

SmartTranslator 2.1

Release Description

Build 2.1.36

ST21REL, Rev. 13 2009-11-27

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1. Introduction

This document contains information about the current version of the SmartTranslator™ program. It describes the changes since the previous version, capacity and performance guidelines, restrictions and other last minute notes, which are applicable for this version.

1.1 Related documentation

The following table lists all documents related to the SmartTranslator product.

Title	Description
SmartLogger User's Guide	User's Guide for the SmartLogger package.
SmartClient User's Guide	User's Guide for the SmartClient program.
SmartNotification User's Guide	User's Guide for the SmartNotification package.
SmartBuilder User's Guide	User's Guide for the SmartBuilder program.
SmartGuard User's Guide	User's Guide for the SmartGuard package.
SmartStatus User's Guide	User's Guide for the SmartStatus package.
SmartTranslator User's Guide	User's Guide for the SmartTranslator package.

1.2 Release history

The following table lists the milestones in the development of the SmartTranslator application:

Version	Date	Description
1.0	1999-08-18	Final release 1.0
2.0	2000-09-19	Final release 2.0
2.0 P1	2000-12-14	Patch #1
2.0 P2	2001-01-28	Patch #2
2.0 P3	2001-03-12	Patch #3
2.0 P4	2001-04-04	Patch #4
2.1	2003-09-22	Final release 2.1
2.1 Patch A	2003-12-14	Patch A
2.1 Patch B	2004-04-25	Patch B
2.1 Patch C	2004-11-24	Patch C
2.1 Patch D	2007-04-25	Patch D
2.1 Patch E	2007-04-29	Patch E
2.1 Patch F	2007-07-03	Patch F
2.1 Patch G	2007-09-20	Patch G
2.1 Patch H	2008-12-23	Patch H
2.1 Patch I	2009-12-06	Patch I

Build versions:

Application	2.1	2.1 PC	2.1 PD	2.1 PE	2.1 PF	2.1 PG	2.1 PH	2.1 PI
SmartTranslator	2.1.12	2.1.21	2.1.25	2.1.27	2.1.29	2.1.30	2.1.33	2.1.36
SmartBuilder	3.3.X	3.3.x	3.3.11	3.3.11	3.3.11	3.3.12	3.3.12	3.3.13
SmartGuard	1.1.0	1.1.0	1.1.0	1.1.0	1.1.0	1.1.0	1.1.0	1.1.0

2. Product Overview

2.1 Product overview

The SmartLogger product suite consists of the following programs:

SmartLogger™: Main program that handles the basic event logging and data handling for up to 4 serial or TCP/IP ports concurrently.

SmartClient™: Client application used for viewing and analysing log tables generated by the SmartLogger/SmartTranslator.

SmartBuilder™: Program used for building and maintaining the templates used by SmartLogger/SmartTranslator.

SmartSim™: Event simulator that can be used for test and demonstration purposes by sending events via a serial or TCP/IP connection. The simulator is freeware.

SmartTranslator™: Program for translating plain text files into SmartLogger database tables.

SmartNotification™: Application for generating mail/SMS/EXE notifications. Can be used in connection with many different kind of data sources.

SmartStatus™: Program for remote supervision/control of the SmartLogger/SmartTranslator programs.

SmartGuard™: NT Service application for supervising and automatically starting/re-starting SmartLogger/SmartTranslator as "background" tasks.

The listed programs are bundled in the following packages:

- **SmartClient package.** Contains a stand-alone SmartClient.
- **SmartLogger package.** Contains SmartLogger, SmartClient, SmartBuilder and SmartSim.
- **SmartTranslator package.** Contains SmartTranslator, SmartBuilder, SmartStatus and SmartGuard.
- **SmartNotification package.** Contains a stand-alone SmartNotification.
- **SmartStatus package.** Contains a stand-alone SmartStatus.
- **SmartGuard package.** Contains a SmartGuard Service program and the SmartGuard Setup program for off-line configuration.

