

# SmartStatus 2.3 User's Guide

February 2006



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## Contents:

<b>1.</b>	<b>Introduction .....</b>	<b>1-1</b>
1.1	Conventions & definitions.....	1-1
<b>2.</b>	<b>Installation and Set-up.....</b>	<b>2-1</b>
2.1	System requirements .....	2-1
2.2	Installation .....	2-1
<b>3.</b>	<b>Basic Operations.....</b>	<b>3-1</b>
3.1	Menu overview .....	3-1
3.2	Nodelist tree .....	3-2
3.3	Adding a Node .....	3-3
3.4	Opening a nodelist .....	3-4
3.5	Options.....	3-5
<b>4.</b>	<b>SmartLogger - Status and Control .....</b>	<b>4-1</b>
4.1	View Details .....	4-2
4.1.1	Port Status.....	4-3
4.1.2	Server Info.....	4-4
4.1.3	Communication Trace .....	4-5
4.2	View System Messages .....	4-5
4.3	Subscribe to events.....	4-5
4.4	View notification output log .....	4-6
<b>5.</b>	<b>SmartTranslator - Status and Control.....</b>	<b>5-1</b>
5.1	View Details .....	5-1
5.1.1	Translation.....	5-2
5.1.2	Server Info.....	5-3
5.1.3	Communication Trace .....	5-4
5.2	View System Messages .....	5-4
5.3	View Statistics Log .....	5-4
<b>6.</b>	<b>SmartNotification - Status .....</b>	<b>6-1</b>
6.1	View Details .....	6-2
6.1.1	Server Info.....	6-2
6.1.2	Communication Trace .....	6-3
6.2	View notification input/output logs.....	6-3
6.3	View Supervision Alarm History .....	6-5
<b>7.</b>	<b>SmartOPC.....</b>	<b>7-1</b>

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7.1	View Details .....	7-2
7.1.1	Server Info .....	7-2
7.1.2	Communication Trace .....	7-3
7.2	View OPC Events.....	7-3
<b>8.</b>	<b>General Functionality.....</b>	<b>8-1</b>
8.1	Grid functionality .....	8-1
8.1.1	Record selection.....	8-1
8.1.2	Grid modes .....	8-1
8.1.3	Copy to clipboard .....	8-3
8.1.4	Field customisation panel.....	8-3
8.1.5	Export data to file .....	8-4
8.1.6	Print .....	8-4
8.1.7	Preview.....	8-6
8.1.8	Grouping Mode.....	8-7
8.1.9	Quick sorting Mode .....	8-8
8.2	System Messages.....	8-8
8.3	Communication Trace.....	8-9

# 1. Introduction

SmartStatus™ is used for remote supervision and limited control of SmartLogger, SmartTranslator, SmartNotification and SmartOPC applications.

SmartStatus can have up to 50 nodes opened simultaneously.

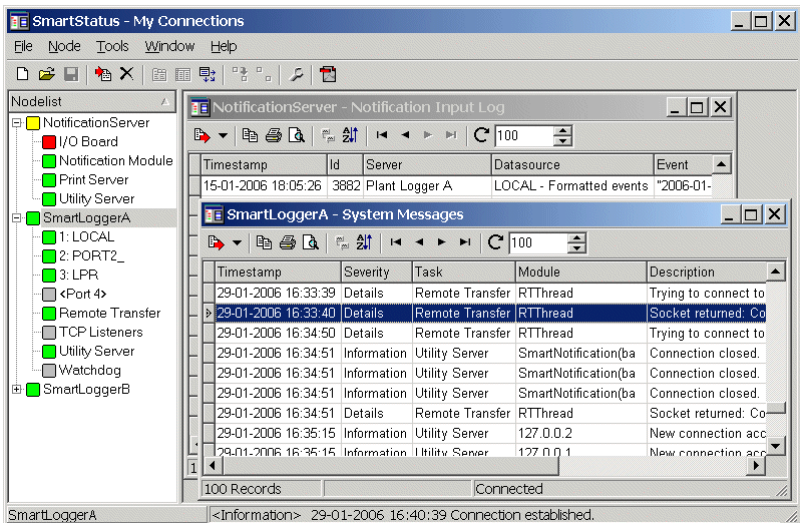


Figure 1-1

## 1.1 Conventions & definitions



### Important note

- Control** The term 'control' is used when describing the user interface. A 'control' is a common name for edit boxes, push buttons and other items on a dialog.
- Dialog** A dialog is a "window" designed for user input.
- Field** A field corresponds to a column in a database table.
- MDI** Multiple Documents Interface.
- Node** A connection to a Smart\* application is represented by a "node" in the nodelist treeview.

PDF (Adobe) Portable Document Format. This is the format used for the online User's Guide.

## 2. Installation and Set-up

### 2.1 System requirements

#### Computer

Pentium III or equivalent. 128 MB RAM.

#### Operating system

Windows 2000/2003/XP.

#### Disk space

20 MB free space for program/system files.

### 2.2 Installation

#### SmartStatus Application

Simply run the *SmartStatus23.exe* file and follow the instruction on screen.

#### Online User's Guide

The online User's Guide is available from the menu item *Help | User's Guide*. To view this User's Guide, you must have Adobe® Acrobat® reader 5.0 or higher installed on your system.

Adobe® Acrobat® Reader can be downloaded for free from:

<http://www.adobe.com>.

Adobe® Acrobat® reader is copyright of Adobe Systems Incorporated.

#### Windows Common Controls

The SmartStatus uses some of the newer MS Windows Common Controls. If you experience any problems with the graphics on the menus or tool buttons, the Common Controls might need to be updated. The official Microsoft update program for the Common Controls (version 5.00 or higher) can be downloaded from:

<http://www.microsoft.com>.





## 3. Basic Operations

### 3.1 Menu overview

Menu	Item	Description
File	New Nodelist	Prepares a new blank nodelist.
	Open Nodelist...	Opens a pre-configured nodelist. Refer to section 3.4 "Opening a nodelist".
	Save Nodelist	Saves the currently active nodelist.
	Save Nodelist As...	Saves the currently active nodelist under a new name.
	Add Node...	Add a new node to the current nodelist.
	Modify Node...	Modifies the selected node.
	Delete Node	Deletes the selected node from the nodelist.
	Recent Nodelists▶	Shows the most recently used nodelists (up to 10).
	Exit	Exit program.
Node	View Details...	Shows/Hides the details view for the active node.
	View System Messages...	Retrieves and shows the system messages from the remote server. Refer to section 8.2 "System Messages".
	View Statistics Log...	Retrieves and shows messages from the SmartTranslator statistics log on the remote server. Refer to section 5.3 "View Statistics Log" <sup>2)</sup>
	Subscribe to events	Opens the data source selection dialog for subscription to SmartLogger and SmartOPC events. Refer to section 4.3 "Subscribe to events" <sup>1)</sup> .
	View Notification Input Log	Retrieves and shows the notification input messages from the remote notification server.

		Refer to section 6.2 "View notification input/output log" <sup>3)</sup> .
	View Notification Output Log	Retrieves and shows the notification output messages from the remote notification server. Refer to section 4.4 "View notification output log" <sup>1)</sup> or section 6.2 "View notification input/output log" <sup>3)</sup> .
	Acknowledge warning	Acknowledges any pending warnings on the remote server.
	Connect	Connects to remote server.
	Disconnect	Disconnects from remote server.
Tools	Options	Opens the options dialog. Refer to section 3.5 "Options".
Window	Tile Horizontal	Tiles all open windows horizontally.
	Tile Vertical	Tiles all open windows vertically.
	Cascade	Cascade all open windows.
	Arrange Minimized	Minimized windows are rearranged at the bottom of the main window.
	<List of all MDI windows>	Quick access to all currently opened windows. If a window is minimized, it will automatically be restored.
Help	User's Guide	Shows this User's Guide in PDF format.
	About...	Shows the credits and the release version.

