VICI

0.11.815

Generated by Doxygen 1.8.5

Sun Feb 3 2019 16:15:57

Contents

Chapter 1

Main Page

VICI aims to make the UNIX command line programs easily available to the users of GUI desktop environments.

A flow chart can be built with commands and their parameters. This can then be saved as a script which can be installed into the user's desktop as an application.

The script supports all Linux commands, pipelines, file redirection, variables, functions, and multiple threads of control.

Chapter 2

Todo List

Member VICI::Canvas::Canvas::setExecution (bool active, csr node)=0

node should be NodeId type

Member VICI::Canvas::Canvas::symbolAttr (Symbol::SymbolAttributes &att)=0

this appears to be meaningless without the symbol

Member VICI::Symbol::SymbolClient::selection (Symbol *sym)=0

do we need to notify of deselection ?

Class VICI::Symbol::TextAttributes

should also include the style - bold, itallic, normal

Chapter 3

Namespace Index

3.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

Chapter 4

Hierarchical Index

4.1 Class Hierarchy

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

Chapter 5

Class Index

5.1 Class List

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

Chapter 6

File Index

6.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 7

Namespace Documentation

7.1 VICI Namespace Reference

The namespace for the Visual Chart Interpreter project.

Namespaces

- Admin
  An API for the vici-adm program.
- Canvas
  An API for the Canvas which handles the drawing and layout.
- cdi
  The namespace for the Common Development Infrastructure.
- cfi
  The namespace for the Common Facilities Infrastructure components.
- Cmnd
  An API for libcommand.
- Cron
  an API for libcron
- EBNF
  An API for the libebnf library.
- Ed
  An API for the vici editor.
- gth
  The namespace for the GUI Test Harness.
- Inst
  An API for the installer.
- Interp
  An API for the vici script interpreter.
- Search
  An API for libsearch.
- Sec
  An API for libsecure.
- stub
  The namespace for stub versions of modules.
- Symbol
  An API for libsymbol.
- Syntax
  An API for libsyntax.

Classes

- class Path

  Manipulate path strings.
- class vxt

  An exception object with severity levels.
- class GTHWindowWidget

  A mix-in class with the functions required for the gui test harness.
- class WidgetMgrClient

  An interface for the WidgetMgr to call its clients when a window registers itself.
- class WidgetMgr

  A singleton class that window widgets register with.
- class VMainWindow

  A main window class that automatically registers itself.
- class VDialog

  A dialog class that automatically registers itself.
- class ItemDelegate

  An item delegate that uses QLineEdit for editing list and table entries.
- class VEditList

  Builds on QListWidget to provide better editing ability.
- class Metrics

  A class to encapsulate measurements.
- class SignalToQtSignal

  A class to convert operating system signals into Qt signals.
- class AboutDialog

  A standard About Vici dialog for the project.
- class CanvasScene

  An implementation of the Scene abstract class for holding a QGraphicsScene.
- class EbnfNode

  A node of the EBNF parse tree.
- class EbnfTree

  An implementation of the ParseTree type.
- class EbnfXml

  A specialization of the Xml class for the parse tree.
- class Factory

  An abstract type for factories.
- class FactoryFactory

  Responsible for creating and supplying factories for the main modules.
- class Window

  A wrapper class for windows.
- class Scene

  A wrapper for QGraphicsScene class.
- class Vici

  An API for the vici runtime gui.
- class ViciFactory

  An abstract factory for making an instance of Vici.
- class VWindow

  An implementation of Window for holding Qt's QWidget objects.

Typedefs

- typedef void(∗ AsyncTestEventFn)(const std::string &s)

  Pointer to function used to enqueue a test event.
- typedef const std::string & csr

  short cut for string constants
- typedef int NodeId

  Type for identifying a node of the flowchart.
- typedef int ThreadId

  type for identifying a thread in the running script
- typedef std::vector< std::string > ArgList

  Type for a list of command arguments and options.
- typedef std::shared_ptr< Factory > FactoryPtr

  Shared pointer for factory.
- typedef std::shared_ptr
  < ViciFactory > ViciFactoryPtr

  Shared pointer for Vici Factory.

Enumerations

- enum Severity {
  Emergency, Alert, Critical, Error,
  Code, Warning, Notice, Info,
  Debug }

  Severity levels for log messages.
- enum Module {
  EBNF_Module, **Syntax_Module**, **Admin_Module**, **Search_Module**,
  Command_Module, **Symbol_Module**, **Canvas_Module**, **Secure_Module**,
  Cron_Module, **Installer_Module**, **Interpreter_Module**, **Editor_Module**,
  Vici_Module }

  An enum that lists the main modules of VICI.

Functions

- void trim (std::string &s)

  rip off leading and trailing white spaces
- int split (csr text, std::vector< std::string > &result)

  split a string into sub-strings at spaces
- std::string expandMacros (csr s)

  expand a string containing $ macros
- std::string clean (csr s)

  Remove everything except alpha, digit, space, dot, hyphen and underscore.
- void defaultAsyncTestEvent (const std::string &s)

  Function used to enqueue a test event.

Variables

- AsyncTestEventFn asyncTestEvent = VICI::defaultAsyncTestEvent

  Pointer to function used to enqueue a test event.

7.1.1 Detailed Description

The namespace for the Visual Chart Interpreter project. The namespace for the project.

7.1.2 Typedef Documentation

7.1.2.1 typedef void(* VICI::AsyncTestEventFn)(const std::string &s)

Pointer to function used to enqueue a test event.

Parameters

s	Identity of the event.

7.1.3 Enumeration Type Documentation

7.1.3.1 enum VICI::Severity

Severity levels for log messages.

Enumerator

Emergency A fault has been detected which may compromise the computer.

Alert A configuration error has been detected.

Critical The program cannot continue and may have corrupted its data.

Error The program cannot continue.

Code A programming error has been detected.

Warning There is a problem but the program can continue.

Notice Something is odd.

Info Information messages.

Debug Debugging messages.

7.1.4 Function Documentation

7.1.4.1 std::string VICI::clean (csr *s*)

Remove everything except alpha, digit, space, dot, hyphen and underscore.

Parameters

s	The string to clean

Returns

A string devoid of all but the above

7.1.4.2 void VICI::defaultAsyncTestEvent (const std::string & *s*)

Function used to enqueue a test event.

The default function is defined in cfi/log.cpp and soes nothing

Parameters

s	Identity of the event.

7.1.4.3 string VICI::expandMacros (csr *s*)

expand a string containing $ macros

Parameters

s	The string to expand.

Returns

A string with $ macros replaced.

7.1.4.4 int VICI::split (csr *text*, std::vector< std::string > & *result*)

split a string into sub-strings at spaces

Parameters

text	the string to split
result	the vector of sub strings

Returns

a number of sub-strings

7.1.4.5 void VICI::trim (std::string & *s*)

rip off leading and trailing white spaces

Parameters

s	the string to trim

7.2 VICI::Admin Namespace Reference

An API for the vici-adm program.

Classes

- class ViciAdmin

  Application for preparing commands.
- class ViciAdminFactory

  An abstract factory for making an instance of ViciAdmin.

Typedefs

- typedef std::shared_ptr < ViciAdminFactory > ViciAdminFactoryPtr

  Shared pointer for Admin Factory.

7.2.1 Detailed Description

An API for the vici-adm program.

7.3 VICI::Canvas Namespace Reference

An API for the Canvas which handles the drawing and layout.

Classes

- class CanvasClient

  An interface that is notified of canvas actions.
- class Canvas

  The facade for canvas library.
- class CanvasFactory

  An abstract factory for making an instance of Canvas.

Typedefs

- typedef std::shared_ptr
  < CanvasFactory > CanvasFactoryPtr

  Shared pointer for Canvas Factory.

7.3.1 Detailed Description

An API for the Canvas which handles the drawing and layout.

7.4 VICI::cdi Namespace Reference

The namespace for the Common Development Infrastructure.

Classes

- class Tester

  Responsible for managing the testing.
- class test_exception

  throw this to abandon a particular test case
- class scenario_exception

  throw this to abandon an entire scenario
- class TestEvent

  Represent an event in the object under test.
- class TestEventQueue

  Responsible for queuing TestEvents.
- class TestFactory

  Responsible for creating an object that manages the resources for the entire test.
- class TestFT

  Responsible for creating a test object of the required type.
- class AbstractTest

Responsible for managing resources needed for the entire test.

- class TestT

  Responsible for installing a factory for making test objects.
- class DefaultTest

  Provide a default version of the AbstractTest object.
- class ScenarioFactory

  Define a type for scenario factories.
- class ScenarioFT

  Responsible for creating a scenario of some type.
- struct ScenarioResults

  Responsible for storing the results of testing for a scenario.
- class AbstractScenario

  Define a type for scenarios.
- class ScenarioT

  Responsible for installing a factory to create scenarios of the required type.
- class DefaultScenario

  Provide a default scenario object.
- class TestCaseFactory

  Define a base type for test case factories.
- class TestCaseFT

  Responsible for creating a test case of some type.
- class AbstractTestCase

  Base class for test cases.
- class TestCaseT

  Responsible for installing a factory for the test case.
- class AsyncTestCase

  Responsible for handling asynchronous tests.
- class AsyncTestCaseT

  Responsible for installing the factory for the test case type.
- class CallTrace

  Class to create a call trace.
- class NullTrace

  A class for dummy trace objects.
- class Trace

  This class is used to create trace log entries.
- class Tracer

  This class manages the tracing for an application.

7.4.1 Detailed Description

The namespace for the Common Development Infrastructure. The cdi namespace is for components that are used during development of VICI but are not part of the product used by a normal user.

7.5 VICI::cfi Namespace Reference

The namespace for the Common Facilities Infrastructure components.

Classes

- struct DiscoverPointer

  Holds a pointer to a discoverable object.
- class Discoverable

  A mixin class that makes its owner discoverable.
- class DiscoveryMgr

  Manager for discoverable objects.
- class FD

  Wrap file descriptors in a class to ensure closed.
- class fdoutbuf

  An output stream buffer.
- class fdostream

  A file descriptor output stream.
- class fdinbuf

  An input stream buffer.
- class fdistream

  A file descriptor input stream.
- class Semaphore

  A semaphore for managing exclusive access to resources across multiple processes.
- class SemaphoreLock

  Mutual exclusion lock.
- class logstream

  A stream class specialized for logging.
- class logger

  An abstract base class used by the log stream to write logs.
- class FormattingLogger

  Class for producing a formatted log message.
- class StdLogger

  Class for logging to the std output streams.
- class FileLogger

  Class for logging to a file.
- class PlainFileLogger
- class UDPLogger

  Class for logging to a logging server.
- class TraceLogger

  Class for logging tracing output.
- class SystemLogger

  logger that interfaces to the Linux syslog
- class PlugIn

  Base class for objects loaded from dynamically loaded libraries.
- class AutoRunPlugIn

  Base class for plug ins that are run immediately that the library is loaded.
- class PlugInFactory

  Base class for factories that create plug-in objects.
- class PlugInFamilyFactoryT

  Template base class for families of plug-in factories.
- class PlugInFactoryT

  Template class for factories.
- struct PlugInDescriptor

  Descriptor for plug-ins that can be used by the application.

- struct PlugInDetails

  Details of plug-ins as provided by the loaded library.
- class PlugInLib

  Manages an instance of a dynamically loaded shared library.
- class PlugInMgr

  Manage the handling of plug-in shared libraries.
- class AbstractChildProcess

  Abstract child process interface for ChildProcessMgr.
- class ChildProcess

  Represents the state of a child process.
- class ProcessOwner

  Interface that allows the owner of a child process to be notified.
- class ChildProcessMgr

  Manage the child processes.
- class UDPSocket

  An abstract base class with common stuff for UDP sockets.
- class UDPClientSocket

  A UDP client socket.
- class UDPServerSocket

  A UDP Server socket.
- class XINI

  Load an XML configuration file.
- class XmlBuffer

  An abstract class defining a buffer object.
- class Xml

  A C++ wrapper for libxml2.

Typedefs

- typedef std::shared_ptr
  < DiscoverPointer > DiscoverSharedPointer

  A shared pointer that will be owned by a discoverable object.
- typedef std::weak_ptr
  < DiscoverPointer > DiscoverWeakPointer

  A weak pointer that will be held by the DiscoveryMgr.
- typedef std::shared_ptr
  < PlugInLib > PlugInLibPtr

  Shared pointer to PlugInLib.
- typedef std::unique_ptr
  < AutoRunPlugIn > AutoRunPlugInPtr

  Unique pointer to an AutoRunPlugIn.

7.5.1 Detailed Description

The namespace for the Common Facilities Infrastructure components. The cfi namespace is for components that are basic infrastructure for almost any large project.

7.6 VICI::Cmnd Namespace Reference

An API for libcommand.

Classes

- class CommandClient

  An interface that is notified of a command selection.
- class Command

  The facade for the command library.
- class CommandFactory

  An abstract factory for making an instance of Command.

Typedefs

- typedef std::shared_ptr < CommandFactory > CommandFactoryPtr

  Shared pointer for Command Factory.

7.6.1 Detailed Description

An API for libcommand.

7.7 VICI::Cron Namespace Reference

an API for libcron

Classes

- class Cron

  Allow scripts to be scheduled for later running.
- class CronFactory

  An abstract factory for making an instance of Cron.

Typedefs

- typedef std::shared_ptr < CronFactory > CronFactoryPtr

  Shared pointer for Cron Factory.

7.7.1 Detailed Description

an API for libcron

7.8 VICI::EBNF Namespace Reference

An API for the libebnf library.

Classes

- class ParseTree

  A type for the parsed form of EBNF.
- class EBNF

  A parser for EBNF.
- class EBNF_Factory

  An abstract factory for making an instance of EBNF.

Typedefs

- typedef std::shared_ptr < EBNF_Factory > EBNF_FactoryPtr

  Shared pointer for EBNF_Factory.

7.8.1 Detailed Description

An API for the libebnf library.

7.9 VICI::Ed Namespace Reference

An API for the vici editor.

Classes

- class ViciEditor

  The flowchart editor.
- class ViciEditorFactory

  An abstract factory for making an instance of ViciEditor.

Typedefs

- typedef std::shared_ptr < ViciEditorFactory > ViciEditorFactoryPtr

  Shared pointer for Editor Factory.

7.9.1 Detailed Description

An API for the vici editor.

7.10 VICI::gth Namespace Reference

The namespace for the GUI Test Harness.

Classes

- class Adaptor

  Defines an abstract base class for widget adaptors.
- class LuaScript

  Provides a wrapper for a lua_State object.
- struct TestAction

  A single action that can be applied to a GUI.
- class TestsForWindow

  Provides a thread for applying test cases to a window.
- class UserEscaper

  A class for allowing the user to suspend the test.
- class GTHTest

  An AbstractTest derived class for testing GUI programs.
- class GTHTestCase

  Interface for test cases that do gui testing.
- class DefaultTestCase

  Provides a test case to use for actions that don't have an explicit test case.
- class ScriptXML

  Provides an interface to the script XML file.
- class MouseEventReporter

  Provides a means of getting scene coordinates in a QGraphicsView.
- class AdaptorST

  Adds a static method to Adaptor to describe it;.
- class AdaptorT

  The interpreter for the script commands.

Typedefs

- typedef std::vector< std::string > ParamList

  ParamList is used for the parameters of a command.
- typedef std::vector< std::list < std::string > > ListOfLists

  ListOfLists is used to describe the commands and parameters of an Adaptor.
- typedef std::shared_ptr < ScriptXML > ScriptXmlPtr

  Provide for automatic destruction when owner is deleted.
- typedef std::shared_ptr < LuaScript > LuaScriptPtr

  Provides for automatic destruction when the owner is deleted.
- typedef std::shared_ptr < TestsForWindow > TestsForWindowPtr

  Provides for automatic destruction when the owner is deleted.

Enumerations

- enum WidgetType {
  Action, Button, CheckBox, ComboBox,
  Dock, List, ListView, Label,
  LineEdit, SpinBox, Splitter, Table,
  Tabs, TextEdit, Tree, View,
  Window, MessageBox, FileDialog, FontDialog,
  ColorDialog, Script }

List the types of widgets that we can interact with during testing.

- enum ConDes { **Constructor**, **Destructor** }

  Enumerates the stages at which the actions for a test case can be run.

Functions

- void RegnFn (std::function< void(void *, WidgetType, csr)> reg)

  Register the widgets for use by the GUI Test Harness.

7.10.1 Detailed Description

The namespace for the GUI Test Harness.

7.10.2 Enumeration Type Documentation

7.10.2.1 enum VICI::gth::WidgetType

List the types of widgets that we can interact with during testing.

Enumerator

Action For objects of type QAction.

Button For objects of type QPushButton.

CheckBox For objects of type QCheckBox.

ComboBox For objects of type QComboBox.

Dock For objects of type QDockWidget.

List For objects of type QListWidget.

ListView For objects of type QListView.

Label For objects of type QLabel.

LineEdit For objects of type QLineEdit.

SpinBox For objects of type QSpinBox.

Splitter For objects of type QSplitter.

Table For objects of type QTableWidget.

Tabs For objects of type QTabWidget.

TextEdit For objects of type QTextEdit.

Tree For objects of type QTreeView.

View For objects of type QGraphicsView.

Window For objects of type QMainWindow.

MessageBox For objects of type QMessageBox.

FileDialog For objects of type QFileDialog.

FontDialog For objects of type QFontDialog.

ColorDialog For objects of type QColorDialog.

Script For LUA Scripts.

7.10.3 Function Documentation

7.10.3.1 void VICI::gth::RegnFn (std::function< void(void *, WidgetType, csr)> *reg*)

Register the widgets for use by the GUI Test Harness.

The function is passed as a parameter so that the application code will be able to link even when the test plug-in has not been loaded.

The parameters for the function pointer are the address of the widget, the type of the widget, and a name that will refer to the widget in the test script.

Parameters

reg	The function that should be called for each widget.

7.11 VICI::Inst Namespace Reference

An API for the installer.

Classes

- class Installer

  Install a script into the user's desktop.
- class InstallerFactory

  An abstract factory for making an instance of Installer.

Typedefs

- typedef std::shared_ptr < InstallerFactory > InstallerFactoryPtr

  Shared pointer for Installer Factory.

7.11.1 Detailed Description

An API for the installer.

7.12 VICI::Interp Namespace Reference

An API for the vici script interpreter.

Classes

- class InterpreterClient

  The interface that must be implemented by clients of the interpreter.
- class Interpreter

  The API for interpreter library.
- class InterpreterFactory

  An abstract factory for making an instance of Interpreter.

Typedefs

- typedef std::shared_ptr < InterpreterFactory > InterpreterFactoryPtr
  Shared pointer for Interpreter Factory.

7.12.1 Detailed Description

An API for the vici script interpreter.

7.13 VICI::Search Namespace Reference

An API for libsearch.

Classes

- class SearchClient
  The interface that must implemented for clients of Search.
- class Search
  Allow the user to search for, and organise commands.
- class SearchFactory
  An abstract factory for making an instance of Search.

Typedefs

- typedef std::shared_ptr < SearchFactory > SearchFactoryPtr
  Shared pointer for Search Factory.

7.13.1 Detailed Description

An API for libsearch.

7.14 VICI::Sec Namespace Reference

An API for libsecure.

Classes

- class Secure
  Provide security for the scripts.
- class SecureFactory
  An abstract factory for making an instance of Secure.

Typedefs

- typedef std::shared_ptr < SecureFactory > SecureFactoryPtr
  Shared pointer for Secure Factory.

7.14.1 Detailed Description

An API for libsecure.

7.15 VICI::stub Namespace Reference

The namespace for stub versions of modules.

Classes

- class Event

  Define an Abstract base type for Dispatcher events.
- class Dispatcher

  Send events to registered objects.
- class AnEvent

  A template wrapper for function calls.
- class WindowStub

  A stub version of window objects.
- class EBNF_Stub

  A stub version of the EBNF module interface.
- class EBNF_Stub_Factory

  A factory for creating instances of the EBNF_Stub.
- class SyntaxStub

  A stub version of the Syntax module interface.
- class SyntaxStubFactory

  A factory for creating SyntaxStub objects.
- class ViciAdminStub

  A stub version of the ViciAdmin module interface.
- class ViciAdminStubFactory

  A factory for creating stub instances of ViciAdmin.
- class SearchStub

  A stub version of the Search module.
- class SearchStubFactory

  A factory for creating stub instances of Search objects.
- class CommandStub

  A stub version of the Command module.
- class CommandStubFactory

  A factory for creating stub instances of Command objects.
- class SymbolStub

  A stub version of the Symbol class.
- class SymbolMgrStub

  A stub version of the Symbol Manager.
- class SymbolStubFactory

  A factory for creating stub instances of Symbol Manager objects.
- class CanvasStub

  A stub version of the Canvas module.
- class CanvasStubFactory

  A factory for creating stub instances of Canvas objects.
- class SecureStub

  A stub version of the Secure module.

- class SecureStubFactory

  A factory for creating stub instances of Security objects.
- class CronStub

  A stub version of the Cron module.
- class CronStubFactory

  A factory for creating stub instances of Cron objects.
- class InstallerStub

  A stub version of the Installer module.
- class InstallerStubFactory

  A factory for creating stub instances of Installer objects.
- class InterpreterStub

  A stub version of the Interpreter module.
- class InterpreterStubFactory

  A factory for creating stub instances of Interpreter objects.
- class ViciEditorStub

  A stub version of the Vici Editor module.
- class ViciEditorStubFactory

  A factory for creating stub instances of Vici Editor objects.
- class ViciStub

  A stub version of the Vici module.
- class ViciStubFactory

  A factory for creating stub instances of Vici objects.

7.15.1 Detailed Description

The namespace for stub versions of modules.

7.16 VICI::Symbol Namespace Reference

An API for libsymbol.

Classes

- class SymbolAttributes

  Holds the attributes of a symbol.
- class TextAttributes

  Hold the attributes of a text comment.
- class SymbolOwner

  Represents something that is notified about events occurring on a symbol.
- class Symbol

  Represents something that is drawn on the canvas.
- class SymbolClient

  An interface that is notified of changes to symbol manager.
- class SymbolMgr

  The facade for the symbol library.
- class SymbolFactory

  An abstract factory for making an instance of SymbolMgr.

Typedefs

- typedef long Colour

  Specialisation for holding colour values.
- typedef std::shared_ptr < SymbolFactory > SymbolFactoryPtr

  Shared pointer for Symbol Factory.

Enumerations

- enum Style {
  SymCommand, SymChoice, SymFuncRef, SymFunc,
  SymVar, SymConst, SymMutex, SymSem,
  SymFile, SymInline, SymPipe, SymDisplay,
  SymLock, SymUnlock, SymWait, SymPost,
  SymFlow, SymSuccess, SymFail, SymSignal,
  SymStdIn, SymStdOut, SymStdErr }

  The possible styles for symbols and lines.

7.16.1 Detailed Description

An API for libsymbol.

7.16.2 Enumeration Type Documentation

7.16.2.1 enum VICI::Symbol::Style

The possible styles for symbols and lines.

Enumerator

SymCommand box for a command

SymChoice diamond for a command

SymFuncRef function call

SymFunc entry point for a function

SymVar variable

SymConst constant

SymMutex mutex variable

SymSem semaphore variable

SymFile file

SymInline inline file

SymPipe named pipe

SymDisplay output display

SymLock lock a mutex

SymUnlock unlock a mutex

SymWait wait for a semaphore

SymPost signal a semaphore

SymFlow flow of execution

SymSuccess execution flow for a success result

SymFail execution flow for a failure result

SymSignal send a signal

SymStdIn standard input stream

SymStdOut standard output stream

SymStdErr standard error stream

7.17 VICI::Syntax Namespace Reference

An API for libsyntax.

Classes

- class Syntax

  Display a syntax chart of command options.
- class SyntaxFactory

  An abstract factory for making an instance of Syntax.

Typedefs

- typedef std::shared_ptr < SyntaxFactory > SyntaxFactoryPtr

  Shared pointer for SyntaxFactory.

7.17.1 Detailed Description

An API for libsyntax.

Chapter 8

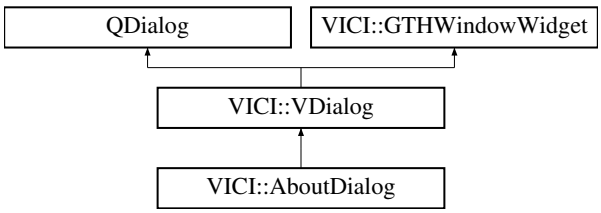
Class Documentation

8.1 VICI::AboutDialog Class Reference

A standard About Vici dialog for the project.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::AboutDialog:



Public Member Functions

- AboutDialog (QWidget *parent, csr progName, csr description)

  Constructor.
- virtual void RegnFn (std::function< void(void *, gth::WidgetType, csr)> reg)

  This may be called by the test harness to get pointers to the individual widgets.

Additional Inherited Members

8.1.1 Detailed Description

A standard About Vici dialog for the project.

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

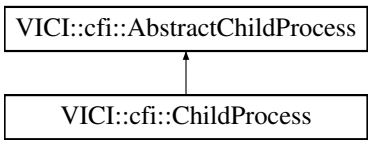
- libgui.h
- libgui.cpp

8.2 VICI::cfi::AbstractChildProcess Class Reference

Abstract child process interface for ChildProcessMgr.

`#include <vici/proc.h>`

Inheritance diagram for VICI::cfi::AbstractChildProcess:



Public Member Functions

- virtual ~AbstractChildProcess ()

  Destructor.
- virtual int getId ()=0

  Returns the pid of the child process.
- virtual void kill ()=0

  Terminates the child process.
- virtual bool done ()=0

  get the running state of the process.
- virtual void finished (int exit_status)=0

  Called by the manager when the child completes.

8.2.1 Detailed Description

Abstract child process interface for ChildProcessMgr.

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

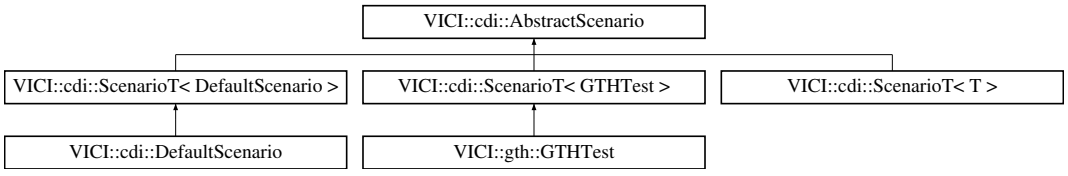
- proc.h

8.3 VICI::cdi::AbstractScenario Class Reference

Define a type for scenarios.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::AbstractScenario:



Public Member Functions

- AbstractScenario (csr name)

  Constructor.
- virtual ~AbstractScenario ()

  Destructor.
- virtual bool willRunTests ()

- virtual void runTests (csr scenarioName, ScenarioResults *)

  Runs the tests within the scenario.

Protected Attributes

- std::string scenarioName

  The name of the scenario, as used when installed.

8.3.1 Detailed Description

Define a type for scenarios.

A scenario is responsible for setting up and taking down the resources required for a particular testing scenario.

8.3.2 Constructor & Destructor Documentation

8.3.2.1 VICI::cdi::AbstractScenario::AbstractScenario (csr *name*) [inline], [explicit]

Constructor.

Parameters

name	The name of the scenario.

8.3.3 Member Function Documentation

8.3.3.1 virtual bool VICI::cdi::AbstractScenario::willRunTests ( ) [inline], [virtual]

Returns true if the scenario is going to manage the order in which the tests are run.

Reimplemented in VICI::gth::GTHTest.

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

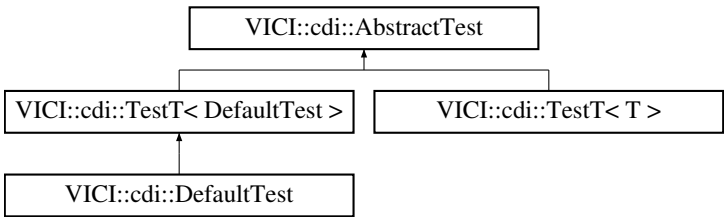
- testmgr.h

8.4 VICI::cdi::AbstractTest Class Reference

Responsible for managing resources needed for the entire test.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::AbstractTest:



Public Member Functions

- virtual ~AbstractTest ()

  Destructor.

8.4.1 Detailed Description

Responsible for managing resources needed for the entire test.

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

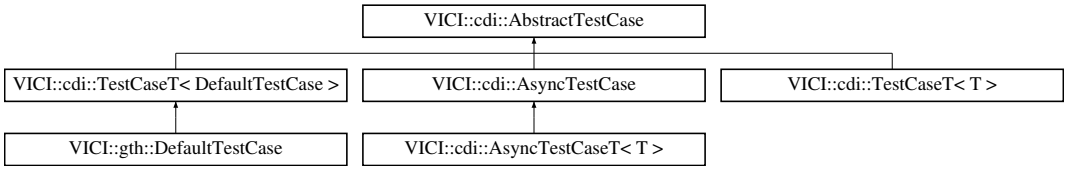
- testmgr.h

8.5 VICI::cdi::AbstractTestCase Class Reference

Base class for test cases.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::AbstractTestCase:



Public Member Functions

- AbstractTestCase (csr nm)

  Constructor.
- virtual ~AbstractTestCase ()

  Destructor.
- virtual bool operator() (ScenarioResults *)

  Execute the tests.

Static Public Attributes

- static const bool EXPECTED = true

  Value for expected parameter of test()

Protected Member Functions

- bool test (bool cond, csr testMsg, bool expected=false)

  Perform or record a test.
- virtual bool runTest ()=0

  Run the tests for the test case.

Protected Attributes

- std::string name

  The name of the test case.
- ScenarioResults * scenario

  Results for the scenario are placed in here.

8.5.1 Detailed Description

Base class for test cases.

8.5.2 Constructor & Destructor Documentation

8.5.2.1 VICI::cdi::AbstractTestCase::AbstractTestCase (csr *nm*) [inline], [explicit]

Constructor.

Derived classes should perform any test case specific initialisations.

Parameters

nm	The name of the test case.

8.5.2.2 virtual VICI::cdi::AbstractTestCase::~AbstractTestCase ( ) [inline], [virtual]

Destructor.

Derived classes should perform test case specific clean up.

8.5.3 Member Function Documentation

8.5.3.1 bool AbstractTestCase::operator() (ScenarioResults * *sr*) [virtual]

Execute the tests.

Returns

true if tests passed.

8.5.3.2 virtual bool VICI::cdi::AbstractTestCase::runTest ( ) [protected], [pure virtual]

Run the tests for the test case.

Derived classes implement this to perform the required tests.

Returns

true if all tests passed.

Implemented in VICI::gth::DefaultTestCase.

8.5.3.3 bool AbstractTestCase::test (bool *cond*, csr *testMsg*, bool *expected* = false) [protected]

Perform or record a test.

Parameters

cond	Set to true if test passes.
testMsg	Message to report when test fails
expected	Set to EXPECTED if test is expected to fail.

Returns

true if test passes, or failed and was expected to fail

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

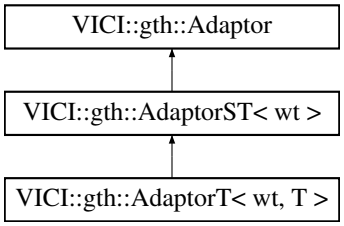
- testmgr.h
- testmgr.cpp

8.6 VICI::gth::Adaptor Class Reference

Defines an abstract base class for widget adaptors.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::Adaptor:



Public Member Functions

- Adaptor (csr name, GTHTest ∗gth)

  Constructor.
- virtual ∼Adaptor ()

  Destructor.
- virtual std::string action (csr tcname, csr cmnd, const ParamList &params)=0

  Interpreter function.
- virtual VICI::gth::WidgetType getType ()=0

  Get the type of the adaptor.
- csr getWidgetName ()

  Get the name of the widget.

Protected Member Functions

- void mouseDoubleClick (QWidget ∗widget, Qt::MouseButton button, Qt::KeyboardModifiers stateKey=0, QPoint pos=QPoint(), int delay=-1)

  Utility functions.

Protected Attributes

- GTHTest * gthTest

  Reference to the owner.

- std::string widgetName

  The name of the widget as set when it was registered.

8.6.1 Detailed Description

Defines an abstract base class for widget adaptors.

The adaptor objects contain simple command interpreters that modify or access the contained widget (or other object)

8.6.2 Member Function Documentation

8.6.2.1 virtual std::string VICI::gth::Adaptor::action (csr *tcname*, csr *cmnd*, const ParamList & *params*) [pure virtual]

Interpreter function.

Parameters

tcname	The name of the test case.
cmnd	The type of action to perform
params	Any additional parameters for the command

Returns

Either OK or some value extracted from the widget

Implemented in VICI::gth::AdaptorT< wt, T >.

8.6.2.2 virtual VICI::gth::WidgetType VICI::gth::Adaptor::getType ( ) [pure virtual]

Get the type of the adaptor.

Returns

The WidgetType

Implemented in VICI::gth::AdaptorT< wt, T >.

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

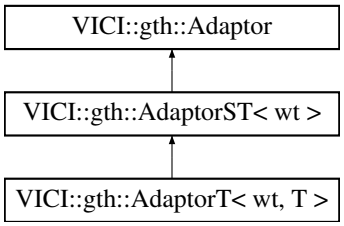
- libgth.h

8.7 VICI::gth::AdaptorST< wt > Class Template Reference

Adds a static method to Adaptor to describe it;.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::AdaptorST< wt >:



Public Member Functions

- AdaptorST (csr name, GTHTest *gth)

  Constructor.

Static Public Member Functions

- static void describe (ListOfLists &)

  Get a list of commands and their parameters for the Adaptor.

Additional Inherited Members

8.7.1 Detailed Description

template<VICI::gth::WidgetType wt>class VICI::gth::AdaptorST< wt >

Adds a static method to Adaptor to describe it;.

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

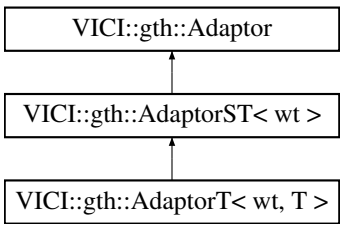
- libgth.h

8.8 VICI::gth::AdaptorT< wt, T > Class Template Reference

The interpreter for the script commands.

`#include <libgth.h>`

Inheritance diagram for VICI::gth::AdaptorT< wt, T >:



Public Member Functions

- AdaptorT (void *p, csr name, GTHTest *gth)

  Constructor.
- VICI::gth::WidgetType getType ()

Get the type of the adaptor.

