Chapter

9 *DOORS Integration*

This chapter describes the installation and use of the integration of the requirements and traceability management tool Telelogic DOORS together with the Telelogic Tau SDL and TTCN Suites.

Overview

Introduction

Telelogic DOORS is a tool for creating, structuring and managing complex sets of requirements, such as those for a typical software development project. The objective of the DOORS Integration is to make an up-to-date view of Telelogic Tau SDL and TTCN Suite project development information available in DOORS.

The functionality of DOORS can then be used to carry out tasks involving requirement traceability and impact analysis. For instance, you can use DOORS to link requirement documents to SDL and TTCN Suite information.

Users are required to have a working knowledge of both DOORS and the SDL or TTCN Suite.

The integration works with DOORS version 4.0 or later, and SDL and TTCN Suites version 4.1 or later, on all platforms supported by the SDL Suite.

Main Functionality

The main functionality of the DOORS Integration is to export diagram/document information, from the SDL and TTCN Suites to DOORS. The structure in the Telelogic Tau Organizer is duplicated in a DOORS formal module, which represents the Organizer objects in a “surrogate” module.

The objects in a surrogate module are organized hierarchically in the same way as the corresponding objects in the Organizer.

When the surrogate module is created, two views will be created:

- *Tau View*, which shows the names of the objects.
- *Tau View with Deletions*, which shows the names of the objects and the *Deleted in Tau* attribute, which keeps track of objects in the surrogate module which no longer have a corresponding Organizer object.

Surrogate modules can be used just like any other DOORS module, but be careful not to delete or add any objects as this may cause the synchro-

nization procedure to fail. You can link objects in the surrogate module to objects in other modules, you can create your own views and you can exploit the power of DOORS traceability tools.

Installation

The integration of DOORS with the SDL Suite only works properly when both DOORS and the SDL Suite run on the same machine, and have been configured properly. This section describes how to install the DOORS Integration.

Installation Procedure for Windows

Note:

In the instructions below, it is assumed that your CD drive is mounted as drive D:\. If your CD has been mounted using another drive letter, please use this letter instead.

To install the DOORS Integration on Windows:

- Run `D:\doors\win32\setup.exe` and follow the instructions on your screen. The setup procedure will add the necessary DXL files to your DOORS installation.

Installation Procedure for Unix

Note:

In the instructions below, it is assumed that your CD drive is mounted in accordance with the instructions in "Installation Procedure" on page 16 in chapter 2, *Installation Procedure for UNIX, in the Installation Guide*.

To install the DOORS Integration on UNIX:

1. Change directory to the DOORS integration installation directory: `cd doors/unix`
2. Start the installation script `./doorsinst.cd` and follow the instructions on your screen.

Last Minute Additions

There is a `readme.txt` file in the `doors` directory on the CD, describing last minute additions and corrections to the DOORS Integration.

Using the Integration

Initial Steps

To use the DOORS Integration, you must first:

1. Start DOORS
2. Open an existing project, or create a new one
3. Create a new formal module

> **Note:**
>
> Do not use a prefix for the object identifiers in the formal module.
>
> Do not manually add any objects in the formal module, as this will make it impossible to run *Connect / Synchronize* on this module.

If the DOORS Integration was successfully installed, there will now be a new menu in the formal module window, *TauSDL*. Otherwise, please check the installation procedure again.

Commands in DOORS

Synchronizing

The *Connect / Synchronize* command is used for two purposes:

- Initially populating the DOORS formal module with objects corresponding to the Organizer structure.
- Synchronizing the DOORS formal module with the current contents of the Tau Organizer, to update the surrogate module with the changes that have been made in the Organizer view since the last *Connect / Synchronize*.

After issuing this command, the formal module containing the surrogate model will now show a Tau-specific view, containing the symbol names from the Organizer view. If the view in the DOORS formal module is set to *Tau View with Deletions*, the attribute *Deleted in Tau*, which is set to `Yes` if a diagram corresponding to an object in the surrogate model was deleted in the Organizer, will also be shown.

The items from the Organizer that are exported to DOORS depend on the installed licenses:

- If the SDT-DOORS-Integration license is available, the following will be exported from the Organizer:
  - SDL Package
  - System
  - Block
  - Process
  - Procedure
  - System Type
  - Block Type
  - Process Type
  - MSC
  - HMSC
- If the ITEX-DOORS-Integration license is available, the TTCN documents will be exported from the Organizer, and the test suites will be expanded to also show test groups and test cases in the formal module.

