Chapter

1 *User Interface and Basic Operations*

This chapter describes the general graphical concepts that are used throughout the user interfaces of the Telelogic Tau tools. It also describes some common menu choices. This information will not be repeated in other chapters of the User's Manual.

You should have a basic understanding of the Telelogic Tau tools concepts and tool family before you read this chapter. Such information can be found in:

- ***chapter 2, Introduction to the SDL Suite, in the SDL Suite Getting Started***
- **chapter 3, *Introduction to the TTCN Suite (on UNIX), in the TTCN Suite Getting Started***
- **chapter 2, *Introduction to the TTCN Suite (in Windows), in the TTCN Suite Getting Started***

Graphical Environments and Style Guides

The Telelogic Tau tools family is designed to be available on workstations running UNIX and on PCs running Windows. Since the majority of the Telelogic Tau tools are graphical, it is assumed that the computer you are to run the Telelogic Tau tools on has the required graphical support.

Telelogic supports the following graphical environments:

- On UNIX workstations, the X Windows system, managed by the Motif window manager. The versions currently supported are X11 R5 and Motif 1.2.
- On PCs, the Microsoft Windows system. Telelogic Tau supports Windows 95, Windows 98, Windows NT 4.0 and Windows 2000.

Throughout the Telelogic Tau manuals, it is assumed that you are familiar with the graphical environment that is currently used. Otherwise, we recommend you to read the literature that describes that graphical environment. See for instance "References" on page 38.

The SDL suite for Windows is fully compatible with the SDL suite on UNIX workstations, with respect to functionality and storage formats. However, since they are implemented on different graphical environments, there may be slight differences in the appearance of each tool. Also, we have tried to adopt the respective style guide for each environment as long as feasible, but have been forced to compromise in order to provide a uniform user interface between the UNIX workstation and PC environments.

Constraints

The constraints that are imposed on the Telelogic Tau tools by the graphical environment are identified in "Microsoft Windows System Factors" on page 48, "X Window System Factors (UNIX only)" on page 49 and "OSF/Motif Factors (UNIX only)" on page 51 in chapter 4, *System Setup, in the Installation Guide*.

Application Windows

All the Telelogic Tau tools have a main window with a common general appearance. The tools may also have sub windows that depend on the main window. Apart from these, there are also dialog windows, see "Dialog Windows" on page 28.

In the TTCN suite **in Windows**, the windows will be displayed in the working area of the TTCN suite desktop.

Main Windows

A general main window of a Telelogic Tau tool in Windows and on UNIX, as well as the TTCN suite desktop in Windows, is depicted and explained below:

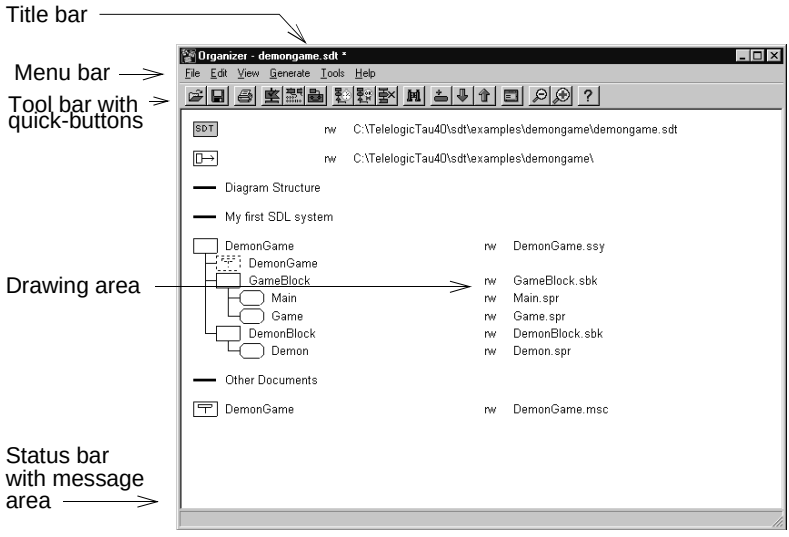

Figure 1: A Telelogic Tau main window **(in Windows)**

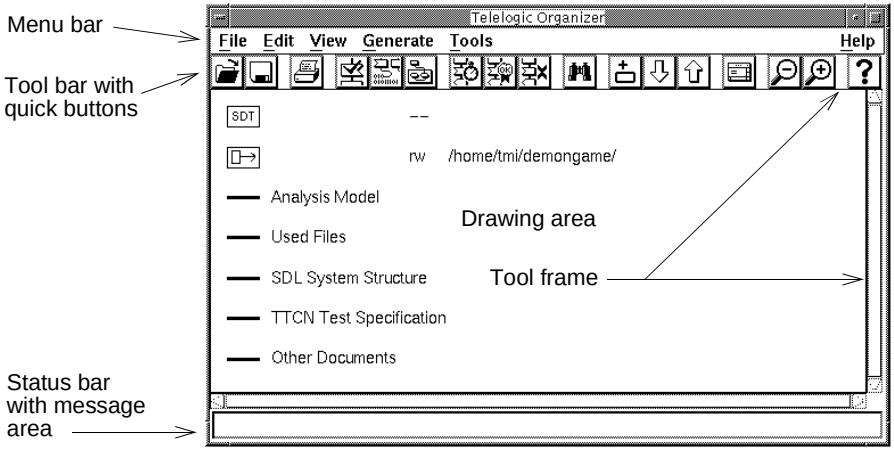

Figure 2: A Telelogic Tau tool main window **(on UNIX)**

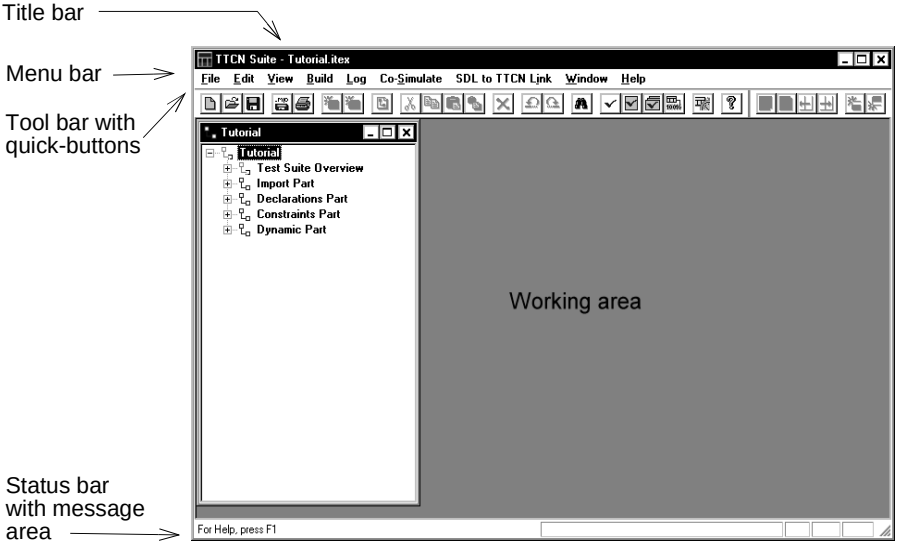

Figure 3: The TTCN suite desktop **(in Windows)**

Title Bar

The title bar may identify the tool family, the tool and the opened document. In some tools, an asterisk signifies that the document is not saved since the last change.

Menu Bar

The menu bar contains pull-down menus. The menu choices operate either on the whole document or file that is opened in the tool, or on any selected object(s). More information on menus and menu choices can be found in "General Menus" on page 8 and "General Menu Choices" on page 8.

You can "preview" the functionality of a menu choice by pointing to it. In the SDL suite **on UNIX** you also have to press the mouse button. An explanation will appear in the status bar.

If a menu or menu choice is dimmed, it is not appropriate or meaningful in the current situation, or the associated tool license is temporarily lost.

If a menu or menu choice is hidden, you do not have a license for the associated tool, or the tool has a long/short menu concept which allows hiding of menu choices.

Tool Bar

Most operations that the quick-buttons in the tool bar provide, have an exactly corresponding menu choice, but some quick-buttons have a slightly different functionality compared to their corresponding menu choice. See also "General Quick-Buttons" on page 24.

You can "preview" the functionality of a quick button by pointing to it. In the TTCN suite **on UNIX** you also have to press the mouse button. An explanation will appear in the status bar, and as a tool tip just below the button (not available in the TTCN suite **on UNIX**).

In the TTCN suite **in Windows**, the tool bars are dockable on all sides of the desktop.

Drawing Area

The information a tool handles is displayed and may possibly be edited in the drawing area. The drawing area may also give access to popup menus. See also "The Drawing Area" on page 25.

Working Area (only in the TTCN suite in Windows)

The working area of the desktop will display the TTCN suite windows that you open. For example, when you open a TTCN document, the Browser window will be displayed in the working area.

Tool Frame (only in the SDL suite on UNIX)

A tool frame, with a unique color for each tool, surrounds the drawing areas in the SDL suite. This makes it easier for you to identify a tool, without the need to see the whole drawing area or the title bar.

Status Bar

The status bar displays information about menu choices and quick-buttons, the progress or result of an invoked operation, and the name of a selected object or additional information about an object.

Sub Windows

A sub window of a Telelogic Tau tool is a window that depends on the main window of the tool. A sub window is opened either automatically when the main window is opened or as a result of user interaction with the main window. All sub windows are automatically closed when the main window exits. However, to close a sub window does not affect the main window.

The TTCN Suite Logs

Some TTCN suite tools, for example the Analyzer, produce logs.

On UNIX, the relevant tool dialog allows the log device to be set to *Screen*, *File* or *None*. If set to *Screen*, the log will be displayed in its own log window. If set to *File*, a directory dialog will be displayed where you can specify a file to save the log in.

In Windows, the Log Manager will display the logs, and tabs are used for viewing different logs. The contents of the window can be copied and saved. For more information, see "Viewing Log Information" on page 1257 in chapter 31, *Editing TTCN Documents (in Windows)*.

Zooming a Window

You can change the scale of the drawing area of an SDL suite window by selecting *Set Scale* in the *View* menu or by using quick buttons for zooming in and out. The scale is normally between 20% and 800%.

General Menus

The following menus are generally available in a menu bar:

- The *File* menu contains menu choices related to files, documents and the whole drawing area, as well as the tool/window itself. Examples: *New*, *Open*, *Save*, *Print* and *Exit*.
- The *Edit* menu contains menu choices concerning editing of the current document. It may also contain menu choices for changing objects. Examples: *Undo*, *Cut*, *Copy*, *Paste*, *Add* and *Edit.*
- The *View* menu contains menu choices that changes the appearance of the window and the information in the drawing area. Examples: *Expand*, *Collapse, Window Options* and *Set Scale*.
- The *Tools* menu contains menu choices for starting tools and utilities, and opening or raising other windows. Examples: *Search, Show Organizer* and *Show <window name>*.
- The *Help* menu contains menu choices for supporting you with help and other useful information.

General Menu Choices

Some common menu choices in Telelogic Tau are described below and the descriptions will not be repeated elsewhere.

File Menu

The most common menu choices in the *File* menu of the Telelogic Tau tools are only described in this section. If a tool provides additional menu choices in the *File* menu, they will be described in the corresponding chapter. If a common menu choice has a different functionality, it will also be described in its corresponding chapter but minor differences will be mentioned below.

New

When you select this menu choice, a new document, diagram or file will be created and displayed. In some tools, it will be given a default file name which you later may change, and in some tools you have to specify the name and the type of document/diagram in a dialog before it will be displayed.