- virtual std::string action (csr tcname, csr cmnd, const ParamList &params)

  Run the command on the Adaptor's widget.

Additional Inherited Members

8.8.1 Detailed Description

template<VICI::gth::WidgetType wt, class T>class VICI::gth::AdaptorT< wt, T >

The interpreter for the script commands.

class AdaptorT libgth.h vici/libgth.h

8.8.2 Constructor & Destructor Documentation

8.8.2.1 template<VICI::gth::WidgetType wt, class T > VICI::gth::AdaptorT< wt, T >::AdaptorT (void * *p*, csr *name*, GTHTest * *gth*) [inline]

Constructor.

Parameters

p	Pointer to a widget
name	The name of the widget.
gth	The Scenario object.

8.8.3 Member Function Documentation

8.8.3.1 template<VICI::gth::WidgetType wt, class T > VICI::gth::WidgetType VICI::gth::AdaptorT< wt, T >::getType ( ) [inline], [virtual]

Get the type of the adaptor.

Returns

The WidgetType

Implements VICI::gth::Adaptor.

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

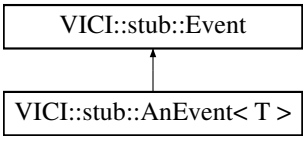
- libgth.h

8.9 VICI::stub::AnEvent< T > Class Template Reference

A template wrapper for function calls.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::AnEvent< T >:



Public Member Functions

- AnEvent (void(T::∗f)(), T ∗x)

  Constructor.
- virtual void execute ()

  Execute the saved function pointer.

8.9.1 Detailed Description

template<class T>class VICI::stub::AnEvent< T >

A template wrapper for function calls.

8.9.2 Constructor & Destructor Documentation

8.9.2.1 template<class T > VICI::stub::AnEvent< T >::AnEvent (void(T::∗)() *f*, T ∗ *x*) [inline]

Constructor.

Parameters

f	Pointer to member function.
x	Object to execute the method on.

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

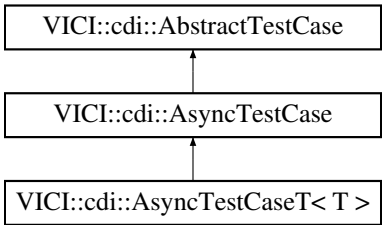
- libifstubs.h

8.10 VICI::cdi::AsyncTestCase Class Reference

Responsible for handling asynchronous tests.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::AsyncTestCase:



Public Member Functions

- AsyncTestCase (csr name)

  Constructor.

Protected Member Functions

- virtual void initTest ()=0

  Initiate the test case.

- virtual void handleEvent (TestEvent ∗ev)=0

  Handle the events.
- virtual void timedOut ()=0

  Handle time out.

Protected Attributes

- bool done

  This should be set by the handleEvent function.
- std::chrono::steady_clock::time_point startTime

  The time when the test is started.
- std::chrono::steady_clock::duration timeOut

  The time to wait. The default is 10 seconds.

Additional Inherited Members

8.10.1 Detailed Description

Responsible for handling asynchronous tests.

8.10.2 Constructor & Destructor Documentation

8.10.2.1 AsyncTestCase::AsyncTestCase (csr *name*)

Constructor.

Parameters

name	The name of the test case.

8.10.3 Member Function Documentation

8.10.3.1 virtual void VICI::cdi::AsyncTestCase::handleEvent (TestEvent ∗ *ev*) [protected], [pure virtual]

Handle the events.

When the object under test gets its call back it will queue an event which is passed to this function. Set done to true when the last expected event arrives.

Parameters

ev	The test event.

8.10.3.2 virtual void VICI::cdi::AsyncTestCase::initTest ( ) [protected], [pure virtual]

Initiate the test case.

The derived class should use this to start the test function. It should return immediately the test has been started.

8.10.3.3 virtual void VICI::cdi::AsyncTestCase::timedOut ( ) [protected], [pure virtual]

Handle time out.

This gets called if the events don't arrive in time.

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

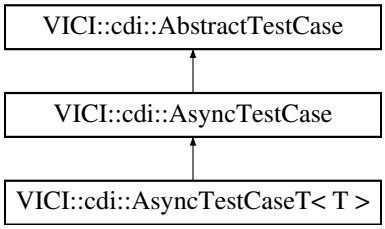
- testmgr.h
- testmgr.cpp

8.11 VICI::cdi::AsyncTestCaseT< T > Class Template Reference

Responsible for installing the factory for the test case type.

`#include <testmgr.h>`

Inheritance diagram for VICI::cdi::AsyncTestCaseT< T >:



Public Member Functions

- AsyncTestCaseT (csr nm)

  Constructor.

Static Public Member Functions

- static void install (csr nm, csr scn)

  Install the factory for the test case.

Additional Inherited Members

8.11.1 Detailed Description

template<class T>class VICI::cdi::AsyncTestCaseT< T >

Responsible for installing the factory for the test case type.

8.11.2 Constructor & Destructor Documentation

8.11.2.1 template<class T > VICI::cdi::AsyncTestCaseT< T >::AsyncTestCaseT (csr *nm*) [inline]

Constructor.

Parameters

nm	The name of the test case

8.11.3 Member Function Documentation

8.11.3.1 template<class T > static void VICI::cdi::AsyncTestCaseT< T >::install (csr *nm*, csr *scn*) [inline], [static]

Install the factory for the test case.

Parameters

nm	The name of the test case
scn	The name of the enclosing scenario.

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

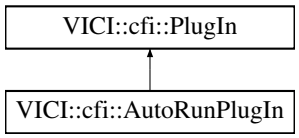
- testmgr.h

8.12 VICI::cfi::AutoRunPlugIn Class Reference

Base class for plug ins that are run immediately that the library is loaded.

`#include <vici/plugin.h>`

Inheritance diagram for VICI::cfi::AutoRunPlugIn:



Public Member Functions

- virtual void execute ()=0

  Called by the PlugInMgr to run the plug-in's code.

8.12.1 Detailed Description

Base class for plug ins that are run immediately that the library is loaded.

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

- plugin.h

8.13 VICI::cdi::CallTrace Class Reference

Class to create a call trace.

`#include <vici/trace.h>`

Public Member Functions

- CallTrace (int level, csr methodName, csr file)

  Constructor.
- ~CallTrace ()

  Destructor.

8.13.1 Detailed Description

Class to create a call trace.

This CallTrace class is used to produce a call graph. Use the macro FN_TRACE to create an object of this class on the stack at the beginning of each method. The destructor will be automatically called when the method ends.

8.13.2 Constructor & Destructor Documentation

8.13.2.1 CallTrace::CallTrace (int *level*, csr *methodName*, csr *file*)

Constructor.

This should be used via the FN_TRACE(level,method) macro.

Parameters

level	used to determine if tracing output should be generated.
methodName	name of the function to report
file	name of the source file

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

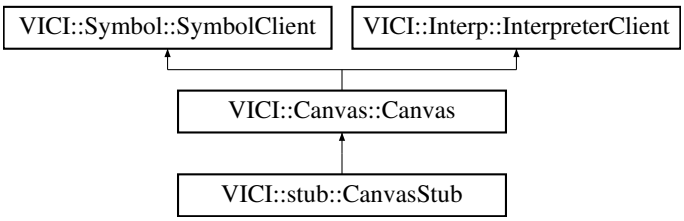
- trace.h
- trace.cpp

8.14 VICI::Canvas::Canvas Class Reference

The facade for canvas library.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Canvas::Canvas:



Public Member Functions

- virtual ~Canvas ()
  virtual destructor
- virtual void load (csr filename)=0
  restore the chart from the specified XML file.
- virtual void save (csr filename)=0
  save the chart
- virtual void setExecution (bool active, csr node)=0
  display of executing script
- virtual void setCommand (NodeId nid, const ArgList &args)=0
  assigning a command to the current symbol
- virtual void selection (Symbol::Symbol *sym)=0

notification that a symbol has been selected

- virtual void symbolAttr (Symbol::SymbolAttributes &att)=0

  notification that the default symbol attributes have changed

- virtual void textAttr (Symbol::TextAttributes &att)=0

  notification of new text attributes

- virtual ArgList getNames ()=0

  get a list of names of variables etc for use in command options

8.14.1 Detailed Description

The facade for canvas library.

The implementation of this class will provide a canvas on which the user constructs a flow chart.

8.14.2 Member Function Documentation

8.14.2.1 virtual void VICI::Canvas::Canvas::load (csr *filename*) [pure virtual]

restore the chart from the specified XML file.

Parameters

filename	the XML VICI script file.

Implemented in VICI::stub::CanvasStub.

8.14.2.2 virtual void VICI::Canvas::Canvas::save (csr *filename*) [pure virtual]

save the chart

Parameters

filename	the XML VICI script file.

Implemented in VICI::stub::CanvasStub.

8.14.2.3 virtual void VICI::Canvas::Canvas::selection (Symbol::Symbol * *sym*) [pure virtual]

notification that a symbol has been selected

Parameters

sym	the symbol to place on the canvas

Implements VICI::Symbol::SymbolClient.

Implemented in VICI::stub::CanvasStub.

8.14.2.4 virtual void VICI::Canvas::Canvas::setCommand (NodeId *nid,* const ArgList & *args*) [pure virtual]

assigning a command to the current symbol

Parameters

nid	The node to set the args of.

args	The command (arg[0]) and options.

Implemented in VICI::stub::CanvasStub.

8.14.2.5 virtual void VICI::Canvas::Canvas::setExecution (bool *active*, csr *node*) [pure virtual]

display of executing script

Parameters

active	true if the command is being executed
node	the node being executed

Todo node should be NodeId type

Implemented in VICI::stub::CanvasStub.

8.14.2.6 virtual void VICI::Canvas::Canvas::symbolAttr (Symbol::SymbolAttributes & *att*) [pure virtual]

notification that the default symbol attributes have changed

Parameters

att	the new default attributes

Todo this appears to be meaningless without the symbol

Implements VICI::Symbol::SymbolClient.

Implemented in VICI::stub::CanvasStub.

8.14.2.7 virtual void VICI::Canvas::Canvas::textAttr (Symbol::TextAttributes & *att*) [pure virtual]

notification of new text attributes

Parameters

att	the new text attributes

Implements VICI::Symbol::SymbolClient.

Implemented in VICI::stub::CanvasStub.

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

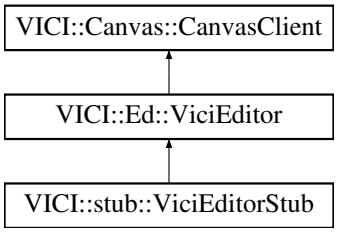
- vici.h

8.15 VICI::Canvas::CanvasClient Class Reference

An interface that is notified of canvas actions.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Canvas::CanvasClient:



Public Member Functions

- virtual ~CanvasClient ()
  virtual destructor
- virtual void newSymbol (Symbol::Symbol *sym)=0
  called when a symbol is placed on the canvas.
- virtual void newChart ()=0
  called when a new diagram has been started
- virtual void changedChart ()=0
  called when the chart is first changed
- virtual void searchAction (NodeId)=0
  notification that the user wants the search tab
- virtual void commandAction (NodeId, const ArgList &)=0
  notification that the command tab is to be displayed
- virtual void breakAction (NodeId, bool set)=0
  notification that a breakpoint has been set or cleared

8.15.1 Detailed Description

An interface that is notified of canvas actions.

This interface is implemented by objects that need to be notified of actions by the canvas.

8.15.2 Member Function Documentation

8.15.2.1 virtual void VICI::Canvas::CanvasClient::newSymbol (Symbol::Symbol * *sym*) [pure virtual]

called when a symbol is placed on the canvas.

Parameters

sym	the symbol that was placed on the canvas.

Implemented in VICI::stub::ViciEditorStub.

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

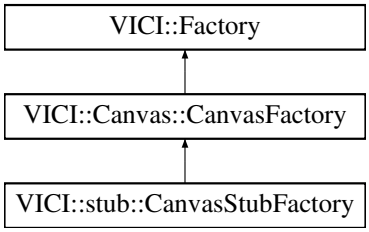
- vici.h

8.16 VICI::Canvas::CanvasFactory Class Reference

An abstract factory for making an instance of Canvas.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Canvas::CanvasFactory:



Public Member Functions

- virtual ~CanvasFactory ()
  virtual destructor
- virtual Canvas * makeCanvas (Window *, Symbol::SymbolMgr *, Interp::Interpreter *, CanvasClient *)=0
  create an instance of the Canvas class

8.16.1 Detailed Description

An abstract factory for making an instance of Canvas.

The implementation will create either the production version, or a stub, or a test version of the Canvas class.

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

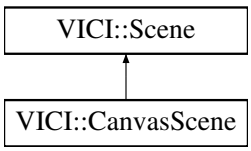
- vici.h

8.17 VICI::CanvasScene Class Reference

An implementation of the Scene abstract class for holding a QGraphicsScene.

`#include <vici/canvas.h>`

Inheritance diagram for VICI::CanvasScene:



Public Member Functions

- CanvasScene (QGraphicsScene *s)
  constructor
- operator QGraphicsScene * ()
  type conversion operator
- QGraphicsScene * operator-> ()
  pointer operator

Protected Attributes

- QGraphicsScene * scene
  the graphics scene being handled.

8.17.1 Detailed Description

An implementation of the Scene abstract class for holding a QGraphicsScene.

This class implements the Scene type for the QGraphicsScene. It allows references to scenes to be passed between modules without the Qt libraries leaking into the general interface definitions defined in vici.h.

8.17.2 Constructor & Destructor Documentation

8.17.2.1 VICI::CanvasScene::CanvasScene (QGraphicsScene * *s*) [inline]

constructor

Parameters

s	the graphics scene object.

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

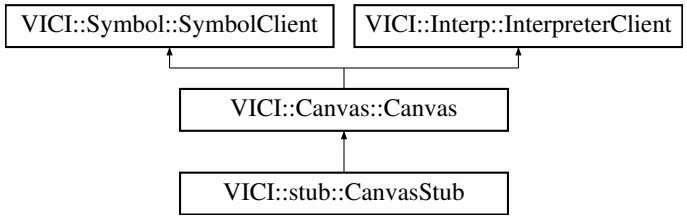
- canvas.h

8.18 VICI::stub::CanvasStub Class Reference

A stub version of the Canvas module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::CanvasStub:



Public Member Functions

- CanvasStub (Window *w, Symbol::SymbolMgr *s, Interp::Interpreter *i, VICI::Canvas::CanvasClient *c)
  Constructor.
- virtual void load (csr filename)
  restore the chart from the specified XML file.
- virtual void save (csr filename)
  save the chart
- virtual void setExecution (bool active, csr node)
  display of executing script
- virtual void setCommand (NodeId, const ArgList &)
  assigning a command to the current symbol
- virtual void selection (VICI::Symbol::Symbol *)
  notification that a symbol has been selected
- virtual void symbolAttr (VICI::Symbol::SymbolAttributes &)
  notification that the default symbol attributes have changed
- virtual void textAttr (VICI::Symbol::TextAttributes &)

notification of new text attributes

- virtual VICI::ArgList getNames ()

  get a list of names of variables etc for use in command options

- virtual void setValue (csr varName, csr value)

  this gets called when a script variable has a change of value

- virtual void setFile (int state, csr filename)

  this gets called when a monitored file changes state.

- virtual void setCursor (ThreadId, NodeId)

  this gets called as the shell steps through the script

- virtual void breakReached (ThreadId, NodeId)

  this gets called when a break point is reached

- virtual void dataReady (NodeId)

  this gets called when data is available on a display

- virtual void reportError (Severity, csr)

  This gets called if an error is detected.

- virtual void done ()

  this gets called when the script completes

8.18.1 Detailed Description

A stub version of the Canvas module.

8.18.2 Constructor & Destructor Documentation

8.18.2.1 CanvasStub::CanvasStub (Window * *w,* Symbol::SymbolMgr * *s,* Interp::Interpreter * *i,* VICI::Canvas::CanvasClient * *c*)

Constructor.

Parameters

w	The window to display into
s	The symbol manager responsible for the symbol pallette
i	The Vici interpreter.
c	The owner of the canvas.

8.18.3 Member Function Documentation

8.18.3.1 void CanvasStub::breakReached (ThreadId *tid,* NodeId *node*) [virtual]

this gets called when a break point is reached

Parameters

tid	the thread which reached the breakpoint
node	the location of the breakpoint

Implements VICI::Interp::InterpreterClient.

8.18.3.2 void CanvasStub::dataReady (NodeId *node*) [virtual]

this gets called when data is available on a display

Parameters

node	the node of the display object in the flowchart

Implements VICI::Interp::InterpreterClient.

8.18.3.3 void CanvasStub::load (csr *filename*) [virtual]

restore the chart from the specified XML file.

Parameters

filename	the XML VICI script file.

Implements VICI::Canvas::Canvas.

8.18.3.4 void CanvasStub::reportError (Severity *sev*, csr *msg*) [virtual]

This gets called if an error is detected.

Parameters

msg	The text of the error message.
sev	The severity of the error

Implements VICI::Interp::InterpreterClient.

8.18.3.5 void CanvasStub::save (csr *filename*) [virtual]

save the chart

Parameters

filename	the XML VICI script file.

Implements VICI::Canvas::Canvas.

8.18.3.6 void CanvasStub::selection (VICI::Symbol::Symbol * *sym*) [virtual]

notification that a symbol has been selected

Parameters

sym	the symbol to place on the canvas

Implements VICI::Canvas::Canvas.

8.18.3.7 void CanvasStub::setCommand (NodeId *nid*, const ArgList & *args*) [virtual]

assigning a command to the current symbol

Parameters

nid	The node to set the args of.
args	The command (arg[0]) and options.

Implements VICI::Canvas::Canvas.

8.18.3.8 void CanvasStub::setCursor (ThreadId *tid*, NodeId *node*) [virtual]

this gets called as the shell steps through the script

Parameters

tid	the thread which changed to executing this node
node	the node that is currently being executed

Implements VICI::Interp::InterpreterClient.

8.18.3.9 void CanvasStub::setExecution (bool *active*, csr *node*) [virtual]

display of executing script

Parameters

active	true if the command is being executed
node	the node being executed

Todo node should be NodeId type

Implements VICI::Canvas::Canvas.

8.18.3.10 void CanvasStub::setFile (int *state*, csr *filename*) [virtual]

this gets called when a monitored file changes state.

Parameters

state	this needs to be defined
filename	the name of the file that changed

Implements VICI::Interp::InterpreterClient.

8.18.3.11 void CanvasStub::setValue (csr *varName*, csr *value*) [virtual]

this gets called when a script variable has a change of value

Parameters

varName	the name of the variable that changed value
value	the new value of the variable

Implements VICI::Interp::InterpreterClient.

8.18.3.12 void CanvasStub::symbolAttr (VICI::Symbol::SymbolAttributes & *att*) [virtual]

notification that the default symbol attributes have changed

Parameters

att	the new default attributes

Todo this appears to be meaningless without the symbol

Implements VICI::Canvas::Canvas.

8.18.3.13 void CanvasStub::textAttr (VICI::Symbol::TextAttributes & *att*) [virtual]

notification of new text attributes

Parameters

att	the new text attributes

Implements VICI::Canvas::Canvas.

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

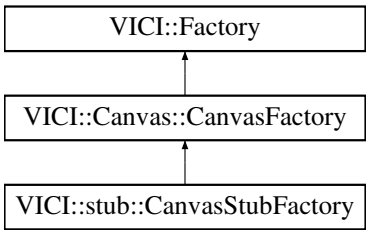
- libifstubs.h
- libifstubs.cpp

8.19 VICI::stub::CanvasStubFactory Class Reference

A factory for creating stub instances of Canvas objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::CanvasStubFactory:



Additional Inherited Members

8.19.1 Detailed Description

A factory for creating stub instances of Canvas objects.

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

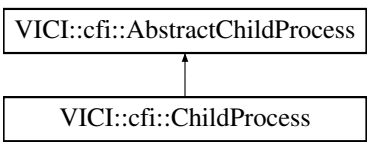
- libifstubs.h
- libifstubs.cpp

8.20 VICI::cfi::ChildProcess Class Reference

Represents the state of a child process.

`#include <vici/proc.h>`

Inheritance diagram for VICI::cfi::ChildProcess:



Public Member Functions

- ChildProcess (const std::string &cmnd, int *fdin=nullptr, int *fdout=nullptr, int *fderr=nullptr)

constructor

- ChildProcess ()

  constructor for fork
- virtual ~ChildProcess ()

  destructor
- virtual void setArgs (const std::vector< std::string > &args)

  set the args for the process
- virtual void run ()

  start the command running
- virtual void kill ()

  terminate the process
- virtual int signal (int sig)

  send a signal to the process
- virtual void finished (int result)

  set the exit status of the process
- bool done ()

  get the running status of the program
- virtual int getId ()

  get the process id
- int getExitSignal ()

  get the signal that caused the process to exit.
- int getExitStatus ()

  get the exit status
- void reportExitErrors (bool x)

  turn on or off the reporting of error exits

8.20.1 Detailed Description

Represents the state of a child process.

8.20.2 Constructor & Destructor Documentation

8.20.2.1 ChildProcess::ChildProcess (const std::string & *cmnd*, int * *fdin* = `nullptr`, int * *fdout* = `nullptr`, int * *fderr* = `nullptr`)

constructor

Parameters

cmnd	the command to run
fdin	File descriptor for stdin for the child
fdout	File descriptor for stdout for the child
fderr	File descriptor for stderr for the child

8.20.3 Member Function Documentation

8.20.3.1 void ChildProcess::finished (int *result*) [virtual]

set the exit status of the process

called by the process manager when the process exits

Parameters

result	the exit status and code of the process

Implements VICI::cfi::AbstractChildProcess.

8.20.3.2 void ChildProcess::setArgs (const std::vector< std::string > & *args*) [virtual]

set the args for the process

Parameters

args	the args for the command

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

- proc.h
- proc.cpp

8.21 VICI::cfi::ChildProcessMgr Class Reference

Manage the child processes.

`#include <vici/proc.h>`

Public Member Functions

- void registerOwner (ProcessOwner *)

  register an object that is to be notified of a child's death
- void registerChild (AbstractChildProcess *cp)

  tell the manager about a child
- void deregisterChild (AbstractChildProcess *cp)

  forget about a child
- int numberOfChildren () const

  get the number of child processes
- int numberOfLiveChildren () const

  get the number of running children
- void shutDown ()

  terminate all the child processes

Static Public Member Functions

- static ChildProcessMgr & instance ()

  get reference to the child process manager

8.21.1 Detailed Description

Manage the child processes.

Manage the child processes at a global level which is mostly about handling the SIGCHLD signals and ensuring the correct ChildProcess gets notified.

8.21.2 Member Function Documentation

8.21.2.1 void ChildProcessMgr::deregisterChild (AbstractChildProcess * *cp*)

forget about a child

called by the ChildProcess as it destructs

Parameters

cp	the child process

8.21.2.2 int VICI::cfi::ChildProcessMgr::numberOfChildren ( ) const [inline]

get the number of child processes

Returns

the number of child processes

8.21.2.3 int ChildProcessMgr::numberOfLiveChildren ( ) const

get the number of running children

Returns

the number of children still running

8.21.2.4 void ChildProcessMgr::registerChild (AbstractChildProcess * *cp*)

tell the manager about a child

called by the ChildProcess as it creates the process

Parameters

cp	the child process

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

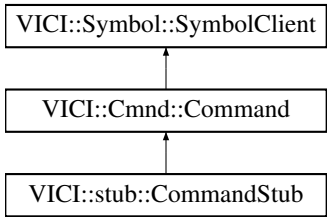
- proc.h
- proc.cpp

8.22 VICI::Cmnd::Command Class Reference

The facade for the command library.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Cmnd::Command:



Public Member Functions

- virtual ~Command ()

  virtual destructor
- virtual void show ()=0

  display the command entry window
- virtual void setCommand (NodeId nid, const ArgList &args)=0

  set the initial value of the command
- virtual void selection (Symbol::Symbol *sym)=0

  notification of new current symbol
- virtual void symbolAttr (Symbol::SymbolAttributes &)=0

  unused by this library
- virtual void textAttr (Symbol::TextAttributes &)=0

  unused by this library

8.22.1 Detailed Description

The facade for the command library.

The implementation of this class will display a window in which the user will select a command and set its options and arguments.

8.22.2 Member Function Documentation

8.22.2.1 virtual void VICI::Cmnd::Command::selection (Symbol::Symbol * *sym*) [pure virtual]

notification of new current symbol

Parameters

sym	the symbol that the user just selected

Implements VICI::Symbol::SymbolClient.

Implemented in VICI::stub::CommandStub.

8.22.2.2 virtual void VICI::Cmnd::Command::setCommand (NodeId *nid,* const ArgList & *args*) [pure virtual]

set the initial value of the command

Parameters

nid	The identifier for the current node
args	The command (args[0]) and options.

Implemented in VICI::stub::CommandStub.

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

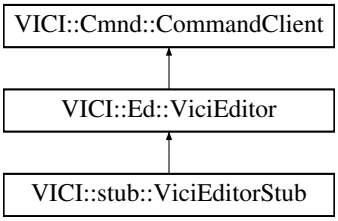
- vici.h

8.23 VICI::Cmnd::CommandClient Class Reference

An interface that is notified of a command selection.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Cmnd::CommandClient:



Public Member Functions

- virtual ~CommandClient ()

  virtual destructor
- virtual void optionsAndParameters (NodeId nid, const ArgList &args)=0

  this gets called when the user presses OK
- virtual void cmndError (csr msg)=0

  this gets called if there is an error

8.23.1 Detailed Description

An interface that is notified of a command selection.

This interface is implemented by objects that need to be notified when the user selects a command and its options.

8.23.2 Member Function Documentation

8.23.2.1 virtual void VICI::Cmnd::CommandClient::cmndError (csr *msg*) [pure virtual]

this gets called if there is an error

Parameters

msg	the text of the error message

Implemented in VICI::stub::ViciEditorStub.

8.23.2.2 virtual void VICI::Cmnd::CommandClient::optionsAndParameters (NodeId *nid*, const ArgList & *args*) [pure virtual]

this gets called when the user presses OK

Parameters

args	the selected command and its options are returned in this
nid	The identifier for the current node

Implemented in VICI::stub::ViciEditorStub.

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

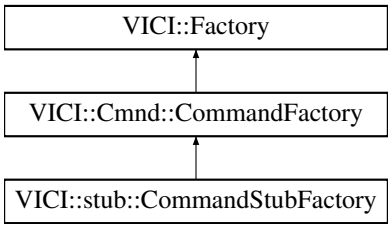
- vici.h

8.24 VICI::Cmnd::CommandFactory Class Reference

An abstract factory for making an instance of Command.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Cmnd::CommandFactory:



Public Member Functions

- virtual ~CommandFactory ()
  virtual destructor
- virtual Command * makeCommand (Window *, CommandClient *, Canvas::Canvas *)=0
  create an instance of the Command class

8.24.1 Detailed Description

An abstract factory for making an instance of Command.

The implementation will create either the production version, or a stub, or a test version of the Command class.

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

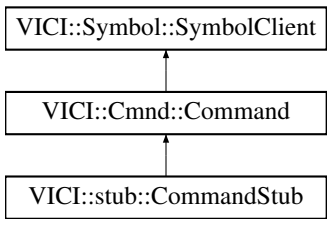
- vici.h

8.25 VICI::stub::CommandStub Class Reference

A stub version of the Command module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::CommandStub:



Public Member Functions

- CommandStub (Window *w, Cmnd::CommandClient *c, Canvas::Canvas *)
  Constructor.
- virtual void show ()

display the command entry window

- virtual void setCommand (NodeId nid, const ArgList &args)

  set the initial value of the command

- virtual void selection (Symbol::Symbol ∗)

  notification of new current symbol

- virtual void symbolAttr (Symbol::SymbolAttributes &)

  unused by this library

- virtual void textAttr (Symbol::TextAttributes &)

  unused by this library

8.25.1 Detailed Description

A stub version of the Command module.

8.25.2 Constructor & Destructor Documentation

8.25.2.1 CommandStub::CommandStub (Window ∗ *w,* Cmnd::CommandClient ∗ *c,* Canvas::Canvas ∗)

Constructor.

Parameters

w	The window to display into.
c	The module that gets the results.

8.25.3 Member Function Documentation

8.25.3.1 void CommandStub::selection (Symbol::Symbol ∗ *sym*) [virtual]

notification of new current symbol

Parameters

sym	the symbol that the user just selected

Implements VICI::Cmnd::Command.

8.25.3.2 void CommandStub::setCommand (NodeId *nid,* const ArgList & *args*) [virtual]

set the initial value of the command

Parameters

nid	The identifier for the current node
args	The command (args[0]) and options.

Implements VICI::Cmnd::Command.

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

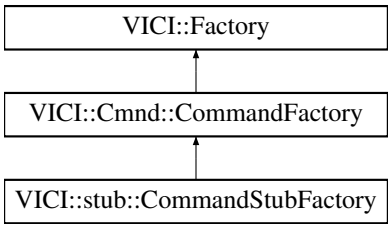
- libifstubs.h
- libifstubs.cpp

8.26 VICI::stub::CommandStubFactory Class Reference

A factory for creating stub instances of Command objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::CommandStubFactory:



Public Member Functions

- virtual Cmnd::Command * makeCommand (Window *, Cmnd::CommandClient *, Canvas::Canvas *)

  create an instance of the Command class

8.26.1 Detailed Description

A factory for creating stub instances of Command objects.

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

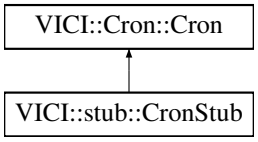
- libifstubs.h
- libifstubs.cpp

8.27 VICI::Cron::Cron Class Reference

Allow scripts to be scheduled for later running.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Cron::Cron:



Public Member Functions

- virtual ~Cron ()

  virtual destructor
- virtual void setCurrentFile (csr filename)=0

  Set the file to schedule.
- virtual void show ()=0

  Display the window.

8.27.1 Detailed Description

Allow scripts to be scheduled for later running.

The facade for the cron library. An implementation will allow the user to schedule the running of scripts which can execute without human interaction.

8.27.2 Member Function Documentation

8.27.2.1 virtual void VICI::Cron::Cron::setCurrentFile (csr *filename*) [pure virtual]

Set the file to schedule.

Parameters

filename	the script to schedule.

Implemented in VICI::stub::CronStub.

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

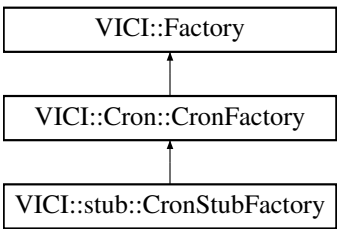
- vici.h

8.28 VICI::Cron::CronFactory Class Reference

An abstract factory for making an instance of Cron.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Cron::CronFactory:



Public Member Functions

- virtual ~CronFactory ()

  virtual destructor
- virtual Cron * makeCron (Window *w)=0

  create an instance of the Cron class

8.28.1 Detailed Description

An abstract factory for making an instance of Cron.

The implementation will create either the production version, or a stub, or a test version of the Cron class.

8.28.2 Member Function Documentation

8.28.2.1 virtual Cron* VICI::Cron::CronFactory::makeCron (Window * *w*) [pure virtual]

create an instance of the Cron class

Parameters

w	the window to display into.

Returns

an instance of the Cron object

Implemented in VICI::stub::CronStubFactory.

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

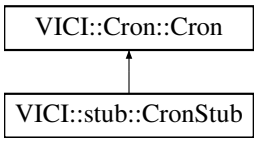
- vici.h

8.29 VICI::stub::CronStub Class Reference

A stub version of the Cron module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::CronStub:



Public Member Functions

- CronStub (Window *w)

  Constructor.
- virtual void setCurrentFile (csr filename)

  Set the file to schedule.
- virtual void show ()

  Display the window.

8.29.1 Detailed Description

A stub version of the Cron module.

8.29.2 Constructor & Destructor Documentation

8.29.2.1 CronStub::CronStub (Window * *w*)

Constructor.

Parameters

w	The window to display into.

8.29.3 Member Function Documentation

8.29.3.1 void CronStub::setCurrentFile (csr *filename*) [virtual]

Set the file to schedule.

Parameters

filename	the script to schedule.

Implements VICI::Cron::Cron.

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

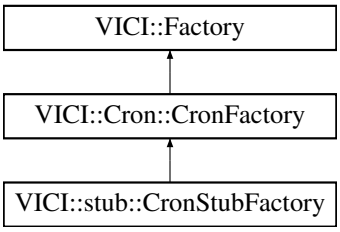
- libifstubs.h
- libifstubs.cpp

8.30 VICI::stub::CronStubFactory Class Reference

A factory for creating stub instances of Cron objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::CronStubFactory:



Public Member Functions

- virtual Cron::Cron * makeCron (Window *)
  create an instance of the Cron class

8.30.1 Detailed Description

A factory for creating stub instances of Cron objects.

8.30.2 Member Function Documentation

8.30.2.1 Cron::Cron * CronStubFactory::makeCron (Window * *w*) [virtual]

create an instance of the Cron class

Parameters

w	the window to display into.

Returns

an instance of the Cron object

Implements VICI::Cron::CronFactory.

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

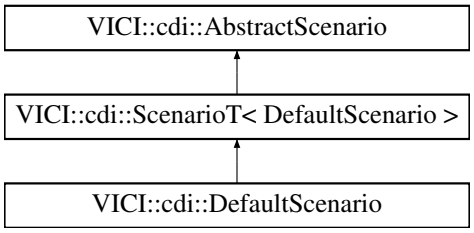
- libifstubs.h
- libifstubs.cpp

8.31 VICI::cdi::DefaultScenario Class Reference

Provide a default scenario object.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::DefaultScenario:



Public Member Functions

- DefaultScenario (csr name)

  Constructor.
- DefaultScenario ()

  Constructor.
- ~DefaultScenario ()

  Destructor.

Additional Inherited Members

8.31.1 Detailed Description

Provide a default scenario object.

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

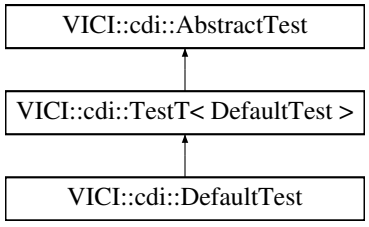
- testmgr.h

8.32 VICI::cdi::DefaultTest Class Reference

Provide a default version of the AbstractTest object.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::DefaultTest:



Public Member Functions

- DefaultTest ()

  Default constructor that does nothing.
- ~DefaultTest ()

  Destructor.

Additional Inherited Members

8.32.1 Detailed Description

Provide a default version of the AbstractTest object.

