TEKLYNX®

PRINT MODULE

SETTING THE STANDARD

Setting the Standard
TEKLYNX
BAR CODE SOFTWARE

PRINT MODULE
Administrator's Guide

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About this manual

Documents supplied

Complete documentation is provided to help you make optimum use of the full range of resources offered by your software.

The *Online Help* provides instant access to context-sensitive help.

The *Administrator's Guide* covers the basic concepts to ensure you to get the very most from the software. It is designed to provide effective help for administrators, both first-time and experienced users.

The documentation is designed for use in conjunction with the integrated online help.

Typographical conventions

This manual distinguishes between different types of information using the following conventions:

- Terms taken from the interface itself, such as commands, appear in **bold**.
- Keys appear in small caps. For example: "Press the SHIFT key."
- Numbered lists mean there is a procedure to follow.
- When the conjunction -or- appears next to a paragraph, it means there is the choice of another procedure for carrying out a given task.
- When a menu command contains submenus, the menu name followed by the command to select appear in bold. Thus, "Go to **File > Open**" means choose the **File** menu then the **Open** command.

This symbol highlights warnings and other important information on how a particular command or procedure works.

Following this symbol you will find hints and tips for optimizing tasks, speeding up commands, and so on.

CHAPTER 1

Installation

This chapter covers the following topics:

System Requirements

Software Protection Key

Server Installation

Running the Label Print Manager Service

- Setting up a User Account
- Installing and Uninstalling the Service

System Requirements

Server Requirements

The Server installation allows you to install the following components on your server: the Kernel, the label print engine, the sentinel manager, the sentinel controller.

The following requirements must be met to ensure successful installation:

- Windows Server 2012
  Windows 2008 R2
  Windows 2008 x86/x64
  Windows Server 2003 R2
  Windows Server 2003 x86/x64 SP2

  Windows 8 x86/x64
  Windows 7x86/x64
  Windows Vista x86/x64 SP1

Å2 GB of RAM minimum
- 2 GHz minimum, AMD or Intel Processor (multiprocessor recommended)
- A hard drive with at least 2 GB free disk space
- A DVD drive
- System must have access to the Internet or have a dedicated USB port.

Note: The release note contains the latest information on the software. This information supersedes the information contained in this manual.

Software Protection

Your software is protected using a software key (en electronic code) or a hardware key (a dongle).

The dongle is a small electronic device that you plug into your PC's parallel or USB port before launching the software.

The software key is an electronic code that is requested by the Activation Wizard when you launch the software for the first time or as long as you have not activated the software.

You must first install the software and then activate or connect the protection key to your computer.

Activating the software key protection

Once you have installed the labeling software, the **Activation Wizard** will be launched, taking you step-by-step through the software key protection process.

To activate the software key

1 In the **Activation Wizard**, select **Activate.**

There are up to four possible activation methods: **Online activation, Using a USB key**, **Using a smartphone** and **Using our website.**

Note

If you have an Internet connection on the computer where the software is installed, online activation is automatically selected.

Online activation

Some enterprise networks are protected by a proxy server. In this case, there is a **Settings** button to setup your proxy settings to connect to the Internet.

1 Enter the **Serial number** and the **password** provided with the product and click **Next**.

2 Depending on your connectivity, Connection Test step is displayed. This allows you to setup your connection. Click Next.

3 Enter or edit your information in the User Registration form. Click **Next**.

4 Click **Finish**.

Note

If you do not have an Internet connection on the computer where the software is installed but you have access to another computer with an Internet connection, you can activate the product using a USB key.

Using a USB key

1. Enter the **Serial number** and the **password** provided with the product and click **Next**.

2. **Select Using a USB key.**

3. Select the media to be used for activation (USB key or external hard disk or network drives) and click **Next**. Files for activation will be copied onto the selected media.

4. USB devices only: Unplug the removable media and plug it into the computer connected to Internet.

5. On the computer connected to the Internet, double-click USBWizard.exe (which can be found on the root of the media). This will start the Activation wizard.

6. Select the license(s) to activate and click **Next**.

7. Enter or edit your information in the User Registration form. Click **Next**.

   A message will inform you that the activation information for the selected license(s) has been successfully retrieved.

8. **USB devices only**: Unplug the removable media from this computer and plug it back into the computer where the software is installed.

9. On the computer where the software is installed, double-click **USBWizard.exe** again (the file can be found on the root of the media).

The wizard will display the license that can be activated on the computer where the software is installed.

10. Click **Next**.11.

Click **Finish**.

If any problems were encountered, a message will inform you that the activation has failed and an error will be displayed.

Note

If you do not have access to a computer with an Internet connection, you can activate the product using a smartphone.

Using a smartphone

A barcode scanner application is required to read the barcode which allows you to activate your software using a smartphone. You can download this from your application store / market. This activation mode uses an Internet connection on your smartphone.

1 Enter the **Serial number** and **Password** provided with the software and click **Next.**

2 .Select **Using a smartphone**.

3 Input your information in the User Registration form. Click on **Next**.

4 A barcode appears. Move the cursor over the barcode to zoom in.

5 Open your barcode scanner application on your smartphone.

6 Scan the barcode with your smartphone.

7 Click **Continue** or open the browser on the phone.

8 The Software Activation website is displayed. This allows you to register and activate your software. All fields must

be filled in.

9 Click **Submit**.
The **Validation code** and **Installation code** are displayed at the bottom of the Software Activation website page. Please scroll down if necessary.

10 Enter the **Validation code** and **Installation code** in the wizard (using uppercase characters).

11 Click **Next**.

12 Click **Finish**.

Using our website

1 Enter the **Serial number** and **Password** provided with the software and click **Next.**

2 Select **Using our website**.

3 The link provided on this screen (http://www.teklynx.eu/nsp/) can be reached from a different computer with Internet access. You or someone else with an Internet connection can connect to our website to complete the activation. The **Serial Number** and **Password** (provided with the product) and the **User Code** (displayed in the wizard) will be required in order to use this service.

4 Enter the license user's information in the User Registration form displayed on our website. Click **Next**.

5 Click **Submit**.

6 The **Validation code** and **Installation code** are displayed on our website. Enter these in the wizard (using uppercase characters) and click **Next**.

7 Click **Finish**.

Server Installation

Server installation allows you to install on your server the various modules used to build an automatic data exchange solution between your applications and devices and our labelling products.

Step 1 Place the DVD in your server's DVD drive.

Step 2 The installation program should launch automatically.

If it does not, go to Windows explorer and expand the letter of the DVD drive. Double click CDSETUP.EXE (for example, D:\cdsetup.exe).

Step 3 In the tree structure containing the various installation options, select the server option of the product you've purchased.

Step 4 Follow the on-screen instructions to complete the installation process.

Running the Label Print Manager Service

The application runs as a service on the host workstation. This means it will launch automatically when the workstation is started.

Step 1 To define the startup options for the Label Print Manager Service:

For Windows versions older than Windows 8: Select **Start** > **Settings** > **Control panel** Services and select **Label Print Manager**.
For Windows 8 and 8.1 users: Access the search tool. To access and use the search tool, open the Charms menu by pressing **Win** [Windows key] + **C** on your keyboard or by swiping in the top-right or bottom-right corner. Once the Charms menu pops open, click/tap the Search button and enter **Label Print Manager**.

Step 2 Select a start method.

Choose either:

- **Automatic**: The service launches when the workstation is started.
- **Manual**: The service must be activated manually. You will therefore need to open a Windows work session and then launch the service in Control panel Services. Select **Label Print Manager** from the list of services and then click **Start**.

The above start methods launch the service and the sentinels at the same time. All available sentinels are thus launched when the service is started.

Whatever the start method is, you can control the service activity by launching the Kernel from the application programs group.

If the service is stopped, a start request is sent to the system. When the service is started, the application management icon displays in the system tray. Using this

icon, you can start or stop the service and the different application modules.

Unlike the start method using the Windows Control panel services, the start method from the Kernel does not launch sentinels (which would instead be launched from the Controller).

Setting up a user account

The application must be able to access shared network folders and print on network printers. You must therefore select a user account to which these rights have been assigned.

Step 1 Select a user account, then enter the password.

The selected account must be declared in the local administrator group of the workstation.

To view sentinel status while the service is running, simply open a work session and then launch the application via the program group defined during installation. The default name of the group is the same as that of the application.

Installing/ Uninstalling the Label Print Manager Service

Once the application is installed, you can always uninstall the Label Print Manager service and reinstall it later.

For Windows versions older than Windows 8:

Step 1 To install the Label Print Manager service, select **Start** > **Run [name of application installation folder] \ TKXKernel.exe -i**.

Step 2 To uninstall the **Label Print Manager** service, select **Start** > **Run [name of application installation folder] \ TKXKernel.exe -u**.

For Windows 8 and 8.1 users:

To install the Label Print Manager service
Access the search tool. To access and use the search tool, open the **Charms** menu by pressing **Win** [Windows key] + **C** on your keyboard or by swiping in the top-right or bottom-right corner. Once the Charms menu pops open, click/tap the **Search** button and enter **TKXKernel.exe -i**.