- For information on adding new pages to SDL diagrams, see "Add" on page 1969 in chapter 44, *Using the SDL Editor*.
- In the Text Editor, you have to select in a dialog whether to create a new file, copy an existing file, or to copy a template file. The directory for template files is defined by the preference TE*TextTemplateDirectory. For more information, see "Text Editor Preferences" on page 258 in chapter 3, *The Preference Manager*.
- When you create a new link file in the Link Manager, the current endpoint and link information will be deleted. You will be warned if a link file is already opened.

Open

When you select this menu choice, a file selection dialog will be issued, in which you select what file to open. For more information, see "File Selection Dialog" on page 30.

A default file filter, which depends on the tool, will be used. It corresponds to the default file name extensions applied when a document or diagram is saved (see "Save" on page 11). The tools and the filters are listed in the table below.

- When you open a new SDL simulator, a currently running simulator will be stopped after user confirmation. The Watch window will be updated and the text area will be cleared from previously executed commands.
- When you open a new link file in the Link Manager, a currently opened and modified file has to be saved first.

Tool	Default File Filter
SDL Target Tester	`*.sym`
SDL Coverage Viewer	`*.cov`
HMSC Editor	`*.mrm`
Index Viewer	`*.xrf`
The TTCN suite **in Windows**	`*.itex`
Link Manager	`*.sli`
MSC Editor	`*.m??`
OM Editor	`*.som`
Organizer Log	`*.log`
SDL Editor	`*.s??`
SDL Simulator	`*_sm*.exe` **(in Windows)** `*.sct` **(on UNIX)**
SDL Validator	`*_vl*.exe` **(in Windows)** `*.val` **(on UNIX)**
State Chart Editor	`*.ssc`
Text Editor	`*.txt`

Note:

No specific file name extension on diagrams are imposed. If other file name extensions than the ones suggested have been used when saving diagrams, a different filter than the given must be applied.

Note: The MSC Editor and instance oriented MSC/PR

The MSC Editor supports reading MSC/GR (default file name extension is `.msc`) and MSC/PR (default file name extension is `.mpr`). However, the MSC Editor cannot read MSC/PR expressed in instance-oriented form. Only the event-oriented form can be read by the tool. See the Z.120 recommendation for more information on these two alternative formats.

Note: Opening *.cif files in SDL editor

If a *.cif file is opened in an SDL editor, then the information from the SDL/CIF file is presented in a new, dirty and unsaved diagram buffer.

Save

When you select this menu choice, the current information in the document/diagram/window will be saved in a file.

When you save a document/diagram for the first time, a file selection dialog is opened. A default file name and file name extension is suggested. You have to specify where the file is to be saved and you may also change the file name and extension. If you try to overwrite an existing file, you will be warned.

Note:

If you keep the file name extensions for different documents/diagrams listed below, it will be easier to locate the files. It is also impossible to add an existing file to the Organizer unless it has the default extension.

Document/Diagram Type or Storage Format	Default File or Extension
Command definitions (SDL Simulator UI)	`.cmds`
Coverage	`.cov`
HMSC	`.mrm`
Link file	`.sli`
MSC	`.msc`
Object Model	`.som`
Organizer Log	`.log`
SDL System	`.ssy`
SDL Block	`.sbk`
SDL Substructure	`.ssu`
SDL Service	`.ssv`

Document/Diagram Type or Storage Format	Default File or Extension
SDL Process	.spr
SDL Procedure	.spd
SDL System Type	.sst
SDL Block Type	.sbt
SDL Service Type	.svt
SDL Process Type	.spt
SDL Macro Definition	.smc
SDL Operator	.sop
SDL Package	.sun
SDL Overview	.sov
State Chart	.ssc
State Overview	.ins
Text	.txt
TTCN test suite **(in Windows)**	.itex .mp .imp
Variable definitions (SDL Simulator UI)	.vars

Save Document

The *Save Document* menu choice only exists in the TTCN Browser and Table Editor **on UNIX**. When you select it, the TTCN document will be saved. See also "Save" on page 11.

Save As

Select this menu choice to save the current document/diagram in a new file. A default file name and file name extension will be suggested, see "Save" on page 11. If you change the file name and extension and try to overwrite an existing file, you will be warned.

If the document/diagram was already connected in the Organizer, it will be reconnected to the newly created file. This does not happen in the following cases:

- *Save As Text*. By specifying *.txt as the file name extension for graphical diagrams, the diagram text will be saved in the specified file.
- *Save As CIF*. By specifying *.cif as the file name extension for SDL diagrams, the diagram will be saved in SDL/CIF format, a standardized textual format that includes layout information. When this extension is used in the SDL editor and the Save As dialog is closed, you will be asked to select diagram pages to include in the generated file. As default, all pages are selected. A *.cif file can be opened in the SDL editor. When doing so, the information from the *.cif file is presented as a new, dirty and unsaved diagram buffer.

Note:

If you keep the file name extensions for different documents/diagrams listed above, it will be easier to locate the files. It is also impossible to add an existing file to the Organizer unless it has the default extension. In the TTCN suite **in Windows**, you can only open test suites that have the extension `.itex`, `.mp` or `.imp`.

- In the TTCN suite **on UNIX**, there are three alternatives for compression when you save as TTCN-GR: *None*, *Gzip* and *Compress*. *None* gives maximum compatibility. *Gzip* is preferred over *Compress*, both for portability and performance.

Save a Copy As

This menu choice is available in the SDL suite editors. It saves a copy of the current document/diagram in a new file.

Note:

The window will hold the **original** file, **not the newly saved copy**. The document/diagram remains connected to the old file and the Organizer's structure is left unaffected by the operation.

The name of the new file is to be specified in a file selection dialog and a default file name and extension will be suggested; see "Save" on page 11. If you try to overwrite an existing file, you will be warned.