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

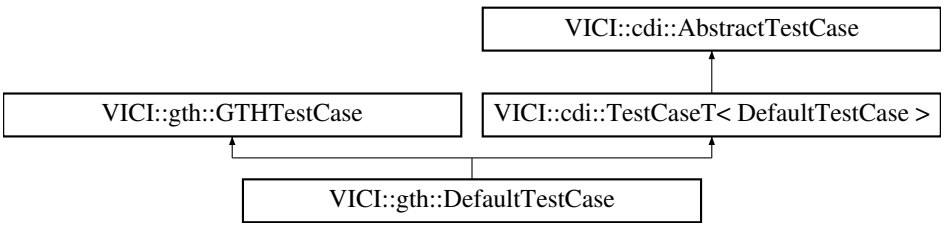
- testmgr.h

8.33 VICI::gth::DefaultTestCase Class Reference

Provides a test case to use for actions that don't have an explicit test case.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::DefaultTestCase:



Public Member Functions

- DefaultTestCase (csr nm)

  Constructor.
- ~DefaultTestCase ()

  Destructor.

Protected Member Functions

- virtual bool runTest ()

  Run the tests for the test case.

Additional Inherited Members

8.33.1 Detailed Description

Provides a test case to use for actions that don't have an explicit test case.

8.33.2 Member Function Documentation

8.33.2.1 virtual bool VICI::gth::DefaultTestCase::runTest ( ) [inline], [protected], [virtual]

Run the tests for the test case.

Derived classes implement this to perform the required tests.

Returns

true if all tests passed.

Implements VICI::cdi::AbstractTestCase.

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

- libgth.h

8.34 VICI::cfi::Discoverable Class Reference

A mixin class that makes its owner discoverable.

`#include <vici/discover.h>`

Protected Attributes

- DiscoverSharedPointer discover

  A shared pointer that references back to the discoverable object.

8.34.1 Detailed Description

A mixin class that makes its owner discoverable.

Adds a shared pointer to a DiscoverPointer to an object so that it can be discovered.

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

- discover.h

8.35 VICI::cfi::DiscoverPointer Struct Reference

Holds a pointer to a discoverable object.

`#include <vici/discover.h>`

Public Member Functions

- DiscoverPointer ()

  Default constructor.

- DiscoverPointer (void *a)

  Constructor.

Public Attributes

- void * addr

  Pointer to a discoverable object.

8.35.1 Detailed Description

Holds a pointer to a discoverable object.

A discoverable object holds a shared pointer to this object. The DiscoveryManager holds a weak pointer to this object so that it can tell when the owner has been deleted.

8.35.2 Constructor & Destructor Documentation

8.35.2.1 VICI::cfi::DiscoverPointer::DiscoverPointer (void * *a*) [inline]

Constructor.

Parameters

a	The address of the discoverable object.

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

- discover.h

8.36 VICI::cfi::DiscoveryMgr Class Reference

Manager for discoverable objects.

`#include <vici/discover.h>`

Public Member Functions

- void save (const char *prettyName, DiscoverSharedPointer p)

  Save a discoverable object.
- void fetch (csr name, std::vector< void * > &results)

  Get a list of objects with a class name.

Static Public Member Functions

- static DiscoveryMgr & instance ()

  Return a reference to the DiscoveryMgr.

8.36.1 Detailed Description

Manager for discoverable objects.

The manager keeps a list of discoverable objects and is responsible for supplying a list of objects given a class name.

8.36.2 Member Function Documentation

8.36.2.1 void DiscoveryMgr::fetch (csr *name,* std::vector< void * > & *results*)

Get a list of objects with a class name.

Parameters

name	The class name to search for.
results	A vector which is filled in with pointers to the objects.

8.36.2.2 void DiscoveryMgr::save (const char * *prettyName*, DiscoverSharedPointer *p*)

Save a discoverable object.

Parameters

prettyName	The name of the constructor as provided by **PRETTY_FUNCTION**
p	A shared pointer to the discoverable object.

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

- discover.h
- discover.cpp

8.37 VICI::stub::Dispatcher Class Reference

Send events to registered objects.

`#include <vici/libifstubs.h>`

Public Member Functions

- void registerEvent (csr useCase, csr event, Event *fn)
  Register a method to be called.
- void sendEvent (csr useCase, csr event)
  Make a registered call.
- void clearTrace ()
  Clear the trace data.
- void enableTracing (bool x)
  Enable tracing.
- void trace (csr x)
  Record a trace message.
- std::vector< std::string > & getTrace ()
  Get the current trace data.

Static Public Member Functions

- static Dispatcher & instance ()
  Get an instance of the singleton object.

8.37.1 Detailed Description

Send events to registered objects.

The Dispatcher enables us to make method calls on objects using strings to identify them, thus separating the caller from any dependency on the callee.

The Dispatcher also collects trace information so that the test harness can verify the correct sequence of method calls.

8.37.2 Member Function Documentation

8.37.2.1 void VICI::stub::Dispatcher::enableTracing (bool *x*) [inline]

Enable tracing.

Parameters

x	Set to true to enable tracing.

8.37.2.2 std::vector< std::string >& VICI::stub::Dispatcher::getTrace ( ) [inline]

Get the current trace data.

Returns

a reference to the trace data.

8.37.2.3 Dispatcher & Dispatcher::instance ( ) [static]

Get an instance of the singleton object.

Returns

A reference to the Dispatcher

8.37.2.4 void Dispatcher::registerEvent (csr *useCase*, csr *event*, Event * *fn*)

Register a method to be called.

Parameters

useCase	The name of the use case.
event	The name of the event within the use case.
fn	The function to call.

8.37.2.5 void Dispatcher::sendEvent (csr *useCase*, csr *event*)

Make a registered call.

Parameters

useCase	The name of the use case.
event	the name of the event within the use case.

8.37.2.6 void VICI::stub::Dispatcher::trace (csr *x*) [inline]

Record a trace message.

Parameters

x	The message to record.

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

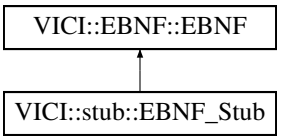
- libifstubs.h
- libifstubs.cpp

8.38 VICI::EBNF::EBNF Class Reference

A parser for EBNF.

`#include <vici/vici.h>`

Inheritance diagram for VICI::EBNF::EBNF:



Public Member Functions

- virtual ~EBNF ()

  virtual destructor
- virtual bool validate (csr s)=0

  confirm that an EBNF is valid
- virtual void getError (int &line, int &column, std::string &text)=0

  get location and details of parsing error
- virtual ParseTree * parse (csr s)=0

  parse the EBNF

8.38.1 Detailed Description

A parser for EBNF.

The definition of the facade for libebnf.

The implementation will be responsible for parsing some EBNF text to create a parse tree for use by libsyntax and libcommand.

8.38.2 Member Function Documentation

8.38.2.1 virtual void VICI::EBNF::EBNF::getError (int & *line*, int & *column*, std::string & *text*) [pure virtual]

get location and details of parsing error

Parameters

line	the linenumber of the error returned in this
column	the position on the line of the error returned in this
text	the details of the error

Implemented in VICI::stub::EBNF_Stub.

8.38.2.2 virtual ParseTree* VICI::EBNF::EBNF::parse (csr *s*) [pure virtual]

parse the EBNF

Parameters

s	the text to parse.

Implemented in VICI::stub::EBNF_Stub.

8.38.2.3 virtual bool VICI::EBNF::EBNF::validate (csr *s*) [pure virtual]

confirm that an EBNF is valid

Parameters

s	the text to validate

Implemented in VICI::stub::EBNF_Stub.

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

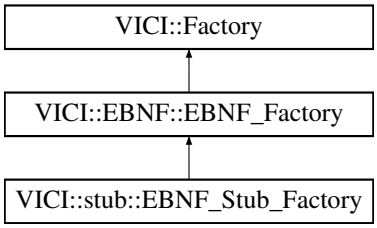
- vici.h

8.39 VICI::EBNF::EBNF_Factory Class Reference

An abstract factory for making an instance of EBNF.

`#include <vici/vici.h>`

Inheritance diagram for VICI::EBNF::EBNF_Factory:



Public Member Functions

- virtual ~EBNF_Factory ()
  virtual destructor
- virtual EBNF * makeEBNF ()=0
  the factory for EBNF objects

8.39.1 Detailed Description

An abstract factory for making an instance of EBNF.

An abstract factory for making an instance of EBNF. The implementation will create either the production version, or a stub, or a test version of the EBNF class.

8.39.2 Member Function Documentation

8.39.2.1 virtual EBNF* VICI::EBNF::EBNF_Factory::makeEBNF ( ) [pure virtual]

the factory for EBNF objects

Returns

an instance of EBNF according to the type of the factory.

Implemented in VICI::stub::EBNF_Stub_Factory.

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

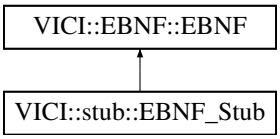
- vici.h

8.40 VICI::stub::EBNF_Stub Class Reference

A stub version of the EBNF module interface.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::EBNF_Stub:



Public Member Functions

- virtual bool validate (csr s)
  confirm that an EBNF is valid
- virtual void getError (int &, int &, std::string &)
  get location and details of parsing error
- virtual VICI::EBNF::ParseTree * parse (csr s)
  parse the EBNF

8.40.1 Detailed Description

A stub version of the EBNF module interface.

8.40.2 Member Function Documentation

8.40.2.1 void EBNF_Stub::getError (int & *line*, int & *column*, std::string & *text*) [virtual]

get location and details of parsing error

Parameters

line	the linenumber of the error returned in this
column	the position on the line of the error returned in this
text	the details of the error

Implements VICI::EBNF::EBNF.

8.40.2.2 EBNF::ParseTree * EBNF_Stub::parse (csr *s*) [virtual]

parse the EBNF

Parameters

s	the text to parse.

Implements VICI::EBNF::EBNF.

8.40.2.3 bool EBNF_Stub::validate (csr *s*) [virtual]

confirm that an EBNF is valid

Parameters

s	the text to validate

Implements VICI::EBNF::EBNF.

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

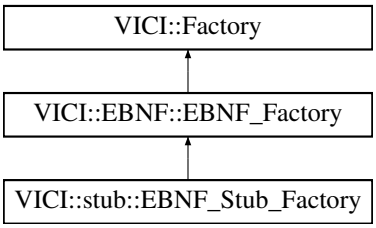
- libifstubs.h
- libifstubs.cpp

8.41 VICI::stub::EBNF_Stub_Factory Class Reference

A factory for creating instances of the EBNF_Stub.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::EBNF_Stub_Factory:



Public Member Functions

- virtual EBNF::EBNF * makeEBNF ()

  the factory for EBNF objects

8.41.1 Detailed Description

A factory for creating instances of the EBNF_Stub.

8.41.2 Member Function Documentation

8.41.2.1 EBNF::EBNF * EBNF_Stub_Factory::makeEBNF ( ) [virtual]

the factory for EBNF objects

Returns

an instance of EBNF according to the type of the factory.

Implements VICI::EBNF::EBNF_Factory.

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

- libifstubs.h
- libifstubs.cpp

8.42 VICI::EbnfNode Class Reference

A node of the EBNF parse tree.

`#include <vici/parseTree.h>`

Public Types

- enum NodeType {
  Undefined, Grammar, Production, Terminal,
  Quotation, Name, Repetition, Option,
  Sequence, Choice }

  the type of node, which corresponds to the non-terminals of the EBNF for EBNF.

Public Member Functions

- EbnfNode ()

  Constructor.
- ~EbnfNode ()

  Destructor.
- std::string typeOfNode () const

  get the type of the node
- void typeOfNode (const std::string &t)

  set the type of the node

Public Attributes

- EbnfNode * parent

  pointer to parent node
- EbnfNode * prev

  pointer to previous sibling node
- EbnfNode * next

  pointer to next sibling node
- EbnfNode * firstChild

  pointer to first child node
- EbnfNode * lastChild

  pointer to last child node
- NodeType nodeType

  defines what EBNF non-terminal the node represents
- std::string text

  the terminal leaves of the EBNF

8.42.1 Detailed Description

A node of the EBNF parse tree.

A node of the EbnfTree used to pass the parsed form of an EBNF definition between modules.

8.42.2 Member Enumeration Documentation

8.42.2.1 enum VICI::EbnfNode::NodeType

the type of node, which corresponds to the non-terminals of the EBNF for EBNF.

Enumerator

Undefined just until we load something sensible.

Grammar the root of the tree - only one of these.

Production one for each production. Can have any number of child nodes. firstChild is the Name of the Production.

Terminal one or two children of type Quotation. firstChild == lastChild if only one child.

Quotation has no children

Name has no children

Repetition can have any number of children

Option can have any number of children

Sequence can have any number of children

Choice has two children

8.42.3 Member Function Documentation

8.42.3.1 string EbnfNode::typeOfNode ( ) const

get the type of the node

Returns

the type of the node as a string

8.42.3.2 void EbnfNode::typeOfNode (const std::string & *t*)

set the type of the node

Parameters

t	the type of the node as a string

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

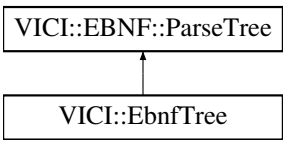
- parseTree.h
- parseTree.cpp

8.43 VICI::EbnfTree Class Reference

An implementation of the ParseTree type.

`#include <vici/parseTree.h>`

Inheritance diagram for VICI::EbnfTree:



Public Member Functions

- EbnfTree ()
  constructor
- virtual ~EbnfTree ()
  destructor
- void exportXml (const Path &p)
  Save the tree as an XML file.
- void importXml (const Path &p)
  Load the tree from an XML file.

Public Attributes

- EbnfNode * root
  root node of the tree - type is Grammar

8.43.1 Detailed Description

An implementation of the ParseTree type.

An implementation of the ParseTree type used to pass the parsed EBNF between modules.

8.43.2 Member Function Documentation

8.43.2.1 void EbnfTree::exportXml (const Path & *p*)

Save the tree as an XML file.

Parameters

p	The path to save the file.

8.43.2.2 void EbnfTree::importXml (const Path & *p*)

Load the tree from an XML file.

Parameters

p	The path to read the file from.

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

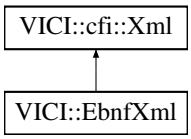
- parseTree.h
- parseTree.cpp

8.44 VICI::EbnfXml Class Reference

A specialization of the Xml class for the parse tree.

`#include <vici/parseTree.h>`

Inheritance diagram for VICI::EbnfXml:



Public Member Functions

- EbnfXml ()

  constructor
- void exportTree (EbnfTree *tree, const Path &path)

  export the tree to parse-tree.xml
- void importTree (EbnfTree *tree, const Path &path)

  import a tree from parse-tree.xml

Additional Inherited Members

8.44.1 Detailed Description

A specialization of the Xml class for the parse tree.

A specialization of the Xml class used to save and restore a parse tree. This is mostly used during testing of the syntax library so that a variety of test cases can be created without needing the EBNF library.

8.44.2 Member Function Documentation

8.44.2.1 void EbnfXml::exportTree (EbnfTree * *tree*, const Path & *path*)

export the tree to parse-tree.xml

Parameters

tree	The tree to export
path	The path to write file to.

8.44.2.2 void EbnfXml::importTree (EbnfTree * *tree,* const Path & *path*)

import a tree from parse-tree.xml

Parameters

tree	The tree to import into
path	The path to load the file from.

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

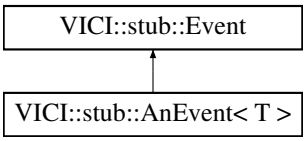
- parseTree.h
- parseTree.cpp

8.45 VICI::stub::Event Class Reference

Define an Abstract base type for Dispatcher events.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::Event:



Public Member Functions

- virtual void execute ()=0

  Execute the associated function pointer.

8.45.1 Detailed Description

Define an Abstract base type for Dispatcher events.

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

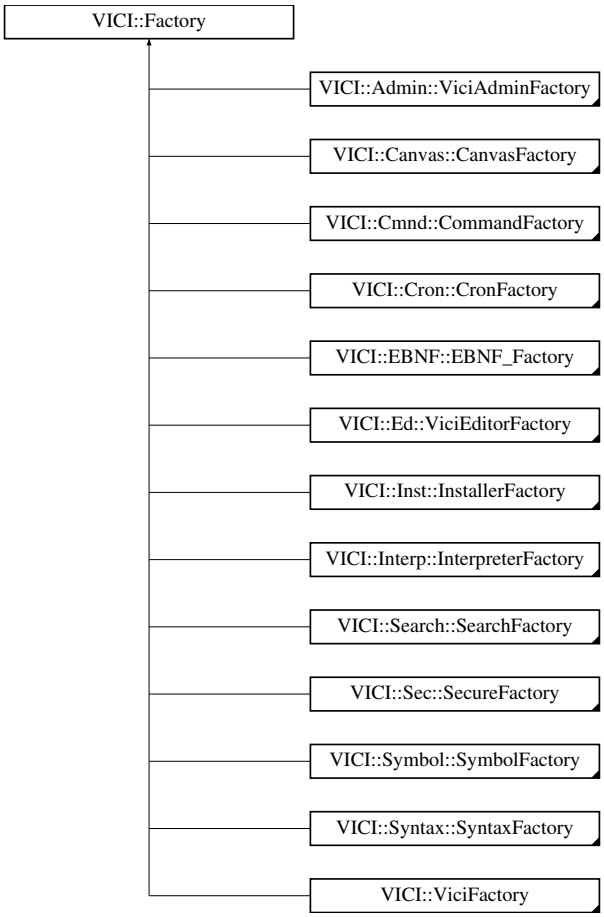
- libifstubs.h

8.46 VICI::Factory Class Reference

An abstract type for factories.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Factory:



Public Member Functions

- virtual ~Factory ()

  Destructor.

8.46.1 Detailed Description

An abstract type for factories.

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

- vici.h

8.47 VICI::FactoryFactory Class Reference

Responsible for creating and supplying factories for the main modules.

`#include <vici/vici.h>`

Public Member Functions

- template<class T >
  void getFactory (Module nm, std::shared_ptr< T > &f)

  Get a factory of the specified type.

- void registerFactory (Module m, FactoryPtr f)

  Register a factory.

Static Public Member Functions

- static FactoryFactory & instance ()

  Get a reference to the singleton object.

8.47.1 Detailed Description

Responsible for creating and supplying factories for the main modules.

8.47.2 Member Function Documentation

8.47.2.1 template<class T > void VICI::FactoryFactory::getFactory (Module *nm,* std::shared_ptr< T > & *f*) [inline]

Get a factory of the specified type.

Parameters

nm	The type of the required factory
f	A shared pointer for the factory.

8.47.2.2 void FactoryFactory::registerFactory (Module *m,* FactoryPtr *f*)

Register a factory.

This is used by test harnesses to supply alternate test version of modules.

Parameters

m	Specify the type of the factory.
f	The factory to return for the type.

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

- vici.h
- factory.cpp

8.48 VICI::cfi::FD Class Reference

Wrap file descriptors in a class to ensure closed.

`#include <sos/fdstream.h>`

Public Member Functions

- FD (const std::string &name, int mode, bool lock)

  constructor which opens the file
- FD (int x)

  constructor for existing file descriptor
- ~FD ()

  destructor

- operator int ()

  type conversion

Static Public Member Functions

- static void report (std::ostream &s, int fd)

  Report the details or status of a file descriptor.

8.48.1 Detailed Description

Wrap file descriptors in a class to ensure closed.

The FD class is used to wrap a file descriptor so that it will be automatically closed when it goes out of scope. This ensures that file descriptors are closed when an exception is thrown.

8.48.2 Constructor & Destructor Documentation

8.48.2.1 FD::FD (const std::string & *name*, int *mode*, bool *lock*)

constructor which opens the file

Parameters

name	the name of file to open
mode	the open mode
lock	if true the file is also locked

8.48.2.2 VICI::cfi::FD::FD (int *x*) [inline]

constructor for existing file descriptor

Parameters

x	the existing file descriptor

8.48.3 Member Function Documentation

8.48.3.1 void FD::report (std::ostream & *s*, int *fd*) [static]

Report the details or status of a file descriptor.

Parameters

s	the stream to write to
fd	the file descriptor to examine.

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

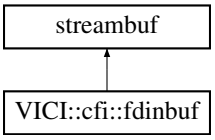
- fdstream.h
- fd.cpp

8.49 VICI::cfi::fdinbuf Class Reference

An input stream buffer.

`#include <sos/fdstream.h>`

Inheritance diagram for VICI::cfi::fdinbuf:



Public Member Functions

- fdinbuf (int fd, bool isCloseNeeded, fdistream &owner)

  constructor
- void close ()

  Close the input file descriptor.
- virtual ~fdinbuf ()

  destructor.

Protected Member Functions

- virtual int underflow ()

  read characters from the buffer.

Protected Attributes

- fdistream & mOwner

  Our owning input stream.
- int mFd

  The input file descriptor.
- bool mIsCloseNeeded

  Whether the file descriptor needs to be closed on destruction.
- char mBuffer [BUFFER_SIZE+PUSHBACK_SIZE]

Static Protected Attributes

- static const int BUFFER_SIZE = 8192

  Size of buffer.
- static const int PUSHBACK_SIZE = 4

  maximum number of push back characters supported

8.49.1 Detailed Description

An input stream buffer.

An input stream buffer which reads from a file descriptor. This provides input buffering.

8.49.2 Constructor & Destructor Documentation

8.49.2.1 fdinbuf::fdinbuf (int *fd,* bool *isCloseNeeded,* fdistream & *owner*)

constructor

Constructor which accepts the file descriptor to read from.

Parameters

fd	the file descriptor to read from
isCloseNeeded	a flag indicating whether the file descriptor is closed on destruction
owner	our owning input stream

8.49.3 Member Data Documentation

8.49.3.1 char VICI::cfi::fdinbuf::mBuffer[BUFFER_SIZE+PUSHBACK_SIZE] [protected]

Input buffer. This holds the data read and a bit more for a push-back buffer.

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

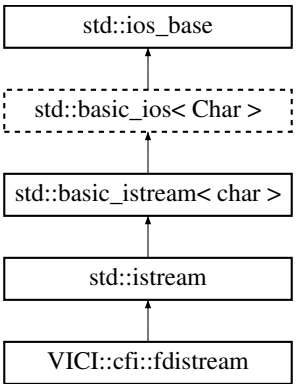
- fdstream.h
- fdistream.cpp

8.50 VICI::cfi::fdistream Class Reference

A file descriptor input stream.

`#include <sos/fdstream.h>`

Inheritance diagram for VICI::cfi::fdistream:



Public Member Functions

- fdistream (int fd, bool isCloseNeeded=false)

  constructor
- void close ()

  close the file descriptor

Static Public Attributes

- static bool CLOSE_NEEDED = true

  Flag to indicate file descriptor should be closed.
- static bool CLOSE_NOT_NEEDED = false

  Flag to indicate file descriptor should not be closed.

Protected Attributes

- fdinbuf mBuf

  Our input file descriptor stream buffer.

Friends

- class **fdinbuf**

8.50.1 Detailed Description

A file descriptor input stream.

8.50.2 Constructor & Destructor Documentation

8.50.2.1 fdistream::fdistream (int *fd*, bool *isCloseNeeded* = `false`)

constructor

Constructor which accepts the file descriptor to read from

Parameters

fd	the file descriptor to read from
isCloseNeeded	a flag indicating whether the file descriptor is closed on destruction.

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

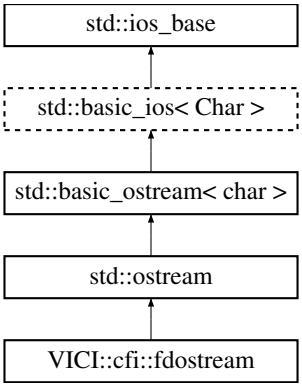
- fdstream.h
- fdistream.cpp

8.51 VICI::cfi::fdostream Class Reference

A file descriptor output stream.

`#include <sos/fdstream.h>`

Inheritance diagram for VICI::cfi::fdostream:



Public Member Functions

- fdostream (int fd, bool isCloseNeeded=false)

constructor

- void close ()

  close the file descriptor

Static Public Attributes

- static bool CLOSE_NEEDED = true

  Flag to indicate file descriptor should be closed.
- static bool CLOSE_NOT_NEEDED = false

  Flag to indicate file descriptor should not be closed.

Protected Attributes

- fdoutbuf mBuf

  Our output file descriptor stream buffer.

Friends

- class **fdoutbuf**

8.51.1 Detailed Description

A file descriptor output stream.

8.51.2 Constructor & Destructor Documentation

8.51.2.1 fdostream::fdostream (int *fd*, bool *isCloseNeeded* = `false`)

constructor

Constructor which accepts the file descriptor to write to and a flag indicating whether the file descriptor is closed on destruction.

Parameters

fd	the file descriptor to write to
isCloseNeeded	if true close on destruction

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

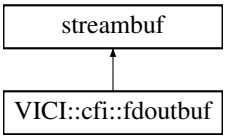
- fdstream.h
- fdostream.cpp

8.52 VICI::cfi::fdoutbuf Class Reference

An output stream buffer.

`#include <sos/fdstream.h>`

Inheritance diagram for VICI::cfi::fdoutbuf:



Public Member Functions

- fdoutbuf (int fd, bool isCloseNeeded, fdostream &owner)
  constructor
- void close ()
  Close the output file descriptor.
- virtual ~fdoutbuf ()
  destructor.

Protected Member Functions

- int flushBuffer ()
  Flush the characters in the buffer.
- virtual int overflow (int c)
  Write the indicated character and all previous characters.
- virtual int sync ()
  Flush the data in the buffer.

Protected Attributes

- fdostream & mOwner
  Our owning output stream.
- int mFd
  The output file descriptor.
- bool mIsCloseNeeded
  Whether the file descriptor needs to be closed on destruction.
- char mBuffer [BUFFER_SIZE]
  Output buffer.

Static Protected Attributes

- static const int BUFFER_SIZE = 8192
  Output buffer size.

8.52.1 Detailed Description

An output stream buffer.

An output stream buffer which writes to a file descriptor. This provides output buffering.

8.52.2 Constructor & Destructor Documentation

8.52.2.1 fdoutbuf::fdoutbuf (int *fd*, bool *isCloseNeeded*, fdostream & *owner*)

constructor

Parameters

fd	the file descriptor to write to
isCloseNeeded	a flag indicating whether the file descriptor is closed on destruction
owner	our owning output stream

8.52.3 Member Function Documentation

8.52.3.1 void fdoutbuf::close ( )

Close the output file descriptor.

This will be done whether or not the close needed flag is set.

8.52.3.2 int fdoutbuf::overflow (int *c*) [protected], [virtual]

Write the indicated character and all previous characters.

Parameters

c	the current character.

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

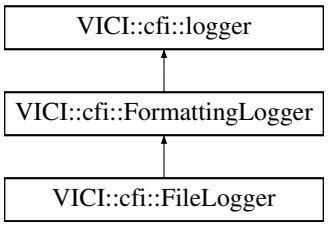
- fdstream.h
- fdostream.cpp

8.53 VICI::cfi::FileLogger Class Reference

Class for logging to a file.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::FileLogger:



Public Member Functions

- FileLogger (const Path &fname)

  Constructor.
- int log (Severity, csr line)

  log to the unnamed log
- int log (csr logName, Severity, csr line)

  log to the named log

Protected Attributes

- std::ofstream f

  The logging stream.

Additional Inherited Members

8.53.1 Detailed Description

Class for logging to a file.

Writes log messages to a file.

The log messages include the output from the FormattingLogger.

8.53.2 Constructor & Destructor Documentation

8.53.2.1 FileLogger::FileLogger (const Path & *fname*)

Constructor.

Parameters

fname	the name of the log file.

8.53.3 Member Function Documentation

8.53.3.1 int FileLogger::log (Severity *sev*, csr *line*) [virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

8.53.3.2 int FileLogger::log (csr *logName*, Severity *sev*, csr *line*) [virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

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

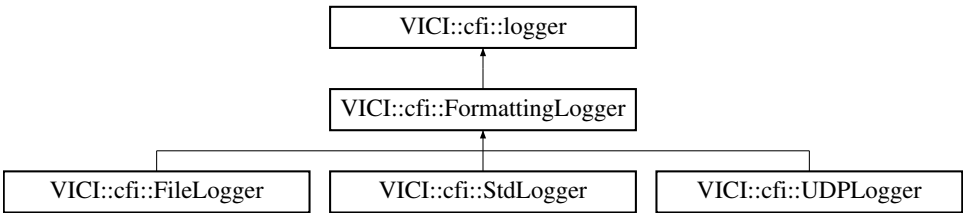
- log.h
- log.cpp

8.54 VICI::cfi::FormattingLogger Class Reference

Class for producing a formatted log message.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::FormattingLogger:



Protected Member Functions

- std::string timeStamp ()

  generates a string containing the current time
- csr hostname ()

  generates a string containing the hostname.
- csr process ()

  generates a string containing the process id
- csr severity (Severity)

  generates a string containing the severity level
- int format (std::ostream &s, Severity sev, csr msg)

  output the message to the stream

Additional Inherited Members

8.54.1 Detailed Description

Class for producing a formatted log message.

Provides a common formatting function for the different loggers. Writes log messages with a time stamp, host name, and process id in addition to the severity and the message.

8.54.2 Member Function Documentation

8.54.2.1 int FormattingLogger::format (std::ostream & *s,* Severity *sev,* csr *msg*) [protected]

output the message to the stream

Parameters

s	the log stream to write to
sev	the severity level to use
msg	the message to write to the log

Returns

the number of characters written to the stream

8.54.2.2 string FormattingLogger::timeStamp ( ) [protected]

generates a string containing the current time

Returns

current time as a string with format of H:M:S Y-m-d

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

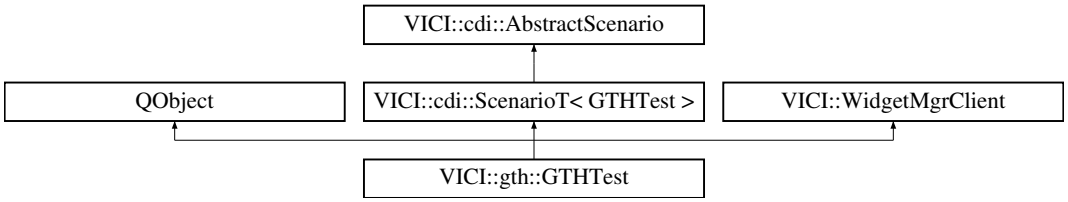
- log.h
- log.cpp

8.55 VICI::gth::GTHTest Class Reference

An AbstractTest derived class for testing GUI programs.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::GTHTest:



Signals

- void testingCompleted ()

  This signal is emitted when the main window tests have completed.

Public Member Functions

- void jumpThread (csr tcname, csr widgetName, csr command, const std::vector< std::string > &params)

  Method for thread jumping.
- GTHTest (csr name)

  Costructor.
- ~GTHTest ()

  Destructor.
- csr getName ()

  Get the name of the scenario.

- virtual bool willRunTests ()

  Indicate that the scenario will take over from the Tester.
- virtual void runTests (csr scenarioName, cdi::ScenarioResults *)

  Run an event loop and wait until the testing completes.
- void endMainWindow ()

  Called when testing for the main window completes.
- void runActions (csr testCase, ConDes)

  Called by the constructor and destructor of a test case.
- void assignVariables (const TestAction &, csr result)

  Applies a regular expression to the result to get values for variables.
- std::string getJump (const TestAction &, csr result)

  Applies regular expressions to the result to find a jump label.
- csr getVar (csr varName) const

  Get the value of a variable.
- void substVars (const ParamList &, ParamList &)

  Substitute variables for their values in the parameters.
- virtual void windowHasRegistered (GTHWindowWidget *)

  Called to notify of a new window registering itself.
- virtual void windowHasDeregistered (GTHWindowWidget *)

  Called to notify that a window has deregistered itself,.
- void regWidget (void *w, VICI::gth::WidgetType t, csr n)

  Register a widget so that it can be found by name.
- std::string prefix ()

  get thread and time

Public Attributes

- cdi::ScenarioResults * results

  Reference to the results.

Additional Inherited Members

8.55.1 Detailed Description

An AbstractTest derived class for testing GUI programs.

This object is constructed at the start of a test run and destroyed when the test is finished.

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

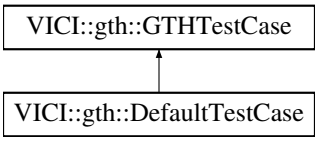
- libgth.h
- libgth.cpp

8.56 VICI::gth::GTHTestCase Class Reference

Interface for test cases that do gui testing.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::GTHTestCase:



Protected Member Functions

- csr getVar (csr)

  Get the value of a variable from GTHTest.
- GTHTestCase (csr name)

  Constructor.
- ~GTHTestCase ()

  Destructor.

Protected Attributes

- GTHTest * myScenario

  The owning scenario.
- const std::string & name

  The name of the test case, as installed.

8.56.1 Detailed Description

Interface for test cases that do gui testing.

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

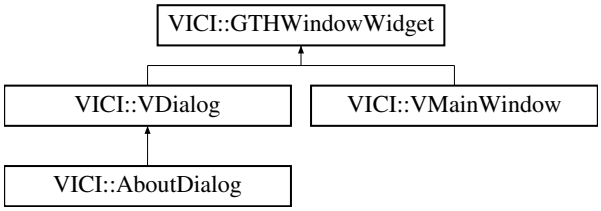
- libgth.h
- libgth.cpp

8.57 VICI::GTHWindowWidget Class Reference

A mix-in class with the functions required for the gui test harness.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::GTHWindowWidget:



Public Member Functions

- virtual void RegnFn (std::function< void(void *, gth::WidgetType, csr)> reg)=0

  This may be called by the test harness to get pointers to the individual widgets.

Protected Member Functions

- void registerWindow ()

  This is called by showEvent on first show.

8.57.1 Detailed Description

A mix-in class with the functions required for the gui test harness.

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

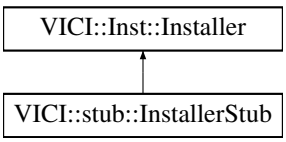
- libgui.h
- libgui.cpp

8.58 VICI::Inst::Installer Class Reference

Install a script into the user's desktop.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Inst::Installer:



Public Member Functions

- virtual ~Installer ()

  virtual destructor
- virtual void setCurrentFile (csr filename)=0

  Set the script to install.
- virtual void show ()=0

  Display the window.

8.58.1 Detailed Description

Install a script into the user's desktop.

The facade for the installer library.