- 1) Only available for SmartLogger 3.3 (or later) and SmartOPC nodes.
- 2) Only available for SmartTranslator nodes.
- 3) Only available for SmartNotification nodes.

### 3.2 Nodelist tree

The left panel of the application shows all configured nodes in the active nodelist.

The status indications for each module, as shown in Figure 3-1, are explained in details in section 4 "SmartLogger - Status and Control", section 5 "SmartTranslator - Status and Control", section 6 "SmartNotification - Status" and section 7 "SmartOPC".

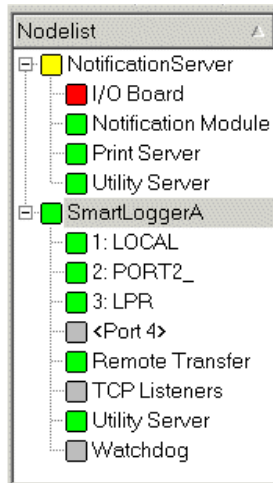


Figure 3-1

Right clicking anywhere in the panel calls up a popup menu for accessing miscellaneous features. The menu is context sensitive, so it varies depending on the type node currently selected (SmartLogger, SmartTranslator, SmartNotification or SmartOPC).

The popup menu also offers the possibility to expand or collapse all sessions at once.

### 3.3 Adding a Node

Adding a node to the current nodelist can be done by choosing *File | Add Node...* from the menu.

This will bring up the following dialog:

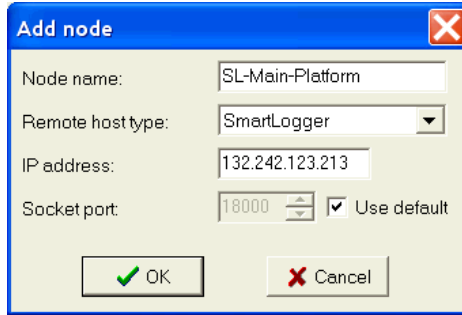


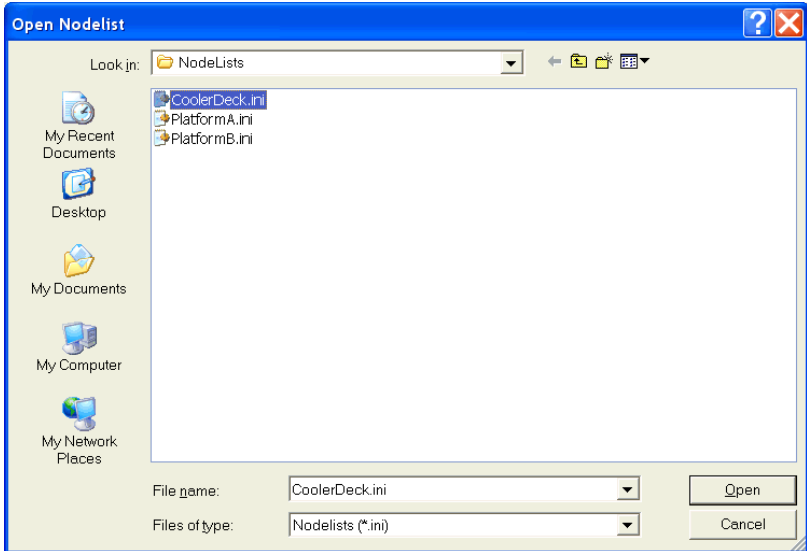
Figure 3-2

<b>Add Node</b>	
<i>Node name</i>	A user defined name for the node. Only English characters, numbers and a few special characters are allowed.
<i>Remote host type</i>	The program type running on the remote server. Available choices are <i>SmartLogger</i> , <i>SmartTranslator</i> , <i>SmartNotification</i> or <i>SmartOPC</i> .
<i>IP address</i>	IP address of the remote server.
<i>Socket port</i>	The port number used for TCP/IP socket communication <sup>1)</sup>
<i>Use default</i>	A default port is configured for all Smart* applications. Unless this port number has been changed in the Smart* application, leave this option checked.

- 1) Must be identical to the socket port specified for the Utility Server module on the remote host (Smart\* application).

### 3.4 Opening a nodelist

An existing nodelist can be opened from the menu item *File | Open Nodelist...*:

**Figure 3-3**

Opening another nodelist will cause all connections in the active nodelist to be closed. Any windows associated with these nodes will also be closed.

### 3.5 Options

The Options dialog can be opened from the menu item *Tools / Options...* or by selecting the Options tool button:

**Figure 3-4**

<b>Options</b>	
<i>Show all...</i>	If enabled, all communication to/from the remote server is shown in the session Details View. If not checked, only the basic information like connect, disconnect and errors are shown. Also refer to section 8.3 "Communication Trace".

## 4. SmartLogger - Status and Control

In the nodelist treeview, it is possible to see the current status of all monitored modules and ports in a SmartLogger application:

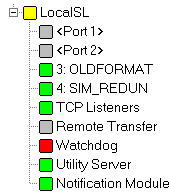


Figure 4-1

Status Icons	
<i>Total status (top node)</i>	<p>Overall status for the connection to the remote server and the monitored modules.</p> <ul style="list-style-type: none"> <li><span style="color: red;">■</span> SmartStatus is not connected to remote server.</li> <li><span style="color: yellow;">■</span> SmartStatus is connected to remote server, but at least one of the modules has a pending error or warning.</li> <li><span style="color: green;">■</span> SmartStatus is connected to remote server and all modules are running without errors</li> </ul>
<i>Ports 1-4</i>	<p>Port status</p> <ul style="list-style-type: none"> <li><span style="color: grey;">■</span> Port is not configured.</li> <li><span style="color: red;">■</span> Port is stopped.</li> <li><span style="color: yellow;">■</span> A warning has occurred for the port.</li> <li><span style="color: green;">■</span> Port is active without pending errors or warnings.</li> </ul>
<i>TCP/IP Listener</i>	<p>Common status for all TCP/IP listeners.</p> <ul style="list-style-type: none"> <li><span style="color: grey;">■</span> No TCP/IP listeners are active (i.e. no ports are using TCP/IP).</li> <li><span style="color: red;">■</span> At least one TCP/IP listener has an error.</li> <li><span style="color: yellow;">■</span> At least one listener has a pending warning.</li> </ul>

<i>Remote Transfer</i>	<ul style="list-style-type: none"> <li>■ All TCP/IP listeners are active without pending errors or warnings.</li> <li>The Remote Transfer add-on.</li> <li>■ Remote Transfer add-on is registered on remote server, but not enabled.</li> <li>■ Remote Transfer is stopped or has a serious error.</li> <li>■ A warning has been reported. Typically a loss of connection to remote server.</li> </ul>
<i>Watchdog</i>	<ul style="list-style-type: none"> <li>■ Remote Transfer is active without pending errors or warnings.</li> <li>The I/O Watchdog.</li> <li>■ Watchdog module is not enabled on the remote server.</li> <li>■ Watchdog I/O card is missing or is not configured correctly.</li> <li>■ Watchdog module is enabled and active without pending errors or warnings.</li> </ul>
<i>Utility Server</i>	<ul style="list-style-type: none"> <li>The Utility Server.</li> <li>■ A warning has been reported. Typically an error in a data source filter.</li> <li>■ Utility Server module is enabled and active without pending errors or warnings.</li> </ul>
<i>Notification Module</i>	<ul style="list-style-type: none"> <li>Notification Module.</li> <li>■ Notification Module add-on is registered on remote server, but not enabled.</li> <li>■ A warning has been reported. Typically a modem error or an error regarding the notification definitions.</li> <li>■ Notification Module is enabled and active without pending errors or warnings.</li> </ul>

#### 4.1 View Details

From this dialog, it is possible to perform limited control of a SmartLogger application. The dialog also offers miscellaneous



information about the remote SmartLogger application and the communication to the this application.

The dialog is separated in 3 sections: "Port Status", "Server Info" and "Communication Trace" as described in the following sections.

#### 4.1.1 Port Status

The Port Status tab shows detailed status information for a specified SmartLogger port. From here it is also possible to control a port.