Save All

This menu choice is available in the SDL suite editors. It saves all modified documents/diagrams that are opened. Except for that, it works as described in "Save" on page 11.

Print

The different *Print* dialogs and how to print is described in chapter 5, *Printing Documents and Diagrams*.

Close

When you select this menu choice, the current document/diagram (or in some cases the window) will be closed. In most documents, you will not have to confirm the closing.

- In the TTCN suite, when you close the last open Browser on a document, you will be asked for confirmation if it has not been saved.
- When you close the Link Manager window, the Link Manager will still be active in the background but the user interface will not be available.
- In the TTCN-SDL Co-simulator Editor **on UNIX**, the window is closed, but current document is not closed until the associated setup is closed.
- In the SimUI's Command window, the commands currently displayed will be saved and shown again when the window is opened again. This is also valid for the variables in the Watch window.

Close Diagram

This menu choice is available in the SDL suite editors. When you select it, the current diagram will be closed. If changes in the diagram have not been saved, a dialog will be issued where you can select to save or not before closing.

If the closed diagram was the last open diagram, the editor will exit. If there are more editor windows open, the window will be closed. If there is only one editor window, but more diagrams open, another diagram will be displayed in the window.

Revert Diagram

This menu choice is available in the SDL suite editors. When you select it, the current diagram will be re-loaded from the file system. This operation is useful if the file has changed in any way in the file system.

Exit

When you select this menu choice, the current tool will exit. If a document/diagram has been changed since last save, a dialog will be issued where you may select to save it, not save it or – where applicable – save all opened documents/diagrams or quit without saving anything.

- In the SDL Simulator, you will be asked to save unsaved changes to the SimUI's definition files. See "Definition Files" on page 2152 in chapter 50, *The SDL Simulator*.

Tools Menu

A *Tools* menu is available in most Telelogic Tau tools. It contains various menu choices, but the following is included in almost all *Tools* menus:

Show Organizer

This menu choice raises the parent Organizer main window, that is from where the tool was started.

Help Menu

A *Help* menu is available in most main and sub windows of the Telelogic Tau tools. However, the menu choices in this menu are not the same in each tool or on each platform, but they work in the same way: When you select a menu choice in the *Help* menu, a help viewer will be opened with the corresponding help topic.

The following *Help* menu choices, that may need an explanation, are described below:

- *About <Tool>*
- *Help Desk*
- *Index*
- *Latest News*
- *License Information*

- *License Info*
- *New Features*
- *On Field*
- *On Shortcuts*
- *On Window*
- *Search*
- *Telelogic Home Page*

About <Tool>

Opens the *About* message box for the tool that the menu choice was invoked from, which gives information on the current tool version, copyright, etc.

Help Desk

Opens the Web browser with a page on the World Wide Web from Telelogic's Help Desk (`http://www.telelogic.com/usersupp/usersupp.asp`). This menu choice is only available in the Organizer.

Index

Opens the help viewer with an index of all entries in the Telelogic Tau documentation. This menu choice is only available in the Organizer.

Latest News

Opens the help viewer with a "readme" file, containing late information about the release.

License Information

Opens a dialog with license information for all tools in Telelogic Tau. For more information on this dialog, see "License Information" on page 162 in chapter 2, *The Organizer*. This menu choice is available in the Organizer.

License Info

On UNIX, this menu choice opens a dialog with additional license information on the TTCN suite tools. For more information, see "License Info" on page 1115 in chapter 25, *The TTCN Browser (on UNIX)*. **In Win-**

dows, the dialog lists the Telelogic Tau licenses currently in use as well as the number of licenses available for each tool.

New Features

Opens the help viewer with information about new and changed functionality.

On Field

This menu choice is available in the TTCN Table Editor **on UNIX**. It displays the TTCN BNF syntax applicable for the relevant field.

On Shortcuts

Opens the help viewer with information about various user interface shortcuts that can be used within the Organizer tool.

On Window

Opens a text describing the TTCN suite tool that the menu choice was invoked from. This menu choice is only available in the TTCN suite **on UNIX**.

Search

Starts a textual search across all help files. This menu choice is available in the Organizer and all the SDL suite tools.

Telelogic Home Page

Opens the web browser with Telelogic's home page on the World Wide Web (`http://www.telelogic.com`). This menu choice is only available in the Organizer.

Defining Menus in the SDL Suite

The graphical the SDL suite tools allow you to define additional menus and menu items that execute external commands or send PostMaster messages. Separate user-defined menus can be defined and added to each graphical tool. However, the pre-defined menus in each tool can **not** be removed or changed.

User-defined menus are described by menu definition files that are read by the tools when they start up.

It is sometimes more useful to add user-defined menus to the tools after they have been started; this can be accomplished if you use the Telelogic Public Interface. For more information see "Menu Manipulation Services" on page 525 in chapter 12, *The Telelogic Tau Public Interface*.

Note:

The fact that a set of menus have been defined in a menu definition file, does not prevent using the public interface services to add additional menus, or even to modify the menus that were defined by the menu definition file.

Tools and Menu Definition File Names

Menu definition files must have fixed names that indicate which tool the menus are intended for.

The following tools allow addition of user-defined menus, and also offer the possibility of letting the menu commands access the internal state information of the tool. This is accomplished if you use *format codes* that are documented separately for each tool in the Public Interface.

Tool	Menu definition file name
Organizer	`org-menus.ini`
MSC Editor	`msce-menus.ini`
SDL Editor	`sdle-menus.ini`
OM/SC/HMSC Editor	`ome-menus.ini`
Text Editor	`te-menus.ini`

The following tools allow addition of user-defined menus, but do not offer the possibility of accessing the internal state of the tool.

Tool	Menu definition file name
Preference Manager	`pref-menus.ini`
Type Viewer	`typ-menus.ini`
Coverage Viewer	`cover-menus.ini`
Index Viewer	`xref-menus.ini`
Tree Viewer	`tree-menus.ini`
Simulator/Validator UI [a]	`simui-menus.ini`

a. **In Windows**, the Simulator/Validator UI's can **not** read menu-definition files.

