- | --- |
| Start |  |
| ReadColumnCount |  |
| ReadRowCount |  |
| ReadDummyData |  |
| ReadRowData |  |
| ReadStringData |  |
| End |  |

# Class Documentation

## oig::ratstats::utils::RStatsCell Struct Reference

The [RStatsCell](#AAAAAAAAIX) struct represents a single cell object for a worksheet.

#include <RStatsWorksheet.h>

### Public Member Functions

void [operator=](#AAAAAAAAWF) (const std::string &[text](#AAAAAAAAWG))

void [operator=](#AAAAAAAAWH) ([RStatsFloat](#AAAAAAAABZ) number)

void [operator=](#AAAAAAAAWI) ([RStatsInteger](#AAAAAAAAGE) number)

[RStatsCell](#AAAAAAAAWJ) (const std::string &[text](#AAAAAAAAWG)="")

### Public Attributes

cbtek::common::utility::Font [font](#AAAAAAAAWK)

cbtek::common::utility::Color [bgColor](#AAAAAAAAWL)

cbtek::common::utility::Color [fgColor](#AAAAAAAAWM)

[RStatsTextAlignment](#AAAAAAAAJC) [alignment](#AAAAAAAAWN)

std::string [text](#AAAAAAAAWG)

### Static Public Attributes

static [RStatsTextAlignment](#AAAAAAAAJC) [ms\_DefaultAlignment](#AAAAAAAAWO) = [RStatsTextAlignment::AlignLeft](#AAAAAAAAJD)

static cbtek::common::utility::Color [ms\_DefaultBGColor](#AAAAAAAAWP) = ColorFactory::create(colors::TRANSPARENT\_1)

static cbtek::common::utility::Color [ms\_DefaultFGColor](#AAAAAAAAWQ) = Color(0,0,0)

static cbtek::common::utility::Font [ms\_DefaultFont](#AAAAAAAAWR) = cbtek::common::utility::Font("arial")

static [RStatsCellFormat](#AAAAAAAAJG) [ms\_DefaultFormat](#AAAAAAAAWS)

static size\_t [ms\_DefaultFloatingPointDecimals](#AAAAAAAAWT) = 6

### Detailed Description

The [RStatsCell](#AAAAAAAAIX) struct represents a single cell object for a worksheet.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsCell::RStatsCell (const std::string & *text* = "")[inline]

### Member Function Documentation

#### void oig::ratstats::utils::RStatsCell::operator= (const std::string & *text*)[inline]

#### void oig::ratstats::utils::RStatsCell::operator= ([RStatsFloat](#AAAAAAAABZ) *number*)[inline]

#### void oig::ratstats::utils::RStatsCell::operator= ([RStatsInteger](#AAAAAAAAGE) *number*)[inline]

### Member Data Documentation

#### [RStatsTextAlignment](#AAAAAAAAJC) oig::ratstats::utils::RStatsCell::alignment

#### cbtek::common::utility::Color oig::ratstats::utils::RStatsCell::bgColor

#### cbtek::common::utility::Color oig::ratstats::utils::RStatsCell::fgColor

#### cbtek::common::utility::Font oig::ratstats::utils::RStatsCell::font

#### [RStatsTextAlignment](#AAAAAAAAJC) oig::ratstats::utils::RStatsCell::ms\_DefaultAlignment = [RStatsTextAlignment::AlignLeft](#AAAAAAAAJD)[static]

#### Color oig::ratstats::utils::RStatsCell::ms\_DefaultBGColor = ColorFactory::create(colors::TRANSPARENT\_1)[static]

#### Color oig::ratstats::utils::RStatsCell::ms\_DefaultFGColor = Color(0,0,0)[static]

#### size\_t oig::ratstats::utils::RStatsCell::ms\_DefaultFloatingPointDecimals = 6[static]

#### Font oig::ratstats::utils::RStatsCell::ms\_DefaultFont = cbtek::common::utility::Font("arial")[static]

#### [RStatsCellFormat](#AAAAAAAAJG) oig::ratstats::utils::RStatsCell::ms\_DefaultFormat[static]

#### std::string oig::ratstats::utils::RStatsCell::text

#### The documentation for this struct was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsWorksheet.h](#AAAAAAAAIW)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsWorksheet.cpp](#AAAAAAAAKH)

## oig::ratstats::utils::RStatsConditionLogger Class Reference

The [RStatsConditionLogger](#AAAAAAAAFE) class provides support for creating warning, informative and error messages based on boolean conditions. This object is used by the modules for realtime error/exception monitoring.

#include <RStatsConditionLogger.h>

### Public Member Functions

[RStatsConditionLogger](#AAAAAAAAWU) ()

[*RStatsConditionLogger*](#AAAAAAAAFE) *(Constructor)*

void [addWarning](#AAAAAAAAWV) (bool condition, const std::string &message)

*addWarning Adds warning condition to logger*

void [addInformation](#AAAAAAAAWW) (bool condition, const std::string &message)

*addInformation Adds information condition to logger*

void [addError](#AAAAAAAAWX) (bool condition, const std::string &message)

*addError Add error condition to logger*

const std::vector< std::string > & [getMessages](#AAAAAAAAWY) () const

*getMessages Get all the messages in logger*

bool [hasMessages](#AAAAAAAAWZ) () const

*hasMessages Determine if there are any messages*

bool [hasError](#AAAAAAAAXA) () const

*hasError Determine if there are any error messages*

bool [hasWarning](#AAAAAAAAXB) () const

*hasWarning Determine if there are any warning messages*

bool [hasInformation](#AAAAAAAAXC) () const

*hasInformation Determine if there are any information messages*

void [clear](#AAAAAAAAXD) ()

*clear Clears all messages from logger*

void [setWarningQSS](#AAAAAAAAXE) (const std::string &qss)

*setWarningQSS*

void [setErrorQSS](#AAAAAAAAXF) (const std::string &qss)

*setErrorQSS*

void [setInformationQSS](#AAAAAAAAXG) (const std::string &qss)

*setInformationQSS*

bool [isError](#AAAAAAAAXH) (size\_t index) const

*isError*

bool [isWarning](#AAAAAAAAXI) (size\_t index) const

*isWarning*

bool [isInformation](#AAAAAAAAXJ) (size\_t index) const

*isInformation*

[~RStatsConditionLogger](#AAAAAAAAXK) ()

*Destructor.*

### Detailed Description

The [RStatsConditionLogger](#AAAAAAAAFE) class provides support for creating warning, informative and error messages based on boolean conditions. This object is used by the modules for realtime error/exception monitoring.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsConditionLogger::RStatsConditionLogger ()

[RStatsConditionLogger](#AAAAAAAAFE) (Constructor)

#### oig::ratstats::utils::RStatsConditionLogger::~RStatsConditionLogger ()

Destructor.

### Member Function Documentation

#### void oig::ratstats::utils::RStatsConditionLogger::addError (bool *condition*, const std::string & *message*)

addError Add error condition to logger

##### Parameters:

|  |  |
| --- | --- |
| *condition* | COndition that shows error if true |
| *message* | The actual error message |

#### void oig::ratstats::utils::RStatsConditionLogger::addInformation (bool *condition*, const std::string & *message*)

addInformation Adds information condition to logger

##### Parameters:

|  |  |
| --- | --- |
| *condition* | Condition that shows information if true |
| *message* | The acutal information message |

#### void oig::ratstats::utils::RStatsConditionLogger::addWarning (bool *condition*, const std::string & *message*)

addWarning Adds warning condition to logger

##### Parameters:

|  |  |
| --- | --- |
| *condition* | Condition that shows warning if true |
| *message* | The actual warning message |

#### void oig::ratstats::utils::RStatsConditionLogger::clear ()

clear Clears all messages from logger

#### const std::vector< std::string > & oig::ratstats::utils::RStatsConditionLogger::getMessages () const

getMessages Get all the messages in logger

##### Returns:

Returns vector of string containing all messages

#### bool oig::ratstats::utils::RStatsConditionLogger::hasError () const

hasError Determine if there are any error messages

##### Returns:

Returns true if error messages exist, false otherwise

#### bool oig::ratstats::utils::RStatsConditionLogger::hasInformation () const

hasInformation Determine if there are any information messages

##### Returns:

Returns true if info messages exist, false otherwise

#### bool oig::ratstats::utils::RStatsConditionLogger::hasMessages () const

hasMessages Determine if there are any messages

##### Returns:

Returns true if messages exist, false otherwise

#### bool oig::ratstats::utils::RStatsConditionLogger::hasWarning () const

hasWarning Determine if there are any warning messages

##### Returns:

Returns true if warning messages exist, false otherwise

#### bool oig::ratstats::utils::RStatsConditionLogger::isError (size\_t *index*) const

isError

##### Parameters:

|  |  |
| --- | --- |
| *index* |  |

##### Returns:

#### bool oig::ratstats::utils::RStatsConditionLogger::isInformation (size\_t *index*) const

isInformation

##### Parameters:

|  |  |
| --- | --- |
| *index* |  |

##### Returns:

#### bool oig::ratstats::utils::RStatsConditionLogger::isWarning (size\_t *index*) const

isWarning

##### Parameters:

|  |  |
| --- | --- |
| *index* |  |

##### Returns:

#### void oig::ratstats::utils::RStatsConditionLogger::setErrorQSS (const std::string & *qss*)

setErrorQSS

##### Parameters:

|  |  |
| --- | --- |
| *qss* |  |

#### void oig::ratstats::utils::RStatsConditionLogger::setInformationQSS (const std::string & *qss*)

setInformationQSS

##### Parameters:

|  |  |
| --- | --- |
| *qss* |  |

#### void oig::ratstats::utils::RStatsConditionLogger::setWarningQSS (const std::string & *qss*)

setWarningQSS

##### Parameters:

|  |  |
| --- | --- |
| *qss* |  |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsConditionLogger.h](#AAAAAAAAFD)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsConditionLogger.cpp](#AAAAAAAAKB)

## oig::ratstats::utils::streams::RStatsCSVWorkbookStream Class Reference

The [RStatsCSVWorkbookStream](#AAAAAAAAJJ) class provides support for reading/writing to a CSV file.

#include <RStatsCSVWorkbookStream.h>

Inheritance diagram for oig::ratstats::utils::streams::RStatsCSVWorkbookStream:

### Public Member Functions

[RStatsCSVWorkbookStream](#AAAAAAABDV) (const std::string &filePath)

[*RStatsCSVWorkbookStream*](#AAAAAAAAJJ) *(Constructor) Sets the path for input/output.*

virtual void [write](#AAAAAAABCG) (const [RStatsWorkbook](#AAAAAAAAIN) &workbook)

*write Writes a workbook out to file. Note that this will only write the first sheet to the CSV file and add it to the workbook since CSV does not support mulitple sheets.*

virtual [RStatsWorkbook](#AAAAAAAAIN) [read](#AAAAAAABCB) ()

*read Reads a workbook from file. Note that this will only read a single sheet from the CSV file and add it to the workbook since CSV does not support mulitple sheets*

[~RStatsCSVWorkbookStream](#AAAAAAABDW) ()

*Destructor.*

### Detailed Description

The [RStatsCSVWorkbookStream](#AAAAAAAAJJ) class provides support for reading/writing to a CSV file.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::streams::RStatsCSVWorkbookStream::RStatsCSVWorkbookStream (const std::string & *filePath*)

[RStatsCSVWorkbookStream](#AAAAAAAAJJ) (Constructor) Sets the path for input/output.

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | The path to the input/output file |

#### oig::ratstats::utils::streams::RStatsCSVWorkbookStream::~RStatsCSVWorkbookStream ()

Destructor.

### Member Function Documentation

#### [RStatsWorkbook](#AAAAAAAAIN) oig::ratstats::utils::streams::RStatsCSVWorkbookStream::read ()[virtual]

read Reads a workbook from file. Note that this will only read a single sheet from the CSV file and add it to the workbook since CSV does not support mulitple sheets

##### Returns:

Return constructed Workbook object

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBX).

#### void oig::ratstats::utils::streams::RStatsCSVWorkbookStream::write (const [RStatsWorkbook](#AAAAAAAAIN) & *workbook*)[virtual]

write Writes a workbook out to file. Note that this will only write the first sheet to the CSV file and add it to the workbook since CSV does not support mulitple sheets.

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook object to write |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBW).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/[RStatsCSVWorkbookStream.h](#AAAAAAAAJI)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/[RStatsCSVWorkbookStream.cpp](#AAAAAAAAKI)

## oig::ratstats::utils::RStatsDataFormatTypeIndex Struct Reference

The [RStatsDataFormatTypeIndex](#AAAAAAAAGD) struct.

#include <RStatsTypes.hpp>

### Public Attributes

[RStatsDataFormatType](#AAAAAAAAGM) [type](#AAAAAAAAXL)

size\_t [primaryDatasetColumnIndex](#AAAAAAAAXM)

size\_t [secondaryDatasetColumnIndex](#AAAAAAAAXN)

### Detailed Description

The [RStatsDataFormatTypeIndex](#AAAAAAAAGD) struct.

### Member Data Documentation

#### size\_t oig::ratstats::utils::RStatsDataFormatTypeIndex::primaryDatasetColumnIndex

#### size\_t oig::ratstats::utils::RStatsDataFormatTypeIndex::secondaryDatasetColumnIndex

#### [RStatsDataFormatType](#AAAAAAAAGM) oig::ratstats::utils::RStatsDataFormatTypeIndex::type

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsTypes.hpp](#AAAAAAAAGC)

## oig::ratstats::utils::streams::RStatsDIFWorkbookStream Class Reference

The [RStatsDIFWorkbookStream](#AAAAAAAAJM) class provides support for reading from and writing to the data interchange format.

#include <RStatsDIFWorkbookStream.h>

Inheritance diagram for oig::ratstats::utils::streams::RStatsDIFWorkbookStream:

### Public Member Functions

[RStatsDIFWorkbookStream](#AAAAAAABDX) (const std::string &filePath)

[*RStatsDIFWorkbookStream*](#AAAAAAAAJM) *(Constructor)*

virtual void [write](#AAAAAAABCE) (const [RStatsWorkbook](#AAAAAAAAIN) &workbook)

*write Writes a workbook object to DIF at m\_filePath NOTE: For a multisheet workbook, only the first sheet is written*

virtual [RStatsWorkbook](#AAAAAAAAIN) [read](#AAAAAAABBZ) ()

*read Reads a DIF file at m\_filePath into a workbook object*

[~RStatsDIFWorkbookStream](#AAAAAAABDY) ()

*Destructor.*

### Detailed Description

The [RStatsDIFWorkbookStream](#AAAAAAAAJM) class provides support for reading from and writing to the data interchange format.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::streams::RStatsDIFWorkbookStream::RStatsDIFWorkbookStream (const std::string & *filePath*)

[RStatsDIFWorkbookStream](#AAAAAAAAJM) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | The path for reading/writing |

#### oig::ratstats::utils::streams::RStatsDIFWorkbookStream::~RStatsDIFWorkbookStream ()

Destructor.

### Member Function Documentation

#### [RStatsWorkbook](#AAAAAAAAIN) oig::ratstats::utils::streams::RStatsDIFWorkbookStream::read ()[virtual]

read Reads a DIF file at m\_filePath into a workbook object

##### Returns:

Returs workbook object of parsed DIF file

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if file could not be read from |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBX).

#### void oig::ratstats::utils::streams::RStatsDIFWorkbookStream::write (const [RStatsWorkbook](#AAAAAAAAIN) & *workbook*)[virtual]

write Writes a workbook object to DIF at m\_filePath NOTE: For a multisheet workbook, only the first sheet is written

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook to write |

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if file could not be written to |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBW).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/[RStatsDIFWorkbookStream.h](#AAAAAAAAJL)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/[RStatsDIFWorkbookStream.cpp](#AAAAAAAAKO)

## oig::ratstats::utils::RStatsMergeCellRange Struct Reference

The [RStatsMergeCellRange](#AAAAAAAAIY) struct.

#include <RStatsWorksheet.h>

### Public Member Functions

bool [contains](#AAAAAAAAXO) (size\_t row, size\_t column) const

bool [operator<](#AAAAAAAAXP) (const [RStatsMergeCellRange](#AAAAAAAAIY) &value) const

### Public Attributes

size\_t [startRow](#AAAAAAAAXQ)

size\_t [startColumn](#AAAAAAAAXR)

size\_t [rowOffset](#AAAAAAAAXS)

size\_t [columnOffset](#AAAAAAAAXT)

### Detailed Description

The [RStatsMergeCellRange](#AAAAAAAAIY) struct.

### Member Function Documentation

#### bool oig::ratstats::utils::RStatsMergeCellRange::contains (size\_t *row*, size\_t *column*) const[inline]

#### bool oig::ratstats::utils::RStatsMergeCellRange::operator< (const [RStatsMergeCellRange](#AAAAAAAAIY) & *value*) const[inline]

### Member Data Documentation

#### size\_t oig::ratstats::utils::RStatsMergeCellRange::columnOffset

#### size\_t oig::ratstats::utils::RStatsMergeCellRange::rowOffset

#### size\_t oig::ratstats::utils::RStatsMergeCellRange::startColumn

#### size\_t oig::ratstats::utils::RStatsMergeCellRange::startRow

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsWorksheet.h](#AAAAAAAAIW)

## oig::ratstats::utils::RStatsModuleProperties Class Reference

The [RStatsModuleProperties](#AAAAAAAAFL) class represents a individual module object in RAT-STATS. It provides a method of loading, saving and removing the module to/from disk.

#include <RStatsModuleProperties.h>

### Public Member Functions

[RStatsModuleProperties](#AAAAAAAAXU) ()

[*RStatsModuleProperties*](#AAAAAAAAFL) *(Constructor)*

void [setType](#AAAAAAAAXV) (const std::string &value)

*Setter for m\_type.*

void [setName](#AAAAAAAAXW) (const std::string &value)

*Setter for m\_name.*

void [setWorkingDir](#AAAAAAAAXX) (const std::string &value)

*Setter for m\_workingDir.*

void [setPath](#AAAAAAAAXY) (const std::string &value)

*Setter for m\_location.*

void [setCategory](#AAAAAAAAXZ) (const std::string &value)

*Setter for m\_group.*

void [setArgs](#AAAAAAAAYA) (const std::vector< std::pair< std::string, std::string > > &value)

*Setter for m\_args.*

std::string [getGeneratedApplicationCommand](#AAAAAAAAYB) () const

*getGeneratedApplicationCommand This fuction constructs a command string which includes module path, script (if applicable) and command line arguments*

void [generateApplicationCommand](#AAAAAAAAYC) (std::string &commandOut, std::string &argsOut)

*generateApplicationCommand*

void [setScriptPath](#AAAAAAAAYD) (const std::string &scriptFilePath)

*setScriptPrefix*

const std::string & [getScriptPath](#AAAAAAAAYE) () const

const std::string & [getType](#AAAAAAAAYF) () const

*Getter for m\_type.*

const std::string & [getName](#AAAAAAAAYG) () const

*Getter for m\_name.*

const std::string & [getWorkingDir](#AAAAAAAAYH) () const

*Getter for m\_workingDir.*

const std::string & [getPath](#AAAAAAAAYI) () const

*Getter for m\_location.*

const std::string & [getCategory](#AAAAAAAAYJ) () const

*Getter for m\_group.*

const std::string & [getConfigPath](#AAAAAAAAYK) () const

*getConfigPath*

const std::string & [getScriptPathArgs](#AAAAAAAAYL) () const

*Getter for m\_args.*

void [setScriptPathArgs](#AAAAAAAAYM) (const std::string &value)

*setArgs*

const std::string & [getArgs](#AAAAAAAAYN) () const

*Getter for m\_args.*

void [setArgs](#AAAAAAAAYO) (const std::string &value)

*setArgs*

void [setConfigPath](#AAAAAAAAYP) (const std::string &path)

*setConfigPath Sets the XML config file path*

void [loadConfig](#AAAAAAAAYQ) (const std::string &filePath)

*loadConfig*

void [saveConfig](#AAAAAAAAYR) (const std::string &filePath)

*saveConfig Saves XML config to filePath*

void [saveConfig](#AAAAAAAAYS) ()

*saveConfig Saves XML config to default filePath*

void [removeConfig](#AAAAAAAAYT) ()

*removeConfig Deletes XML config from default filePath*

void [setIcon](#AAAAAAAAYU) (const std::string &appIcon)

*setIcon*

std::string [getIcon](#AAAAAAAAYV) () const

*getIcon Returns string relative URL to icon resource*

bool [isConsoleShown](#AAAAAAAAYW) () const

*isConsoleShown Determines if command console should be shown.*

void [setConsoleShown](#AAAAAAAAYX) (bool flag)

*setConsoleShown Sets boolean flag for condition where the command console should be shown when launching a module.*

[~RStatsModuleProperties](#AAAAAAAAYY) ()

*Destructor.*

### Detailed Description

The [RStatsModuleProperties](#AAAAAAAAFL) class represents a individual module object in RAT-STATS. It provides a method of loading, saving and removing the module to/from disk.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsModuleProperties::RStatsModuleProperties ()

[RStatsModuleProperties](#AAAAAAAAFL) (Constructor)

#### oig::ratstats::utils::RStatsModuleProperties::~RStatsModuleProperties ()

Destructor.

### Member Function Documentation

#### void oig::ratstats::utils::RStatsModuleProperties::generateApplicationCommand (std::string & *commandOut*, std::string & *argsOut*)

generateApplicationCommand

##### Parameters:

|  |  |
| --- | --- |
| *commandOut* |  |
| *argsOut* |  |

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getArgs () const

Getter for m\_args.

##### Returns:

Return copy of m\_args

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getCategory () const

Getter for m\_group.

##### Returns:

Return copy of m\_group

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getConfigPath () const

getConfigPath

##### Returns:

#### std::string oig::ratstats::utils::RStatsModuleProperties::getGeneratedApplicationCommand () const

getGeneratedApplicationCommand This fuction constructs a command string which includes module path, script (if applicable) and command line arguments

##### Returns:

Returns string of full command thats ready to be launched

#### std::string oig::ratstats::utils::RStatsModuleProperties::getIcon () const

getIcon Returns string relative URL to icon resource

##### Returns:

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getName () const

Getter for m\_name.

##### Returns:

Return copy of m\_name

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getPath () const

Getter for m\_location.

##### Returns:

Return copy of m\_location

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getScriptPath () const

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getScriptPathArgs () const

Getter for m\_args.

##### Returns:

Return copy of m\_args

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getType () const

Getter for m\_type.

##### Returns:

Return copy of m\_type

#### const std::string & oig::ratstats::utils::RStatsModuleProperties::getWorkingDir () const

Getter for m\_workingDir.

##### Returns:

Return copy of m\_workingDir

#### bool oig::ratstats::utils::RStatsModuleProperties::isConsoleShown () const

isConsoleShown Determines if command console should be shown.

##### Returns:

Returns true if console should be shown, false otherwise

#### void oig::ratstats::utils::RStatsModuleProperties::loadConfig (const std::string & *filePath*)

loadConfig

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | Reads XML config from filePath |

#### void oig::ratstats::utils::RStatsModuleProperties::removeConfig ()

removeConfig Deletes XML config from default filePath

#### void oig::ratstats::utils::RStatsModuleProperties::saveConfig (const std::string & *filePath*)

saveConfig Saves XML config to filePath

#### void oig::ratstats::utils::RStatsModuleProperties::saveConfig ()

saveConfig Saves XML config to default filePath

#### void oig::ratstats::utils::RStatsModuleProperties::setArgs (const std::vector< std::pair< std::string, std::string > > & *value*)

Setter for m\_args.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_args |

#### void oig::ratstats::utils::RStatsModuleProperties::setArgs (const std::string & *value*)

setArgs

##### Parameters:

|  |  |
| --- | --- |
| *value* |  |

#### void oig::ratstats::utils::RStatsModuleProperties::setCategory (const std::string & *value*)

Setter for m\_group.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_group |

#### void oig::ratstats::utils::RStatsModuleProperties::setConfigPath (const std::string & *path*)

setConfigPath Sets the XML config file path

##### Parameters:

|  |  |
| --- | --- |
| *path* | The path to the XML config file |

#### void oig::ratstats::utils::RStatsModuleProperties::setConsoleShown (bool *flag*)

setConsoleShown Sets boolean flag for condition where the command console should be shown when launching a module.

##### Parameters:

|  |  |
| --- | --- |
| *flag* | The boolean flag to set |

#### void oig::ratstats::utils::RStatsModuleProperties::setIcon (const std::string & *appIcon*)

setIcon

##### Parameters:

|  |  |
| --- | --- |
| *appIcon* |  |

#### void oig::ratstats::utils::RStatsModuleProperties::setName (const std::string & *value*)

Setter for m\_name.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_name |

#### void oig::ratstats::utils::RStatsModuleProperties::setPath (const std::string & *value*)

Setter for m\_location.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_location |

#### void oig::ratstats::utils::RStatsModuleProperties::setScriptPath (const std::string & *scriptFilePath*)

setScriptPrefix

##### Parameters:

|  |  |
| --- | --- |
| *type* |  |
| *scriptFilePath* |  |

#### void oig::ratstats::utils::RStatsModuleProperties::setScriptPathArgs (const std::string & *value*)

setArgs

##### Parameters:

|  |  |
| --- | --- |
| *value* |  |

#### void oig::ratstats::utils::RStatsModuleProperties::setType (const std::string & *value*)

Setter for m\_type.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_type |

#### void oig::ratstats::utils::RStatsModuleProperties::setWorkingDir (const std::string & *value*)

Setter for m\_workingDir.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_workingDir |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsModuleProperties.h](#AAAAAAAAFK)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsModuleProperties.cpp](#AAAAAAAAKC)

## oig::ratstats::utils::RStatsModuleSessionData Class Reference

The [RStatsModuleSessionData](#AAAAAAAAFN) interface is used by each of the modules to provide custom session data for the "Recently Used" feature. This interface represents the common functions that have to be implemented for each module.

#include <RStatsModuleSessionData.hpp>

Inheritance diagram for oig::ratstats::utils::RStatsModuleSessionData:

### Public Member Functions

virtual std::string [getType](#AAAAAAAAYZ) () const =0

*getType The type of child class session data*

virtual void [save](#AAAAAAAAZA) (const std::string &url)=0

*save Called by sub-classes for saving custom fields*

virtual void [load](#AAAAAAAAZB) (const std::string &url)=0

*load Called by sub-classes for loading custom fields*

virtual const cbtek::common::utility::DateEntity & [getCreationDate](#AAAAAAAAZC) () const =0

*Getter for m\_creationDate.*

virtual const cbtek::common::utility::TimeEntity & [getCreationTime](#AAAAAAAAZD) () const =0

*Getter for m\_creationTime.*

virtual const std::string & [getCSVOutputFile](#AAAAAAAAZE) () const =0

*Getter for m\_csvOutputFile.*

virtual const std::string & [getTextOutputFile](#AAAAAAAAZF) () const =0

*Getter for m\_textOutputFile.*

virtual const std::string & [getAuditName](#AAAAAAAAZG) () const =0

*Getter for m\_auditName.*

virtual bool [isViewableInBrowser](#AAAAAAAAZH) () const =0

*isViewableInBrowser Flag to determine if module results are visible within a web browser*

virtual [~RStatsModuleSessionData](#AAAAAAAAZI) ()

*Virtual Destructor.*

### Detailed Description

The [RStatsModuleSessionData](#AAAAAAAAFN) interface is used by each of the modules to provide custom session data for the "Recently Used" feature. This interface represents the common functions that have to be implemented for each module.

### Constructor & Destructor Documentation

#### virtual oig::ratstats::utils::RStatsModuleSessionData::~RStatsModuleSessionData ()[inline], [virtual]

Virtual Destructor.