To uninstall the **Label Print Manager** service
Access the search tool. To access and use the search tool, open the **Charms** menu by pressing **Win** [Windows key] + **C** on your keyboard or by swiping in the top-right or bottom-right corner. Once the Charms menu pops open, click/tap the **Search** button and enter **TKXKernel.exe -u**.

CHAPTER 2

Introduction

This chapter covers the following topics:

Definition of Terms

Basic Concepts

How it Works

This application is a server application dedicated to the data exchange between your application and our products. It allows you to automatically print barcode labels created with your labeling software by simply exchanging information between your ERP/WMS system and the sentinels server.

Definition of terms

The application involves a number of specific concepts which are explained below.

Sentinels server: PC running supported Microsoft Windows platform on which the application is installed.

Input data: The data generated by your system. They are received by the sentinels server via a communication channel.

Bearer channel: Once launched, each sentinel "listens" to a specific bearer channel.

Sentinel printer: The printer created by the application on the print server which users can then designate as the output printer in their applications.

Sentinel: The procedure used for analyzing and processing data generated by your application.

Mapfile: Describes the method the sentinel will use for analyzing input data.

Plug-in: The process module executes a specific task during a sentinel process.

There are four types of plug-ins:

- The **Input plug-in** listens to a data bearer channel supplying a sentinel.
- The **Process plug-in** processes information retrieved from input data.
- The **Report plug-in** informs users and updates a report about sentinel process.
- The **Output plug-in** backs up or transmits input data to a file

Plug-ins list available in your application depends on the product used.

Basic concepts

The application monitors data communication channels connected with your system. As soon as a channel receives data, the application analyzes the incoming data and processes them through one or more process plug-ins. The communication channel has to be chosen according to your application and the input plug-in you have at your disposal.

How it works

The application runs as a Windows background task. This application is considered a service by the system and can thus be launched with the system. Sentinels are used to define analysis and printing tasks. Once launched each sentinel monitors the bearer channel for which it has been configured. When data coming from your system are received on the bearer channel, the analysis and process activity begin.

Input data is filtered by the map file of the sentinel. As for each printing request, input data information is sent to the different process plug-ins configured for the sentinel.

At the end of the process, input data is sent to the output plug-in in order to be transferred or saved.

During each step of the process and after sentinel validation, information concerning the sentinel process is sent to the report plug-in.

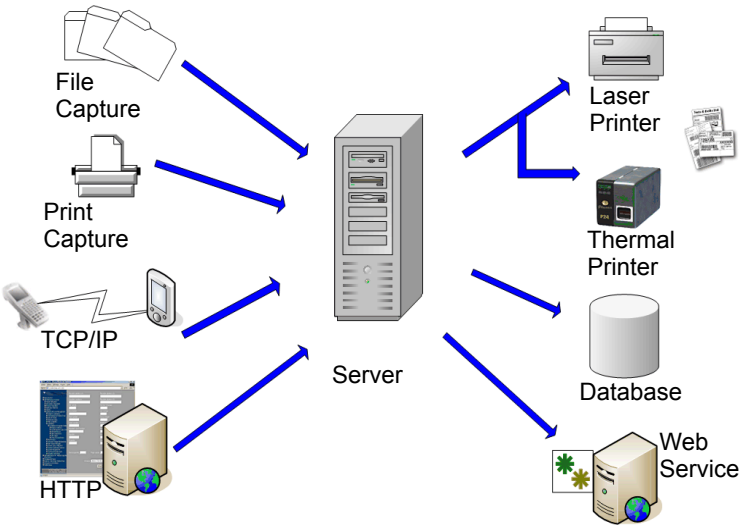


Figure 1 Input and Process Plug-in Flow

CHAPTER 3

The Application Modules

This chapter covers the following topics:

The Application Modules
- The Kernel
- Sentinel Manager
- Sentinel Controller
- Plug-ins

Brief Overview: The major steps from creating to running the sentinels.
- On the Server

The application modules can be put into two categories depending on their usage in the software.

The first category comprises the kernel module, the controller, the sentinel manager. All of them are used to create, configure and run sentinels processes. They all come with application's server installation.

The second category is the Plug-in modules. Plug-ins are thin application modules dedicated to accomplish one unique task. They perform all the actions a sentinel is configured to do. They are installed by the both the server and designer installations.

The application modules

Kernel

The Kernel is the core application that manages all other tasks, including launching sentinels and monitoring sentinel activity. If the Kernel is closed, all sentinels will be disabled.

The Kernel operates as a background task and can be configured to launch automatically when your workstation is started up. It is therefore not necessary to open a Windows work session for the application to run.

Once launched from the application program group, the Kernel module appears as an icon on the Windows taskbar.

You can access Sentinel Manager and Sentinel Controller via the Kernel menu.

Step 1 Right-click on the Kernel icon

.

Step 2 Choose the required module in the menu.

Sentinel Manager

Sentinel Manager is launched via the Kernel menu and allows you to create, configure, and manage the sentinels that will analyze your input data.

Sentinel Controller

Sentinel Controller is launched via the Kernel menu or Sentinel Manager. It allows you to view sentinel status, enable or disable individual sentinels and display the error logfiles.

Brief Overview: The major steps from creating to running the sentinels

Here is a general overview of the main steps to take in order to configure a sentinel that will receive text files into a specific folder and will print the corresponding barcode label.

On the server

Use Sentinel Manager to:

- Create sentinels that will analyze your input data from the text files.
- Define their properties and the properties of the plug-ins associated with them.
- Enable sentinels for starting.

Use Sentinel Controller to:

- Enable individual sentinels.
- Launch printing.
- Monitor printing.

CHAPTER 4

Sentinels

This chapter covers the following topics:

What Are Sentinels?

How Do Sentinels Work?

What are sentinels and how do they work?

A sentinel is simply a group of settings the application uses to intercept and process the information coming from your application and devices.

Once activated, each sentinel acts on your system as an analyzing and processing service giving you the ability to exchange data between your application and TEKLYNX products in order to build a complete automatic ID solution.

Each sentinel must specify:

- A bearer channel on which your printing requests will be received.
- A method for data analysis given by the map file selection associated with a sentinel.
- One or several types of processes to be implemented for each information block identified in the input data according to the sentinel map file.
- One or several types of logs to be generated when a specific event is detected during analysis or during input data process.
- One or several types of backup input data once they have been treated.

A sentinel must belong to a group. Each group can contain as many sentinels as your organization requires. The organization of sentinels within a given group is just performed for organizational purposes.

The choice of possibilities for communication channels, type of process, type of log generated, and type of backup will vary depending on the labeling software version you are using and the plug-ins available for that product version.

How do sentinels work?

After you have selected an input plug-in and one or more output plug-ins for your sentinel, when the sentinel is activated, the input plug-in is also activated and it monitors its bearer channel. When information is received on its channel, the plug-in sends input data to the core

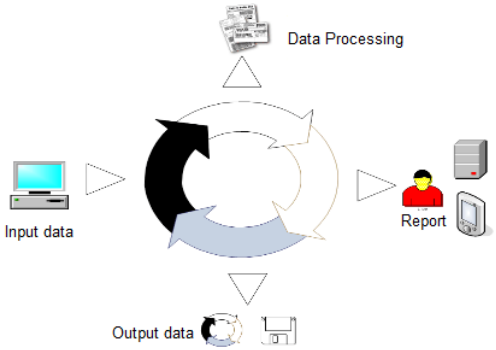
application. Data are then analyzed according to the map file associated to the sentinel.

For each information block detected, the core application sends data to the different plug-ins associated with the sentinel. Data are treated according to the order sets up in the sentinel. Once data are treated, the analysis goes on towards the next blocks. The same process is repeated until all the data have been processed.

The core application sends data received by the input plug-in to the different output plug-ins. These plug-ins are configured to implement the different backup processes.

For each step of the process, the activity parameters of the sentinel are provided to the selected log plug-ins, by the core application.

The diagram below shows the workflow.



Note: Some sample files for the this applications are available in the document folder of the application (C:\Users\Public\Public Documents or C:\Document And Settings\All Users\Documents)

CHAPTER 5

Sentinel Manager

This chapter covers the following topics:

Launching the Program

Description of the Main Window
- Menu Bar
- Workspace
- The Toolbar
    - Selecting a Tool

Interface Settings
- Changing Display Options
- Changing the Interface Language
- Adjusting Column Width
- Adding a Sentinel
- Defining the Properties of a Sentinel

Managing Sentinels
- Duplicating a Sentinel
- Deleting a Sentinel
- Activating a Sentinel

Launching the program

Once launched from the application program group, the Kernel module appears as an icon on the Windows taskbar.

To access Sentinel Manager:

Step 1 Right-click on the Kernel application icon

.

Step 2 Choose Sentinel Manager in the menu.

The main Sentinel Manager window appears.