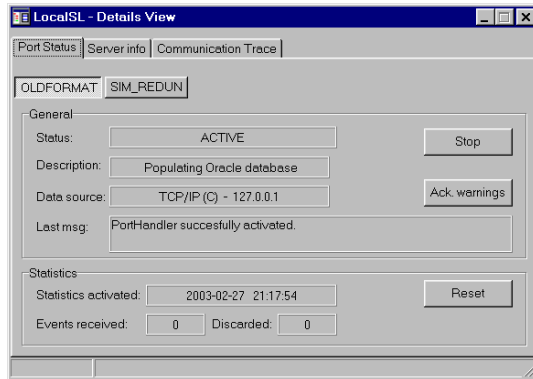


Figure 4-2

Port Status	
<i>Status</i>	General port status, ACTIVE, STOPPED, WARNING or ERROR.
<i>Description</i>	Port description.
<i>Data source</i>	Source type and identification of the source.
<i>Last msg</i>	The last message that has been reported by the port supervision.
<i>Start/Stop button</i>	Starts or stops the remote port <sup>1)</sup>
<i>Ack. warnings</i>	Acknowledges any pending warnings on the remote SmartLogger <sup>1)</sup>
<i>Statistics activated</i>	Date and time for last reset of the statistic counters. The statistics are automatically reset when the SmartLogger is restarted.

<i>Events Received</i>	Number of events received since last reset.
<i>Events Discarded</i>	Number of events discarded since last reset.
<i>Reset button</i>	Resets the statistics counters <sup>1)</sup> .

- 1) Is only enabled if the remote SmartLogger has allowed clients to perform this action.

### 4.1.2 Server Info

The Server Info tab shows system information about the remote server and information about the SmartLogger application itself.

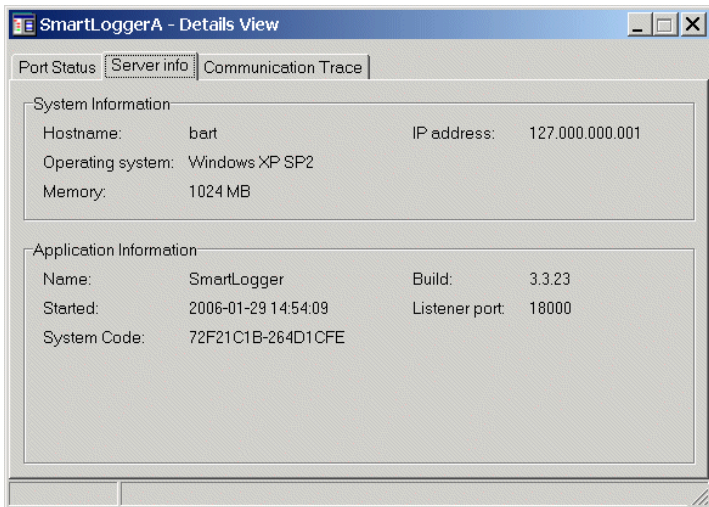


Figure 4-3

<b>Server Info</b>	
<i>Hostname</i>	Computer name.
<i>IP address</i>	IP address.
<i>Operating system</i>	Operating system.
<i>Memory</i>	The total amount of physical memory.

<i>Name</i>	Application name (always SmartLogger).
<i>Build</i>	Current software version.
<i>Started</i>	Date and time for last restart of SmartLogger.
<i>Listener port</i>	The communication port for the SmartStatus <-> SmartLogger communication.
<i>System code</i>	System code used for license registration.

### 4.1.3 Communication Trace

The communication trace tab is the same for all types of sessions. It is explained in details in section 8.3 "Communication Trace".

## 4.2 View System Messages

System messages are described in details in section 8.2 "System Messages".

## 4.3 Subscribe to events

It is possible to subscribe to data sources from remote SmartLogger applications. When subscribing to data sources all events related to these data sources will be sent automatically from the SmartLogger(s) to the SmartStatus application

To start a subscription, a data source has to be selected. This is done from the data source browser:

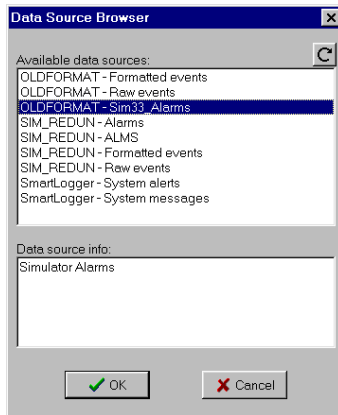
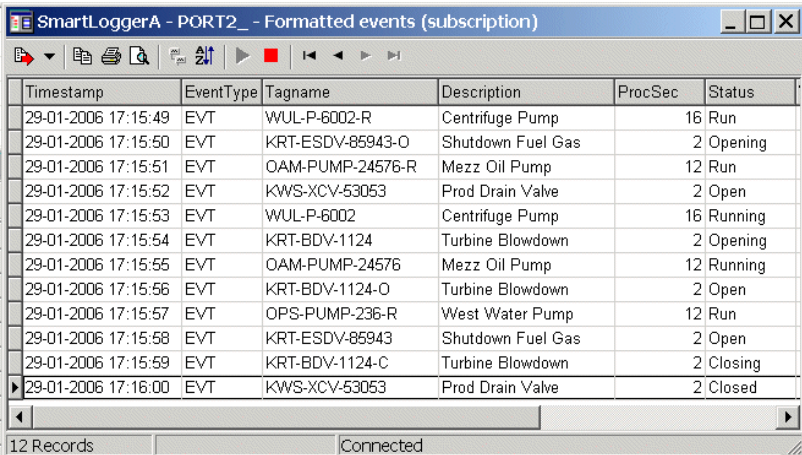


Figure 4-4

The list of available data sources is automatically sent from the remote SmartLogger. For a description on how to configure a data source in SmartLogger, please refer to the SmartLogger User's Guide.

When a data source has been chosen, a grid with events from that data source is shown. The data structure (how the data is split up) is received from the SmartLogger and cannot be changed.

When a subscription is started, SmartStatus automatically receives the most recent events (up to 50), for the selected data source. After that, new events are shown in the grid as they arrive.



The screenshot shows a window titled "SmartLoggerA - PORT2\_ - Formatted events (subscription)". The window contains a table with the following columns: Timestamp, EventType, Tagname, Description, ProcSec, and Status. The table lists 12 records of events from 29-01-2006 17:15:49 to 29-01-2006 17:16:00. The status of the events varies, including Run, Opening, Run, Open, Running, Closing, and Closed. The window also shows a status bar at the bottom indicating "12 Records" and "Connected".

Timestamp	EventType	Tagname	Description	ProcSec	Status
29-01-2006 17:15:49	EVT	WUL-P-6002-R	Centrifuge Pump	16	Run
29-01-2006 17:15:50	EVT	KRT-ESDV-85943-O	Shutdown Fuel Gas	2	Opening
29-01-2006 17:15:51	EVT	OAM-PUMP-24576-R	Mezz Oil Pump	12	Run
29-01-2006 17:15:52	EVT	KWS-XCV-53053	Prod Drain Valve	2	Open
29-01-2006 17:15:53	EVT	WUL-P-6002	Centrifuge Pump	16	Running
29-01-2006 17:15:54	EVT	KRT-BDV-1124	Turbine Blowdown	2	Opening
29-01-2006 17:15:55	EVT	OAM-PUMP-24576	Mezz Oil Pump	12	Running
29-01-2006 17:15:56	EVT	KRT-BDV-1124-O	Turbine Blowdown	2	Open
29-01-2006 17:15:57	EVT	OPS-PUMP-236-R	West Water Pump	12	Run
29-01-2006 17:15:58	EVT	KRT-ESDV-85943	Shutdown Fuel Gas	2	Open
29-01-2006 17:15:59	EVT	KRT-BDV-1124-C	Turbine Blowdown	2	Closing
29-01-2006 17:16:00	EVT	KWS-XCV-53053	Prod Drain Valve	2	Closed

Figure 4-5

For a detailed description of the grid functionality, please refer to section 8.1 "Grid functionality".