The implementation will allow the user to install the script into their desktop menu system.

8.58.2 Member Function Documentation

8.58.2.1 virtual void VICI::Inst::Installer::setCurrentFile (csr *filename*) [pure virtual]

Set the script to install.

Parameters

filename	the script to install.

Implemented in VICI::stub::InstallerStub.

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

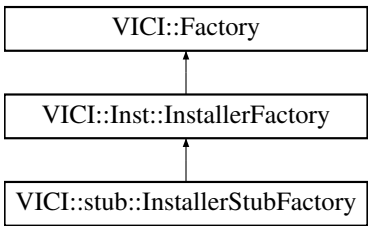
- vici.h

8.59 VICI::Inst::InstallerFactory Class Reference

An abstract factory for making an instance of Installer.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Inst::InstallerFactory:



Public Member Functions

- virtual ~InstallerFactory ()
  virtual destructor
- virtual Installer * makeInstaller (Window *w)=0
  create an instance of the Installer class

8.59.1 Detailed Description

An abstract factory for making an instance of Installer.

The implementation will create either the production version, or a stub, or a test version of the Installer class.

8.59.2 Member Function Documentation

8.59.2.1 virtual Installer* VICI::Inst::InstallerFactory::makeInstaller (Window * *w*) [pure virtual]

create an instance of the Installer class

Parameters

w	the window to display into

Returns

an instance of the Installer.

Implemented in VICI::stub::InstallerStubFactory.

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

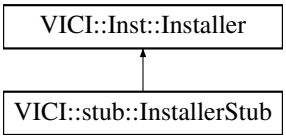
- vici.h

8.60 VICI::stub::InstallerStub Class Reference

A stub version of the Installer module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::InstallerStub:



Public Member Functions

- InstallerStub (Window *w)

  Constructor.
- virtual void setCurrentFile (csr filename)

  Set the script to install.
- virtual void show ()

  Display the window.

8.60.1 Detailed Description

A stub version of the Installer module.

8.60.2 Constructor & Destructor Documentation

8.60.2.1 InstallerStub::InstallerStub (Window * *w*)

Constructor.

Parameters

w	The window to display into.

8.60.3 Member Function Documentation

8.60.3.1 void InstallerStub::setCurrentFile (csr *filename*) [virtual]

Set the script to install.

Parameters

filename	the script to install.

Implements VICI::Inst::Installer.

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

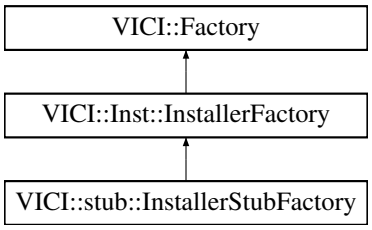
- libifstubs.h
- libifstubs.cpp

8.61 VICI::stub::InstallerStubFactory Class Reference

A factory for creating stub instances of Installer objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::InstallerStubFactory:



Public Member Functions

- virtual Inst::Installer * makeInstaller (Window *)

  create an instance of the Installer class

8.61.1 Detailed Description

A factory for creating stub instances of Installer objects.

8.61.2 Member Function Documentation

8.61.2.1 Inst::Installer * InstallerStubFactory::makeInstaller (Window * *w*) [virtual]

create an instance of the Installer class

Parameters

w	the window to display into

Returns

an instance of the Installer.

Implements VICI::Inst::InstallerFactory.

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

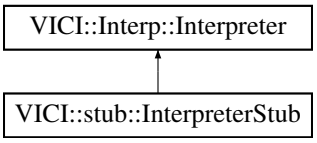
- libifstubs.h
- libifstubs.cpp

8.62 VICI::Interp::Interpreter Class Reference

The API for interpreter library.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Interp::Interpreter:



Public Member Functions

- virtual ~Interpreter ()

  virtual destructor
- virtual void addClient (InterpreterClient *)=0

  add a client for notifications
- virtual void setScript (csr filename)=0

  the XML VICI script to execute
- virtual void setArgs (VICI::ArgList args)=0

  set the program options
- virtual void debugMode (bool mode)=0

  enable debug mode
- virtual int openDisplay (NodeId node)=0

  open a Display object for reading
- virtual void dataAck (NodeId node)=0

  call this after responding to InterpreterClient::dataReady() to wait for the next set of data.
- virtual void setValue (csr varName, csr value)=0

  this is called when a variable has its value changed by the user
- virtual void setPosn (ThreadId tid, NodeId node)=0

  call this to set the point where execution resumes
- virtual void setBreak (NodeId node, bool set)=0

  call this to mark a node as a break point
- virtual void setInterval (double secs)=0

  set the time interval between executing commands
- virtual void saveSnapshot (csr filename)=0

  save a snapshot file
- virtual void loadSnapshot (csr filename)=0

  restore a snapshot file
- virtual void run ()=0

  start running the script
- virtual void run (csr functionName)=0

  start running the script at a specified function
- virtual void pause ()=0

  pause the script
- virtual void step (ThreadId tid)=0
- virtual void resume ()=0

  resume a paused script
- virtual void kill ()=0

  stop the script
- virtual int result ()=0

  get the exit code

Static Public Attributes

- static const NodeId OutDisplay = -1

  the node id of the default output display
- static const NodeId ErrDisplay = -2

  the node id of the default error display

8.62.1 Detailed Description

The API for interpreter library.

This is the facade for the interpreter library, libvici.

It provides an interface that lets the user control the operation of the interpreter.

8.62.2 Member Function Documentation

8.62.2.1 virtual void VICI::Interp::Interpreter::dataAck (NodeId *node*) [pure virtual]

call this after responding to InterpreterClient::dataReady() to wait for the next set of data.

Parameters

node	the node id of the display that is being acknowledged.

Implemented in VICI::stub::InterpreterStub.

8.62.2.2 virtual void VICI::Interp::Interpreter::debugMode (bool *mode*) [pure virtual]

enable debug mode

turning this on causes events to be generated at each step of the processing.

Parameters

mode	set this true to enable debugging mode

Implemented in VICI::stub::InterpreterStub.

8.62.2.3 virtual void VICI::Interp::Interpreter::loadSnapshot (csr *filename*) [pure virtual]

restore a snapshot file

Parameters

filename	the name of the file to load the state from

Implemented in VICI::stub::InterpreterStub.

8.62.2.4 virtual int VICI::Interp::Interpreter::openDisplay (NodeId *node*) [pure virtual]

open a Display object for reading

the InterpreterClient::dataReady() will be called when the file descriptor has data to be read.

Parameters

node	the display object to open

Returns

file descriptor of the display object

Implemented in VICI::stub::InterpreterStub.

8.62.2.5 virtual void VICI::Interp::Interpreter::run (csr *functionName*) [pure virtual]

start running the script at a specified function

Parameters

functionName	the function to start

Implemented in VICI::stub::InterpreterStub.

8.62.2.6 virtual void VICI::Interp::Interpreter::saveSnapshot (csr *filename*) [pure virtual]

save a snapshot file

Parameters

filename	the name of the file to save the interpreter state to

Implemented in VICI::stub::InterpreterStub.

8.62.2.7 virtual void VICI::Interp::Interpreter::setBreak (NodeId *node,* bool *set*) [pure virtual]

call this to mark a node as a break point

Parameters

node	The node to break execution on when reached
set	True to set the breakpoint and false to clear it.

Implemented in VICI::stub::InterpreterStub.

8.62.2.8 virtual void VICI::Interp::Interpreter::setInterval (double *secs*) [pure virtual]

set the time interval between executing commands

Parameters

secs	the interval to wait between executing commands

Implemented in VICI::stub::InterpreterStub.

8.62.2.9 virtual void VICI::Interp::Interpreter::setPosn (ThreadId *tid,* NodeId *node*) [pure virtual]

call this to set the point where execution resumes

Parameters

tid	the execution thread to be repositioned
node	the place to resume execution

Implemented in VICI::stub::InterpreterStub.

8.62.2.10 virtual void VICI::Interp::Interpreter::setValue (csr *varName*, csr *value*) [pure virtual]

this is called when a variable has its value changed by the user

Parameters

varName	the variable being changed
value	the new value to assign to the variable

Implemented in VICI::stub::InterpreterStub.

8.62.2.11 virtual void VICI::Interp::Interpreter::step (ThreadId *tid*) [pure virtual]

Parameters

tid	the thread to execute one command from

Implemented in VICI::stub::InterpreterStub.

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

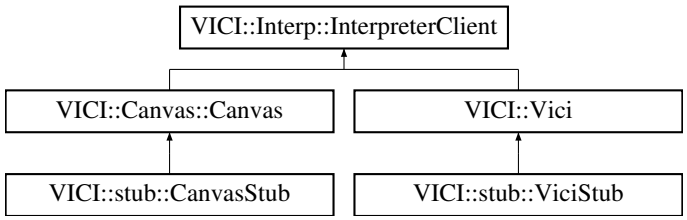
- vici.h

8.63 VICI::Interp::InterpreterClient Class Reference

The interface that must be implemented by clients of the interpreter.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Interp::InterpreterClient:



Public Member Functions

- virtual ~InterpreterClient ()

  virtual destructor
- virtual void setValue (csr varName, csr value)=0

  this gets called when a script variable has a change of value
- virtual void setFile (int state, csr filename)=0

  this gets called when a monitored file changes state.
- virtual void setCursor (ThreadId tid, NodeId node)=0

  this gets called as the shell steps through the script

- virtual void breakReached (ThreadId tid, NodeId node)=0

  this gets called when a break point is reached
- virtual void dataReady (NodeId node)=0

  this gets called when data is available on a display
- virtual void reportError (Severity sev, csr msg)=0

  This gets called if an error is detected.
- virtual void done ()=0

  this gets called when the script completes

8.63.1 Detailed Description

The interface that must be implemented by clients of the interpreter.

The clients of the interpreter are responsible for showing the activity during debugging and for displaying the output streams. By implementing this interface and registering with the interpreter they will notified accordingly.

8.63.2 Member Function Documentation

8.63.2.1 virtual void VICI::Interp::InterpreterClient::breakReached (ThreadId *tid,* NodeId *node*) [pure virtual]

this gets called when a break point is reached

Parameters

tid	the thread which reached the breakpoint
node	the location of the breakpoint

Implemented in VICI::stub::ViciStub, and VICI::stub::CanvasStub.

8.63.2.2 virtual void VICI::Interp::InterpreterClient::dataReady (NodeId *node*) [pure virtual]

this gets called when data is available on a display

Parameters

node	the node of the display object in the flowchart

Implemented in VICI::stub::ViciStub, and VICI::stub::CanvasStub.

8.63.2.3 virtual void VICI::Interp::InterpreterClient::reportError (Severity *sev,* csr *msg*) [pure virtual]

This gets called if an error is detected.

Parameters

msg	The text of the error message.
sev	The severity of the error

Implemented in VICI::stub::ViciStub, and VICI::stub::CanvasStub.

8.63.2.4 virtual void VICI::Interp::InterpreterClient::setCursor (ThreadId *tid,* NodeId *node*) [pure virtual]

this gets called as the shell steps through the script

Parameters

tid	the thread which changed to executing this node
node	the node that is currently being executed

Implemented in VICI::stub::ViciStub, and VICI::stub::CanvasStub.

8.63.2.5 virtual void VICI::Interp::InterpreterClient::setFile (int *state*, csr *filename*) [pure virtual]

this gets called when a monitored file changes state.

Parameters

state	this needs to be defined
filename	the name of the file that changed

Implemented in VICI::stub::ViciStub, and VICI::stub::CanvasStub.

8.63.2.6 virtual void VICI::Interp::InterpreterClient::setValue (csr *varName*, csr *value*) [pure virtual]

this gets called when a script variable has a change of value

Parameters

varName	the name of the variable that changed value
value	the new value of the variable

Implemented in VICI::stub::ViciStub, and VICI::stub::CanvasStub.

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

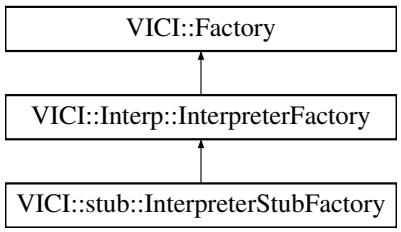
- vici.h

8.64 VICI::Interp::InterpreterFactory Class Reference

An abstract factory for making an instance of Interpreter.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Interp::InterpreterFactory:



Public Member Functions

- virtual ~InterpreterFactory ()

  virtual destructor
- virtual Interpreter * makeInterpreter (Sec::Secure *sec)=0

  create an instance of the Interpreter class

8.64.1 Detailed Description

An abstract factory for making an instance of Interpreter.

The implementation will create either the production version, or a stub, or a test version of the Interpreter class.

8.64.2 Member Function Documentation

8.64.2.1 virtual Interpreter* VICI::Interp::InterpreterFactory::makeInterpreter (Sec::Secure * *sec*) [pure virtual]

create an instance of the Interpreter class

Parameters

sec	pointer to the security class.

Implemented in VICI::stub::InterpreterStubFactory.

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

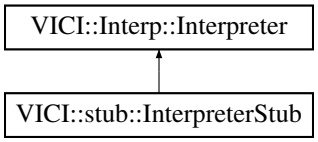
- vici.h

8.65 VICI::stub::InterpreterStub Class Reference

A stub version of the Interpreter module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::InterpreterStub:



Public Member Functions

- InterpreterStub (Sec::Secure *s)
  Constructor.
- virtual void addClient (Interp::InterpreterClient *sc)
  add a client for notifications
- virtual void debugMode (bool)
  enable debug mode
- virtual void setScript (csr filename)
  the XML VICI script to execute
- virtual void setArgs (ArgList args)
  set the program options
- virtual void setValue (csr varName, csr value)
  this is called when a variable has its value changed by the user
- virtual void setPosn (ThreadId, NodeId)
  call this to set the point where execution resumes
- virtual void setInterval (double secs)
  set the time interval between executing commands

- virtual void setBreak (NodeId, bool)

  call this to mark a node as a break point
- virtual int openDisplay (NodeId)

  open a Display object for reading
- virtual void dataAck (NodeId)

  call this after responding to InterpreterClient::dataReady() to wait for the next set of data.
- virtual void step (ThreadId)
- virtual void resume ()

  resume a paused script
- virtual void run ()

  start running the script
- virtual void run (csr funcName)

  start running the script at a specified function
- virtual void pause ()

  pause the script
- virtual void kill ()

  stop the script
- virtual int result ()

  get the exit code
- virtual void saveSnapshot (csr filename)

  save a snapshot file
- virtual void loadSnapshot (csr filename)

  restore a snapshot file

Additional Inherited Members

8.65.1 Detailed Description

A stub version of the Interpreter module.

8.65.2 Constructor & Destructor Documentation

8.65.2.1 InterpreterStub::InterpreterStub (Sec::Secure * *s*)

Constructor.

Parameters

s	The security module.

8.65.3 Member Function Documentation

8.65.3.1 void InterpreterStub::dataAck (NodeId *node*) [virtual]

call this after responding to InterpreterClient::dataReady() to wait for the next set of data.

Parameters

node	the node id of the display that is being acknowledged.

Implements VICI::Interp::Interpreter.

8.65.3.2 void InterpreterStub::debugMode (bool *mode*) [virtual]

enable debug mode

turning this on causes events to be generated at each step of the processing.

Parameters

mode	set this true to enable debugging mode

Implements VICI::Interp::Interpreter.

8.65.3.3 void InterpreterStub::loadSnapshot (csr *filename*) [virtual]

restore a snapshot file

Parameters

filename	the name of the file to load the state from

Implements VICI::Interp::Interpreter.

8.65.3.4 int InterpreterStub::openDisplay (NodeId *node*) [virtual]

open a Display object for reading

the InterpreterClient::dataReady() will be called when the file descriptor has data to be read.

Parameters

node	the display object to open

Returns

file descriptor of the display object

Implements VICI::Interp::Interpreter.

8.65.3.5 void InterpreterStub::run (csr *functionName*) [virtual]

start running the script at a specified function

Parameters

functionName	the function to start

Implements VICI::Interp::Interpreter.

8.65.3.6 void InterpreterStub::saveSnapshot (csr *filename*) [virtual]

save a snapshot file

Parameters

filename	the name of the file to save the interpreter state to

Implements VICI::Interp::Interpreter.

8.65.3.7 void InterpreterStub::setBreak (NodeId *node,* bool *set*) [virtual]

call this to mark a node as a break point

Parameters

node	The node to break execution on when reached
set	True to set the breakpoint and false to clear it.

Implements VICI::Interp::Interpreter.

8.65.3.8 void InterpreterStub::setInterval (double *secs*) [virtual]

set the time interval between executing commands

Parameters

secs	the interval to wait between executing commands

Implements VICI::Interp::Interpreter.

8.65.3.9 void InterpreterStub::setPosn (ThreadId *tid*, NodeId *node*) [virtual]

call this to set the point where execution resumes

Parameters

tid	the execution thread to be repositioned
node	the place to resume execution

Implements VICI::Interp::Interpreter.

8.65.3.10 void InterpreterStub::setValue (csr *varName*, csr *value*) [virtual]

this is called when a variable has its value changed by the user

Parameters

varName	the variable being changed
value	the new value to assign to the variable

Implements VICI::Interp::Interpreter.

8.65.3.11 void InterpreterStub::step (ThreadId *tid*) [virtual]

Parameters

tid	the thread to execute one command from

Implements VICI::Interp::Interpreter.

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

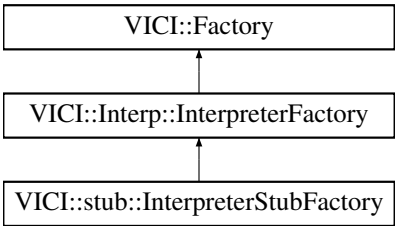
- libifstubs.h
- libifstubs.cpp

8.66 VICI::stub::InterpreterStubFactory Class Reference

A factory for creating stub instances of Interpreter objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::InterpreterStubFactory:



Public Member Functions

- virtual Interp::Interpreter * makeInterpreter (Sec::Secure *)

  create an instance of the Interpreter class

8.66.1 Detailed Description

A factory for creating stub instances of Interpreter objects.

8.66.2 Member Function Documentation

8.66.2.1 Interp::Interpreter * InterpreterStubFactory::makeInterpreter (Sec::Secure * *sec*) [virtual]

create an instance of the Interpreter class

Parameters

sec	pointer to the security class.

Implements VICI::Interp::InterpreterFactory.

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

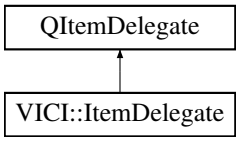
- libifstubs.h
- libifstubs.cpp

8.67 VICI::ItemDelegate Class Reference

An item delegate that uses QLineEdit for editing list and table entries.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::ItemDelegate:



Signals

- void validationError (const QModelIndex &) const

  This signal can be emitted if there is a validation error.

Public Member Functions

- ItemDelegate (QObject *parent=0)

  Constructor.
- QWidget * createEditor (QWidget *parent, const QStyleOptionViewItem &option, const QModelIndex &index) const

  Create a QLineEdit for editing the item.
- void setEditorData (QWidget *editor, const QModelIndex &index) const

  Copy the data from the model to the editor.
- void setModelData (QWidget *editor, QAbstractItemModel *model, const QModelIndex &index) const

  Copy the data from the editor to the model.
- void updateEditorGeometry (QWidget *editor, const QStyleOptionViewItem &option, const QModelIndex &index) const

  Notification that the shape of the owner has changed.
- bool hasEditor () const

  Check if delegate is in edit mode.

8.67.1 Detailed Description

An item delegate that uses QLineEdit for editing list and table entries.

The QListWidget and QTableWidget have faulty editing capability. This item can replace the default one to provide a much nicer user experience when editing the items in lists and tables.

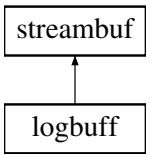
The documentation for this class was generated from the following files:

- libgui.h
- libgui.cpp

8.68 logbuff Class Reference

A streambuf class specialized for logging.

Inheritance diagram for logbuff:



Public Member Functions

- logbuff ()

  default constructor
- logbuff (csr)

  constructor for named log
- virtual ~logbuff ()

  destructor
- void severity (Severity s)

  set severity

Protected Member Functions

- void init ()

  initialize using details from the XINI config
- int flushBuffer ()
- virtual int overflow (int c)
- virtual int sync ()

Protected Attributes

- char buffer [bufferSize]

  message collected into here
- Severity sev

  the current severity level
- logger * mLogger

  thing for writing the message
- string name

  name to use in the XINI configuration

Static Protected Attributes

- static const int bufferSize = 128

  limit line size in log files.

8.68.1 Detailed Description

A streambuf class specialized for logging.

This is a private implementation class.

8.68.2 Member Function Documentation

8.68.2.1 int logbuff::flushBuffer ( ) [protected]

we have a line for the log - we now delegate this to the log function that has been selected by the user.

8.68.2.2 int logbuff::overflow (int *c*) [protected], [virtual]

this gets called when the buffer fills. Since we are writing to a log file, this happens whenever the line length exceeds the buffer size.

8.68.2.3 int logbuff::sync ( ) [protected], [virtual]

this gets called when 'endl' or 'flush' is called on the stream.

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

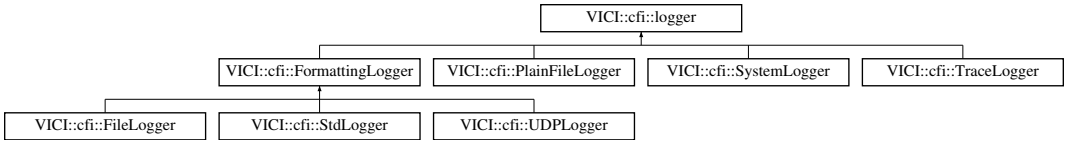
- log.cpp

8.69 VICI::cfi::logger Class Reference

An abstract base class used by the log stream to write logs.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::logger:



Public Member Functions

- virtual ~logger ()

  Destructor.
- virtual int log (Severity sev, csr line)=0

  log to the unnamed log
- virtual int log (csr logName, Severity sev, csr line)=0

  log to the named log

Protected Member Functions

- logger ()

  Constructor.

Protected Attributes

- Semaphore sem4

  Mutual exclusion lock.

8.69.1 Detailed Description

An abstract base class used by the log stream to write logs.

This is the API that libraries must implement to be used as a logging stream.

8.69.2 Member Function Documentation

8.69.2.1 virtual int VICI::cfi::logger::log (Severity *sev,* csr *line*) [pure virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implemented in VICI::cfi::SystemLogger, VICI::cfi::TraceLogger, VICI::cfi::UDPLogger, VICI::cfi::PlainFileLogger, VICI::cfi::FileLogger, and VICI::cfi::StdLogger.

8.69.2.2 virtual int VICI::cfi::logger::log (csr *logName,* Severity *sev,* csr *line*) [pure virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implemented in VICI::cfi::SystemLogger, VICI::cfi::TraceLogger, VICI::cfi::UDPLogger, VICI::cfi::PlainFileLogger, VICI::cfi::FileLogger, and VICI::cfi::StdLogger.

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

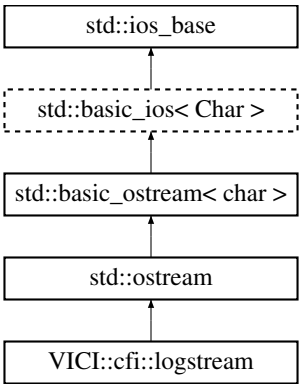
- log.h

8.70 VICI::cfi::logstream Class Reference

A stream class specialized for logging.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::logstream:



Public Member Functions

- virtual ~logstream ()

  destructor
- void severity (Severity sev)

  Set the severity for the current message.

Static Public Member Functions

- static logstream & instance ()

  Get an instance of the unnamed stream.
- static logstream & instance (csr name)

  Get an instance of a named stream.

Protected Member Functions

- logstream (std::streambuf *buf)

  Static pointer to only instance of the anonymous object.

8.70.1 Detailed Description

A stream class specialized for logging.

There is an unnamed stream that is the default, and named streams for special purposes. The streams pick up their characteristics from XINI configuration file:

- //LOG the logging section of the configuration file
- //LOG/[name] section for a named log
- //LOG/type is one of cout, cerr, clog, file, trace or syslog.
- //LOG/file specifies the file name for file or trace logs
- //LOG/ident specifies the identifier for syslog logs

8.70.2 Constructor & Destructor Documentation

8.70.2.1 logstream::logstream (std::streambuf * *buf*) [protected]

Static pointer to only instance of the anonymous object.

Single instances of named streams. Private constructor.

Parameters

buf	pointer to a standard stream buffer

8.70.3 Member Function Documentation

8.70.3.1 logstream & logstream::instance ( ) [static]

Get an instance of the unnamed stream.

Returns

the instance of the anonymous log stream

8.70.3.2 logstream & logstream::instance (csr *name*) [static]

Get an instance of a named stream.

Parameters

name	name of the log stream used in the config file

Returns

the instance of the named log stream

8.70.3.3 void logstream::severity (Severity *sev*)

Set the severity for the current message.

Parameters

sev	new severity to use for the following messages

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

- log.h
- log.cpp

8.71 VICI::gth::LuaScript Class Reference

Provides a wrapper for a lua_State object.

`#include <vici/libgth.h>`

Public Member Functions

- LuaScript (csr chunk)
  Constructor.
- ~LuaScript ()
  Destructor.
- std::string call (csr cmnd, const ParamList &params)
  Run a function in the Lua chunk.

Static Public Member Functions

- static int luaVersion ()
  Allow test scripts to check if Lua is installed (>0) and the version (51, 53)

8.71.1 Detailed Description

Provides a wrapper for a lua_State object.

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

- libgth.h
- libgth.cpp

8.72 VICI::Metrics Class Reference

A class to encapsulate measurements.

`#include <vici/libgui.h>`

Static Public Member Functions

- static int ppm (int m=1)

  return the number of pixels for something m ems wide.

8.72.1 Detailed Description

A class to encapsulate measurements.

This class provides a method that should be used when setting the size of widgets. It provides the size of the letter 'm' in pixels and should therefore provide sizes that are somewhat independent of the physical resolution of the screen.

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

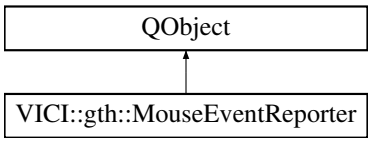
- libgui.h
- libgui.cpp

8.73 VICI::gth::MouseEventReporter Class Reference

Provides a means of getting scene coordinates in a QGraphicsView.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::MouseEventReporter:



Public Member Functions

- MouseEventReporter (QGraphicsView *v)

  Constructor.

Protected Member Functions

- bool eventFilter (QObject *obj, QEvent *event)

  Report position of mouse click in a graphics view.

8.73.1 Detailed Description

Provides a means of getting scene coordinates in a QGraphicsView.

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

- libgth.h

8.74 VICI::cdi::NullTrace Class Reference

A class for dummy trace objects.

`#include <vici/trace.h>`

Public Member Functions

- NullTrace ()

  Constructor.
- template<class T >
  NullTrace & operator<< (T x)

  Noop version of stream function.

8.74.1 Detailed Description

A class for dummy trace objects.

A dummy object is required so that stream syntax can be used without causing a problem if tracing is turned off.

This is used by the TRACE(level) macro.

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

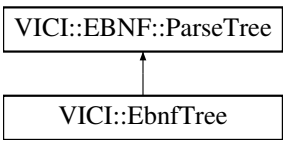
- trace.h

8.75 VICI::EBNF::ParseTree Class Reference

A type for the parsed form of EBNF.

`#include <vici/vici.h>`

Inheritance diagram for VICI::EBNF::ParseTree:



Public Member Functions

- virtual ~ParseTree ()

  virtual destructor

8.75.1 Detailed Description

A type for the parsed form of EBNF.

A type for the parsed form of EBNF used to pass the results of parsing the command's options EBNF to the syntax library without all the details leaking into all other modules.

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

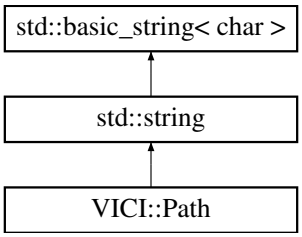
- vici.h

8.76 VICI::Path Class Reference

Manipulate path strings.

`#include <vici/stringy.h>`

Inheritance diagram for VICI::Path:



Public Member Functions

- Path ()

  Constructor.
- Path (csr path)

  Constructor.
- Path & append (csr name)

  Append aname to a path.
- Path & appendExt (csr ext)

  Append an extension to this.
- Path & up ()

  shorten this by a level
- bool absolute () const
- std::string base () const
- std::string dir () const
- std::string ext () const
- std::string name () const
- std::string noExt () const
- void split (std::vector< std::string > &dirs) const

  break into separate dirs
- bool operator== (const Path &x) const

  test for equality
- bool isChildOf (const Path &p) const

  test for equality
- Path & operator= (const char *)

  assignment
- Path & operator= (const std::string &)

  assignment
- operator const char * () const

  type conversion
- bool defined () const

  type conversion

Static Public Member Functions

- static bool check (const std::string &path)

  checks for valid string
- static void setSpacePolicy (bool allowSpaces=false)

  set policy for spaces in file names

8.76.1 Detailed Description

Manipulate path strings.

8.76.2 Constructor & Destructor Documentation

8.76.2.1 Path::Path (csr *path*) [explicit]

Constructor.

normalizes out any surplus /'s

Parameters

path	path to a file or directory

8.76.3 Member Function Documentation

8.76.3.1 bool Path::absolute ( ) const

Returns

true if its an absolute path

8.76.3.2 Path & Path::append (csr *name*)

Append aname to a path.

Parameters

name	append a / and name to this

Returns

reference to new value of this

8.76.3.3 Path & Path::appendExt (csr *ext*)

Append an extension to this.

Parameters

ext	the extension to append.

Returns

reference to new value of this

8.76.3.4 string Path::base ( ) const

Returns

everything after last /

8.76.3.5 bool Path::defined ( ) const

type conversion

true if it has a value

8.76.3.6 string Path::dir ( ) const

Returns

everything up to last /

8.76.3.7 string Path::ext ( ) const

Returns

extension part of file name

8.76.3.8 bool Path::isChildOf (const Path & *p*) const

test for equality

test for equality true if this is a subdir of p

8.76.3.9 string Path::name ( ) const

Returns

base without the extension

8.76.3.10 string Path::noExt ( ) const

Returns

everything but extension

8.76.3.11 void Path::split (std::vector< std::string > & *dirs*) const

break into separate dirs

Parameters

dirs	The directory parts of the file name returned.

8.76.3.12 Path & Path::up ( )

shorten this by a level

Returns

reference to new value of this

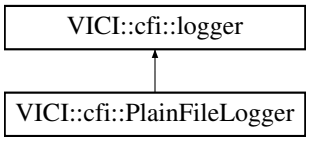
The documentation for this class was generated from the following files:

- stringy.h
- stringy.cpp

8.77 VICI::cfi::PlainFileLogger Class Reference

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::PlainFileLogger:



Public Member Functions

- PlainFileLogger (const Path &fname)
  Constructor.
- int log (Severity, csr line)
  log to the unnamed log
- int log (csr logName, Severity, csr line)
  log to the named log

Protected Attributes

- std::ofstream f
  The logging stream.

Additional Inherited Members

8.77.1 Detailed Description

Writes log messages to a file without adding any formatting.

8.77.2 Constructor & Destructor Documentation

8.77.2.1 PlainFileLogger::PlainFileLogger (const Path & *fname*)

Constructor.

Parameters

fname	the name of the log file.

8.77.3 Member Function Documentation

8.77.3.1 int PlainFileLogger::log (Severity *sev*, csr *line*) [virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

8.77.3.2 int PlainFileLogger::log (csr *logName*, Severity *sev*, csr *line*) [virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

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

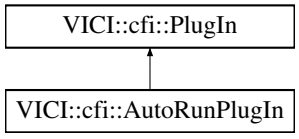
- log.h
- log.cpp

8.78 VICI::cfi::PlugIn Class Reference

Base class for objects loaded from dynamically loaded libraries.

`#include <vici/plugin.h>`

Inheritance diagram for VICI::cfi::PlugIn:



Public Member Functions

- virtual ~PlugIn ()

  Destructor.

Friends

- class **PlugInMgr**

8.78.1 Detailed Description

Base class for objects loaded from dynamically loaded libraries.

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

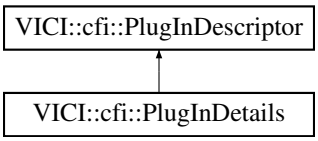
- plugin.h
- plugin.cpp

8.79 VICI::cfi::PlugInDescriptor Struct Reference

Descriptor for plug-ins that can be used by the application.

`#include <plugin.h>`

Inheritance diagram for VICI::cfi::PlugInDescriptor:



Public Attributes

- std::string pluginFamily

  The type of the plug-in.
- std::string name

  The name as in the xini config.
- std::string description

  Some description for users.
- std::string version

  Should match the defined VICI_PLUGIN_VERSION.
- VICI::Path library

  The shared library's path.
- bool onDemand

  True if the library is loaded on demand.
- bool autoRun

  True if its run automatically on start.

8.79.1 Detailed Description

Descriptor for plug-ins that can be used by the application.

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

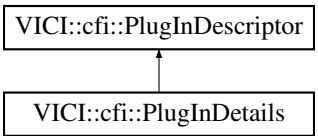
- plugin.h

8.80 VICI::cfi::PlugInDetails Struct Reference

Details of plug-ins as provided by the loaded library.

`#include <plugin.h>`

Inheritance diagram for VICI::cfi::PlugInDetails:



Public Member Functions

- PlugInDetails ()

  Constructor to initialise variables.

Public Attributes

- PlugInFactory * factory

  Construct an instance of the plug-in.
- bool loadable

  False if the library cannot be loaded.

8.80.1 Detailed Description

Details of plug-ins as provided by the loaded library.

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

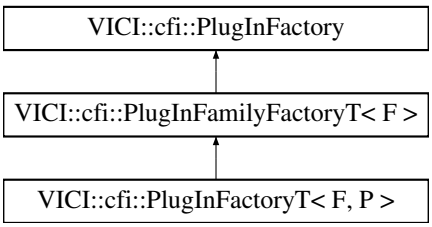
- plugin.h
- plugin.cpp

8.81 VICI::cfi::PlugInFactory Class Reference

Base class for factories that create plug-in objects.

`#include <vici/plugin.h>`

Inheritance diagram for VICI::cfi::PlugInFactory:



Public Member Functions

- virtual ~PlugInFactory ()

  Destructor.
- virtual PlugIn * make ()=0

  Construct a plug-in object.