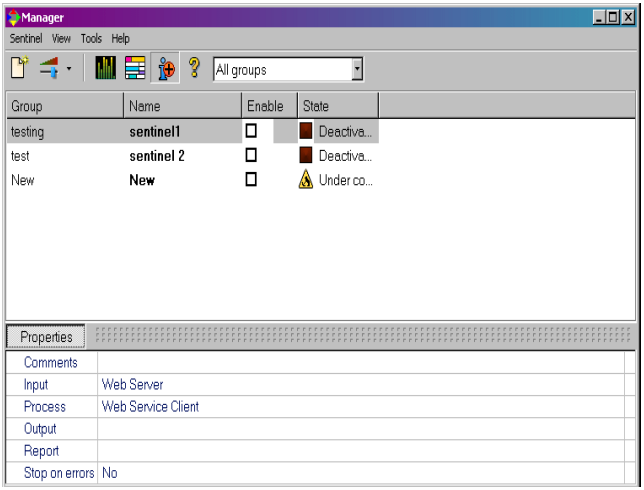


Figure 1 Sentinel Manager window

Description of the main window

This section presents a general overview of the main elements that make up the interface as they appear in the main window at the beginning of a work session.

Menu Bar

The menu bar comprises four drop-down menus: **Sentinel**, **View**, **Tools,** and **Help**.

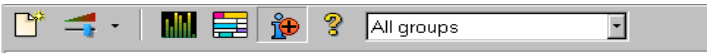
To access commands using the keyboard, use the keyboard shortcuts. Press ALT plus the key corresponding to the letter underlined in the menu name, then the key corresponding to the letter underlined in the command name.

Workspace

The workspace occupies the central part of the main window. The list of sentinels is displayed in this area as a table.

The Toolbar

These tools allow you to execute routine tasks more quickly than using the menus.



To select a tool, click the button corresponding to the tool.

Interface settings

Changing display options

You can display the interface in English or French. You can also modify column widths and select a display filter.

Changing the interface language

Step 1 Choose **Tools** > **Options**.

Step 2 Select the required language in the language zone.

A checkmark shows which language is selected.

Adjusting column width

Place the cursor over the column's right-hand border in the table header and drag it to the left or right to obtain the required width.

Adding a sentinel

Choose **Sentinel** > **New**.

The new sentinel appears in the table. Its status is defined as "under construction".

Defining the properties of a sentinel

The **General** tab allows you to assign a name to the new sentinel, add any comments and associate it with a group and a map file.

Step 1 Enter a name in the zone **Name**.

Step 2 In the zone **Group**, select a group or type a group name. If needed, type comments.

Step 3 Select the map file defining the structure of your data file.

Step 4 Select the **Stop on errors** check box if you want a sentinel process to be stopped when an error occurs.

The others tabs allow you to define which plug-in you want to run for the Input, the Output, the Process and the Report.

If you want more information about the plug-ins, please refer to *Appendix A: Plug-ins* at the end of this manual. You will also find information about the plug-in selected in each tab of the Sentinel Properties dialog box.

Managing sentinels

Sentinel Manager allows you to carry out a number of operations, including duplicating an existing sentinel.

Duplicating a sentinel

Step 1 Select the sentinel.

Step 2 Right-click the sentinel.

Step 3 Choose **Duplicate** in the context menu.

The duplicated sentinel appears in the list with the same name followed by *copy no. x*.

Deleting a sentinel

Sentinel Manager also allows you to delete sentinels.

Step 1 Select the sentinel.

Step 2 Right-click the sentinel.

Step 3 Choose **Delete** in the context menu.

Activating a sentinel

In order to activate a sentinel (from the service or from the Sentinel Controller), you must first enable it in the Sentinel Manager.

If you want a sentinel to be processed in the Sentinel Controller, it should first be enabled in the Manager.

Step 1 Select the sentinel.

Step 2 Check or un check the box in the **Enable** column. If you check this box, the sentinel will appear in the Controller.

Step 3 You can launch the Sentinel Controller from the **Tools** menu of the Manager or click .

For more information, please see *Sentinel Controller chapter.*

CHAPTER 6

Sentinel Controller

This chapter covers the following topics:

How Sentinel Controller Works

Launching the Program

Description of the Main Window
- Menu Bar
- The Sentinel List
- The Toolbar
- Selecting a Tool
- Information Panel
- The Status Bar

Interface Settings
- Changing Display Options
- Adjusting Column Width
- Displaying a Specific Group
- Modifying the Display Order
- Displaying Sentinel Properties
- Activating one or more Sentinels
- Deactivating one or more Sentinels

Sentinel Status

Task Management
- Viewing Current Tasks
- Cancelling a Task

Error Management
- Structure of the Error Logfile
- Error Messages
- Deleting an Error Logfile

How Sentinel Controller works

Sentinel Controller allows you to view sentinel status, enable/disable individual sentinels and display the printing and error logfiles.

Sentinels are created and set up using Sentinel Manager. When you modify the properties of a sentinel, the changes are automatically updated in Sentinel Controller. Once enabled in Sentinel Controller, the sentinel is assigned Activated status in Sentinel Manager and cannot be modified while running.

Launching the program

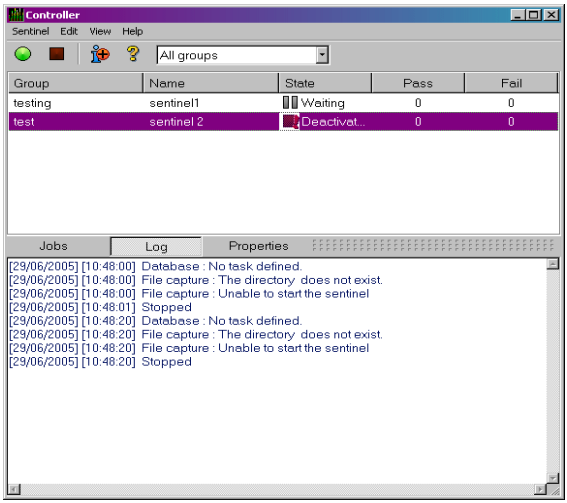
You can launch Sentinel Controller via the Kernel menu or Sentinel Manager.

To access Sentinel Controller:

Step 1 Right-click the Kernel icon

.

Step 2 Choose **Sentinel Controller** in the context menu.



Description of the main window

This section presents a general overview of the main elements that make up the Sentinel Controller interface, as they appear in the main window at the beginning of a work session. The main window is divided into two areas:

- The sentinel list
- The information panel

Menu bar

The menu bar comprises four drop-down menus: **Sentinel**, **Edit**, **View,** and **Help**.

To access commands using the keyboard, use the keyboard shortcuts. Press ALT plus the key corresponding to the letter underlined in the menu name, then the key corresponding to the letter underlined in the command name.

The Sentinel list

The sentinel list occupies the central part of the main window and is displayed as a table.

The toolbar

These tools allow you to execute routine tasks more quickly than using the menus.

Selecting a tool

Click on the button corresponding to the tool.

Information panel

The information panel, located in the lower part of the window, comprises three tabs which display information on pending tasks and the printing/error logfiles respectively. You can show or hide the information panel using the command **View Information** or the **Information tool** button .

You can move the border separating the sentinel list and the information panel by dragging it with the cursor.

Interface settings

Changing display options

You can modify column widths and/or select a display filter.

Adjusting column width

Place the cursor over the column's right-hand border in the table header and drag it to the left or right to obtain the required width.

Displaying a specific group

You can display sentinels belonging to a particular group. Choose **View** > **Group** and then select the required group of sentinels.

- or -

Select the option directly from the toolbar.

Modifying the display order

Click on the header of the column by which you wish to sort the sentinels.

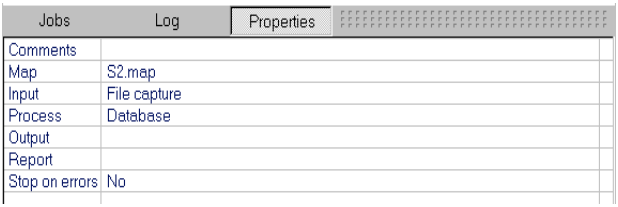
Displaying sentinel properties

You can display the properties of a sentinel.

Step 1 Select the sentinel.

Step 2 Choose **View Information**.

Step 3 Click the **Properties** tab.



Activating one or more sentinels

Step 1 Select the required sentinel(s) using the mouse or the Select all and Invert selection commands.

Step 2 Click the button to activate the selection.

- or -

Choose **Sentinel > Activate**.

Deactivating one or more sentinels

Step 1 Select the required sentinel(s) using the mouse or the **Select all** and **Invert selection** commands.

Step 2 Click the button to deactivate the selection.

- or -

Choose **Sentinel > Deactivate**.

Unlike sentinels are activated by the service, all sentinels launched manually will stop processing when the application is closed.

Sentinel status

A symbol appears next to each sentinel in the list to indicate its status.

This symbol indicates the sentinel is deactivated.

