

CODESOFT Sentinel Print Pack™

Welcome to the printing module for **CODESOFT Sentinel Print Pack**, the No. 1 **Windows™**-based computer program for label printing. Discover the simplest and most powerful way to meet your labeling needs.

CODESOFT Sentinel Print Pack combines the user friendliness of a graphical interface with the high-powered features of a sophisticated software program.

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Introduction

CODESOFT Sentinel Print Pack enables you to print labels created using CODESOFT on non-**Windows™** platforms. The application runs under **Windows™ 95** or **NT**.

CODESOFT Sentinel Print Pack consists of a data capture module (Sentinel) and a print module (CODESOFT Run Time).

Sentinel Print Pack intercepts the print requests generated by your applications and re-routes them to **CODESOFT Run Time**, which does the final printing. It links your applications' data to the print functions of **CODESOFT Run Time**, whether the applications run on a PC, a minicomputer or a Mainframe.

Sentinel Print Pack works by monitoring either the print job queues from your application, or the presence of data files in a specified directory. Consequently, your application must be able to generate a print job on a server or copy a file in a directory that is accessible to **Sentinel Print Pack**.

Definition of Concepts

CODESOFT Sentinel Print Pack employs new concepts specific to the application. We will therefore begin by establishing a “mini-glossary” of terms used. **Print Server**: a PC running under **Windows™ 95** or **Windows™ NT** and installed with a copy of **CODESOFT Sentinel Print Pack**.

Print Document: this designates a file generated by your application and containing all the information required to print one or more labels using **CODESOFT Sentinel Print Pack**.

Sentinel: a procedure that assumes responsibility for the print document and transcribes it into *print orders* for **CODESOFT Run Time**.

There are three types of Sentinels:

- ◆ the *Print sentinel*;
- ◆ the *ASCII file sentinel*; and
- ◆ the *Data source sentinel*.

Delimiters: a character or strings of characters that frame the data (name and value of variables) in a *Print Document*.

How Sentinel Print Pack Works

CODESOFT Sentinel Print Pack operates as a background task under **Windows™**. Using the **Sentinels**, the program monitors either print queues or directories that contain *print documents* generated by your application. When **Sentinel Print Pack** detects a *print document*, the module analyzes it, transcribes it into *print orders* for **CODESOFT Run Time**, and deletes it. As soon as **CODESOFT Run Time** receives *print orders*, it starts printing labels.

Using **CODESOFT**, you will create your label's format (background image) by inserting the information you want it to contain (variable fields, graphics or bar codes). **CODESOFT Sentinel Print Pack** interprets and re-routes the data from your application to the label's field. Since the print format of the labels is stored in the receiving station, no graphical information moves through your network.

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Print Sentinel

The *Print document* printed out from your application is added to the print queue of a *Sentinel printer*. Figure 1 below illustrates how the *Print sentinel* works.

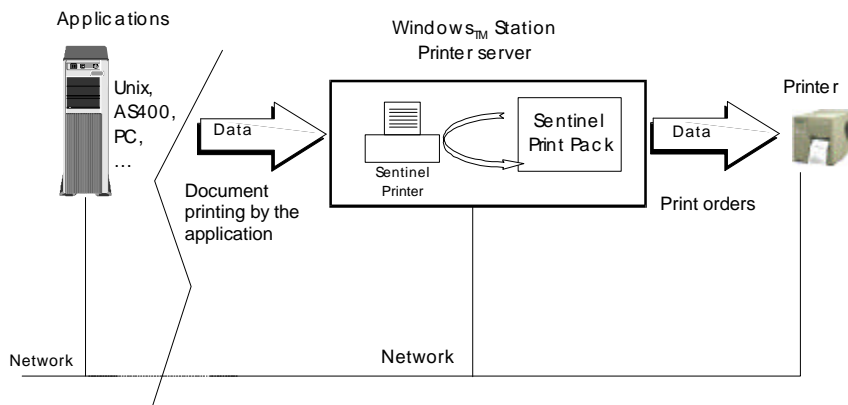


Figure 1: Functional Diagram

By adding a *Print sentinel*, you automatically create a *Sentinel printer* of the same name on the print server.

The *Print documents* stored in the print queue are analyzed by the Print sentinel, which transcribes the information into print orders for **CODESOFT Run Time**. The *Print sentinel* is associated with:

- ◆ a method for analyzing *Print documents*;
- ◆ an output printer selected earlier in CODESOFT Run Time; and
- ◆ print settings (number of labels to print, pages, etc.).

Note 1: The analysis method, output printer, and all print settings can be modified from the *Print document*.

Note 2: The print documents will be processed and then erased. Documents that do not conform to the analytical method will be destroyed automatically.

Structure of the Print Document

The *Print document* must feature a specific structure, which is detailed below. Moreover, APPENDIX 1 (**Chapter 7**) discusses an example of a *Print Document* (Identity.txt).

Print jobs for **CODESOFT** can be described in full by entering:

- ♦ their control variables;
- ♦ the label **Import** variables; and
- ♦ additional information such as print settings (number of labels to print, etc.).

As you can see, the *Print document* duplicates descriptive label information used in **CODESOFT**.

In addition to containing information that describes the label, text files must employ a specific syntax for the assignment of data to label variables.

This can be done in two ways:

- ♦ direct assignment; and
- ♦ assignment by table.

Syntax for Direct Assignment

A directly assigned file consists of variables whose values were assigned directly; the sum of those variables make up the label.