8.81.1 Detailed Description

Base class for factories that create plug-in objects.

8.81.2 Member Function Documentation

8.81.2.1 virtual PlugIn* VICI::cfi::PlugInFactory::make ( ) [pure virtual]

Construct a plug-in object.

Returns

Pointer to new plug-in object

Implemented in VICI::cfi::PlugInFactoryT< F, P >, and VICI::cfi::PlugInFamilyFactoryT< F >.

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

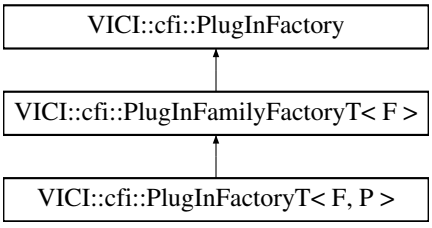
- plugin.h

8.82 VICI::cfi::PlugInFactoryT< F, P > Class Template Reference

Template class for factories.

`#include <vici/plugin.h>`

Inheritance diagram for VICI::cfi::PlugInFactoryT< F, P >:



Public Member Functions

- virtual ~PlugInFactoryT ()

  Destructor.
- virtual F * make ()

  Construct a plug-in object.

8.82.1 Detailed Description

template<class F, class P>class VICI::cfi::PlugInFactoryT< F, P >

Template class for factories.

PlugIn P must be derived from PlugInFamily F

8.82.2 Member Function Documentation

8.82.2.1 template<class F , class P > virtual F* VICI::cfi::PlugInFactoryT< F, P >::make ( ) [inline], [virtual]

Construct a plug-in object.

Returns

Pointer to new plug-in object

Implements VICI::cfi::PlugInFamilyFactoryT< F >.

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

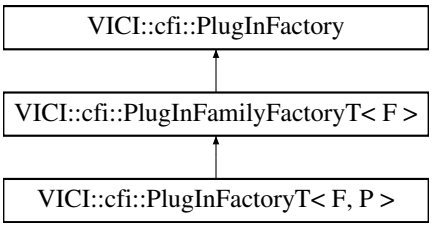
- plugin.h

8.83 VICI::cfi::PlugInFamilyFactoryT< F > Class Template Reference

Template base class for families of plug-in factories.

`#include <vici/plugin.h>`

Inheritance diagram for VICI::cfi::PlugInFamilyFactoryT< F >:



Public Member Functions

- virtual F * make ()=0

  Construct a plug-in object.

8.83.1 Detailed Description

template<class F>class VICI::cfi::PlugInFamilyFactoryT< F >

Template base class for families of plug-in factories.

Each family of plug-in objects will have its own API that is specified by the application and implemented by the plug-in library. This template allows the PlugInMgr to return an object of the correct type without having knowledge of that type built in.

8.83.2 Member Function Documentation

8.83.2.1 template<class F> virtual F* VICI::cfi::PlugInFamilyFactoryT< F >::make ( ) [pure virtual]

Construct a plug-in object.

Returns

Pointer to new plug-in object

Implements VICI::cfi::PlugInFactory.

Implemented in VICI::cfi::PlugInFactoryT< F, P >.

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

- plugin.h

8.84 VICI::cfi::PlugInLib Class Reference

Manages an instance of a dynamically loaded shared library.

`#include <vici/plugin.h>`

Public Types

- enum Mode { AutoRun, OnDemand, StayResident }
  Control lifetime of the library.

Public Member Functions

- PlugInLib (const Path &libPath)
  Constructor.
- ~PlugInLib ()
  Destructor.
- void setMode (Mode m)
  Set the lifetime for a plug-in.
- Mode getMode ()
  Get the mode for the entire library.
- bool loaded ()
  Check if successfully loaded the library.
- void startUsage ()
  Indicate that the library is being used.
- void endUsage ()

Advise that a plug-in is no longer using the library.

- bool inUse ()

  Test if the library is in use.

- const VICI::Path & getPath ()

  Get the path to the library.

8.84.1 Detailed Description

Manages an instance of a dynamically loaded shared library.

This object is responsible for loading and unloading the library. It is also responsible for calling the initialisation and finalisation code within the library using the two extern "C" functions.

Note that a library may have more than one plug-in class defined, and these may even have different lifetimes.

8.84.2 Member Enumeration Documentation

8.84.2.1 enum VICI::cfi::PlugInLib::Mode

Control lifetime of the library.

Enumerator

AutoRun The library can be removed after initialisation.

OnDemand The library can be removed once its unused.

StayResident The library is only removed on program termination.

8.84.3 Constructor & Destructor Documentation

8.84.3.1 PlugInLib::PlugInLib (const Path & *libPath*)

Constructor.

Parameters

libPath	The path to the shared library, from xini config

8.84.4 Member Function Documentation

8.84.4.1 Mode VICI::cfi::PlugInLib::getMode ( ) [inline]

Get the mode for the entire library.

Returns

The lifetime mode.

8.84.4.2 const VICI::Path& VICI::cfi::PlugInLib::getPath ( ) [inline]

Get the path to the library.

Returns

the library path

8.84.4.3 bool VICI::cfi::PlugInLib::inUse ( ) [inline]

Test if the library is in use.

Returns

True if a plug-in is still in active use.

8.84.4.4 bool PlugInLib::loaded ( )

Check if successfully loaded the library.

Returns

true if loaded OK

8.84.4.5 void PlugInLib::setMode (Mode *m*)

Set the lifetime for a plug-in.

This value is combined with the existing values to get a lifetime value for the overall library

Parameters

m	The mode for the plug-in

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

- plugin.h
- plugin.cpp

8.85 VICI::cfi::PlugInMgr Class Reference

Manage the handling of plug-in shared libraries.

`#include <vici/plugin.h>`

Public Member Functions

- void load (csr prog)

  Load the plug-ins listed in the xini config.
- void regn (const PlugInDetails &details)

  Allow a plug-in to register itself.
- void getDetails (std::vector< PlugInDescriptor > &plugins)

  Get list of plug ins.
- void release (PlugInLib *)

  Release a library.
- void shutdown ()

  Unload all the libraries prior to exiting the program.
- template<class PlugInFamily >
  std::unique_ptr< PlugInFamily > getPlugin (csr name)

  Get a plug-in.

Static Public Member Functions

- static PlugInMgr & instance ()

  Get a reference to the singleton object.

8.85.1 Detailed Description

Manage the handling of plug-in shared libraries.

8.85.2 Member Function Documentation

8.85.2.1 void PlugInMgr::load (csr *prog*)

Load the plug-ins listed in the xini config.

Parameters

prog	The name used to identify the set of plugins for this program.

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

- plugin.h
- plugin.cpp

8.86 VICI::cfi::ProcessOwner Class Reference

Interface that allows the owner of a child process to be notified.

`#include <vici/proc.h>`

Public Member Functions

- virtual ~ProcessOwner ()

  Destructor.
- virtual void processTerminated (AbstractChildProcess *cp)=0

  Notification that process terminated.

8.86.1 Detailed Description

Interface that allows the owner of a child process to be notified.

8.86.2 Member Function Documentation

8.86.2.1 virtual void VICI::cfi::ProcessOwner::processTerminated (AbstractChildProcess * *cp*) [pure virtual]

Notification that process terminated.

Parameters

cp	The child process that ended.

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

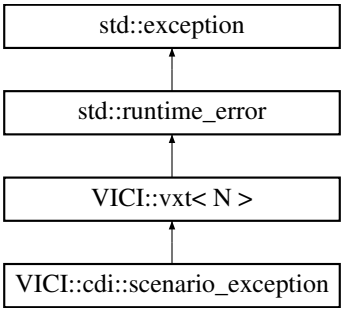
- proc.h

8.87 VICI::cdi::scenario_exception Class Reference

throw this to abandon an entire scenario

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::scenario_exception:



Public Member Functions

- scenario_exception ()

  Constructor.

Additional Inherited Members

8.87.1 Detailed Description

throw this to abandon an entire scenario

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

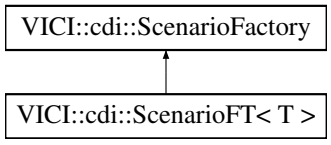
- testmgr.h

8.88 VICI::cdi::ScenarioFactory Class Reference

Define a type for scenario factories.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::ScenarioFactory:



Public Member Functions

- ScenarioFactory ()

  Constructor.
- virtual ~ScenarioFactory ()

  Destructor.
- virtual AbstractScenario * make (csr name)=0

  Create an scenario object.

8.88.1 Detailed Description

Define a type for scenario factories.

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

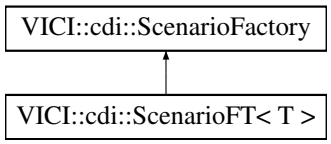
- testmgr.h

8.89 VICI::cdi::ScenarioFT< T > Class Template Reference

Responsible for creating a scenario of some type.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::ScenarioFT< T >:



Public Member Functions

- AbstractScenario * make (csr name)

  Create a scenario object.

8.89.1 Detailed Description

template<class T>class VICI::cdi::ScenarioFT< T >

Responsible for creating a scenario of some type.

8.89.2 Member Function Documentation

8.89.2.1 template<class T > AbstractScenario* VICI::cdi::ScenarioFT< T >::make (csr *name*) [inline], [virtual]

Create a scenario object.

Returns

Pointer to a new scenario object.

Implements VICI::cdi::ScenarioFactory.

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

- testmgr.h

8.90 VICI::cdi::ScenarioResults Struct Reference

Responsible for storing the results of testing for a scenario.

`#include <vici/testmgr.h>`

Public Member Functions

- ScenarioResults ()

  Constructor.

Public Attributes

- int mNumTests

  total number of tests
- int mNumErrors

  number of errors reported
- bool failure

  true if scenario tests failed

8.90.1 Detailed Description

Responsible for storing the results of testing for a scenario.

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

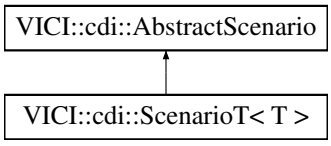
- testmgr.h

8.91 VICI::cdi::ScenarioT< T > Class Template Reference

Responsible for installing a factory to create scenarios of the required type.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::ScenarioT< T >:



Public Member Functions

- ScenarioT (csr name)
  Constructor.

Static Public Member Functions

- static void install (csr nm)
  Install a scenario factor into the Tester.

Additional Inherited Members

8.91.1 Detailed Description

template<class T>class VICI::cdi::ScenarioT< T >

Responsible for installing a factory to create scenarios of the required type.

8.91.2 Constructor & Destructor Documentation

8.91.2.1 template<class T> VICI::cdi::ScenarioT< T >::ScenarioT (csr *name*) [inline],[explicit]

Constructor.

Parameters

name	The name of the scenario.

8.91.3 Member Function Documentation

8.91.3.1 template<class T> static void VICI::cdi::ScenarioT< T >::install (csr *nm*) [inline],[static]

Install a scenario factor into the Tester.

Parameters

nm	The name of the scenario

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

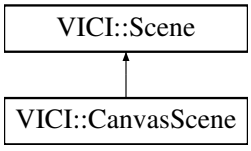
- testmgr.h

8.92 VICI::Scene Class Reference

A wrapper for QGraphicsScene class.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Scene:



Public Member Functions

- virtual ~Scene ()

  virtual destructor

8.92.1 Detailed Description

A wrapper for QGraphicsScene class.

A wrapper for QGraphicsScene class so that both Symbol and Canvas can refer to the same scene objects.

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

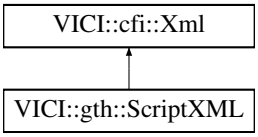
- vici.h

8.93 VICI::gth::ScriptXML Class Reference

Provides an interface to the script XML file.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::ScriptXML:



Public Member Functions

- ScriptXML (const VICI::Path &, bool create)

  Constructor.
- ~ScriptXML ()

  Destructor.
- void getWindows (ParamList &)

  Get a list of windows from the XML script.
- void getTestsForWindow (csr wnm, ListOfLists &)

  Get a list of test cases for a window.
- void getTestActions (csr tnm, ConDes, std::vector< TestAction > &)

  Get the test actions for a test case constructor or destructor.
- void getScripts (std::map< std::string, std::string > &)

  Get the script for a window.
- void addExecFilePath (csr fileName)

  Insert the executable's path into the script.
- void addTest (csr testName, bool unreferenced)

  Add the name of test cases that are [not] referenced in the script.
- void addWindow (csr windowName, bool unreferenced)

  Add the name of windows that are [not] referenced in the script.
- void addWidget (csr widgetName, csr widgetType)

  Update the list of widgets and their types.
- void addWidgetType (csr widgetType, const ListOfLists &)

  Update description of commands for a widget type.

Additional Inherited Members

8.93.1 Detailed Description

Provides an interface to the script XML file.

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

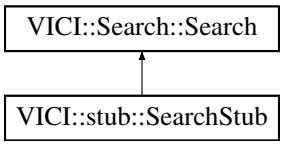
- libgth.h
- script.cpp

8.94 VICI::Search::Search Class Reference

Allow the user to search for, and organise commands.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Search::Search:



Public Member Functions

- virtual ~Search ()

  virtual destructor
- virtual void show ()=0

  make the search window visible
- virtual void setNode (NodeId)=0

  set the identity of the current node

8.94.1 Detailed Description

Allow the user to search for, and organise commands.

The facade for the Search library.

The implementation will present a window in which the user can search for commands, and in which commands can be organised.

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

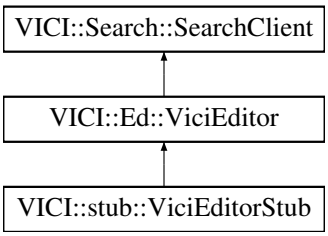
- vici.h

8.95 VICI::Search::SearchClient Class Reference

The interface that must implemented for clients of Search.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Search::SearchClient:



Public Member Functions

- virtual ~SearchClient ()

  virtual destructor
- virtual void selectedCommand (NodeId n, csr c)=0

  this function is called when the user selects a command.

8.95.1 Detailed Description

The interface that must implemented for clients of Search.

The client of Search will implement this interface so that it can be informed when the user selects a command.

8.95.2 Member Function Documentation

8.95.2.1 virtual void VICI::Search::SearchClient::selectedCommand (NodeId *n*, csr *c*) [pure virtual]

this function is called when the user selects a command.

Parameters

c	the selected command
n	the identifier for the node

Implemented in VICI::stub::ViciEditorStub.

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

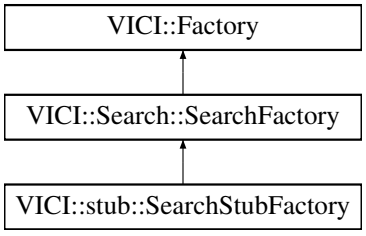
- vici.h

8.96 VICI::Search::SearchFactory Class Reference

An abstract factory for making an instance of Search.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Search::SearchFactory:



Public Member Functions

- virtual ~SearchFactory ()

  virtual destructor
- virtual Search * makeSearch (Window *w, SearchClient *sc)=0

  create an instance of the Search class

8.96.1 Detailed Description

An abstract factory for making an instance of Search.

The implementation will create either the production version, or a stub, or a test version of the Search class.

8.96.2 Member Function Documentation

8.96.2.1 virtual Search* VICI::Search::SearchFactory::makeSearch (Window * *w*, SearchClient * *sc*) [pure virtual]

create an instance of the Search class

Parameters

w	the window to display into
sc	the client to report the results to

Implemented in VICI::stub::SearchStubFactory.

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

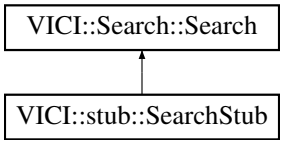
- vici.h

8.97 VICI::stub::SearchStub Class Reference

A stub version of the Search module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SearchStub:



Public Member Functions

- SearchStub (Window *w, VICI::Search::SearchClient *c)

  Constructor.
- virtual void show ()

  make the search window visible
- virtual void setNode (NodeId)

  set the identity of the current node

8.97.1 Detailed Description

A stub version of the Search module.

8.97.2 Constructor & Destructor Documentation

8.97.2.1 SearchStub::SearchStub (Window * w, VICI::Search::SearchClient * c)

Constructor.

Parameters

w	The window to display into.
c	The module that get the search results.

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

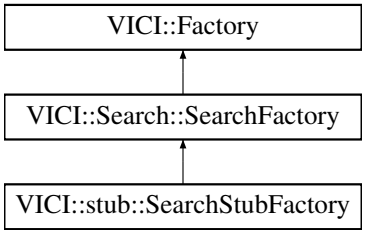
- libifstubs.h
- libifstubs.cpp

8.98 VICI::stub::SearchStubFactory Class Reference

A factory for creating stub instances of Search objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SearchStubFactory:



Public Member Functions

- virtual Search::Search * makeSearch (Window *, Search::SearchClient *)

  create an instance of the Search class

8.98.1 Detailed Description

A factory for creating stub instances of Search objects.

8.98.2 Member Function Documentation

8.98.2.1 Search::Search * SearchStubFactory::makeSearch (Window * w, Search::SearchClient * sc) [virtual]

create an instance of the Search class

Parameters

w	the window to display into
sc	the client to report the results to

Implements VICI::Search::SearchFactory.

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

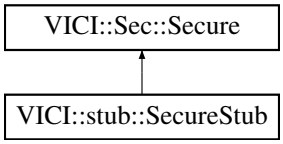
- libifstubs.h
- libifstubs.cpp

8.99 VICI::Sec::Secure Class Reference

Provide security for the scripts.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Sec::Secure:



Public Member Functions

- virtual ~Secure ()
  virtual destructor
- virtual bool verifySignature (csr filename)=0
  check to ensure we are allowed to open this file
- virtual void addSignature (csr filename)=0
  sign this file with the user's key

8.99.1 Detailed Description

Provide security for the scripts.

The facade for the security library.

The aim is to prevent users from running random scripts however this may be difficult to achieve. It may also conflict with SourceForge's terms and conditions. Hence this module will not be implemented for a while.

8.99.2 Member Function Documentation

8.99.2.1 virtual void VICI::Sec::Secure::addSignature (csr *filename*) [pure virtual]

sign this file with the user's key

Parameters

filename	add a signature to the script.

Implemented in VICI::stub::SecureStub.

8.99.2.2 virtual bool VICI::Sec::Secure::verifySignature (csr *filename*) [pure virtual]

check to ensure we are allowed to open this file

Parameters

filename	the script to verify

Returns

true if the signature is valid

Implemented in VICI::stub::SecureStub.

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

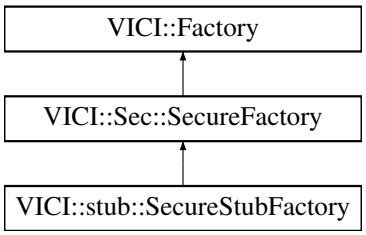
- vici.h

8.100 VICI::Sec::SecureFactory Class Reference

An abstract factory for making an instance of Secure.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Sec::SecureFactory:



Public Member Functions

- virtual ~SecureFactory ()

  virtual destructor
- virtual Secure * makeSecure ()=0

  create an instance of the Secure class

8.100.1 Detailed Description

An abstract factory for making an instance of Secure.

The implementation will create either the production version, or a stub, or a test version of the Secure class.

8.100.2 Member Function Documentation

8.100.2.1 virtual Secure* VICI::Sec::SecureFactory::makeSecure ( ) [pure virtual]

create an instance of the Secure class

return an instance of the Secure object.

Implemented in VICI::stub::SecureStubFactory.

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

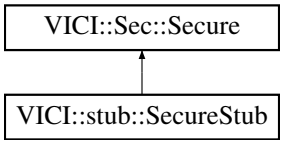
- vici.h

8.101 VICI::stub::SecureStub Class Reference

A stub version of the Secure module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SecureStub:



Public Member Functions

- virtual bool verifySignature (csr filename)
  check to ensure we are allowed to open this file
- virtual void addSignature (csr filename)
  sign this file with the user's key

8.101.1 Detailed Description

A stub version of the Secure module.

8.101.2 Member Function Documentation

8.101.2.1 void SecureStub::addSignature (csr *filename*) [virtual]

sign this file with the user's key

Parameters

filename	add a signature to the script.

Implements VICI::Sec::Secure.

8.101.2.2 bool SecureStub::verifySignature (csr *filename*) [virtual]

check to ensure we are allowed to open this file

Parameters

filename	the script to verify

Returns

true if the signature is valid

Implements VICI::Sec::Secure.

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

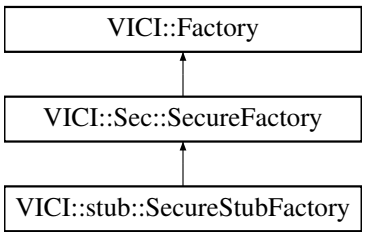
- libifstubs.h
- libifstubs.cpp

8.102 VICI::stub::SecureStubFactory Class Reference

A factory for creating stub instances of Security objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SecureStubFactory:



Public Member Functions

- virtual Sec::Secure * makeSecure ()

  create an instance of the Secure class

8.102.1 Detailed Description

A factory for creating stub instances of Security objects.

8.102.2 Member Function Documentation

8.102.2.1 Sec::Secure * SecureStubFactory::makeSecure ( ) [virtual]

create an instance of the Secure class

return an instance of the Secure object.

Implements VICI::Sec::SecureFactory.

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

- libifstubs.h
- libifstubs.cpp

8.103 VICI::cfi::Semaphore Class Reference

A semaphore for managing exclusive access to resources across multiple processes.

`#include <vici/ipc.h>`

Public Member Functions

- Semaphore (char id)

  Constructor.
- ~Semaphore ()

  Destructor.
- void acquire ()

  wait until available
- void release ()

  release exclusive lock

8.103.1 Detailed Description

A semaphore for managing exclusive access to resources across multiple processes.

Provides the ability to limit access to a resource to one process at a time.

The semaphore uses a second semaphore to manage its lifetime. The first process to create it creates the system wide semaphore, and the last to delete it removes the system wide semaphore.

8.103.2 Constructor & Destructor Documentation

8.103.2.1 Semaphore::Semaphore (char *id*)

Constructor.

Parameters

id	an identifier for the semaphore.

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

- ipc.h
- ipc.cpp

8.104 VICI::cfi::SemaphoreLock Class Reference

Mutual exclusion lock.

`#include <vici/ipc.h>`

Public Member Functions

- SemaphoreLock (Semaphore &s)

  Constructor which acquires a lock on the supplied semaphore.
- ~SemaphoreLock ()

  Destructor which releases the lock.

8.104.1 Detailed Description

Mutual exclusion lock.

Wraps the Semaphore so that it will be automatically released even if an exception is thrown.

8.104.2 Constructor & Destructor Documentation

8.104.2.1 SemaphoreLock::SemaphoreLock (Semaphore & *s*) [explicit]

Constructor which acquires a lock on the supplied semaphore.

Parameters

s	The semaphore being managed

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

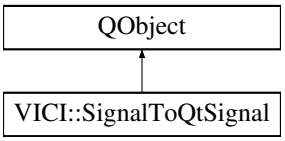
- ipc.h
- ipc.cpp

8.105 VICI::SignalToQtSignal Class Reference

A class to convert operating system signals into Qt signals.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::SignalToQtSignal:



Signals

- void notifySignal ()

  This signal is emitted when an operating signal arrives.

Public Member Functions

- void emitSignal ()

  Called by signal handler when a signal arrives.

8.105.1 Detailed Description

A class to convert operating system signals into Qt signals.

This class provides a mechanism to safely handle operating system signals and generate a Qt signal. It uses a pipe to pass a byte to a thread. The Qt signal should be connected via a queued connection.

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

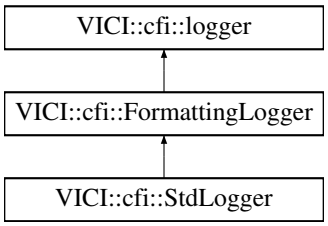
- libgui.h
- libgui.cpp

8.106 VICI::cfi::StdLogger Class Reference

Class for logging to the std output streams.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::StdLogger:



Public Types

- enum Stream { **COUT**, **CERR**, **CLOG** }

  Enumeration of the standard streams.

Public Member Functions

- StdLogger (Stream cc)

  Constructor.
- int log (Severity, csr line)

  log to the unnamed log
- int log (csr logName, Severity, csr line)

  log to the named log

Additional Inherited Members

8.106.1 Detailed Description

Class for logging to the std output streams.

8.106.2 Constructor & Destructor Documentation

8.106.2.1 VICI::cfi::StdLogger::StdLogger (Stream *cc*) [inline],[explicit]

Constructor.

Parameters

cc	enum to specify the stream to write to

8.106.3 Member Function Documentation

8.106.3.1 int StdLogger::log (Severity *sev*, csr *line*) [virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

8.106.3.2 int StdLogger::log (csr *logName*, Severity *sev*, csr *line*) [virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

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

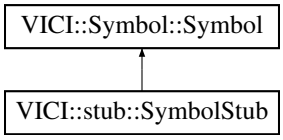
- log.h
- log.cpp

8.107 VICI::Symbol::Symbol Class Reference

Represents something that is drawn on the canvas.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Symbol::Symbol:



Public Member Functions

- virtual ~Symbol ()

  virtual destructor
- virtual Symbol * clone (SymbolOwner *owner)=0

  construct a copy of the symbol
- virtual void setAttributes (SymbolAttributes &att)=0

  change the attributes of the symbol
- virtual bool isCommand ()=0

check if the symbol represents a command object

- virtual void draw (Scene *scene, double x, double y, double scale)=0

  display the object

- virtual void attachCommand (const ArgList &args)=0

  Associate the symbol with a command.

- virtual void setNodeId (NodeId nid)=0

  Set the node id for the object.

- virtual Style getStyle ()=0

  get the style for the symbol

- virtual void setHighlight (bool x)=0

  show the symbol as selected

8.107.1 Detailed Description

Represents something that is drawn on the canvas.

The implementation will paint itself on the provided scene.

8.107.2 Member Function Documentation

8.107.2.1 virtual void VICI::Symbol::Symbol::attachCommand (const ArgList & *args*) [pure virtual]

Associate the symbol with a command.

The first entry becomes the label for the object. The entire argument list is assigned to the tool tip for the symbol.

Parameters

args	the command and its options

Implemented in VICI::stub::SymbolStub.

8.107.2.2 virtual Symbol* VICI::Symbol::Symbol::clone (SymbolOwner * *owner*) [pure virtual]

construct a copy of the symbol

Parameters

owner	the object that owns the symbol

Implemented in VICI::stub::SymbolStub.

8.107.2.3 virtual void VICI::Symbol::Symbol::draw (Scene * *scene*, double *x*, double *y*, double *scale*) [pure virtual]

display the object

Parameters

scene	the canvas on which to display the object.
x	the x coordinate on the scene
y	the y coordinate on the scene
scale	the scaling factor to use

Implemented in VICI::stub::SymbolStub.

8.107.2.4 virtual Style VICI::Symbol::Symbol::getStyle ( ) [pure virtual]

get the style for the symbol

Returns

the style of the symbol.

Implemented in VICI::stub::SymbolStub.

8.107.2.5 virtual bool VICI::Symbol::Symbol::isCommand ( ) [pure virtual]

check if the symbol represents a command object

Returns

true if the object is a command or choice

Implemented in VICI::stub::SymbolStub.

8.107.2.6 virtual void VICI::Symbol::Symbol::setAttributes (SymbolAttributes & *att*) [pure virtual]

change the attributes of the symbol

This will cause the symbol to be redisplayed with the new attributes.

Parameters

att	the new attributes.

Implemented in VICI::stub::SymbolStub.

8.107.2.7 virtual void VICI::Symbol::Symbol::setHighlight (bool *x*) [pure virtual]

show the symbol as selected

Parameters

x	True to show highlighted.

Implemented in VICI::stub::SymbolStub.

8.107.2.8 virtual void VICI::Symbol::Symbol::setNodeId (NodeId *nid*) [pure virtual]

Set the node id for the object.

Parameters

nid	The node id to show on the symbol.

Implemented in VICI::stub::SymbolStub.

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

- vici.h

8.108 VICI::Symbol::SymbolAttributes Class Reference

Holds the attributes of a symbol.

`#include <vici/vici.h>`

Public Member Functions

- SymbolAttributes ()
  constructor

Public Attributes

- Colour lineColour
  the colour for lines
- Colour fillColour
  the colour to fill the symbol
- std::string fillPattern
  the pattern to fill the symbol
- std::string linePattern
  the pattern for the lines

8.108.1 Detailed Description

Holds the attributes of a symbol.

Holds the fill colour and pattern, and the line colour and pattern for a symbol. In a future release the use will be able to modify these if they have vision issues.

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

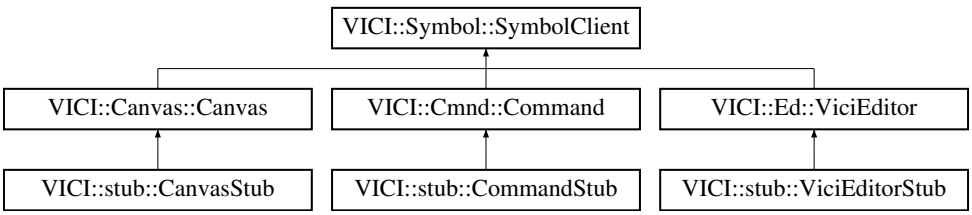
- vici.h

8.109 VICI::Symbol::SymbolClient Class Reference

An interface that is notified of changes to symbol manager.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Symbol::SymbolClient:



Public Member Functions

- virtual ~SymbolClient ()
  virtual destructor
- virtual void selection (Symbol *sym)=0
  notify that a symbol has been selected.
- virtual void symbolAttr (SymbolAttributes &att)=0
  notify that the default symbol attributes have changed
- virtual void textAttr (TextAttributes &att)=0
  notify that the default text attributes have changed

8.109.1 Detailed Description

An interface that is notified of changes to symbol manager.

This interface is implemented by objects that need to be notified when the user changes the default symbol ot attributes.

8.109.2 Member Function Documentation

8.109.2.1 virtual void VICI::Symbol::SymbolClient::selection (Symbol * *sym*) [pure virtual]

notify that a symbol has been selected.

Parameters

sym	the symbol that was selected.

Todo do we need to notify of deselection ?

Implemented in VICI::Cmnd::Command, VICI::Canvas::Canvas, VICI::stub::ViciEditorStub, VICI::stub::CanvasStub, and VICI::stub::CommandStub.

8.109.2.2 virtual void VICI::Symbol::SymbolClient::symbolAttr (SymbolAttributes & *att*) [pure virtual]

notify that the default symbol attributes have changed

Parameters

att	the new default attributes

Implemented in VICI::Cmnd::Command, VICI::Canvas::Canvas, VICI::stub::ViciEditorStub, VICI::stub::CanvasStub, and VICI::stub::CommandStub.

8.109.2.3 virtual void VICI::Symbol::SymbolClient::textAttr (TextAttributes & *att*) [pure virtual]

notify that the default text attributes have changed

Parameters

att	the new default text attributes.

Implemented in VICI::Cmnd::Command, VICI::Canvas::Canvas, VICI::stub::ViciEditorStub, VICI::stub::CanvasStub, and VICI::stub::CommandStub.

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

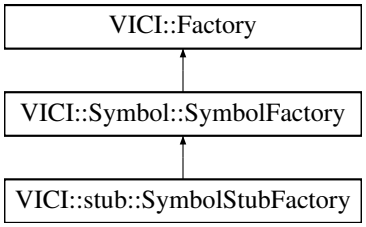
- vici.h

8.110 VICI::Symbol::SymbolFactory Class Reference

An abstract factory for making an instance of SymbolMgr.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Symbol::SymbolFactory:



Public Member Functions

- virtual ~SymbolFactory ()
  virtual destructor
- virtual SymbolMgr * makeSymbolMgr (Window *w)=0
  create an instance of the SymbolMgr class

8.110.1 Detailed Description

An abstract factory for making an instance of SymbolMgr.

The implementation will create either the production version, or a stub, or a test version of the SymbolMgr class.

8.110.2 Member Function Documentation

8.110.2.1 virtual SymbolMgr* VICI::Symbol::SymbolFactory::makeSymbolMgr (Window * *w*) [pure virtual]

create an instance of the SymbolMgr class

Parameters

w	the window to display into.

Implemented in VICI::stub::SymbolStubFactory.

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

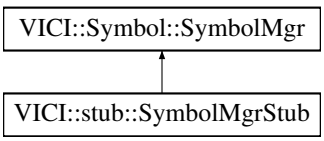
- vici.h

8.111 VICI::Symbol::SymbolMgr Class Reference

The facade for the symbol library.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Symbol::SymbolMgr:



Public Member Functions

- virtual ~SymbolMgr ()

virtual destructor

- virtual void addClient (SymbolClient *client)=0

  add a client for the symbol manager

- virtual SymbolAttributes getDefaultAttr (Style s)=0

  get the attributes for a symbol of the given style

- virtual TextAttributes getDefaultTextAttr ()=0

  get the current default text attributes

- virtual Symbol * getSymbol (Style style, SymbolOwner *owner)=0

  get a new symbol of the specified style

8.111.1 Detailed Description

The facade for the symbol library.

The implementation of this class will provide access to the symbol user interface.

8.111.2 Member Function Documentation

8.111.2.1 virtual void VICI::Symbol::SymbolMgr::addClient (SymbolClient * *client*) [pure virtual]

add a client for the symbol manager

Parameters

client	the object to notify of user actions.

Implemented in VICI::stub::SymbolMgrStub.

8.111.2.2 virtual SymbolAttributes VICI::Symbol::SymbolMgr::getDefaultAttr (Style *s*) [pure virtual]

get the attributes for a symbol of the given style

Parameters

s	the style of the symbol to get the attributes for.

Returns

the attributes

Implemented in VICI::stub::SymbolMgrStub.

8.111.2.3 virtual TextAttributes VICI::Symbol::SymbolMgr::getDefaultTextAttr ( ) [pure virtual]

get the current default text attributes

Returns

the attributes

Implemented in VICI::stub::SymbolMgrStub.

8.111.2.4 virtual Symbol* VICI::Symbol::SymbolMgr::getSymbol (Style *style*, SymbolOwner * *owner*) [pure virtual]

get a new symbol of the specified style

Parameters

style	the style of the requested symbol
owner	the owner for the returned symbol

Returns

the new symbol

Implemented in VICI::stub::SymbolMgrStub.