Menu Definition File Location

On start-up, each tool that supports menu-definition files will search for a menu definition file with the given pre-defined name in up to three locations:

1. First, the directory from where the SDL suite was started is searched. If a file with the expected name is found, the tool will attempt to read it and install the menus described therein.
2. Second, the directory named in the `HOME` environment variable will be searched. If a file with the expected name is found, it will be used.
3. Last, the directory where the SDL suite is installed will be searched (**on UNIX**, `$telelogic/`, and **in Windows** the top installation directory, by default `C:\Telelogic\SDL_TTCN_Suite4.5`).

If no file is found, no user-defined menus will be added on start-up.

Format of Menu Definition Files

A menu definition file is a line-oriented text file separated into sections by lines containing special section markers. Each section contains lines formatted in the same way, containing an option/value pair. Each section describes either a menu or a menu item.

The first line of a menu definition file is a format tag that identifies the file as menu definition file:

```
SDT-DYNAMICMENUS-3.6
```

Each section is started by adding a line with a section name between brackets "[ ]". Valid sections in a menu definition file are:

```
[MENU]
[MENUITEM]
[MENUEND]
```

[MENU] Section

The menu section starts a new menu. Subsequent `[MENUITEM]` sections will add a menu item to this menu until a `[MENUEND]` section is encountered. A `[MENU]` section should be the first line after the initial tag or follow directly after a `[MENUEND]` section.

After the `[MENU]` section tag follows the option below, using the syntax:

`Name=`*`NameOfMenu`*

Option	Explanation/Value
`Name`	A string that contains the name of the menu. The name is presented in the tool's menu bar. The ampersand '&' character may be placed just in front of a letter to indicate that this letter will be underlined in the menu name and thus function as a keyboard shortcut for menu traversal. Make sure that the letter is not used as a shortcut in any other menu in the menu bar, or it may not be possible to open the menu with the keyboard.

[MENUITEM] Section

A `[MENUITEM]` section must occur between a `[MENU]` and a `[MENUEND]` section.

Following the `[MENUITEM]` section tag is a number of options and their values, using the syntax:

```
Option=Value
```

This section adds a menu choice to the specified menu. The menu choice could either perform an OS command or issue a PostMaster notification when selected. The OS command to perform or the message to broadcast could be sensitive on a selected symbol.

The exact interpretation of two of these options (`ProprietaryKey` and `AttributeKey`, described below) will depend on which tool the menu will be installed in. In particular, the `ProprietaryKey` option will only have significance in the Organizer and the graphical editors. The `AttributeKey` option will only have significance in the graphical editors. If not used these options should be set to 0.

For tools supporting access to internal state information, format codes can be used in the command string or as message parameter, providing additional context-sensitive information.

For more information on options and format codes, see *"Add Item to Menu" on page 582 in chapter 12, The Telelogic Tau Public Interface*.

Option	Explanation/Value
`ItemName`	A string that contains the menu item text that appears in the menu item. Ampersand syntax is supported, as for menu names. Make sure that different letters are selected for each menu item in the menu; otherwise keyboard activation of the menu item may not work.
`Separator`	A boolean value (0 or 1) that indicates whether a separator (a thin line) should precede the menu item in the menu.
`StatusbarText`	A string that should be displayed in the tool's status bar while the menu item is selected to hint you about the function of the menu choice.

Option	Explanation/Value
ProprietaryKey	An integer whose interpretation depends on the tool; the Organizer interprets this parameter as lastAction, and the graphical editors interpret it as ProprietaryKey. For more information, see "lastAction" on page 587 and "ProprietaryKey" on page 592 in chapter 12, *The Telelogic Tau Public Interface*. For the Organizer, you can use either an integer or a symbolic string as the value. If not used, simply set to 0.
AttributeKey	An integer whose interpretation depends on the tool; the graphical editors interpret this parameter as AttributeKey. For more information, see "AttributeKey" on page 592 in chapter 12, *The Telelogic Tau Public Interface*. If not used, simply set to 0.
Scope	An enumerated value that indicates when the menu item should be dimmed. For the valid values, see "scope" on page 583 in chapter 12, *The Telelogic Tau Public Interface*. You can use either an integer or a symbolic string as the value. If not used, simply set to 0.
ConfirmText	A text string that contains a dialog box text. If not empty, this will issue a two button dialog with *OK* and *Cancel* buttons and an editable text field containing the command to be performed. You can alter the command text before pressing *OK*.
ActionInterpretation	An integer value indicating the desired action when a menu item is activated: PM_MESSAGE (0) - send PostMaster message OS_COMMAND (1) - execute OS command
BlockCommand	Only significant if Action is set to 1: A boolean value (0 or 1) indicating whether the Organizer should wait for the execution of the command to complete (1), or allow you to perform other operations while the command executes (0).

Option	Explanation/Value
FormattedCommand	Only significant if Action is set to 1: The OS command to perform. Some tools evaluate specific context sensitive format codes.
MessageNumber	Only significant if Action is set to 0: Indicates the number of the PostMaster message to send.
FormattedMessage	Only significant if Action is set to 0: The parameters to the PostMaster message. Some tools evaluate specific context sensitive format codes.

[MENUEND] Section

The [MENUEND] section indicates that a menu definition has come to an end and that no more [MENUITEM] sections should appear until a new [MENU] section is encountered. This section has no options.

Example of a Menu Definition File

An example of a typical menu-definition file could be:

```
SDT-DYNAMICMENUS-3.6
[MENU]
Name=&RCS
[MENUITEM]
ItemName=Check &Out
Separator=0
StatusbarText=Check out the selected object
ProprietaryKey=1
AttributeKey=0
Scope=SELECTED_OBJECT_NOT_IN_EDITOR
ConfirmText=
ActionInterpretation=OS_COMMAND
BlockCommand=1
FormattedCommand=co %f
[MENUEND]
```

General Quick-Buttons

If you hear a beep when you click a quick-button, then the operation is currently not available.