Labels are described successively following the rules of syntax listed below:

- ♦ labels must be separated from one another by an end-of-label delimiter;
- ♦ each line describing a variable to initialize must begin with a start-of-assignment delimiter, followed by the name of the

variable, the assignment operator, and the value of the variable. It must end with an end-of assignment delimiter (see example below).

Delimiters: a character or strings of characters whose purpose is to frame the data (variable name and values) in a Print document.

Example :

[File header]					
[start assignment)	[variable1]	[assignment operator]	[value]	[end assignment]	Label No. 1
[start assignment]	[variable2]	[assignment operator]	[value)	[end assignment]	
...	
[start assignment]	[variableN]	[assignment operator]	[value]	[end assignment]	
[end label]					
[start assignment]	[variable1]	[assignment operator]	[value]	[end assignment]	Label No. 2

The variables referred to will either be **CODESOFT** control variables or the label's **Import** variables.

Syntax Assigned by Table

A file assigned by table organizes the variables into a two-part table that consists of:

- ◆ a header specifying the variables associated with the table columns, framed by a delimiter for the start table header and the end table header; and
- ◆ a set of values associated with header variables, framed by a start table and an end table delimiter.

Each line corresponds to a label:

[file header]					
[start header]	[variable1]	[separator]	...	[variableN]	[end header]
[start table]	[value1]	[separator]	...	[valueN]	[end table]
[start table]	[value1]	[separator]	...	[valueN]	[end table]
...
[start table]	[value1]	[separator]	...	[valueN]	[end of table]

The variables referred to will be either **CODESOFT** control variables or the label's **Import** variables.

Characteristics of the Print Document

Print files, whether made up of direct and/or table assignments, must obey the following rules.

Header

To be recognized by **CODESOFT Sentinel Print Pack**, files must begin with a header specified using the Sentinel Print Pack interface.

Example:

The default header suggested in the interface, which is "SENTINEL," requires files to begin with the following sequence: "SENTINEL"

Label Referred To

CODESOFT Run Time print jobs must be associated with a label file name.

This can be done:

- ♦ either through direct assignment (the name of the variable can be specified in Sentinel Print Pack); or
- ♦ through table assignment.

In the case of table assignments, make sure that the name of the **CODESOFT** control variable (for example: "LAB_NAME") is included in the specification of the table header.

Delimiters

The **CODESOFT Sentinel Print Pack** interface gives you a simple and user-friendly way to define all the *Delimiters* needed to analyze print documents, as well as the name of the **CODESOFT** control variables that will make up your label (see Interface, Chapter 5).

Note

As soon as you assign a character (or string of characters) to a delimiter, it becomes a control character and can be used only as such. However, you may include it in an assignment value, or even within a variable name, if you take the trouble to duplicate it.

Example

If the delimiter for the start direct assignment line is «start,» and if a value must be assigned to the «CSstart» variable defined in a **CODESOFT** label, write:

```
start CSstartstart [assignment] [value] [end assignment]
```

Same Variables

Same Variables allows you to freeze the value of a variable until a new assignment changes it. Thus, if a variable's value does not change over the course of several label specifications, you do not need to re-assign it for the following ones.

A setting option available from the interface of the Sentinel Print Pack module specifies whether a variable should stay the same or be re-entered each time a label is defined.

Combined Assignment

If the **Same Variables** option is checked, direct assignment and table assignment can be combined.

Combined assignments set the value of one or more label variables. To do this, the values requiring setting are defined through direct assignment; the others are specified using table assignment (see example below):

Example:

```
>var1 = val1<
>var2 = val2<
[var3,var4, .....]
(val3,val4,.....) } For all these labels, the value of the
(val5,val6,.....) } variables var1 and var2 will remain
                   ..... J
```

Label Recognition

A label is sent to be printed when the program encounters an end label or end table data delimiter.

Printing Via Network

TCP/IP Protocol

If you are using TCP/IP as the communication protocol to link your separate networks, you can use the LPR/LPD services to print your *print documents*. First you must install and start up the TCP/IP print services on the *Print Server*, which, in this case, must be a **WindowsTM NT** station.

When employed using an IBM network, the above method requires **CODESOFT Sentinel Print Pack** to translate files into EBCDIC format. To do this, you must check the EBCDIC ASCII conversion option when setting up *Print Sentinel*.

ASCII File Sentinel

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ASCII File Sentinel

The *Print document* is copied from your application into a directory. Figure 2 below illustrates how the *ASCII file sentinel* works.

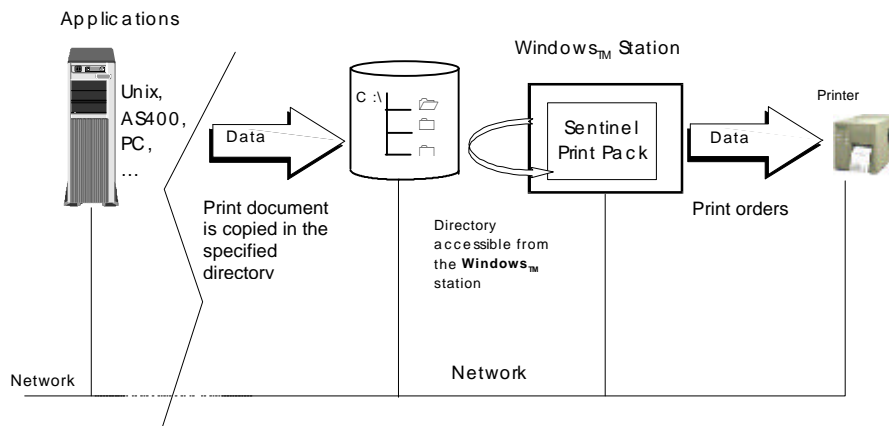


Figure 2: Functional Diagram

When you add an *ASCII file sentinel*, you specify a directory dedicated to monitoring print documents.