### Member Function Documentation

#### virtual const std::string& oig::ratstats::utils::RStatsModuleSessionData::getAuditName () const[pure virtual]

Getter for m\_auditName.

##### Returns:

Return copy of m\_auditName

Implemented in [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAZJ).

#### virtual const cbtek::common::utility::DateEntity& oig::ratstats::utils::RStatsModuleSessionData::getCreationDate () const[pure virtual]

Getter for m\_creationDate.

##### Returns:

Return copy of m\_creationDate

Implemented in [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAZK).

#### virtual const cbtek::common::utility::TimeEntity& oig::ratstats::utils::RStatsModuleSessionData::getCreationTime () const[pure virtual]

Getter for m\_creationTime.

##### Returns:

Return copy of m\_creationTime

Implemented in [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAZL).

#### virtual const std::string& oig::ratstats::utils::RStatsModuleSessionData::getCSVOutputFile () const[pure virtual]

Getter for m\_csvOutputFile.

##### Returns:

Return copy of m\_csvOutputFile

Implemented in [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAZM).

#### virtual const std::string& oig::ratstats::utils::RStatsModuleSessionData::getTextOutputFile () const[pure virtual]

Getter for m\_textOutputFile.

##### Returns:

Return copy of m\_textOutputFile

Implemented in [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAZN).

#### virtual std::string oig::ratstats::utils::RStatsModuleSessionData::getType () const[pure virtual]

getType The type of child class session data

##### Returns:

Return type of session data

Implemented in [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAAQJ), [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAAVA), [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAANG), [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAASX), and [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANK).

#### virtual bool oig::ratstats::utils::RStatsModuleSessionData::isViewableInBrowser () const[pure virtual]

isViewableInBrowser Flag to determine if module results are visible within a web browser

##### Returns:

Implemented in [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAZO).

#### virtual void oig::ratstats::utils::RStatsModuleSessionData::load (const std::string & *url*)[pure virtual]

load Called by sub-classes for loading custom fields

##### Parameters:

|  |  |
| --- | --- |
| *url* | The location to load the file from |

Implemented in [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAAQK), [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAAVC), [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAANH), [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAASY), and [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANL).

#### virtual void oig::ratstats::utils::RStatsModuleSessionData::save (const std::string & *url*)[pure virtual]

save Called by sub-classes for saving custom fields

##### Parameters:

|  |  |
| --- | --- |
| *url* | The location to save the file to |

Implemented in [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAAQL), [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAAVB), [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAANI), [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAASZ), and [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANM).

#### The documentation for this class was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsModuleSessionData.hpp](#AAAAAAAAFM)

## oig::ratstats::utils::RStatsModuleSessionDataImpl Class Reference

The [RStatsModuleSessionDataImpl](#AAAAAAAAFQ) abstract class is a partial base implementation of the [RStatsModuleSessionData](#AAAAAAAAFN) interface. It implements getters/setters for the common values.

#include <RStatsModuleSessionDataImpl.h>

Inheritance diagram for oig::ratstats::utils::RStatsModuleSessionDataImpl:

### Public Member Functions

[RStatsModuleSessionDataImpl](#AAAAAAAAZP) ()

[*RStatsModuleSessionDataImpl*](#AAAAAAAAFQ)*.*

virtual std::string [getType](#AAAAAAAANK) () const =0

*getType Get a string representing the subclass type*

virtual void [save](#AAAAAAAANM) (const std::string &url)=0

*save Calls virtual subclass method for saving*

virtual void [load](#AAAAAAAANL) (const std::string &url)=0

*load Calls virtual subclass method for loading*

void [setCreationDate](#AAAAAAAAZQ) (const cbtek::common::utility::DateEntity &value)

*Setter for m\_creationDate.*

void [setCreationTime](#AAAAAAAAZR) (const cbtek::common::utility::TimeEntity &value)

*Setter for m\_creationTime.*

void [setCSVOutputFile](#AAAAAAAAZS) (const std::string &value)

*Setter for m\_csvOutputFile.*

void [setXLSOutputFile](#AAAAAAAAZT) (const std::string &value)

*Setter for m\_xlsOutputFile.*

void [setTextOutputFile](#AAAAAAAAZU) (const std::string &value)

*Setter for m\_textOutputFile.*

void [setAuditName](#AAAAAAAAZV) (const std::string &value)

*Setter for m\_auditName.*

const cbtek::common::utility::DateEntity & [getCreationDate](#AAAAAAAAZK) () const

*Getter for m\_creationDate.*

const cbtek::common::utility::TimeEntity & [getCreationTime](#AAAAAAAAZL) () const

*Getter for m\_creationTime.*

const std::string & [getCSVOutputFile](#AAAAAAAAZM) () const

*Getter for m\_csvOutputFile.*

const std::string & [getXLSOutputFile](#AAAAAAAAZW) () const

*Getter for m\_xlsOutputFile.*

const std::string & [getTextOutputFile](#AAAAAAAAZN) () const

*Getter for m\_textOutputFile.*

const std::string & [getAuditName](#AAAAAAAAZJ) () const

*Getter for m\_auditName.*

void [setViewInBrowserFlag](#AAAAAAAAZX) (bool flag)

*setViewInBrowserFlag*

bool [isViewableInBrowser](#AAAAAAAAZO) () const

*isViewableInBrowser*

[~RStatsModuleSessionDataImpl](#AAAAAAAAZY) ()

*Destructor.*

### Protected Member Functions

void [save](#AAAAAAAAZZ) (cbtek::common::utility::XMLStreamWriter &writer)

*save Provides XML save support for common values. This is usually called by implementing modules.*

void [load](#AAAAAAABAA) (cbtek::common::utility::XMLDataElement \*element)

*load Provides XML load support for common values. This is usually called by implementing modules.*

### Detailed Description

The [RStatsModuleSessionDataImpl](#AAAAAAAAFQ) abstract class is a partial base implementation of the [RStatsModuleSessionData](#AAAAAAAAFN) interface. It implements getters/setters for the common values.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsModuleSessionDataImpl::RStatsModuleSessionDataImpl ()

[RStatsModuleSessionDataImpl](#AAAAAAAAFQ).

#### oig::ratstats::utils::RStatsModuleSessionDataImpl::~RStatsModuleSessionDataImpl ()

Destructor.

### Member Function Documentation

#### const std::string & oig::ratstats::utils::RStatsModuleSessionDataImpl::getAuditName () const[virtual]

Getter for m\_auditName.

##### Returns:

Return copy of m\_auditName

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZG).

#### const cbtek::common::utility::DateEntity & oig::ratstats::utils::RStatsModuleSessionDataImpl::getCreationDate () const[virtual]

Getter for m\_creationDate.

##### Returns:

Return copy of m\_creationDate

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZC).

#### const cbtek::common::utility::TimeEntity & oig::ratstats::utils::RStatsModuleSessionDataImpl::getCreationTime () const[virtual]

Getter for m\_creationTime.

##### Returns:

Return copy of m\_creationTime

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZD).

#### const std::string & oig::ratstats::utils::RStatsModuleSessionDataImpl::getCSVOutputFile () const[virtual]

Getter for m\_csvOutputFile.

##### Returns:

Return copy of m\_csvOutputFile

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZE).

#### const std::string & oig::ratstats::utils::RStatsModuleSessionDataImpl::getTextOutputFile () const[virtual]

Getter for m\_textOutputFile.

##### Returns:

Return copy of m\_textOutputFile

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZF).

#### virtual std::string oig::ratstats::utils::RStatsModuleSessionDataImpl::getType () const[pure virtual]

getType Get a string representing the subclass type

##### Returns:

Return string for type (m\_type)

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAYZ).

Implemented in [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAAQJ), [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAAVA), [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAANG), and [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAASX).

#### const std::string & oig::ratstats::utils::RStatsModuleSessionDataImpl::getXLSOutputFile () const

Getter for m\_xlsOutputFile.

##### Returns:

Return copy of m\_xlsOutputFile

#### bool oig::ratstats::utils::RStatsModuleSessionDataImpl::isViewableInBrowser () const[virtual]

isViewableInBrowser

##### Returns:

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZH).

#### virtual void oig::ratstats::utils::RStatsModuleSessionDataImpl::load (const std::string & *url*)[pure virtual]

load Calls virtual subclass method for loading

##### Parameters:

|  |  |
| --- | --- |
| *url* | Path to file to load |

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZB).

Implemented in [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAAQK), [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAAVC), [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAANH), and [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAASY).

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::load (cbtek::common::utility::XMLDataElement \* *element*)[protected]

load Provides XML load support for common values. This is usually called by implementing modules.

##### Parameters:

|  |  |
| --- | --- |
| *element* | Pointer to XML parse element |

#### virtual void oig::ratstats::utils::RStatsModuleSessionDataImpl::save (const std::string & *url*)[pure virtual]

save Calls virtual subclass method for saving

##### Parameters:

|  |  |
| --- | --- |
| *url* | Path to file to save |

Implements [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAZA).

Implemented in [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAAQL), [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAAVB), [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAANI), and [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAASZ).

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::save (cbtek::common::utility::XMLStreamWriter & *writer*)[protected]

save Provides XML save support for common values. This is usually called by implementing modules.

##### Parameters:

|  |  |
| --- | --- |
| *writer* | Reference to the XML outout writer |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setAuditName (const std::string & *value*)

Setter for m\_auditName.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_auditName |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setCreationDate (const cbtek::common::utility::DateEntity & *value*)

Setter for m\_creationDate.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_creationDate |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setCreationTime (const cbtek::common::utility::TimeEntity & *value*)

Setter for m\_creationTime.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_creationTime |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setCSVOutputFile (const std::string & *value*)

Setter for m\_csvOutputFile.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_csvOutputFile |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setTextOutputFile (const std::string & *value*)

Setter for m\_textOutputFile.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_textOutputFile |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setViewInBrowserFlag (bool *flag*)

setViewInBrowserFlag

##### Parameters:

|  |  |
| --- | --- |
| *flag* |  |

#### void oig::ratstats::utils::RStatsModuleSessionDataImpl::setXLSOutputFile (const std::string & *value*)

Setter for m\_xlsOutputFile.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_xlsOutputFile |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsModuleSessionDataImpl.h](#AAAAAAAAFP)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsModuleSessionDataImpl.cpp](#AAAAAAAAKD)

## oig::ratstats::utils::RStatsObjectList< T > Class Template Reference

The [RStatsObjectList](#AAAAAAAABQ) class is used to represent a simple N-dimensional array with similar add/remove syntax with VB/VBA.

#include <RStatsObjectList.hpp>

### Public Member Functions

[RStatsObjectList](#AAAAAAABAB) ()

[*RStatsObjectList*](#AAAAAAAABQ) *(Constructor)*

[RStatsObjectList](#AAAAAAABAC) (size\_t [size](#AAAAAAABAD), size\_t dimensionCount=1)

[*RStatsObjectList*](#AAAAAAAABQ) *(Constructor)*

void [initialize](#AAAAAAABAE) (size\_t [size](#AAAAAAABAD), size\_t dimensionCount=1)

*initialize*

size\_t [size](#AAAAAAABAD) (size\_t dimension=0) const

*size Returns the size of the vector at specified dimension*

T & [operator()](#AAAAAAABAF) (size\_t index, size\_t dimension=0)

*operator () Used to access the data by reference*

const T & [operator()](#AAAAAAABAG) (size\_t index, size\_t dimension=0) const

*operator () Used to access the data by const reference*

std::string [toString](#AAAAAAABAH) () const

*toString Converts all elements into a string and returns it*

std::string [toString](#AAAAAAABAI) (size\_t orderByDimension) const

*toString*

size\_t [getNumDimensions](#AAAAAAABAJ) () const

*getNumDimensions*

void [addValues](#AAAAAAABAK) (const [RStatsObjectList](#AAAAAAAABQ)< T > &values, size\_t sourceDimension=0)

*addValues*

void [addValues](#AAAAAAABAL) (const std::vector< T > &values)

*addValues*

[RStatsObjectList](#AAAAAAAABQ)< T > [getValues](#AAAAAAABAM) (size\_t dimension=0) const

*getValues*

const std::vector< T > & [toStdVector](#AAAAAAABAN) (size\_t dimension=0) const

*toStdVector*

void [clear](#AAAAAAABAO) ()

*clear*

void [sort](#AAAAAAABAP) (size\_t dimension=0)

*sort*

[~RStatsObjectList](#AAAAAAABAQ) ()

*Destructor.*

### Detailed Description

#### template<typename T>

#### class oig::ratstats::utils::RStatsObjectList< T >

The [RStatsObjectList](#AAAAAAAABQ) class is used to represent a simple N-dimensional array with similar add/remove syntax with VB/VBA.

### Constructor & Destructor Documentation

#### template<typename T > [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::[RStatsObjectList](#AAAAAAAABQ) ()

[RStatsObjectList](#AAAAAAAABQ) (Constructor)

#### template<typename T > [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::[RStatsObjectList](#AAAAAAAABQ) (size\_t *size*, size\_t *dimensionCount* = 1)

[RStatsObjectList](#AAAAAAAABQ) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *size* | The total size of the array |
| *dimensionCount* | The number of dimensions to create |

#### template<typename T > [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::~[RStatsObjectList](#AAAAAAAABQ) ()

Destructor.

### Member Function Documentation

#### template<typename T> void [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::addValues (const [RStatsObjectList](#AAAAAAAABQ)< T > & *values*, size\_t *sourceDimension* = 0)

addValues

##### Parameters:

|  |  |
| --- | --- |
| *values* |  |
| *dimensionForValues* |  |

#### template<typename T> void [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::addValues (const std::vector< T > & *values*)

addValues

##### Parameters:

|  |  |
| --- | --- |
| *values* |  |

#### template<typename T > void [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::clear ()

clear

#### template<typename T > size\_t [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::getNumDimensions () const

getNumDimensions

##### Returns:

#### template<typename T > [RStatsObjectList](#AAAAAAAABQ)< T > [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::getValues (size\_t *dimension* = 0) const

getValues

##### Parameters:

|  |  |
| --- | --- |
| *dimension* |  |

##### Returns:

#### template<typename T > void [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::initialize (size\_t *size*, size\_t *dimensionCount* = 1)

initialize

##### Parameters:

|  |  |
| --- | --- |
| *size* | The total size of the array |
| *dimensionCount* | The number of dimensions to create |

#### template<typename T > T & [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::operator() (size\_t *index*, size\_t *dimension* = 0)

operator () Used to access the data by reference

##### Parameters:

|  |  |
| --- | --- |
| *index* | Index of the element to access |
| *dimension* | The dimension to access |

##### Returns:

Return reference to type T

#### template<typename T > const T & [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::operator() (size\_t *index*, size\_t *dimension* = 0) const

operator () Used to access the data by const reference

##### Parameters:

|  |  |
| --- | --- |
| *index* | Index of the element to access |
| *dimension* | The dimension to access |

##### Returns:

Return const reference to type T

#### template<typename T > size\_t [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::size (size\_t *dimension* = 0) const

size Returns the size of the vector at specified dimension

##### Returns:

Return size\_t size of vector at specified dimension

#### template<typename T > void [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::sort (size\_t *dimension* = 0)

sort

##### Parameters:

|  |  |
| --- | --- |
| *dimension* |  |

#### template<typename T > const std::vector< T > & [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::toStdVector (size\_t *dimension* = 0) const

toStdVector

##### Parameters:

|  |  |
| --- | --- |
| *dimension* |  |

##### Returns:

#### template<typename T > std::string [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::toString () const

toString Converts all elements into a string and returns it

##### Returns:

Return string containing all elements

#### template<typename T > std::string [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< T >::toString (size\_t *orderByDimension*) const

toString

##### Parameters:

|  |  |
| --- | --- |
| *orderByDimension* |  |

##### Returns:

#### The documentation for this class was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsObjectList.hpp](#AAAAAAAAFR)

## oig::ratstats::utils::RStatsScriptProviderProperties Class Reference

The [RStatsScriptProviderProperties](#AAAAAAAAGB) class represents all the fields neccessary to represent a script provider.

#include <RStatsScriptProviderProperties.h>

### Public Member Functions

[RStatsScriptProviderProperties](#AAAAAAABAR) ()

[*RStatsScriptProviderProperties*](#AAAAAAAAGB) *(Constructor)*

void [setPath](#AAAAAAABAS) (const std::string &value)

*Setter for m\_path.*

void [setIcon](#AAAAAAABAT) (const std::string &value)

*Setter for m\_icon.*

void [setArgs](#AAAAAAABAU) (const std::string &value)

*Setter for m\_args.*

void [setName](#AAAAAAABAV) (const std::string &value)

*Setter for m\_name.*

const std::string & [getPath](#AAAAAAABAW) () const

*Getter for m\_path.*

const std::string & [getIcon](#AAAAAAABAX) () const

*Getter for m\_icon.*

const std::string & [getArgs](#AAAAAAABAY) () const

*Getter for m\_args.*

const std::string & [getName](#AAAAAAABAZ) () const

*Getter for m\_name.*

void [saveConfig](#AAAAAAABBA) ()

*saveConfig*

void [saveConfig](#AAAAAAABBB) (const std::string &filePath)

*saveConfig*

void [loadConfig](#AAAAAAABBC) (const std::string &filePath)

*loadConfig*

void [removeConfig](#AAAAAAABBD) ()

*removeConfigFile*

void [setConfigPath](#AAAAAAABBE) (const std::string &configPath)

*setConfigPath*

const std::string & [getConfigPath](#AAAAAAABBF) () const

*getConfigPath*

[~RStatsScriptProviderProperties](#AAAAAAABBG) ()

*Destructor.*

### Detailed Description

The [RStatsScriptProviderProperties](#AAAAAAAAGB) class represents all the fields neccessary to represent a script provider.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsScriptProviderProperties::RStatsScriptProviderProperties ()

[RStatsScriptProviderProperties](#AAAAAAAAGB) (Constructor)

#### oig::ratstats::utils::RStatsScriptProviderProperties::~RStatsScriptProviderProperties ()

Destructor.

### Member Function Documentation

#### const std::string & oig::ratstats::utils::RStatsScriptProviderProperties::getArgs () const

Getter for m\_args.

##### Returns:

Return copy of m\_args

#### const std::string & oig::ratstats::utils::RStatsScriptProviderProperties::getConfigPath () const

getConfigPath

##### Returns:

#### const std::string & oig::ratstats::utils::RStatsScriptProviderProperties::getIcon () const

Getter for m\_icon.

##### Returns:

Return copy of m\_icon

#### const std::string & oig::ratstats::utils::RStatsScriptProviderProperties::getName () const

Getter for m\_name.

##### Returns:

Return copy of m\_name

#### const std::string & oig::ratstats::utils::RStatsScriptProviderProperties::getPath () const

Getter for m\_path.

##### Returns:

Return copy of m\_path

#### void oig::ratstats::utils::RStatsScriptProviderProperties::loadConfig (const std::string & *filePath*)

loadConfig

##### Parameters:

|  |  |
| --- | --- |
| *filePath* |  |

#### void oig::ratstats::utils::RStatsScriptProviderProperties::removeConfig ()

removeConfigFile

#### void oig::ratstats::utils::RStatsScriptProviderProperties::saveConfig ()

saveConfig

#### void oig::ratstats::utils::RStatsScriptProviderProperties::saveConfig (const std::string & *filePath*)

saveConfig

##### Parameters:

|  |  |
| --- | --- |
| *filePath* |  |

#### void oig::ratstats::utils::RStatsScriptProviderProperties::setArgs (const std::string & *value*)

Setter for m\_args.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_args |

#### void oig::ratstats::utils::RStatsScriptProviderProperties::setConfigPath (const std::string & *configPath*)

setConfigPath

##### Parameters:

|  |  |
| --- | --- |
| *configPath* |  |

#### void oig::ratstats::utils::RStatsScriptProviderProperties::setIcon (const std::string & *value*)

Setter for m\_icon.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_icon |

#### void oig::ratstats::utils::RStatsScriptProviderProperties::setName (const std::string & *value*)

Setter for m\_name.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_name |

#### void oig::ratstats::utils::RStatsScriptProviderProperties::setPath (const std::string & *value*)

Setter for m\_path.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_path |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsScriptProviderProperties.h](#AAAAAAAAGA)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsScriptProviderProperties.cpp](#AAAAAAAAKE)

## oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream Class Reference

The [RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAAAJW) class provides support for reading and writing to space and tab delimited files.

#include <RStatsSpaceOrTabDelimitedWorkbookStream.h>

Inheritance diagram for oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream:

### Public Member Functions

[RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAABDZ) (const std::string &filePath)

[*RStatsSpaceOrTabDelimitedWorkbookStream*](#AAAAAAAAJW) *(Constructor) Sets the path for input/output.*

virtual void [write](#AAAAAAABCH) (const [RStatsWorkbook](#AAAAAAAAIN) &workbook)

*write Writes a workbook out to file. Note that this will only write the first sheet to the ssv,txt or dat file and add it to the workbook since CSV does not support mulitple sheets.*

virtual [RStatsWorkbook](#AAAAAAAAIN) [read](#AAAAAAABCC) ()

*read Reads a workbook from file. Note that this will only read a single sheet from the ssv,txt or dat file and add it to the workbook since they do not support mulitple sheets*

[~RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAABEA) ()

*Destructor.*

### Detailed Description

The [RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAAAJW) class provides support for reading and writing to space and tab delimited files.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream::RStatsSpaceOrTabDelimitedWorkbookStream (const std::string & *filePath*)

[RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAAAJW) (Constructor) Sets the path for input/output.

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | The path to the input/output file |

#### oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream::~RStatsSpaceOrTabDelimitedWorkbookStream ()

Destructor.

### Member Function Documentation

#### [RStatsWorkbook](#AAAAAAAAIN) oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream::read ()[virtual]

read Reads a workbook from file. Note that this will only read a single sheet from the ssv,txt or dat file and add it to the workbook since they do not support mulitple sheets

##### Returns:

Return constructed Workbook object

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBX).

#### void oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream::write (const [RStatsWorkbook](#AAAAAAAAIN) & *workbook*)[virtual]

write Writes a workbook out to file. Note that this will only write the first sheet to the ssv,txt or dat file and add it to the workbook since CSV does not support mulitple sheets.

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook object to write |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBW).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/[RStatsSpaceOrTabDelimitedWorkbookStream.h](#AAAAAAAAJV)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/[RStatsSpaceOrTabDelimitedWorkbookStream.cpp](#AAAAAAAAKP)

## oig::ratstats::modules::ssrn::RStatsSSRN Class Reference

The [RStatsSSRN](#AAAAAAAAAU) class represents the Single Stage Random Numbers function. In the model-view-controller paradigm, this class represents the controller.

#include <RStatsSSRN.h>

### Public Member Functions

[RStatsSSRNOutputData](#AAAAAAAAAS) [execute](#AAAAAAAAMD) (const std::string &auditName, [RStatsFloat](#AAAAAAAABZ) inputSeed, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) sequentialOrder, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) sparesInRandomOrder, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) lowNumber, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) highNumber)

*generateRandomNumbers*

void [saveToCSVFile](#AAAAAAAAME) (const std::string &filePath)

*saveToCSVWorksheetFile*

void [saveToWorksheet](#AAAAAAAAMF) ([oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &worksheetOut)

*saveToWorksheet Saves output results to worksheet reference*

void [saveToTextFile](#AAAAAAAAMG) (const std::string &filePath)

*saveToTextFile*

### Detailed Description

The [RStatsSSRN](#AAAAAAAAAU) class represents the Single Stage Random Numbers function. In the model-view-controller paradigm, this class represents the controller.

### Member Function Documentation

#### [RStatsSSRNOutputData](#AAAAAAAAAS) oig::ratstats::modules::ssrn::RStatsSSRN::execute (const std::string & *auditName*, [RStatsFloat](#AAAAAAAABZ) *inputSeed*, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) *sequentialOrder*, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) *sparesInRandomOrder*, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) *lowNumber*, [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) *highNumber*)

generateRandomNumbers

##### Parameters:

|  |  |
| --- | --- |
| *auditName* |  |
| *inputSeed* |  |
| *sequentialOrder* |  |
| *sparesInRandomOrder* |  |
| *lowNumber* |  |
| *highNumber* |  |

##### Returns:

#### void oig::ratstats::modules::ssrn::RStatsSSRN::saveToCSVFile (const std::string & *filePath*)

saveToCSVWorksheetFile

##### Parameters:

|  |  |
| --- | --- |
| *filePath* |  |

#### void oig::ratstats::modules::ssrn::RStatsSSRN::saveToTextFile (const std::string & *filePath*)

saveToTextFile

##### Parameters:

|  |  |
| --- | --- |
| *filePath* |  |

#### void oig::ratstats::modules::ssrn::RStatsSSRN::saveToWorksheet ([oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *worksheetOut*)

saveToWorksheet Saves output results to worksheet reference

##### Parameters:

|  |  |
| --- | --- |
| *worksheetOut* | Reference to worksheet to be returned |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/[RStatsSSRN.h](#AAAAAAAAAQ)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/[RStatsSSRN.cpp](#AAAAAAAABF)

## oig::ratstats::modules::ssrn::RStatsSSRNInputData Struct Reference

The [RStatsSSRNInputData](#AAAAAAAAAT) struct.

#include <RStatsSSRN.h>

### Public Attributes

double [ratStatValue](#AAAAAAAAMH)

double [excelValue](#AAAAAAAAMI)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [stepValue](#AAAAAAAAMJ)

### Detailed Description

The [RStatsSSRNInputData](#AAAAAAAAAT) struct.

### Member Data Documentation

#### double oig::ratstats::modules::ssrn::RStatsSSRNInputData::excelValue

#### double oig::ratstats::modules::ssrn::RStatsSSRNInputData::ratStatValue

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNInputData::stepValue

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/[RStatsSSRN.h](#AAAAAAAAAQ)

## oig::ratstats::modules::ssrn::RStatsSSRNOutputData Struct Reference

The [RStatsSSRNOutputData](#AAAAAAAAAS) struct.

#include <RStatsSSRN.h>

### Public Attributes

std::string [auditName](#AAAAAAAAMK)

std::vector< [RStatsSSRNValue](#AAAAAAAAAR) > [values](#AAAAAAAAML)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sum](#AAAAAAAAMM)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [upper](#AAAAAAAAMN)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [lower](#AAAAAAAAMO)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [seed](#AAAAAAAAMP)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [frameSize](#AAAAAAAAMQ)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sparesCount](#AAAAAAAAMR)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sequentialCount](#AAAAAAAAMS)

cbtek::common::utility::DateEntity [createDate](#AAAAAAAAMT)

cbtek::common::utility::TimeEntity [createTime](#AAAAAAAAMU)

### Detailed Description

The [RStatsSSRNOutputData](#AAAAAAAAAS) struct.