The following quick-buttons can be considered as standard buttons that are available in many Telelogic Tau tools:

Back
The same as *Back* in the *Diagrams* menu.

Forward
The same as *Forward* in the *Diagrams* menu.

Open
The same as *Open* in the *File* menu.

Save
The same as *Save* in the *File* menu.

Print
The same as *Print* in the *File* menu.

Search
The same as *Search* in the *Tools* menu.

Search Again
The same as *Search Again* in the *Tools* menu.

Show Organizer
Raises the parent Organizer window, from where the tool was started. In a sub window to a tool, this button raises the main window of the tool.

Decrease Scale
Decrease the scale of the drawing area by 20%.

Increase Scale
Increase the scale of the drawing area by 20%.

Help
The same as *On <Tool>* in the *Help* menu.

The Drawing Area

Popup Menus

You invoke a popup menu with the right mouse button. A menu choice in a popup menu generally have the same name and work in the same way as a corresponding menu choice in the menu bar.

There are two types of popup menus: context sensitive popup menus and the background popup menu.

Context Sensitive Popup Menus

Objects visible in the drawing area may have associated popup menus, whose contents may vary with the type of the object.

In the SDL suite, a context sensitive popup menu can be displayed in two slightly different ways:

- By a right-click directly on a visible object.

  The current selection also changes with this operation, i.e. the object pointed at becomes selected and replaces any previous selection.

- By a right-click on the background, outside any object, when there exists a current selection.

  In this case, the popup menu applies to the selected object(s) and the selection does not change.

In the TTCN suite, the popup menu **always** applies to the object the mouse pointer is placed on, but the current selection **does not change**. If you right-click on the background of the drawing area, outside of any visible object, the background popup menu is displayed, regardless of any current selection.

The Background Popup Menu

In the SDL suite, the background popup menu is displayed if you right-click on the drawing area background, and there is no current selection in the drawing area. This popup menu contains some of the most important and/or commonly performed menu choices from the menu bar. The popup menu choices operate on the whole file, document or drawing area, in the same way as the corresponding menu choices from the menu bar do.

In the TTCN suite, the background popup menu is always displayed if you right-click on the drawing area background, regardless of any selected objects.

List and Tree Structures

Many Telelogic Tau tools can present a hierarchical structure in two ways; as a list structure and as a tree structure. The example below is from the Organizer.

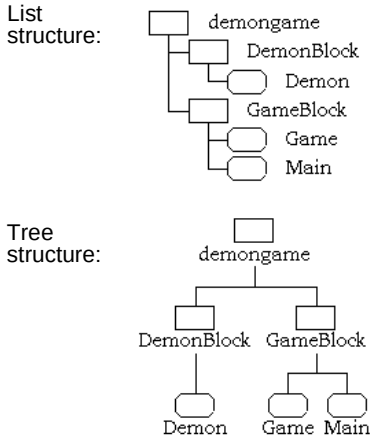

Figure 4: List and tree structures

It is possible to switch between the two structures if you select an *Option* menu choice on the *View* menu. It is also possible to collapse and expand nodes in a hierarchical structure with the *Expand* and *Collapse* commands in the *View* menu. A collapsed node is indicated by a small triangle below the node:

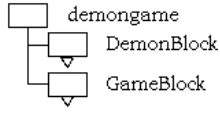

Figure 5: Collapsed nodes in list structure

Selections and Input Focus in the TTCN Suite (on UNIX)

In the TTCN suite **on UNIX** there is a difference between *selection* and *input focus*. Selection is a marked item or text string. You select items with the left mouse button. The input focus is set when you point to an item and click with the middle mouse button. The input focus is indicated by a rectangular border surrounding the relevant item.

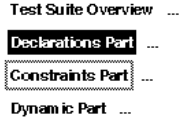

Figure 6: Selection and input focus in the TTCN suite **on UNIX**

Dialog Windows

There are two types of dialogs, *modeless* and *modal*. A modeless dialog does not prevent you from using other parts of the application while the dialog is visible. A modal dialog does prevent this, that is, the dialog must be dealt with before any work can continue.

Modeless Dialogs

A modeless dialog can be considered as an extension to the main window. It contains an *Apply* button which executes the functionality of the dialog but does not close it. The button is often renamed to indicate the functionality, for example *Search*. The *Close* button closes the dialog but does not apply any functionality.

> **Note:**
>
> There is no button with the functionality of an *OK* button, i.e. execute the functionality **and** close down the dialog.

Modal Dialogs

A modal dialog is used for operations that must be confirmed or that affect the view or the information used in the tool. A typical example is an *Open* dialog. The *OK* button in a modal dialog both executes the functionality and closes the dialog. The *Cancel* button closes the dialog but the settings you may have changed in the dialog are ignored.

File Name Completion

Wherever you are supposed to input a file or directory name as text in a text field in a dialog, you can take advantage of file name completion. To do this, you type the beginning of an absolute file name or a directory and then press `<Space>`. This will add characters at the end of the text field. If there are several matches, the initial characters of the matching names will be added. Then you have to press `<Space>` again to get the alternatives one by one. And after the final alternative, you will get a space character.

File name completion is not provided in the TTCN suite.

Example 1: File name completion

Suppose you have the files `/home/lat/hello.txt` and `/home/lat/henderson.txt`.

1. Type **`/home/l`**, and then press `<Space>`.
   The result will be `/home/lat/`.
2. Then type an additional **`h`**, and then press `<Space>` again.
   The result will be `/home/lat/he`.
3. Press `<Space>` again.
   The result will be `/home/lat/hello.txt`.
4. Press `<Space>` again.
   The result will be `/home/lat/henderson.txt`.
5. Press `<Space>` again.
   The result will be `/home/lat/he` (with a space character at the end).