This symbol indicates the sentinel is about to begin analysis.

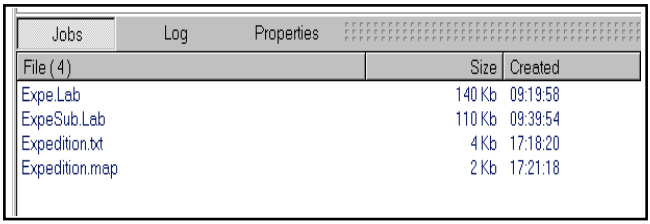
This symbol indicates the sentinel is under construction.

This symbol indicates the sentinel is activating.

This symbol indicates the sentinel is processing a datafile.

Task management

The Information panel allows you to monitor the progress of current tasks.



Viewing current tasks

Activate the Information panel and click the **Jobs** tab.

Error Management

When Sentinel Controller detects an error during datafile analysis, it updates the relevant error logfile located in the application LOGFILES folder. The filename of the logfile will be that of the sentinel. The logfile describes the nature of the error so you can rectify it if necessary.

To view the error logfile for the selected sentinel, display the Information panel, and then click the **Log** tab.

The **Error** column and the sentinel symbols indicate any errors encountered during datafile analysis.

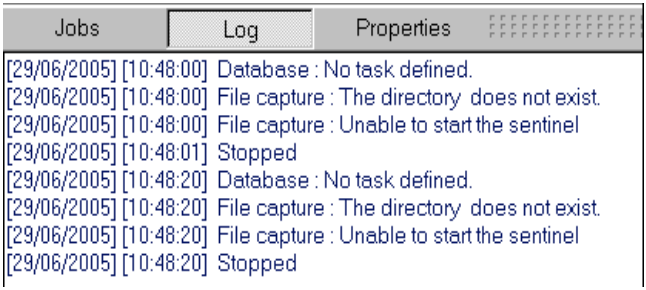
To reset the error counter, right-click on the sentinel and then choose **Reset Error Counter** in the context menu.

Structure of the error logfile

This file allows you to monitor file processing status.

Error messages

Error messages inform you of the nature and source of any errors so you can rectify them. Error messages include the error number, the date and the time, the name of the file concerned, and the error message.



Deleting an error logfile

You can delete error logfiles using the Information panel.

Step 1 Select the sentinel to which the error logfile is associated.

Step 2 Click on the Information panel **Log** tab then press CTRL + DEL.

Deleting an error logfile will permanently remove the .log file.

APPENDIX A

Plug-ins

This appendix covers:

Information about the configuration and selection of the different plug-ins:

Input
- File Capture
- TCP/IP Port Listening
- Print Capture
- Web Server
- Records Capture

Process
- Label Printing
- Database
- Web Service Client

Output
- Transfer Plug-in

Report
- Log File
- E-mail
- TCP/IP Port Listening

plug-ins list available in your application depends on the product used.

Input plug-ins

You have five input plug-ins at your disposal:

- File Capture
- TCP/IP Port Listening
- Print Capture
- Web Server
- Records Capture

File capture

The File Capture plug-in collects files in a specific folder.

Files are processed in chronological order – the first file to appear in the folder is the first file processed.

To be analyzed by the sentinel, the file must be accessible in read/write mode. In addition, the sentinel must have full control over the data file before it will proceed with processing (the program that is creating the data file for sentinel must be finished writing the file).

From the **Input** tab of the Sentinel Properties dialog box, select the Input plug-in and click **Settings**.

The following dialog box appears:

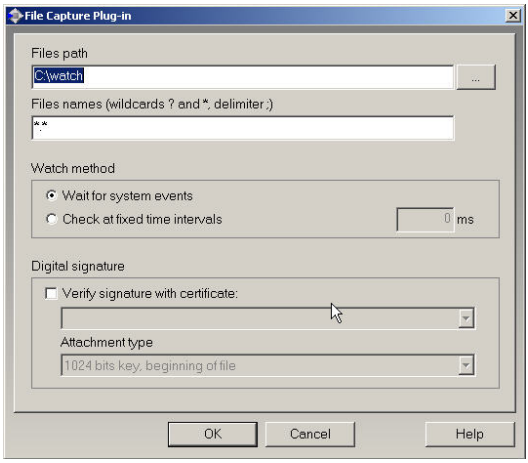


Figure 1 The Print Capture Plug-in window

Step 1 Type or select the file path of the folder to be watched.

Step 2 Type file name or file extension of the files to be captured.

You can type several files names separated by a semicolon or use wildcard characters. Asterisk (*) is used to replace zero or several characters. Question mark (?) is used to replace one and only one character in a file name.

Examples

a*.txt	All files with extension .txt starting with a (or A), like AF104.txt or a.txt.
item_n?.*	All files named item_n + one character, whatever the extension, like item_n3.dat or ITEM_NZ.txt, but not item_n24.doc
.txt;.dat	All files with extension txt and dat

Step 3 Choose your watch method:

• **Wait for file system events:** In this mode, the application is suspended until the system «awakens» when a file is in the directory. At that time, the file processing starts.

This method is a good way to limit the resources needed by the application. However, this method cannot always be used. Some file systems, such as shared folders on AS400, are not compatible with the Windows notification system.

• **Check on time interval:** The folder is watched at regular intervals.

TCP/IP port listening

This plug-in is viewed as a Socket server and receives data from a client in a pre-defined format. For more information about this format, please refer to the example available in your installation directory. This plug-in can be considered as an input and/or a report plug-in. It allows client application to retrieve printing status. This plug-in can support any kind of platforms.

From the **Input** tab of the sentinel properties dialog box, select the input plug-in and click **Settings**.

The TCP/IP Plug-in window appears:

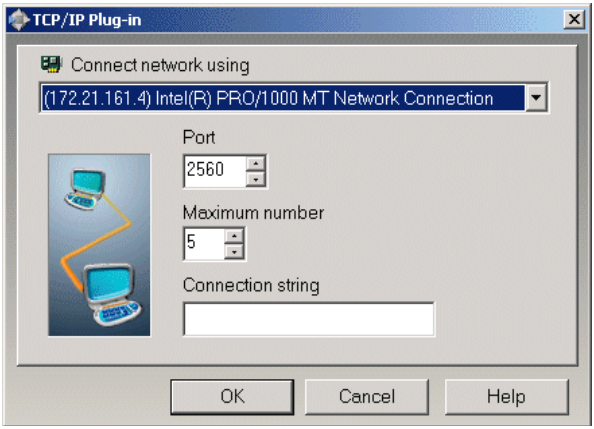


Figure 2 The TCP/IP Plug-in window

How does this the TCP/IP Plug-in work?

Step 1 The client tries to connect.

Step 2 The server validates the connection.

Step 3 The client sends a data process request.

Step 4 The server sends the events linked to the file process.

Step 5 The server sends the end of process.

Step 6 The client disconnects or continues sending information to the sentinel.

If this plug-in is considered as both an input and report plug-in, events reported by the server to the client will concern only the client that sent the input.

General message format

A message is sent to exchange information between the client and the Socket Server. The structure of this message is defined below.

Message size (including those four characters)	4 characters (long)
Command number	4 characters (long)
Parameter 1	4 characters (long)
Parameter 2	4 characters (long)
Job name	260 characters (char [260])
Data	varying length

Data format description

Data sent will have the following format:

variable name = CRLF value

The variable name is the name of a variable on your label or that of a control variable:

@LABEL_NAME: Used to indicate the label name to be printed.

@PRINTER_NAME: Used to indicate the target printer.

@LABEL_QUANTITY: Used to indicate the number of labels to be printed.

If you want to send several process demands during the same information exchange, data blocks must be separated by CRLF (ASCII characters 10 and 13).

If there are several blocks of data, blocks are separated by CRLF:

variable name 1 = value CRLF

variable name 2 = value CRLF

variable name 3 = value CRLF

CRLF

variable name 1 = value CRLF

variable name 2 = value CRLF

variable name 3 = value CRLF

variable name 4 = value CRLF

Messages list

Connection demand

The connection string indicated in the plug-in configuration is aimed at allowing the client to connect to the server.

Command number	0
Parameter 1	0 (message with Ansi characters)
	1 (message with Unicode characters)
Parameter 2	Client ID. Optional parameter used to check information sent from the server to the client.
Name	Not used.
Data	Connection string.

Job demand

Command number	2
Parameter 1	0 (message with Ansi characters)
	1 (message with UNICODE characters)

Parameter 2	Not used.
Name	Job name.
Data	Data to process.

Answer to connection demand

Once the connection demand has been made, the client must wait for an answer from the server in order to continue.

Job name	Client ID.
Command number	1
Parameter 1	0 (OK)
	1 (false connection string)
	2 (maximum number of clients reached)
Parameter 2	Not used.
Name	Not used.
Data	Not used.

Answer to job demand

Command number	3
Parameter 1	0 (OK)
	1 (cancelled)
	2 (message)
	3 (error)
	4 (end of process)
Parameter 2	See table below.
Name	IP address or client's PC name + client ID (value set during connection).