### Member Data Documentation

#### std::string oig::ratstats::modules::ssrn::RStatsSSRNOutputData::auditName

#### cbtek::common::utility::DateEntity oig::ratstats::modules::ssrn::RStatsSSRNOutputData::createDate

#### cbtek::common::utility::TimeEntity oig::ratstats::modules::ssrn::RStatsSSRNOutputData::createTime

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::frameSize

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::lower

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::seed

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::sequentialCount

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::sparesCount

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::sum

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNOutputData::upper

#### std::vector<[RStatsSSRNValue](#AAAAAAAAAR)> oig::ratstats::modules::ssrn::RStatsSSRNOutputData::values

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/[RStatsSSRN.h](#AAAAAAAAAQ)

## oig::ratstats::modules::ssrn::RStatsSSRNSessionData Class Reference

The [RStatsSSRNSessionData](#AAAAAAAABB) class represents the custom session data for single stage random numbers (SSRN)

#include <RStatsSSRNSessionData.h>

Inheritance diagram for oig::ratstats::modules::ssrn::RStatsSSRNSessionData:

### Public Member Functions

[RStatsSSRNSessionData](#AAAAAAAAMV) ()

*Constructor for* [*RStatsSSRNSessionData*](#AAAAAAAABB)*.*

void [setSeed](#AAAAAAAAMW) (const [utils::RStatsFloat](#AAAAAAAABZ) &value)

*Setter for m\_seed.*

void [setOrder](#AAAAAAAAMX) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_order.*

void [setSpares](#AAAAAAAAMY) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_spares.*

void [setLow](#AAAAAAAAMZ) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_low.*

void [setHigh](#AAAAAAAANA) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_high.*

const [utils::RStatsFloat](#AAAAAAAABZ) & [getSeed](#AAAAAAAANB) () const

*Getter for m\_seed.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getOrder](#AAAAAAAANC) () const

*Getter for m\_order.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getSpares](#AAAAAAAAND) () const

*Getter for m\_spares.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getLow](#AAAAAAAANE) () const

*Getter for m\_low.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getHigh](#AAAAAAAANF) () const

*Getter for m\_high.*

std::string [getType](#AAAAAAAANG) () const

*getType Get a string representing the subclass type*

void [load](#AAAAAAAANH) (const std::string &url)

*load*

void [save](#AAAAAAAANI) (const std::string &url)

*save*

[~RStatsSSRNSessionData](#AAAAAAAANJ) ()

*Destructor.*

### Additional Inherited Members

### Detailed Description

The [RStatsSSRNSessionData](#AAAAAAAABB) class represents the custom session data for single stage random numbers (SSRN)

### Constructor & Destructor Documentation

#### oig::ratstats::modules::ssrn::RStatsSSRNSessionData::RStatsSSRNSessionData ()

Constructor for [RStatsSSRNSessionData](#AAAAAAAABB).

Detailed description for [RStatsSSRNSessionData](#AAAAAAAABB)

#### oig::ratstats::modules::ssrn::RStatsSSRNSessionData::~RStatsSSRNSessionData ()

Destructor.

### Member Function Documentation

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::ssrn::RStatsSSRNSessionData::getHigh () const

Getter for m\_high.

##### Returns:

Return copy of m\_high

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::ssrn::RStatsSSRNSessionData::getLow () const

Getter for m\_low.

##### Returns:

Return copy of m\_low

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::ssrn::RStatsSSRNSessionData::getOrder () const

Getter for m\_order.

##### Returns:

Return copy of m\_order

#### const [RStatsFloat](#AAAAAAAABZ) & oig::ratstats::modules::ssrn::RStatsSSRNSessionData::getSeed () const

Getter for m\_seed.

##### Returns:

Return copy of m\_seed

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::ssrn::RStatsSSRNSessionData::getSpares () const

Getter for m\_spares.

##### Returns:

Return copy of m\_spares

#### std::string oig::ratstats::modules::ssrn::RStatsSSRNSessionData::getType () const[virtual]

getType Get a string representing the subclass type

##### Returns:

Return string for type (m\_type)

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANK).

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::load (const std::string & *url*)[virtual]

load

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANL).

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::save (const std::string & *url*)[virtual]

save

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANM).

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::setHigh (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_high.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_high |

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::setLow (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_low.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_low |

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::setOrder (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_order.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_order |

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::setSeed (const [utils::RStatsFloat](#AAAAAAAABZ) & *value*)

Setter for m\_seed.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_seed |

#### void oig::ratstats::modules::ssrn::RStatsSSRNSessionData::setSpares (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_spares.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_spares |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/[RStatsSSRNSessionData.h](#AAAAAAAABA)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/[RStatsSSRNSessionData.cpp](#AAAAAAAABG)

## oig::ratstats::modules::ssrn::RStatsSSRNValue Struct Reference

The [RStatsSSRNValue](#AAAAAAAAAR) struct.

#include <RStatsSSRN.h>

### Public Attributes

[RStatsInteger](#AAAAAAAAGE) [orderIndex](#AAAAAAAANN)

[RStatsInteger](#AAAAAAAAGE) [value](#AAAAAAAANO)

[RStatsSSRNOrderType](#AAAAAAAAAX) [orderType](#AAAAAAAANP)

### Detailed Description

The [RStatsSSRNValue](#AAAAAAAAAR) struct.

### Member Data Documentation

#### [RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNValue::orderIndex

#### [RStatsSSRNOrderType](#AAAAAAAAAX) oig::ratstats::modules::ssrn::RStatsSSRNValue::orderType

#### [RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::ssrn::RStatsSSRNValue::value

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/[RStatsSSRN.h](#AAAAAAAAAQ)

## oig::ratstats::modules::sva::RStatsSVA Class Reference

The [RStatsSVA](#AAAAAAAABM) class represents the stratified variable appraisal function. In the model-view-controller paradigm, this class represents the controller.

#include <RStatsSVA.h>

### Public Member Functions

[RStatsSVA](#AAAAAAAANT) ()

*Constructor for* [*RStatsSVA*](#AAAAAAAABM)*.*

[RStatsSVAOutputDataList](#AAAAAAAABO) [execute](#AAAAAAAANU) (const std::string &auditName, const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &dataSheet, const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sizeSheet, const [utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD) &dataSheetIndex, size\_t dataSheetRowStart, size\_t sizeSheetSampleSizeColumn, size\_t sizeSheetUniverseSizeColumn, size\_t sizeSheetRowStart)

*execute*

void [saveToWorkbook](#AAAAAAAANV) ([oig::ratstats::utils::RStatsWorkbook](#AAAAAAAAIN) &workbookOut)

*saveToWorkbook*

[~RStatsSVA](#AAAAAAAANW) ()

*Destructor.*

### Detailed Description

The [RStatsSVA](#AAAAAAAABM) class represents the stratified variable appraisal function. In the model-view-controller paradigm, this class represents the controller.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::sva::RStatsSVA::RStatsSVA ()

Constructor for [RStatsSVA](#AAAAAAAABM).

Detailed description for [RStatsSVA](#AAAAAAAABM)

#### oig::ratstats::modules::sva::RStatsSVA::~RStatsSVA ()

Destructor.

### Member Function Documentation

#### [RStatsSVAOutputDataList](#AAAAAAAABO) oig::ratstats::modules::sva::RStatsSVA::execute (const std::string & *auditName*, const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *dataSheet*, const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *sizeSheet*, const [utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD) & *dataSheetIndex*, size\_t *dataSheetRowStart*, size\_t *sizeSheetSampleSizeColumn*, size\_t *sizeSheetUniverseSizeColumn*, size\_t *sizeSheetRowStart*)

execute

##### Parameters:

|  |  |
| --- | --- |
| *sizeSheet* |  |
| *inputSheet* |  |
| *dataFormatType* |  |

##### Returns:

#### void oig::ratstats::modules::sva::RStatsSVA::saveToWorkbook ([oig::ratstats::utils::RStatsWorkbook](#AAAAAAAAIN) & *workbookOut*)

saveToWorkbook

##### Parameters:

|  |  |
| --- | --- |
| *outputList* |  |
| *workbookOut* |  |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/[RStatsSVA.h](#AAAAAAAABI)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/[RStatsSVA.cpp](#AAAAAAAABX)

## oig::ratstats::modules::sva::RStatsSVAInputData Struct Reference

The [RStatsSVAInputData](#AAAAAAAABJ) struct represents the input data to the SVA function.

#include <RStatsSVA.h>

### Public Attributes

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sampleSize](#AAAAAAAANX)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [universeSize](#AAAAAAAANY)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [interestSize](#AAAAAAAANZ)

[oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) [samples](#AAAAAAAAOA)

[oig::ratstats::utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD) [typeIndex](#AAAAAAAAOB)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [count](#AAAAAAAAOC)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [offset](#AAAAAAAAOD)

### Detailed Description

The [RStatsSVAInputData](#AAAAAAAABJ) struct represents the input data to the SVA function.

### Member Data Documentation

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAInputData::count

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAInputData::interestSize

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAInputData::offset

#### [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) oig::ratstats::modules::sva::RStatsSVAInputData::samples

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAInputData::sampleSize

#### [oig::ratstats::utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD) oig::ratstats::modules::sva::RStatsSVAInputData::typeIndex

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAInputData::universeSize

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/[RStatsSVA.h](#AAAAAAAABI)

## oig::ratstats::modules::sva::RStatsSVAOutputData Struct Reference

The [RStatsSVAOutputData](#AAAAAAAABK) struct represents the output data for the SVA function.

#include <RStatsSVA.h>

### Public Member Functions

[RStatsSVAOutputData](#AAAAAAAAOE) ()

### Public Attributes

std::string [typeName](#AAAAAAAAOF)

[oig::ratstats::utils::RStatsDataFormatType](#AAAAAAAAGM) [type](#AAAAAAAAOG)

bool [isDisplaySummary](#AAAAAAAAOH)

bool [isValid](#AAAAAAAAOI)

cbtek::common::utility::DateEntity [createDate](#AAAAAAAAOJ)

cbtek::common::utility::TimeEntity [createTime](#AAAAAAAAOK)

std::string [auditName](#AAAAAAAAOL)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [populationSize](#AAAAAAAAOM)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sampleSize](#AAAAAAAAON)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [nonZeroCount](#AAAAAAAAOO)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [mean](#AAAAAAAAOP)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardDeviation](#AAAAAAAAOQ)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [skewness](#AAAAAAAAOR)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardErrorMean](#AAAAAAAAOS)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardErrorTotal](#AAAAAAAAOT)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [kurtosis](#AAAAAAAAOU)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [pointEstimate](#AAAAAAAAOV)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [lower80](#AAAAAAAAOW)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [lower90](#AAAAAAAAOX)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [lower95](#AAAAAAAAOY)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [upper80](#AAAAAAAAOZ)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [upper90](#AAAAAAAAPA)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [upper95](#AAAAAAAAPB)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionAmount80](#AAAAAAAAPC)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionAmount90](#AAAAAAAAPD)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionAmount95](#AAAAAAAAPE)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [tValue80](#AAAAAAAAPF)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [tValue90](#AAAAAAAAPG)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [tValue95](#AAAAAAAAPH)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionPercent80](#AAAAAAAAPI)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionPercent90](#AAAAAAAAPJ)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionPercent95](#AAAAAAAAPK)

### Detailed Description

The [RStatsSVAOutputData](#AAAAAAAABK) struct represents the output data for the SVA function.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::sva::RStatsSVAOutputData::RStatsSVAOutputData ()[inline]

### Member Data Documentation

#### std::string oig::ratstats::modules::sva::RStatsSVAOutputData::auditName

#### cbtek::common::utility::DateEntity oig::ratstats::modules::sva::RStatsSVAOutputData::createDate

#### cbtek::common::utility::TimeEntity oig::ratstats::modules::sva::RStatsSVAOutputData::createTime

#### bool oig::ratstats::modules::sva::RStatsSVAOutputData::isDisplaySummary

#### bool oig::ratstats::modules::sva::RStatsSVAOutputData::isValid

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::kurtosis

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::lower80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::lower90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::lower95

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::mean

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAOutputData::nonZeroCount

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::pointEstimate

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAOutputData::populationSize

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::precisionAmount80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::precisionAmount90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::precisionAmount95

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::precisionPercent80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::precisionPercent90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::precisionPercent95

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::sva::RStatsSVAOutputData::sampleSize

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::skewness

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::standardDeviation

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::standardErrorMean

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::standardErrorTotal

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::tValue80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::tValue90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::tValue95

#### [oig::ratstats::utils::RStatsDataFormatType](#AAAAAAAAGM) oig::ratstats::modules::sva::RStatsSVAOutputData::type

#### std::string oig::ratstats::modules::sva::RStatsSVAOutputData::typeName

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::upper80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::upper90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::sva::RStatsSVAOutputData::upper95

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/[RStatsSVA.h](#AAAAAAAABI)

## oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet Struct Reference

The [RStatsSVAOutputDataTriplet](#AAAAAAAABL) struct.

#include <RStatsSVA.h>

### Public Attributes

[RStatsSVAOutputData](#AAAAAAAABK) [audit](#AAAAAAAAPL)

[RStatsSVAOutputData](#AAAAAAAABK) [examine](#AAAAAAAAPM)

[RStatsSVAOutputData](#AAAAAAAABK) [difference](#AAAAAAAAPN)

### Detailed Description

The [RStatsSVAOutputDataTriplet](#AAAAAAAABL) struct.

### Member Data Documentation

#### [RStatsSVAOutputData](#AAAAAAAABK) oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet::audit

#### [RStatsSVAOutputData](#AAAAAAAABK) oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet::difference

#### [RStatsSVAOutputData](#AAAAAAAABK) oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet::examine

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/[RStatsSVA.h](#AAAAAAAABI)

## oig::ratstats::modules::sva::RStatsSVASessionData Class Reference

The [RStatsSVASessionData](#AAAAAAAABT) class represents the custom session data for stratified variable appraisal (SVA)

#include <RStatsSVASessionData.h>

Inheritance diagram for oig::ratstats::modules::sva::RStatsSVASessionData:

### Public Member Functions

[RStatsSVASessionData](#AAAAAAAAPO) ()

*Constructor for* [*RStatsSVASessionData*](#AAAAAAAABT)*.*

void [setDataFormat](#AAAAAAAAPP) (const [utils::RStatsDataFormatType](#AAAAAAAAGM) &value)

*Setter for m\_dataFormat.*

void [setSizeTableFilePath](#AAAAAAAAPQ) (const std::string &value)

*Setter for m\_sizeTable.*

void [setDataTableFilePath](#AAAAAAAAPR) (const std::string &value)

*Setter for m\_dataTable.*

void [setSizeTableRowStart](#AAAAAAAAPS) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_sizeTableRowStart.*

void [setDataTableRowStart](#AAAAAAAAPT) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_dataTableRowStart.*

void [setUniverseColumn](#AAAAAAAAPU) (const std::string &value)

*Setter for m\_universeColumn.*

void [setSampleColumn](#AAAAAAAAPV) (const std::string &value)

*Setter for m\_sampleColumn.*

void [setDifferenceColumn](#AAAAAAAAPW) (const std::string &value)

*Setter for m\_differenceColumn.*

void [setAuditColumn](#AAAAAAAAPX) (const std::string &value)

*Setter for m\_auditColumn.*

void [setExamineColumn](#AAAAAAAAPY) (const std::string &value)

*Setter for m\_examineColumn.*

const [utils::RStatsDataFormatType](#AAAAAAAAGM) & [getDataFormat](#AAAAAAAAPZ) () const

*Getter for m\_dataFormat.*

const std::string & [getSizeTableFilePath](#AAAAAAAAQA) () const

*Getter for m\_sizeTable.*

const std::string & [getDataTableFilePath](#AAAAAAAAQB) () const

*Getter for m\_dataTable.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getSizeTableRowStart](#AAAAAAAAQC) () const

*Getter for m\_sizeTableRowStart.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getDataTableRowStart](#AAAAAAAAQD) () const

*Getter for m\_dataTableRowStart.*

const std::string & [getUniverseColumn](#AAAAAAAAQE) () const

*Getter for m\_universeColumn.*

const std::string & [getSampleColumn](#AAAAAAAAQF) () const

*Getter for m\_sampleColumn.*

const std::string & [getDifferenceColumn](#AAAAAAAAQG) () const

*Getter for m\_differenceColumn.*

const std::string & [getAuditColumn](#AAAAAAAAQH) () const

*Getter for m\_auditColumn.*

const std::string & [getExamineColumn](#AAAAAAAAQI) () const

*Getter for m\_examineColumn.*

std::string [getType](#AAAAAAAAQJ) () const

*getType*

void [load](#AAAAAAAAQK) (const std::string &url)

*load*

void [save](#AAAAAAAAQL) (const std::string &url)

*save*

void [setSizeTableSheetName](#AAAAAAAAQM) (const std::string &name)

*setSizeTableSheetName*

void [setDataTableSheetName](#AAAAAAAAQN) (const std::string &name)

*setDataTableSheetName*

std::string [getDataTableSheetName](#AAAAAAAAQO) () const

*getDataTableSheetName*

std::string [getSizeTableSheetName](#AAAAAAAAQP) () const

*getSizeTableSheetName*

[~RStatsSVASessionData](#AAAAAAAAQQ) ()

*Destructor.*

### Additional Inherited Members

### Detailed Description

The [RStatsSVASessionData](#AAAAAAAABT) class represents the custom session data for stratified variable appraisal (SVA)

### Constructor & Destructor Documentation

#### oig::ratstats::modules::sva::RStatsSVASessionData::RStatsSVASessionData ()

Constructor for [RStatsSVASessionData](#AAAAAAAABT).

Detailed description for [RStatsSVASessionData](#AAAAAAAABT)

#### oig::ratstats::modules::sva::RStatsSVASessionData::~RStatsSVASessionData ()

Destructor.

### Member Function Documentation

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getAuditColumn () const

Getter for m\_auditColumn.

##### Returns:

Return copy of m\_auditColumn

#### const [RStatsDataFormatType](#AAAAAAAAGM) & oig::ratstats::modules::sva::RStatsSVASessionData::getDataFormat () const

Getter for m\_dataFormat.

##### Returns:

Return copy of m\_dataFormat

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getDataTableFilePath () const

Getter for m\_dataTable.

##### Returns:

Return copy of m\_dataTable

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::sva::RStatsSVASessionData::getDataTableRowStart () const

Getter for m\_dataTableRowStart.

##### Returns:

Return copy of m\_dataTableRowStart

#### std::string oig::ratstats::modules::sva::RStatsSVASessionData::getDataTableSheetName () const

getDataTableSheetName

##### Returns:

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getDifferenceColumn () const

Getter for m\_differenceColumn.

##### Returns:

Return copy of m\_differenceColumn

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getExamineColumn () const

Getter for m\_examineColumn.

##### Returns:

Return copy of m\_examineColumn

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getSampleColumn () const

Getter for m\_sampleColumn.

##### Returns:

Return copy of m\_sampleColumn

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getSizeTableFilePath () const

Getter for m\_sizeTable.

##### Returns:

Return copy of m\_sizeTable

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::sva::RStatsSVASessionData::getSizeTableRowStart () const

Getter for m\_sizeTableRowStart.

##### Returns:

Return copy of m\_sizeTableRowStart

#### std::string oig::ratstats::modules::sva::RStatsSVASessionData::getSizeTableSheetName () const

getSizeTableSheetName

##### Returns:

#### std::string oig::ratstats::modules::sva::RStatsSVASessionData::getType () const[virtual]

getType

##### Returns:

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANK).

#### const std::string & oig::ratstats::modules::sva::RStatsSVASessionData::getUniverseColumn () const

Getter for m\_universeColumn.

##### Returns:

Return copy of m\_universeColumn

#### void oig::ratstats::modules::sva::RStatsSVASessionData::load (const std::string & *url*)[virtual]

load

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANL).

#### void oig::ratstats::modules::sva::RStatsSVASessionData::save (const std::string & *url*)[virtual]

save

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANM).

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setAuditColumn (const std::string & *value*)

Setter for m\_auditColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_auditColumn |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setDataFormat (const [utils::RStatsDataFormatType](#AAAAAAAAGM) & *value*)

Setter for m\_dataFormat.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataFormat |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setDataTableFilePath (const std::string & *value*)

Setter for m\_dataTable.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataTable |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setDataTableRowStart (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_dataTableRowStart.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataTableRowStart |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setDataTableSheetName (const std::string & *name*)

setDataTableSheetName

##### Parameters:

|  |  |
| --- | --- |
| *name* |  |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setDifferenceColumn (const std::string & *value*)

Setter for m\_differenceColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_differenceColumn |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setExamineColumn (const std::string & *value*)

Setter for m\_examineColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_examineColumn |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setSampleColumn (const std::string & *value*)

Setter for m\_sampleColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_sampleColumn |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setSizeTableFilePath (const std::string & *value*)

Setter for m\_sizeTable.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_sizeTable |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setSizeTableRowStart (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_sizeTableRowStart.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_sizeTableRowStart |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setSizeTableSheetName (const std::string & *name*)

setSizeTableSheetName

##### Parameters:

|  |  |
| --- | --- |
| *name* |  |

#### void oig::ratstats::modules::sva::RStatsSVASessionData::setUniverseColumn (const std::string & *value*)

Setter for m\_universeColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_universeColumn |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/[RStatsSVASessionData.h](#AAAAAAAABS)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/[RStatsSVASessionData.cpp](#AAAAAAAACG)

## oig::ratstats::modules::uaa::RStatsUAA Class Reference

The [RStatsUAA](#AAAAAAAACK) class represents the unrestricted attribute appraisal function. In the model-view-controller paradigm, this class represents the controller.

#include <RStatsUAA.h>

### Public Member Functions

[RStatsUAA](#AAAAAAAARR) ()

*Constructor for* [*RStatsUAA*](#AAAAAAAACK)*.*

[RStatsUAAOutputData](#AAAAAAAACJ) [execute](#AAAAAAAARS) (const std::string &auditName, [utils::RStatsInteger](#AAAAAAAAGE) sampleSize, [utils::RStatsInteger](#AAAAAAAAGE) universeSize, [utils::RStatsInteger](#AAAAAAAAGE) coiSize, [RStatsUAAConfidenceIntervalType](#AAAAAAAACM) type=[RStatsUAAConfidenceIntervalType::TwoSided](#AAAAAAAACP))

*execute This function executes the main unrestricted attribute appraisal function*

void [saveToCSVFile](#AAAAAAAART) (const std::string &filePath)

*saveToCSVWorksheetFile Saves output result to CSV file*

void [saveToWorksheet](#AAAAAAAARU) ([oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &worksheetOut)

*saveToWorksheet Saves output results to worksheet object*

void [saveToTextFile](#AAAAAAAARV) (const std::string &filePath)

*saveToTextFile Saves output result to text file*

[~RStatsUAA](#AAAAAAAARW) ()

*Destructor.*

### Detailed Description

The [RStatsUAA](#AAAAAAAACK) class represents the unrestricted attribute appraisal function. In the model-view-controller paradigm, this class represents the controller.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uaa::RStatsUAA::RStatsUAA ()

Constructor for [RStatsUAA](#AAAAAAAACK).

Detailed description for [RStatsUAA](#AAAAAAAACK)

#### oig::ratstats::modules::uaa::RStatsUAA::~RStatsUAA ()

Destructor.

### Member Function Documentation

#### [RStatsUAAOutputData](#AAAAAAAACJ) oig::ratstats::modules::uaa::RStatsUAA::execute (const std::string & *auditName*, [utils::RStatsInteger](#AAAAAAAAGE) *sampleSize*, [utils::RStatsInteger](#AAAAAAAAGE) *universeSize*, [utils::RStatsInteger](#AAAAAAAAGE) *coiSize*, [RStatsUAAConfidenceIntervalType](#AAAAAAAACM) *type* = [RStatsUAAConfidenceIntervalType::TwoSided](#AAAAAAAACP))

execute This function executes the main unrestricted attribute appraisal function

##### Parameters:

|  |  |
| --- | --- |
| *auditName* | The name of the audit |
| *sampleSize* | The input sample size |
| *universeSize* | The input universe size |
| *coiSize* | The characteristic of interest count |
| *type* | The data format type |

##### Returns:

#### void oig::ratstats::modules::uaa::RStatsUAA::saveToCSVFile (const std::string & *filePath*)

saveToCSVWorksheetFile Saves output result to CSV file

##### Parameters:

|  |  |
| --- | --- |
| *filePath* |  |

#### void oig::ratstats::modules::uaa::RStatsUAA::saveToTextFile (const std::string & *filePath*)

saveToTextFile Saves output result to text file

##### Parameters:

|  |  |
| --- | --- |
| *filePath* |  |

#### void oig::ratstats::modules::uaa::RStatsUAA::saveToWorksheet ([oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *worksheetOut*)

saveToWorksheet Saves output results to worksheet object

##### Parameters:

|  |  |
| --- | --- |
| *worksheetOut* | The worksheet to save to |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/[RStatsUAA.h](#AAAAAAAACI)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/[RStatsUAA.cpp](#AAAAAAAACV)

## oig::ratstats::modules::uaa::RStatsUAAOutputData Struct Reference

The [RStatsUAAOutputData](#AAAAAAAACJ) struct represents the output produced by the unrestricted attribute appraisal function.

#include <RStatsUAA.h>

### Public Member Functions

[RStatsUAAOutputData](#AAAAAAAARX) ()

### Public Attributes

cbtek::common::utility::DateEntity [createDate](#AAAAAAAARY)

cbtek::common::utility::TimeEntity [createTime](#AAAAAAAARZ)

std::string [auditName](#AAAAAAAASA)

[RStatsUAAConfidenceIntervalType](#AAAAAAAACM) [confidenceIntervalType](#AAAAAAAASB)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [universeSize](#AAAAAAAASC)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sampleSize](#AAAAAAAASD)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [coiSize](#AAAAAAAASE)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [projectedTotal](#AAAAAAAASF)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [projectedTotalPercent](#AAAAAAAASG)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [variance](#AAAAAAAASH)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardError](#AAAAAAAASI)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardErrorPercent](#AAAAAAAASJ)

[oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) [upperLimitPercentList](#AAAAAAAASK)

[oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) [lowerLimitQuantityList](#AAAAAAAASL)

[oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) [upperLimitQuantityList](#AAAAAAAASM)

[oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) [lowerLimitPercentList](#AAAAAAAASN)

### Detailed Description

The [RStatsUAAOutputData](#AAAAAAAACJ) struct represents the output produced by the unrestricted attribute appraisal function.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uaa::RStatsUAAOutputData::RStatsUAAOutputData ()[inline]

### Member Data Documentation

#### std::string oig::ratstats::modules::uaa::RStatsUAAOutputData::auditName

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uaa::RStatsUAAOutputData::coiSize

#### [RStatsUAAConfidenceIntervalType](#AAAAAAAACM) oig::ratstats::modules::uaa::RStatsUAAOutputData::confidenceIntervalType

#### cbtek::common::utility::DateEntity oig::ratstats::modules::uaa::RStatsUAAOutputData::createDate

#### cbtek::common::utility::TimeEntity oig::ratstats::modules::uaa::RStatsUAAOutputData::createTime

#### [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) oig::ratstats::modules::uaa::RStatsUAAOutputData::lowerLimitPercentList

#### [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) oig::ratstats::modules::uaa::RStatsUAAOutputData::lowerLimitQuantityList

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uaa::RStatsUAAOutputData::projectedTotal

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uaa::RStatsUAAOutputData::projectedTotalPercent

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uaa::RStatsUAAOutputData::sampleSize

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uaa::RStatsUAAOutputData::standardError

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uaa::RStatsUAAOutputData::standardErrorPercent

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uaa::RStatsUAAOutputData::universeSize

#### [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) oig::ratstats::modules::uaa::RStatsUAAOutputData::upperLimitPercentList

#### [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF) oig::ratstats::modules::uaa::RStatsUAAOutputData::upperLimitQuantityList

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uaa::RStatsUAAOutputData::variance

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/[RStatsUAA.h](#AAAAAAAACI)

## oig::ratstats::modules::uaa::RStatsUAASessionData Class Reference

The [RStatsUAASessionData](#AAAAAAAACR) class represents the custom session data for unrestricted attribute appraisal (UAA)

#include <RStatsUAASessionData.h>

Inheritance diagram for oig::ratstats::modules::uaa::RStatsUAASessionData:

### Public Member Functions

[RStatsUAASessionData](#AAAAAAAASO) ()

*Constructor for* [*RStatsUAASessionData*](#AAAAAAAACR)*.*

void [setDataFormat](#AAAAAAAASP) (const [utils::RStatsDataFormatType](#AAAAAAAAGM) &value)

*Setter for m\_dataFormat.*

void [setUniverseSize](#AAAAAAAASQ) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_universeSize.*

void [setSampleSize](#AAAAAAAASR) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_sampleSize.*

void [setCoiSize](#AAAAAAAASS) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_coiSize.*

const [utils::RStatsDataFormatType](#AAAAAAAAGM) & [getDataFormat](#AAAAAAAAST) () const

*Getter for m\_dataFormat.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getUniverseSize](#AAAAAAAASU) () const

*Getter for m\_universeSize.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getSampleSize](#AAAAAAAASV) () const

*Getter for m\_sampleSize.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getCoiSize](#AAAAAAAASW) () const

*Getter for m\_coiSize.*

std::string [getType](#AAAAAAAASX) () const

*getType*

void [load](#AAAAAAAASY) (const std::string &url)

*load*

void [save](#AAAAAAAASZ) (const std::string &url)

*save*

[~RStatsUAASessionData](#AAAAAAAATA) ()

*Destructor.*

### Additional Inherited Members

### Detailed Description

The [RStatsUAASessionData](#AAAAAAAACR) class represents the custom session data for unrestricted attribute appraisal (UAA)

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uaa::RStatsUAASessionData::RStatsUAASessionData ()

Constructor for [RStatsUAASessionData](#AAAAAAAACR).

