

**Release Notes**  
**TYX TestBase**  
**Version 2.6.0**  
**29 April 2004**

## **1. Overview**

This release contains the following new features (compared to versions 2.5.x):

- support for Configuration Management
  - automatic generation of design reports
  - integration with Visual SourceSafe, supporting collaborative development and version tracking
  - generation of difference reports between different designs and between versions of the same design
  - support for searching data in flowcharts
- statistic MTI reports
- improved flexibility for security administration
  - support for individual users and user groups
- various enhancements in IDE, addressing usability and reliability
  - Build All command
  - Improved error reporting, etc.
- includes the Adapters for SMART ATLAS and VISUAL-ATEC (previously available as add-on)
- improved development support
  - redesigned Help System
  - Help buttons in all forms where user operation may require additional information
  - enhanced tutorials
  - improved samples
- available as a web download, with time-limited evaluation licensing

The release also incorporates fixes for several problems identified in version 2.6.0 Beta.

The release includes the following main items:

- TestBase installation package, including a complete set of sample files, documentation and tutorial slides
- Redistributables, including:
  - TYX License Manager
  - Third-party run-time engines
  - Support for interfacing with Sun RPC
  - Instrument drivers needed for running some of the samples
- Installation Guide

## 2. Detailed Description

### 2.1. Critical items

#### 2.1.1. Installing over 2.6.0 Beta Release

If you have release 2.6.0 Beta installed you must **uninstall** it before installing this release.

#### 2.1.2. Permissions for installation & security administration

The user performing the installation **must have Administrator permissions** for the Windows operating system. **After installing TestBase, this user must start the IDE once, to perform a Registry initialization.** After that, users with more restricted permissions can use the TestBase modules.

The user performing security administration from the IDE **must have also Administrator permissions** for the Windows operating system.

#### 2.1.3. Configuration of environment variables (general)

The TestBase environment variables are reset to their default values during the installation of a new version. **They must be manually set to the values used by the previous version of TestBase.**

#### 2.1.4. Configuration of environment variables when using the LabVIEW Adapter

The LabVIEW Adapter loads the LabVIEW engine when it is loaded by TestBase, and unloads the engine when it is unloaded. It appears that the repeated unloading and reloading of the LabVIEW engine causes unreliable operation. Thus, for a reliable operation of the LabVIEW test procedures it is recommended to set the value of the environment variable **TB\_TCA\_UNLOAD** to 0 (zero).

#### 2.1.5. Security setting for third-party applications

Recent versions of Microsoft Excel and Visio support a more flexible configuration of their security features, which includes the ability to execute macros. TestBase uses such macros to implement integration with Excel and Visio. Consequently, **these products have to be configured properly, to accept the execution of macros.** Detailed instructions are provided in the TestBase Installation Guide.

#### 2.1.6. Configuration of Functional Test Controller (FTC) execution reports

When generating FTC Execution Reports that include Test Information and Parameter Values, it is strongly recommended to **use separate files**, instead of appending information to the same file. If information is appended to the same file, this file will eventually become very large and this will increase the execution time. Use the FTC menu **Tools | Options | UI\_FT Specific** to configure the generation of execution reports.

#### 2.1.7. Configuring Visio for generation of Diagnostic Procedure Reports

When generating a report for a Diagnostic Procedure, you may get the error message “Unable to export CFD”. The report files containing the Visio diagram are not generated. The report file

containing the text description of the diagnostic strategy is generated, but its hyperlinks will not operate.

This problem occurs if Visio Professional was installed on the system but *its HTML export feature was never used*. To fix the problem, the feature must be exercised once as follows: open an existing flowchart in Visio or create a new one (menu **File | New**) export the flowchart as HTML (menu **File | Save As**, select file type “HTML Files”, select a temporary folder and press **OK**).

#### 2.1.8. Limitations of Evaluation License

The evaluation license is valid for 30 days from the date you install TestBase and provides you with full functionality with the following exceptions:

- you will not be able to *build* test strategies with more than *15 blocks*
- you will not be able to *execute* more than *15 test procedure calls*, during a test strategy execution

#### 2.1.9. Automatic upgrade of security settings

Previous versions of TestBase supported a *fixed set of users*, such as Developer, Operator, etc. Custom passwords could be assigned to these users.

Starting with this version, TestBase supports a *fixed set of user groups* and an *arbitrary set of individual users*. Each user is a member of exactly one group. Custom passwords can be assigned to users.

When this version is installed on a computer that had a previous TestBase installation, the security settings are automatically re-configured as follows:

- user groups are automatically created; the names of these groups are the plurals of the predefined user names supported by previous TestBase versions
- one user will be automatically created for each newly created group; the user name is the singular of the group's name

Note: These names match exactly the names of the fixed users supported by previous versions. Each user's password, as assigned using the previous TestBase version, is preserved during the upgrade. Consequently, the information provided by each user at login does not change.

