

SmartLogger 4.0

Release Description

Build 4.0.8

SL40REL, Rev. 0 , 2010-05-09

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1. Introduction

This document contains information about the current version of the SmartLogger 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 SmartLogger product.

Title	Description
SmartLogger Release Description	This document.
SmartClient Release Description	Release Description for the SmartClient program.
SmartClient User's Guide	User's Guide for the SmartClient program.
SmartLogger User's Guide	User's Guide for the SmartLogger 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 SmartLogger™ product

Version	Date	Description
1.0	1998.02.15	First release.
1.0/1	1998.03.28	Service pack 1 included.
2.0	1999.01.11	Final release 2.0
2.1	1999.03.26	Final release 2.1
3.0	1999-08-18	Final release 3.0
SC3.1	2000-01-25	Release of stand-alone SmartClient
3.2	2000-09-24	Final release 3.2
3.2 SR-1	2001-01-19	Service Release 1
3.3	2002-02-01	Final release 3.3
3.3 SR-1	2002-05-31	Service Release 1
3.3 SR-2	2003-02-23	Service Release 2
4.0	2010-03-16	4.0 beta version
4.0	2010-05-09	Final release 4.0

Version index:

Application	3.0	3.2	3.2 SR-1	3.3	3.3 SR-1	3.3 SR-2	4.0 Beta	4.0 Final
SmartLogger	3.0.1	3.2.2	3.2.6	3.3.7	3.3.10	3.3.14	4.0.3	4.0.8
SmartBuilder	3.0.1	3.2.1	3.2.3	3.3.5	3.3.6	3.3.7	4.0.0	4.0.2

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, TCP/IP or telnet 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.

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

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 and SmartBuilder.
- **SmartStatus package.** Contains a stand-alone SmartStatus.

2.2 Functionality overview

SmartLogger

- Support for serial data sources.
- Support for TCP data sources
- Support for Telnet data sources
- Support for LPR data sources
- Support for OPC-AE data sources via SmartOPC.
- Multiple TCP listeners
- Native driver support (no ODBC) for Paradox7 databases.
- Native driver support (no ODBC) for MS SQL Server 2000/2005 databases
- Online views.
- Text file import
- Optional password protection
- Color mapping
- Trace logs.
- Port status view.
- Data source and disk space supervision
- Database Alias Manager
- Remote Transfer Add-on

- Utility Server **NEW V3.3**
- External Storage **NEW V4.0**
- Report logging **NEW V4.0**
- Automatic print **NEW V4.0**

2.3 Standard templates

The following templates are installed with this version of the product:

ABBMasterView	Template for use with ABB MasterView 850 systems.
ABBAdvant	Template for use with ABB Advant 1.8/2 systems*
Simulator33Color	Template for use with SmartSim data source.
Simulator33Color_wReports	Template demonstrating combined event and report logging
DeltaV_L4	Template for use with Emerson Delta V system (multiline events)
OPC_Standard	Template for use with SmartOPC configurations.

*) There are also templates available for ABB Advant 1.8/3 through 1.8/6 systems, but these require a minor patch to be installed in the ABB Operator Station. Please refer to <http://www.smartlogger.dk> in the section Support | Supplementary Documentation for more information.

3. Changes in SmartLogger

3.1 Release 4.0 (Build 4.0.8)

New features

Automatic print

- Events or reports can now be forwarded / printed to a Windows printer. This way the SmartLogger can replace old line-based matrix printers and redirect the output to a laser-printer on the office network.

Alert messages

- Warnings that might lead to data loss now got their own severity. Alerts are visualised as orange colour on the status icons.

External Storage

- SmartLogger now has built-in facilities for translating event into SQL Server database using stored procedures. The External Storage translator service is a limited version of the SmartTranslator application. This feature will simplify configurations with SmartLogger / SmartTranslator applications significantly.

MDI based online views

- SmartLogger user interface has been changed to Multi Document Interface (MDI) improving the handling of Online views and other trace views.
- Captions rearranged in order to show port label when minimized.

New license registration system

- The old dongle / softkey registration system has been replaced by a new file based license handling system. The new system makes it easier making customized demo/trial licenses and the license administration has been simplified.

Problem Report tool

- New tool for automatic collection of relevant information needed when submitting a problem report.

Report logging

- SmartLogger can now act as a report logger. This feature is useful for converting text report printout to a Windows text file. Each SmartLogger port can identify up to 6 different report layouts and store these in individual files.
- Reports can be printed automatically to any Windows printer after capture.
- Report logging can be combined with normal event logging on the same port.

Trace log

- Text based trace log is added in addition to the table based "Internal messages". The text log is an extension to the "Internal messages" log that can store messages for a longer period and is able to store more detailed trace messages (if enabled).

Improvements

LPD Print Server / LPD ports

- The print server module has been redesigned for better performance and improved error handling.
- Print jobs received via the LPD Print Server were executed by the main application thread. This would slow down the application and user dialogs if the SmartLogger had to process many LPD print jobs. The data processing is now handled by the port thread ensuring good response times on user dialogs disregarding the load on individual LPD ports.