The print documents stored in this directory are analyzed by the *ASCII file Sentinel*, which transcribes the information into print orders for **CODESOFT Run Time**.

The **ASCII file** is associated with the following:

- ◆ an output printer, selected earlier in CODESOFT Run Time; and
- ◆ printing parameters (the number of labels to print, etc.).

Note 1: the output printer and all the printing parameters can be configured from the *Print document*.

Note 2: The *print documents* will be processed, then erased. Documents that do not conform to the method of analysis will be destroyed automatically.

We therefore recommend specifying a directory that will be dedicated entirely to the *ASCII* file sentinel for **CODESOFT**.

File Structure

ASCII files can consist either of direct and/or table assignments (see **Chapter 2**).

ASCII files require neither headers nor start and end-of-line delimiters. However, it is essential to enter a hard return (CRLF characters) at the end of each line in the file.

Note: some delimiters are configured by default:

- ⇒ the assignment delimiter is defined by the "=" character;
- ⇒ the data separation delimiter is defined by the "," character; and
- ⇒ the end-of-label delimiter is defined by the "END" character.

However, all of the above parameters can be redefined from the Sentinel.ini file in the CODESOFT installation directory:

- ⇒ Affect ==,
- ⇒ SepData = ,
- ⇒ SepLabel = END.

Appendix 2 of Chapter 7 presents and discusses a sample print document for a Print sentinel.

Data Source Sentinel

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Data Source Sentinel

The *print document* is copied from your application into a directory. Figure 3 below illustrates how the Data source sentinel works.

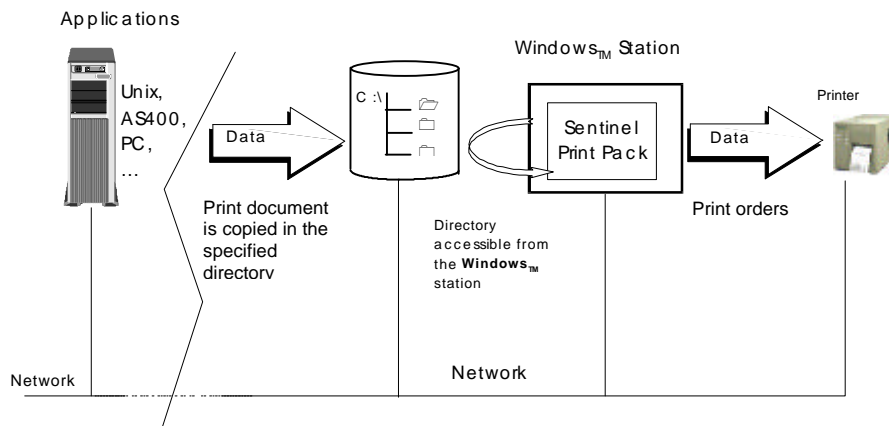


Figure 3: Functional Diagram

Adding a *Data source sentinel* is the way you define a data source.

The *print document*, whose format matches the format of the data source, is analyzed by the *Data source sentinel*. The file mode method uses Microsoft ODBC 32-bit connections. It requires specifying a data source, so that an appropriate analysis method can be associated with a file (identified by its name, path, and type).

The data source will be associated with:

- ◆ an output printer;
- ◆ an ODBC data source; and
- ◆ parameters characterizing the print job.

Data sources may be specified either directly from the **CODESOFT Sentinel Print Pack** interface, or via the configuration panel of the **Windows™** station.

Attention:

Certain kinds of data sources are not associated with a specific filename, as they are reserved for paths and file name extensions. For those data sources, the Data source sentinel will analyze all extension files specified in the directory.

Note: *Print documents* will be processed and then erased. Documents that do not conform to the method of analysis will be automatically destroyed. We therefore recommend that you specify a directory dedicated exclusively to the CODESOFT Data source sentinel.

Structure of the Print Document

Documents are composed of a header that includes every variable **CODESOFT Run Time** uses to print labels, followed by a group of values to be assigned in turn to the variables.

Each line of the *Print Document* corresponds to a label specification.

Here too, the variables can be:

- ◆ **CODESOFT** control variables; or
- ◆ the label's Import variables.

Note:

To be recognized, the header must refer to the name of the label to be printed.

Files appear in table form. The first line of the table is the header specification, which starts with the name of the label to be printed (**CODESOFT** system variable), followed by the different **Import** variables that make up the label. At the end of the header, the system variable LAB_QUANTITY allows you to reset the number of labels to be printed, since the default value set from the interface is «1.»

The variable separator is set when the data source is created.