Detailed description for [RStatsUAASessionData](#AAAAAAAACR)

#### oig::ratstats::modules::uaa::RStatsUAASessionData::~RStatsUAASessionData ()

Destructor.

### Member Function Documentation

#### const [utils::RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::uaa::RStatsUAASessionData::getCoiSize () const

Getter for m\_coiSize.

##### Returns:

Return copy of m\_coiSize

#### const [utils::RStatsDataFormatType](#AAAAAAAAGM) & oig::ratstats::modules::uaa::RStatsUAASessionData::getDataFormat () const

Getter for m\_dataFormat.

##### Returns:

Return copy of m\_dataFormat

#### const [utils::RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::uaa::RStatsUAASessionData::getSampleSize () const

Getter for m\_sampleSize.

##### Returns:

Return copy of m\_sampleSize

#### std::string oig::ratstats::modules::uaa::RStatsUAASessionData::getType () const[virtual]

getType

##### Returns:

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANK).

#### const [utils::RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::uaa::RStatsUAASessionData::getUniverseSize () const

Getter for m\_universeSize.

##### Returns:

Return copy of m\_universeSize

#### void oig::ratstats::modules::uaa::RStatsUAASessionData::load (const std::string & *url*)[virtual]

load

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANL).

#### void oig::ratstats::modules::uaa::RStatsUAASessionData::save (const std::string & *url*)[virtual]

save

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANM).

#### void oig::ratstats::modules::uaa::RStatsUAASessionData::setCoiSize (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_coiSize.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_coiSize |

#### void oig::ratstats::modules::uaa::RStatsUAASessionData::setDataFormat (const [utils::RStatsDataFormatType](#AAAAAAAAGM) & *value*)

Setter for m\_dataFormat.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataFormat |

#### void oig::ratstats::modules::uaa::RStatsUAASessionData::setSampleSize (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_sampleSize.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_sampleSize |

#### void oig::ratstats::modules::uaa::RStatsUAASessionData::setUniverseSize (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_universeSize.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_universeSize |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/[RStatsUAASessionData.h](#AAAAAAAACQ)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/[RStatsUAASessionData.cpp](#AAAAAAAACW)

## oig::ratstats::modules::uva::RStatsUVA Class Reference

The [RStatsUVA](#AAAAAAAADA) class represents the unrestricted variable appraisal function. In the model-view-controller paradigm, this class represents the controller.

#include <RStatsUVA.h>

### Public Member Functions

[RStatsUVA](#AAAAAAAATE) ()

*Constructor for* [*RStatsUVA*](#AAAAAAAADA)*.*

void [execute](#AAAAAAAATF) (const std::string &auditName, size\_t universeSize, const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &dataSheetInput, size\_t dataSheetRowOffset, const [oig::ratstats::utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD) &dataSheetDatasetColumnTypeIndex)

*execute This function executes the unrestricted variable appraisal algorithm*

void [saveToWorkbook](#AAAAAAAATG) ([oig::ratstats::utils::RStatsWorkbook](#AAAAAAAAIN) &workbook)

*saveToWorkbook This function saves all data output into a workbook structure*

[~RStatsUVA](#AAAAAAAATH) ()

*Destructor.*

### Detailed Description

The [RStatsUVA](#AAAAAAAADA) class represents the unrestricted variable appraisal function. In the model-view-controller paradigm, this class represents the controller.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uva::RStatsUVA::RStatsUVA ()

Constructor for [RStatsUVA](#AAAAAAAADA).

Detailed description for [RStatsUVA](#AAAAAAAADA)

#### oig::ratstats::modules::uva::RStatsUVA::~RStatsUVA ()

Destructor.

### Member Function Documentation

#### void oig::ratstats::modules::uva::RStatsUVA::execute (const std::string & *auditName*, size\_t *universeSize*, const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *dataSheetInput*, size\_t *dataSheetRowOffset*, const [oig::ratstats::utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD) & *dataSheetDatasetColumnTypeIndex*)

execute This function executes the unrestricted variable appraisal algorithm

##### Parameters:

|  |  |
| --- | --- |
| *auditName* | Name of the audit |
| *universeSize* | Universe/Population size |
| *dataSheetInput* | Datasheet containing all the values |
| *dataSheetRowOffset* | Starting row for the data |
| *dataSheetDatasetColumnTypeIndex* | Structure that contains column information for the sheet as well as data output format |

#### void oig::ratstats::modules::uva::RStatsUVA::saveToWorkbook ([oig::ratstats::utils::RStatsWorkbook](#AAAAAAAAIN) & *workbook*)

saveToWorkbook This function saves all data output into a workbook structure

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook to write to |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/[RStatsUVA.h](#AAAAAAAACY)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/[RStatsUVA.cpp](#AAAAAAAADH)

## oig::ratstats::modules::uva::RStatsUVAOutputData Struct Reference

The [RStatsUVAOutputData](#AAAAAAAACZ) struct This structure holds data for an single instance of output It is primarly used to populate the worksheet for saving.

#include <RStatsUVA.h>

### Public Attributes

std::string [title](#AAAAAAAATI)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [populationSize](#AAAAAAAATJ)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [sampleSize](#AAAAAAAATK)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [nonZeroSize](#AAAAAAAATL)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [mean](#AAAAAAAATM)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardDeviation](#AAAAAAAATN)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [standardErrorMean](#AAAAAAAATO)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [standardErrorTotal](#AAAAAAAATP)

[oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) [pointEstimate](#AAAAAAAATQ)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [lower80](#AAAAAAAATR)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [lower90](#AAAAAAAATS)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [lower95](#AAAAAAAATT)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [upper80](#AAAAAAAATU)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [upper90](#AAAAAAAATV)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [upper95](#AAAAAAAATW)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [kurtosis](#AAAAAAAATX)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [skewness](#AAAAAAAATY)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionAmount80](#AAAAAAAATZ)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionAmount90](#AAAAAAAAUA)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionAmount95](#AAAAAAAAUB)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionPercent80](#AAAAAAAAUC)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionPercent90](#AAAAAAAAUD)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [precisionPercent95](#AAAAAAAAUE)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [tValue80](#AAAAAAAAUF)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [tValue90](#AAAAAAAAUG)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [tValue95](#AAAAAAAAUH)

[oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) [totalAmount](#AAAAAAAAUI)

### Detailed Description

The [RStatsUVAOutputData](#AAAAAAAACZ) struct This structure holds data for an single instance of output It is primarly used to populate the worksheet for saving.

### Member Data Documentation

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::kurtosis

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::lower80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::lower90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::lower95

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::mean

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uva::RStatsUVAOutputData::nonZeroSize

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uva::RStatsUVAOutputData::pointEstimate

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uva::RStatsUVAOutputData::populationSize

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::precisionAmount80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::precisionAmount90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::precisionAmount95

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::precisionPercent80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::precisionPercent90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::precisionPercent95

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uva::RStatsUVAOutputData::sampleSize

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::skewness

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::standardDeviation

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::standardErrorMean

#### [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE) oig::ratstats::modules::uva::RStatsUVAOutputData::standardErrorTotal

#### std::string oig::ratstats::modules::uva::RStatsUVAOutputData::title

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::totalAmount

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::tValue80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::tValue90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::tValue95

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::upper80

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::upper90

#### [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ) oig::ratstats::modules::uva::RStatsUVAOutputData::upper95

#### The documentation for this struct was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/[RStatsUVA.h](#AAAAAAAACY)

## oig::ratstats::modules::uva::RStatsUVASessionData Class Reference

The [RStatsUVASessionData](#AAAAAAAADD) class represents the custom session data for unrestricted variable appraisal (UVA)

#include <RStatsUVASessionData.h>

Inheritance diagram for oig::ratstats::modules::uva::RStatsUVASessionData:

### Public Member Functions

[RStatsUVASessionData](#AAAAAAAAUJ) ()

*Constructor for* [*RStatsUVASessionData*](#AAAAAAAADD)*.*

void [setDataFormat](#AAAAAAAAUK) (const [utils::RStatsDataFormatType](#AAAAAAAAGM) &value)

*Setter for m\_dataFormat.*

void [setUniverseSize](#AAAAAAAAUL) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_universeSize.*

void [setDataRowStart](#AAAAAAAAUM) (const [utils::RStatsInteger](#AAAAAAAAGE) &value)

*Setter for m\_dataRowStart.*

void [setDataTableFilePath](#AAAAAAAAUN) (const std::string &value)

*Setter for m\_dataTable.*

void [setDataTableSheetName](#AAAAAAAAUO) (const std::string &value)

*Setter for m\_dataTable.*

void [setExamineColumn](#AAAAAAAAUP) (const std::string &value)

*Setter for m\_examineColumn.*

void [setAuditColumn](#AAAAAAAAUQ) (const std::string &value)

*Setter for m\_auditColumn.*

void [setDifferenceColumn](#AAAAAAAAUR) (const std::string &value)

*Setter for m\_differenceColumn.*

const [utils::RStatsDataFormatType](#AAAAAAAAGM) & [getDataFormat](#AAAAAAAAUS) () const

*Getter for m\_dataFormat.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getUniverseSize](#AAAAAAAAUT) () const

*Getter for m\_universeSize.*

const [utils::RStatsInteger](#AAAAAAAAGE) & [getDataRowStart](#AAAAAAAAUU) () const

*Getter for m\_dataRowStart.*

const std::string & [getDataTableFilePath](#AAAAAAAAUV) () const

*Getter for m\_dataTable.*

const std::string & [getDataTableSheetName](#AAAAAAAAUW) () const

*Getter for m\_dataTable.*

const std::string & [getExamineColumn](#AAAAAAAAUX) () const

*Getter for m\_examineColumn.*

const std::string & [getAuditColumn](#AAAAAAAAUY) () const

*Getter for m\_auditColumn.*

const std::string & [getDifferenceColumn](#AAAAAAAAUZ) () const

*Getter for m\_differenceColumn.*

std::string [getType](#AAAAAAAAVA) () const

*getType*

void [save](#AAAAAAAAVB) (const std::string &url)

*save*

void [load](#AAAAAAAAVC) (const std::string &url)

*load*

[~RStatsUVASessionData](#AAAAAAAAVD) ()

*Destructor.*

### Additional Inherited Members

### Detailed Description

The [RStatsUVASessionData](#AAAAAAAADD) class represents the custom session data for unrestricted variable appraisal (UVA)

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uva::RStatsUVASessionData::RStatsUVASessionData ()

Constructor for [RStatsUVASessionData](#AAAAAAAADD).

Detailed description for [RStatsUVASessionData](#AAAAAAAADD)

#### oig::ratstats::modules::uva::RStatsUVASessionData::~RStatsUVASessionData ()

Destructor.

### Member Function Documentation

#### const std::string & oig::ratstats::modules::uva::RStatsUVASessionData::getAuditColumn () const

Getter for m\_auditColumn.

##### Returns:

Return copy of m\_auditColumn

#### const [RStatsDataFormatType](#AAAAAAAAGM) & oig::ratstats::modules::uva::RStatsUVASessionData::getDataFormat () const

Getter for m\_dataFormat.

##### Returns:

Return copy of m\_dataFormat

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::uva::RStatsUVASessionData::getDataRowStart () const

Getter for m\_dataRowStart.

##### Returns:

Return copy of m\_dataRowStart

#### const std::string & oig::ratstats::modules::uva::RStatsUVASessionData::getDataTableFilePath () const

Getter for m\_dataTable.

##### Returns:

Return url of data table

#### const std::string & oig::ratstats::modules::uva::RStatsUVASessionData::getDataTableSheetName () const

Getter for m\_dataTable.

##### Returns:

Return url of data table

#### const std::string & oig::ratstats::modules::uva::RStatsUVASessionData::getDifferenceColumn () const

Getter for m\_differenceColumn.

##### Returns:

Return copy of m\_differenceColumn

#### const std::string & oig::ratstats::modules::uva::RStatsUVASessionData::getExamineColumn () const

Getter for m\_examineColumn.

##### Returns:

Return copy of m\_examineColumn

#### std::string oig::ratstats::modules::uva::RStatsUVASessionData::getType () const[virtual]

getType

##### Returns:

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANK).

#### const [RStatsInteger](#AAAAAAAAGE) & oig::ratstats::modules::uva::RStatsUVASessionData::getUniverseSize () const

Getter for m\_universeSize.

##### Returns:

Return copy of m\_universeSize

#### void oig::ratstats::modules::uva::RStatsUVASessionData::load (const std::string & *url*)[virtual]

load

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANL).

#### void oig::ratstats::modules::uva::RStatsUVASessionData::save (const std::string & *url*)[virtual]

save

##### Parameters:

|  |  |
| --- | --- |
| *url* |  |

Implements [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAANM).

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setAuditColumn (const std::string & *value*)

Setter for m\_auditColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_auditColumn |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setDataFormat (const [utils::RStatsDataFormatType](#AAAAAAAAGM) & *value*)

Setter for m\_dataFormat.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataFormat |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setDataRowStart (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_dataRowStart.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataRowStart |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setDataTableFilePath (const std::string & *value*)

Setter for m\_dataTable.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataTable |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setDataTableSheetName (const std::string & *value*)

Setter for m\_dataTable.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_dataTable |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setDifferenceColumn (const std::string & *value*)

Setter for m\_differenceColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_differenceColumn |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setExamineColumn (const std::string & *value*)

Setter for m\_examineColumn.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_examineColumn |

#### void oig::ratstats::modules::uva::RStatsUVASessionData::setUniverseSize (const [utils::RStatsInteger](#AAAAAAAAGE) & *value*)

Setter for m\_universeSize.

##### Parameters:

|  |  |
| --- | --- |
| *value* | to replace m\_universeSize |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/[RStatsUVASessionData.h](#AAAAAAAADC)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/[RStatsUVASessionData.cpp](#AAAAAAAADI)

## oig::ratstats::utils::RStatsWorkbook Class Reference

The [RStatsWorkbook](#AAAAAAAAIN) class represents a simple container for multiple worksheet objects.

#include <RStatsWorkbook.h>

### Public Member Functions

[RStatsWorkbook](#AAAAAAABBH) ()

[*RStatsWorkbook*](#AAAAAAAAIN) *(Constructor)*

void [insertWorksheet](#AAAAAAABBI) (const [RStatsWorksheet](#AAAAAAAAEN) &sheet, size\_t index)

*insertWorksheet Inserts a worksheet at any position within worksheet array.*

void [save](#AAAAAAABBJ) (const std::string &filePath)

*save Saves the workbook to file. This function will call the* [*RStatsWorkbookStreamFactory*](#AAAAAAAAIV) *to determine how the file should be saved.*

void [load](#AAAAAAABBK) (const std::string &filePath)

*load Loads a workbook from file. This function will call the* [*RStatsWorkbookStreamFactory*](#AAAAAAAAIV) *to determine how the file should be loaded.*

void [addWorksheet](#AAAAAAABBL) (const [RStatsWorksheet](#AAAAAAAAEN) &sheet)

*addWorksheet Appends worksheet to end of worksheet array*

[RStatsWorksheet](#AAAAAAAAEN) & [createWorksheet](#AAAAAAABBM) (const std::string &name)

*createWorksheet Creates an empty worksheet object and returns a reference to it.*

const std::vector< [RStatsWorksheet](#AAAAAAAAEN) > & [getWorksheets](#AAAAAAABBN) () const

*getWorksheets Returns reference vector of worksheets*

void [removeWorksheet](#AAAAAAABBO) (size\_t index)

*removeWorksheet Deletes worksheet from workbook*

size\_t [getNumWorksheets](#AAAAAAABBP) () const

*getNumWorksheets Gets the number of worksheets*

[RStatsWorksheet](#AAAAAAAAEN) & [operator()](#AAAAAAABBQ) (size\_t index)

*operator () Overloaded operator to ease accessing worksheet.*

const [RStatsWorksheet](#AAAAAAAAEN) & [operator()](#AAAAAAABBR) (size\_t index) const

*operator () Overloaded operator to ease accessing worksheet.*

std::vector< std::string > [getWorksheetNames](#AAAAAAABBS) () const

*getWorksheetNames Get list of all worksheet names*

[RStatsWorksheet](#AAAAAAAAEN) [mergeSheets](#AAAAAAABBT) ([RStatsWorkbookMergeDirection](#AAAAAAAAIO) direction=[RStatsWorkbookMergeDirection::MergeBottom](#AAAAAAAAIP), size\_t padding=1)

*mergeSheets This function merges all the sheets in the workbooks into a single sheet. This is useful for outputing to formats that only support a single sheet.*

void [clear](#AAAAAAABBU) ()

*clear Clears all worksheets*

[~RStatsWorkbook](#AAAAAAABBV) ()

*Destructor.*

### Detailed Description

The [RStatsWorkbook](#AAAAAAAAIN) class represents a simple container for multiple worksheet objects.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsWorkbook::RStatsWorkbook ()

[RStatsWorkbook](#AAAAAAAAIN) (Constructor)

#### oig::ratstats::utils::RStatsWorkbook::~RStatsWorkbook ()

Destructor.

### Member Function Documentation

#### void oig::ratstats::utils::RStatsWorkbook::addWorksheet (const [RStatsWorksheet](#AAAAAAAAEN) & *sheet*)

addWorksheet Appends worksheet to end of worksheet array

##### Parameters:

|  |  |
| --- | --- |
| *sheet* | Worksheet object to add |

#### void oig::ratstats::utils::RStatsWorkbook::clear ()

clear Clears all worksheets

#### [RStatsWorksheet](#AAAAAAAAEN) & oig::ratstats::utils::RStatsWorkbook::createWorksheet (const std::string & *name*)

createWorksheet Creates an empty worksheet object and returns a reference to it.

##### Parameters:

|  |  |
| --- | --- |
| *name* | The name of the worksheet |

##### Returns:

Returns reference of worksheet created

#### size\_t oig::ratstats::utils::RStatsWorkbook::getNumWorksheets () const

getNumWorksheets Gets the number of worksheets

##### Returns:

Return size\_t of worksheet count

#### std::vector< std::string > oig::ratstats::utils::RStatsWorkbook::getWorksheetNames () const

getWorksheetNames Get list of all worksheet names

##### Returns:

Return vector containing strings of worksheet names

#### const std::vector< [RStatsWorksheet](#AAAAAAAAEN) > & oig::ratstats::utils::RStatsWorkbook::getWorksheets () const

getWorksheets Returns reference vector of worksheets

##### Returns:

#### void oig::ratstats::utils::RStatsWorkbook::insertWorksheet (const [RStatsWorksheet](#AAAAAAAAEN) & *sheet*, size\_t *index*)

insertWorksheet Inserts a worksheet at any position within worksheet array.

##### Parameters:

|  |  |
| --- | --- |
| *sheet* | The worksheet to insert |
| *index* | The index to insert the worksheet at |

#### void oig::ratstats::utils::RStatsWorkbook::load (const std::string & *filePath*)

load Loads a workbook from file. This function will call the [RStatsWorkbookStreamFactory](#AAAAAAAAIV) to determine how the file should be loaded.

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | Path to file to load |

#### [RStatsWorksheet](#AAAAAAAAEN) oig::ratstats::utils::RStatsWorkbook::mergeSheets ([RStatsWorkbookMergeDirection](#AAAAAAAAIO) *direction* = [RStatsWorkbookMergeDirection::MergeBottom](#AAAAAAAAIP), size\_t *padding* = 1)

mergeSheets This function merges all the sheets in the workbooks into a single sheet. This is useful for outputing to formats that only support a single sheet.

##### Parameters:

|  |  |
| --- | --- |
| *direction* | The direction in which to merge the sheets |
| *padding* | Determines how many extra rows/columns of padding to add between each merged sheet in the final output |

##### Returns:

Returns merged worksheet object of all sheets in workbook

#### [RStatsWorksheet](#AAAAAAAAEN) & oig::ratstats::utils::RStatsWorkbook::operator() (size\_t *index*)

operator () Overloaded operator to ease accessing worksheet.

##### Parameters:

|  |  |
| --- | --- |
| *index* | Index of worksheet to access |

##### Returns:

This function returns reference to worksheet object.

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if index is out of range |

#### const [RStatsWorksheet](#AAAAAAAAEN) & oig::ratstats::utils::RStatsWorkbook::operator() (size\_t *index*) const

operator () Overloaded operator to ease accessing worksheet.

##### Parameters:

|  |  |
| --- | --- |
| *index* | Index of worksheet to access |

##### Returns:

This function returns a const reference to worksheet object.

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if index is out of range |

#### void oig::ratstats::utils::RStatsWorkbook::removeWorksheet (size\_t *index*)

removeWorksheet Deletes worksheet from workbook

##### Parameters:

|  |  |
| --- | --- |
| *index* | Index of worksheet to delete |

#### void oig::ratstats::utils::RStatsWorkbook::save (const std::string & *filePath*)

save Saves the workbook to file. This function will call the [RStatsWorkbookStreamFactory](#AAAAAAAAIV) to determine how the file should be saved.

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | Path to file to save |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsWorkbook.h](#AAAAAAAAIM)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsWorkbook.cpp](#AAAAAAAAKF)

## oig::ratstats::utils::RStatsWorkbookStream Class Reference

The [RStatsWorkbookStream](#AAAAAAAAIS) interface represents a simple read/write stream for various workbook file formats.

#include <RStatsWorkbookStream.hpp>

Inheritance diagram for oig::ratstats::utils::RStatsWorkbookStream:

### Public Member Functions

virtual void [write](#AAAAAAABBW) (const [RStatsWorkbook](#AAAAAAAAIN) &workbook)=0

*write This function will be inherited by implementing classes to provide support for writing a workbook to file*

virtual [RStatsWorkbook](#AAAAAAAAIN) [read](#AAAAAAABBX) ()=0

*read This function will be inherited by implementing classes to provide support for reading a workbook from file*

virtual [~RStatsWorkbookStream](#AAAAAAABBY) ()

*Virtual Destructor.*

### Detailed Description

The [RStatsWorkbookStream](#AAAAAAAAIS) interface represents a simple read/write stream for various workbook file formats.

### Constructor & Destructor Documentation

#### virtual oig::ratstats::utils::RStatsWorkbookStream::~RStatsWorkbookStream ()[inline], [virtual]

Virtual Destructor.

### Member Function Documentation

#### virtual [RStatsWorkbook](#AAAAAAAAIN) oig::ratstats::utils::RStatsWorkbookStream::read ()[pure virtual]

read This function will be inherited by implementing classes to provide support for reading a workbook from file

##### Returns:

Implemented in [oig::ratstats::utils::streams::RStatsDIFWorkbookStream](#AAAAAAABBZ), [oig::ratstats::utils::streams::RStatsXLSXWorkbookStream](#AAAAAAABCA), [oig::ratstats::utils::streams::RStatsCSVWorkbookStream](#AAAAAAABCB), [oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAABCC), and [oig::ratstats::utils::streams::RStatsXLSWorkbookStream](#AAAAAAABCD).

#### virtual void oig::ratstats::utils::RStatsWorkbookStream::write (const [RStatsWorkbook](#AAAAAAAAIN) & *workbook*)[pure virtual]

write This function will be inherited by implementing classes to provide support for writing a workbook to file

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook to write |

Implemented in [oig::ratstats::utils::streams::RStatsDIFWorkbookStream](#AAAAAAABCE), [oig::ratstats::utils::streams::RStatsXLSXWorkbookStream](#AAAAAAABCF), [oig::ratstats::utils::streams::RStatsCSVWorkbookStream](#AAAAAAABCG), [oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAABCH), and [oig::ratstats::utils::streams::RStatsXLSWorkbookStream](#AAAAAAABCI).

#### The documentation for this class was generated from the following file:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsWorkbookStream.hpp](#AAAAAAAAIR)

## oig::ratstats::utils::RStatsWorkbookStreamFactory Class Reference

The [RStatsWorkbookStreamFactory](#AAAAAAAAIV) static class provides a method for instantiating workbook streams for reading/writing. The extension on the filePath is used to determine which workbook stream implementation to use.

#include <RStatsWorkbookStreamFactory.h>

### Static Public Member Functions

static [RStatsWorkbookStreamPtr](#AAAAAAAAIT) [create](#AAAAAAABCJ) (const std::string &filePath)

*create Creates a initialization of a workbook stream object*

### Detailed Description

The [RStatsWorkbookStreamFactory](#AAAAAAAAIV) static class provides a method for instantiating workbook streams for reading/writing. The extension on the filePath is used to determine which workbook stream implementation to use.

### Member Function Documentation

#### [RStatsWorkbookStreamPtr](#AAAAAAAAIT) oig::ratstats::utils::RStatsWorkbookStreamFactory::create (const std::string & *filePath*)[static]

create Creates a initialization of a workbook stream object

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | The path to file for reading/writing from/to |

##### Returns:

Return a shared pointer instance of a workbook stream object

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsWorkbookStreamFactory.h](#AAAAAAAAIU)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsWorkbookStreamFactory.cpp](#AAAAAAAAKG)

## oig::ratstats::utils::RStatsWorksheet Class Reference

The [RStatsWorksheet](#AAAAAAAAEN) class attempts to emulate a simple spreadsheet object basic formatting of cells.