Data	Text message linked to the receiving of an error or a message. The module name or the name of the plug-in is defined before this message.

Details about parameter 2

On message reception and according to what has been selected in the Report plug-in.	0 (Sentinel stopped: client disconnected)
	1 (Data received)
	2 (Data to be processed)
	3 (Data are sent to the output plug-in)
	4 (Free message)
On error reception	3 (Format not supported)
	4 (Process error)
On end of process	Equal to the NewData return value.
	0 (OK)
	1 Process canceled.
	6 Process error.
	7 Output plug-in error.

Communication between the client and the server can either be done in UNICODE or in ANSI. If client data is sent in UNICODE, the server will answer in UNICODE. It is the same process for ANSI.

Server disconnection

The client will be disconnected:

- For the input, if the client tries to send a new process without having received the end of the process of the previous demand.

• For the report plug-in only, if the client tries to send data.

Print capture

This plug-in captures spooled tasks on a printer. This printer is set up during your plug-in configuration. All printed tasks printed from your system to the printer will be analyzed by the sentinel once activated.

Printing your document from a Windows application on a sentinel printer may modify the original document. For instance empty lines can be removed and tabulation characters can be replaced by a carriage return line feed sequence. In order for the map to read the reformatted data correctly, do the following:

Step 1 Start by making the sentinel printer available for printing, as it is suspended for the capture by default.

Step 2 Select the FILE port for the output.

Step 3 Print your document on this printer from your application.

At print time, a dialog box is displayed that lets you specify the output file name.

Step 4 Use the file that is printed as the work file to define the Map file.

This method allows for the modifications that could occur during the printing process.

Step 5 When the map file is done, don't forget to set the printer back to suspended mode and to select the COM1: as the output port.

When printing through the TCP/IP protocol, the original document is not modified through the use of the driver. In that case it is possible to create the map file with the original document.

From the **Input** tab of the sentinel properties dialog box, select the input plug-in and click **Settings**.

The **Print Capture Plug-in** window appears:

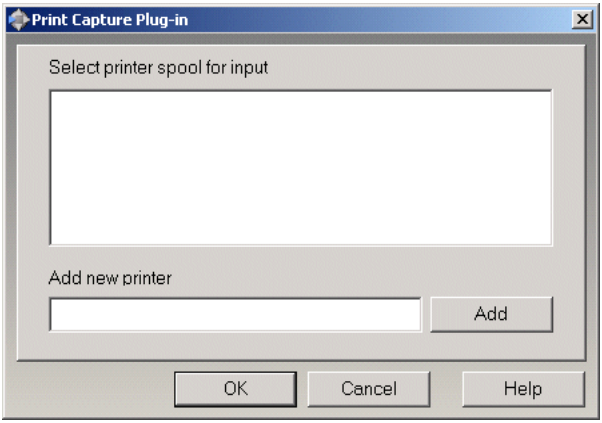


Figure 3 Print Capture Plug-in window

Step 6 Select printer spool for input.

Step 7 If you want to add another printer, enter its name and click **Add**. The new printer appears in the printer spool for input list.

Step 8 Click **OK** to validate.

Web Server

Note

Depending on the product version you have purchased, this plug-in may not be available.

The Web Server plug-in allows the sentinels server to receive information from a Web page, previously created and configured for data collection. It allows the sentinels server to be connected to any Web Application with a minimum of integration work on the Web Application itself. All it would take is for a **Submit** button on a Web page to be connected to the server's URL. This would send all the

information entered in the Web page to be collected and, for example, inserted into a database or transmitted to a Web service available on the ERP system to perform a particular transaction. Since this plug-in acts as an HTTP server, it will answer an HTTP POST message and will call the assigned process plug-in to act according to the information. The web form will need to be customized to link the data collected on the web page with the information requested by the process plug-ins used by the sentinel.

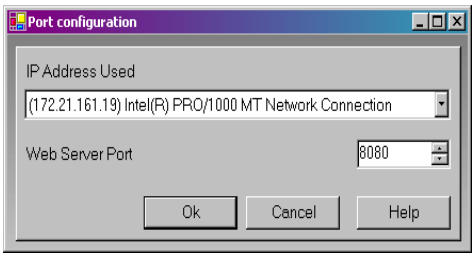


Figure 4 Port Configuration window

In order to customize a Web form, three things must be done:

Step 1 Create standard input fields, giving them the name of the variables you want to address from the fields.

Example:

<input type= "edit" name= "variable_name" value= "variable_value">

For more details, please see the HTML sample web form in the sample program directory.

Step 2 Create three input fields named Group, Sentinel and Job Name that are used to identify the sentinel which will receive the data and to provide a name for the job.

Example:

<INPUT type= “edit” name= “Group” value= “Production”>

<INPUT type= “edit” name= “Sentinel” value=”S01”>

<INPUT type=” “edit” name “JobName” value=”Job2545”>

Data will be processed by the sentinel “S01” of the ”Production group”. The Job will be referred to as “Job2545”.

Step 3 Customize the method and action parameters for the form so that it could be linked to the sentinels server.

Example:

<form method= “post” action= “http://sentinel_server:port_number/des”>

...

...

...

</form>

Each input field name and value will be sent to the sentinel. Then, the sentinel will tell the caller (usually the Web browser) to call back to the web server’s normal address. It allows the data to pass through the sentinel, first, and then again through the web application is it has been designed on a web server such as IIS or Apache.

Another way to exchange information between your application and the sentinels server through the web server plug-in is to directly use the web service that is published. From a development platform that supports web service calls, like .NET or J2EE, you can directly invoke the function exposed by the web service. To do that, you simply need to provide the URL address of the plug-in web service:

http://sentinel_server:portnumber/service?wsdl

Your development tool should create a wrapper containing two methods and an enumeration (function result):

Process1 (
Group as string : name of the sentinel group
Sentinel as string : name of the sentinel
JobName as string : job name to be displayed
Values as ArrayOfString : array of strings
) as FunctionResult

array of string example: array("Name", "McCarthy", "Surname", "Doris")

Process2(
Group as string : name of the sentinel group
Sentinel as string : name of the sentinel
JobName as string : job name to be displayed
Values as string : string representation of values
) as FunctionResult

Values: "Name=McCarthy\r\nSurname=Doris\r\n" where "\r\n" represents CrLf (Carriage return, Line feed).

FunctionResult enumeration:

OK : process has been done successfully
Canceled : process has been cancelled
Err_Process : process raised an error

Records capture

Principle

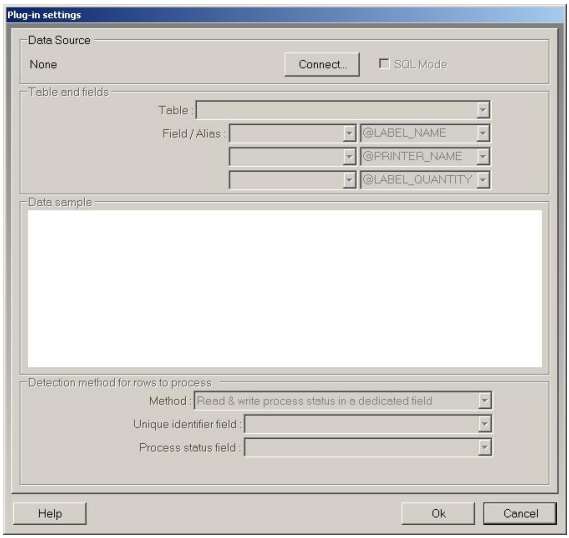
The plug-in watches the output of an SQL query and detects new records based on different user selectable strategies.

For each new record, it sends a process request to the sentinel.

Depending on the selected strategy, it writes status information in each processed record, deletes the processed records or just counts the number of records.

Sentinels using this plug-in do not need a map.

User interface



The dialog box for the plug-in is composed of a single Window with four sections:

- Data source
- Table and fields
- Data sample
- New rows detection method

The window is resizable to some extent.

Expansion mainly allows viewing more columns and rows from the Data Sample section.

Size is automatically saved and restored between sessions.

Data source

First step is to select a data source. Click the **Connect** button to open the standard Windows OLEDB database connection dialog.

As soon as the data source is defined, the dialog box will

update to list all the retrieved tables.

The option box labeled "SQL Mode" is also enabled. This mode is described in the SQL Mode section below.

Here are some common connection settings for known database types.