You will note that on line 4, the “FirstName” variable is not filled in. If the **Same Variables** option is on, the field will have the same value as the previous label. If not, the field will not appear on the label.

```
LAB_NAME,Code,Name,FirstName,Address,City,State,Zip,LAB_QUANTITY
identity.lab,1969,O'Hare,Ned,4950 Ave. NE,Seattle,WA,98105,1
identity.lab,2001,Bowman,Dave,1 Discovery Lane,Pueblo,CO,2
identity.lab,2589,Thompson,,2339 Broadway,San Francisco,CA,94123,1
identity.lab,3154,Yee,Emerson,2938 42nd Street,New York,NY,10032,1
```

Error Files

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Error Files

When you start up the **CODESOFT Sentinel** application, an error file (ERROR.LOG) is automatically created in its installation directory. Error files monitor whether or not a copy of **Sentinel** (print or file mode) is working as it should.

Error files cannot exceed 50 kb. Once a file has reached maximum size, the software automatically deletes all errors recorded more than two days before.

Warning:

We recommend that you check error files regularly to avoid losing information on the functioning of *Sentinel Print Mode* or *Sentinel File Mode* modules.

Structure of the Error File

The number of entries in error files matches the number of **Sentinel** modules specified in **CODESOFT Sentinel**.

Error files let you know which jobs were only partially processed and were found to contain *Print Document* errors for each active copy of **Sentinel**.

Sample Error File:

Error.log

[Printer 1]

08/20/97 10:29:29=Error in the *Print Document*: 1 in line 2: End direct assignment not found

08/20/97 10:38:53=Label: identhp.lab Error in the *Print Document*: 2 in line 19: Line break character at start line not found

08/20/97 11:10:58=Label: ident0.lab Error in the *Print Document*: 3 in line 15: Unable to load the label in CODESOFT

[Printer 2]

08/20/97 10:35:12=Label: identhp.lab Error in the *Print Document*: 1 in line 15 : Communication error with CODESOFT

08/20/97 10:37:00=Label: identhp.lab Error in the *Print Document*: 2 in line 11: Line break character at start of the line invalid

[DSR1]

08/20/97 11:29:21=Label: identhp.lab Error in the *Print Document*: 1 in line 1: Printer/port pair invalid in CODESOFT

Error Messages

Error messages inform users of the nature and location of errors so that they can correct them.

They consist of one of the messages described below, preceded by the date and time.

Unable to connect to CODESOFT

CODESOFT RUNTIME has not been installed or has been shut down again after being started up by **Sentinel**.

No label name

The name of the label to be printed has not been specified.

Unable to load the label in CODESOFT

The label specified is not found in the directory indicated or in the default directory defined in **CODESOFT**.

The variables specified do not match the label variables

The variable names indicated in the *Print Document* are not specified in the label.

No variable is specified in the CODESOFT label

The label specified in the *Print Document* does not include any variables.

CODESOFT cannot print this label

Sentinel has detected a connection problem with the printer (check the **Printer** settings in **CODESOFT**).

Printer/port pair not valid in CODESOFT

The output printer (printer name + port) is not entered in **CODESOFT**.

Unable to continue the analysis (no more delimiters)

Sentinel cannot find any more *Delimiters* in the *Print Document* being analyzed.

End direct assignment not found

Sentinel could not find the end direct assignment delimiter.

End array header not found

Sentinel could not find the end array header delimiter.

End array data not found

Sentinel could not find the end array delimiter.

Line break character at beginning of line not found

The line break character must appear at both the end and the beginning of each line break.

No data in table

A table header has been defined but no data follow.

Line break character at the beginning of line invalid

The line break character must appear at both the end and the beginning of each line break.

End assignment for system variable not found

The assignment of a value to a control variable must end with the character «.».

Start line delimiter not found

The *Print Document* does not contain a delimiter (start direct assignment, start header, start data).

Two identical delimiters specified

Sentinel has detected at least two identical *Delimiters*. All *Delimiters* specified in **Sentinel** must be different.

Communication error with CODESOFT

Check to make sure that **CODESOFT** has been loaded into memory.

Printing error

The *Print Document* sent to the **Sentinel** printer is damaged.

CODESOFT

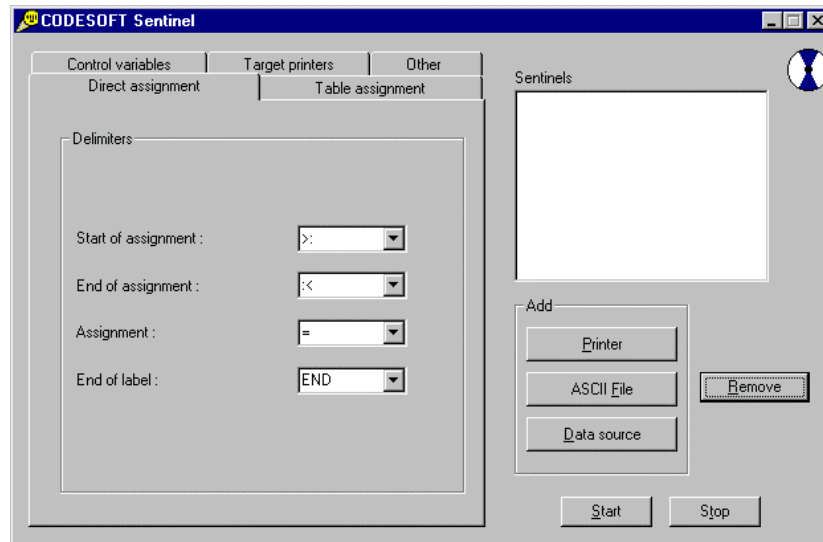
Sentinel Print Pack Interface

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The CODESOFT Sentinel Print Pack Interface

The **CODESOFT Sentinel Print Pack** interface enables you to create and configure sentinels of your own choice (*Print sentinel*, *ASCII file sentinel*, or *Data source sentinel*).