#include <RStatsWorksheet.h>

### Public Member Functions

[RStatsWorksheet](#AAAAAAABCK) (const std::string &name="NewSheet")

[*RStatsWorksheet*](#AAAAAAAAEN) *(Constructor)*

void [setWorksheetTitle](#AAAAAAABCL) (const std::string &value)

*Setter for m\_worksheetTitle.*

const std::string & [getWorksheetTitle](#AAAAAAABCM) () const

*Getter for m\_worksheetTitle.*

[RStatsCell](#AAAAAAAAIX) & [operator()](#AAAAAAABCN) (size\_t row, size\_t column)

*operator () Allows ease of accessing cells using row/column indices. If row/column is out of range a new cell is created and returned for the index pair.*

const [RStatsCell](#AAAAAAAAIX) & [operator()](#AAAAAAABCO) (size\_t row, size\_t column) const

*operator () Allows ease of accessing cells using row/column indices. This function provides read only access and therefore if a row/column is out of range an exception is thrown.*

const [RStatsCell](#AAAAAAAAIX) & [getCell](#AAAAAAABCP) (size\_t row, size\_t column) const

*getCell Returns const reference to cell via row/column indices. This function provides read only access and therefore if a row/column is out of range an exception is thrown.*

[RStatsCell](#AAAAAAAAIX) & [operator()](#AAAAAAABCQ) (const std::string &address)

*operator () Allows ease of accessing cells using string address (e.g A1, B15, Z24, etc). If row/column is out of range a new cell is created and returned for the index pair.*

size\_t [getNumRows](#AAAAAAABCR) () const

*getNumRows*

size\_t [getNumColumns](#AAAAAAABCS) () const

*getNumColumns*

std::pair< size\_t, size\_t > [getLastDataRowAndColumn](#AAAAAAABCT) () const

*getLastDataRow*

const [RStatsCellMap](#AAAAAAAAIZ) & [getCells](#AAAAAAABCU) () const

*getCells*

void [setDefaultTextAlignment](#AAAAAAABCV) ([RStatsTextAlignment](#AAAAAAAAJC) alignment)

*setDefaultTextAlignment*

void [setDefaultBGColor](#AAAAAAABCW) (const cbtek::common::utility::Color &bgColor)

*setDefaultBGColor*

void [setDefaultFGColor](#AAAAAAABCX) (const cbtek::common::utility::Color &fgColor)

*setDefaultFGColor*

void [setDefaultFont](#AAAAAAABCY) (const cbtek::common::utility::Font &font)

*setDefaultFont*

void [setDefaultFloatingPointDecimals](#AAAAAAABCZ) (size\_t count)

*setDefaultFloatingPointDecimals*

void [resetDefaults](#AAAAAAABDA) ()

*resetDefaults*

std::set< [RStatsCellFormat](#AAAAAAAAJG) > [getCellFormatSet](#AAAAAAABDB) () const

std::string [toCommaDelimitedString](#AAAAAAABDC) () const

*toCommaDelimitedString*

std::string [toTabDelimitedString](#AAAAAAABDD) () const

*toTabDelimitedString*

std::string [toHTMLTableString](#AAAAAAABDE) (bool includeRowLabels=false, bool includeColumnLabels=false) const

*toHTMLTableString*

std::string [toEvenlySpacedString](#AAAAAAABDF) () const

*toEvenlySpacedString Converts worksheet to evenly spaced human readable string output.*

bool [isEmpty](#AAAAAAABDG) () const

*isEmpty*

void [findDataRowsAndColumns](#AAAAAAABDH) (std::set< size\_t > &rowsOut, std::set< size\_t > &columnsOut) const

*findDataRowsAndColumns*

void [setFormatEnabled](#AAAAAAABDI) ([RStatsCellFormat](#AAAAAAAAJG) format, bool flag)

*setFormatEnabled*

void [setThousandsSeperatorEnabled](#AAAAAAABDJ) (bool flag)

*setThousandsSeperatorEnabled*

void [setRowBackgroundColor](#AAAAAAABDK) (size\_t row, const cbtek::common::utility::Color &color)

*setRowBackgroundColor*

void [setColumnBackgroundColor](#AAAAAAABDL) (size\_t column, const cbtek::common::utility::Color &color)

*setColumnBackgroundColor*

void [clear](#AAAAAAABDM) ()

*clear*

[~RStatsWorksheet](#AAAAAAABDN) ()

*Destructor.*

void [setRowBorderColor](#AAAAAAABDO) (size\_t row, const cbtek::common::utility::Color &color)

*setRowBorderColor*

void [setColumnBorderColor](#AAAAAAABDP) (size\_t column, const cbtek::common::utility::Color &color)

*setColumnBorderColor*

void [removeRow](#AAAAAAABDQ) (size\_t row)

*removeRow*

void [removeColumn](#AAAAAAABDR) (size\_t column)

*removeColumn*

void [removeEmptyRows](#AAAAAAABDS) ()

*removeEmptyRows Removes empty rows from worksheet*

void [removeEmptyColumns](#AAAAAAABDT) ()

*removeEmptyColumns Removes empty columns from worksheet*

bool [validateWorksheet](#AAAAAAABDU) (size\_t rowOffset, [oig::ratstats::utils::RStatsConditionLogger](#AAAAAAAAFE) &logger, const std::string &context="data")

*validateWorksheet Adds errors to logger if data appears to be invalid in the input sheet*

### Detailed Description

The [RStatsWorksheet](#AAAAAAAAEN) class attempts to emulate a simple spreadsheet object basic formatting of cells.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::RStatsWorksheet::RStatsWorksheet (const std::string & *name* = "NewSheet")

[RStatsWorksheet](#AAAAAAAAEN) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *name* | The name of the worksheet |

#### oig::ratstats::utils::RStatsWorksheet::~RStatsWorksheet ()

Destructor.

### Member Function Documentation

#### void oig::ratstats::utils::RStatsWorksheet::clear ()

clear

#### void oig::ratstats::utils::RStatsWorksheet::findDataRowsAndColumns (std::set< size\_t > & *rowsOut*, std::set< size\_t > & *columnsOut*) const

findDataRowsAndColumns

##### Parameters:

|  |  |
| --- | --- |
| *rowsOut* |  |
| *columnsOut* |  |

#### const [RStatsCell](#AAAAAAAAIX) & oig::ratstats::utils::RStatsWorksheet::getCell (size\_t *row*, size\_t *column*) const

getCell Returns const reference to cell via row/column indices. This function provides read only access and therefore if a row/column is out of range an exception is thrown.

##### Parameters:

|  |  |
| --- | --- |
| *row* | The row to access |
| *column* | The column to access |

##### Returns:

Return const reference to [RStatsCell](#AAAAAAAAIX)

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if row/column do not exist. |

#### std::set<[RStatsCellFormat](#AAAAAAAAJG)> oig::ratstats::utils::RStatsWorksheet::getCellFormatSet () const

#### const [RStatsCellMap](#AAAAAAAAIZ) & oig::ratstats::utils::RStatsWorksheet::getCells () const

getCells

##### Returns:

#### std::pair< size\_t, size\_t > oig::ratstats::utils::RStatsWorksheet::getLastDataRowAndColumn () const

getLastDataRow

##### Returns:

#### size\_t oig::ratstats::utils::RStatsWorksheet::getNumColumns () const

getNumColumns

##### Returns:

#### size\_t oig::ratstats::utils::RStatsWorksheet::getNumRows () const

getNumRows

##### Returns:

#### const std::string & oig::ratstats::utils::RStatsWorksheet::getWorksheetTitle () const

Getter for m\_worksheetTitle.

##### Returns:

Return copy of m\_worksheetTitle

#### bool oig::ratstats::utils::RStatsWorksheet::isEmpty () const

isEmpty

##### Returns:

#### [RStatsCell](#AAAAAAAAIX) & oig::ratstats::utils::RStatsWorksheet::operator() (size\_t *row*, size\_t *column*)

operator () Allows ease of accessing cells using row/column indices. If row/column is out of range a new cell is created and returned for the index pair.

##### Parameters:

|  |  |
| --- | --- |
| *row* | The row to access |
| *column* | The column to access |

##### Returns:

Return reference to [RStatsCell](#AAAAAAAAIX)

#### const [RStatsCell](#AAAAAAAAIX) & oig::ratstats::utils::RStatsWorksheet::operator() (size\_t *row*, size\_t *column*) const

operator () Allows ease of accessing cells using row/column indices. This function provides read only access and therefore if a row/column is out of range an exception is thrown.

##### Parameters:

|  |  |
| --- | --- |
| *row* | The row to access |
| *column* | The column to access |

##### Returns:

Return const reference to [RStatsCell](#AAAAAAAAIX)

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if row/column do not exist. |

#### [RStatsCell](#AAAAAAAAIX) & oig::ratstats::utils::RStatsWorksheet::operator() (const std::string & *address*)

operator () Allows ease of accessing cells using string address (e.g A1, B15, Z24, etc). If row/column is out of range a new cell is created and returned for the index pair.

##### Parameters:

|  |  |
| --- | --- |
| *address* | The cell address to return |

##### Returns:

Return reference to [RStatsCell](#AAAAAAAAIX)

#### void oig::ratstats::utils::RStatsWorksheet::removeColumn (size\_t *column*)

removeColumn

##### Parameters:

|  |  |
| --- | --- |
| *column* |  |

#### void oig::ratstats::utils::RStatsWorksheet::removeEmptyColumns ()

removeEmptyColumns Removes empty columns from worksheet

#### void oig::ratstats::utils::RStatsWorksheet::removeEmptyRows ()

removeEmptyRows Removes empty rows from worksheet

#### void oig::ratstats::utils::RStatsWorksheet::removeRow (size\_t *row*)

removeRow

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |

#### void oig::ratstats::utils::RStatsWorksheet::resetDefaults ()

resetDefaults

#### void oig::ratstats::utils::RStatsWorksheet::setColumnBackgroundColor (size\_t *column*, const cbtek::common::utility::Color & *color*)

setColumnBackgroundColor

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |
| *color* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setColumnBorderColor (size\_t *column*, const cbtek::common::utility::Color & *color*)

setColumnBorderColor

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |
| *color* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setDefaultBGColor (const cbtek::common::utility::Color & *bgColor*)

setDefaultBGColor

##### Parameters:

|  |  |
| --- | --- |
| *bgColor* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setDefaultFGColor (const cbtek::common::utility::Color & *fgColor*)

setDefaultFGColor

##### Parameters:

|  |  |
| --- | --- |
| *fgColor* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setDefaultFloatingPointDecimals (size\_t *count*)

setDefaultFloatingPointDecimals

##### Parameters:

|  |  |
| --- | --- |
| *count* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setDefaultFont (const cbtek::common::utility::Font & *font*)

setDefaultFont

##### Parameters:

|  |  |
| --- | --- |
| *font* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setDefaultTextAlignment ([RStatsTextAlignment](#AAAAAAAAJC) *alignment*)

setDefaultTextAlignment

##### Parameters:

|  |  |
| --- | --- |
| *alignment* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setFormatEnabled ([RStatsCellFormat](#AAAAAAAAJG) *format*, bool *flag*)

setFormatEnabled

##### Parameters:

|  |  |
| --- | --- |
| *format* |  |
| *flag* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setRowBackgroundColor (size\_t *row*, const cbtek::common::utility::Color & *color*)

setRowBackgroundColor

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |
| *color* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setRowBorderColor (size\_t *row*, const cbtek::common::utility::Color & *color*)

setRowBorderColor

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |
| *color* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setThousandsSeperatorEnabled (bool *flag*)

setThousandsSeperatorEnabled

##### Parameters:

|  |  |
| --- | --- |
| *flag* |  |

#### void oig::ratstats::utils::RStatsWorksheet::setWorksheetTitle (const std::string & *value*)

Setter for m\_worksheetTitle.

##### Parameters:

|  |  |
| --- | --- |
| *Value* | to replace m\_worksheetTitle |

#### std::string oig::ratstats::utils::RStatsWorksheet::toCommaDelimitedString () const

toCommaDelimitedString

##### Returns:

#### std::string oig::ratstats::utils::RStatsWorksheet::toEvenlySpacedString () const

toEvenlySpacedString Converts worksheet to evenly spaced human readable string output.

##### Returns:

#### std::string oig::ratstats::utils::RStatsWorksheet::toHTMLTableString (bool *includeRowLabels* = false, bool *includeColumnLabels* = false) const

toHTMLTableString

##### Returns:

#### std::string oig::ratstats::utils::RStatsWorksheet::toTabDelimitedString () const

toTabDelimitedString

##### Returns:

#### bool oig::ratstats::utils::RStatsWorksheet::validateWorksheet (size\_t *rowOffset*, [oig::ratstats::utils::RStatsConditionLogger](#AAAAAAAAFE) & *logger*, const std::string & *context* = "data")

validateWorksheet Adds errors to logger if data appears to be invalid in the input sheet

##### Parameters:

|  |  |
| --- | --- |
| *sheet* | The input sheet to check |
| *rowOffset* | Offset into to sheet. Used to skip header rows |
| *logger* | Conditional logger from modules |
| *context* | Name of object related to error |

##### Returns:

Return true if sheet was valid, false otherwise

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/[RStatsWorksheet.h](#AAAAAAAAIW)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/[RStatsWorksheet.cpp](#AAAAAAAAKH)

## oig::ratstats::utils::streams::RStatsXLSWorkbookStream Class Reference

The [RStatsXLSWorkbookStream](#AAAAAAAAJY) class Provides read/write support for XLS files.

#include <RStatsXLSWorkbookStream.h>

Inheritance diagram for oig::ratstats::utils::streams::RStatsXLSWorkbookStream:

### Public Member Functions

[RStatsXLSWorkbookStream](#AAAAAAABEB) (const std::string &filePath)

virtual void [write](#AAAAAAABCI) (const [RStatsWorkbook](#AAAAAAAAIN) &workbook)

*write Saves workbook object to XLS file*

virtual [RStatsWorkbook](#AAAAAAAAIN) [read](#AAAAAAABCD) ()

*read Parses XLS file and returns workbook*

[~RStatsXLSWorkbookStream](#AAAAAAABEC) ()

### Detailed Description

The [RStatsXLSWorkbookStream](#AAAAAAAAJY) class Provides read/write support for XLS files.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::streams::RStatsXLSWorkbookStream::RStatsXLSWorkbookStream (const std::string & *filePath*)

#### oig::ratstats::utils::streams::RStatsXLSWorkbookStream::~RStatsXLSWorkbookStream ()

### Member Function Documentation

#### [RStatsWorkbook](#AAAAAAAAIN) oig::ratstats::utils::streams::RStatsXLSWorkbookStream::read ()[virtual]

read Parses XLS file and returns workbook

##### Returns:

Return fully constructed workbook object from XLS file

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBX).

#### void oig::ratstats::utils::streams::RStatsXLSWorkbookStream::write (const [RStatsWorkbook](#AAAAAAAAIN) & *workbook*)[virtual]

write Saves workbook object to XLS file

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook to save |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBW).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/[RStatsXLSWorkbookStream.h](#AAAAAAAAJX)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/[RStatsXLSWorkbookStream.cpp](#AAAAAAAAKQ)

## oig::ratstats::utils::streams::RStatsXLSXWorkbookStream Class Reference

The [RStatsXLSXWorkbookStream](#AAAAAAAAKA) class provides read support for XLSX files. WARNING: The write function is not implemented and will throw an exception if called.

#include <RStatsXLSXWorkbookStream.h>

Inheritance diagram for oig::ratstats::utils::streams::RStatsXLSXWorkbookStream:

### Public Member Functions

[RStatsXLSXWorkbookStream](#AAAAAAABED) (const std::string &filePath)

[*RStatsXLSXWorkbookStream*](#AAAAAAAAKA) *(Constructor)*

void [write](#AAAAAAABCF) (const [RStatsWorkbook](#AAAAAAAAIN) &workbook)

*write In the future this should write a workbook to a xlsx file. WARNING: The write function is not implemented and will throw an exception if called.*

[RStatsWorkbook](#AAAAAAAAIN) [read](#AAAAAAABCA) ()

*read Parses XLSX file and returns it as a workbook object*

[~RStatsXLSXWorkbookStream](#AAAAAAABEE) ()

*Destructor.*

### Detailed Description

The [RStatsXLSXWorkbookStream](#AAAAAAAAKA) class provides read support for XLSX files. WARNING: The write function is not implemented and will throw an exception if called.

### Constructor & Destructor Documentation

#### oig::ratstats::utils::streams::RStatsXLSXWorkbookStream::RStatsXLSXWorkbookStream (const std::string & *filePath*)

[RStatsXLSXWorkbookStream](#AAAAAAAAKA) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *filePath* | The path to read from |

#### oig::ratstats::utils::streams::RStatsXLSXWorkbookStream::~RStatsXLSXWorkbookStream ()

Destructor.

### Member Function Documentation

#### [RStatsWorkbook](#AAAAAAAAIN) oig::ratstats::utils::streams::RStatsXLSXWorkbookStream::read ()[virtual]

read Parses XLSX file and returns it as a workbook object

##### Returns:

Returns workbook object of XLSX file

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* | if xlsx file was unable to be opened |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBX).

#### void oig::ratstats::utils::streams::RStatsXLSXWorkbookStream::write (const [RStatsWorkbook](#AAAAAAAAIN) & *workbook*)[virtual]

write In the future this should write a workbook to a xlsx file. WARNING: The write function is not implemented and will throw an exception if called.

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook to write |

##### Exceptions:

|  |  |
| --- | --- |
| *GenericException* |  |

Implements [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAABBW).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/[RStatsXLSXWorkbookStream.h](#AAAAAAAAJZ)

C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/[RStatsXLSXWorkbookStream.cpp](#AAAAAAAAKR)

## oig::ratstats::ui::UIRStatsAbout Class Reference

The [UIRStatsAbout](#AAAAAAAADL) class represents the code-behind for the "About" dialog used in RAT-STATS.

#include <UIRStatsAbout.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsAbout:

### Public Member Functions

[UIRStatsAbout](#AAAAAAAAVH) (QWidget \*parent=0)

*Constructor for* [*UIRStatsAbout*](#AAAAAAAADL)*.*

[~UIRStatsAbout](#AAAAAAAAVI) ()

*Destructor for* [*UIRStatsAbout*](#AAAAAAAADL)*.*

### Detailed Description

The [UIRStatsAbout](#AAAAAAAADL) class represents the code-behind for the "About" dialog used in RAT-STATS.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsAbout::UIRStatsAbout (QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsAbout](#AAAAAAAADL).

Detailed description for [UIRStatsAbout](#AAAAAAAADL)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::ui::UIRStatsAbout::~UIRStatsAbout ()

Destructor for [UIRStatsAbout](#AAAAAAAADL).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsAbout.h](#AAAAAAAADK)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsAbout.cpp](#AAAAAAAAEV)

## oig::ratstats::ui::UIRStatsErrorMessage Class Reference

The [UIRStatsErrorMessage](#AAAAAAAADO) class represents the code-behind for a custom dialog for displaying error/exception messages.

#include <UIRStatsErrorMessage.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsErrorMessage:

### Public Member Functions

[UIRStatsErrorMessage](#AAAAAAAAVJ) (QString &title, QString &message, bool exitApplication=false, QWidget \*parent=0)

[*UIRStatsErrorMessage*](#AAAAAAAADO) *(Constructor)*

[UIRStatsErrorMessage](#AAAAAAAAVK) (const std::string &title, const std::string &message, bool exitApplication=false, QWidget \*parent=0)

[*UIRStatsErrorMessage*](#AAAAAAAADO) *(Constructor)*

[~UIRStatsErrorMessage](#AAAAAAAAVL) ()

*Destructor for* [*UIRStatsErrorMessage*](#AAAAAAAADO)*.*

### Detailed Description

The [UIRStatsErrorMessage](#AAAAAAAADO) class represents the code-behind for a custom dialog for displaying error/exception messages.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsErrorMessage::UIRStatsErrorMessage (QString & *title*, QString & *message*, bool *exitApplication* = false, QWidget \* *parent* = 0)[explicit]

[UIRStatsErrorMessage](#AAAAAAAADO) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *title* | The message to display in title bar |
| *message* | The primary error message |
| *exitApplication* | Should application exit after message is dismissed |
| *parent* | The parent widget |

#### oig::ratstats::ui::UIRStatsErrorMessage::UIRStatsErrorMessage (const std::string & *title*, const std::string & *message*, bool *exitApplication* = false, QWidget \* *parent* = 0)[explicit]

[UIRStatsErrorMessage](#AAAAAAAADO) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *title* | The message to display in title bar |
| *message* | The primary error message |
| *exitApplication* | Should application exit after message is dismissed |
| *parent* | The parent widget |

#### oig::ratstats::ui::UIRStatsErrorMessage::~UIRStatsErrorMessage ()

Destructor for [UIRStatsErrorMessage](#AAAAAAAADO).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsErrorMessage.h](#AAAAAAAADN)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsErrorMessage.cpp](#AAAAAAAAEW)

## oig::ratstats::ui::UIRStatsLaunchConfigDialog Class Reference

The [UIRStatsLaunchConfigDialog](#AAAAAAAADQ) class represents the code-behind for editing RStatsModuleProperties.

#include <UIRStatsLaunchConfigDialog.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsLaunchConfigDialog:

### Signals

void [propertiesSaved](#AAAAAAAAVM) (const [utils::RStatsModuleProperties](#AAAAAAAAFL) &props)

### Public Member Functions

[UIRStatsLaunchConfigDialog](#AAAAAAAAVN) (const [utils::RStatsModuleProperties](#AAAAAAAAFL) &props, QWidget \*parent=0)

*Constructor for* [*UIRStatsLaunchConfigDialog*](#AAAAAAAADQ)*.*

[~UIRStatsLaunchConfigDialog](#AAAAAAAAVO) ()

*Destructor for* [*UIRStatsLaunchConfigDialog*](#AAAAAAAADQ)*.*

bool [launch](#AAAAAAAAVP) ()

*launch Calls the exec function for this dialog*

### Detailed Description

The [UIRStatsLaunchConfigDialog](#AAAAAAAADQ) class represents the code-behind for editing RStatsModuleProperties.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsLaunchConfigDialog::UIRStatsLaunchConfigDialog (const [utils::RStatsModuleProperties](#AAAAAAAAFL) & *props*, QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsLaunchConfigDialog](#AAAAAAAADQ).

Detailed description for [UIRStatsLaunchConfigDialog](#AAAAAAAADQ)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::ui::UIRStatsLaunchConfigDialog::~UIRStatsLaunchConfigDialog ()

Destructor for [UIRStatsLaunchConfigDialog](#AAAAAAAADQ).

### Member Function Documentation

#### bool oig::ratstats::ui::UIRStatsLaunchConfigDialog::launch ()

launch Calls the exec function for this dialog

##### Returns:

Return true if changes were made (OK was pressed) or false if this dialog was canceled

#### void oig::ratstats::ui::UIRStatsLaunchConfigDialog::propertiesSaved (const [utils::RStatsModuleProperties](#AAAAAAAAFL) & *props*)[signal]

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsLaunchConfigDialog.h](#AAAAAAAADP)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsLaunchConfigDialog.cpp](#AAAAAAAAEX)

## oig::ratstats::main::UIRStatsMain Class Reference

#include <UIRStatsMain.h>

Inheritance diagram for oig::ratstats::main::UIRStatsMain:

### Public Member Functions

[UIRStatsMain](#AAAAAAAALI) (QWidget \*parent=0)

[*UIRStatsMain*](#AAAAAAAAAB) *(constructor)*

[~UIRStatsMain](#AAAAAAAALJ) ()

[*UIRStatsMain*](#AAAAAAAAAB) *(destructor)*

### Protected Slots

void [onExit](#AAAAAAAALK) ()

*onExit*

void [onLaunchSettingsManager](#AAAAAAAALL) ()

*onLaunchSettingsManager*

void [onLaunchAbout](#AAAAAAAALM) ()

*onLaunchAbout*

void [onLaunchHelp](#AAAAAAAALN) ()

*onLaunchHelp*

void [onLaunchModule](#AAAAAAAALO) (const [utils::RStatsModuleProperties](#AAAAAAAAFL) &props, int row)

*launchModule This is called when module is to be launched*

void [onLaunchModuleShortcut](#AAAAAAAALP) (QShortcut \*button)

*onLaunchModuleShortcut*

void [onUpdateTableHeader](#AAAAAAAALQ) (bool isModuleListSelected)

*onUpdateTableHeader*

void [onAddNewModule](#AAAAAAAALR) ()

*onAddNewModule*

void [onRemoveModuleShortcut](#AAAAAAAALS) (QShortcut \*button)

*onRemoveModuleShortcut*

void [onRemoveModule](#AAAAAAAALT) (const [utils::RStatsModuleProperties](#AAAAAAAAFL) &props, int row)

*removeModule This is called when module properties need to be removed*

void [onEditModuleShortcut](#AAAAAAAALU) (QShortcut \*button)

*onEditModuleShortcut*

void [onEditModule](#AAAAAAAALV) (const [utils::RStatsModuleProperties](#AAAAAAAAFL) &props, int row)

*editModule This is called when module properties need to be edited*

void [onCategoryChanged](#AAAAAAAALW) (int row)

*onCategoryChanged*

void [onRepopulateModules](#AAAAAAAALX) (const std::vector< [utils::RStatsModuleProperties](#AAAAAAAAFL) > &propsIn)

*onRepopulateModules*

void [onModuleCellActivated](#AAAAAAAALY) (QTableWidgetItem \*item)

*onModuleCellActivated*

### Protected Member Functions

void [keyPressEvent](#AAAAAAAALZ) (QKeyEvent \*event)

*keyPressEvent*

void [editModule](#AAAAAAAAMA) (const QString &propsPath, int row)

*editModule This is called when module properties need to be edited*

void [removeModule](#AAAAAAAAMB) (const QString &propsPath, int row)

*removeModule This is called when module properties need to be removed*

void [launchModule](#AAAAAAAAMC) (const QString &propsPath)

*launchModule This is called when module is to be launched*

### Constructor & Destructor Documentation

#### oig::ratstats::main::UIRStatsMain::UIRStatsMain (QWidget \* *parent* = 0)[explicit]

[UIRStatsMain](#AAAAAAAAAB) (constructor)

##### Parameters:

|  |  |
| --- | --- |
| *parent* |  |

#### oig::ratstats::main::UIRStatsMain::~UIRStatsMain ()

[UIRStatsMain](#AAAAAAAAAB) (destructor)

### Member Function Documentation

#### void oig::ratstats::main::UIRStatsMain::editModule (const QString & *propsPath*, int *row*)[protected]

editModule This is called when module properties need to be edited

##### Parameters:

|  |  |
| --- | --- |
| *propsPath* | The path to the module properties config |
| *row* | The row of the module to edit |

#### void oig::ratstats::main::UIRStatsMain::keyPressEvent (QKeyEvent \* *event*)[protected]

keyPressEvent

##### Parameters:

|  |  |
| --- | --- |
| *event* |  |

#### void oig::ratstats::main::UIRStatsMain::launchModule (const QString & *propsPath*)[protected]

launchModule This is called when module is to be launched

##### Parameters:

|  |  |
| --- | --- |
| *propsPath* | The path to the module properties config |

#### void oig::ratstats::main::UIRStatsMain::onAddNewModule ()[protected], [slot]

onAddNewModule

#### void oig::ratstats::main::UIRStatsMain::onCategoryChanged (int *row*)[protected], [slot]

onCategoryChanged

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |

#### void oig::ratstats::main::UIRStatsMain::onEditModule (const [utils::RStatsModuleProperties](#AAAAAAAAFL) & *props*, int *row*)[protected], [slot]

editModule This is called when module properties need to be edited

##### Parameters:

|  |  |
| --- | --- |
| *props* | The module properties |
| *row* | The row of the module to edit |

#### void oig::ratstats::main::UIRStatsMain::onEditModuleShortcut (QShortcut \* *button*)[protected], [slot]

onEditModuleShortcut

##### Parameters:

|  |  |
| --- | --- |
| *button* |  |

#### void oig::ratstats::main::UIRStatsMain::onExit ()[protected], [slot]

onExit

#### void oig::ratstats::main::UIRStatsMain::onLaunchAbout ()[protected], [slot]

onLaunchAbout

#### void oig::ratstats::main::UIRStatsMain::onLaunchHelp ()[protected], [slot]

onLaunchHelp

#### void oig::ratstats::main::UIRStatsMain::onLaunchModule (const [utils::RStatsModuleProperties](#AAAAAAAAFL) & *props*, int *row*)[protected], [slot]

launchModule This is called when module is to be launched

##### Parameters:

|  |  |
| --- | --- |
| *propsPath* | The path to the module properties config |
| *row* | The row of the module to be launched |

#### void oig::ratstats::main::UIRStatsMain::onLaunchModuleShortcut (QShortcut \* *button*)[protected], [slot]

onLaunchModuleShortcut

##### Parameters:

|  |  |
| --- | --- |
| *button* |  |

#### void oig::ratstats::main::UIRStatsMain::onLaunchSettingsManager ()[protected], [slot]

onLaunchSettingsManager

#### void oig::ratstats::main::UIRStatsMain::onModuleCellActivated (QTableWidgetItem \* *item*)[protected], [slot]

onModuleCellActivated

##### Parameters:

|  |  |
| --- | --- |
| *item* |  |

#### void oig::ratstats::main::UIRStatsMain::onRemoveModule (const [utils::RStatsModuleProperties](#AAAAAAAAFL) & *props*, int *row*)[protected], [slot]

removeModule This is called when module properties need to be removed

##### Parameters:

|  |  |
| --- | --- |
| *props* | The module properties |
| *row* | The row of the module to remove |

#### void oig::ratstats::main::UIRStatsMain::onRemoveModuleShortcut (QShortcut \* *button*)[protected], [slot]

onRemoveModuleShortcut

##### Parameters:

|  |  |
| --- | --- |
| *button* |  |

#### void oig::ratstats::main::UIRStatsMain::onRepopulateModules (const std::vector< [utils::RStatsModuleProperties](#AAAAAAAAFL) > & *propsIn*)[protected], [slot]

onRepopulateModules

##### Parameters:

|  |  |
| --- | --- |
| *propsIn* |  |

#### void oig::ratstats::main::UIRStatsMain::onUpdateTableHeader (bool *isModuleListSelected*)[protected], [slot]

onUpdateTableHeader

##### Parameters:

|  |  |
| --- | --- |
| *isModuleListSelected* |  |

#### void oig::ratstats::main::UIRStatsMain::removeModule (const QString & *propsPath*, int *row*)[protected]

removeModule This is called when module properties need to be removed

##### Parameters:

|  |  |
| --- | --- |
| *propsPath* | The path to the module properties config |
| *row* | The row of the module to remove |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_main/inc/[UIRStatsMain.h](#AAAAAAAAAA)

C:/dev/RStats2017/products/RAT-STATS/rstats\_main/src/[UIRStatsMain.cpp](#AAAAAAAAAP)

## oig::ratstats::ui::UIRStatsScriptProviderConfigDialog Class Reference

The [UIRStatsScriptProviderConfigDialog](#AAAAAAAADS) class provides code-behind for editing RStatsScriptProviderProperties.