2.2 Functionality overview

SmartTranslator

- Manual/automatic translation of text files to database tables
- Native driver support (no ODBC) for Paradox7 databases.
- Native driver support (no ODBC) for Oracle8 databases
- Native driver support (no ODBC) for MS SQL Server 7/2000/2005 databases. **NEW V2.1**
- Support for ADO connectivity to databases. **NEW V2.1**
- Database Alias Manager
- Utility Server feature for support of remotes SmartStatus clients.
- Support for Stored Procedures.
- Support for running as background process via SmartGuard.
- Statistics log of all translated files. **NEW V2.1**
- System message log
- Notification messages. **NEW V2.1**

SmartGuard

- Start-up/Supervision of SmartTranslator (Windows NT/2000).
- Support for Interactive execution mode **NEW V1.1**
- Smart close feature **NEW V1.1**

3. Changes in SmartTranslator

3.1 Patch I (Build 2.1.36)

New features

Twin sync option

- In redundant configurations deadlock and merge problems can occur, if multiple translators try to write the same event simultaneously to the database. This is a database implementation issue, but can be eliminated by using the new "Twin sync" option. If enabled then multiple translators will synchronize their access to the database via TCP/IP.

Improvements

ADO interface

- General improvement of ADO stored procedure handling.
- Handling of DEADLOCK error codes improved. Previously deadlocks were treated as any other translation error. SmartTranslator now tries to store the record again before failing with the error.

Options dialog

- Separators (bevels) could lose their shadow on some screen resolutions.
- "Test Connection" button added to Database tab-sheet.
- When a BDE alias was selected, then "Use Stored Procedures" was automatically unchecked. This could confuse if a BDE was selected by mistake and corrected instantly.
- Default socket port is now set to 18001 instead of port 18000, which normally is reserved for SmartLogger applications.

Watched folder configuration

- Default interface type is changed from "9 custom fields" to "13 custom fields"
- Login prompt is no longer shown when pressing "Get Stored Procedures" or "Execute INIT procedure".

Trace messages

- A number of communication trace messages improved and made more understandable.

Corrected errors

Remote start of translation

- Translations can no longer be initiated from remote status client if configuration dialogs are open.

3.2 Patch H (Build 2.1.33)

Improvements

General

- The SmartBuilder application can now be started from the Tools menu.
- Tools menu rearranged.
- Start-up minimized option added

Watched folder settings

- Location, source and node settings can no longer be empty.
- Using "Copy" watched folder now copies the folder path as well.

- Default setting for "Interface type" is now "13 custom fields"
- Watched folders can now be enabled/disabled

Utility Server

- Memory load in percentage is now transmitted to status clients.
- Timestamps in system messages were transferred as "short date format" causing clients to misunderstand these if different regional settings were used.

Observation folders

- Files in observations folders (bad files) are now counted during each tree refresh. The total number of files in these folders are shown in the status bar and sent to status client.

Template

- Templates with "Max events size" greater than default are now supported

Translation

- Average write time and maximum write time figures are now calculated per translated file.
- "Bad files" folder is now created when needed. This makes it easier to overview bad files when many nodes are configured.
- New translation trace log in CSV format added. Can be used to evaluate performance and file statistics in Excel.

Corrected errors

Translation

- Ignore index violations were not treated correct.

3.3 Patch G (Build 2.1.30)

Corrected errors

Translation

- If a fatal error is detected the translation is stopped immediately. Previously the remaining part of the "file read buffer" was still translated causing multiple cosmetic warnings.

ADO connections

- In case of a fatal error, the ADO connection was not closed properly. Due to this automatic reconnect would never succeed.

3.4 Patch F (Build 2.1.29)

Improvements

General

- Trace messages improved.
- Added an option to start the application as minimized.

Corrected errors

Translation

- ADO aliases no longer need to have password stored in connection string.