SQL Server, OLE DB provider mode:

-1st tab: select Microsoft OLE DB Provider for SQL Server

-2nd tab: item (1), specify the name of the machine where the SQL server resides

- item (2), enter user name and password (check the "record password" option box)
- item (3), select a Catalog from the drop-down list

Oracle, OLE DB provider mode:

-1st tab: select Microsoft OLE DB Provider for Oracle

-2nd tab: item (1), specify the published name of the Oracle server

- item (2), enter user name and password (check the "record password" option box)

Access (MDB):

-1st tab: select Microsoft Jet 4.0 OLE DB Provider (or latest version if available)

-2nd tab: item (1), specify the data source as the path to the .MDB file

Excel (XLS):

-1st tab: select Microsoft Jet 4.0 OLE DB Provider (or latest version if available)

-2nd tab: item (1), specify the data source as the path to the .XLS file (*)

-4th tab: double click 'Extended properties' and enter Excel 8.0

Dbase (DBF):

-1st tab: select Microsoft Jet 4.0 OLE DB Provider (or latest version if available)

-2nd tab: item (1), specify the data source as the path to the folder containing all the .dbf files (*)

-4th tab: double click 'Extended properties' and enter DBase 5.0

Delimited text files (CSV):

-1st tab: select Microsoft Jet 4.0 OLE DB Provider (or latest version if available)

-2nd tab: item (1), specify the data source as the path to the folder containing all the .CSV files (*)

-4th tab: double click 'Extended properties' and enter Text;Hdr=Yes;Fmt=Delimited (**)

(*) The "…" commands only allows selecting a file name whereas a folder is needed. To override this behavior,: in the "…" dialog select the file filter "Any file" and select any file from the intended folder and validate. Back from the dialog, manually edit the data source path to remove the file name, only leaving the folder name like for example c:\mybases\.

(**) For Unicode text files, enter Text;Hdr=Yes;Fmt=Delimited;CharacterSet=Unicode

Note

For other variations (no header, other delimiter char than semi-colon …etc) you should use a schema.ini file as explained here: http://msdn.microsoft.com/en-us/library/ms709353.aspx

Table and fields

Once the data source is defined, the table list shows all retrieved table names.

Select the table from which the plug-in should pick records.

The Data sample will display the first available rows from the table (up to 10).

You can resize the window if you want to display more rows or columns.

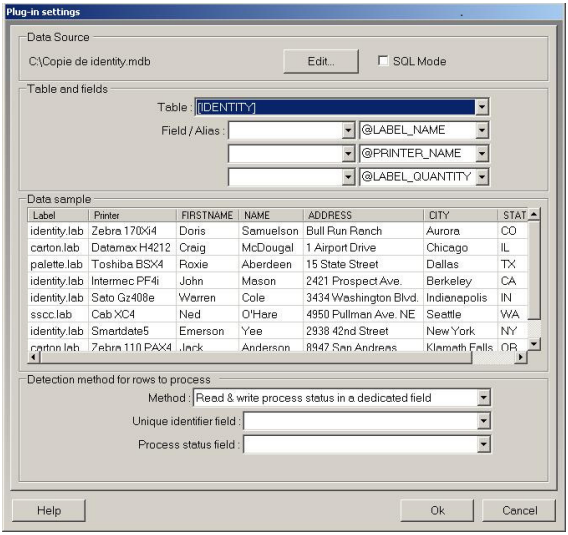
The table selection can be automated if the table contains a table or a view having a name starting with SENT_.

(For more information see the Automated Configuration section.)

Field / Alias

If the field names from the table do not match the variable names (or control variable names) from the process plug-in, you can create up to three relations there. Known control variables are listed. For variables not listed, just type their name here.

Example:



- The column giving the name of the label to print spells 'Template' in the table: select field TEMPLATE and alias @LABEL_NAME.

- The data from the column FIRST should go in the label variable FIRSTNAME: select field FIRST and type alias FIRSTNAME.

Note

If you need to create more than three aliases, you will have to switch to SQL mode and type the query containing the needed AS clauses.

For instance:
SELECT Template AS @LABEL_NAME, FIRST AS FIRSTNAME …etc… from JOBS

(For more information see the SQL Mode section.)

Detection of records to process

The plug-in offers a choice of three detection strategies:

-Read and write process status in a dedicated field, or

-Process and delete each row, or

-Count rows.

If migrating from LABELVIEW data watch, the last method is convenient for DBF files.

The first method should be used if possible on all other database types.

Status

For this strategy, the plug-in uses a dedicated field from the table to act as a status field. The plug-in processes each row without status. Then it writes back the process result as status value.

- The field type must be numerical.

Note

In Excel sheets, default data format is string, not numerical. To define the "Status" column as numerical, change the cell format to plain number (without decimal).

- The field must be set by your system to NULL or zero in records to process.

- At the beginning of the processing, the plug-in writes the value 1 in the field; after processing, it writes either 2 for success or 3 for failure.

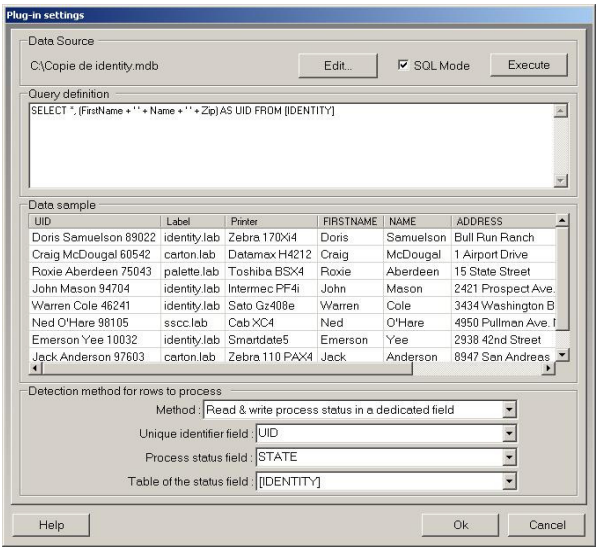
- Any value (except NULL, 0, 1) can be set in a new record to postpone its processing. Value can be set to NULL or zero at a later time to release the record for normal processing.

This strategy requires also a unique identifier field to distinguish records and to allow selecting/updating records one by one.

Note

In the snapshot below, the identifier UID does not belong to the table. It is made up on the fly in the SQL query by

combining the three fields First, Name and Zip.



To help you decide if this strategy is well suited for your system, here is a summary of pros and cons:

Pro:

-You can check the table to know which records succeeded or failed,

-You can reset the status to have some records processed again

-You can delete records that are not needed anymore

Con:

-The table structure may need modification to add the column acting as Status (*),

-The sentinel will be writing in the table after each process, so the database must support multiple access (your system will be adding rows while the sentinel writes the status in processed rows)

(*) Tip: By using SQL mode, you can store the status in an independent table joining the main table through a unique key. This avoids modifying the main data table.

Process and delete all rows

Each record is processed then deleted.

This strategy requires a unique identifier field (a field which value cannot appear twice through the table) to distinguish rows and allow deleting rows one by one.

When selecting this strategy, select also the field to use as unique identifier. It can be:

- A built-in counter managed by the database system (also called AUTO INCREMENT),

- A unique data managed by your data model, like a serial number, a driver license ID, an email address…etc

Pro:

-Any table can be monitored without change to its structure.

Con:

-Processed records are deleted, so the table is somewhat dedicated to the processing done by the sentinels server

-The sentinel will be updating the table after each process, so the database must support multiple access (your system will be adding rows while the sentinel reads and deletes other rows)

Count rows

The plug-in counts the number of records returned by the query. When the number has increased since the last counting, the plug-in knows how many new records were added to the table.

This method is quite straightforward but has some major

drawback: new records are easily located in sequential databases (DBF, CSV and XLS) because they are guaranteed to appear at the last positions.

This natural order is not guaranteed for transactional databases. Records may be re-ordered as the result of optimization, indexing, backup restoration …etc. For transactional databases, you should favor the "Status" strategy.

Pro:

-Any table can be monitored without change to its structure.

-No writing is made by the plug-in (no shared access problem)

Con:

-The plug-in would miss some new records if an external process (or user) deletes some older records. So record deletion is forbidden during sentinels' activity.

-New records can only be detected if they are added while the sentinel is running. (So before adding new records, ensure the sentinel is active.)

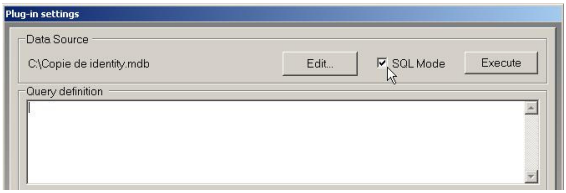
-If the sentinel reports some process error, there is no easy way to know which records were involved.

Query definition in SQL Mode

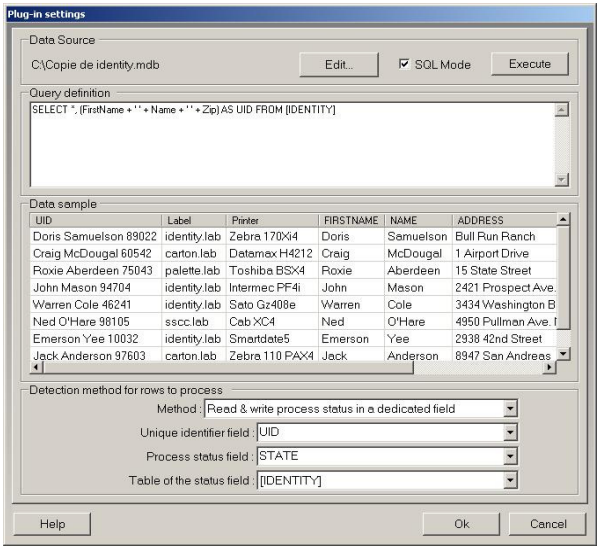
The SQL mode is required to create advanced queries (select on multiple table, conditions…etc.).