#### 4.4 View notification output log

The Notification output log is a historical view of all generated outputs from the SmartLogger Notification Module as shown in Figure 4-6.

When this view is chosen, SmartStatus as default receives the latest 50 output messages from the SmartLogger.

The grid is not automatically updated, but will have to be manually refreshed by the user.

For a detailed description of the grid functionality, please refer to section 8.1 "Grid functionality".

Timestamp	Id	Type	To	Status	Message
15-01-2006 15:39:44	2223	Mail	Bo...	Sent	Dette er en fejl [Supervision alarm receive
15-01-2006 15:39:56	2224	Mail	Bo...	Sent	Dette er en fejl [Supervision alarm receive
15-01-2006 15:39:58	2225	Mail	Bo...	Sent	Dette er en fejl [Supervision alarm receive
15-01-2006 15:41:12	2226	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-15 14:41
15-01-2006 15:41:12	2227	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-15 14:41
15-01-2006 15:41:12	2228	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-15 14:41
15-01-2006 15:41:12	2229	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-15 14:41
15-01-2006 16:36:12	2230	Mail (scheduled)	Bo...	Sent	Redundant DS test (2006-01-15 15:36 -->
15-01-2006 16:36:12	2231	Mail (scheduled)	Bo...	Sent	Redundant DS test (2006-01-15 15:36 -->
15-01-2006 16:41:12	2232	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-15 15:41
15-01-2006 18:36:12	2233	Mail (scheduled)	Bo...	Sent	Redundant DS test (2006-01-15 17:36 -->
15-01-2006 18:41:12	2234	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-15 17:41
19-01-2006 21:41:27	2235	Mail (scheduled)	Bo...	Sent	PM Filter notifikations (2006-01-19 20:41
29-01-2006 15:36:13	2236	Mail (scheduled)	Bo...	Sent	Redundant DS test (2006-01-29 14:36 -->

100 Records Connected

Figure 4-6

Field name	Description
Timestamp	Date and time showing when the output was stored in the output log.
Id	A unique number identifying the output. This number is used as reference for all messages related to this output.
Type	Output type: Mail, SMS or SMS (via mail).
To	Name of the recipient.
Status	Current status for the output: Pending, Sending, Sent, Error or Cancelled <sup>1)</sup> .
Message	The composed message sent to the recipient.
Data source	Name of the data source originally supplying the information for the output.

- 1) An output is set to "Cancelled", if the SmartLogger user has chosen "Cancel all pending outputs" or if the SmartLogger was shut down while there were pending outputs.

## 5. SmartTranslator - Status and Control

The nodelist treeview shows the current status for translations.



Figure 5-1

General Status	
<i>Total status (top node)</i>	<p>Status for connection to remote Utility Server module in SmartTranslator.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> SmartStatus cannot connect to remote server.</li> <li><input checked="" type="checkbox"/> SmartStatus is connected to remote server.</li> </ul>
<i>Auto translation enabled</i>	<p>Indicates if the remote SmartTranslator is set up for manual or automatic translation.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> SmartTranslator is configured for manual translation.</li> <li><input checked="" type="checkbox"/> Files are being translated automatically.</li> </ul>
<i>Translation ongoing</i>	<p>Indicates whether a translation is currently running on the remote server or not.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Translation is not running.</li> <li><input checked="" type="checkbox"/> Translation is currently running.</li> </ul>

### 5.1 View Details

From this dialog, it is possible to perform limited control of a SmartTranslator application. The dialog also offers miscellaneous information about the SmartTranslator server and the communication to the server.

The dialog is divided in 3 sections: "Translation", "Server Info" and "Communication Trace" as described in the following sections.

### 5.1.1 Translation

The Translation tab is used for listing all files waiting for translation and for initiating a translation on the remote server.

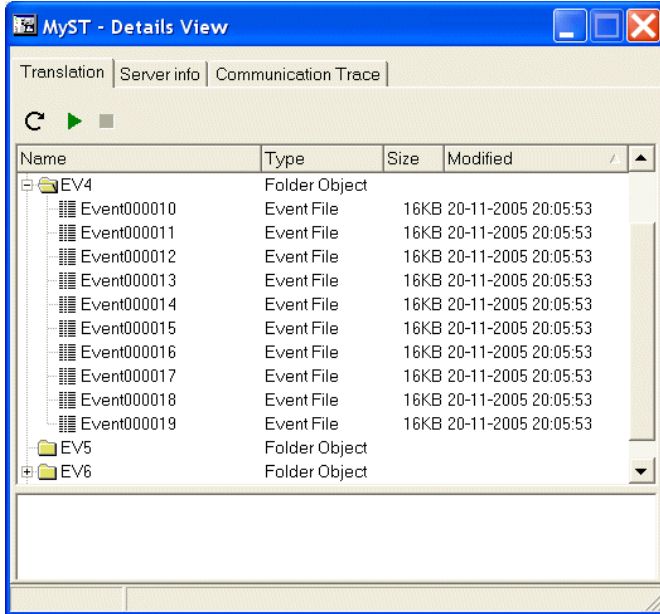


Figure 5-2

Translation	
<i>Refresh translation list button</i>	Retrieves the list of the pending files from the server.
<i>Start translation button</i>	Starts a translation of all pending files on the remote server <sup>1)</sup>
<i>Stop translation button</i>	Stops a running translation on the remote server <sup>1)</sup>

1) This button is only enabled, when the remote SmartTranslator has been configured to allow SmartStatus clients to start a translation.



### 5.1.2 Server Info

The Server Info tab shows system information about the remote server and information about remote SmartTranslator application.

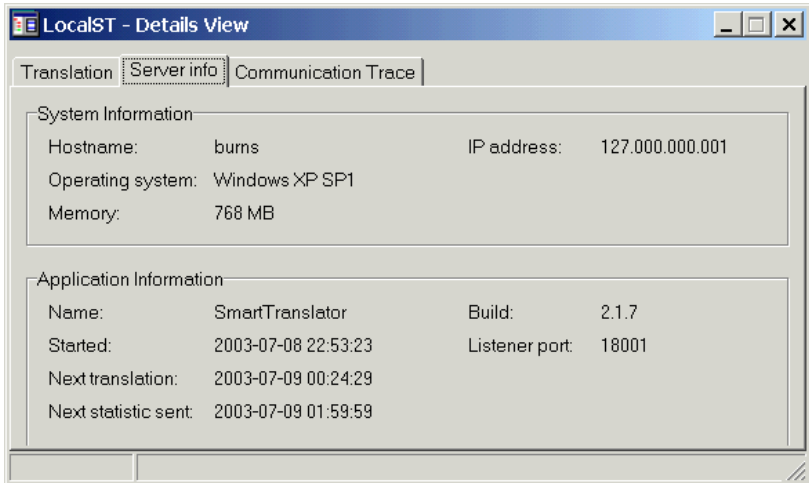


Figure 5-3

<b>Server Info</b>	
<i>Hostname</i>	Computer name.
<i>IP address</i>	IP address.
<i>Operating system</i>	Operating system.
<i>Memory</i>	The total amount of physical memory.
<i>Name</i>	Application name (always SmartTranslator).
<i>Build</i>	Current software version.
<i>Started</i>	Date and time for last restart of SmartTranslator.
<i>Listener port</i>	The communication port for the SmartStatus <-> SmartTranslator communication.
<i>Next translation</i>	Date and time when the next automatic translation starts. Only enabled if auto translation is enabled on the remote server.
<i>Next statistic</i>	Date and time when the next statistic notification will be sent. Only relevant when statistic

*sent* notifications has been enabled on the remote server.

### 5.1.3 Communication Trace

The communication trace tab is the same for all types of sessions. It is explained in details in section 8.3 "Communication Trace".