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

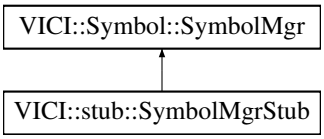
- vici.h

8.112 VICI::stub::SymbolMgrStub Class Reference

A stub version of the Symbol Manager.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SymbolMgrStub:



Public Member Functions

- SymbolMgrStub (Window *w)
  Costructor.
- virtual void addClient (Symbol::SymbolClient *)
  add a client for the symbol manager
- virtual Symbol::SymbolAttributes getDefaultAttr (Symbol::Style)
  get the attributes for a symbol of the given style
- virtual Symbol::TextAttributes getDefaultTextAttr ()
  get the current default text attributes
- virtual Symbol::Symbol * getSymbol (Symbol::Style, Symbol::SymbolOwner *)
  get a new symbol of the specified style

8.112.1 Detailed Description

A stub version of the Symbol Manager.

8.112.2 Constructor & Destructor Documentation

8.112.2.1 SymbolMgrStub::SymbolMgrStub (Window * *w*)

Costructor.

Parameters

w	The window to display into.

8.112.3 Member Function Documentation

8.112.3.1 void SymbolMgrStub::addClient (Symbol::SymbolClient * *client*) [virtual]

add a client for the symbol manager

Parameters

client	the object to notify of user actions.

Implements VICI::Symbol::SymbolMgr.

8.112.3.2 Symbol::SymbolAttributes SymbolMgrStub::getDefaultAttr (Symbol::Style *s*) [virtual]

get the attributes for a symbol of the given style

Parameters

s	the style of the symbol to get the attributes for.

Returns

the attributes

Implements VICI::Symbol::SymbolMgr.

8.112.3.3 Symbol::TextAttributes SymbolMgrStub::getDefaultTextAttr ( ) [virtual]

get the current default text attributes

Returns

the attributes

Implements VICI::Symbol::SymbolMgr.

8.112.3.4 Symbol::Symbol * SymbolMgrStub::getSymbol (Symbol::Style *style*, Symbol::SymbolOwner * *owner*) [virtual]

get a new symbol of the specified style

Parameters

style	the style of the requested symbol
owner	the owner for the returned symbol

Returns

the new symbol

Implements VICI::Symbol::SymbolMgr.

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

- libifstubs.h
- libifstubs.cpp

8.113 VICI::Symbol::SymbolOwner Class Reference

Represents something that is notified about events occurring on a symbol.

`#include <vici/vici.h>`

Public Member Functions

- virtual ~SymbolOwner ()
  virtual destructor
- virtual void selected ()=0
  the object has become selected
- virtual void opened ()=0
- virtual void dragged (double x, double y)=0
  the object was moved

8.113.1 Detailed Description

Represents something that is notified about events occurring on a symbol.

The object that owns the symbol gets called via this interface when the user interacts with the symbol.

8.113.2 Member Function Documentation

8.113.2.1 virtual void VICI::Symbol::SymbolOwner::dragged (double *x*, double *y*) [pure virtual]

the object was moved

Parameters

x	the new x coordinate of the symbol
y	the new y coordinate of the symbol

8.113.2.2 virtual void VICI::Symbol::SymbolOwner::opened ( ) [pure virtual]

the object was opened

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

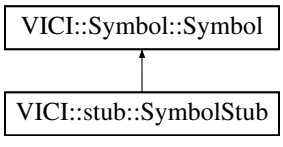
- vici.h

8.114 VICI::stub::SymbolStub Class Reference

A stub version of the Symbol class.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SymbolStub:



Public Member Functions

- SymbolStub (bool command)

  Constructor.
- virtual Symbol * clone (VICI::Symbol::SymbolOwner *)

  construct a copy of the symbol
- virtual bool isCommand ()

  check if the symbol represents a command object
- virtual void setAttributes (VICI::Symbol::SymbolAttributes &)

  change the attributes of the symbol
- virtual void draw (Scene *, double x, double y, double scale)

  display the object
- virtual void attachCommand (const ArgList &)

  Associate the symbol with a command.
- virtual void setNodeId (NodeId)

  Set the node id for the object.
- virtual VICI::Symbol::Style getStyle ()

  get the style for the symbol
- virtual void setHighlight (bool)

  show the symbol as selected

8.114.1 Detailed Description

A stub version of the Symbol class.

8.114.2 Constructor & Destructor Documentation

8.114.2.1 VICI::stub::SymbolStub::SymbolStub (bool *command*) [inline]

Constructor.

Parameters

command	True if the symbol represents a command.

8.114.3 Member Function Documentation

8.114.3.1 virtual void VICI::stub::SymbolStub::attachCommand (const ArgList & *args*) [inline], [virtual]

Associate the symbol with a command.

The first entry becomes the label for the object. The entire argument list is assigned to the tool tip for the symbol.

Parameters

args	the command and its options

Implements VICI::Symbol::Symbol.

8.114.3.2 virtual Symbol* VICI::stub::SymbolStub::clone (VICI::Symbol::SymbolOwner * *owner*) [inline], [virtual]

construct a copy of the symbol

Parameters

owner	the object that owns the symbol

Implements VICI::Symbol::Symbol.

8.114.3.3 virtual void VICI::stub::SymbolStub::draw (Scene * *scene*, double *x*, double *y*, double *scale*) [inline], [virtual]

display the object

Parameters

scene	the canvas on which to display the object.
x	the x coordinate on the scene
y	the y coordinate on the scene
scale	the scaling factor to use

Implements VICI::Symbol::Symbol.

8.114.3.4 virtual VICI::Symbol::Style VICI::stub::SymbolStub::getStyle ( ) [inline], [virtual]

get the style for the symbol

Returns

the style of the symbol.

Implements VICI::Symbol::Symbol.

8.114.3.5 virtual bool VICI::stub::SymbolStub::isCommand ( ) [inline], [virtual]

check if the symbol represents a command object

Returns

true if the object is a command or choice

Implements VICI::Symbol::Symbol.

8.114.3.6 virtual void VICI::stub::SymbolStub::setAttributes (VICI::Symbol::SymbolAttributes & *att*) [inline], [virtual]

change the attributes of the symbol

This will cause the symbol to be redisplayed with the new attributes.

Parameters

att	the new attributes.

Implements VICI::Symbol::Symbol.

8.114.3.7 virtual void VICI::stub::SymbolStub::setHighlight (bool *x*) [inline], [virtual]

show the symbol as selected

Parameters

x	True to show highlighted.

Implements VICI::Symbol::Symbol.

8.114.3.8 virtual void VICI::stub::SymbolStub::setNodeId (NodeId *nid*) [inline], [virtual]

Set the node id for the object.

Parameters

nid	The node id to show on the symbol.

Implements VICI::Symbol::Symbol.

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

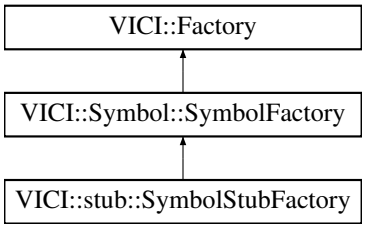
- libifstubs.h

8.115 VICI::stub::SymbolStubFactory Class Reference

A factory for creating stub instances of Symbol Manager objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SymbolStubFactory:



Public Member Functions

- virtual Symbol::SymbolMgr * makeSymbolMgr (Window *)
  create an instance of the SymbolMgr class

8.115.1 Detailed Description

A factory for creating stub instances of Symbol Manager objects.

8.115.2 Member Function Documentation

8.115.2.1 Symbol::SymbolMgr * SymbolStubFactory::makeSymbolMgr (Window * *w*) [virtual]

create an instance of the SymbolMgr class

Parameters

w	the window to display into.

Implements VICI::Symbol::SymbolFactory.

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

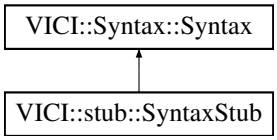
- libifstubs.h
- libifstubs.cpp

8.116 VICI::Syntax::Syntax Class Reference

Display a syntax chart of command options.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Syntax::Syntax:



Public Member Functions

- virtual ~Syntax ()

  virtual destructor
- virtual void show (csr s)=0

  display the syntax chart for the supplied ebnf

8.116.1 Detailed Description

Display a syntax chart of command options.

The definition of the facade for libsyntax.

The implementation will display a syntax chart of command options, allowing the user to navigate between non-terminal nodes of the EBNF.

8.116.2 Member Function Documentation

8.116.2.1 virtual void VICI::Syntax::Syntax::show (csr *s*) [pure virtual]

display the syntax chart for the supplied ebnf

Parameters

s	the EBNF to build the chart for.

Implemented in VICI::stub::SyntaxStub.

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

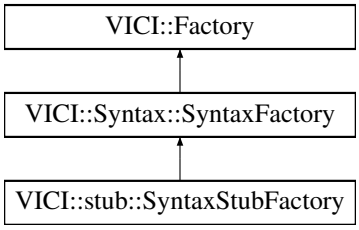
- vici.h

8.117 VICI::Syntax::SyntaxFactory Class Reference

An abstract factory for making an instance of Syntax.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Syntax::SyntaxFactory:



Public Member Functions

- virtual ~SyntaxFactory ()
  virtual destructor
- virtual Syntax * makeSyntax (Window *w, EBNF::EBNF *ebnf)=0
  Create an instance of Syntax.

8.117.1 Detailed Description

An abstract factory for making an instance of Syntax.

An abstract factory for making an instance of Syntax. The implementation will create either the production version, or a stub, or a test version of the Syntax class.

8.117.2 Member Function Documentation

8.117.2.1 virtual Syntax* VICI::Syntax::SyntaxFactory::makeSyntax (Window * *w*, EBNF::EBNF * *ebnf*) [pure virtual]

Create an instance of Syntax.

Parameters

w	the window to display the chart in.
ebnf	pointer to the EBNF object for parsing the option parameters.

Returns

an instance of Syntax

Implemented in VICI::stub::SyntaxStubFactory.

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

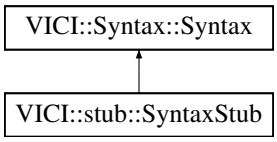
- vici.h

8.118 VICI::stub::SyntaxStub Class Reference

A stub version of the Syntax module interface.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SyntaxStub:



Public Member Functions

- SyntaxStub (Window *w, EBNF::EBNF *e)
  Costructor.
- virtual void show (csr s)
  display the syntax chart for the supplied ebnf

Protected Attributes

- Window * win
  The window to display on.
- EBNF::EBNF * ebnf
  The EBNF module.

8.118.1 Detailed Description

A stub version of the Syntax module interface.

8.118.2 Constructor & Destructor Documentation

8.118.2.1 SyntaxStub::SyntaxStub (Window * *w*, EBNF::EBNF * *e*)

Costructor.

Parameters

w	The window to display on.
e	The EBNF module.

8.118.3 Member Function Documentation

8.118.3.1 void SyntaxStub::show (csr *s*) [virtual]

display the syntax chart for the supplied ebnf

Parameters

s	the EBNF to build the chart for.

Implements VICI::Syntax::Syntax.

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

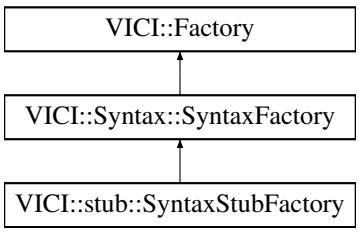
- libifstubs.h
- libifstubs.cpp

8.119 VICI::stub::SyntaxStubFactory Class Reference

A factory for creating SyntaxStub objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::SyntaxStubFactory:



Public Member Functions

- virtual Syntax::Syntax * makeSyntax (Window *, EBNF::EBNF *)

  Create an instance of Syntax.

8.119.1 Detailed Description

A factory for creating SyntaxStub objects.

8.119.2 Member Function Documentation

8.119.2.1 Syntax::Syntax * SyntaxStubFactory::makeSyntax (Window * *w*, EBNF::EBNF * *ebnf*) [virtual]

Create an instance of Syntax.

Parameters

w	the window to display the chart in.
ebnf	pointer to the EBNF object for parsing the option parameters.

Returns

an instance of Syntax

Implements VICI::Syntax::SyntaxFactory.

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

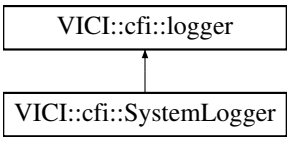
- libifstubs.h
- libifstubs.cpp

8.120 VICI::cfi::SystemLogger Class Reference

logger that interfaces to the Linux syslog

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::SystemLogger:



Public Member Functions

- SystemLogger (csr ident)
- int log (Severity, csr line)

  log to the unnamed log
- int log (csr logName, Severity, csr line)

  log to the named log

Additional Inherited Members

8.120.1 Detailed Description

logger that interfaces to the Linux syslog

8.120.2 Constructor & Destructor Documentation

8.120.2.1 SystemLogger::SystemLogger (csr *ident*)

Parameters

ident	the identifier for the log.

8.120.3 Member Function Documentation

8.120.3.1 int SystemLogger::log (Severity *sev*, csr *line*) [virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

8.120.3.2 int SystemLogger::log (csr *logName*, Severity *sev*, csr *line*) [virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

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

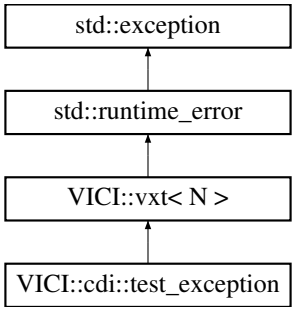
- log.h
- log.cpp

8.121 VICI::cdi::test_exception Class Reference

throw this to abandon a particular test case

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::test_exception:



Public Member Functions

- test_exception ()
  Constructor.

Additional Inherited Members

8.121.1 Detailed Description

throw this to abandon a particular test case

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

- testmgr.h

8.122 VICI::gth::TestAction Struct Reference

A single action that can be applied to a GUI.

`#include <vici/libgth.h>`

Public Attributes

- std::string label

  Destination label for jumps.
- int delay

  Time to wait in milliseconds.
- std::string widgetName

  The name of the widget.
- std::string command

  The command to run.
- ParamList params

  The parameters for the command.
- std::string assignmentRegex

  Regular expression for specifying values for variables.
- ParamList assignmentNames

  The variables to accept the values.
- std::vector< std::pair < std::string, std::string > > jumps

  Pairs of regular expressions and jump labels.

8.122.1 Detailed Description

A single action that can be applied to a GUI.

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

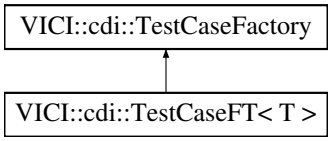
- libgth.h

8.123 VICI::cdi::TestCaseFactory Class Reference

Define a base type for test case factories.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::TestCaseFactory:



Public Member Functions

- virtual ~TestCaseFactory ()

  Destructor.
- virtual AbstractTestCase * make (csr nm)=0

  Create an instance of the test case object.

8.123.1 Detailed Description

Define a base type for test case factories.

8.123.2 Member Function Documentation

8.123.2.1 virtual AbstractTestCase* VICI::cdi::TestCaseFactory::make (csr *nm*) [pure virtual]

Create an instance of the test case object.

Parameters

nm	The name of the test case

Returns

A pointer to a new instance of the test case.

Implemented in VICI::cdi::TestCaseFT< T >.

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

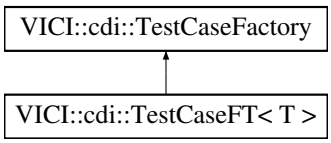
- testmgr.h

8.124 VICI::cdi::TestCaseFT< T > Class Template Reference

Responsible for creating a test case of some type.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::TestCaseFT< T >:



Public Member Functions

- AbstractTestCase * make (csr nm)
  Create a test case object.

8.124.1 Detailed Description

template<class T>class VICI::cdi::TestCaseFT< T >

Responsible for creating a test case of some type.

8.124.2 Member Function Documentation

8.124.2.1 template<class T > AbstractTestCase* VICI::cdi::TestCaseFT< T >::make (csr *nm*) [inline], [virtual]

Create a test case object.

Parameters

nm	The name of the test case

Returns

A pointer to a new instance of the test case.

Implements VICI::cdi::TestCaseFactory.

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

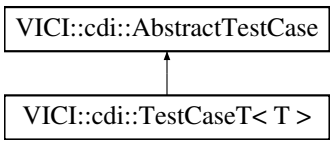
- testmgr.h

8.125 VICI::cdi::TestCaseT< T > Class Template Reference

Responsible for installing a factory for the test case.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::TestCaseT< T >:



Public Member Functions

- TestCaseT (csr nm)
  Constructor.

Static Public Member Functions

- static void install (csr nm, csr scn)
  Install a factory for the test case.

Additional Inherited Members

8.125.1 Detailed Description

template<class T>class VICI::cdi::TestCaseT< T >

Responsible for installing a factory for the test case.

8.125.2 Constructor & Destructor Documentation

8.125.2.1 template<class T> VICI::cdi::TestCaseT< T >::TestCaseT (csr *nm*) [inline]

Constructor.

Parameters

nm	The name of the test case.

8.125.3 Member Function Documentation

8.125.3.1 template<class T> static void VICI::cdi::TestCaseT< T >::install (csr *nm*, csr *scn*) [inline], [static]

Install a factory for the test case.

Parameters

nm	The name of the test case
scn	The name of enclosing scenario.

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

- testmgr.h

8.126 VICI::cdi::Tester Class Reference

Responsible for managing the testing.

`#include <vici/testmgr.h>`

Public Member Functions

- void configure (csr testName)
  specify the name of the test as in the configuration file
- csr getTestName ()
  Get the name of the test.
- virtual ~Tester ()
  Destructor.
- cfi::logstream & log ()
  Get a reference to the logging stream used for the testing.
- void addTestCase (csr name, csr scenario, TestCaseFactory *tcf)
  Add a test case factory.
- void runTestCase (csr scenarioName, csr testCaseName, ScenarioResults *)
  Run a specific test case.
- void getTestCases (csr scenarioName, std::set< std::string > &testCases)
  Get the test case names for a scenario.
- void addScenario (csr scenario, ScenarioFactory *sf)
  Add a scenario factory.
- void setTest (TestFactory *t)
  Set the main test object factory.
- AbstractTest * getTest ()
  Get the test object.
- AbstractScenario * getScenario ()
  Get the current scenario object.
- virtual void runTests ()
  Run all the tests.
- bool summary ()
  Print a summary of the testing to the log stream.

Static Public Member Functions

- static Tester & instance ()

  Get a reference to the Tester.

Protected Member Functions

- Tester ()

  Protected Constructor.
- void title ()

  Print title for the test.
- void installDefaults ()

  Install default test and scenario objects.
- void testScenario (csr scenario, ScenarioFactory *scn)

  Do testing of a scenario.

Protected Attributes

- std::string nameOfTest

  Identifier for test in the configuration file.
- std::string logName

  Identifier for the log.
- bool failed

  Flag to hold overall testing result.
- std::map< std::string, std::map< std::string, TestCaseFactory * > > tests

  Factories for test cases indexed by name and scenario name.
- std::map< std::string, ScenarioFactory * > scenarios

  Factories for scenarios indexed by scenario name.
- std::map< std::string, ScenarioResults * > results

  Results for scenario tests indexed by scenario name.
- TestFactory * theTest

  Factor for the overall test.
- AbstractTest * absTest

  Pointer to the abstract test object. Only valid during the test run.
- AbstractScenario * absScenario

  Pointer to the abstract scenario object. Only valid during the test run.

8.126.1 Detailed Description

Responsible for managing the testing.

A singleton that manages the testing, accumlates the test results and provides a report.

8.126.2 Member Function Documentation

8.126.2.1 void Tester::addScenario (csr *scenario*, ScenarioFactory * *sf*)

Add a scenario factory.

Parameters

scenario	The name of the scenario
sf	The factory for the scenario

8.126.2.2 void Tester::addTestCase (csr *name*, csr *scenario*, TestCaseFactory * *tcf*)

Add a test case factory.

Parameters

name	The name of the test case.
scenario	The name of the enclosing scenario.
tcf	The factory for the test case.

8.126.2.3 void Tester::configure (csr *testName*)

specify the name of the test as in the configuration file

Parameters

testName	The name of the test in the config file.

8.126.2.4 AbstractScenario* VICI::cdi::Tester::getScenario ( ) [inline]

Get the current scenario object.

Returns

The current scenario object

8.126.2.5 AbstractTest* VICI::cdi::Tester::getTest ( ) [inline]

Get the test object.

Returns

The test object

8.126.2.6 csr VICI::cdi::Tester::getTestName ( ) [inline]

Get the name of the test.

Returns

the name of test

8.126.2.7 Tester & Tester::instance ( ) [static]

Get a reference to the Tester.

Returns

A reference to the Tester singleton object.

8.126.2.8 logstream & Tester::log ( )

Get a reference to the logging stream used for the testing.

Returns

A reference to the logging stream

8.126.2.9 void VICI::cdi::Tester::setTest (TestFactory * *t*) [inline]

Set the main test object factory.

Parameters

t	The factory for the test object.

8.126.2.10 bool Tester::summary ( )

Print a summary of the testing to the log stream.

Returns

true if the testing found no unexpected errors

8.126.2.11 void Tester::testScenario (csr *scenario*, ScenarioFactory * *scn*) [protected]

Do testing of a scenario.

Parameters

scenario	The name of the scenario.
scn	The factory for creating the scenario object

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

- testmgr.h
- testmgr.cpp

8.127 VICI::cdi::TestEvent Class Reference

Represent an event in the object under test.

`#include <vici/testmgr.h>`

Public Member Functions

- TestEvent (const std::string &s)

  Constructor.
- const std::string & id ()

  Get the identity of the event.

8.127.1 Detailed Description

Represent an event in the object under test.

These objects are placed into a queue when an event of interest occurs in the object under test. The AsyncTestCase object will get the object from the queue and perform checks on the object under test.

8.127.2 Constructor & Destructor Documentation

8.127.2.1 VICI::cdi::TestEvent::TestEvent (const std::string & *s*) [inline]

Constructor.

Parameters

s	The identity of the event.

8.127.3 Member Function Documentation

8.127.3.1 const std::string& VICI::cdi::TestEvent::id ( ) [inline]

Get the identity of the event.

Returns

The identifier for the event.

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

- testmgr.h

8.128 VICI::cdi::TestEventQueue Class Reference

Responsible for queuing TestEvents.

`#include <vici/testmgr.h>`

Public Member Functions

- ~TestEventQueue ()

  Destructor.
- void enqueueEvent (TestEvent *)

  Place the event on the queue.

Static Public Member Functions

- static TestEventQueue & instance ()

  Get reference to the singleton queue object.
- static void event (csr id)

  Create a TestEvent, queue it, and wait for it to be processed.

Public Attributes

- std::mutex eventMx

  Control access to the queue.
- std::list< TestEvent * > events

  The queue.
- std::set< std::string > runningEvents

  The set of events being handled.
- std::mutex functionsMx

  Control access to list of running events.
- std::condition_variable eventCV

  Wait for event to be queued or processed.

Protected Member Functions

- TestEventQueue ()

  Constructor.

8.128.1 Detailed Description

Responsible for queuing TestEvents.

The queue provides a condition variable that allows the test case to wait until an event has been queued.

8.128.2 Member Function Documentation

8.128.2.1 void TestEventQueue::enqueueEvent (TestEvent * *ev*)

Place the event on the queue.

Parameters

ev	The TestEvent object to place on the queue

8.128.2.2 void TestEventQueue::event (csr *id*) [static]

Create a TestEvent, queue it, and wait for it to be processed.

Parameters

id	The identity for the event

8.128.2.3 TestEventQueue & TestEventQueue::instance ( ) [static]

Get reference to the singleton queue object.

Returns

reference to the TestEventQueue

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

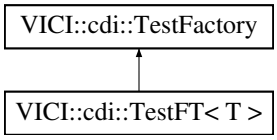
- testmgr.h
- testmgr.cpp

8.129 VICI::cdi::TestFactory Class Reference

Responsible for creating an object that manages the resources for the entire test.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::TestFactory:



Public Member Functions

- virtual ~TestFactory ()

  Destructor.
- virtual AbstractTest * make ()=0

  Create an instance of the test object.

8.129.1 Detailed Description

Responsible for creating an object that manages the resources for the entire test.

8.129.2 Member Function Documentation

8.129.2.1 virtual AbstractTest* VICI::cdi::TestFactory::make ( ) [pure virtual]

Create an instance of the test object.

Returns

Pointer to the test object.

Implemented in VICI::cdi::TestFT< T >.

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

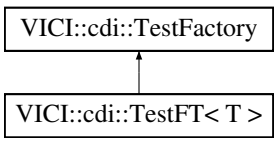
- testmgr.h

8.130 VICI::cdi::TestFT< T > Class Template Reference

Responsible for creating a test object of the required type.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::TestFT< T >:



Public Member Functions

- AbstractTest * make ()
  Construct a Test object.

8.130.1 Detailed Description

template<class T>class VICI::cdi::TestFT< T >

Responsible for creating a test object of the required type.

8.130.2 Member Function Documentation

8.130.2.1 template<class T > AbstractTest* VICI::cdi::TestFT< T >::make ( ) [inline], [virtual]

Construct a Test object.

Returns

pointer to a new object derived from AbstractTest

Implements VICI::cdi::TestFactory.

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

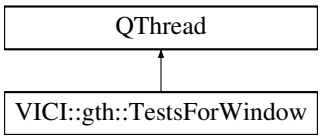
- testmgr.h

8.131 VICI::gth::TestsForWindow Class Reference

Provides a thread for applying test cases to a window.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::TestsForWindow:



Signals

- void sendAdaptor (const std::string &tcname, const std::string &widgetName, const std::string &command, const std::vector< std::string > &params)
  A signal containing the adaptor to run in the GUI thread.

Public Member Functions

- TestsForWindow (GTHTest *, csr window, bool isMainWindow)
  Constructor.
- ~TestsForWindow ()
  Destructor.

- void addSequence ()

  Increment the sequence number.
- void addTest (csr testCase)

  Add a test case to the current sequence.
- void addAction (csr testCase, ConDes, const TestAction &)

  Add an action to a test case.
- void addScript (csr chunk)

  Add a Lua script.
- csr name ()

  Get the name of the window.
- virtual void run ()

  Begin execution of the thread.
- void pause ()

  Pause the thread.
- void resume ()

  Resume execution of the thread.
- bool checkPaused ()

  Test if paused.
- void jumpThread (csr tcname, csr widgetName, csr command, const std::vector< std::string > &params)

  Run the action in the GUI thread.
- void jumpNotify ()

  Notification that the action has completed.

8.131.1 Detailed Description

Provides a thread for applying test cases to a window.

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

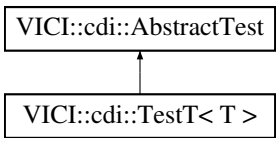
- libgth.h
- libgth.cpp

8.132 VICI::cdi::TestT< T > Class Template Reference

Responsible for installing a factory for making test objects.

`#include <vici/testmgr.h>`

Inheritance diagram for VICI::cdi::TestT< T >:



Static Public Member Functions

- static void install ()

  Install a factory for a type of AbstractTest object.

Additional Inherited Members

8.132.1 Detailed Description

template<class T>class VICI::cdi::TestT< T >

Responsible for installing a factory for making test objects.

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

- testmgr.h

8.133 VICI::Symbol::TextAttributes Class Reference

Hold the attributes of a text comment.

`#include <vici/vici.h>`

Public Member Functions

- TextAttributes ()
  constructor

Public Attributes

- std::string fontName
  the name of the font face
- float fontSize
  the size of the font

8.133.1 Detailed Description

Hold the attributes of a text comment.

Holds the font size, and name for text objects.

Todo should also include the style - bold, itallic, normal

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

- vici.h

8.134 VICI::cdi::Trace Class Reference

This class is used to create trace log entries.

`#include <vici/trace.h>`

Public Member Functions

- Trace (int n)
  Constructor.

- Trace (int n, csr file)

  Constructor.
- template<class T >
  Trace & operator<< (T x)

  Stream output operator.
- ~Trace ()

  Destructor.

8.134.1 Detailed Description

This class is used to create trace log entries.

Objects of this class should only be transient. i.e. don't actually name the object, so that when the statement ends the destructor is called immediately.

Typical usage is TRACE(3) << "my trace message";

8.134.2 Constructor & Destructor Documentation

8.134.2.1 Trace::Trace (int *n*) [explicit]

Constructor.

Parameters

n	debug level. See Tracer for detailed explanation.

8.134.2.2 Trace::Trace (int *n*, csr *file*)

Constructor.

Parameters

n	debug level. See Tracer for detailed explanation.
file	source file.

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

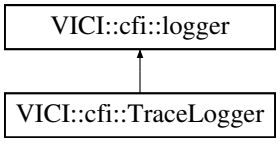
- trace.h
- trace.cpp

8.135 VICI::cfi::TraceLogger Class Reference

Class for logging tracing output.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::TraceLogger:



Public Member Functions

- TraceLogger (const Path &fname)
- int log (Severity, csr line)

  log to the unnamed log
- int log (csr logName, Severity, csr line)

  log to the named log

Protected Attributes

- std::ofstream f

  The logging stream.

Additional Inherited Members

8.135.1 Detailed Description

Class for logging tracing output.

8.135.2 Constructor & Destructor Documentation

8.135.2.1 TraceLogger::TraceLogger (const Path & *fname*)

Parameters

fname	the name of the log file.

8.135.3 Member Function Documentation

8.135.3.1 int TraceLogger::log (Severity *sev,* csr *line*) [virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

8.135.3.2 int TraceLogger::log (csr *logName,* Severity *sev,* csr *line*) [virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

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

- log.h
- log.cpp

8.136 VICI::cdi::Tracer Class Reference

This class manages the tracing for an application.

`#include <vici/trace.h>`

Public Types

- enum CallEntry { **ENTER** =+1, **EXIT** =-1, **NONE** =0 }
  Indicator for entry or exit of a function.

Public Member Functions

- void log (csr file, int level, CallEntry call, csr text)
  Write a trace line to the log stream.

Static Public Member Functions

- static Tracer & instance ()
  Get an instance of the singleton object.

8.136.1 Detailed Description

This class manages the tracing for an application.

This class is responsible for managing tracing for an application.

It handles both normal trace messages and function call tracing.

Trace messages are sent to the log stream defined for tracing in the XINI configuration file. The messages have microsecond resolution timestamps to enable accurate comparison of messages from multiple processes.

Tracing can be controlled on a file by file basis by setting the debug level for the file in the tracing section of the XINI configuration file.

8.136.2 Member Function Documentation

8.136.2.1 void Tracer::log (csr *file*, int *level*, CallEntry *call*, csr *text*)

Write a trace line to the log stream.

Parameters

file	determines the debugging level for that file from sourceMap
level	the current debug level
call	+1 on entry, -1 on exit, 0 otherwise
text	the log message

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

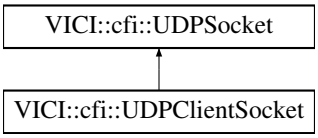
- trace.h
- trace.cpp

8.137 VICI::cfi::UDPClientSocket Class Reference

A UDP client socket.

`#include <sos/udpsocket.h>`

Inheritance diagram for VICI::cfi::UDPClientSocket:



Public Member Functions

- UDPClientSocket (csr host, int portid)

  Constructor.

Additional Inherited Members

8.137.1 Detailed Description

A UDP client socket.

A UDP socket which send messages to a specified server.

8.137.2 Constructor & Destructor Documentation

8.137.2.1 UDPClientSocket::UDPClientSocket (csr *host,* int *portid*)

Constructor.

Parameters

host	the name of the server to send to
portid	the port for the listening server

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

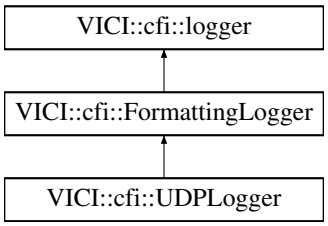
- udpsocket.h
- udpsocket.cpp

8.138 VICI::cfi::UDPLogger Class Reference

Class for logging to a logging server.

`#include <vici/log.h>`

Inheritance diagram for VICI::cfi::UDPLogger:



Public Member Functions

- UDPLogger (csr hostname, int port)
- int log (Severity, csr line)

  log to the unnamed log
- int log (csr logName, Severity, csr line)

  log to the named log

Protected Attributes

- UDPClientSocket socket

  the udp socket connected to the logging server

Additional Inherited Members

8.138.1 Detailed Description

Class for logging to a logging server.

8.138.2 Constructor & Destructor Documentation

8.138.2.1 UDPLogger::UDPLogger (csr *hostname,* int *port*)

Parameters

hostname	the identity of the log server in the configuration file
port	the port to send to

8.138.3 Member Function Documentation

8.138.3.1 int UDPLogger::log (Severity *sev,* csr *line*) [virtual]

log to the unnamed log

Parameters

sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

8.138.3.2 int UDPLogger::log (csr *logName,* Severity *sev,* csr *line*) [virtual]

log to the named log

Parameters

logName	the name of the log stream to write to
sev	the severity level for the message
line	the message to place in the log

Returns

the number of characters from the string that were written.

Implements VICI::cfi::logger.

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

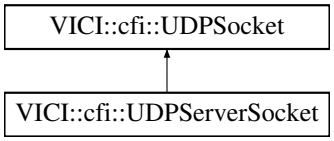
- log.h
- log.cpp

8.139 VICI::cfi::UDPServerSocket Class Reference

A UDP Server socket.

`#include <udpsocket.h>`

Inheritance diagram for VICI::cfi::UDPServerSocket:



Public Member Functions

- UDPServerSocket (int portid)

  Constructor.
- void send (csr message, csr host, int port)

  send message to specified host and port. Used for replies.

Additional Inherited Members

8.139.1 Detailed Description

A UDP Server socket.

A UDP socket which accepts incoming packets.

8.139.2 Constructor & Destructor Documentation

8.139.2.1 UDPServerSocket::UDPServerSocket (int *portid*)

Constructor.

Parameters

portid	the port to listen on.

8.139.3 Member Function Documentation

8.139.3.1 void UDPServerSocket::send (csr *message*, csr *host*, int *port*)

send message to specified host and port. Used for replies.

Parameters

message	the text to send.
host	the machine to send to.
port	the port to send to.

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

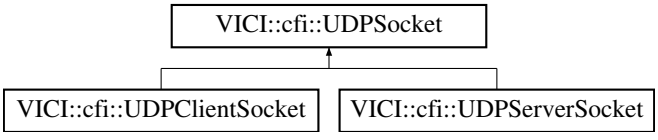
- udpsocket.h
- udpsocket.cpp

8.140 VICI::cfi::UDPSocket Class Reference

An abstract base class with common stuff for UDP sockets.