For example, if in a previous version the user **Developer** had the password **dev123**, after the upgrade there will be a **Developers** group and a **Developer** user, member in the **Developers** group. The **Developer** user has the password **dev123**.

After the upgrade, the Administrator can create new “individual” users, for the persons using the TestBase installation. The Administrator can also disable the security feature, in operating environments where it is not necessary. In this case, Login forms are no longer displayed when various TestBase modules are started.

#### 2.1.10. Shortcut keys (functionality change)

The shortcut keys (accelerators) that did not operate properly in some contexts were removed from the menu. The shortcut keys that are currently shown in the menu do operate properly. You should **avoid using any shortcut keys that are not in the menu**.

#### 2.1.11. Case sensitivity of Outcome comparisons (functionality change)

When a Test block is followed by decision blocks, the compiler compares the outcome values tested by the decision blocks against the set of possible outcomes returned by the called Test procedure. In some of the previous releases, the above comparison was case insensitive. For consistency with other comparisons in TestBase, the comparison algorithm was changed to case sensitive, starting with release 2.4.0. This change does not affect the operation of existing projects and does not require their recompilation.

#### 2.1.12. Running ATLAS Test Procedure from sample database used in the Developer's Manual

To run the ATLAS Test Procedure from Developer's Manual sample database you must disable the run-time Test Diagram Viewer from PAWS Run Time System.

#### 2.1.13. Operating system compatibility

The product works properly with Windows NT 4.0 SP 6, Windows 2000 SP 2 and Windows XP.

#### 2.1.14. Internet Explorer compatibility

The product works properly with Microsoft Internet Explorer 5.5 and 6.0. **It does not work with Internet Explorer 5.0.**

#### 2.1.15. Microsoft Office compatibility

The display of Excel reports works properly with Microsoft Office 2000 Service Release 1 and Microsoft Office XP.

#### 2.1.16. Microsoft Visio compatibility

The product works properly with Microsoft Visio 2000 and Visio 2002. **It does not work with Visio 2003.** Compatibility with Vision 2003 will be added in a future release.

#### 2.1.17. Oracle compatibility

The MTI Controller distributed with the current version of the product was tested with the following combinations of versions for server and client:

- Oracle 8.1.5 and 8.1.7, under Windows NT 4.0
- Oracle 8.1.5 and 8.1.7, under Windows 2000
- Oracle 9.0.1.1, under Windows NT 4.0.

A compatibility problem exists between the Oracle software and the Microsoft libraries used internally by TestBase. This problem may be corrected, for Oracle 8 versions, by configuring the system registry as described in the document [Connectivity Issue with MDAC and Oracle8i.pdf](#). For Oracle 9, use the information provided for version 8.1 in the above document, performing the following replacements in the strings to be entered in the registry:

1. replace oraclient8.dll with oraclient9.dll
2. replace orasql8.dll with orasql9.dll

#### 2.1.18. LabWindows/CVI compatibility

The Adapter for LabWindows/CVI works properly with the following versions: 5.0, 5.5 and 6.0. Minor changes to the sample test code must be performed in order to compile it under version 5.0. The TestBase installation package redistributes version 6.0 of the LabWindows/CVI Run Time Engine. You may obtain other versions of the Run Time Engine from National Instruments.

## 2.2. Known Limitations

### 2.2.1. TestBase IDE

The “Undo” command used during flowchart editing operates with some limitations (see examples below). After performing an Undo, it is recommended to verify its effect on the flowchart and the parametric data displayed in the grid. The “Undo” command for the addition of an Off-Page Reference block does not delete the “pair” block that was automatically appended. Workaround: delete manually the “pair” block. The “Undo” command for the deletion of a block does not recover the parametric data originally assigned to that block. All parameter values are reset to their defaults.

When running a test strategy in debug mode, with execution stopped between steps, if the user clicks on a different Control Flow Diagram (flowchart) then clicks the **Run, Step, SimulatedStep** or **SimulatedStepWithUI** buttons, an error message may be displayed: “Automation Error. Illegal to call out while inside message filter”. This is normal. Press **OK**, click on the Control Flow Diagram that is currently debugged and continue using the IDE. The error indicated before has no impact on subsequent operation.

A General Protection Fault may occur when closing the IDE or a Diagnostic Controller user interface after an Abort operation. Because it occurs when the application is terminated, this behavior does not have harmful effects.

### 2.2.2. LabWindows/CVI Adapter

A limited subset of scalar data types is currently supported in the TestBase Support Library for LabWindows/CVI. Use direct access to VARIANT fields for other data types.

The execution of samples that use Custom Data Type Editors as ActiveX controls requires a LabWindows/CVI installation (the run-time engine is not sufficient).

### 2.2.3. PAWS Adapter

Array parameters are not supported.

Debugging of ATLAS test procedures launched from TestBase is not supported. Workaround: debug test procedures standalone execution mode, in the PAWS environment.