One area of the two-part interface is set aside for program execution commands. The other contains five tab sections where the settings for each installed copy of **Sentinel Print Pack** can be entered.



The command area enables you both to start up the application and add or remove a *sentinel* (*Print sentinel*, *ASCII file sentinel*, or *File sentinel*). Make your choice simply and quickly by selecting either a printer or a data source:

- ◆ printer — *Print sentinel*;
- ◆ ASCII — *ASCII file sentinel*;
- ◆ data source — *Data source sentinel*.

Depending on the transmission mode, some options will not be active.

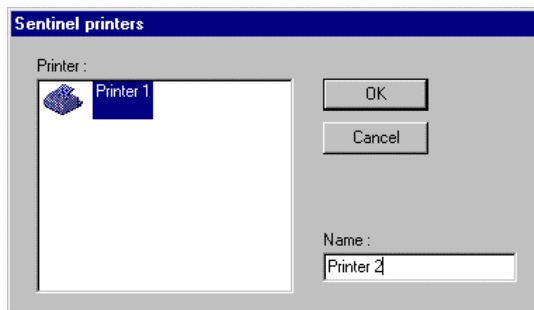
Print Sentinel Mode

If you use the Print sentinel, you will have to supply the name of a *Sentinel Print Pack Printer* to which print documents will be routed.

The *Sentinel Print Pack Printer* can either be selected from a list of printers already created or added to the printer list.

- Click on the **Printer** button of the **Add** area.

↪ A window opens listing the printers installed on the *Print Server* and based in the specific printing pilot for the **CODESOFT Sentinel Print Pack** application.



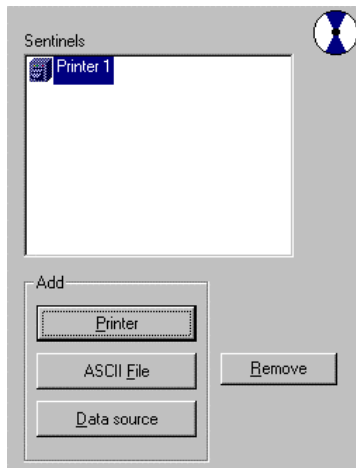
From the **Sentinel Print Pack Printers** dialog box, you can:

- select a printer already created (**Confirm** button); or
- add a new printer by clicking on the **Add** button.

↪ This brings up a **Name** field, in which you can enter the name of the new *Sentinel Print Pack Printer*.

- Enter the **Name** you want the printer to have, then confirm.

↩ The new *Print sentinel* appears in the main screen list.

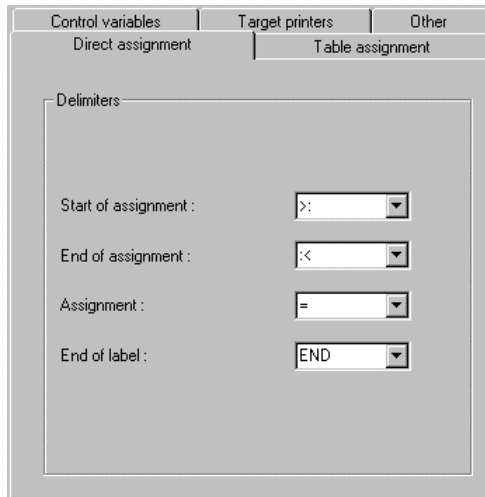


- To eliminate a *Print sentinel* from the **Sentinels** window, select it, then click **Remove**.

An analysis method and print settings must then be associated with the *Print sentinel*. The following sections discuss the different tab sections used to configure your print jobs.

The Direct Assignment Tab Section

This tab section specifies the *Delimiters* that will be used in the print documents to define direct assignments.



The image shows a software interface with three tabs: "Control variables", "Target printers", and "Other". The "Control variables" tab is active and contains two sub-sections: "Direct assignment" and "Table assignment". The "Direct assignment" sub-section is selected and contains a "Delimiters" section with four rows of dropdown menus:

Control variables	Target printers	Other
Direct assignment	Table assignment	
Delimiters		
Start of assignment :	>:	
End of assignment :	:<	
Assignment :	=	
End of label :	END	

Start of assignment: this field uses a character or character string to define the delimiter identifying each start of direct assignment.

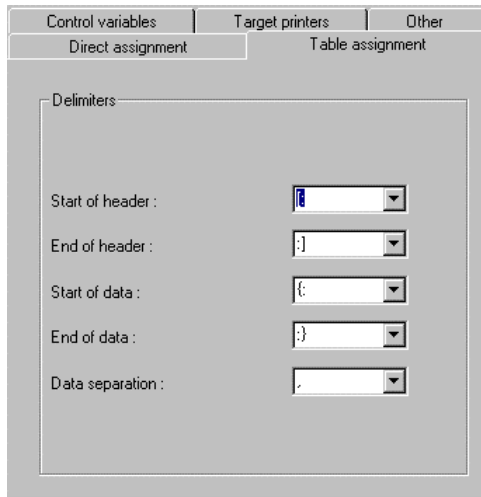
End of assignment: this field uses a character or character string to define the delimiter identifying each end of direct assignment.

Assignment: this field uses a character or character string to define the direct assignment operator.

End of label: this field uses a character or character string to define the delimiter indicating a separation of two labels.