`#include <sos/udpsocket.h>`

Inheritance diagram for VICI::cfi::UDPSocket:



Public Member Functions

- virtual ~UDPSocket ()

  destructor
- int fd ()

  get the file descriptor for the socket

- void send (csr message)

  send a message via the socket's file descriptor
- void recv (std::string &message, std::string &host, int &port)

  wait for the next incoming message

Static Public Attributes

- static const int BUFFER_SIZE = 16000

Protected Member Functions

- UDPSocket ()

  constructor

Protected Attributes

- struct sockaddr_in addr

  internal address structure
- unsigned int addr_len

  size of address structure
- int sd

  file descriptor

8.140.1 Detailed Description

An abstract base class with common stuff for UDP sockets.

The common code for client and server udp sockets which manages the file descriptor and the buffer for the messages.

8.140.2 Member Function Documentation

8.140.2.1 void UDPSocket::recv (std::string & *message*, std::string & *host*, int & *port*)

wait for the next incoming message

Parameters

message	a string into which the message is placed
host	the host name of the sending machine
port	the port of the sending machine.

8.140.2.2 void UDPSocket::send (csr *message*)

send a message via the socket's file descriptor

Parameters

message	the text to send.

8.140.3 Member Data Documentation

8.140.3.1 const int VICI::cfi::UDPSocket::BUFFER_SIZE = 16000 [static]

the max size for udp packets is 64K but we should keep them as small as possible and send several if needs be.

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

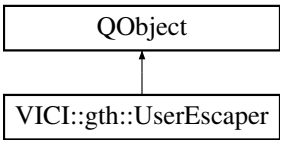
- udpsocket.h
- udpsocket.cpp

8.141 VICI::gth::UserEscaper Class Reference

A class for allowing the user to suspend the test.

`#include <vici/libgth.h>`

Inheritance diagram for VICI::gth::UserEscaper:



Public Member Functions

- UserEscaper (bool &flag)

  Constructor.

Protected Member Functions

- bool eventFilter (QObject ∗obj, QEvent ∗event)

  Called to process events.

8.141.1 Detailed Description

A class for allowing the user to suspend the test.

This class manages a keyboard event for the F5 key so that the user can suspend a GUI test and regain control of the mouse. Useful if you want to make a note about some aspect of the test.

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

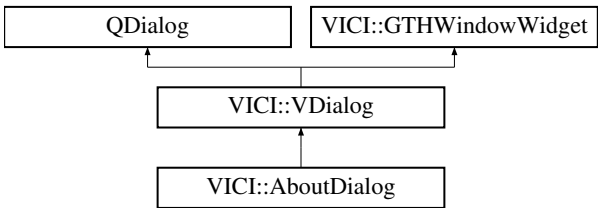
- libgth.h
- libgth.cpp

8.142 VICI::VDialog Class Reference

A dialog class that automatically registers itself.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::VDialog:



Public Member Functions

- VDialog (QWidget ∗parent=0, Qt::WindowFlags f=0)
  Constructor.
- ∼VDialog ()
  Destructor.

Protected Member Functions

- virtual void showEvent (QShowEvent ∗event)
  Called when the dialog is shown.

8.142.1 Detailed Description

A dialog class that automatically registers itself.

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

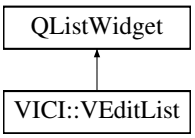
- libgui.h
- libgui.cpp

8.143 VICI::VEditList Class Reference

Builds on QListWidget to provide better editing ability.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::VEditList:



Public Member Functions

- VEditList (QWidget ∗parent=0)
  Constructor.
- void append (const std::vector< std::string > &)
  Add list of strings.
- std::vector< std::string > getVals () const
  Get the rows as std::strings.

Protected Slots

- virtual void addBlank (QListWidgetItem ∗)
  Add a blank row at the end.
- virtual void changed (QListWidgetItem ∗it, QListWidgetItem ∗)
  Called if a row has been changed.

8.143.1 Detailed Description

Builds on QListWidget to provide better editing ability.

This class provides a list widget where the entries can be edited or moved using drag-n-drop.

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

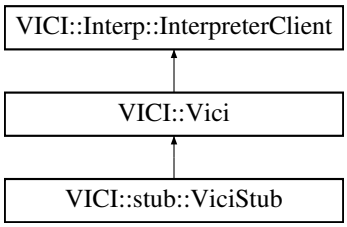
- libgui.h
- libgui.cpp

8.144 VICI::Vici Class Reference

An API for the vici runtime gui.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Vici:



Public Member Functions

- virtual ∼Vici ()
  virtual destructor
- virtual Interp::Interpreter ∗ getInterpreter ()=0
  Get a reference to the interpreter object.
- virtual void openFile (const Path &)=0
  Set the file to execute.
- virtual void autoStart ()=0
  Start the script as soon as the GUI is ready.

8.144.1 Detailed Description

An API for the vici runtime gui.

The facade for the runtime program.

The implementation will run a script and provide a user interface for interacting with the script.

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

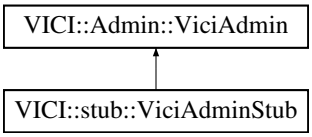
- vici.h

8.145 VICI::Admin::ViciAdmin Class Reference

Application for preparing commands.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Admin::ViciAdmin:



Public Member Functions

- virtual ~ViciAdmin ()
  virtual destructor
- virtual VICI::Window * getMainWindow ()=0
  Get a pointer to the app main window.

8.145.1 Detailed Description

Application for preparing commands.

The facade for the vici-adm application.

The VICI application for preparing commands so that they are easier for novice users to find and use.

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

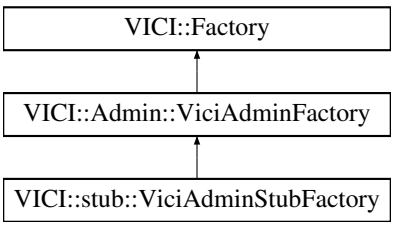
- vici.h

8.146 VICI::Admin::ViciAdminFactory Class Reference

An abstract factory for making an instance of ViciAdmin.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Admin::ViciAdminFactory:



Public Member Functions

- virtual ~ViciAdminFactory ()
  virtual destructor
- virtual ViciAdmin * makeViciAdmin ()=0
  Create an instance of the ViciAdmin class.

8.146.1 Detailed Description

An abstract factory for making an instance of ViciAdmin.

The implementation will create either the production version, or a stub, or a test version of the ViciAdmin class.

8.146.2 Member Function Documentation

8.146.2.1 virtual ViciAdmin* VICI::Admin::ViciAdminFactory::makeViciAdmin ( ) [pure virtual]

Create an instance of the ViciAdmin class.

Returns

an instance of the ViciAdmin class

Implemented in VICI::stub::ViciAdminStubFactory.

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

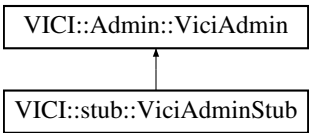
- vici.h

8.147 VICI::stub::ViciAdminStub Class Reference

A stub version of the ViciAdmin module interface.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::ViciAdminStub:



Public Member Functions

- virtual VICI::Window * getMainWindow ()

  Get a pointer to the app main window.

8.147.1 Detailed Description

A stub version of the ViciAdmin module interface.

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

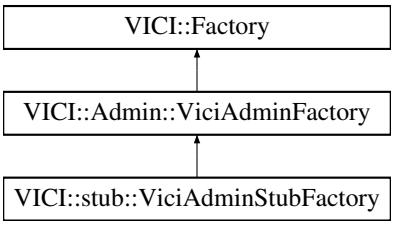
- libifstubs.h
- libifstubs.cpp

8.148 VICI::stub::ViciAdminStubFactory Class Reference

A factory for creating stub instances of ViciAdmin.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::ViciAdminStubFactory:



Public Member Functions

- virtual Admin::ViciAdmin * makeViciAdmin ()

  Create an instance of the ViciAdmin class.

8.148.1 Detailed Description

A factory for creating stub instances of ViciAdmin.

8.148.2 Member Function Documentation

8.148.2.1 Admin::ViciAdmin * ViciAdminStubFactory::makeViciAdmin ( ) [virtual]

Create an instance of the ViciAdmin class.

Returns

an instance of the ViciAdmin class

Implements VICI::Admin::ViciAdminFactory.

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

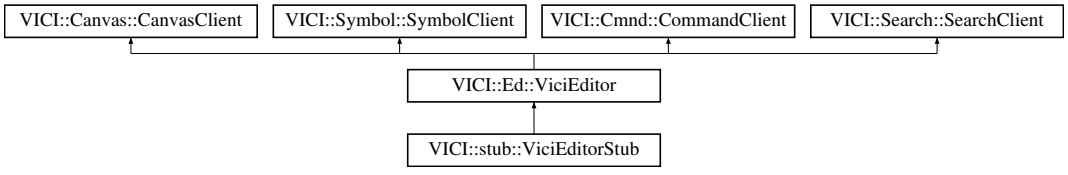
- libifstubs.h
- libifstubs.cpp

8.149 VICI::Ed::ViciEditor Class Reference

The flowchart editor.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Ed::ViciEditor:



Public Member Functions

- virtual ~ViciEditor ()

  virtual destructor
- virtual VICI::Window * getMainWindow ()=0

  Get a pointer to the main window.
- virtual void openFile (const VICI::Path &)=0

  Tell the editor which file to start with.

8.149.1 Detailed Description

The flowchart editor.

The facade for the editor classes.

The implementation will allow the user to enter and edit a flowchart, test it and install it into their desktop.

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

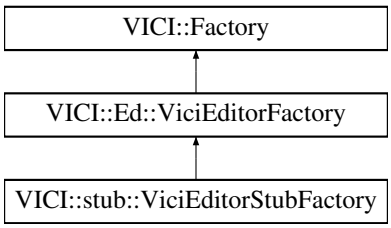
- vici.h

8.150 VICI::Ed::ViciEditorFactory Class Reference

An abstract factory for making an instance of ViciEditor.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Ed::ViciEditorFactory:



Public Member Functions

- virtual ~ViciEditorFactory ()

  virtual destructor
- virtual ViciEditor * makeViciEditor ()=0

  create an instance of the ViciEditor class

8.150.1 Detailed Description

An abstract factory for making an instance of ViciEditor.

The implementation will create either the production version, or a stub, or a test version of the ViciEditor class.

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

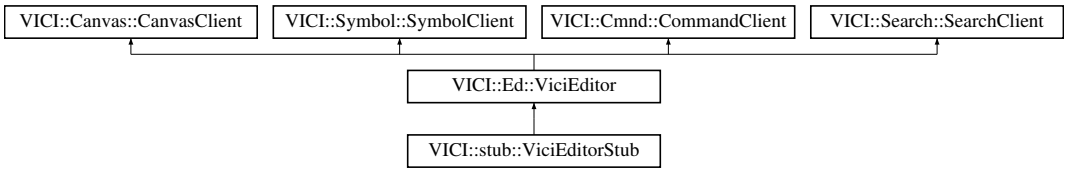
- vici.h

8.151 VICI::stub::ViciEditorStub Class Reference

A stub version of the Vici Editor module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::ViciEditorStub:



Public Member Functions

- virtual VICI::Window * getMainWindow ()

  Get a pointer to the main window.
- virtual void openFile (const VICI::Path &)

  Tell the editor which file to start with.
- virtual void newSymbol (Symbol::Symbol *)

  called when a symbol is placed on the canvas.
- virtual void newChart ()

  called when a new diagram has been started
- virtual void changedChart ()

  called when the chart is first changed
- virtual void searchAction (NodeId)

  notification that the user wants the search tab
- virtual void commandAction (NodeId, const ArgList &)

  notification that the command tab is to be displayed
- virtual void breakAction (NodeId, bool)

  notification that a breakpoint has been set or cleared
- virtual void selection (Symbol::Symbol *)

  notify that a symbol has been selected.
- virtual void symbolAttr (Symbol::SymbolAttributes &)

  notify that the default symbol attributes have changed
- virtual void textAttr (Symbol::TextAttributes &)

  notify that the default text attributes have changed
- virtual void optionsAndParameters (NodeId, const ArgList &)

  this gets called when the user presses OK
- virtual void cmndError (csr)

  this gets called if there is an error
- virtual void selectedCommand (NodeId, csr)

  this function is called when the user selects a command.

8.151.1 Detailed Description

A stub version of the Vici Editor module.

8.151.2 Member Function Documentation

8.151.2.1 void ViciEditorStub::cmndError (csr *msg*) [virtual]

this gets called if there is an error

Parameters

msg	the text of the error message

Implements VICI::Cmnd::CommandClient.

8.151.2.2 void ViciEditorStub::newSymbol (Symbol::Symbol * *sym*) [virtual]

called when a symbol is placed on the canvas.

Parameters

sym	the symbol that was placed on the canvas.

Implements VICI::Canvas::CanvasClient.

8.151.2.3 void ViciEditorStub::optionsAndParameters (NodeId *nid,* const ArgList & *args*) [virtual]

this gets called when the user presses OK

Parameters

args	the selected command and its options are returned in this
nid	The identifier for the current node

Implements VICI::Cmnd::CommandClient.

8.151.2.4 void ViciEditorStub::selectedCommand (NodeId *n,* csr *c*) [virtual]

this function is called when the user selects a command.

Parameters

c	the selected command
n	the identifier for the node

Implements VICI::Search::SearchClient.

8.151.2.5 void ViciEditorStub::selection (Symbol::Symbol * *sym*) [virtual]

notify that a symbol has been selected.

Parameters

sym	the symbol that was selected.

Todo do we need to notify of deselection ?

Implements VICI::Symbol::SymbolClient.

8.151.2.6 void ViciEditorStub::symbolAttr (Symbol::SymbolAttributes & *att*) [virtual]

notify that the default symbol attributes have changed

Parameters

att	the new default attributes

Implements VICI::Symbol::SymbolClient.

8.151.2.7 void ViciEditorStub::textAttr (Symbol::TextAttributes & *att*) [virtual]

notify that the default text attributes have changed

Parameters

att	the new default text attributes.

Implements VICI::Symbol::SymbolClient.

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

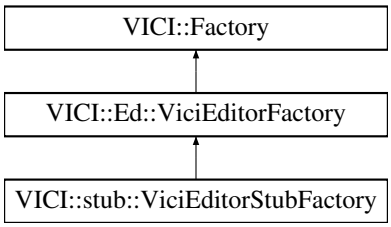
- libifstubs.h
- libifstubs.cpp

8.152 VICI::stub::ViciEditorStubFactory Class Reference

A factory for creating stub instances of Vici Editor objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::ViciEditorStubFactory:



Public Member Functions

- virtual Ed::ViciEditor * makeViciEditor ()

  create an instance of the ViciEditor class

8.152.1 Detailed Description

A factory for creating stub instances of Vici Editor objects.

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

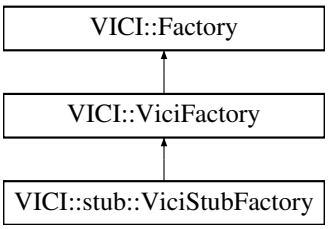
- libifstubs.h
- libifstubs.cpp

8.153 VICI::ViciFactory Class Reference

An abstract factory for making an instance of Vici.

`#include <vici/vici.h>`

Inheritance diagram for VICI::ViciFactory:



Public Member Functions

- virtual ~ViciFactory ()

  virtual destructor
- virtual Vici * makeVici (Window *w=nullptr)=0

  create an instance of the Vici class

8.153.1 Detailed Description

An abstract factory for making an instance of Vici.

The implementation will create either the production version, or a stub, or a test version of the Vici class.

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

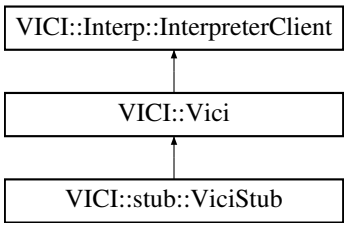
- vici.h

8.154 VICI::stub::ViciStub Class Reference

A stub version of the Vici module.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::ViciStub:



Public Member Functions

- virtual Interp::Interpreter * getInterpreter ()

  Get a reference to the interpreter object.
- virtual void openFile (const VICI::Path &)

  Set the file to execute.
- virtual void autoStart ()

  Start the script as soon as the GUI is ready.
- virtual void setValue (csr varName, csr value)

this gets called when a script variable has a change of value

- virtual void setFile (int state, csr filename)

  this gets called when a monitored file changes state.
- virtual void setCursor (ThreadId, NodeId)

  this gets called as the shell steps through the script
- virtual void breakReached (ThreadId, NodeId)

  this gets called when a break point is reached
- virtual void dataReady (NodeId)

  this gets called when data is available on a display
- virtual void reportError (Severity, csr)

  This gets called if an error is detected.
- virtual void done ()

  this gets called when the script completes

8.154.1 Detailed Description

A stub version of the Vici module.

8.154.2 Member Function Documentation

8.154.2.1 void ViciStub::breakReached (ThreadId *tid,* NodeId *node*) [virtual]

this gets called when a break point is reached

Parameters

tid	the thread which reached the breakpoint
node	the location of the breakpoint

Implements VICI::Interp::InterpreterClient.

8.154.2.2 void ViciStub::dataReady (NodeId *node*) [virtual]

this gets called when data is available on a display

Parameters

node	the node of the display object in the flowchart

Implements VICI::Interp::InterpreterClient.

8.154.2.3 void ViciStub::reportError (Severity *sev,* csr *msg*) [virtual]

This gets called if an error is detected.

Parameters

msg	The text of the error message.
sev	The severity of the error

Implements VICI::Interp::InterpreterClient.

8.154.2.4 void ViciStub::setCursor (ThreadId *tid,* NodeId *node*) [virtual]

this gets called as the shell steps through the script

Parameters

tid	the thread which changed to executing this node
node	the node that is currently being executed

Implements VICI::Interp::InterpreterClient.

8.154.2.5 void ViciStub::setFile (int *state*, csr *filename*) [virtual]

this gets called when a monitored file changes state.

Parameters

state	this needs to be defined
filename	the name of the file that changed

Implements VICI::Interp::InterpreterClient.

8.154.2.6 void ViciStub::setValue (csr *varName*, csr *value*) [virtual]

this gets called when a script variable has a change of value

Parameters

varName	the name of the variable that changed value
value	the new value of the variable

Implements VICI::Interp::InterpreterClient.

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

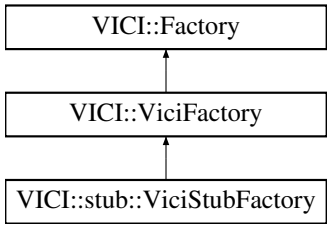
- libifstubs.h
- libifstubs.cpp

8.155 VICI::stub::ViciStubFactory Class Reference

A factory for creating stub instances of Vici objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::ViciStubFactory:



Public Member Functions

- virtual Vici * makeVici (Window *w=nullptr)

  create an instance of the Vici class

8.155.1 Detailed Description

A factory for creating stub instances of Vici objects.

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

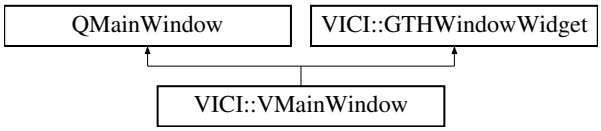
- libifstubs.h
- libifstubs.cpp

8.156 VICI::VMainWindow Class Reference

A main window class that automatically registers itself.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::VMainWindow:



Signals

- void widgetsRealised ()

  Emitted when the widgets have been made visible.

Public Member Functions

- VMainWindow (QWidget *parent=0, Qt::WindowFlags flags=0)

  Constructor.

Protected Slots

- virtual void startUp ()

  This is called to do things that require the widgets to have been realized.

Protected Member Functions

- virtual void showEvent (QShowEvent *event)

  Called when the window gets shown.

8.156.1 Detailed Description

A main window class that automatically registers itself.

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

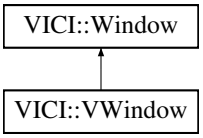
- libgui.h
- libgui.cpp

8.157 VICI::VWindow Class Reference

An implementation of Window for holding Qt's QWidget objects.

`#include <vici/window.h>`

Inheritance diagram for VICI::VWindow:



Public Member Functions

- VWindow (QWidget ∗w)
  Constructor.
- operator QWidget ∗ () const
  type conversion operator
- QWidget ∗ operator-> ()
  pointer operator

Protected Attributes

- QWidget ∗ widget
  the window being passed

8.157.1 Detailed Description

An implementation of Window for holding Qt's QWidget objects.

This class implements the Window type for QWidgets It allows references to windows to be passed between modules without the Qt libraries leaking into the general interface definitions defined in vici.h.

8.157.2 Constructor & Destructor Documentation

8.157.2.1 VICI::VWindow::VWindow (QWidget ∗ *w*) [inline]

Constructor.

Parameters

w	the window to encapsulate

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

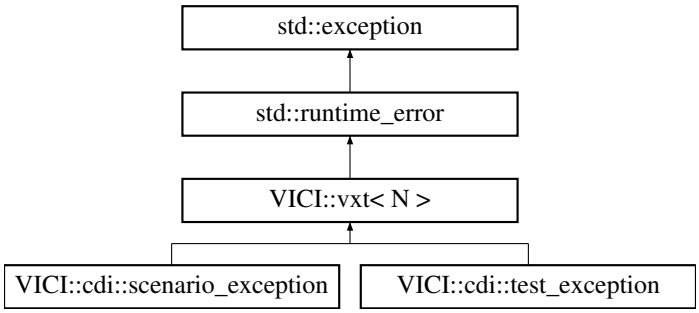
- window.h

8.158 VICI::vxt< N > Class Template Reference

An exception object with severity levels.

`#include <vici/vx.h>`

Inheritance diagram for VICI::vxt< N >:



Public Member Functions

- vxt (Severity s)
  constructor
- vxt (Severity s, const std::string &f, int ln)
  constructor
- template<class T >
  vxt & operator<< (T x)
  Provide stream syntax for the exception object.
- Severity severity ()
  get the severity of the exception
- virtual const char * what () const throw ()
  get the message from the exception

Static Public Member Functions

- static const std::string & sevToString (VICI::Severity s)
  Convert a severity into a string.

Protected Attributes

- Severity mSeverity
  severity level of the exception
- std::string buff
  message built into this
- std::string file
  source file from which it was thrown
- int line
  line number in the source file
- int ptr
  insertion point for message text

8.158.1 Detailed Description

template<typename N>class VICI::vxt< N >

An exception object with severity levels.

The vxt class is an exception object that includes severity levels and has stream syntax for creating messages.

Typical usage: throw vxt(VICI::Error) << "something went wrong: " << strerror(errno);

A macro version that automatically records the file name and line number is also defined. It would be used like:

throw VX(Warning) << "there is a problem";

8.158.2 Constructor & Destructor Documentation

8.158.2.1 template<typename N > VICI::vxt< N >::vxt (Severity *s*) [inline], [explicit]

constructor

Parameters

s	The severity of the problem.

8.158.2.2 template<typename N > VICI::vxt< N >::vxt (Severity *s*, const std::string & *f*, int *ln*) [inline]

constructor

Parameters

s	the severity of the exception
f	the file name of the source file
ln	the line number of the source file

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

- vx.h

8.159 VICI::WidgetMgr Class Reference

A singleton class that window widgets register with.

`#include <vici/libgui.h>`

Public Member Functions

- void registerWindowWidget (GTHWindowWidget *)

  Add window to list and inform any clients.
- void deregisterWindowWidget (GTHWindowWidget *)

  Remove a window and inform any clients.
- void addClient (WidgetMgrClient *)

  Add client to list and inform it about any registered windows.
- void removeClient (WidgetMgrClient *)

  Remove a client.

Static Public Member Functions

- static WidgetMgr & instance ()

  Get a reference to the window widget manager.

8.159.1 Detailed Description

A singleton class that window widgets register with.

The test harness can register as a client to be told about the widgets so that it can ask them to register their widgets for use by the test harness.

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

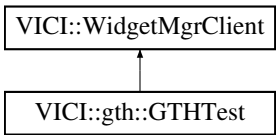
- libgui.h
- libgui.cpp

8.160 VICI::WidgetMgrClient Class Reference

An interface for the WidgetMgr to call its clients when a window registers itself.

`#include <vici/libgui.h>`

Inheritance diagram for VICI::WidgetMgrClient:



Public Member Functions

- virtual void windowHasRegistered (GTHWindowWidget ∗)=0

  Called to notify of a new window registering itself.
- virtual void windowHasDeregistered (GTHWindowWidget ∗)=0

  Called to notify that a window has deregistered itself,.

8.160.1 Detailed Description

An interface for the WidgetMgr to call its clients when a window registers itself.

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

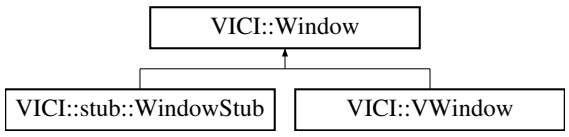
- libgui.h

8.161 VICI::Window Class Reference

A wrapper class for windows.

`#include <vici/vici.h>`

Inheritance diagram for VICI::Window:



Public Member Functions

- virtual ~Window ()
  virtual destructor

8.161.1 Detailed Description

A wrapper class for windows.

A wrapper class for windows so that the top level design is not dependent on the implementation details of Qt etc.

Pointers to these will be dynamically cast to a derived type that will have a member that is a pointer to the implementation window object.

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

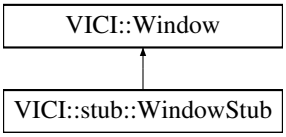
- vici.h

8.162 VICI::stub::WindowStub Class Reference

A stub version of window objects.

`#include <vici/libifstubs.h>`

Inheritance diagram for VICI::stub::WindowStub:



Additional Inherited Members

8.162.1 Detailed Description

A stub version of window objects.

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

- libifstubs.h
- libifstubs.cpp

8.163 VICI::cfi::XINI Class Reference

Load an XML configuration file.

`#include <vici/xini.h>`

Inheritance diagram for VICI::cfi::XINI:

Public Member Functions

- bool getVal (const std::string &xpath_expression, std::string &val)

  get a value from the config file.
- int getVals (const std::string &xpath_expr, std::vector< std::string > &results)

  get a set of values
- void getPath (const std::string &xpath_expr, VICI::Path &path)

  get a path from a set of paths
- const Path & getConfigFilename () const

  get the name of the config file being used

Static Public Member Functions

- static void configure (const Path &p)

  Configure XINI to use the specified path.
- static void configure (int c, char **v)

  Configure XINI to use the command line args.
- static XINI & instance ()

  get a reference to the single instance of the class.

Protected Member Functions

- XINI ()

  constructor

Static Protected Attributes

- static int argc = 0

  number of command line args
- static char ** argv = NULL

  command line args
- static Path configFile

  path to config file
- static const std::string config

  configuration string defined by the using application using the format specified.

Friends

- class **::XiniTestCase**

8.163.1 Detailed Description

Load an XML configuration file.

Ini file, XML format, loaded by looking in the following locations:

- P = path provided on the command line.
- E = path provided in the environment
- C = the current working directory

- H = the user's home directory
- D = directories as listed

Containing application must provide a string containing the keys for the above search locations:

```
const string ini::config = "PECHD:-i:QM_CONF:qmd.xml:.qmd.xml:/etc/qmd/qmd.xml";
```

The above will first look for a command line parameter following -i, then it will look in the environment for a variable QM_CONF, then in the current directory for a file called qmd.xml, then for a file $HOME/.qmd.xml, and finally for /etc/qmd/qmd.xml

Any further paths added at the end are checked in sequence.

8.163.2 Member Function Documentation

8.163.2.1 void XINI::configure (const Path & *p*) [static]

Configure XINI to use the specified path.

Parameters

p	The path to the XML config file to use

8.163.2.2 void XINI::configure (int *c*, char ** *v*) [static]

Configure XINI to use the command line args.

Parameters

c	The number of command line args
v	the command line args

8.163.2.3 const Path & XINI::getConfigFilename ( ) const

get the name of the config file being used

Returns

path of the configuration file that was found.

8.163.2.4 void XINI::getPath (const std::string & *xpath_expr*, VICI::Path & *path*)

get a path from a set of paths

Parameters

xpath_expr	An expression returning a set of paths to search
path	The first path that points to an existing file

8.163.2.5 bool XINI::getVal (const std::string & *xpath_expression*, std::string & *val*)

get a value from the config file.

Parameters

xpath_expression	an expression to find in the config file.
val	value is returned into this

Returns

true if the value exists, and is unique

8.163.2.6 int XINI::getVals (const std::string & *xpath_expr,* std::vector< std::string > & *results*)

get a set of values

Parameters

xpath_expr	an expression to find in the config file.
results	set of values returned in this

Returns

the size of the set

8.163.3 Member Data Documentation

8.163.3.1 const string VICI::cfi::XINI::config [static],[protected]

Initial value:

```
=
                "PECHD:"
                "-i:VICI_CONF:"
                "vici.xml:"
                ".local/share/vici/vici.xml:"
                "$VICI/share/vici/vici.xml:"
                "/usr/local/share/vici/vici.xml:"
                "/usr/share/vici/vici.xml:"
```

configuration string defined by the using application using the format specified.

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

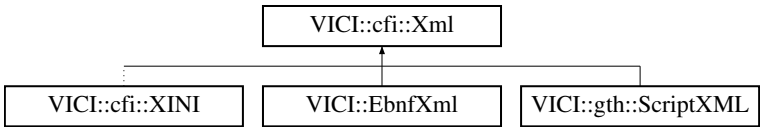
- xini.h
- xini.cpp
- factory.cpp

8.164 VICI::cfi::Xml Class Reference

A C++ wrapper for libxml2.

`#include <vici/xml.h>`

Inheritance diagram for VICI::cfi::Xml:



Public Member Functions

- virtual ~Xml ()

  Destructor.
- void setDtd (csr name, const Path &dtd)

  Set DTD identifier to dtd, which is just the dtd file name.
- void setDtd (csr name, csr ident, csr url)

  Set DTD identifier.
- void getDtdIdentifiers (csr dtdName, std::string &publicId, std::string &systemId)

  Get the public identifier for the DTD.
- void setCompression (int rate)

  Set the compression rate for saving the document.
- void save ()

  Save the document.
- void save (const Path &fname)

  Save the document to a new file.
- void pack (XmlBuffer &)

  Save the document into a buffer.
- bool dirty ()

  Check if the document has been modified.
- void setDirty (bool dt)

  Access to dirty flag if we change document outside of this interface.
- bool safeToSave ()

  Check if can save without clobbering other input.
- void reload ()

  Reload the XML file.

Protected Member Functions

- void createXPathContext ()

  Call this whenever mDoc is explicitly updated.
- void registerNamespace (const std::string &prefix, csr uri)
- Xml ()

  Constructor.
- void open (const Path &fname)

  Open an existing XML file.
- void create (const Path &fname, csr root_element)

  Create a new xml file and document.
- void unpack (XmlBuffer &)

  Create a document from the content of a buffer.
- void freeDoc ()

  release the document from memory
- void setProp (xmlNodePtr node, csr prop, csr val)

  Set a string property.
- void setProp (xmlNodePtr node, csr prop, int val)

  Set an integer property.
- void setProp (xmlNodePtr node, csr prop, double val)

  Set a double property.
- void setContent (xmlNodePtr node, csr text)

  Set the content for the node.
- void setCDATAContent (xmlNodePtr node, csr text)

Set the content for the node using CDATA.

- void getPropString (xmlNodePtr node, csr prop, std::string &val)

  Get the property value as a string.
- void getPropInt (xmlNodePtr node, csr prop, int &val)

  Get the property value as an integer.
- void getPropShort (xmlNodePtr node, csr prop, short &val)

  Get the property value as a short integer.
- void getPropDouble (xmlNodePtr node, csr prop, double &val)

  Get the property value as a double.
- std::string getNodeContent (xmlNodePtr p, int expand=1) const

  Get the content of the node.
- std::string getNodeName (xmlNodePtr p) const

  Get the name of the node.
- xmlNodePtr getRoot ()

  Get the root node.
- xmlNodePtr getChild (xmlNodePtr node, csr name) const

  Get a child node by name.
- int getChildren (xmlNodePtr node, std::vector< xmlNodePtr > &nodes) const

  Get the children of the node.
- xmlNodePtr newNode (xmlNodePtr node, csr name)

  Create a new node.
- void deleteNode (xmlNodePtr node)

  Delete a node and all of its children.
- int find (csr xpath_expression, std::vector< xmlNodePtr > &nodes)

  Find nodes matching an XPath.

Static Protected Member Functions

- static xmlNodePtr newTextChild (xmlNodePtr node, csr name, csr text)

  Create a new node with text content.

Protected Attributes

- Path mFilename

  the XML file that the object represents
- struct stat xmlStat

  time the file was last accessed by us
- xmlDocPtr mDoc

  pointer to the root document object
- xmlXPathContextPtr mCtx

  XML XPath context.
- bool mDirty

  true when an update has been made, and saving is required.
- bool mIsOpen

  true if the file is open
- int mCompression

  0 is uncompressed, thru 9 for max zlib compression

Static Protected Attributes

- static const int UMASK_RW_RW_R = 0664 ^ 0777

  Default umask for xml files created.
- static bool xpathinit = false

  flag to indicate if xpath has been initialized

8.164.1 Detailed Description

A C++ wrapper for libxml2.

The Xml class provides an object oriented wrapper for the libxml2 library. Applications will subclass this class to provide application specific functions for accessing the XML data.

8.164.2 Member Function Documentation

8.164.2.1 void Xml::create (const Path & *fname*, csr *root_element*) [protected]

Create a new xml file and document.

Parameters

fname	the name of the file which will be created on save.
root_element	the name of the root element

8.164.2.2 void Xml::deleteNode (xmlNodePtr *node*) [protected]

Delete a node and all of its children.

Parameters

node	the document node

8.164.2.3 bool VICI::cfi::Xml::dirty ( ) [inline]

Check if the document has been modified.

Returns

true if the document has been modified.

8.164.2.4 int Xml::find (csr *xpath_expression*, std::vector< xmlNodePtr > & *nodes*) [protected]

Find nodes matching an XPath.

Parameters

xpath_expression	the expression to search for.
nodes	a vector for the matching nodes.

8.164.2.5 xmlNodePtr Xml::getChild (xmlNodePtr *node*, csr *name*) const [protected]

Get a child node by name.

Parameters

node	the document node
name	the name of the node.

8.164.2.6 int Xml::getChildren (xmlNodePtr *node*, std::vector< xmlNodePtr > & *nodes*) const [protected]

Get the children of the node.

Parameters

node	the document node
nodes	a vector for the children nodes.

8.164.2.7 void Xml::getDtdIdentifiers (csr *dtdName*, std::string & *publicId*, std::string & *systemId*)

Get the public identifier for the DTD.