When you check the **SQL Mode** option the second section becomes "Query definition" and a button labeled **Execute** is

displayed:



Input (or paste) your query and select the **Execute** button located to the right of the SQL mode switch:



If the query syntax was wrong, the error message coming from the database engine would display in the Data Sample area.

New records detection strategy and SQL mode

The field list appearing for the detection method "Delete" and "Status" are editable. If the sentinel reports syntax errors for the query, check that the selected field names are unambiguous and edit them accordingly.

In the example above, the field COUNT doubles some SQL keyword so if it were used, it should be enclosed in square

braces as in [COUNT].

Automated configuration

If certain conditions are met, the plug-in configuration can be set automatically.

Conditions are:

-The database contains a table with a name starting with SENT_ .

-The table contains two fields named SENT_STATE and SENT_ID to be used as Status field and unique ID field.

For example, under SQL Server, use SQL Management Studio to create a view named SENT_PRINT.

Arrange the view to gather all the required data. Have two columns named SENT_STATE and SENT_ID.

Now in the plug-in, select your database as the data source.

The plug-in will find the table and propose to use it. If you agree, it will then select the two columns for the "Status" detection strategy.

Multi field

(Feature not appearing on the previous user interfaces)

In some situation it is convenient to bundle several pieces of data in a single field, especially when the label template could change at each record and its variables are not known at this time.

For this type of column containing a series of named values, the section Multi field allows to define its format:

- Field : the field name.

- Separator : the character (or string) delimiting two adjacent pieces of data.

- Assignment sign : the character (or string) delimiting the

name from the value.

Example :

Having a column named DynList that contains a piece of data like "Hei.:22/Wid.:40/Dep.:60/Col.:Stone" the configuration should be:

- Field DynList

- Separator /

- Assignment sign .:

For this record, the selected process plug-in will have at its disposal the four variables Hei, Wid, Dep, Col .

Process plug-ins

Three process plug-ins are available:

- Label Printing
- Database
- Web Service Client

Process plug-ins are used to determine the way in which your information will be processed. Process plug-ins manage variable collections to perform the work they have been designed for. There are two types of variable:

Standard:

- The Label Printing plug-in manages variables defined in a label created with the label designer.
- The Database plug-in manages variables associated with a task that is defined with the Query Manager.
- The Web Service Client plug-in manages variables associated with the parameters of a web service function.

Control: These are the variables that can influence the processing work of the plug-ins.

- The Label Printing plug-in uses the @LABEL_NAME variable to define the label to print, the @PRINTER_NAME to select the target printer or the @JOB_NAME to specify a name to the data stream received by the input plug-in.

Here is a list of control variables. Some may not be available with your installation.

Control Variable	Plug-in Type	Description
@ LABEL_NAME	Label Printing	Define the label to print. The name of the label can be the label's name on disk or the complete path and name of the label. ex: *@:\Desktop\ my_archivingsystem\ my_labeldesigner\ Mylabel.lab*
@PRINTER_NAME	Label Printing	Select the target printer.

Control Variable	Plug-in Type	Description
@OFFSETX and @OFFSETY	Label Printing	Modify the location of the printing on the paper. The values allowed are between -32769 to 32769 in tenths of a millimeter. These control variables may not be available with all installations.
@DEFAULT_PRINTER	Label Printing	Name of the printer to use by default when the @PRINTER_NAME control variable is not defined.
@DEFAULT_LABEL	Label Printing	Name of the printer to use by default when the @LABEL_NAME control variable is not defined.
@LABEL_QUANTITY	Label Printing	Name defined in this control variable will set the number of labels to be printed.
@DEFAULT_QUANTITY	Label Printing	Name of labels to print when the @LABEL_QUANTITY variable is not defined.
@LABEL_COPY	Label Printing	Defines the number of labels to copy – may not be available with your installation.
@PAGE_COPY	Label Printing	Defines the number of pages to copy – may not be available with your installation.
@INTERCUT	Label Printing	Defines the number of labels to print between each page cut – may not be available with your installation.
@TASK	Database	Select the task to execute.
@WEBMETHOD	Web Client Service	Select the web service method to execute.

Control Variable	Plug-in Type	Description
@JOB_NAME	Global	Gives a name to the transaction or group of transactions executed by the process plug-in. If the variable is not explicitly assigned, the file name will be used as the job name. This information is used for the archiving system's print history log to help you to quickly find and retrieve a print job.

Label Printing

This plug-in prints barcode label with data found by the mapper.

From the Process tab of the sentinel properties dialog box, select the process plug-in and click on **Settings**.

The Printer Selection window appears:

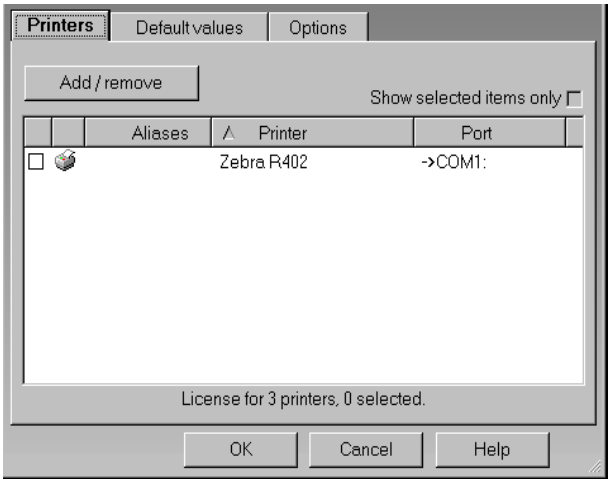


Figure 5 Printer Selection window

Step 1 From the **Printers** tab, select the printer(s) you want to use.

You can define aliases for each printer. For example if you define "Production1" as an alias for the printer "Plasmatronic TH640, \\ServerProduction1", the sentinel will select this printer if the data analysis found the data Production1 as the printer name to use for printing.

If the printer is exchanged for a different model, you will just have to assign the alias to the new printer in the plug-in configuration. No modification will need to be done on the data.

The alias is used prior to the real name of the printer. For example, if you want to redirect the printing demands from the "Plasmatronic TH640" to the "Matrix Code IV", you simply need to assign the alias "Plasmatronic TH640" to the "Matrix Code IV" printer.

Step 2 On the Default values tab, type or select a file to be printed.

Remember that first priority is given to the control variables found in the file, then to the default value such as this one.

Note

By default, in step 2, if a label is selected from the label archive system, the selected value does not include the version number. You can add this information manually in the edit box as mentioned above.

Step 3 Select a default printer on which documents will be printed if no printer is specified in your data file.

Step 4 Fill in, if needed, the number of labels to be printed, the number of copies, etc.

Step 5 Activate the **When opening a document, clear its variables** option if you want to erase the variable values saved in the document when it is opened. If not, the values saved in the document will remain until new values are provided by the file analysis.

Step 6 In the **Options** tab, configure the available settings as per your needs. The list of available settings will change according to the label designer installed.

Step 7 If you have installed an archiving system, you will have an additional tab called Archiving. Select the Archiving tab in order to enter the user name and password information necessary to access the archiving system, to select the level of history tracking information you would like to keep and the default category from which your labels will be extracted.

The history tracking options are as follows:

- Track Printing: Allows reprinting
- Track Errors: Adds one record in case of an error
- Track Warnings: Adds one record in case of a warning
- Track other events: Adds one record for other activities such as file opening and closing

Step 8 Click **OK** to validate.

The print management system will print the latest validated label version if you don't explicitly specify the label name and version to print. If no validated version exists for the label, then the print management system will print the latest draft of the label (requires administrator or manager rights).

To specify a given archive version, the filename must be suffixed with an underscore and the version number (for example, identity.lab_3).

Database

Note

To use the Database plug-in, you require an additional license. Please contact your reseller to activate this functionality and ensure your database system is supported.

The Database process plug-in allows a sentinel to execute queries and call stored procedures over different database systems with the information received from the input plug-ins. Queries are defined at design time on the workstation using the Query Manager application.

Once the queries have been created they can be associated with stored procedures and called into a task. Task and query definitions are saved into two configuration files (task.xdb, database.xdb). These files must be used from the sentinels server when defining sentinel tasks with the information captured from the incoming data stream. It is then possible to execute a set of queries combined with stored procedure calls over different database systems for each block of data found by the sentinel.