### 2.2.4. LabVIEW Adapter

The documentation for developing test procedures with LabVIEW does not cover the use of Custom Data Type Editors as ActiveX controls on LabVIEW panels.

### 2.2.5. VEE Adapter

The documentation for developing test procedures with VEE does not cover the use of Custom Data Type Editors.

### 2.2.6. Custom Data Types (CDTs)

a. The use of CDT Editors is currently not supported in test procedures developed with PAWS ATLAS, SMART ATLAS, VISUAL-ATEC and Agilent VEE.

b. Support for CDTs is limited in the reports included in the TestBase distribution. These reports display the values of CDTs as follows:

- The Diagnostic Procedure report displays the generic text “<Value for Custom Data Type Editor with ProgID: ”, followed by the ProgID of the CDT Editor.
- The sample Excel report “Sample\_MTI\_offline.xlt” displays the generic text “<Value for Custom Data Type Editor with ProgID: ”, followed by the ProgID of the CDT Editor.

c. The values of Global Parameters with Custom Data Types are not stored in Oracle and Access MTI databases. You may retrieve these values from the Input Parameters to whom the Global Parameters are assigned.

#### 2.2.7. Diagnostic Procedure reports

The internal links of text-based reports will not operate if the set of files generated for a report is moved to a different location in the file system or on a web server.

#### 2.2.8. Previous compiler no longer supported

Previous versions offered a choice of 2 compilers. Starting with this release, only the newer compiler (referenced as “Complier 2” in the Help System of previous versions) will be supported.

### 2.3 Enhancements

Besides the new functional features indicated in Section 1 above, this release contains the following enhancements (compared to releases 2.5.x):

#### 2.3.1. Improved selection of steps in FTC

The steps representing expanded DP calls and End actions are displayed with a gray background. These steps can not be selected by the user.

#### 2.3.2. Optimized display of the stencil

In previous versions, the IDE stencil was loaded automatically on each IDE startup. In this release, the status of the stencil (open/closed) is memorized between sessions. This reduces startup time, when the stencil is not used for several sessions (ex. during debugging).

#### 2.3.3. Simplified backup copies

Previous versions supported an unlimited number of backup copies. This version supports a single copy (the version anterior to the last Save operation). The “history” functionality, previously supported through the multiple copies approach, is now provided via Configuration Management.

#### 2.3.4. New features since 2.6.0 Beta

The following functional features were added since the 2.6.0 Beta release:

- Build All command (menu **Debug | Build All**)
- Search capability for Control Flow Diagrams (menu **Edit | Find**)

## 2.4 Problem Reports

This section addresses problems identified for releases 2.5.x.

### 03-044 - Passing parameters to DP calls

*The requested functionality is implemented in the current release. See the Help System for utilization instructions.*

### 03-088 - Invalid property value

Getting the error messages when running DC\_GUI.exe.

*Caused by the sharing of persistent settings (including size) by the DC\_GUI and DC\_GUI\_EXT clients. Resolved. The settings are now separate.*

### 03-130 - Add a “Build All” command in IDE

This command will build all Test Strategies in the currently opened project. It is useful when there are DP calls inside the Test Strategies and where the changes made in a Diagnostic Procedure may affect multiple Test Strategies.

*Implemented.*

### 03-131 - Help addition

Add a description of the differences between the Compile and Build operations.

*Added.*

### 03-133 Enabling access to Global Parameters via DC GUI API

Access to GPVs defined at Project & UUT Model level should be possible even when the test strategy is not executing. This is a request for enhancement.

*Implemented. The following functions were added **SetGlobalParamValue**, **SetInputParamValue** and **SetOutputParamValue**. For details, see the DC API reference in the Developer’s Manual.*

### 03-136 - IDE closes on non-fatal errors

Currently all types of errors that appear in IDE close down the application. This should not happen for errors that are not fatal (i.e., IDE execution can continue without problems). For example, an error on DiagML import should not be fatal.

*The IDE no longer closes for non-fatal errors (i.e., errors that do not leave the application in an unstable state).*

### 03-141 - Invalid procedure call or argument

This error occurs and IDE closes if the user deletes a property that is not allowed to be empty (e.g. "Name" property of a UUT Model) and then selects an item in the strategy tree without exiting the grid editing mode (done by pressing the ENTER key or by clicking on another cell).

*Corrected.*

#### 04-001 - DP save error "Method ~ of object ~"

The error is generated when saving a DP that calls itself recursively.

*Resolved. The same DP can no longer be selected, when characterizing "DP call" blocks.*

#### MTI error on Global Parameters Values with the same name

If Global Parameter Values with identical names are defined at multiple levels of the Project tree and the storage of test results in MTI databases is enabled, an error is generated at run-time.

Workaround: avoid using identical names, until this problem is fixed.

*The global parameter names stored in the MTI Database are now prefixed with a string identifying the Project level where each global is defined ("PROJ" for Project, "UUT" for UUT Model, "TS" for Test Strategy). This makes the global names unique, preventing the MTI error.*