Folder Button

When the name of a file or directory is to be specified in a dialog, a combination of a text field and a *folder button* is often used. You can type the name directly in the text field, or press the folder button to open a file or directory selection dialog (see the following subsections).

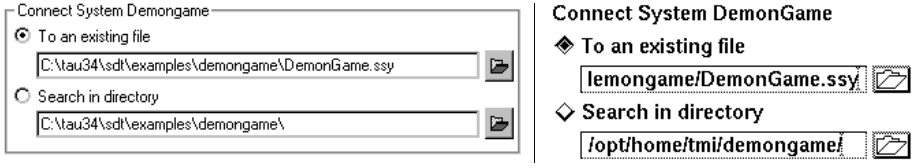

Figure 7: Folder buttons for selecting files and directories (Windows and UNIX)

File Selection Dialog

When you are going to save or open (or something similar) a file, a file selection dialog will be issued. The dialog will also be opened if you click on the folder button associated with a file name field in a dialog.

In Windows, the file selection dialog looks and behaves exactly like the normal file selection dialog used in Microsoft Windows.

In the SDL suite **on UNIX**, the file selection dialog behaves like described below. The the TTCN suite version **on UNIX** is described in "The TTCN Suite File and Directory Dialog (on UNIX)" on page 31.

- The text in the *Filter* field determines which files are shown in the *Files* list. The field is initially set to match the file type that the invoking tool or dialog operates on but you may change it.
- If you click the *Filter* button, the file matching pattern in the *Filter* text field is applied to the current directory in the *Directories* list and the *Files* list is updated. This is the same as pressing `<Return>` or clicking the default button when no file name is present in the *File* text field.
- If you click the *Current* button, the directory will be changed to the source or target directory, depending on which kind of operation you have initiated. For more information, see "Set Directories" on page 70 in chapter 2, *The Organizer*. The *Files* list will be updated accordingly.
- The *Directories* list shows the absolute path to the currently chosen directory, as well as the names of any subdirectories in that directory. The directories in the path are shown within brackets, slightly indented for each directory level. The last directory in the list is the name of the currently chosen directory. To change to another directory, double-click on any directory in the list. Both the *Directories* list and the *Files* list are then updated to show the contents of the new directory.
- The *Files* list shows the files in the currently chosen directory that match the pattern in the *Filter* text field. You can select the file to operate on from this list, in which case the *File* text field is updated to contain the name of the file. To double-click on a file name is the same as selecting it and then pressing the default button.

- The *File* text field contains the name of the file selected in the *Files* list. This field may initially contain a default file name, suggested by the invoking tool or dialog. You can enter any file name in this field, including a relative or absolute path. You may also specify paths to home directories with the "tilde" syntax (`~/` or `~user/`).

  When `<Return>` or the default button is pressed, it is the file in this text field that is operated on. If the field is empty and no file is selected in the *Files* list, this is the same as pressing the *Filter* button.

Directory Selection Dialog

A directory selection dialog is opened when you select menu choices dealing with directories. The dialog will also be opened if you click on the folder button associated with a directory name field in a dialog.

In Windows, the directory selection dialog looks and behaves exactly like the normal directory selection dialog used in Microsoft Windows.

In the SDL suite **on UNIX**, the directory selection dialog behaves like described below. The TTCN suite version **on UNIX** is described in "The TTCN Suite File and Directory Dialog (on UNIX)" on page 31.

- The *Directories* list works in the same way as in the file selection dialog. It is the last directory in the indented list of directories that is chosen when the *OK* button is pressed, unless the text field is specified. This means that it is not enough to select a directory in the list; it has to be double-clicked to become the chosen directory.
- The *Text Field* may be used to enter any directory name, including a relative or absolute path. When `<Return>` or the *OK* button is pressed, it is the directory in this text field that is chosen, if it is specified.
- The *Current* button works in the same way as in the file selection dialog. For more information, see "File Selection Dialog" on page 30.

The TTCN Suite File and Directory Dialog (on UNIX)

Many TTCN suite dialogs **on UNIX** require the specification of directory paths and file names. A special dialog is used for this purpose.

The example used in the description of the dialog below is taken from a *Log file* dialog, but the principle is the same for all file/directory oriented dialogs.

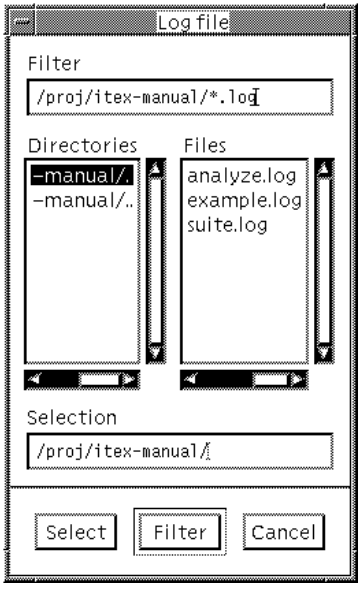

Figure 8: The TTCN suite file and directory dialog **(on UNIX)**

- The *Filter* field enables you to specify a name pattern which will cause only those file names which match the pattern to be displayed in the *Files* list. Note that the name pattern must be preceded by the complete directory path. This path is set by the TTCN suite to the currently selected directory (by selecting a directory path in the directories list), but you may edit it directly.
- The *Directories* list shows the directories in the current directory. This list will contain at least two entries, the current directory (a path ending in `/.`) and the parent directory (a path ending in `/..`). To change to another directory in the dialog, select the required directory path and double-click (see also the *Filter* command).
- The *Files* list shows the files that are in the selected directory which match the name pattern. If no files match the pattern or the directory is empty, this is indicated by “[ ]”.