The Table Assignment Tab Section

The table assignment tab section specifies the *Delimiters* that will be used in print documents to define table assignments.



The screenshot shows a software interface with three tabs at the top: "Control variables", "Target printers", and "Other". The "Table assignment" tab is selected. Below the tabs, there are two sub-sections: "Direct assignment" and "Table assignment". The "Table assignment" section is active and contains a "Delimiters" area with five rows of input fields:

Label	Value
Start of header :	[
End of header :	:]
Start of data :	{
End of data :	:}
Data separation :	,

Start of header: this field uses a character or character string to define the delimiter for the start table header.

End of header: this field uses a character or string of characters to define the delimiter for the end table header.

Start of data: this field uses a character or character string to define the delimiter for the start table data.

End of data: this field uses a character or character string to define the delimiter for the end table data.

Data separation: this field defines the delimiter used as a data separator during table assignment.

The Control Variables Tab Section

This tab section defines the name of the **CODESOFT** control variables (identifiers), which will appear in *Print Documents*.

Direct assignment		Table assignment	
Control variables		Target printers	Other
Control variable names			
Label file name :		LAB_NAME	▼
Labels in the series :		LAB_QUANTITY	▼
Copies of each page :		PAGE_COPY	▼
Copies of each label :		LABEL_COPY	▼
Labels between cuts :		INTERCUT	▼
Printer and port :		THT_NAME	▼
Printer initialization :		CDE_LINE	▼

Label file name: this field specifies the name of the **Label Filename** control variable, which allows a new label to be loaded into **CODESOFT** while it is running.

Labels in the series: this field specifies the name of the **Series Labels** control variable.

Copies of Each Page: this field specifies the name of the **Copies of Each Page** control variable.

Copies of Each Label: this field specifies the name of the **Copies of Each Label** control variable.

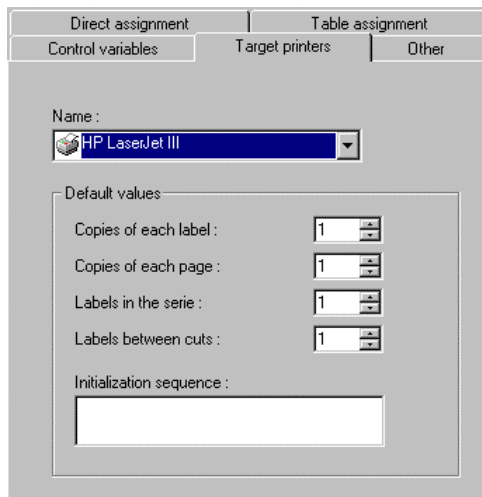
Labels between cuts: this field specifies the name of the **Number of Labels between cuts** control variable.

Printer and Port: this field specifies the name of the **Printer and Port** control variable.

Printer initialization: this field specifies the name of the **Initialization Sequence** control variable.

The Designated Printers Tab Section

This tab section can be used to specify the printer default settings (number of copies, etc.) and to select the output printer by default on which you want to print your labels.



The screenshot shows a software window with a tabbed interface. The top row has two tabs: "Direct assignment" and "Table assignment". Under "Direct assignment", there are three sub-tabs: "Control variables", "Target printers", and "Other". The "Target printers" sub-tab is selected. Below the tabs, there is a "Name:" label followed by a dropdown menu showing "HP LaserJet III". Below this is a "Default values" section containing four rows of settings, each with a label and a spinner control: "Copies of each label:" with a value of 1, "Copies of each page:" with a value of 1, "Labels in the serie:" with a value of 1, and "Labels between cuts:" with a value of 1. At the bottom of this section is an "Initialization sequence:" label followed by an empty text input field.

Name: This scrolling list allows you to specify the default printer on which **CODESOFT Run Time** will execute your print jobs.

Default Values Area

Copies of Each Label: If the label contains a counter, the counter's value will be constant on each copy (except for counters featuring the ISO option).

- Indicate here the number of identical copies you want made for each label.

Copies of Each Page: This number is used only when the page contains several labels, and is used to set the number of copies of each page to be printed. (see the example in **Chapter 21** of the Reference Manual).

Labels in the series: If the document has no **Counter** variables, this number simply indicates the number of labels to be printed. If the document does include a counter, this number determines the number of **different** labels to print, that is, the number of counter increments.

Labels between Cuts: this number determines the number of labels to be printed between each break.

Initialization Sequence: this area can be used to enter a command, in printer language, which will be transmitted at printing time.

Note: for more information on the above variables, refer to **Chapter 21** of the user manual **CODESOFT Run Time**.

The Other Tab Section

The **Other** tab section establishes the general settings that are shared by all *sentinels* (*Print sentinel*, *ASCII file sentinel* or *Data source sentinel*).

The screenshot shows a software window with a tabbed interface. The 'Other' tab is selected. At the top, there are two main sections: 'Direct assignment' and 'Table assignment'. Under 'Direct assignment', there are three sub-tabs: 'Control variables', 'Target printers', and 'Other'. The 'Other' sub-tab is active. Below the sub-tabs, there is a 'Name:' label followed by a dropdown menu showing 'WPC52VHP3'. Below that is a 'Default values' section containing four spinners: 'Copies of each label:' (set to 1), 'Copies of each page:' (set to 1), 'Labels in the serie:' (set to 1), and 'Labels between cuts:' (set to 1). At the bottom of the 'Default values' section is an 'Initialization sequence:' label followed by an empty text input field.