"Always attempt to store values that fail validation" feature

- Calculation of adapted timestamps was not correct.

3.5 Patch E (Build 2.1.27)

Improvements

General

- Miscellaneous error messages improved

Template

- Support for alternative event mask added

Translation

- Accepted time range implemented. Timestamps outside year 1980 – 2040 will be treated as invalid timestamps.
- Handling of adapted values improved.

Corrected errors

General

- Corrected minor memory leaks in data grids.
- Caption in Option dialog corrected.

Translation

- If date or time conversion failed then the alternative mask (introduced in 2.1.25) were tried out. If alternative mask were not set then a misleading error message would be shown.
- Events with timestamps earlier than 1899 would cause External Storage SQL Server interface generating a fatal translation error – which again would cause translation to stop.

3.6 Patch D (Build 2.1.25)

Improvements

SmartBuilder / Template handling

- Support for multiple exclude masks and alternative event mask.

Corrected errors

General

- Minor memory leak eliminated.

Bad files

- Files will be moved to the “Bad files” directory if the number of discarded events exceeds the “Maximum allowed number of failed events” setting. For systems with only a few events per minute this would cause loss of events if translation fails and the queue file contain less events than specified by the “Maximum allowed...” setting. To avoid this, the queue files are now moved to “Bad files” directory if the “Maximum allowed...” setting is exceeded OR if 100% of the events failed during translation.

3.7 Patch C (Build 2.1.21)

Discontinued functionality

Databases

- MS Access is no longer supported.

Improvements

File list

- Files can be viewed and deleted by right-clicking on the file.

Logging

- Startup log added.
- Trace log added. This log will contain extended trace information for the most recent operations.
- All trace messages are removed from the normal system log.

Options

- The last chosen tabsheet in the Options dialog is remembered the next time the dialog is shown.

Stored Procedures

- The number of possible custom fields has been increased from 9 to 13.

Watched Folder

- Folder names can be changed.

Corrected errors

Statistics

- The number of total files translated for each folder was not always correct. Even if there were no files to translate, the file count was 1 (should have been 0).

3.8 Patch B (Build 2.1.15)

New functionality

Statistics

- The statistics log file can be viewed from SmartTranslator, and not only via a SmartStatus connection as in the previous version.

Improvements

General

- When trying to start a second instance of the application a warning is no longer displayed. Instead the already running application is activated.

Statistics

- The menu item for triggering a statistics notification sends today's statistics instead of yesterdays.
- There is an option to include empty watched folders in the statistics, i.e. it is also logged that a folder does not contain any files to translate. This information is also included in the statistics notifications.

System log viewer

- Improved grid features: Grouping mode, quick sorting mode and printing added.

Translation

- Added functionality for a remote SmartStatus to translate a single file or a single folder, just as the local SmartTranslator user.
- Added a menu option to stop the translation a running translation is running. This means that a translation started by a remote user can also be cancelled.
- Added an option to allow/disallow a remote SmartStatus user to stop a translation.

- The retrieval of stored procedure names from the database server may return with an error if the database server is busy doing other tasks. The retrieval is now performed twice before reporting it as an error.
- The retrieval of stored procedure names from the database was executed once for each file translation. It is now only executed once per database session.

Corrected errors

Options

- When the Options dialog is active, automatic translation is postponed, since changing some of the database options while a translation was running could cause serious problems.

Translation

- If the "retry interval" (used in case of errors) was set to more than 59 minutes, and a fatal error was received, all further translation was halted.
- If a remote user started a translation, the Progress window popped up in the SmartTranslator. This window is now hidden for remote translations.
- Some of the translation menu items did not show the correct state (disabled) when translating.

3.9 Patch A (Build 2.1.13)

Improvements

System log

- The system log feature no longer uses the SYSLOG alias to determine the location of the table. The log is now placed in the same location as the SmartTranslator application. This change is made in order to avoid mix-up with the SmartLogger system log, in the case that the two applications are installed on the same system.