- The *Selection* field displays the currently selected file. This input field also enables you to directly type in a file name.
- The *Filter* button updates the *Files* list depending on the filter pattern (including the file path). Select a directory in the *Directories* list, then choose the *Filter* button to open the directory and display the files in that directory (if any) in the *Files* list.
- The *Select* button terminates the dialog with the selection indicated in the *Selection* input field (in other dialogs this button may have another name, e.g. *Open*, *Export*, etc. but the effect is the same). If there is already a file name chosen before invoking this dialog (i.e. from import dialog when selecting a database name) and no name is specified in the *Selection* input field in this dialog, only the directory path will be modified.

Filename Error Dialogs (UNIX only)

For compatibility reasons, file names on UNIX platforms must not contain colon characters. For an overview on file compatibility issues, see "Windows and UNIX File Compatibility" on page 209 in chapter 2, *The Organizer*.

In the SDL suite, this restriction is checked whenever the you change a file or directory specification that is stored in the system file (see "System File" on page 184 in chapter 2, *The Organizer* for more information). If they are not followed, an error dialog is shown and you are returned to the dialog where the file was specified.

If you use the TTCN suite, this restriction affects you only when you choose a name for the system file in the Organizer.

The Busy Dialog

In some special circumstances, a message dialog may be opened, stating that a tool is "busy." This is **not** an indication of a system error. The dialog is opened when a tool is busy performing an operation that you have not finished. A typical example is when you select *Show Organizer* from another tool, and you have not closed a modal dialog in the Organizer, for example the *Print* dialog.

The remedy for a situation like this is to close the message dialog and finish the operation that caused the busy message.

The Timeout Warning

When a Telelogic Tau tool is started on a heavily loaded computer system, it may fail to start and respond within a certain time limit. When this happens, a timeout warning dialog is opened.

The time limit is specified, in seconds, by the environment variable `STARTTIMEOUT`. The default time limit is 60 seconds. If timeout problems occur, this variable should be adjusted to a higher value to match the typical response times for the computer system where the Telelogic Tau tool is running. For the changed time limit to take effect, the Telelogic Tau tools must be restarted.

Keyboard Operations

It is possible to reach and invoke all commands, menu choices and selections by using the keyboard. This section describes the general keyboard operations available.

Menu Traversal

The name of each menu in the menu bar contains an underlined character, as in the menu name *File*. To display, or pull down, the menu, press `<Meta>` **(on UNIX)** or `<Alt>` **(in Windows)** and the corresponding key, for example `<Meta+F>` or `<Alt+F>`.

One character in each menu choice is also underlined. To invoke a menu choice when the menu is displayed, simply press the corresponding key.

The arrow keys can also be used to move between the menu choices and the adjacent pull-down menus.

To invoke a selected menu choice, press `<Return>` or `<Space>`. To cancel the menu traversal and bring down the menu, press `<Esc>`.

Keyboard Accelerators

You can invoke most common menu choices by using an accelerator. An accelerator is a key combination of the form `Ctrl+X`. An accelerator is always case insensitive.

An accelerator always invokes the same kind of command in all SDL suite tools where it is available. The standard accelerators are:

Accelerator	Functionality or menu command
`Ctrl+F`	Find, *Search* (in the *Tools* menu)
`Ctrl+H`	Help (*On <tool>* in the *Help* menu)
`Ctrl+N`	*New* (in the *File* menu)
`Ctrl+O`	*Open* (in the *File* menu)
`Ctrl+P`	*Print* (in the *File* menu)
`Ctrl+Q`	Quit, *Exit* (in the *File* menu)
`Ctrl+S`	*Save* (in the *File* menu)

Accelerator	Functionality or menu command
Ctrl+X	*Cut* (in the *Edit* menu)
Ctrl+C	*Copy* (in the *Edit* menu)
Ctrl+V	*Paste* (in the *Edit* menu)
Ctrl+Z	*Undo* (in the *Edit* menu)
Ctrl+D	Scroll one page down
Ctrl+U	Scroll one page up

Key Bindings

By using some special keys, you may perform an operation without holding down any modifier key at the same time.

Note:

All keys are not present on all keyboards.

Key	Operation
Arrow keys	Moves the selection in tree structures, list structures and ordinary lists to the closest object in the indicated direction.
Return (Enter)	• In a drawing area: the same action as a double-click on the selected object. • In a dialog: the same action as pressing the default button.
Delete (Remove)	For texts, clears the character **after** the insertion point. (May be changed with a preference.)
Backspace	For texts, clears the character **before** the insertion point.
F1 / Help	Opens the help viewer with help on the current window.
F2	Raises the popup menu.
Page Up (PgUp, Prev)	Moves the visible part of the drawing area a screen upwards.

Key	Operation
`Page Down (PgDn, Next)`	Moves the visible part of the drawing area a screen downwards.
`Home`	Moves the visible part of the drawing area to show the top of the drawing area.
`End`	Moves the visible part of the drawing area to show the bottom of the drawing area.
`Open`	As the menu choice *Open*.
`Find`	As the menu choice *Search.*
`Again`	As the menu choice *Search Again.*
`Undo`	As the menu choice *Undo.*
`Copy`	As the menu choice *Copy.*
`Paste`	As the menu choice *Paste.*
`Cut`	As the menu choice *Cut.*

Key Bindings in the TTCN Suite

More information on keyboard accelerators and key bindings in the TTCN suite can be found in:

- "Shortcuts" on page 1269 in chapter 31, *Editing TTCN Documents (in Windows)*
- "Key and Button Bindings" on page 1155 in chapter 25, *The TTCN Browser (on UNIX)*
- "Key and Button Bindings" on page 1179 in chapter 26, *The TTCN Table Editor (on UNIX)*
- "Customizing the TTCN Suite (on UNIX)" on page 1227 in chapter 30, *Customizing the TTCN Suite (on UNIX)*

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