#include <UIRStatsScriptProviderConfigDialog.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsScriptProviderConfigDialog:

### Public Member Functions

[UIRStatsScriptProviderConfigDialog](#AAAAAAAAVQ) (const [utils::RStatsScriptProviderProperties](#AAAAAAAAGB) &props, QWidget \*parent=0)

*Constructor for* [*UIRStatsScriptProviderConfigDialog*](#AAAAAAAADS)*.*

[~UIRStatsScriptProviderConfigDialog](#AAAAAAAAVR) ()

*Destructor for* [*UIRStatsScriptProviderConfigDialog*](#AAAAAAAADS)*.*

### Detailed Description

The [UIRStatsScriptProviderConfigDialog](#AAAAAAAADS) class provides code-behind for editing RStatsScriptProviderProperties.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsScriptProviderConfigDialog::UIRStatsScriptProviderConfigDialog (const [utils::RStatsScriptProviderProperties](#AAAAAAAAGB) & *props*, QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsScriptProviderConfigDialog](#AAAAAAAADS).

Detailed description for [UIRStatsScriptProviderConfigDialog](#AAAAAAAADS)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::ui::UIRStatsScriptProviderConfigDialog::~UIRStatsScriptProviderConfigDialog ()

Destructor for [UIRStatsScriptProviderConfigDialog](#AAAAAAAADS).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsScriptProviderConfigDialog.h](#AAAAAAAADR)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsScriptProviderConfigDialog.cpp](#AAAAAAAAEY)

## oig::ratstats::ui::UIRStatsSettingsManager Class Reference

The [UIRStatsSettingsManager](#AAAAAAAADU) class represents the properties in the settings dialog such as theme management and script provider management.

#include <UIRStatsSettingsManager.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsSettingsManager:

### Public Member Functions

[UIRStatsSettingsManager](#AAAAAAAAVS) (QWidget \*parent=0)

*Constructor for* [*UIRStatsSettingsManager*](#AAAAAAAADU)*.*

[~UIRStatsSettingsManager](#AAAAAAAAVT) ()

*Destructor for* [*UIRStatsSettingsManager*](#AAAAAAAADU)*.*

### Detailed Description

The [UIRStatsSettingsManager](#AAAAAAAADU) class represents the properties in the settings dialog such as theme management and script provider management.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsSettingsManager::UIRStatsSettingsManager (QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsSettingsManager](#AAAAAAAADU).

Detailed description for [UIRStatsSettingsManager](#AAAAAAAADU)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::ui::UIRStatsSettingsManager::~UIRStatsSettingsManager ()

Destructor for [UIRStatsSettingsManager](#AAAAAAAADU).

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsSettingsManager.h](#AAAAAAAADT)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsSettingsManager.cpp](#AAAAAAAAEZ)

## oig::ratstats::ui::UIRStatsShortcut Class Reference

The [UIRStatsShortcut](#AAAAAAAADW) class is a custom overload of QShortcut to provide more useful "activated" signal that returns pointer to shortcut.

#include <UIRStatsShortcut.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsShortcut:

### Signals

void [activated](#AAAAAAAAVU) (QShortcut \*shortcut)

*activated*

### Public Member Functions

[UIRStatsShortcut](#AAAAAAAAVV) (const QKeySequence &sequence, QWidget \*parent)

*Constructor for* [*UIRStatsShortcut*](#AAAAAAAADW)*.*

[~UIRStatsShortcut](#AAAAAAAAVW) ()

*Destructor.*

### Detailed Description

The [UIRStatsShortcut](#AAAAAAAADW) class is a custom overload of QShortcut to provide more useful "activated" signal that returns pointer to shortcut.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsShortcut::UIRStatsShortcut (const QKeySequence & *sequence*, QWidget \* *parent*)

Constructor for [UIRStatsShortcut](#AAAAAAAADW).

Detailed description for [UIRStatsShortcut](#AAAAAAAADW)

#### oig::ratstats::ui::UIRStatsShortcut::~UIRStatsShortcut ()

Destructor.

### Member Function Documentation

#### void oig::ratstats::ui::UIRStatsShortcut::activated (QShortcut \* *shortcut*)[signal]

activated

##### Parameters:

|  |  |
| --- | --- |
| *shortcut* |  |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsShortcut.h](#AAAAAAAADV)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsShortcut.cpp](#AAAAAAAAFA)

## oig::ratstats::modules::ssrn::UIRStatsSSRN Class Reference

The [UIRStatsSSRN](#AAAAAAAABE) class represents the code-behind for the single stage random number user interface. In the model-view-controller pardigm this class represents the view.

#include <UIRStatsSSRN.h>

Inheritance diagram for oig::ratstats::modules::ssrn::UIRStatsSSRN:

### Public Member Functions

[UIRStatsSSRN](#AAAAAAAANQ) (QWidget \*parent=0)

*Constructor for* [*UIRStatsSSRN*](#AAAAAAAABE)*.*

[~UIRStatsSSRN](#AAAAAAAANR) ()

*Destructor for* [*UIRStatsSSRN*](#AAAAAAAABE)*.*

### Protected Member Functions

void [resizeEvent](#AAAAAAAANS) (QResizeEvent \*)

### Detailed Description

The [UIRStatsSSRN](#AAAAAAAABE) class represents the code-behind for the single stage random number user interface. In the model-view-controller pardigm this class represents the view.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::ssrn::UIRStatsSSRN::UIRStatsSSRN (QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsSSRN](#AAAAAAAABE).

Detailed description for [UIRStatsSSRN](#AAAAAAAABE)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::modules::ssrn::UIRStatsSSRN::~UIRStatsSSRN ()

Destructor for [UIRStatsSSRN](#AAAAAAAABE).

### Member Function Documentation

#### void oig::ratstats::modules::ssrn::UIRStatsSSRN::resizeEvent (QResizeEvent \* )[protected]

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/[UIRStatsSSRN.h](#AAAAAAAABD)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/[UIRStatsSSRN.cpp](#AAAAAAAABH)

## oig::ratstats::modules::sva::UIRStatsSVA Class Reference

The [UIRStatsSVA](#AAAAAAAABW) class represents the code-behind for the stratified variable appraisal user interface. In the model-view-controller pardigm this class represents the view.

#include <UIRStatsSVA.h>

Inheritance diagram for oig::ratstats::modules::sva::UIRStatsSVA:

### Public Member Functions

[UIRStatsSVA](#AAAAAAAAQR) (QWidget \*parent=0)

*Constructor for* [*UIRStatsSVA*](#AAAAAAAABW)*.*

[~UIRStatsSVA](#AAAAAAAAQS) ()

*Destructor for* [*UIRStatsSVA*](#AAAAAAAABW)*.*

### Protected Slots

void [onClearRecentSessions](#AAAAAAAAQT) ()

*onClearRecentSessions*

void [onRecentSessionSelected](#AAAAAAAAQU) (QAction \*action)

*onRecentSessionSelected*

void [onUpdateRowColumnExtentsForDataTable](#AAAAAAAAQV) ()

*onUpdateRowColumnExtentsForDataTable*

void [onUpdateRowColumnExtentsForSizeTable](#AAAAAAAAQW) ()

*onUpdateRowColumnExtentsForSizeTable*

bool [onValidate](#AAAAAAAAQX) ()

*onValidate*

void [onExecute](#AAAAAAAAQY) ()

*onExecute*

void [onExit](#AAAAAAAAQZ) ()

*onExit*

void [onSampleSizeInputSheetSelected](#AAAAAAAARA) (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sheet)

*onSampleSizeInputSheetSelected*

void [onSampleDataInputSheetSelected](#AAAAAAAARB) (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sheet)

*onSampleDataInputSheetSelected*

void [onComboSizeInputSheetSelected](#AAAAAAAARC) (int row)

*onComboSizeInputSheetSelected*

void [onComboDataInputSheetSelected](#AAAAAAAARD) (int row)

*onComboDataInputSheetSelected*

void [onImportDataInput](#AAAAAAAARE) ()

*onImportDataInput*

void [onImportSizeInput](#AAAAAAAARF) ()

*onImportSizeInput*

void [onHelp](#AAAAAAAARG) ()

*onHelp*

void [onSaveCSVFile](#AAAAAAAARH) ()

*onSaveCSVFile*

void [onSaveTextFile](#AAAAAAAARI) ()

*onSaveTextFile*

void [onUpdateDataFormatSelection](#AAAAAAAARJ) ()

*onUpdateDataFormatSelection*

void [onAbout](#AAAAAAAARK) ()

*onAbout*

void [onUpdateDataFormatButtons](#AAAAAAAARL) ()

*onUpdateDataFormatButtons*

void [onSetTabOrder](#AAAAAAAARM) ()

*onSetTabOrder*

void [onSaveXLSFile](#AAAAAAAARN) ()

*onSaveXLSFile*

void [onUpdateValidation](#AAAAAAAARO) ()

*onUpdateValidation Calls the onValidate function*

void [onLaunchNewWindow](#AAAAAAAARP) ()

*onLaunchNewWindow Event occurs when user clicks the "New Window" File menu item. Will launch new instance of the* [*RStatsSVA*](#AAAAAAAABM) *window*

### Protected Member Functions

void [resizeEvent](#AAAAAAAARQ) (QResizeEvent \*)

### Detailed Description

The [UIRStatsSVA](#AAAAAAAABW) class represents the code-behind for the stratified variable appraisal user interface. In the model-view-controller pardigm this class represents the view.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::sva::UIRStatsSVA::UIRStatsSVA (QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsSVA](#AAAAAAAABW).

Detailed description for [UIRStatsSVA](#AAAAAAAABW)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::modules::sva::UIRStatsSVA::~UIRStatsSVA ()

Destructor for [UIRStatsSVA](#AAAAAAAABW).

### Member Function Documentation

#### void oig::ratstats::modules::sva::UIRStatsSVA::onAbout ()[protected], [slot]

onAbout

#### void oig::ratstats::modules::sva::UIRStatsSVA::onClearRecentSessions ()[protected], [slot]

onClearRecentSessions

#### void oig::ratstats::modules::sva::UIRStatsSVA::onComboDataInputSheetSelected (int *row*)[protected], [slot]

onComboDataInputSheetSelected

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |

#### void oig::ratstats::modules::sva::UIRStatsSVA::onComboSizeInputSheetSelected (int *row*)[protected], [slot]

onComboSizeInputSheetSelected

##### Parameters:

|  |  |
| --- | --- |
| *row* |  |

#### void oig::ratstats::modules::sva::UIRStatsSVA::onExecute ()[protected], [slot]

onExecute

#### void oig::ratstats::modules::sva::UIRStatsSVA::onExit ()[protected], [slot]

onExit

#### void oig::ratstats::modules::sva::UIRStatsSVA::onHelp ()[protected], [slot]

onHelp

#### void oig::ratstats::modules::sva::UIRStatsSVA::onImportDataInput ()[protected], [slot]

onImportDataInput

#### void oig::ratstats::modules::sva::UIRStatsSVA::onImportSizeInput ()[protected], [slot]

onImportSizeInput

#### void oig::ratstats::modules::sva::UIRStatsSVA::onLaunchNewWindow ()[protected], [slot]

onLaunchNewWindow Event occurs when user clicks the "New Window" File menu item. Will launch new instance of the [RStatsSVA](#AAAAAAAABM) window

#### void oig::ratstats::modules::sva::UIRStatsSVA::onRecentSessionSelected (QAction \* *action*)[protected], [slot]

onRecentSessionSelected

##### Parameters:

|  |  |
| --- | --- |
| *action* |  |

#### void oig::ratstats::modules::sva::UIRStatsSVA::onSampleDataInputSheetSelected (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *sheet*)[protected], [slot]

onSampleDataInputSheetSelected

##### Parameters:

|  |  |
| --- | --- |
| *sheet* |  |

#### void oig::ratstats::modules::sva::UIRStatsSVA::onSampleSizeInputSheetSelected (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) & *sheet*)[protected], [slot]

onSampleSizeInputSheetSelected

##### Parameters:

|  |  |
| --- | --- |
| *sheet* |  |

#### void oig::ratstats::modules::sva::UIRStatsSVA::onSaveCSVFile ()[protected], [slot]

onSaveCSVFile

#### void oig::ratstats::modules::sva::UIRStatsSVA::onSaveTextFile ()[protected], [slot]

onSaveTextFile

#### void oig::ratstats::modules::sva::UIRStatsSVA::onSaveXLSFile ()[protected], [slot]

onSaveXLSFile

#### void oig::ratstats::modules::sva::UIRStatsSVA::onSetTabOrder ()[protected], [slot]

onSetTabOrder

#### void oig::ratstats::modules::sva::UIRStatsSVA::onUpdateDataFormatButtons ()[protected], [slot]

onUpdateDataFormatButtons

#### void oig::ratstats::modules::sva::UIRStatsSVA::onUpdateDataFormatSelection ()[protected], [slot]

onUpdateDataFormatSelection

#### void oig::ratstats::modules::sva::UIRStatsSVA::onUpdateRowColumnExtentsForDataTable ()[protected], [slot]

onUpdateRowColumnExtentsForDataTable

#### void oig::ratstats::modules::sva::UIRStatsSVA::onUpdateRowColumnExtentsForSizeTable ()[protected], [slot]

onUpdateRowColumnExtentsForSizeTable

#### void oig::ratstats::modules::sva::UIRStatsSVA::onUpdateValidation ()[protected], [slot]

onUpdateValidation Calls the onValidate function

#### bool oig::ratstats::modules::sva::UIRStatsSVA::onValidate ()[protected], [slot]

onValidate

##### Returns:

#### void oig::ratstats::modules::sva::UIRStatsSVA::resizeEvent (QResizeEvent \* )[protected]

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/[UIRStatsSVA.h](#AAAAAAAABV)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/[UIRStatsSVA.cpp](#AAAAAAAACH)

## oig::ratstats::ui::UIRStatsTablePreviewWidget Class Reference

The [UIRStatsTablePreviewWidget](#AAAAAAAADY) is a custom overload of the QTableWidget to provide the ability ignore the Tab key when viewing results in table. This allows the Tab key to go to the next sibling widget instead of being stuck in the table.

#include <UIRStatsTablePreviewWidget.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsTablePreviewWidget:

### Public Member Functions

[UIRStatsTablePreviewWidget](#AAAAAAAAVX) (QWidget \*parent=nullptr)

[*UIRStatsTablePreviewWidget*](#AAAAAAAADY) *(Constructor)*

[~UIRStatsTablePreviewWidget](#AAAAAAAAVY) ()

[*UIRStatsTablePreviewWidget*](#AAAAAAAADY) *(Destructor)*

### Protected Member Functions

void [keyPressEvent](#AAAAAAAAVZ) (QKeyEvent \*event)

*keyPressEvent Custom event for ignoring the TAB key so that focus is not always stuck in table*

### Detailed Description

The [UIRStatsTablePreviewWidget](#AAAAAAAADY) is a custom overload of the QTableWidget to provide the ability ignore the Tab key when viewing results in table. This allows the Tab key to go to the next sibling widget instead of being stuck in the table.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsTablePreviewWidget::UIRStatsTablePreviewWidget (QWidget \* *parent* = nullptr)[explicit]

[UIRStatsTablePreviewWidget](#AAAAAAAADY) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *parent* |  |

#### oig::ratstats::ui::UIRStatsTablePreviewWidget::~UIRStatsTablePreviewWidget ()

[UIRStatsTablePreviewWidget](#AAAAAAAADY) (Destructor)

### Member Function Documentation

#### void oig::ratstats::ui::UIRStatsTablePreviewWidget::keyPressEvent (QKeyEvent \* *event*)[protected]

keyPressEvent Custom event for ignoring the TAB key so that focus is not always stuck in table

##### Parameters:

|  |  |
| --- | --- |
| *event* | The event for keys |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsTablePreviewWidget.h](#AAAAAAAADX)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsTablePreviewWidget.cpp](#AAAAAAAAFB)

## oig::ratstats::modules::uaa::UIRStatsUAA Class Reference

The [UIRStatsUAA](#AAAAAAAACU) class represents the code-behind for the unrestricted attribute appraisal user interface. In the model-view-controller pardigm this class represents the view.

#include <UIRStatsUAA.h>

Inheritance diagram for oig::ratstats::modules::uaa::UIRStatsUAA:

### Public Member Functions

[UIRStatsUAA](#AAAAAAAATB) (QWidget \*parent=0)

[*UIRStatsUAA*](#AAAAAAAACU) *Class Destructor.*

[~UIRStatsUAA](#AAAAAAAATC) ()

[*UIRStatsUAA*](#AAAAAAAACU) *Class Destructor.*

### Protected Member Functions

void [resizeEvent](#AAAAAAAATD) (QResizeEvent \*)

*resizeEvent Called whenever the window is resized*

### Detailed Description

The [UIRStatsUAA](#AAAAAAAACU) class represents the code-behind for the unrestricted attribute appraisal user interface. In the model-view-controller pardigm this class represents the view.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uaa::UIRStatsUAA::UIRStatsUAA (QWidget \* *parent* = 0)[explicit]

[UIRStatsUAA](#AAAAAAAACU) Class Destructor.

##### Parameters:

|  |  |
| --- | --- |
| *parent* | Points to embedding super widget. Defaults to null. |

#### oig::ratstats::modules::uaa::UIRStatsUAA::~UIRStatsUAA ()

[UIRStatsUAA](#AAAAAAAACU) Class Destructor.

### Member Function Documentation

#### void oig::ratstats::modules::uaa::UIRStatsUAA::resizeEvent (QResizeEvent \* )[protected]

resizeEvent Called whenever the window is resized

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/[UIRStatsUAA.h](#AAAAAAAACT)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/[UIRStatsUAA.cpp](#AAAAAAAACX)

## oig::ratstats::modules::uva::UIRStatsUVA Class Reference

The [UIRStatsUVA](#AAAAAAAADG) class represents the code-behind for the unrestricted variable appraisal user interface. In the model-view-controller pardigm this class represents the view.

#include <UIRStatsUVA.h>

Inheritance diagram for oig::ratstats::modules::uva::UIRStatsUVA:

### Public Member Functions

[UIRStatsUVA](#AAAAAAAAVE) (QWidget \*parent=0)

*Constructor for* [*UIRStatsUVA*](#AAAAAAAADG)*.*

[~UIRStatsUVA](#AAAAAAAAVF) ()

*Destructor for* [*UIRStatsUVA*](#AAAAAAAADG)*.*

### Protected Member Functions

void [resizeEvent](#AAAAAAAAVG) (QResizeEvent \*e)

*resizeEvent Called whenever window is resized. This is called to reposition output labels in the status bar*

### Detailed Description

The [UIRStatsUVA](#AAAAAAAADG) class represents the code-behind for the unrestricted variable appraisal user interface. In the model-view-controller pardigm this class represents the view.

### Constructor & Destructor Documentation

#### oig::ratstats::modules::uva::UIRStatsUVA::UIRStatsUVA (QWidget \* *parent* = 0)[explicit]

Constructor for [UIRStatsUVA](#AAAAAAAADG).

Detailed description for [UIRStatsUVA](#AAAAAAAADG)

##### Parameters:

|  |  |
| --- | --- |
| *parent* | points to embedding super widget. Defaults to null. |

#### oig::ratstats::modules::uva::UIRStatsUVA::~UIRStatsUVA ()

Destructor for [UIRStatsUVA](#AAAAAAAADG).

### Member Function Documentation

#### void oig::ratstats::modules::uva::UIRStatsUVA::resizeEvent (QResizeEvent \* *e*)[protected]

resizeEvent Called whenever window is resized. This is called to reposition output labels in the status bar

##### Parameters:

|  |  |
| --- | --- |
| *e* | The resize event object |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/[UIRStatsUVA.h](#AAAAAAAADF)

C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/[UIRStatsUVA.cpp](#AAAAAAAADJ)

## oig::ratstats::ui::UIRStatsWorkbook Class Reference

The [UIRStatsWorkbook](#AAAAAAAAEU) class is used by the SVA class to provide support for displaying multiple worksheets in the output results.

#include <UIRStatsWorkbook.h>

Inheritance diagram for oig::ratstats::ui::UIRStatsWorkbook:

### Public Member Functions

[UIRStatsWorkbook](#AAAAAAAAWA) (QWidget \*parent=0)

[*UIRStatsWorkbook*](#AAAAAAAAEU) *(Constructor)*

[UIRStatsWorkbook](#AAAAAAAAWB) (const [utils::RStatsWorkbook](#AAAAAAAAIN) &workbook, QWidget \*parent=0)

[*UIRStatsWorkbook*](#AAAAAAAAEU) *(Constructor)*

void [setWorkbook](#AAAAAAAAWC) (const [utils::RStatsWorkbook](#AAAAAAAAIN) &workbook)

*setWorkbook*

void [clear](#AAAAAAAAWD) ()

*clear*

[~UIRStatsWorkbook](#AAAAAAAAWE) ()

*Destructor for* [*UIRStatsWorkbook*](#AAAAAAAAEU)*.*

### Detailed Description

The [UIRStatsWorkbook](#AAAAAAAAEU) class is used by the SVA class to provide support for displaying multiple worksheets in the output results.

### Constructor & Destructor Documentation

#### oig::ratstats::ui::UIRStatsWorkbook::UIRStatsWorkbook (QWidget \* *parent* = 0)[explicit]

[UIRStatsWorkbook](#AAAAAAAAEU) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *parent* |  |

#### oig::ratstats::ui::UIRStatsWorkbook::UIRStatsWorkbook (const [utils::RStatsWorkbook](#AAAAAAAAIN) & *workbook*, QWidget \* *parent* = 0)[explicit]

[UIRStatsWorkbook](#AAAAAAAAEU) (Constructor)

##### Parameters:

|  |  |
| --- | --- |
| *workbook* | The workbook to populate the ui with |
| *parent* |  |

#### oig::ratstats::ui::UIRStatsWorkbook::~UIRStatsWorkbook ()

Destructor for [UIRStatsWorkbook](#AAAAAAAAEU).