Print Sentinel Area

File Header: this field defines the file header that appears at the beginning of all *Print Documents* for the *Print sentinel*.

Hyphenation characters: **CODESOFT Sentinel Print Pack** limits the number of characters per line in *Print Documents* to 400. Depending on your working configuration, the number of characters per line may be smaller, and the hyphenation character enables you to exceed 400 characters by splitting the line into several parts. The hyphenation character works in pairs; it must occur at the end of a line segment and the beginning of the following segment.

Print Documents Area

Kind of conversion: this option allows you to select the type of conversion you want to apply to the data transmitted.

Continue after error: If an error occurs during the analysis or routing of data to CODESOFT, the file being analyzed will be eliminated, while **Sentinel Print Pack** remains active and ready for other analyses.

Save jobs that do not conform: this option can be used in combination with the **Continue after error** option. Indeed, if an error occurs, this option will allow you to save a file that does not conform. Saving the file will enable you to check its validity so that it can be corrected. It is up to you to check whether or not the file is present in the ERROR directory created by **Sentinel Print Pack**.

Stop if an error occurs: if you check this option, **Sentinel Print Pack** will stop automatically when an error occurs.

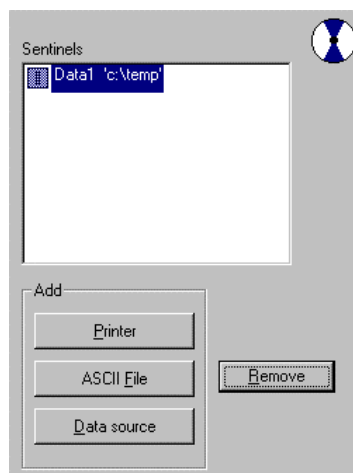
Keep the values of the previous label: this setting option specifies whether the variable values should remain the same or be reset each time a label's specifications are entered.

Note: Keeping variables the same freezes the value of a variable until a new assignment modifies the previous one. This eliminates the need to assign a value to a label variable each time the label is defined, if the value does not change between two specifications.

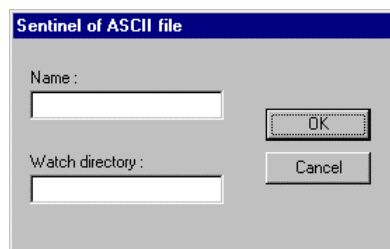
ASCII File Sentinel Mode

In *ASCII file sentinel mode*, you must define an *ASCII* file sentinel name and specify the directory to be analyzed.

- Click on the **ASCII** file button of the Add area.



↪ A window with two print areas displays.



Name: input the name of the **ASCII file sentinel** of your choice.

Directory: specify the directory to be analyzed.

- To delete an **ASCII file sentinel from the Sentinel window**, select the latter and click Delete.

The options for direct assignment tab section and table assignment tab section are not available in **ASCII** file sentinel mode.

The Control Variables Tab Section

This tab section is where you specify the name of the **CODESOFT control variables** (see *Print Sentinel Chapter* p. 33), which can be used in the print document.

The Re-routed Printers Tab Section

This tab section specifies printing variables and selects the printer on which you want to print out your labels (see *Print Sentinel Chapter* p. 34).

The Others Tab Section

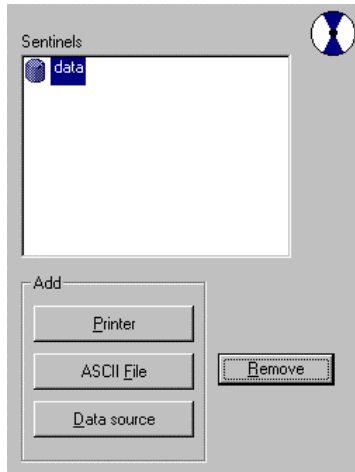
This tab section specifies general parameters (see *Print Sentinel Chapter* p. 34).

Data Source Sentinel Mode

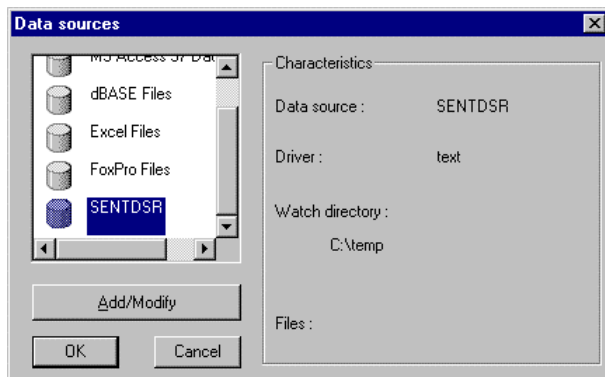
The Data source sentinel requires you to supply the name of a data source for use in analyzing print documents.

The data source used will either be selected from a list of already created data sources or added to the list.

- Click the **Data Source** button of the **Add** area.



↪ A window opens listing the data sources entered under *Print Server*.



From the **Data Sources** dialog box, you can:

- ◆ Select an already created data source (**Confirm** button), or
- ◆ Add or modify a data source (**Add/Modify** button)

↪ This will bring up the 32-bit ODBC management dialog box.

Once the data source is created or changed, **Sentinel Print Pack** again displays the **Data Sources** window.

- Select the data source of your choice, and confirm.

To delete a **File sentinel** from the **Sentinels** window, select the latter, then click **Delete**.

The options in the **Direct Assignment** and **Table Assignment** tab sections are not accessible in **File sentinel mode**.