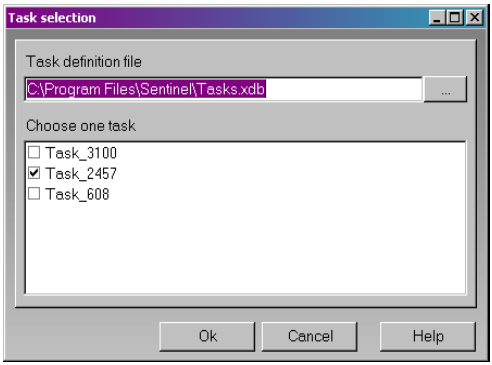


Figure 6 Task Selection window

If you want to dynamically select the task which would be called by the data stream received by a sentinel, you must assign a value to the @TASK control variable.

Step 1 Select **Database.**

Step 2 Click **Settings.**

Step 3 Enter a **Task Definition File** or click **Browse** to search for an existing file.

Step 4 Select one task from the list of configured tasks and click **OK**.

This task will be called up by default by the sentinel if the @TASK control variable is not set in the data stream.

Web Service Client

The goal of the web service client is to send data through WebService calls over the internet or intranet network.

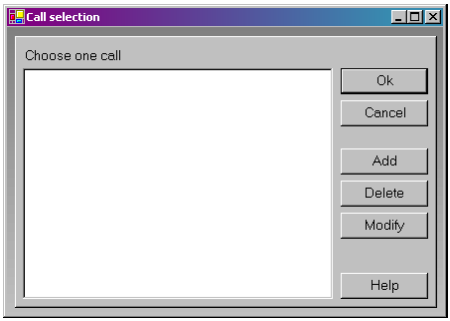


Figure 7 Task Selection window

Configuration

To use web calls, you must first ask for the web service description file (WSDL file).

Step 1 Open the WebService plug-in dialog box.

Step 2 Click the **Add** button.

The WebService Resolution window opens.

Step 3 Type the WSDL address (URL) in the edit box and click on the green arrow.

The plug-in will look for the service description. If a user login and password is required, a dialog box will be opened to enter required values.

Methods are listed in the table by method name followed by its parameters. Parameters are indented. If you click on a line, corresponding documentation will be shown on the bottom panel.

To add a method to the plug-in's usable method list, just enter an alias beside the method name. You can also give an alias name to the parameter name. When running sentinel, if parameters have an alias name, this one will be used as the variable resolution. The sentinel's variable value will be sent to the corresponding parameter. If the parameter alias is omitted, its name will be used.

When methods are selected, you can close the Service Resolution dialog box. Then, in the configuration box, select the method to call from the plug-in as long as the @WEBMETHOD control variable of the plug-in is not set in the sentinel's incoming data stream.

Web Service Test You can test a method through the Web Service Resolution Dialog Box. Open this dialog box, then click the **Test** button. A combo box allows you to select the method. Enter the parameter values and click on call. If a result is sent back, it will be displayed in the result panel.

Limitation During the sentinel process, the result from a web call cannot be used or interpreted.

Output plug-ins

Transfer plug-in

The transfer plug-in transfers input data to a specific directory according to the process result.

On the **Output** tab of the sentinel properties dialog box, select the output plug-in and click **Settings**.

The Transfer Plug-in window appears:

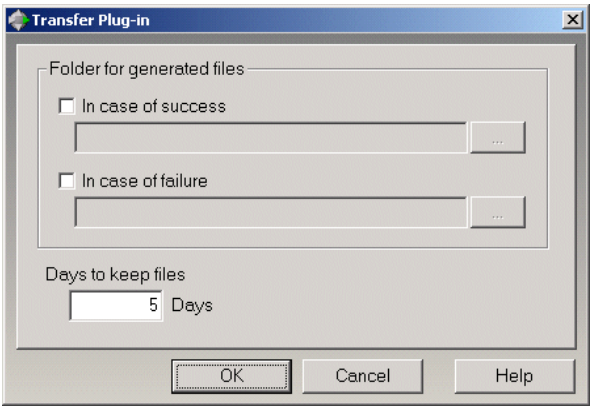


Figure 8 Transfer Plug-in window

In the **Folder for generated files** zone, select where you want to save your file in case of failure or in case of success.

In the **Days to keep file** zone, enter the number of days that the files will be kept.

The file name created by the output plug-in is identical to the name of the data set that is received by the input plug-in. If the same name is used for two different data sets, the old transferred file will be overwritten by the new one.

The **Days to keep files** option is only activated when a sentinel sends a file to the Transfer plug-in. If the plug-in is used, files remain in the transfer folder the amount of time specified in the **Days to keep files** option.

Report plug-ins

You have three **Report** plug-ins at your disposal:

- Log File
- E-mail
- TCP/IP Port Listening

Log file

The Log File plug-in logs sentinel events in a text file. On the **Report** tab of the Sentinel Properties window, select the report plug-in and click **Settings**.

The Log File Plug-in window appears:

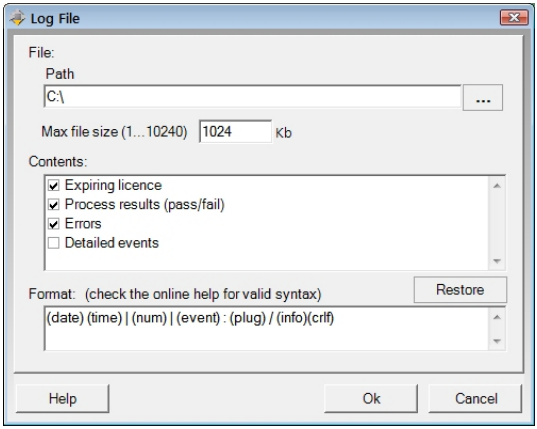


Figure 9 Log File Plug-in window

Step 1 On the file zone, enter the file path. The generated log file name is made as follows: REPORT (<sentinel name>).txt.

Step 2 Check one or several options in the **Contents**.

Step 3 In the **Format** zone, change the syntax of the file.

E-mail

The E-mail plug-in sends an e-mail containing all of the chosen events.

On the **Report** tab of the Sentinel Properties dialog box, select the input plug-in and click **Settings**.

The E-mail Plug-in window appears:

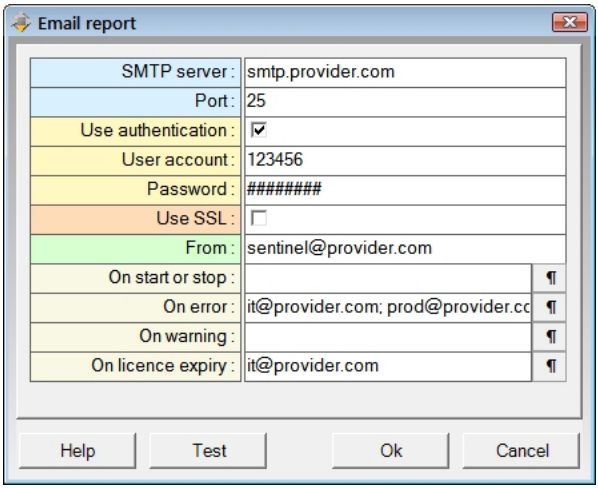


Figure 10 E-mail Plug-in window

Step 1 In the **SMTP Server** zone, enter your SMTP Server address and select your port.

The SMTP port number is commonly set to 25.

Step 2 Check the **Authenticate** box if your server requires authentication and enter a **user account** and **password**. Check the **Use SSL** box if your SMTP server requires secure socket protocol.

Step 3 In the **From** zone, enter the address of the sender.

Step 4 In the four **Recipient** zones, enter the e-mail address of the person you want to contact when the corresponding event occurs.

If you want to add several addresses for the same events, separate them by a semicolon (;).

Click the ¶ button to access to the **Message format** window.

Once you have entered your parameters, you can click **Cancel** or **Test** if you want to check the parameters you entered. Then the plug-in tries to send an e-mail to all of the specified recipients. The e-mail sent uses the same format as the one specified in the settings of the plug-in so that you can check it.

TCP/IP port listening

The TCP/IP Port Listening plug-in is viewed as a Socket server and receives data from client in a pre-defined format. For more information about this format, please refer to the example available on the DVD. This plug-in can be considered as an input and/or report plug-in. This plug-in can support any kind of platforms. For more information about this plug-in configuration, please refer to the *Input plug-in* section of this chapter.

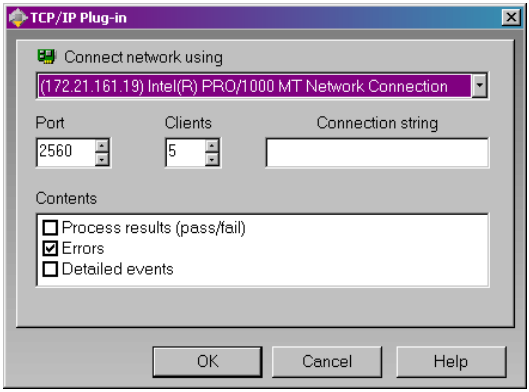


Figure 11 TCP/IP Plug-in window