### Member Function Documentation

#### void oig::ratstats::ui::UIRStatsWorkbook::clear ()

clear

#### void oig::ratstats::ui::UIRStatsWorkbook::setWorkbook (const [utils::RStatsWorkbook](#AAAAAAAAIN) & *workbook*)

setWorkbook

##### Parameters:

|  |  |
| --- | --- |
| *workbook* |  |

#### The documentation for this class was generated from the following files:

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/[UIRStatsWorkbook.h](#AAAAAAAAET)

C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/[UIRStatsWorkbook.cpp](#AAAAAAAAFC)

# File Documentation

## C:/dev/RStats2017/products/RAT-STATS/rstats\_main/inc/UIRStatsMain.h File Reference

#include <QMainWindow>

#include <QShortcut>

#include <QGridLayout>

#include <QGroupBox>

#include <QMap>

#include <QToolButton>

#include <QButtonGroup>

#include <QSet>

#include <QTimer>

#include <QTableWidget>

#include <QKeySequence>

#include <QPaintEvent>

#include <QListWidget>

#include <QTreeWidgetItem>

#include <QActionGroup>

#include "rstats\_ui/inc/UIRStatsTablePreviewWidget.h"

#include "rstats\_ui/inc/UIRStatsShortcut.h"

#include "rstats\_utils/inc/RStatsModuleProperties.h"

#include <QAccessibleWidget>

### Classes

class [oig::ratstats::main::UIRStatsMain](#AAAAAAAAAB)

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::main](#AAAAAAAAAE)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_main/src/main.cpp File Reference

#include <QApplication>

#include "UIRStatsMain.h"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include "utility/inc/Exception.hpp"

### Functions

int [main](#AAAAAAAAAG) (int argc, char \*\*argv)

### Function Documentation

#### int main (int *argc*, char \*\* *argv*)

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/main.cpp File Reference

#include <QApplication>

#include <bitset>

#include <iostream>

#include <cfloat>

#include <map>

#include "RStatsSSRN.h"

#include "UIRStatsSSRN.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include "utility/inc/Random.h"

### Functions

int [main](#AAAAAAAAAI) (int argc, char \*\*argv)

### Function Documentation

#### int main (int *argc*, char \*\* *argv*)

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/main.cpp File Reference

#include "UIRStatsSVA.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include <iostream>

#include <QApplication>

### Functions

int [main](#AAAAAAAAAK) (int argc, char \*\*argv)

### Function Documentation

#### int main (int *argc*, char \*\* *argv*)

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/main.cpp File Reference

#include <QApplication>

#include "RStatsUAA.h"

#include "UIRStatsUAA.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

### Functions

int [main](#AAAAAAAAAM) (int argc, char \*\*argv)

### Function Documentation

#### int main (int *argc*, char \*\* *argv*)

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/main.cpp File Reference

#include <QApplication>

#include "UIRStatsUVA.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

### Functions

int [main](#AAAAAAAAAO) (int argc, char \*\*argv)

### Function Documentation

#### int main (int *argc*, char \*\* *argv*)

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_main/src/UIRStatsMain.cpp File Reference

#include <QDebug>

#include <QIcon>

#include <QGroupBox>

#include <QPushButton>

#include <QScrollArea>

#include <QFontMetrics>

#include <QLabel>

#include <QProcess>

#include <QMessageBox>

#include <QKeySequence>

#include <QTableWidgetItem>

#include <QPainter>

#include <QFontDatabase>

#include <QDesktopServices>

#include "UIRStatsMain.h"

#include "ui\_UIRStatsMain.h"

#include "utility/inc/XMLUtils.h"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "rstats\_utils/inc/RStatsSettingsManager.h"

#include "rstats\_utils/inc/RStatsModuleProperties.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorkbook.h"

#include "rstats\_ui/inc/UIRStatsAbout.h"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "rstats\_ui/inc/UIRStatsLaunchConfigDialog.h"

#include "rstats\_ui/inc/UIRStatsSettingsManager.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::main](#AAAAAAAAAE)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/RStatsSSRN.h File Reference

#include <vector>

#include <string>

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorksheet.h"

#include "rstats\_utils/inc/RStatsObjectList.hpp"

### Classes

struct [oig::ratstats::modules::ssrn::RStatsSSRNValue](#AAAAAAAAAR)

*The* [*RStatsSSRNValue*](#AAAAAAAAAR) *struct.* struct [oig::ratstats::modules::ssrn::RStatsSSRNOutputData](#AAAAAAAAAS)

*The* [*RStatsSSRNOutputData*](#AAAAAAAAAS) *struct.* struct [oig::ratstats::modules::ssrn::RStatsSSRNInputData](#AAAAAAAAAT)

*The* [*RStatsSSRNInputData*](#AAAAAAAAAT) *struct.* class [oig::ratstats::modules::ssrn::RStatsSSRN](#AAAAAAAAAU)

### *The* [*RStatsSSRN*](#AAAAAAAAAU) *class represents the Single Stage Random Numbers function. In the model-view-controller paradigm, this class represents the controller.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::ssrn](#AAAAAAAAAW)

### Enumerations

enum [oig::ratstats::modules::ssrn::RStatsSSRNOrderType](#AAAAAAAAAX) { [oig::ratstats::modules::ssrn::RStatsSSRNOrderType::SequentiallyOrdered](#AAAAAAAAAY), [oig::ratstats::modules::ssrn::RStatsSSRNOrderType::RandomlyOrdered](#AAAAAAAAAZ) }

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/RStatsSSRNSessionData.h File Reference

#include "rstats\_utils/inc/RStatsModuleSessionDataImpl.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorksheet.h"

### Classes

class [oig::ratstats::modules::ssrn::RStatsSSRNSessionData](#AAAAAAAABB)

### *The* [*RStatsSSRNSessionData*](#AAAAAAAABB) *class represents the custom session data for single stage random numbers (SSRN)* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::ssrn](#AAAAAAAAAW)

### Variables

static const std::string [oig::ratstats::modules::ssrn::c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAABC) = "modules\_ssrn"

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/inc/UIRStatsSSRN.h File Reference

#include <QMainWindow>

#include <QTimer>

#include <QActionGroup>

#include <QLabel>

#include "rstats\_utils/inc/RStatsConditionLogger.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsModuleSessionData.hpp"

#include "RStatsSSRNSessionData.h"

### Classes

class [oig::ratstats::modules::ssrn::UIRStatsSSRN](#AAAAAAAABE)

### *The* [*UIRStatsSSRN*](#AAAAAAAABE) *class represents the code-behind for the single stage random number user interface. In the model-view-controller pardigm this class represents the view.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::ssrn](#AAAAAAAAAW)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/RStatsSSRN.cpp File Reference

#include "RStatsSSRN.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "utility/inc/Exception.hpp"

#include "utility/inc/FileUtils.hpp"

#include <bitset>

#include <cmath>

#include <iostream>

#include <set>

#include <string>

#include <memory>

#include <cstring>

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::ssrn](#AAAAAAAAAW)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/RStatsSSRNSessionData.cpp File Reference

#include "RStatsSSRNSessionData.h"

#include "utility/inc/XMLUtils.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::ssrn](#AAAAAAAAAW)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/single\_stage\_random\_numbers/src/UIRStatsSSRN.cpp File Reference

#include "UIRStatsSSRN.h"

#include "ui\_UIRStatsSSRN.h"

#include "RStatsSSRN.h"

#include "rstats\_ui/inc/UIRStatsAbout.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "utility/inc/DateTimeUtils.hpp"

#include "utility/inc/XMLUtils.h"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include <QFileDialog>

#include <QFile>

#include <QDesktopServices>

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::ssrn](#AAAAAAAAAW)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/RStatsSVA.h File Reference

#include <vector>

#include "rstats\_utils/inc/RStatsObjectList.hpp"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorkbook.h"

### Classes

struct [oig::ratstats::modules::sva::RStatsSVAInputData](#AAAAAAAABJ)

*The* [*RStatsSVAInputData*](#AAAAAAAABJ) *struct represents the input data to the SVA function.* struct [oig::ratstats::modules::sva::RStatsSVAOutputData](#AAAAAAAABK)

*The* [*RStatsSVAOutputData*](#AAAAAAAABK) *struct represents the output data for the SVA function.* struct [oig::ratstats::modules::sva::RStatsSVAOutputDataTriplet](#AAAAAAAABL)

*The* [*RStatsSVAOutputDataTriplet*](#AAAAAAAABL) *struct.* class [oig::ratstats::modules::sva::RStatsSVA](#AAAAAAAABM)

### *The* [*RStatsSVA*](#AAAAAAAABM) *class represents the stratified variable appraisal function. In the model-view-controller paradigm, this class represents the controller.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::sva](#AAAAAAAABN)

### Typedefs

typedef std::vector< RStatsSVAOutputDataTriplet > [oig::ratstats::modules::sva::RStatsSVAOutputDataList](#AAAAAAAABO)

typedef std::vector< RStatsSVAInputData > [oig::ratstats::modules::sva::RStatsSVAInputDataList](#AAAAAAAABP)

typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< int > [oig::ratstats::modules::sva::RStatsSVAFlagList](#AAAAAAAABR)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/RStatsSVASessionData.h File Reference

#include "rstats\_utils/inc/RStatsModuleSessionDataImpl.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorksheet.h"

### Classes

class [oig::ratstats::modules::sva::RStatsSVASessionData](#AAAAAAAABT)

### *The* [*RStatsSVASessionData*](#AAAAAAAABT) *class represents the custom session data for stratified variable appraisal (SVA)* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::sva](#AAAAAAAABN)

### Variables

static const std::string [oig::ratstats::modules::sva::c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAABU) = "modules\_sva"

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/inc/UIRStatsSVA.h File Reference

#include <QMainWindow>

#include <QTimer>

#include <QComboBox>

#include <QKeyEvent>

#include <QLabel>

#include <QActionGroup>

#include "rstats\_utils/inc/RStatsWorkbook.h"

#include "rstats\_utils/inc/RStatsConditionLogger.h"

#include "rstats\_ui/inc/UIRStatsTablePreviewWidget.h"

#include "rstats\_ui/inc/UIRStatsWorkbook.h"

#include "RStatsSVASessionData.h"

### Classes

class [oig::ratstats::modules::sva::UIRStatsSVA](#AAAAAAAABW)

### *The* [*UIRStatsSVA*](#AAAAAAAABW) *class represents the code-behind for the stratified variable appraisal user interface. In the model-view-controller pardigm this class represents the view.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::sva](#AAAAAAAABN)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/RStatsSVA.cpp File Reference

#include "RStatsSVA.h"

#include "rstats\_utils/inc/RStatsObjectList.hpp"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "utility/inc/Exception.hpp"

#include "utility/inc/StringUtils.hpp"

#include <vector>

#include <cmath>

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::sva](#AAAAAAAABN)

[oig::ratstats::modules::sva::constants](#AAAAAAAABY)

### Variables

static const [RStatsFloat](#AAAAAAAABZ) [oig::ratstats::modules::sva::constants::ZVAL80](#AAAAAAAACA) = 1.281551565545

static const [RStatsFloat](#AAAAAAAABZ) [oig::ratstats::modules::sva::constants::ZVAL90](#AAAAAAAACB) = 1.644853626951

static const [RStatsFloat](#AAAAAAAABZ) [oig::ratstats::modules::sva::constants::ZVAL95](#AAAAAAAACC) = 1.95996398454

static const size\_t [oig::ratstats::modules::sva::constants::EXAMINE](#AAAAAAAACD) = 0

static const size\_t [oig::ratstats::modules::sva::constants::AUDIT](#AAAAAAAACE) = 1

static const size\_t [oig::ratstats::modules::sva::constants::DIFF](#AAAAAAAACF) = 2

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/RStatsSVASessionData.cpp File Reference

#include "RStatsSVASessionData.h"

#include "rstats\_utils/inc/RStatsWorkbook.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::sva](#AAAAAAAABN)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/stratified\_variable\_appraisal/src/UIRStatsSVA.cpp File Reference

#include "UIRStatsSVA.h"

#include "ui\_UIRStatsSVA.h"

#include "RStatsSVA.h"

#include <QFileDialog>

#include <QDesktopServices>

#include <QUrl>

#include "rstats\_ui/inc/UIRStatsAbout.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "rstats\_utils/inc/RStatsWorkbookStreamFactory.h"

#include "utility/inc/DateTimeUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::sva](#AAAAAAAABN)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/RStatsUAA.h File Reference

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorksheet.h"

### Classes

struct [oig::ratstats::modules::uaa::RStatsUAAOutputData](#AAAAAAAACJ)

*The* [*RStatsUAAOutputData*](#AAAAAAAACJ) *struct represents the output produced by the unrestricted attribute appraisal function.* class [oig::ratstats::modules::uaa::RStatsUAA](#AAAAAAAACK)

### *The* [*RStatsUAA*](#AAAAAAAACK) *class represents the unrestricted attribute appraisal function. In the model-view-controller paradigm, this class represents the controller.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uaa](#AAAAAAAACL)

### Enumerations

enum [oig::ratstats::modules::uaa::RStatsUAAConfidenceIntervalType](#AAAAAAAACM) { [oig::ratstats::modules::uaa::RStatsUAAConfidenceIntervalType::OneSidedUpper](#AAAAAAAACN), [oig::ratstats::modules::uaa::RStatsUAAConfidenceIntervalType::OneSidedLower](#AAAAAAAACO), [oig::ratstats::modules::uaa::RStatsUAAConfidenceIntervalType::TwoSided](#AAAAAAAACP) }*The RStatsUAAConfidenceIntervalType enum.*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/RStatsUAASessionData.h File Reference

#include "rstats\_utils/inc/RStatsModuleSessionDataImpl.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorksheet.h"

### Classes

class [oig::ratstats::modules::uaa::RStatsUAASessionData](#AAAAAAAACR)

### *The* [*RStatsUAASessionData*](#AAAAAAAACR) *class represents the custom session data for unrestricted attribute appraisal (UAA)* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uaa](#AAAAAAAACL)

### Variables

static const std::string [oig::ratstats::modules::uaa::c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAACS) = "modules\_uaa"

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/inc/UIRStatsUAA.h File Reference

#include <QMainWindow>

#include <QActionGroup>

#include <QAction>

#include <QLabel>

#include <QTimer>

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsConditionLogger.h"

#include "RStatsUAASessionData.h"

### Classes

class [oig::ratstats::modules::uaa::UIRStatsUAA](#AAAAAAAACU)

### *The* [*UIRStatsUAA*](#AAAAAAAACU) *class represents the code-behind for the unrestricted attribute appraisal user interface. In the model-view-controller pardigm this class represents the view.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uaa](#AAAAAAAACL)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/RStatsUAA.cpp File Reference

#include "RStatsUAA.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "utility/inc/StringUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uaa](#AAAAAAAACL)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/RStatsUAASessionData.cpp File Reference

#include "RStatsUAASessionData.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uaa](#AAAAAAAACL)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_attribute\_appraisal/src/UIRStatsUAA.cpp File Reference

#include "UIRStatsUAA.h"

#include "ui\_UIRStatsUAA.h"

#include "RStatsUAA.h"

#include <QFileDialog>

#include <QMessageBox>

#include <QDesktopServices>

#include <QFile>

#include <QListWidgetItem>

#include "rstats\_ui/inc/UIRStatsAbout.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "utility/inc/DateTimeUtils.hpp"

#include "utility/inc/XMLUtils.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uaa](#AAAAAAAACL)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/RStatsUVA.h File Reference

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorkbook.h"

### Classes

struct [oig::ratstats::modules::uva::RStatsUVAOutputData](#AAAAAAAACZ)

*The* [*RStatsUVAOutputData*](#AAAAAAAACZ) *struct This structure holds data for an single instance of output It is primarly used to populate the worksheet for saving.* class [oig::ratstats::modules::uva::RStatsUVA](#AAAAAAAADA)

### *The* [*RStatsUVA*](#AAAAAAAADA) *class represents the unrestricted variable appraisal function. In the model-view-controller paradigm, this class represents the controller.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uva](#AAAAAAAADB)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/RStatsUVASessionData.h File Reference

#include "rstats\_utils/inc/RStatsModuleSessionDataImpl.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsWorksheet.h"

### Classes

class [oig::ratstats::modules::uva::RStatsUVASessionData](#AAAAAAAADD)

### *The* [*RStatsUVASessionData*](#AAAAAAAADD) *class represents the custom session data for unrestricted variable appraisal (UVA)* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uva](#AAAAAAAADB)

### Variables

static const std::string [oig::ratstats::modules::uva::c\_RECENT\_SESSION\_EXTENSION](#AAAAAAAADE) = "modules\_uva"

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/inc/UIRStatsUVA.h File Reference

#include <QMainWindow>

#include <QActionGroup>

#include <QLabel>

#include <QComboBox>

#include <QTimer>

#include <QButtonGroup>

#include "rstats\_utils/inc/RStatsWorkbook.h"

#include "rstats\_utils/inc/RStatsConditionLogger.h"

#include "rstats\_ui/inc/UIRStatsWorkbook.h"

#include "rstats\_ui/inc/UIRStatsTablePreviewWidget.h"

#include "RStatsUVASessionData.h"

### Classes

class [oig::ratstats::modules::uva::UIRStatsUVA](#AAAAAAAADG)

### *The* [*UIRStatsUVA*](#AAAAAAAADG) *class represents the code-behind for the unrestricted variable appraisal user interface. In the model-view-controller pardigm this class represents the view.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uva](#AAAAAAAADB)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/RStatsUVA.cpp File Reference

#include "RStatsUVA.h"

#include "utility/inc/StringUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uva](#AAAAAAAADB)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/RStatsUVASessionData.cpp File Reference

#include "RStatsUVASessionData.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uva](#AAAAAAAADB)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_modules/unrestricted\_variable\_appraisal/src/UIRStatsUVA.cpp File Reference

#include "UIRStatsUVA.h"

#include "ui\_UIRStatsUVA.h"

#include "RStatsUVA.h"

#include "rstats\_ui/inc/UIRStatsAbout.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "rstats\_utils/inc/RStatsWorkbookStreamFactory.h"

#include "utility/inc/DateTimeUtils.hpp"

#include <QFileDialog>

#include <QListWidgetItem>

#include <QDesktopServices>

#include <QAbstractButton>

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::modules](#AAAAAAAAAV)

[oig::ratstats::modules::uva](#AAAAAAAADB)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsAbout.h File Reference

#include <QDialog>

### Classes

class [oig::ratstats::ui::UIRStatsAbout](#AAAAAAAADL)

### *The* [*UIRStatsAbout*](#AAAAAAAADL) *class represents the code-behind for the "About" dialog used in RAT-STATS.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsErrorMessage.h File Reference

#include <QDialog>

### Classes

class [oig::ratstats::ui::UIRStatsErrorMessage](#AAAAAAAADO)

### *The* [*UIRStatsErrorMessage*](#AAAAAAAADO) *class represents the code-behind for a custom dialog for displaying error/exception messages.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsLaunchConfigDialog.h File Reference

#include <QDialog>

#include "rstats\_utils/inc/RStatsModuleProperties.h"

### Classes

class [oig::ratstats::ui::UIRStatsLaunchConfigDialog](#AAAAAAAADQ)

### *The* [*UIRStatsLaunchConfigDialog*](#AAAAAAAADQ) *class represents the code-behind for editing RStatsModuleProperties.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsScriptProviderConfigDialog.h File Reference

#include <QDialog>

#include "rstats\_utils/inc/RStatsScriptProviderProperties.h"

### Classes

class [oig::ratstats::ui::UIRStatsScriptProviderConfigDialog](#AAAAAAAADS)

### *The* [*UIRStatsScriptProviderConfigDialog*](#AAAAAAAADS) *class provides code-behind for editing RStatsScriptProviderProperties.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsSettingsManager.h File Reference

#include <QDialog>

#include <QMap>

#include <QIcon>

#include <QButtonGroup>

#include <QStyle>

#include "rstats\_utils/inc/RStatsUtils.hpp"

### Classes

class [oig::ratstats::ui::UIRStatsSettingsManager](#AAAAAAAADU)

### *The* [*UIRStatsSettingsManager*](#AAAAAAAADU) *class represents the properties in the settings dialog such as theme management and script provider management.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsShortcut.h File Reference

#include <QShortcut>

### Classes

class [oig::ratstats::ui::UIRStatsShortcut](#AAAAAAAADW)

### *The* [*UIRStatsShortcut*](#AAAAAAAADW) *class is a custom overload of QShortcut to provide more useful "activated" signal that returns pointer to shortcut.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsTablePreviewWidget.h File Reference

#include <QTableWidget>

#include <QKeyEvent>

### Classes

class [oig::ratstats::ui::UIRStatsTablePreviewWidget](#AAAAAAAADY)

### *The* [*UIRStatsTablePreviewWidget*](#AAAAAAAADY) *is a custom overload of the QTableWidget to provide the ability ignore the Tab key when viewing results in table. This allows the Tab key to go to the next sibling widget instead of being stuck in the table.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsUtils.hpp File Reference

#include <QAbstractButton>

#include <QFont>

#include <QIcon>

#include <QApplication>

#include <QStyleFactory>

#include <QFile>

#include <QTableWidget>

#include <QFileDialog>

#include <QCheckBox>

#include <QMenu>

#include <QAction>

#include <QActionGroup>

#include <QPushButton>

#include <QPixmap>

#include <QUrl>

#include <QDesktopServices>

#include <QComboBox>

#include <QListWidget>

#include <map>

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "rstats\_utils/inc/RStatsModuleSessionDataImpl.h"

#include "rstats\_utils/inc/RStatsWorkbook.h"

#include "UIRStatsErrorMessage.h"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/XMLUtils.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

[oig::ratstats::ui::UIRStatsUtils](#AAAAAAAAEA)

### *This namespace represents a collection of reusable functions that have access to the Qt classes.* Functions

void [oig::ratstats::ui::UIRStatsUtils::desktopOpen](#AAAAAAAAEB) (const std::string &url)

*desktopOpen Opens files and web urls on the desktp*

void [oig::ratstats::ui::UIRStatsUtils::launchHtml](#AAAAAAAAEC) (const std::string &content)

*launchHtml Displays html content in system web browser*

void [oig::ratstats::ui::UIRStatsUtils::launchHelp](#AAAAAAAAED) (const std::string &pdf)

*launchHelp Builds a url to the pdf item. Launches system pdf viewer with url as filePath.*

void [oig::ratstats::ui::UIRStatsUtils::setCurrentText](#AAAAAAAAEE) (QComboBox \*combo, const std::string &text)

*setCurrentText*

QPixmap [oig::ratstats::ui::UIRStatsUtils::getPixmap](#AAAAAAAAEF) (const std::string &pixmapFileName)

*getPixmap*

QIcon [oig::ratstats::ui::UIRStatsUtils::getIcon](#AAAAAAAAEG) (const std::string &iconFileName)

*getIcon*

std::string [oig::ratstats::ui::UIRStatsUtils::getCurrentTheme](#AAAAAAAAEH) ()

*getCurrentTheme*

void [oig::ratstats::ui::UIRStatsUtils::loadThemeSettings](#AAAAAAAAEI) (QApplication \*app)

*loadThemeSettings*

void [oig::ratstats::ui::UIRStatsUtils::highlightErrorInValidationConsole](#AAAAAAAAEJ) (QListWidget \*widget)

*highlightErrorInValidationConsole Ensures that the next error in the validation console is highlighted/focused.*

void [oig::ratstats::ui::UIRStatsUtils::populateWithColumns](#AAAAAAAAEK) (const std::set< size\_t > &columns, QComboBox \*comboBox)

*populateWithColumns Populates combobox widget with column headers*

void [oig::ratstats::ui::UIRStatsUtils::populateWithRows](#AAAAAAAAEL) (const std::set< size\_t > &rows, QComboBox \*comboBox)

*populateWithRows Populates combobox widget with row numbers*

void [oig::ratstats::ui::UIRStatsUtils::bindUIToSheet](#AAAAAAAAEM) (QTableWidget \*table, [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sheetOut)

*bindUIToSheet*

void [oig::ratstats::ui::UIRStatsUtils::bindSheetToUI](#AAAAAAAAEO) (const [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN) &sheetIn, QTableWidget \*table, bool checkableHeader=false, int padRows=0, int padColumns=0, int numDecimalPlaces=-1, bool readOnly=false)

*bindSheetToUI This function copies fields in the model class (RStatsWorksheet) into the view object (QTableWidget)*

QString [oig::ratstats::ui::UIRStatsUtils::setOutputFile](#AAAAAAAAEP) (QCheckBox \*checkBox, const QString &title, const QString &extension)

*setOutputFile Common code used by all the modules for saving output file*

template<typename ModuleType > std::pair< QActionGroup \*, QAction \* > [oig::ratstats::ui::UIRStatsUtils::buildRecentSessions](#AAAAAAAAEQ) (QWidget \*parent, QAction \*menuRecentAction, std::map< std::string, utils::RStatsModuleSessionDataPtr > &sessionMapOut, const std::string &sessionExtension)

*buildRecentSessions Constructs the "Recently Used" menu used by the modules*

void [oig::ratstats::ui::UIRStatsUtils::initAction](#AAAAAAAAER) (QAction \*action, const QString &icon, const QString &shortcut, const QFont &font=QFont())

*initAction*

void [oig::ratstats::ui::UIRStatsUtils::initButton](#AAAAAAAAES) (QPushButton \*button, const QString &icon, const QFont &font=QFont(), int height=32)

*initButton*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/inc/UIRStatsWorkbook.h File Reference

#include <QWidget>

#include <QTableWidget>

#include "rstats\_utils/inc/RStatsWorkbook.h"

#include "UIRStatsTablePreviewWidget.h"

### Classes

class [oig::ratstats::ui::UIRStatsWorkbook](#AAAAAAAAEU)

### *The* [*UIRStatsWorkbook*](#AAAAAAAAEU) *class is used by the SVA class to provide support for displaying multiple worksheets in the output results.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsAbout.cpp File Reference

#include "UIRStatsAbout.h"

#include "ui\_UIRStatsAbout.h"

#include "UIRStatsUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/FileUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsErrorMessage.cpp File Reference

#include "UIRStatsErrorMessage.h"

#include "ui\_UIRStatsErrorMessage.h"

#include <QFileDialog>

#include <QApplication>

#include "UIRStatsUtils.hpp"

#include "utility/inc/FileUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsLaunchConfigDialog.cpp File Reference

#include "UIRStatsLaunchConfigDialog.h"

#include "ui\_UIRStatsLaunchConfigDialog.h"

#include <QFileDialog>

#include <QDir>

#include <QFile>

#include <QMessageBox>

#include <QProcess>

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsScriptProviderConfigDialog.cpp File Reference

#include "UIRStatsScriptProviderConfigDialog.h"

#include "ui\_UIRStatsScriptProviderConfigDialog.h"

#include <QFileDialog>

#include <QDir>

#include <QFile>

#include <QMessageBox>

#include <QProcess>

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/DateTimeUtils.hpp"

#include "rstats\_ui/inc/UIRStatsErrorMessage.h"

#include "rstats\_ui/inc/UIRStatsUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsSettingsManager.cpp File Reference

#include <QSpinBox>

#include <QLabel>

#include <QPushButton>

#include <QLineEdit>

#include <QTableWidget>

#include <QFrame>

#include <QHBoxLayout>

#include <QMessageBox>

#include <QStyleFactory>

#include "UIRStatsSettingsManager.h"

#include "ui\_UIRStatsSettingsManager.h"

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/XMLUtils.h"

#include "UIRStatsErrorMessage.h"

#include "UIRStatsUtils.hpp"

#include "UIRStatsScriptProviderConfigDialog.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsShortcut.cpp File Reference

#include "UIRStatsShortcut.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsTablePreviewWidget.cpp File Reference

#include "UIRStatsTablePreviewWidget.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_ui/src/UIRStatsWorkbook.cpp File Reference

#include "UIRStatsWorkbook.h"

#include "ui\_UIRStatsWorkbook.h"

#include <QTextBrowser>

#include "UIRStatsUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::ui](#AAAAAAAADM)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsConditionLogger.h File Reference

#include <set>

#include <string>

#include <vector>

### Classes

class [oig::ratstats::utils::RStatsConditionLogger](#AAAAAAAAFE)

### *The* [*RStatsConditionLogger*](#AAAAAAAAFE) *class provides support for creating warning, informative and error messages based on boolean conditions. This object is used by the modules for realtime error/exception monitoring.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Enumerations

enum [oig::ratstats::utils::ConditionType](#AAAAAAAAFG) { [oig::ratstats::utils::ConditionType::Warning](#AAAAAAAAFH), [oig::ratstats::utils::ConditionType::Informative](#AAAAAAAAFI), [oig::ratstats::utils::ConditionType::Error](#AAAAAAAAFJ) }

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsModuleProperties.h File Reference

#include <vector>

#include <string>

#include <map>

### Classes

class [oig::ratstats::utils::RStatsModuleProperties](#AAAAAAAAFL)

### *The* [*RStatsModuleProperties*](#AAAAAAAAFL) *class represents a individual module object in RAT-STATS. It provides a method of loading, saving and removing the module to/from disk.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsModuleSessionData.hpp File Reference

#include <string>

#include <memory>

#include "utility/inc/DateTimeUtils.hpp"

### Classes

class [oig::ratstats::utils::RStatsModuleSessionData](#AAAAAAAAFN)

### *The* [*RStatsModuleSessionData*](#AAAAAAAAFN) *interface is used by each of the modules to provide custom session data for the "Recently Used" feature. This interface represents the common functions that have to be implemented for each module.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Typedefs

typedef std::shared\_ptr< RStatsModuleSessionData > [oig::ratstats::utils::RStatsModuleSessionDataPtr](#AAAAAAAAFO)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsModuleSessionDataImpl.h File Reference

#include "rstats\_utils/inc/RStatsModuleSessionData.hpp"

#include "utility/inc/DateTimeUtils.hpp"

#include "utility/inc/XMLUtils.h"

### Classes

class [oig::ratstats::utils::RStatsModuleSessionDataImpl](#AAAAAAAAFQ)

### *The* [*RStatsModuleSessionDataImpl*](#AAAAAAAAFQ) *abstract class is a partial base implementation of the* [*RStatsModuleSessionData*](#AAAAAAAAFN) *interface. It implements getters/setters for the common values.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsObjectList.hpp File Reference

#include <cinttypes>

#include <map>

#include <string>

#include <vector>

#include <set>

#include <tgmath.h>

#include <algorithm>

#include "utility/inc/Exception.hpp"

### Classes

class [oig::ratstats::utils::RStatsObjectList< T >](#AAAAAAAABQ)