## 5.2 View System Messages

System messages are described in details in section 8.2 "System Messages",

## 5.3 View Statistics Log

SmartTranslator maintains a statistics log with accumulated daily statistics for all translated files.

An example of such a log is shown in Figure 5-4.

StatDate	WatchedFolder	Received	Committed	Discarded	Adapted	IndexViolations	FatalErrors	Total
27-08-2003	Test_B	180	40	120	0	60	2	
08-09-2003	Test_B	1480	1480	0	0	0	0	
10-09-2003	Test_B	40	40	0	0	0	0	
19-09-2003	Test_B	20	20	0	0	0	0	
13-12-2003	Test_B	681	580	81	0	0	2	
14-12-2003	Test_B	300	280	20	0	0	0	
22-04-2004	Test_B	120	120	0	0	0	0	
19-08-2004	Test_B	20	20	0	0	0	0	
19-08-2004	Test_A	33	33	0	11	0	0	
23-11-2004	Test_B	60	40	20	0	0	0	
24-11-2004	Test_B	262	260	2	0	0	2	
02-12-2004	Test_B	103	60	3	0	0	3	

Figure 5-4

Fieldname	Description
StatDate	The day for which the statistic is valid.
WatchedFolder	Name of the watched folder that contained the translated files.
Received	"Received" events. I.e. the number of events (lines) processed from the file.
Committed	Events actually written to the database.

Discarded	Events so "damaged" that they could not be stored into the database. This could, for example, be event lines containing invalid timestamps.
Adapted	Events with some adapted data. Instead of discarding the entire event if only a small portion of it is damaged, SmartTranslator inserts adapted values.
IndexViolations	Index violation (duplicates) reported by the database server.
FatalErrors	Errors causing the SmartTranslator to temporarily suspend operation. This could, for example, be temporary loss of database connection.
TotalFiles	Total number of files processed.
BadFiles	Files containing so many damaged events, that the file is put in a "Bad files" directory.
RecNo	Auto incremented number for each record in the statistics log table.



## 6. SmartNotification - Status

The nodelist treeview shows the current status for all data sources available on the Notification server.



Figure 6-1

<b>General Status</b>	
<i>Total status (top node)</i>	<p>Status for connection to remote Utility Server module in SmartNotification.</p> <ul style="list-style-type: none"> <li>■ SmartStatus cannot connect to remote server.</li> <li>■ SmartStatus is connected to remote server, but at least one of its modules has a pending error or warning.</li> <li>■ SmartStatus is connected to remote server.</li> </ul>
<i>Utility Server</i>	<p>The Utility Server.</p> <ul style="list-style-type: none"> <li>■ A warning has been reported.</li> <li>■ Utility Server module is enabled and running without errors.</li> </ul>
<i>Notification Module</i>	<p>Internal module handling all notifications.</p> <ul style="list-style-type: none"> <li>■ There is a problem with a data source or a notification definition.</li> <li>■ No errors or warnings.</li> </ul>
<i>Print Server</i>	<p>Print server module (LPR notifications).</p> <ul style="list-style-type: none"> <li>■ Print server is not enabled.</li> <li>■ Print server could not start. Typically if the specified socket port is already in use.</li> <li>■ The print server is receiving print jobs for a queue not defined in SmartNotification.</li> </ul>

<i>I/O Board</i>	<input checked="" type="checkbox"/>	No errors or warnings.
		Hardware I/O module
	<input type="checkbox"/>	I/O module is not enabled.
	<input checked="" type="checkbox"/>	I/O board is missing or the I/O board driver is not installed.
	<input type="checkbox"/>	Problem reading an input.
	<input checked="" type="checkbox"/>	No errors or warnings.

## 6.1 View Details

The dialog offers miscellaneous information about the SmartNotification server and the communication to the server. The dialog is divided into 2 sections: "Server Info" and "Communication Trace" as described in the following sections.

### 6.1.1 Server Info

The Server Info tab shows system information about the remote server and information about remote SmartNotification application.

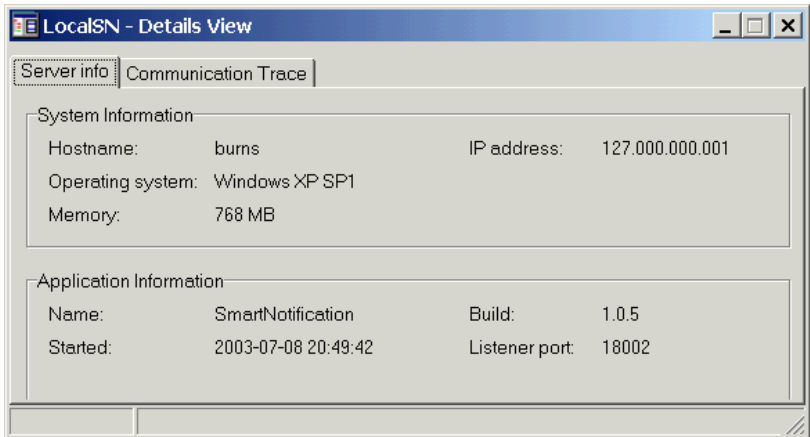


Figure 6-2

Server Info	
<i>Hostname</i>	Computer name.
<i>IP address</i>	IP address.

<i>Operating system</i>	Operating system.
<i>Memory</i>	The total amount of physical memory.
<i>Name</i>	Application name (always SmartNotification).
<i>Build</i>	Current software version.
<i>Started</i>	Date and time for last restart of SmartNotification.
<i>Listener port</i>	The communication port for the SmartStatus <-> SmartNotification communication.

### 6.1.2 Communication Trace

The communication trace tab is the same for all types of sessions. It is explained in details in section 8.3 "Communication Trace".

## 6.2 View notification input/output logs

The input log shows all events/inputs that have triggered a notification.

An example of an input log is shown in Figure 6-3.

Timestamp	Id	Server	Datasource	Event
2003-06-18 21:52:47	99	Internal	Internal errors	Failed to load driver <nidaq32.dll> for I/O
2003-06-18 21:53:15	100	Print Server	ST Queue #1	ST on burns: Date: 17-06-2003, Object:
2003-06-18 21:54:59	101	Internal	Internal errors	Failed to load driver <nidaq32.dll> for I/O
2003-06-18 21:56:05	102	Print Server	ST Queue #1	ST on burns: Date: 17-06-2003, Object:
2003-06-23 21:48:58	103	Print Server	ST Queue #1	Period: 22-06-2003 -----
2003-06-23 21:58:38	104	Print Server	ST Queue #1	Statistics from SmartTranslator on burn
2003-06-23 22:10:48	105	Print Server	ST Queue #1	Current file: Event000002 Error: Databa

45 Records Connected

Figure 6-3

Field name	Description
Timestamp	Date and time showing when the data was received.
Id	A unique number identifying the input. This number is used as reference for all messages

	related to this input.
Server	The "server" / module that has received the event.
Datasource	The name of the specific data source that has received the event.
Event	The data (event) received.

The output log is a historical view of all generated outputs from the SmartNotification application.

An example of an output log is shown in Figure 6-4.

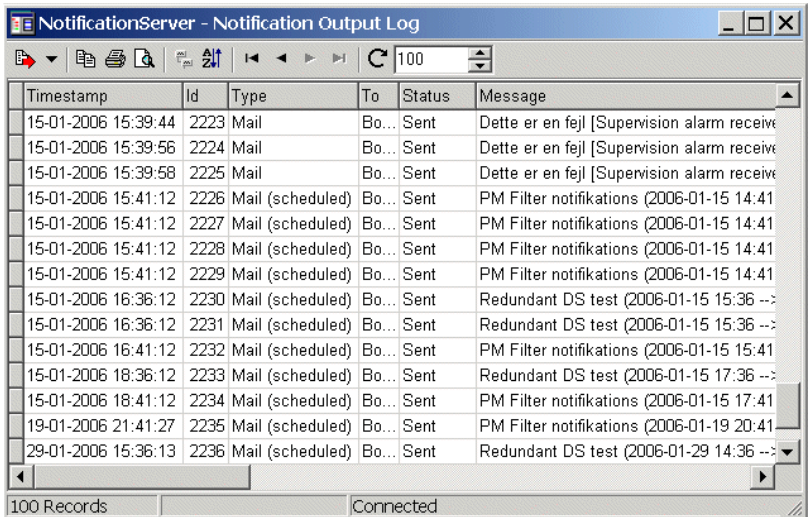


Figure 6-4

Field name	Description
Timestamp	Date and time showing when the output was stored in the output log.
Id	A unique number identifying the output. This number is used as reference for all messages related to this output.
Type	Output type: Mail, SMS EXE or Mail (scheduled).
To	Name of the recipient.