TCP ports

- The number of possible IP addresses (data source) has been increased from 2 to 4 in order to support redundant data sources with redundant network / net cards.
- Option for sending "OK" acknowledgements back to the data source added.

String replacement

- String replacement settings can now be applied both in the port configuration and in the template. In SmartLogger 3.3 string replacement settings were common for all port.

Online Views

- Popup menu for toggling Status Bar and Tool Bar visibility added.
- "Maximize Event View" option added to main menu in SmartLogger. When checked Status Bar and Tool Bar are made invisible on all Online View.
- Status bar information improved. Port type added.
- Peek buffer feature added. When enabled an extra view showing the content of the input buffer. This is especially useful in cases where nothing is shown in the Online view due to incorrect communication or template settings.

Port Status

- Activating a port from the Port Status dialog no longer produces a "Port is successfully activated." message

Shared Resources

- Settings shared by different Smart* applications can now be viewed and edited.

Internal messages (previous System log)

- "System messages" is renamed to "Internal messages" in all modules as "system" could be confused with Windows system messages.
- Internal messages are no longer stored in a Paradox table thereby saving Paradox shared resources.
- New viewer used for showing internal messages. The viewer introduces the grid features and context menu known from SmartClient and SmartNotification.

Remote Transfer

- Maximum number of queue files has been increased from 9999 to 19999.
- Setup dialog. Layout improved and simplified. Obsolete parameters removed.

Corrected errors

Internal message (previously System log)

- Information messages about configuration changes were written directly to the system log and thereby not available to a client subscribing to these messages via the Utility Server.

Remote Transfer

- The protocol does support queue files up to 65kb. If a queue file was greater than 65 kb this would cause an infinite retransmission of the same queue file. SmartLogger now ensures that queue files are kept below this limitation.

Hidden dialogs problems

- In SmartLogger 3.3 problems with hidden modal dialogs were occasionally reported. It looked like the application was frozen as a modal window was hidden behind another window. Even though this should not be possible we have seen it on several occasions. It seems that Windows under certain circumstances arranges "stay-on-top" windows incorrectly SmartLogger has been redesigned to use MDI windows, thereby eliminating this annoying problem.

Obsolete modules

Watchdog I/O

- The hardwired watchdog I/O module is no longer supported.

Backup dialog

- This module was not used anymore and was superseded by other Windows tools.

Notification module

- This module is superseded by SmartNotification.

Indexed tables

- Indexed Paradox tables are no longer supported.

4. Changes in SmartBuilder

4.1 Release 4.0 (Build 4.0.2)

New functions

Report Logging

- New template type parameter added for selecting between “Event”, “Report” and “Event & Report” templates.
- New dialogs for defining report templates.

Tab conversion

- Data sources with <TAB> characters can now be replaced with a variable number of spaces; according to a list of defined tab positions.

Text conversion

- It is now possible to configure text conversions in the template in addition to the same possibility in the SmartLogger. This way it is possible to add default text conversions to a standard template for a specific data source.

Multi-line event

- If an event is divided between multiple lines, SmartLogger templates can now merge these into a single line before applying the other template features.

Improvements

Mask editor

- Cursor position is now shown in editor.

Table grid

- Up and down arrows added for easier rearrangement of field sequence.

Corrected errors

None

5. Recommendations and Restrictions

5.1 Upgrade from previous versions

There are no upgrade tools available yet. Check the products website www.smartlogger.dk for upgrade procedure or tools as these will be announced here when available.

If upgrading existing installation the following procedure should be used:

1. Make a backup of the SmartLogger installation. Default path C:\Program Files\SmartLogger
2. Uninstall SmartLogger 3.3
3. Install SmartLogger 4.0
4. Restore SmartLogger.ini
5. Start-up SmartLogger
6. Verify the following configurations
 - Template path
 - Reconfigure string replacements used in 3.3 (will not work in 4.0 otherwise)
 - If external storage is used, verify your "watched folders" in SmartTranslator as external storage queue and file names have been changed.

5.2 Table size

It is recommended that the tables are kept relatively small, i.e. less than 250.000 entries. This ensures good performance for the SmartClient when executing sorting and querying operations.

The table sizes can be managed by changing the "Log Change" setting in the SmartLogger Port configuration. Recommended settings are:

Events(x) from data source	Log change setting
$x < 5.000$ per day	Monthly
$5.000 < x < 20.000$ per day	Weekly
$x > 20.000$ per day	Daily

6. Known Issues

6.1 External storage

- External storage translator service is not available in this version. It will be included in Service Release 1.

6.2 Online view

- Tool bars, Status Bar information and pop-up menus are not working 100% yet.
- Legend panel is not showing correct information.
- Online views cannot be maximized by double-clicking on the window caption.

6.3 SmartBuilder

- Report settings are not validated when saving the template.

6.4 Utility Server

- Email feature is not working yet.

6.5 Windows 7

- Windows 7 is not supported yet.