Corrected errors

ADO Stored Procedure interface

- The millisecond part is removed from the timestamp, as the timestamp was rounded up/down to the nearest second when using ADO with MS SQL Server databases. This caused that the timestamp transferred would be erroneous, as the millisecond is also sent as separate field i.e. "12:23:33.670" would be received as "12:23:34.000" in the P_TIMESTAMP parameter and "670" in the P_EVENT_MSEC parameter on the server side.
Refer to section 4.2 for how to make a workaround in the Stored Procedure on the server side.

3.10 Final Release 2.1 (Build 2.1.12)

New functionality

Notification Module

- Support for SMS and Email notification via the SmartNotification application. Notifications can be triggered in case of translation errors and for statistic notification.

Statistics

- New module for improved statistics. Will keep track of all daily translations per configured watched folder.

Improvements

Common directories

- Directories containing configuration data, like the Templates directory, are now shared between the different Smart* applications.

Date conversion

- Error messages generated during date conversion have been improved and made more informative.

File list

- If a directory for a watched folder object no longer exists, this is now shown graphically in the overview tree.

System log viewer

- Improved grid features: Copy to clipboard and export to Text, Excel, HTML and XML.

SmartStatus communication

- Misc. system information is sent to remote client.
- Watched folders that do not contain any files are no longer sent to client.
- In the translation list it is possible to see if a watched folder points to a directory that no longer exists.

Translation

- Possibility to translate a single file or a selected watched folder.
- Any "bad files" are no longer all moved to the same directory. They are separated in directories similar to the watched folders.
- Oracle error "ORA-01654.Unable to extend index XX in table space" is treated as fatal error, thereby causing the translation to stop.
- Fatal errors can be maintained from the options dialog.

Corrected errors**Database**

- Database exceptions in connection with stored procedures were not handled correctly. This could cause a further translation to fail.
- A fatal database error did not cause translation to stop instantly as it should.
- Some fatal errors were reported as "normal" errors.

Date conversion

- Errors in the year part of a timestamp were not handled correctly in all cases. The event was discarded as it should be, but the error message could be misleading.

Logging

- Fatal errors were not always reported to the user and to the event log.

SmartStatus

- There was no support for a "Get System Log" request from the new SmartStatus 2.0 clients.
- The time for the next auto translation sent to SmartStatus was not always correct.
- Support for the new statistics log

Tray Icon

- When using the tray icon feature, there was a small chance that the restoring of the application stopped working.

4. Recommendations and Restrictions

4.1 SmartGuard

When SmartGuard is used for automatic start-up and supervision of SmartTranslator, the "Smart close" should always be used. Otherwise the SmartTranslator may not shutdown correctly, causing unpredictable results and perhaps data loss. For more information about the "Smart close" feature, see the SmartGuard User's Guide.

4.2 ADO with MS SQL Server 2000 and timestamps

When using ADO interface with MS SQL Server, the timestamp does not contain millisecond due to the design of ADO. If milliseconds must be stored together with the timestamp on the server side, the following workaround can be used:

```
CONVERT(datetime , CONVERT(varchar(20), @P_TIMESTAMP, 21) +  
CONVERT(varchar(3), @P_EVENT_MSEC), 21)
```

More information about the ADO design behaviour can be found in Microsoft knowledge base, article 246438:

<http://support.microsoft.com/default.aspx?scid=kb:en-us:Q246438>

4.3 Templates with multi-line feature

SmartTranslator ignore the multi-line feature in templates. The reason for this is that multi-line data sources already have been merged into a single line in the SmartLogger. By ignoring the multi-line feature the same template can be used for both SmartLogger and SmartTranslator when processing a multi-line.

5. Known Issues

Changing the time format on the PC, while SmartTranslator is running, can cause unpredictable results. I.e. like changing from 24-hour time to 12-hour AM/PM time.

Workaround: Always shut down SmartTranslator before changing the date/time settings.