Status	Current status for the output: Pending, Sending, Sent, Error or Cancelled <sup>1)</sup> .
Message	The composed message sent to the recipient.
Data source	Name of the data source originally supplying the information for the output.

- 1) An output is set to "Cancelled", if the SmartNotification user has chosen "Cancel all pending outputs" or if the SmartNotification was shut down while there were pending outputs.

For both logs it applies, that SmartStatus starts by fetching the specified number of messages from the remote server. The grid is not automatically updated, but will have to be manually refreshed by the user.

For a detailed description of the grid functionality, please refer to section 8.1 "Grid functionality".

### 6.3 View Supervision Alarm History

SmartNotification keeps track of all event rate supervision object alarms. Every time a supervision object alarm is triggered, an entry is added to the alarm history, which can be retrieved from SmartStatus. An example of a supervision object alarm history log is shown in Figure 6-5.

Supervis...	Ident1	Ident2	Ident3	PeriodFrom	PeriodTo	Limit
Demo	HJO-TAHH-1122	Alarm H2		07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WUL-P-6002-S	Stop	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	OAM-PUMP-24576-S	Stop	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WSA-CENTR-34002	Flush On	Centrifuge	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WSA-TAL-32177-L2	Alarm L2		07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	HJO-TAHH-1122	Normal		07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	OAM-PUMP-24576	Stopped	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WSA-TAL-32177	Normal		07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	EAZ-MOT-14325-F	Tripped	Motor	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WUL-P-6002	Stopped	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WUL-P-6002-F	Failure	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	WUL-P-6002-R	Run	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	KRT-ESDV-85943-O	Opening	Valve	07-06-2004 23:00:00	07-06-2004 23:10:00	20
Demo	OAM-PUMP-24576-R	Run	Pump	07-06-2004 23:00:00	07-06-2004 23:10:00	20

100 Records Connected

Figure 6-5

Field name	Description
Supervision Object	Name of the supervision object that triggered the event rate supervision alarm.
Ident1, Ident2 and Ident3	Elements from the actual event. The information shown depends on the Supervision object settings specified in SmartNotification.
PeriodFrom PeriodTo	These two fields determine the period where the event rate exceeded the limit.
Limit	The limit that was exceeded. Note that the actual number of events may be higher than the limit.

## 7. SmartOPC

The SmartOPC product is designed to transfer events from an OPC A&E server to a SmartLogger application.

From SmartStatus it is possible to connect to the AEConnector service, to check status and to retrieve the latest OPC events.

The session overview for a SmartOPC session shows the current status for the AEConnector service.



Figure 7-1

General Status	
<i>Total status (top node)</i>	Status for connection to remote Utility Server module in SmartOPC. <ul style="list-style-type: none"> <li>■ SmartStatus cannot connect to remote server.</li> <li>■ SmartStatus is connected to remote server, but at least one of its modules has a pending error or warning.</li> <li>■ SmartStatus is connected to remote server.</li> </ul>
<i>Utility Server</i>	The Utility Server. <ul style="list-style-type: none"> <li>■ A warning has been reported.</li> <li>■ Utility Server module is enabled and running without errors.</li> </ul>
<i>OPC Connection</i>	Connection to OPC server <ul style="list-style-type: none"> <li>■ No connection to OPC server.</li> <li>■ A warning has been reported.</li> <li>■ Connection ok, and there is no error or warning.</li> </ul>
<i>SmartLogger</i>	Connection to SmartLogger application

<i>Connection</i>	<input type="checkbox"/> Awaiting first OPC event before trying to connect to SmartLogger application. <input type="checkbox"/> No connection to SmartLogger application. <input type="checkbox"/> Connection ok and there is no error or warning.
-------------------	--

## 7.1 View Details

The dialog offers miscellaneous information about the SmartOPC service and the communication to the service.

The dialog is divided into 2 sections: "Server Info" and "Communication Trace" as described in the following sections.

### 7.1.1 Server Info

The Server Info tab shows system information about SmartOPC service and the system hosting the service.

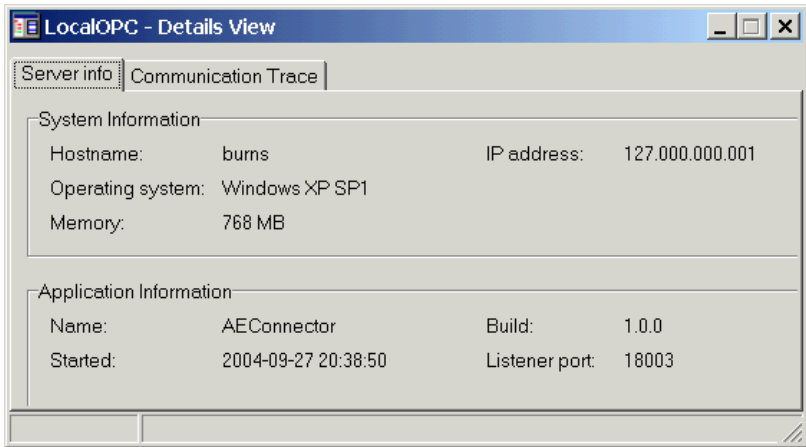


Figure 7-2

Server Info	
<i>Hostname</i>	Computer name.
<i>IP address</i>	IP address.
<i>Operating system</i>	Operating system.

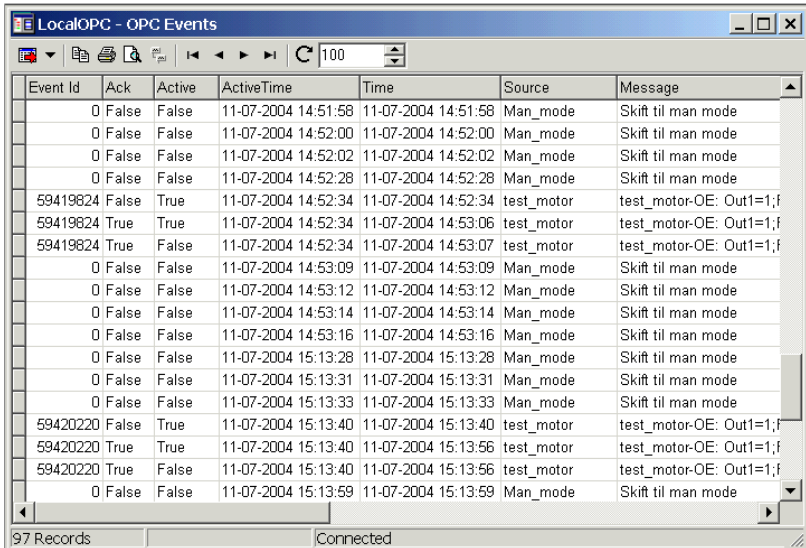
<i>Memory</i>	The total amount of physical memory.
<i>Name</i>	Application name (always AECconnector).
<i>Build</i>	Current software version.
<i>Started</i>	Date and time for last restart of the service.
<i>Listener port</i>	The communication port for the SmartStatus <-> SmartOPC communication.

## 7.1.2 Communication Trace

The communication trace tab is the same for all types of sessions. It is explained in details in section 8.3 "Communication Trace".

## 7.2 View OPC Events

Shows the latest OPC events received from the OPC server. An example of these events is shown in Figure 7-3.