Parameters

dtdName	the name for the DTD entry
publicId	the returned public identifier for the DTD
systemId	the returned system identifier for the DTD

8.164.2.8 string Xml::getNodeContent (xmlNodePtr *p*, int *expand* = 1) const [protected]

Get the content of the node.

Parameters

p	the document node
expand	if 1 then get the content of child nodes.

8.164.2.9 string Xml::getNodeName (xmlNodePtr *p*) const [protected]

Get the name of the node.

Parameters

p	the document node

8.164.2.10 void Xml::getPropDouble (xmlNodePtr *node*, csr *prop*, double & *val*) [protected]

Get the property value as a double.

Parameters

node	the document node
prop	the property name for the element
val	the value for the property

8.164.2.11 void Xml::getPropInt (xmlNodePtr *node*, csr *prop*, int & *val*) [protected]

Get the property value as an integer.

Parameters

node	the document node
prop	the property name for the element
val	the value for the property

8.164.2.12 void Xml::getPropShort (xmlNodePtr *node*, csr *prop*, short & *val*) [protected]

Get the property value as a short integer.

Parameters

node	the document node
prop	the property name for the element
val	the value for the property

8.164.2.13 void Xml::getPropString (xmlNodePtr *node*, csr *prop*, std::string & *val*) [protected]

Get the property value as a string.

Parameters

node	the document node
prop	the property name for the element
val	the value for the property

8.164.2.14 xmlNodePtr Xml::newNode (xmlNodePtr *node*, csr *name*) [protected]

Create a new node.

Parameters

node	the document node
name	the name for new node.

8.164.2.15 xmlNodePtr Xml::newTextChild (xmlNodePtr *node*, csr *name*, csr *text*) [static], [protected]

Create a new node with text content.

Parameters

node	the document node
name	the name for the node.
text	the content for the node.

8.164.2.16 void Xml::open (const Path & *fname*) [protected]

Open an existing XML file.

Parameters

fname	the name of the file to open.

8.164.2.17 void Xml::registerNamespace (const std::string & *prefix*, csr *uri*) [protected]

Call this to register the prefixes for all uri's used in XPath queries. The prefix does not have to be the same as used in the document and you must supply one for the "anonymous" uri's.

8.164.2.18 bool Xml::safeToSave ( )

Check if can save without clobbering other input.

Returns

true if its safe to save.

8.164.2.19 void Xml::save (const Path & *fname*)

Save the document to a new file.

Parameters

fname	the new file name.

8.164.2.20 void Xml::setCDATAContent (xmlNodePtr *node*, csr *text*) [protected]

Set the content for the node using CDATA.

Parameters

node	the document node
text	the value to assign to the node.

8.164.2.21 void Xml::setCompression (int *rate*)

Set the compression rate for saving the document.

Parameters

rate	the required compression factor.

8.164.2.22 void Xml::setContent (xmlNodePtr *node*, csr *text*) [protected]

Set the content for the node.

Parameters

node	the document node
text	the value to assign to the node content.

8.164.2.23 void VICI::cfi::Xml::setDirty (bool *dt*) [inline]

Access to dirty flag if we change document outside of this interface.

Parameters

dt	new value for the dirty flag

8.164.2.24 void Xml::setDtd (csr *name*, const Path & *dtd*)

Set DTD identifier to dtd, which is just the dtd file name.

Parameters

name	the name for the DTD entry.
dtd	The DTD file name

8.164.2.25 void Xml::setDtd (csr *name*, csr *ident*, csr *url*)

Set DTD identifier.

Parameters

name	The name for the DTD entry
ident	The external id for the entry
url	The URL of the DTD.

8.164.2.26 void Xml::setProp (xmlNodePtr *node*, csr *prop*, csr *val*) [protected]

Set a string property.

Parameters

node	the document node
prop	the property name for the element
val	the value for the property

8.164.2.27 void Xml::setProp (xmlNodePtr *node*, csr *prop*, int *val*) [protected]

Set an integer property.

Parameters

node	the document node
prop	the property name for the element
val	the value for the property

8.164.2.28 void Xml::setProp (xmlNodePtr *node*, csr *prop*, double *val*) [protected]

Set a double property.

Parameters

node	the document node
prop	the property name for the element

val	the value for the property

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

- xml.h
- xml.cpp

8.165 VICI::cfi::XmlBuffer Class Reference

An abstract class defining a buffer object.

`#include <vici/xml.h>`

Public Member Functions

- virtual ~XmlBuffer ()

  Ensure derived classes have a destructor.
- virtual char * addr ()=0

  Get the address of the data.
- virtual int len ()=0

  Get the length of the data.
- virtual void addr (char *)=0

  Set the address of the data.
- virtual void len (int)=0

  Set the length of the data.

8.165.1 Detailed Description

An abstract class defining a buffer object.

The XmlBuffer objects hold a complete XML file which can be packed or unpacked by the Xml objects.

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

- xml.h

Chapter 9

File Documentation

9.1 canvas.h File Reference

The API for handling graphics scenes between modules.

```
#include "vici.h"
```

Classes

- class VICI::CanvasScene

  An implementation of the Scene abstract class for holding a QGraphicsScene.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

9.1.1 Detailed Description

The API for handling graphics scenes between modules.

9.2 discover.h File Reference

Provides the API for objects that need to be discoverable for testing.

```
#include "stringy.h"
#include <map>
#include <vector>
#include <memory>
```

Classes

- struct VICI::cfi::DiscoverPointer

  Holds a pointer to a discoverable object.
- class VICI::cfi::Discoverable

A mixin class that makes its owner discoverable.

- class VICI::cfi::DiscoveryMgr

  Manager for discoverable objects.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

Macros

- #define DISCOVERABLE

  A macro which notifies the discovery manager of an object that is to be discoverable.

Typedefs

- typedef std::shared_ptr
  < DiscoverPointer > VICI::cfi::DiscoverSharedPointer

  A shared pointer that will be owned by a discoverable object.
- typedef std::weak_ptr
  < DiscoverPointer > VICI::cfi::DiscoverWeakPointer

  A weak pointer that will be held by the DiscoveryMgr.

9.2.1 Detailed Description

Provides the API for objects that need to be discoverable for testing. This header should be included in the code for modules that need to be tested.

9.2.2 Macro Definition Documentation

9.2.2.1 #define DISCOVERABLE

Value:

```
VICI::cfi::DiscoveryMgr::instance().save( __PRETTY_FUNCTION__, \
                        (discover.reset( new VICI::cfi::DiscoverPointer( this )),
       discover) );
```

A macro which notifies the discovery manager of an object that is to be discoverable.

9.3 fdstream.h File Reference

Provide C++ stream interface to file descriptor integers.

```
#include <iostream>
#include <string>
```

Classes

- class VICI::cfi::FD

  Wrap file descriptors in a class to ensure closed.
- class VICI::cfi::fdoutbuf

  An output stream buffer.
- class VICI::cfi::fdostream

  A file descriptor output stream.
- class VICI::cfi::fdinbuf

  An input stream buffer.
- class VICI::cfi::fdistream

  A file descriptor input stream.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

9.3.1 Detailed Description

Provide C++ stream interface to file descriptor integers.

9.4 gth.h File Reference

Provide the interface between the GUI applications and the GUI Test Harness.

```
#include <vici/stringy.h>
#include <functional>
```

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::gth

  The namespace for the GUI Test Harness.

Enumerations

- enum VICI::gth::WidgetType {
  VICI::gth::Action, VICI::gth::Button, VICI::gth::CheckBox, VICI::gth::ComboBox,
  VICI::gth::Dock, VICI::gth::List, VICI::gth::ListView, VICI::gth::Label,
  VICI::gth::LineEdit, VICI::gth::SpinBox, VICI::gth::Splitter, VICI::gth::Table,
  VICI::gth::Tabs, VICI::gth::TextEdit, VICI::gth::Tree, VICI::gth::View,
  VICI::gth::Window, VICI::gth::MessageBox, VICI::gth::FileDialog, VICI::gth::FontDialog,
  VICI::gth::ColorDialog, VICI::gth::Script }

  List the types of widgets that we can interact with during testing.

Functions

- void VICI::gth::RegnFn (std::function< void(void *, WidgetType, csr)> reg)

  Register the widgets for use by the GUI Test Harness.

9.4.1 Detailed Description

Provide the interface between the GUI applications and the GUI Test Harness. The GUI applications should include this header file if they are to support the GUI Test Harness plug-in testing.

9.5 ipc.h File Reference

Declarations for the semaphore component of libcfi.

```
#include <sys/types.h>
#include <sys/ipc.h>
#include <sys/sem.h>
#include "stringy.h"
```

Classes

- class VICI::cfi::Semaphore

  A semaphore for managing exclusive access to resources across multiple processes.

- class VICI::cfi::SemaphoreLock

  Mutual exclusion lock.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

9.5.1 Detailed Description

Declarations for the semaphore component of libcfi.

9.6 libgth.h File Reference

Provides the API for the GUI Test Harness library.

```
#include <vici/testmgr.h>
#include <vici/proc.h>
#include <vici/fdstream.h>
#include <vici/xml.h>
#include "libgui.h"
#include "gth.h"
#include <map>
#include <memory>
#include <mutex>
#include <condition_variable>
#include <QThread>
#include <QGraphicsView>
```

Classes

- class VICI::gth::Adaptor

  Defines an abstract base class for widget adaptors.
- class VICI::gth::LuaScript

  Provides a wrapper for a lua_State object.
- struct VICI::gth::TestAction

  A single action that can be applied to a GUI.
- class VICI::gth::TestsForWindow

  Provides a thread for applying test cases to a window.
- class VICI::gth::UserEscaper

  A class for allowing the user to suspend the test.
- class VICI::gth::GTHTest

  An AbstractTest derived class for testing GUI programs.
- class VICI::gth::GTHTestCase

  Interface for test cases that do gui testing.
- class VICI::gth::DefaultTestCase

  Provides a test case to use for actions that don't have an explicit test case.
- class VICI::gth::ScriptXML

  Provides an interface to the script XML file.
- class VICI::gth::MouseEventReporter

  Provides a means of getting scene coordinates in a QGraphicsView.
- class VICI::gth::AdaptorST< wt >

  Adds a static method to Adaptor to describe it;.
- class VICI::gth::AdaptorT< wt, T >

  The interpreter for the script commands.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::gth

  The namespace for the GUI Test Harness.

Typedefs

- typedef std::vector< std::string > VICI::gth::ParamList

  ParamList is used for the parameters of a command.
- typedef std::vector< std::list < std::string > > VICI::gth::ListOfLists

  ListOfLists is used to describe the commands and parameters of an Adaptor.
- typedef std::shared_ptr < ScriptXML > VICI::gth::ScriptXmlPtr

  Provide for automatic destruction when owner is deleted.
- typedef std::shared_ptr < LuaScript > VICI::gth::LuaScriptPtr

  Provides for automatic destruction when the owner is deleted.
- typedef std::shared_ptr < TestsForWindow > VICI::gth::TestsForWindowPtr

  Provides for automatic destruction when the owner is deleted.

Enumerations

- enum VICI::gth::ConDes { **Constructor**, **Destructor** }

  Enumerates the stages at which the actions for a test case can be run.

9.6.1 Detailed Description

Provides the API for the GUI Test Harness library. This header should be included in the code for the application specific plug-in library that will use the GUI Test Harness library.

9.7 libgui.h File Reference

Provides project wide GUI components.

```
#include <QWidget>
#include <QDialog>
#include <QMainWindow>
#include <QItemDelegate>
#include <QTextBrowser>
#include <QListWidget>
#include <list>
#include <functional>
#include <memory>
#include <thread>
#include "gth.h"
#include <vici/test.h>
```

Classes

- class VICI::GTHWindowWidget

  A mix-in class with the functions required for the gui test harness.
- class VICI::WidgetMgrClient

  An interface for the WidgetMgr to call its clients when a window registers itself.
- class VICI::WidgetMgr

A singleton class that window widgets register with.

- class VICI::VMainWindow

  A main window class that automatically registers itself.
- class VICI::VDialog

  A dialog class that automatically registers itself.
- class VICI::ItemDelegate

  An item delegate that uses QLineEdit for editing list and table entries.
- class VICI::VEditList

  Builds on QListWidget to provide better editing ability.
- class VICI::Metrics

  A class to encapsulate measurements.
- class VICI::SignalToQtSignal

  A class to convert operating system signals into Qt signals.
- class VICI::AboutDialog

  A standard About Vici dialog for the project.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

9.7.1 Detailed Description

Provides project wide GUI components. This header should be included in the code the uses main windows and/or dialogs.

9.8 libifstubs.h File Reference

Provide a stub implementation for all VICI modules.

```
#include <vector>
#include <map>
#include "vici.h"
```

Classes

- class VICI::stub::Event

  Define an Abstract base type for Dispatcher events.
- class VICI::stub::Dispatcher

  Send events to registered objects.
- class VICI::stub::AnEvent< T >

  A template wrapper for function calls.
- class VICI::stub::WindowStub

  A stub version of window objects.
- class VICI::stub::EBNF_Stub

  A stub version of the EBNF module interface.
- class VICI::stub::EBNF_Stub_Factory

  A factory for creating instances of the EBNF_Stub.
- class VICI::stub::SyntaxStub

A stub version of the Syntax module interface.

- class VICI::stub::SyntaxStubFactory

  A factory for creating SyntaxStub objects.

- class VICI::stub::ViciAdminStub

  A stub version of the ViciAdmin module interface.

- class VICI::stub::ViciAdminStubFactory

  A factory for creating stub instances of ViciAdmin.

- class VICI::stub::SearchStub

  A stub version of the Search module.

- class VICI::stub::SearchStubFactory

  A factory for creating stub instances of Search objects.

- class VICI::stub::CommandStub

  A stub version of the Command module.

- class VICI::stub::CommandStubFactory

  A factory for creating stub instances of Command objects.

- class VICI::stub::SymbolStub

  A stub version of the Symbol class.

- class VICI::stub::SymbolMgrStub

  A stub version of the Symbol Manager.

- class VICI::stub::SymbolStubFactory

  A factory for creating stub instances of Symbol Manager objects.

- class VICI::stub::CanvasStub

  A stub version of the Canvas module.

- class VICI::stub::CanvasStubFactory

  A factory for creating stub instances of Canvas objects.

- class VICI::stub::SecureStub

  A stub version of the Secure module.

- class VICI::stub::SecureStubFactory

  A factory for creating stub instances of Security objects.

- class VICI::stub::CronStub

  A stub version of the Cron module.

- class VICI::stub::CronStubFactory

  A factory for creating stub instances of Cron objects.

- class VICI::stub::InstallerStub

  A stub version of the Installer module.

- class VICI::stub::InstallerStubFactory

  A factory for creating stub instances of Installer objects.

- class VICI::stub::InterpreterStub

  A stub version of the Interpreter module.

- class VICI::stub::InterpreterStubFactory

  A factory for creating stub instances of Interpreter objects.

- class VICI::stub::ViciEditorStub

  A stub version of the Vici Editor module.

- class VICI::stub::ViciEditorStubFactory

  A factory for creating stub instances of Vici Editor objects.

- class VICI::stub::ViciStub

  A stub version of the Vici module.

- class VICI::stub::ViciStubFactory

  A factory for creating stub instances of Vici objects.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::stub

  The namespace for stub versions of modules.

9.8.1 Detailed Description

Provide a stub implementation for all VICI modules.

9.9 log.h File Reference

Declarations for the logging component of libcfi.

```
#include <map>
#include <fstream>
#include "vx.h"
#include "udpsocket.h"
#include "ipc.h"
```

Classes

- class VICI::cfi::logstream

  A stream class specialized for logging.
- class VICI::cfi::logger

  An abstract base class used by the log stream to write logs.
- class VICI::cfi::FormattingLogger

  Class for producing a formatted log message.
- class VICI::cfi::StdLogger

  Class for logging to the std output streams.
- class VICI::cfi::FileLogger

  Class for logging to a file.
- class VICI::cfi::PlainFileLogger
- class VICI::cfi::UDPLogger

  Class for logging to a logging server.
- class VICI::cfi::TraceLogger

  Class for logging tracing output.
- class VICI::cfi::SystemLogger

  logger that interfaces to the Linux syslog

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

9.9.1 Detailed Description

Declarations for the logging component of libcfi.

9.10 parseTree.h File Reference

The API for implementation of the EBNF Parse Tree.

```
#include "vici.h"
#include <vici/xml.h>
#include <map>
```

Classes

- class VICI::EbnfNode

  A node of the EBNF parse tree.
- class VICI::EbnfTree

  An implementation of the ParseTree type.
- class VICI::EbnfXml

  A specialization of the Xml class for the parse tree.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

9.10.1 Detailed Description

The API for implementation of the EBNF Parse Tree.

9.11 plugin.h File Reference

Declarations for the plug-in component of libcfi.

```
#include "stringy.h"
#include <map>
#include <list>
#include <memory>
#include <iostream>
```

Classes

- class VICI::cfi::PlugIn

  Base class for objects loaded from dynamically loaded libraries.
- class VICI::cfi::AutoRunPlugIn

  Base class for plug ins that are run immediately that the library is loaded.
- class VICI::cfi::PlugInFactory

  Base class for factories that create plug-in objects.

- class VICI::cfi::PlugInFamilyFactoryT< F >

  Template base class for families of plug-in factories.
- class VICI::cfi::PlugInFactoryT< F, P >

  Template class for factories.
- struct VICI::cfi::PlugInDescriptor

  Descriptor for plug-ins that can be used by the application.
- struct VICI::cfi::PlugInDetails

  Details of plug-ins as provided by the loaded library.
- class VICI::cfi::PlugInLib

  Manages an instance of a dynamically loaded shared library.
- class VICI::cfi::PlugInMgr

  Manage the handling of plug-in shared libraries.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

Macros

- #define VICI_PLUGIN_VERSION "0.1"

  Version number for plug-ins. This is checked when the library is loaded.

Typedefs

- typedef std::shared_ptr
  < PlugInLib > VICI::cfi::PlugInLibPtr

  Shared pointer to PlugInLib.
- typedef std::unique_ptr
  < AutoRunPlugIn > VICI::cfi::AutoRunPlugInPtr

  Unique pointer to an AutoRunPlugIn.

Functions

- void initViciPlugin ()

  Initialise the plugin.
- void closeViciPlugin ()

  Shutdown the plugin.

9.11.1 Detailed Description

Declarations for the plug-in component of libcfi. Applications will include this file if the need to load plug-ins such as used by the testing component.

Plug-in libraries will include this file.

9.11.2 Function Documentation

9.11.2.1 void closeViciPlugin ( )

Shutdown the plugin.

Each plug-in will implement this function. It should delete the factory objects.

9.11.2.2 void initViciPlugin ( )

Initialise the plugin.

Each plug-in will implement this function. It should add a PlugInDetails object to the PlugInMgr

9.12 proc.h File Reference

Declarations for classes that manage child processes.

```
#include <string>
#include <map>
#include <vector>
#include <signal.h>
#include <mutex>
#include <thread>
```

Classes

- class VICI::cfi::AbstractChildProcess

  Abstract child process interface for ChildProcessMgr.
- class VICI::cfi::ChildProcess

  Represents the state of a child process.
- class VICI::cfi::ProcessOwner

  Interface that allows the owner of a child process to be notified.
- class VICI::cfi::ChildProcessMgr

  Manage the child processes.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

9.12.1 Detailed Description

Declarations for classes that manage child processes.

9.13 stringy.h File Reference

Useful string functions.

```
#include <string>
#include <vector>
```

Classes

- class VICI::Path

  Manipulate path strings.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

Typedefs

- typedef const std::string & csr

  Save some time typing and shorten parameter lines.

Functions

- void VICI::trim (std::string &s)

  rip off leading and trailing white spaces
- int VICI::split (csr text, std::vector< std::string > &result)

  split a string into sub-strings at spaces
- std::string VICI::expandMacros (csr s)

  expand a string containing $ macros
- std::string VICI::clean (csr s)

  Remove everything except alpha, digit, space, dot, hyphen and underscore.

9.13.1 Detailed Description

Useful string functions.

9.14 test.h File Reference

Interface between applications and the test harness.

```
#include <string>
```

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

Typedefs

- typedef void(∗ VICI::AsyncTestEventFn)(const std::string &s)

  Pointer to function used to enqueue a test event.

Functions

- void VICI::defaultAsyncTestEvent (const std::string &s)

  Function used to enqueue a test event.

Variables

- AsyncTestEventFn VICI::asyncTestEvent = VICI::defaultAsyncTestEvent

  Pointer to function used to enqueue a test event.

9.14.1 Detailed Description

Interface between applications and the test harness. This file should be included if the code is instrumented with event() calls that are used for asynchronous tests.

9.15 testmgr.h File Reference

Declarations for the test harness.

```
#include "stringy.h"
#include "vx.h"
#include "log.h"
#include "test.h"
#include <map>
#include <list>
#include <set>
#include <fstream>
#include <mutex>
#include <condition_variable>
#include <chrono>
```

Classes

- class VICI::cdi::Tester

  Responsible for managing the testing.
- class VICI::cdi::test_exception

  throw this to abandon a particular test case
- class VICI::cdi::scenario_exception

  throw this to abandon an entire scenario
- class VICI::cdi::TestEvent

  Represent an event in the object under test.
- class VICI::cdi::TestEventQueue

  Responsible for queuing TestEvents.
- class VICI::cdi::TestFactory

  Responsible for creating an object that manages the resources for the entire test.

- class VICI::cdi::TestFT< T >
  Responsible for creating a test object of the required type.
- class VICI::cdi::AbstractTest
  Responsible for managing resources needed for the entire test.
- class VICI::cdi::TestT< T >
  Responsible for installing a factory for making test objects.
- class VICI::cdi::DefaultTest
  Provide a default version of the AbstractTest object.
- class VICI::cdi::ScenarioFactory
  Define a type for scenario factories.
- class VICI::cdi::ScenarioFT< T >
  Responsible for creating a scenario of some type.
- struct VICI::cdi::ScenarioResults
  Responsible for storing the results of testing for a scenario.
- class VICI::cdi::AbstractScenario
  Define a type for scenarios.
- class VICI::cdi::ScenarioT< T >
  Responsible for installing a factory to create scenarios of the required type.
- class VICI::cdi::DefaultScenario
  Provide a default scenario object.
- class VICI::cdi::TestCaseFactory
  Define a base type for test case factories.
- class VICI::cdi::TestCaseFT< T >
  Responsible for creating a test case of some type.
- class VICI::cdi::AbstractTestCase
  Base class for test cases.
- class VICI::cdi::TestCaseT< T >
  Responsible for installing a factory for the test case.
- class VICI::cdi::AsyncTestCase
  Responsible for handling asynchronous tests.
- class VICI::cdi::AsyncTestCaseT< T >
  Responsible for installing the factory for the test case type.

Namespaces

- VICI
  The namespace for the Visual Chart Interpreter project.
- VICI::cdi
  The namespace for the Common Development Infrastructure.

9.15.1 Detailed Description

Declarations for the test harness.

9.16 trace.h File Reference

Support for tracing the execution path.

```
#include "stringy.h"
#include <map>
#include <sstream>
#include <mutex>
```

Classes

- class VICI::cdi::CallTrace

  Class to create a call trace.
- class VICI::cdi::NullTrace

  A class for dummy trace objects.
- class VICI::cdi::Trace

  This class is used to create trace log entries.
- class VICI::cdi::Tracer

  This class manages the tracing for an application.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cdi

  The namespace for the Common Development Infrastructure.

Macros

- #define TRACE(n) VICI::cdi::NullTrace()

  Macro for adding trace statements to code.
- #define FN_TRACE(n, x)

  Macro for adding function call tracing to code.

9.16.1 Detailed Description

Support for tracing the execution path.

9.17 udpsocket.h File Reference

Declarations for a wrapper for the UDP socket.

```
#include "stringy.h"
#include <sys/socket.h>
#include <netinet/in.h>
```

Classes

- class VICI::cfi::UDPSocket

  An abstract base class with common stuff for UDP sockets.
- class VICI::cfi::UDPClientSocket

  A UDP client socket.
- class VICI::cfi::UDPServerSocket

  A UDP Server socket.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

9.17.1 Detailed Description

Declarations for a wrapper for the UDP socket.

9.18 vici.h File Reference

Project wide declarations and definitions.

```
#include <string>
#include <vector>
#include <map>
#include <memory>
#include <vici/vx.h>
#include <vici/stringy.h>
```

Classes

- class VICI::Factory

  An abstract type for factories.
- class VICI::FactoryFactory

  Responsible for creating and supplying factories for the main modules.
- class VICI::Window

  A wrapper class for windows.
- class VICI::Scene

  A wrapper for QGraphicsScene class.
- class VICI::EBNF::ParseTree

  A type for the parsed form of EBNF.
- class VICI::EBNF::EBNF

  A parser for EBNF.
- class VICI::EBNF::EBNF_Factory

  An abstract factory for making an instance of EBNF.
- class VICI::Syntax::Syntax

  Display a syntax chart of command options.
- class VICI::Syntax::SyntaxFactory

  An abstract factory for making an instance of Syntax.
- class VICI::Admin::ViciAdmin

  Application for preparing commands.
- class VICI::Admin::ViciAdminFactory

  An abstract factory for making an instance of ViciAdmin.
- class VICI::Search::SearchClient

  The interface that must implemented for clients of Search.
- class VICI::Search::Search

  Allow the user to search for, and organise commands.

- class VICI::Search::SearchFactory

  An abstract factory for making an instance of Search.
- class VICI::Interp::InterpreterClient

  The interface that must be implemented by clients of the interpreter.
- class VICI::Interp::Interpreter

  The API for interpreter library.
- class VICI::Interp::InterpreterFactory

  An abstract factory for making an instance of Interpreter.
- class VICI::Symbol::SymbolAttributes

  Holds the attributes of a symbol.
- class VICI::Symbol::TextAttributes

  Hold the attributes of a text comment.
- class VICI::Symbol::SymbolOwner

  Represents something that is notified about events occurring on a symbol.
- class VICI::Symbol::Symbol

  Represents something that is drawn on the canvas.
- class VICI::Symbol::SymbolClient

  An interface that is notified of changes to symbol manager.
- class VICI::Symbol::SymbolMgr

  The facade for the symbol library.
- class VICI::Symbol::SymbolFactory

  An abstract factory for making an instance of SymbolMgr.
- class VICI::Canvas::CanvasClient

  An interface that is notified of canvas actions.
- class VICI::Canvas::Canvas

  The facade for canvas library.
- class VICI::Canvas::CanvasFactory

  An abstract factory for making an instance of Canvas.
- class VICI::Cmnd::CommandClient

  An interface that is notified of a command selection.
- class VICI::Cmnd::Command

  The facade for the command library.
- class VICI::Cmnd::CommandFactory

  An abstract factory for making an instance of Command.
- class VICI::Sec::Secure

  Provide security for the scripts.
- class VICI::Sec::SecureFactory

  An abstract factory for making an instance of Secure.
- class VICI::Cron::Cron

  Allow scripts to be scheduled for later running.
- class VICI::Cron::CronFactory

  An abstract factory for making an instance of Cron.
- class VICI::Inst::Installer

  Install a script into the user's desktop.
- class VICI::Inst::InstallerFactory

  An abstract factory for making an instance of Installer.
- class VICI::Ed::ViciEditor

  The flowchart editor.
- class VICI::Ed::ViciEditorFactory

  An abstract factory for making an instance of ViciEditor.
- class VICI::Vici

  An API for the vici runtime gui.
- class VICI::ViciFactory

  An abstract factory for making an instance of Vici.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::EBNF

  An API for the libebnf library.
- VICI::Syntax

  An API for libsyntax.
- VICI::Admin

  An API for the vici-adm program.
- VICI::Search

  An API for libsearch.
- VICI::Sec

  An API for libsecure.
- VICI::Interp

  An API for the vici script interpreter.
- VICI::Symbol

  An API for libsymbol.
- VICI::Canvas

  An API for the Canvas which handles the drawing and layout.
- VICI::Cmnd

  An API for libcommand.
- VICI::Cron

  an API for libcron
- VICI::Inst

  An API for the installer.
- VICI::Ed

  An API for the vici editor.

Typedefs

- typedef const std::string & VICI::csr

  short cut for string constants
- typedef int VICI::NodeId

  Type for identifying a node of the flowchart.
- typedef int VICI::ThreadId

  type for identifying a thread in the running script
- typedef std::vector< std::string > VICI::ArgList

  Type for a list of command arguments and options.
- typedef std::shared_ptr< Factory > VICI::FactoryPtr

  Shared pointer for factory.
- typedef std::shared_ptr < EBNF_Factory > VICI::EBNF::EBNF_FactoryPtr

  Shared pointer for EBNF_Factory.
- typedef std::shared_ptr < SyntaxFactory > VICI::Syntax::SyntaxFactoryPtr

  Shared pointer for SyntaxFactory.
- typedef std::shared_ptr < ViciAdminFactory > VICI::Admin::ViciAdminFactoryPtr

  Shared pointer for Admin Factory.

- typedef std::shared_ptr < SearchFactory > VICI::Search::SearchFactoryPtr

  Shared pointer for Search Factory.

- typedef std::shared_ptr < InterpreterFactory > VICI::Interp::InterpreterFactoryPtr

  Shared pointer for Interpreter Factory.

- typedef long VICI::Symbol::Colour

  Specialisation for holding colour values.

- typedef std::shared_ptr < SymbolFactory > VICI::Symbol::SymbolFactoryPtr

  Shared pointer for Symbol Factory.

- typedef std::shared_ptr < CanvasFactory > VICI::Canvas::CanvasFactoryPtr

  Shared pointer for Canvas Factory.

- typedef std::shared_ptr < CommandFactory > VICI::Cmnd::CommandFactoryPtr

  Shared pointer for Command Factory.

- typedef std::shared_ptr < SecureFactory > VICI::Sec::SecureFactoryPtr

  Shared pointer for Secure Factory.

- typedef std::shared_ptr < CronFactory > VICI::Cron::CronFactoryPtr

  Shared pointer for Cron Factory.

- typedef std::shared_ptr < InstallerFactory > VICI::Inst::InstallerFactoryPtr

  Shared pointer for Installer Factory.

- typedef std::shared_ptr < ViciEditorFactory > VICI::Ed::ViciEditorFactoryPtr

  Shared pointer for Editor Factory.

- typedef std::shared_ptr < ViciFactory > VICI::ViciFactoryPtr

  Shared pointer for Vici Factory.

Enumerations

- enum VICI::Module {
  EBNF_Module, **Syntax_Module**, **Admin_Module**, **Search_Module**,
  Command_Module, **Symbol_Module**, **Canvas_Module**, **Secure_Module**,
  Cron_Module, **Installer_Module**, **Interpreter_Module**, **Editor_Module**,
  Vici_Module }

  An enum that lists the main modules of VICI.

- enum VICI::Symbol::Style {
  VICI::Symbol::SymCommand, VICI::Symbol::SymChoice, VICI::Symbol::SymFuncRef, VICI::Symbol::SymFunc,
  VICI::Symbol::SymVar, VICI::Symbol::SymConst, VICI::Symbol::SymMutex, VICI::Symbol::SymSem,
  VICI::Symbol::SymFile, VICI::Symbol::SymInline, VICI::Symbol::SymPipe, VICI::Symbol::SymDisplay,
  VICI::Symbol::SymLock, VICI::Symbol::SymUnlock, VICI::Symbol::SymWait, VICI::Symbol::SymPost,
  VICI::Symbol::SymFlow, VICI::Symbol::SymSuccess, VICI::Symbol::SymFail, VICI::Symbol::SymSignal,
  VICI::Symbol::SymStdIn, VICI::Symbol::SymStdOut, VICI::Symbol::SymStdErr }

  The possible styles for symbols and lines.

Functions

- void * makeEBNFFactory ()

  create a new EBNF Factory
- void * makeSyntaxFactory ()

  create a new Syntax Factory
- void * makeAdminFactory ()

  create a new Admin Factory
- void * makeSearchFactory ()

  create a new Search Factory
- void * makeCommandFactory ()

  create a new Command Factory
- void * makeSymbolFactory ()

  create a new Symbol Factory
- void * makeCanvasFactory ()

  create a new Canvas Factory
- void * makeSecureFactory ()

  create a new Secure Factory
- void * makeCronFactory ()

  create a new Cron Factory
- void * makeInstallerFactory ()

  create a new Installer Factory
- void * makeInterpreterFactory ()

  create a new Interpreter Factory
- void * makeEditorFactory ()

  create a new Editor Factory
- void * makeViciFactory ()

  create a new Vici Factory

9.18.1 Detailed Description

Project wide declarations and definitions.

9.19 vx.h File Reference

An exception object with stream semantics.

```
#include <stdexcept>
#include <string>
#include <sstream>
#include <vector>
#include <errno.h>
#include <string.h>
```

Classes

- class VICI::vxt< N >

  An exception object with severity levels.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

Macros

- #define VX(x) vx(x, __FILE__, __LINE__)

  Macro to include file name and line number in exception messages.

Typedefs

- using vx = VICI::vxt< VICI::vici_class >

  A project specific exception class.

Enumerations

- enum VICI::Severity {
  VICI::Emergency, VICI::Alert, VICI::Critical, VICI::Error,
  VICI::Code, VICI::Warning, VICI::Notice, VICI::Info,
  VICI::Debug }

  Severity levels for log messages.

9.19.1 Detailed Description

An exception object with stream semantics.

9.20 window.h File Reference

The API for handling windows between modules.

```
#include "vici.h"
```

Classes

- class VICI::VWindow

  An implementation of Window for holding Qt's QWidget objects.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.

9.20.1 Detailed Description

The API for handling windows between modules.

9.21 xini.h File Reference

A class for XML based configuration file.

```
#include "xml.h"
```

Classes

- class VICI::cfi::XINI

  Load an XML configuration file.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

9.21.1 Detailed Description

A class for XML based configuration file.

9.22 xml.h File Reference

A simple C++ wrapper for libxml2.

```
#include <libxml/tree.h>
#include <libxml/xpath.h>
#include <sys/types.h>
#include <sys/stat.h>
#include "stringy.h"
#include <vector>
```

Classes

- class VICI::cfi::XmlBuffer

  An abstract class defining a buffer object.
- class VICI::cfi::Xml

  A C++ wrapper for libxml2.

Namespaces

- VICI

  The namespace for the Visual Chart Interpreter project.
- VICI::cfi

  The namespace for the Common Facilities Infrastructure components.

Macros

- #define VICI_RELEASE "V0.1"

  Macro specifying the release version of Vici.

9.22.1 Detailed Description

A simple C++ wrapper for libxml2.

Index