### *The* [*RStatsObjectList*](#AAAAAAAABQ) *class is used to represent a simple N-dimensional array with similar add/remove syntax with VB/VBA.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Typedefs

typedef float [oig::ratstats::utils::float32\_t](#AAAAAAAAFS)

typedef double [oig::ratstats::utils::float64\_t](#AAAAAAAAFT)

typedef long double [oig::ratstats::utils::float128\_t](#AAAAAAAAFU)

typedef RStatsObjectList< std::int64\_t > [oig::ratstats::utils::RStatsInt64List](#AAAAAAAAFV)

typedef RStatsObjectList< float32\_t > [oig::ratstats::utils::RStatsFloat32List](#AAAAAAAAFW)

typedef RStatsObjectList< float64\_t > [oig::ratstats::utils::RStatsFloat64List](#AAAAAAAAFX)

typedef RStatsObjectList< float128\_t > [oig::ratstats::utils::RStatsFloat128List](#AAAAAAAAFY)

typedef RStatsObjectList< std::string > [oig::ratstats::utils::RStatsStringList](#AAAAAAAAFZ)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsScriptProviderProperties.h File Reference

#include <string>

### Classes

class [oig::ratstats::utils::RStatsScriptProviderProperties](#AAAAAAAAGB)

### *The* [*RStatsScriptProviderProperties*](#AAAAAAAAGB) *class represents all the fields neccessary to represent a script provider.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsTypes.hpp File Reference

#include "RStatsObjectList.hpp"

### Classes

struct [oig::ratstats::utils::RStatsDataFormatTypeIndex](#AAAAAAAAGD)

### *The* [*RStatsDataFormatTypeIndex*](#AAAAAAAAGD) *struct.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Typedefs

typedef [oig::ratstats::utils::float64\_t](#AAAAAAAAFT) [oig::ratstats::utils::RStatsFloat](#AAAAAAAABZ)

*Provides typedef for commonly used types in RAT-STATS.*

typedef std::int64\_t [oig::ratstats::utils::RStatsInteger](#AAAAAAAAGE)

typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< RStatsFloat > [oig::ratstats::utils::RStatsFloatList](#AAAAAAAAGF)

typedef [oig::ratstats::utils::RStatsObjectList](#AAAAAAAABQ)< RStatsInteger > [oig::ratstats::utils::RStatsIntegerList](#AAAAAAAAGG)

### Enumerations

enum [oig::ratstats::utils::RStatsCalculationType](#AAAAAAAAGH) { [oig::ratstats::utils::RStatsCalculationType::Subtract](#AAAAAAAAGI), [oig::ratstats::utils::RStatsCalculationType::Multiply](#AAAAAAAAGJ), [oig::ratstats::utils::RStatsCalculationType::Add](#AAAAAAAAGK), [oig::ratstats::utils::RStatsCalculationType::Divide](#AAAAAAAAGL) }*The RStatsCalculationType enumeration provides states for adding, multipling, subtracting and dividing.*

enum [oig::ratstats::utils::RStatsDataFormatType](#AAAAAAAAGM) { [oig::ratstats::utils::RStatsDataFormatType::Examine](#AAAAAAAAGN), [oig::ratstats::utils::RStatsDataFormatType::Audit](#AAAAAAAAGO), [oig::ratstats::utils::RStatsDataFormatType::Difference](#AAAAAAAAGP), [oig::ratstats::utils::RStatsDataFormatType::ExamineAndAudit](#AAAAAAAAGQ), [oig::ratstats::utils::RStatsDataFormatType::ExamineAndDifference](#AAAAAAAAGR), [oig::ratstats::utils::RStatsDataFormatType::AuditAndDifference](#AAAAAAAAGS) }*The RStatsDataFormatType enumeration provides types to represent the data formats used by the SVA and UVA modules.*

enum [oig::ratstats::utils::RStatsConditionalOperatorType](#AAAAAAAAGT) { [oig::ratstats::utils::RStatsConditionalOperatorType::Equal](#AAAAAAAAGU), [oig::ratstats::utils::RStatsConditionalOperatorType::NotEqual](#AAAAAAAAGV), [oig::ratstats::utils::RStatsConditionalOperatorType::LessThan](#AAAAAAAAGW), [oig::ratstats::utils::RStatsConditionalOperatorType::LessThanOrEqualTo](#AAAAAAAAGX), [oig::ratstats::utils::RStatsConditionalOperatorType::GreaterThan](#AAAAAAAAGY), [oig::ratstats::utils::RStatsConditionalOperatorType::GreaterThanOrEqualTo](#AAAAAAAAGZ) }*The RStatsConditionalOperatorType enum.*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsUtils.hpp File Reference

#include <cinttypes>

#include <vector>

#include <cfloat>

#include <cmath>

#include "rstats\_utils/inc/RStatsModuleProperties.h"

#include "rstats\_utils/inc/RStatsWorksheet.h"

#include "rstats\_utils/inc/RStatsScriptProviderProperties.h"

#include "RStatsModuleSessionData.hpp"

#include "RStatsObjectList.hpp"

#include "RStatsTypes.hpp"

#include "utility/inc/DateTimeUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/StringUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::RStatsUtils](#AAAAAAAAHB)

### *This namespace provides commonly used functions without requiring any dependencies on the Qt SDK.* Functions

std::pair< std::string, std::string > [oig::ratstats::utils::RStatsUtils::getDataFormatTypeStr](#AAAAAAAAHC) (RStatsDataFormatType type)

*getDataFormatTypeStr Gets the string representation of the data format type enumeration value*

template<class T > RStatsInteger [oig::ratstats::utils::RStatsUtils::vbRound](#AAAAAAAAHD) (T value)

*vbRound This function attempts to simulate VB / VBA bankers rounding*

template<typename Integer > Integer [oig::ratstats::utils::RStatsUtils::ipow](#AAAAAAAAHE) (Integer base, Integer exp)

*ipow Custom pow function for integers*

bool [oig::ratstats::utils::RStatsUtils::isEqual](#AAAAAAAAHF) (RStatsFloat value1, RStatsFloat value2)

*isEqual Compares to floating point values*

template<typename Number > Number [oig::ratstats::utils::RStatsUtils::getSum](#AAAAAAAAHG) (const RStatsObjectList< Number > &values, size\_t dimension=0)

*getSum Return sum of list of numbers*

template<typename Float > Float [oig::ratstats::utils::RStatsUtils::getSumRaisedTo](#AAAAAAAAHH) (const RStatsObjectList< Float > &values, Float power, size\_t dimension=0)

*getSumRaisedTo Return sum of values raised to power*

template<typename Number > size\_t [oig::ratstats::utils::RStatsUtils::getNumItemsThatMatchCondition](#AAAAAAAAHI) (RStatsConditionalOperatorType condition, const RStatsObjectList< Number > &values, Number value, size\_t dimension=0)

*getNumItemsThatMatchCondition Attempts to return the number of items in values that match the condition. Conditions can be =, !=, >, <, >= or <=*

template<typename Number > void [oig::ratstats::utils::RStatsUtils::calculate](#AAAAAAAAHJ) (const RStatsObjectList< Number > &input1, const RStatsObjectList< Number > &input2, RStatsObjectList< Number > &result, RStatsCalculationType calculation, size\_t dimension=0)

*calculate This function takes in to* [*RStatsObjectList*](#AAAAAAAABQ) *structures and performs calculations on each element. The result is returned back in a third* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > RStatsObjectList< Number > [oig::ratstats::utils::RStatsUtils::getNumbersAdded](#AAAAAAAAHK) (const RStatsObjectList< Number > &input1, const RStatsObjectList< Number > &input2, size\_t dimension=0)

*getNumbersAdded This function adds together two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > RStatsObjectList< Number > [oig::ratstats::utils::RStatsUtils::getNumbersSubtracted](#AAAAAAAAHL) (const RStatsObjectList< Number > &input1, const RStatsObjectList< Number > &input2, size\_t dimension=0)

*getNumbersSubtracted This function subtracts two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > RStatsObjectList< Number > [oig::ratstats::utils::RStatsUtils::getNumbersMultiplied](#AAAAAAAAHM) (const RStatsObjectList< Number > &input1, const RStatsObjectList< Number > &input2, size\_t dimension=0)

*getNumbersMultiplied This function multiplies two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

template<typename Number > RStatsObjectList< Number > [oig::ratstats::utils::RStatsUtils::getNumbersDivided](#AAAAAAAAHN) (const RStatsObjectList< Number > &input1, const RStatsObjectList< Number > &input2, size\_t dimension=0)

*getNumbersDivided This function divides two RStatsObjetList structures and returns the result in another* [*RStatsObjectList*](#AAAAAAAABQ)

std::string [oig::ratstats::utils::RStatsUtils::getValidPath](#AAAAAAAAHO) (const std::string &pathToValidate)

*getValidPath RAT-STATS makes use of external files and this function attempts to find a valid path for input files. To remain portable and self-contained, RAT-STATS checks the following places for external files: (1) The execution directory - This is where the RAT-STATS main menu and RAT-STATS internal modules are located.*

std::string [oig::ratstats::utils::RStatsUtils::getModulePropertiesPath](#AAAAAAAAHP) ()

*getModulePropertiesPath Return valid path to module XML config directory*

std::string [oig::ratstats::utils::RStatsUtils::getConfigPath](#AAAAAAAAHQ) ()

*getConfigPath Return valid path to config directory*

std::string [oig::ratstats::utils::RStatsUtils::getContribPath](#AAAAAAAAHR) ()

*getContribPath Return valid path to contrib directory*

std::string [oig::ratstats::utils::RStatsUtils::getScriptProviderPropertiesPath](#AAAAAAAAHS) ()

*getScriptProviderPropertiesPath Return valid path to script provider XML config directory*

std::string [oig::ratstats::utils::RStatsUtils::getResourcePath](#AAAAAAAAHT) ()

*getResourcePath*

std::string [oig::ratstats::utils::RStatsUtils::getThemeSettingsFilePath](#AAAAAAAAHU) ()

*getThemeSettingsFilePath*

std::vector< RStatsModuleProperties > [oig::ratstats::utils::RStatsUtils::getModulePropertiesList](#AAAAAAAAHV) ()

*getModulePropertiesList Read all module properties from disk*

std::vector< std::string > [oig::ratstats::utils::RStatsUtils::getModuleCategories](#AAAAAAAAHW) ()

*getModuleCategories Get list of all module categories*

std::vector< RStatsScriptProviderProperties > [oig::ratstats::utils::RStatsUtils::getScriptProviderPropertiesList](#AAAAAAAAHX) ()

*getScriptProviderPropertiesList Get list of all parsed script provider from disk*

size\_t [oig::ratstats::utils::RStatsUtils::getColumnIndexFromLabel](#AAAAAAAAHY) (const std::string &columnLabel)

*RStatsWorksheet::getColumnIndexFromLabel.*

std::string [oig::ratstats::utils::RStatsUtils::getColumnLabelFromIndex](#AAAAAAAAHZ) (size\_t columnIndex)

*RStatsWorksheet::getColumnLabelFromIndex.*

std::pair< size\_t, size\_t > [oig::ratstats::utils::RStatsUtils::getCellIndexFromAddress](#AAAAAAAAIA) (const std::string &cellAddress)

*getCellIndexFromAddress*

void [oig::ratstats::utils::RStatsUtils::createValidPath](#AAAAAAAAIB) (const std::string &pathToCreate)

*createValidPath*

std::string [oig::ratstats::utils::RStatsUtils::getValidSessionPath](#AAAAAAAAIC) ()

*getValidSessionPath*

std::vector< std::string > [oig::ratstats::utils::RStatsUtils::getRecentSessions](#AAAAAAAAID) (const std::string &sessionExtension)

*getRecentSessions*

void [oig::ratstats::utils::RStatsUtils::saveRecentSession](#AAAAAAAAIE) (RStatsModuleSessionDataPtr sessionPtr)

*saveRecentSession*

void [oig::ratstats::utils::RStatsUtils::clearRecentSessions](#AAAAAAAAIF) (const std::string &sessionExtension)

*clearRecentSessions*

RStatsFloat [oig::ratstats::utils::RStatsUtils::divideValues](#AAAAAAAAIG) (RStatsInteger value1, RStatsInteger value2)

*divideValues*

std::string [oig::ratstats::utils::RStatsUtils::getAuditName](#AAAAAAAAIH) ()

*getRandomAuditName Generates random audit name for use when none is provided*

std::string [oig::ratstats::utils::RStatsUtils::getApplicationName](#AAAAAAAAII) ()

*getApplicationName Returns name of application*

std::string [oig::ratstats::utils::RStatsUtils::getCellLabel](#AAAAAAAAIJ) (size\_t row, size\_t column)

*getCellLabel Gets the spreadsheet cell label (A1, B4, etc) from 0-based row and column indices*

std::string [oig::ratstats::utils::RStatsUtils::getValidModule](#AAAAAAAAIK) (const std::string &modulePath)

*getValidModule Returns string path to validated module*

bool [oig::ratstats::utils::RStatsUtils::isValidModule](#AAAAAAAAIL) (const std::string &modulePath)

*isValidModule Determines if a module path can be validated*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsWorkbook.h File Reference

#include "RStatsWorksheet.h"

#include <vector>

### Classes

class [oig::ratstats::utils::RStatsWorkbook](#AAAAAAAAIN)

### *The* [*RStatsWorkbook*](#AAAAAAAAIN) *class represents a simple container for multiple worksheet objects.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Enumerations

enum [oig::ratstats::utils::RStatsWorkbookMergeDirection](#AAAAAAAAIO) { [oig::ratstats::utils::RStatsWorkbookMergeDirection::MergeBottom](#AAAAAAAAIP), [oig::ratstats::utils::RStatsWorkbookMergeDirection::MergeRight](#AAAAAAAAIQ) }

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsWorkbookStream.hpp File Reference

#include <vector>

#include "RStatsWorkbook.h"

### Classes

class [oig::ratstats::utils::RStatsWorkbookStream](#AAAAAAAAIS)

### *The* [*RStatsWorkbookStream*](#AAAAAAAAIS) *interface represents a simple read/write stream for various workbook file formats.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Typedefs

typedef std::shared\_ptr< RStatsWorkbookStream > [oig::ratstats::utils::RStatsWorkbookStreamPtr](#AAAAAAAAIT)

*RStatsWorkbookStreamPtr Typedef of shared pointer for this interface.*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsWorkbookStreamFactory.h File Reference

#include "rstats\_utils/inc/RStatsWorkbookStream.hpp"

### Classes

class [oig::ratstats::utils::RStatsWorkbookStreamFactory](#AAAAAAAAIV)

### *The* [*RStatsWorkbookStreamFactory*](#AAAAAAAAIV) *static class provides a method for instantiating workbook streams for reading/writing. The extension on the filePath is used to determine which workbook stream implementation to use.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/RStatsWorksheet.h File Reference

#include <string>

#include <map>

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/ColorUtils.h"

#include "utility/inc/FontUtils.h"

#include "rstats\_utils/inc/RStatsConditionLogger.h"

#include "rstats\_utils/inc/RStatsTypes.hpp"

### Classes

struct [oig::ratstats::utils::RStatsCell](#AAAAAAAAIX)

*The* [*RStatsCell*](#AAAAAAAAIX) *struct represents a single cell object for a worksheet.* struct [oig::ratstats::utils::RStatsMergeCellRange](#AAAAAAAAIY)

*The* [*RStatsMergeCellRange*](#AAAAAAAAIY) *struct.* class [oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN)

### *The* [*RStatsWorksheet*](#AAAAAAAAEN) *class attempts to emulate a simple spreadsheet object basic formatting of cells.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

### Typedefs

typedef std::map< std::pair< size\_t, size\_t >, RStatsCell > [oig::ratstats::utils::RStatsCellMap](#AAAAAAAAIZ)

typedef std::map< RStatsMergeCellRange, RStatsCell > [oig::ratstats::utils::RStatsMergedCellMap](#AAAAAAAAJA)

typedef std::shared\_ptr< RStatsWorksheet > [oig::ratstats::utils::RStatsWorksheetPtr](#AAAAAAAAJB)

### Enumerations

enum [oig::ratstats::utils::RStatsTextAlignment](#AAAAAAAAJC) { [oig::ratstats::utils::RStatsTextAlignment::AlignLeft](#AAAAAAAAJD), [oig::ratstats::utils::RStatsTextAlignment::AlignMiddle](#AAAAAAAAJE), [oig::ratstats::utils::RStatsTextAlignment::AlignRight](#AAAAAAAAJF) }*The RStatsTextAlignment enum.*

enum [oig::ratstats::utils::RStatsCellFormat](#AAAAAAAAJG) { [oig::ratstats::utils::RStatsCellFormat::ThousandsSeperator](#AAAAAAAAJH) }*The RStatsCellFormat enum.*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/RStatsCSVWorkbookStream.h File Reference

#include "rstats\_utils/inc/RStatsWorkbookStream.hpp"

### Classes

class [oig::ratstats::utils::streams::RStatsCSVWorkbookStream](#AAAAAAAAJJ)

### *The* [*RStatsCSVWorkbookStream*](#AAAAAAAAJJ) *class provides support for reading/writing to a CSV file.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/RStatsDIFWorkbookStream.h File Reference

#include <string>

#include "rstats\_utils/inc/RStatsWorkbookStream.hpp"

### Classes

class [oig::ratstats::utils::streams::RStatsDIFWorkbookStream](#AAAAAAAAJM)

### *The* [*RStatsDIFWorkbookStream*](#AAAAAAAAJM) *class provides support for reading from and writing to the data interchange format.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

### Enumerations

enum [oig::ratstats::utils::streams::RStatsDIFParseStates](#AAAAAAAAJN) { [oig::ratstats::utils::streams::RStatsDIFParseStates::Start](#AAAAAAAAJO), [oig::ratstats::utils::streams::RStatsDIFParseStates::ReadColumnCount](#AAAAAAAAJP), [oig::ratstats::utils::streams::RStatsDIFParseStates::ReadRowCount](#AAAAAAAAJQ), [oig::ratstats::utils::streams::RStatsDIFParseStates::ReadDummyData](#AAAAAAAAJR), [oig::ratstats::utils::streams::RStatsDIFParseStates::ReadRowData](#AAAAAAAAJS), [oig::ratstats::utils::streams::RStatsDIFParseStates::ReadStringData](#AAAAAAAAJT), [oig::ratstats::utils::streams::RStatsDIFParseStates::End](#AAAAAAAAJU) }*The RStatsDIFParseStates enum List of DIF parse states.*

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/RStatsSpaceOrTabDelimitedWorkbookStream.h File Reference

#include "rstats\_utils/inc/RStatsWorkbookStream.hpp"

### Classes

class [oig::ratstats::utils::streams::RStatsSpaceOrTabDelimitedWorkbookStream](#AAAAAAAAJW)

### *The* [*RStatsSpaceOrTabDelimitedWorkbookStream*](#AAAAAAAAJW) *class provides support for reading and writing to space and tab delimited files.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/RStatsXLSWorkbookStream.h File Reference

#include "rstats\_utils/inc/RStatsWorkbookStream.hpp"

### Classes

class [oig::ratstats::utils::streams::RStatsXLSWorkbookStream](#AAAAAAAAJY)

### *The* [*RStatsXLSWorkbookStream*](#AAAAAAAAJY) *class Provides read/write support for XLS files.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/inc/streams/RStatsXLSXWorkbookStream.h File Reference

#include "rstats\_utils/inc/RStatsWorkbookStream.hpp"

### Classes

class [oig::ratstats::utils::streams::RStatsXLSXWorkbookStream](#AAAAAAAAKA)

### *The* [*RStatsXLSXWorkbookStream*](#AAAAAAAAKA) *class provides read support for XLSX files. WARNING: The write function is not implemented and will throw an exception if called.* Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsConditionLogger.cpp File Reference

#include "RStatsConditionLogger.h"

#include "utility/inc/StringUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsModuleProperties.cpp File Reference

#include "RStatsModuleProperties.h"

#include <sstream>

#include "utility/inc/XMLUtils.h"

#include "utility/inc/FileUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsModuleSessionDataImpl.cpp File Reference

#include "RStatsModuleSessionDataImpl.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsScriptProviderProperties.cpp File Reference

#include "RStatsScriptProviderProperties.h"

#include <sstream>

#include "utility/inc/XMLUtils.h"

#include "utility/inc/DateTimeUtils.hpp"

#include "utility/inc/FileUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsWorkbook.cpp File Reference

#include "RStatsWorkbook.h"

#include "utility/inc/Exception.hpp"

#include "RStatsWorkbookStreamFactory.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsWorkbookStreamFactory.cpp File Reference

#include "RStatsWorkbookStreamFactory.h"

#include "utility/inc/FileUtils.hpp"

#include "utility/inc/Exception.hpp"

#include "streams/RStatsSpaceOrTabDelimitedWorkbookStream.h"

#include "streams/RStatsDIFWorkbookStream.h"

#include "streams/RStatsXLSXWorkbookStream.h"

#include "streams/RStatsXLSWorkbookStream.h"

#include "streams/RStatsCSVWorkbookStream.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/RStatsWorksheet.cpp File Reference

#include "RStatsWorksheet.h"

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/XMLUtils.h"

#include "RStatsUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/RStatsCSVWorkbookStream.cpp File Reference

#include "RStatsCSVWorkbookStream.h"

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include <stack>

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

### Enumerations

enum [oig::ratstats::utils::streams::RStatsCSVDataParseTypes](#AAAAAAAAKJ) { [oig::ratstats::utils::streams::RStatsCSVDataParseTypes::Start](#AAAAAAAAKK), [oig::ratstats::utils::streams::RStatsCSVDataParseTypes::Empty](#AAAAAAAAKL), [oig::ratstats::utils::streams::RStatsCSVDataParseTypes::NotQuoted](#AAAAAAAAKM), [oig::ratstats::utils::streams::RStatsCSVDataParseTypes::Quoted](#AAAAAAAAKN) }

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/RStatsDIFWorkbookStream.cpp File Reference

#include "RStatsDIFWorkbookStream.h"

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/FileUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/RStatsSpaceOrTabDelimitedWorkbookStream.cpp File Reference

#include "RStatsSpaceOrTabDelimitedWorkbookStream.h"

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include <stack>

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/RStatsXLSWorkbookStream.cpp File Reference

#include "RStatsXLSWorkbookStream.h"

#include "contrib/basic\_excel/inc/BasicExcel.hpp"

#include "utility/inc/FileUtils.hpp"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/src/streams/RStatsXLSXWorkbookStream.cpp File Reference

#include "RStatsXLSXWorkbookStream.h"

#include "RStatsWorksheet.h"

#include "utility/inc/DateTimeUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/XMLUtils.h"

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "contrib/mini\_excel/MiniExcelReader.h"

### Namespaces

[oig](#AAAAAAAAAC)

[oig::ratstats](#AAAAAAAAAD)

[oig::ratstats::utils](#AAAAAAAAFF)

[oig::ratstats::utils::streams](#AAAAAAAAJK)

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/tests/src/test\_RStatsUtils.cpp File Reference

#include "contrib/catch/catch.hpp"

### Macros

#define [CATCH\_CONFIG\_MAIN](#AAAAAAAAKT)

### Macro Definition Documentation

#### #define CATCH\_CONFIG\_MAIN

#### 

## C:/dev/RStats2017/products/test\_TeamCBTek/src/test\_RStatsUtils.cpp File Reference

#include "rstats\_utils/inc/RStatsUtils.hpp"

#include "utility/inc/VBRoundUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "contrib/catch/catch.hpp"

#include <math.h>

#include <stdbool.h>

### Functions

[TEST\_CASE](#AAAAAAAAKV) ("Testing RStatsUtils::isEqual","[oig::ratstats::utils::RStatsUtils]")

[TEST\_CASE](#AAAAAAAAKW) ("Testing RStatsUtils::vbRound","[orig::ratstats::utils::RStatsUtils]")

### Function Documentation

#### TEST\_CASE ("Testing RStatsUtils::isEqual" , "" [oig::ratstats::utils::RStatsUtils])

#### TEST\_CASE ("Testing RStatsUtils::vbRound" , "" [orig::ratstats::utils::RStatsUtils])

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/tests/src/test\_RStatsWorkbookStreams.cpp File Reference

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "contrib/catch/catch.hpp"

#include "rstats\_utils/inc/RStatsWorkbookStreamFactory.h"

### Functions

[TEST\_CASE](#AAAAAAAAKY) ("Testing RStatsDelimitedWorkbookStream","[oig::ratstats::utils::streams::RStatsDelimitedWorkbookStream")

[TEST\_CASE](#AAAAAAAAKZ) ("Testing RStatsCSVWorkbookStream","[[oig::ratstats::utils::streams::RStatsCSVWorkbookStream](#AAAAAAAAJJ)")

[TEST\_CASE](#AAAAAAAALA) ("Testing RStatsDIFWorkbookStream","[[oig::ratstats::utils::streams::RStatsDIFWorkbookStream](#AAAAAAAAJM)")

[TEST\_CASE](#AAAAAAAALB) ("Testing RStatsXLSXWorkbookStream","[[oig::ratstats::utils::streams::RStatsXLSXWorkbookStream](#AAAAAAAAKA)")

[TEST\_CASE](#AAAAAAAALC) ("Testing RStatsXLSWorkbookStream","[[oig::ratstats::utils::streams::RStatsXLSWorkbookStream](#AAAAAAAAJY)")

### Variables

static const std::string [dataFolder](#AAAAAAAALD) = "testData/rstats\_utils/"

### Function Documentation

#### TEST\_CASE ("Testing RStatsDelimitedWorkbookStream" , "[oig::ratstats::utils::streams::RStatsDelimitedWorkbookStream" )

#### TEST\_CASE ("Testing RStatsCSVWorkbookStream" , "[oig::ratstats::utils::streams::RStatsCSVWorkbookStream" )

#### TEST\_CASE ("Testing RStatsDIFWorkbookStream" , "[oig::ratstats::utils::streams::RStatsDIFWorkbookStream" )

#### TEST\_CASE ("Testing RStatsXLSXWorkbookStream" , "[oig::ratstats::utils::streams::RStatsXLSXWorkbookStream" )

#### TEST\_CASE ("Testing RStatsXLSWorkbookStream" , "[oig::ratstats::utils::streams::RStatsXLSWorkbookStream" )

### Variable Documentation

#### const std::string dataFolder = "testData/rstats\_utils/"[static]

#### 

## C:/dev/RStats2017/products/RAT-STATS/rstats\_utils/tests/src/test\_RStatsWorksheet.cpp File Reference

#include "utility/inc/StringUtils.hpp"

#include "utility/inc/SystemUtils.hpp"

#include "utility/inc/FileUtils.hpp"

#include "contrib/catch/catch.hpp"

#include "rstats\_utils/inc/RStatsWorkbookStreamFactory.h"

### Functions

[TEST\_CASE](#AAAAAAAALF) ("Testing [RStatsWorksheet](#AAAAAAAAEN) remove empty row/column functions","[[oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN)")

[TEST\_CASE](#AAAAAAAALG) ("Testing [RStatsWorksheet](#AAAAAAAAEN) remove row/column functions","[[oig::ratstats::utils::RStatsWorksheet](#AAAAAAAAEN)")

### Variables

static const std::string [dataFolder](#AAAAAAAALH) = "testData/rstats\_utils/"

### Function Documentation

#### TEST\_CASE ("Testing [RStatsWorksheet](#AAAAAAAAEN) remove empty row/column functions" , "[oig::ratstats::utils::RStatsWorksheet" )

#### TEST\_CASE ("Testing [RStatsWorksheet](#AAAAAAAAEN) remove row/column functions" , "[oig::ratstats::utils::RStatsWorksheet" )

### Variable Documentation

#### const std::string dataFolder = "testData/rstats\_utils/"[static]

# Index

INDEX