Event Id	Ack	Active	ActiveTime	Time	Source	Message
0	False	False	11-07-2004 14:51:58	11-07-2004 14:51:58	Man_mode	Skift til man mode
0	False	False	11-07-2004 14:52:00	11-07-2004 14:52:00	Man_mode	Skift til man mode
0	False	False	11-07-2004 14:52:02	11-07-2004 14:52:02	Man_mode	Skift til man mode
0	False	False	11-07-2004 14:52:28	11-07-2004 14:52:28	Man_mode	Skift til man mode
59419824	False	True	11-07-2004 14:52:34	11-07-2004 14:52:34	test_motor	test_motor-OE: Out1=1;f
59419824	True	True	11-07-2004 14:52:34	11-07-2004 14:53:06	test_motor	test_motor-OE: Out1=1;f
59419824	True	False	11-07-2004 14:52:34	11-07-2004 14:53:07	test_motor	test_motor-OE: Out1=1;f
0	False	False	11-07-2004 14:53:09	11-07-2004 14:53:09	Man_mode	Skift til man mode
0	False	False	11-07-2004 14:53:12	11-07-2004 14:53:12	Man_mode	Skift til man mode
0	False	False	11-07-2004 14:53:14	11-07-2004 14:53:14	Man_mode	Skift til man mode
0	False	False	11-07-2004 14:53:16	11-07-2004 14:53:16	Man_mode	Skift til man mode
0	False	False	11-07-2004 15:13:28	11-07-2004 15:13:28	Man_mode	Skift til man mode
0	False	False	11-07-2004 15:13:31	11-07-2004 15:13:31	Man_mode	Skift til man mode
0	False	False	11-07-2004 15:13:33	11-07-2004 15:13:33	Man_mode	Skift til man mode
59420220	False	True	11-07-2004 15:13:40	11-07-2004 15:13:40	test_motor	test_motor-OE: Out1=1;f
59420220	True	True	11-07-2004 15:13:40	11-07-2004 15:13:56	test_motor	test_motor-OE: Out1=1;f
59420220	True	False	11-07-2004 15:13:40	11-07-2004 15:13:56	test_motor	test_motor-OE: Out1=1;f
0	False	False	11-07-2004 15:13:59	11-07-2004 15:13:59	Man_mode	Skift til man mode

97 Records      Connected

Figure 7-3



## 8. General Functionality

### 8.1 Grid functionality

The data grid features are the same for all types of subscriptions, system messages and notification messages.

#### 8.1.1 Record selection

To select record in the grid, do one of the following:

- Press and hold down the SHIFT key while pressing the up/down key.
- Press and hold down the CTRL key while selecting records with the mouse.
- Select a record with the mouse, hold down the SHIFT key and select another record. All records in between these two selections will now be selected.

#### 8.1.2 Grid modes

The grid can operate in two different modes:

*Subscription mode:* Events are automatically sent from the server when available.

*Request mode:* The user has to manually request a specified number of events from the server.

The toolbar differs depending on the grid mode.

#### Subscription mode

Subscriptions always operate in "subscription mode", where there is a Start- and Stop button available on the toolbar as shown in Figure 8-1.



Figure 8-1

Pressing the Stop button will stop the updating of the grid, so that specific actions can be performed on the data currently in the grid.

Incoming events are still collected "in the background", so when the Start button is pressed, the grid is updated with all buffered events.



Empty lines in the grid (except for a date/time) indicate that SmartStatus has temporarily lost connection to the remote server. The date/time shows when this happened. In this case the "event hole" might cover many missing events.

### Request mode

Views not opened as *subscriptions* always operate in "request mode", where a Refresh button is available on the toolbar as shown in Figure 8-2.

When Refresh is pressed, the grid is cleared and the latest "xxx" events are fetched from the server. "xxx" can be a number between 10 and 500 and can be specified in the box next to the Refresh button.

The remote server may limit the maximum number of events that can be fetched. Therefore it may not be possible to specify as many as 500 events.

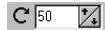


Figure 8-2

The rest of the grid features can be chosen from either the toolbar as shown in Figure 8-3 or from the popup menu (right click in the grid) as shown in Figure 8-4.

The features are described in the next sections.

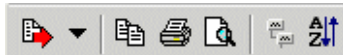


Figure 8-3





Figure 8-4

### 8.1.3 Copy to clipboard

Copies the selected lines to the clipboard.

### 8.1.4 Field customisation panel

When selected, a panel is shown to the left of the table grid.

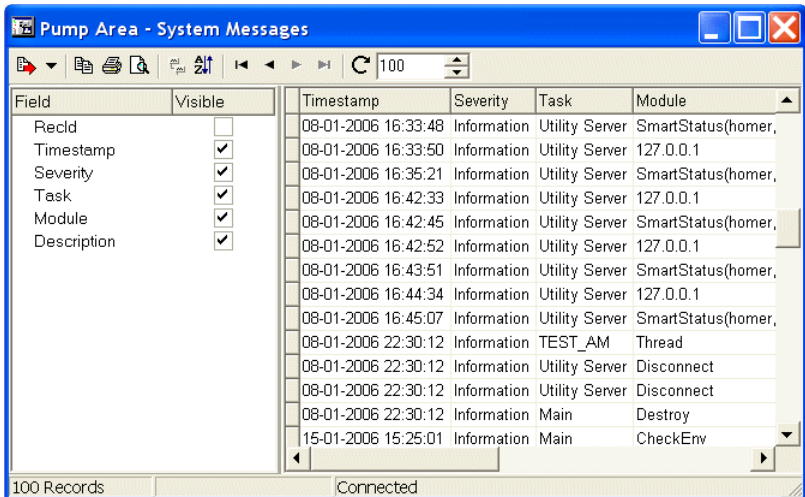


Figure 8-5

The Field Customisation Panel can be used to hide, show or rearrange the fields in the grid.

This is especially useful when irrelevant fields should be excluded from a printed report.



Fields can be dragged and dropped from the table grid to the panel and the other way around.

### 8.1.5 Export data to file

All or selected data can be exported to a file in 4 different formats as described below.

#### **Text**

The data is exported to a text file where each field in the grid is separated by a TAB character.

#### **MS Excel**

The data is exported to an MS Excel worksheet. The layout of the worksheet will be the same as shown in the grid. I.e. the order of the fields and the size of each field, will be as shown in the grid.

The file can be read by all MS Excel versions from 4.0 and up.

#### **HTML**

The data is exported to one HTML file containing a table with all or selected events.

#### **XML**

The data is exported to a XML/XSL file.

### 8.1.6 Print

SmartStatus uses an advanced printing system with a lot of features. This User's Guide only describes the use of the most essential parts on the printing system, but the user is encouraged to experiment with all the other features it offers.

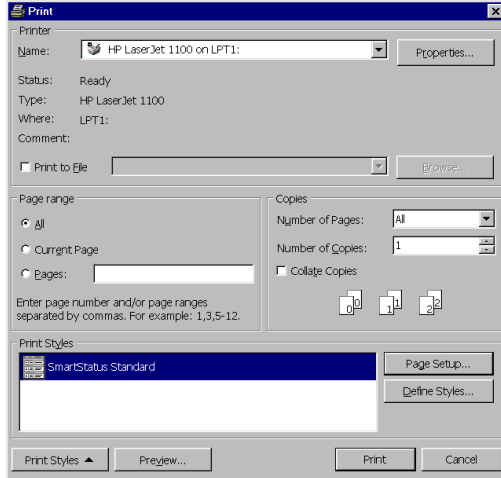


Figure 8-6

## Page Setup

Determines the layout of everything outside the data area, like:

- Page sizes, print orientation, print order
- All margins
- Header/footer texts
- Report scaling

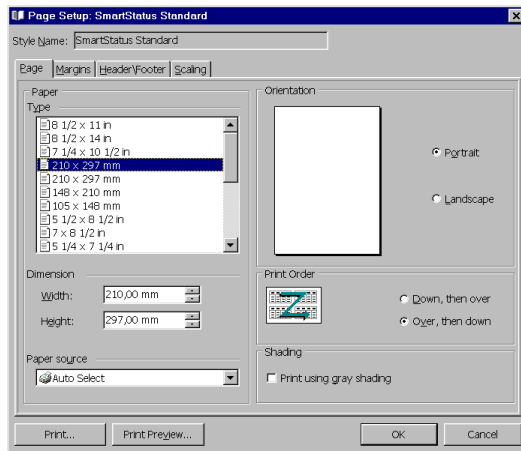


Figure 8-7

### Report Design

Determines the layout of the report data, like:

- What to show (header, footer, grid, bands)
- Colours (grid, header, footer)
- All fonts used
- Behaviours (3D effects, graphics)

The report designer can be opened from the Preview dialog (refer to section 8.1.7 "Preview").