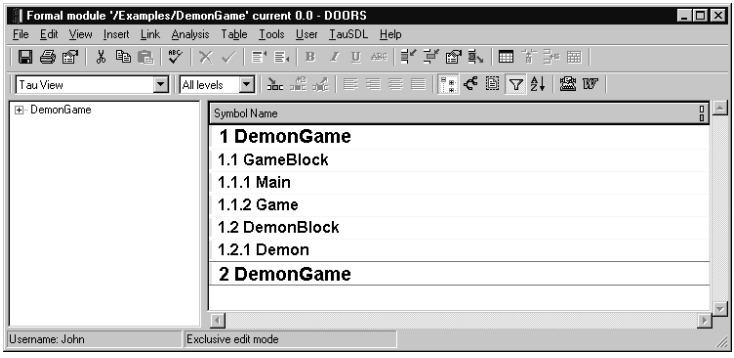

Figure 128: The DOORS formal module after synchronization

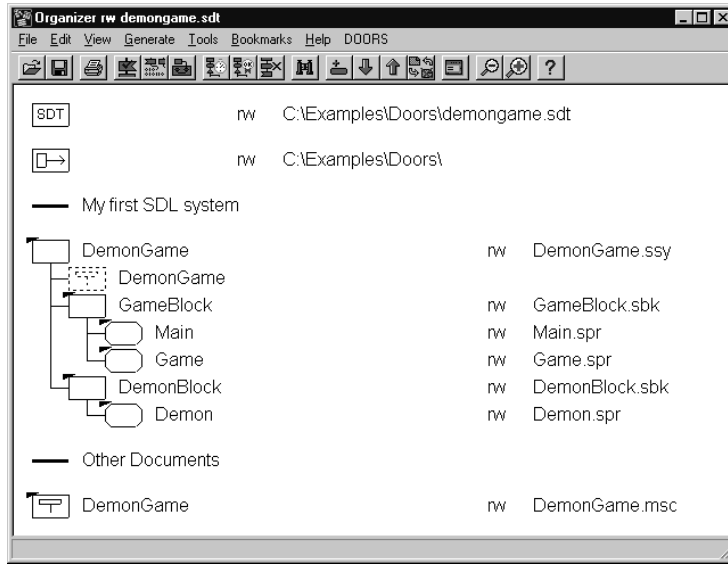

Figure 129: The Organizer view after synchronization

Note:

The DOORS Integration uses the Telelogic Tau Link Manager to keep track of the objects which have been exported to DOORS. Do not try to edit the contents of the Link Manger view, as this may cause the synchronization procedure to fail.

After the synchronization is done, the following dialog will appear:

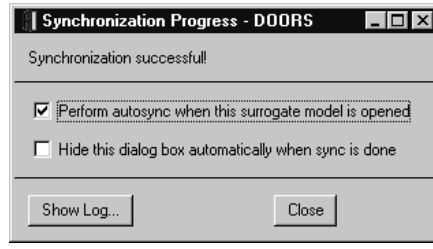

Figure 130: Synchronization progress dialog

- *Perform autosync when this surrogate model is opened*

  If this option is checked (default), an automatic synchronization will be done the next time this formal module is opened in DOORS.

- *Hide this dialog box automatically when sync is done*

  If this option is checked, this dialog box will not be shown after the next synchronization is done.

Note:

If this option is checked, there might be difficulties in managing these check boxes, since the dialog box will disappear immediately after a synchronization is performed. However, the checkbooks correspond to the formal module boolean attributes “TD AutoSync” and “TD AutoHide”, which can be set using the regular DOORS module attributes settings dialog.

- *Show Log*

  If this button is pressed, a log will be displayed, showing the proceedings of the synchronization. If there is a problem during synchronization, this log can be useful to find the possible cause.

Navigating

In the *Show Symbol* menu, there are two sub-commands for navigating from DOORS to the SDL and TTCN Suites: *In Organizer* and *In Editor*.

- *Show Symbol > In Organizer* will show the symbol corresponding to the selected DOORS object in the Organizer.
- *Show Symbol > In Editor* will show the diagram or document corresponding to the selected DOORS object in an appropriate Telelogic Tau Editor or Browser.

Checking License Information

The command *Show License Info* can be used to check whether the licenses for the DOORS Integration have been installed properly.

Linking DOORS Requirements and Telelogic Tau Diagrams

To create links between DOORS requirements and Telelogic Tau diagrams:

1. Open the DOORS module that contains the requirements to be linked.
2. Open the DOORS module that contains the surrogate model which represents the current Organizer contents.
3. Use standard DOORS linking methods to create links between objects in the requirements module and objects corresponding to the Telelogic Tau diagrams/documents.

Commands in Telelogic Tau Organizer

The command *DOORS* > *Show Requirements* in the Organizer will show a list of requirements which are linked to the DOORS formal module representing the selected diagram in the Organizer.

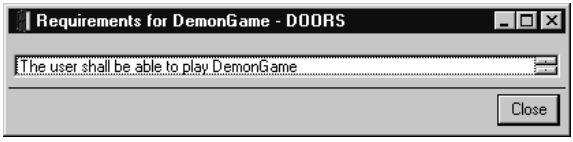

Figure 131: Dialog showing DOORS requirements

By clicking on one of the requirements in the list, the corresponding DOORS formal module will open with the selection on the chosen requirement.

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