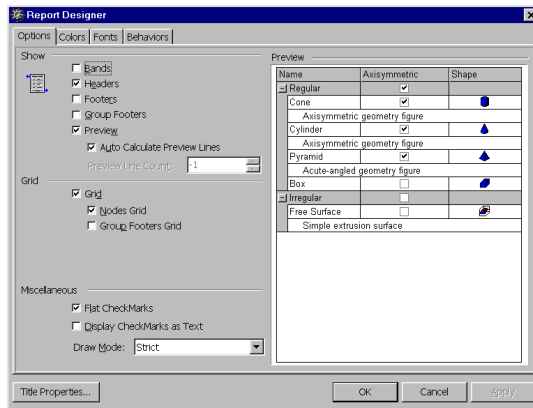


Figure 8-8

### 8.1.7 Preview

Shows how the actual report will look when printed.

All print set-up dialogs can be accessed from the preview dialog, including a few additional, like the page background configuration.



Holding down the CTRL button and spinning the mouse wheel will zoom the print preview in/out.

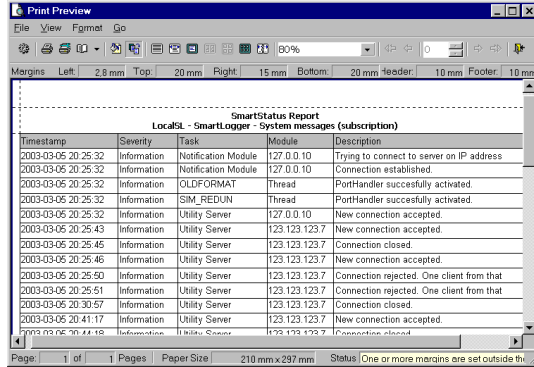


Figure 8-9

### 8.1.8 Grouping Mode

This feature allows all data in the table grid to be grouped by any field specified by the user, as shown in Figure 8-10.

When grouping mode is activated, a grouping panel becomes visible just above the table grid.

To group by any field, simply drag the column header to this panel using the mouse.

To remove a field from the grouping panel, drag the header back to the table grid.

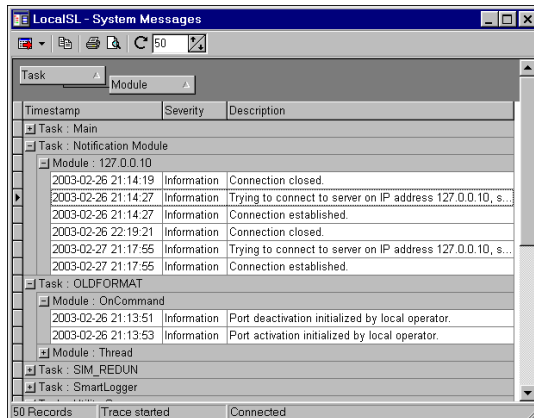


Figure 8-10

### 8.1.9 Quick sorting Mode

This feature allows the user to sort the data in the grid.

By clicking on the field headers, data in that field is sorted in ascending order. Clicking again reverses the sort order to descending.

When a field is sorted, a small up/down arrow appears to the right of the text in the field header.

To sort by more than one field, hold down the <SHIFT> button on the keyboard and click on additional field headers with the mouse.

To remove the sorting of a field, hold down the <CTRL> button on the keyboard and click on field header that should be removed from the sorting.

Even though all sorting is removed, the data in the grid doesn't revert back to the state it had before the sorting began.

To show the data in the order it was before the sorting began, press the Refresh button in the toolbar.

## 8.2 System Messages

All remote Smart\* applications have an internal System Log where important messages are logged. The System Log keeps track of all configuration changes and incidents, which may be of interest to an operator or system responsible.

The messages are classified in the following severity levels:

- |             |  |
|-------------|--|
| Information | Standard messages indicating that the application has been started, port configuration has been changed etc.                                       |
| Warning     | Appears when the SmartLogger has detected an error in a module, in data validation or other incidents that later on may lead to serious data loss. |
| Alert       | A serious warning, like disk is running full, that requires action.  |
| Error       | Serious error has occurred. The particular module or port has been stopped.  |

From the SmartStatus it is possible to retrieve the latest messages from this log as shown in Figure 8-11.

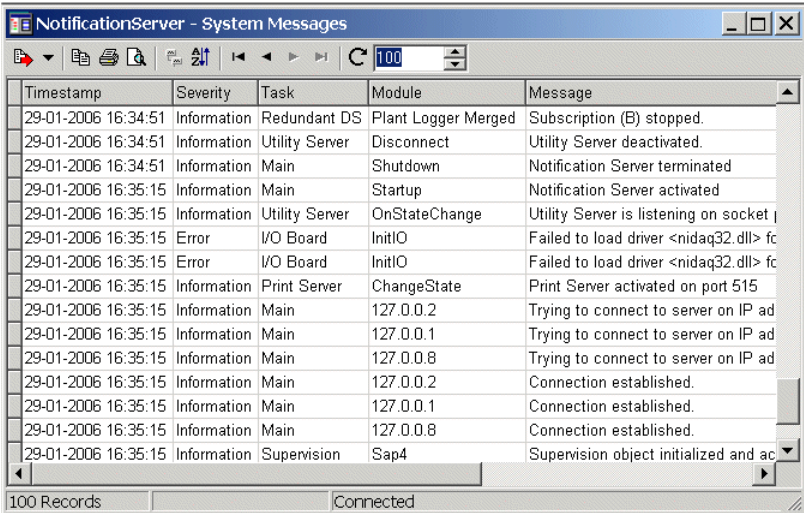


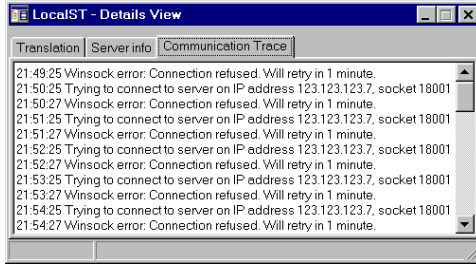
Figure 8-11

### 8.3 Communication Trace

The communication trace can be found in the Details View as described in section 4.1 and 5.1.

This dialog shows some or all messages sent between SmartStatus and the remote server depending on the “Show all communication messages” setting in the Options dialog (section 3.5).

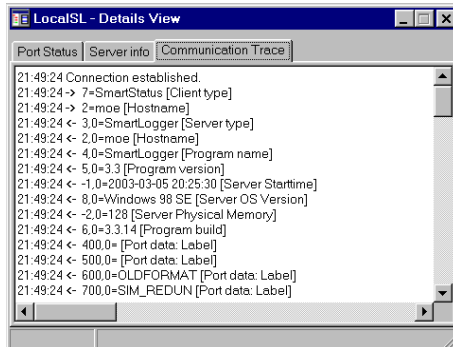
If the “Show all communication messages” setting is disabled, the dialog will look something like in Figure 8-12.



**Figure 8-12**

If the “Show all communication messages” setting is enabled, the dialog looks like shown in Figure 8-13.

Since all messages are shown, including time, direction and exact message, this mode is very useful when trying to locate possible errors in the communication between SmartStatus and the remote server.



**Figure 8-13**