The Control Variables Tab Section

This tab section specifies the names of the **CODESOFT** control variables (see the *Print Sentinel* Chapter, p. 33) which can be used in *Print Documents*.

The Re-Routed Printers Tab Section

This tab section enables you to choose print job settings and select the printer on which you want to output your labels (see the *Print Sentinel* Chapter, p. 34).

Managing Print Documents

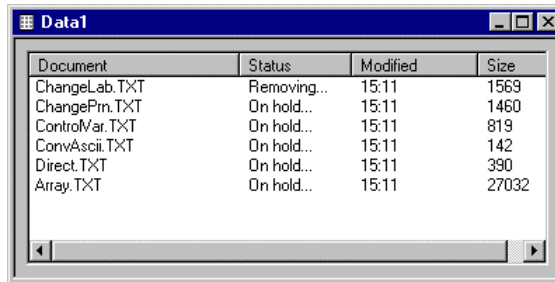
You can check on the status of your print documents at any time during processing.

Print Documents for a Print Sentinel

- To access this management window, double-click on the sentinel of your choice from the **Sentinels** window.



The management window appears, and displays the list of documents waiting in the print queue.



Document	Status	Modified	Size
ChangeLab.TXT	Removing...	15:11	1569
ChangePm.TXT	On hold...	15:11	1460
ControlVar.TXT	On hold...	15:11	819
ConvAscii.TXT	On hold...	15:11	142
Direct.TXT	On hold...	15:11	390
Array.TXT	On hold...	15:11	27032

- To eliminate print files, select them, then strike the “Delete” key on your keyboard.

Note: Your files can be eliminated both while they are in the queue and while they are being processed..

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APPENDIX 1

Print Sentinel

This appendix presents and discusses a sample print file that includes both direct and table assignments.

Direct assignment

labels are defined one after another.

Header

Name of the label to be printed/Specify at the beginning of the file.

Application system variable (no delimiters)/Specification of the label separator: "STOP"

```
1 SENTINEL

2>:LAB_NAME = identity.lab:<
3>:LAB_QUANTITY=1:<
4>:PAGE_COPY = 1:<
5>:LABEL_COPY=1:<
6>:INTERCUT =1:<
7 SEP_LABEL = STOP.

8>:Code=1909:<
9>:Name=Cole:<
10>:FirstName=Warren:<
11>:Address=3434 Washington Blvd:<
12>:City=Indianapolis:<
13>:State=IN:<
14>:Zip=46241:<
15>:STOP:<
.
.
.
.
32>:Code=7425:<
33>:Name=Mason:<
34>:FirstName=John:<
35>:Address=2421 Prospect Ave.:<
36>:City=Berkeley:<
37>:State=CA:<
38>:Zip=94704:<
39>:STOP:<
```

Note

Numbering the lines is strictly optional. The use of numbers simply makes it easier to organize your document.

```
40>:City=Auch:<
41>:STOP:<
```

If the Same Variables option is active, the label will retain the values of the previous label fields, except for "City," which assume the value Auch.

Table Assignments

Table separators set from the interface:

```
Start header = [:
End header = :]
Start table = {:
End table = :}
Hyphenation character = />
Variables separator = ,
```

```
42 [:Code,Name,FirstName,Address,City,State,Zip:]
43 {:1969,O'Hare,Ned,4950 Pullman Ave. NE,Seattle,WA,98105:}
44 {:2001,Bowman,Dave,1 Discovery Lane,Pueblo,CO,81002:}
45 {:2589,Thompson,Donald,2339 Broadway,Los Ange-
les,CA,94123:}
46 {:3154,Yee,Emerson,2938 42nd Street,New York,NY,10032:}
47 {:2121 , Bowman , Dave , 1 Discov/>
/>ery Lane , Pueblo , CO , 81002:}
48 {:4789 , Thompson , Donald , 2339 Broadway />
/> , San Francisco , CA , 94123:}
49 {:5688 , Yee , Emerson , 2938 42nd Street />
/> , New York , NY , 10032:}
```

The Hyphenation character "/>, can split a line of description when the number of characters in the line exceeds the maximum set by the printer

Combined Assignment

The "Address," "City," "State," and "Zip Code" fields are assigned by table.
The "Code," "Name," and "FirstName" fields are assigned directly.

```
50 >:Code=1909:<
51 >:Name=Mason:<
52 >:FirstName=John:<
```

If the Same Variables option is active, the "Code," "Name" and "FirstName" fields of the labels specified in the following table will assume 1909, Mason et John as their values.

```
55 [: Address, City, State, Zip :]
56 { : 1 Discovery Lane , Pueblo , CO , 81002 : }
55 { : 2339 Broadway , San Francisco , CA , 94123 : }
56 { : 2938 42nd Street , New York , NY , 10032 : }
```

```
57 >:Code      = 1913:<
58 >:Name      = Mason:<
59 >:FirstName  = John:<
60 >:Address   = 2421 Prospect Ave.:<
61 >:City      = Berkeley:<
62 >:State     = CA:<
63 >:Zip       = 94704:<
64 >:STOP:<
```

65 *BREAK_LINE = ##. Redefining the Hyphenation Character*

```
66[:Code, Name, FirstName, Address, City, State, Zip]
67{ : 3684 , Aberdeen , Roxie , 15 State Street , ##
## Dallas , TX , 75043: }
68{ : 4158 , McDougal , Craig , 1 Airport Drive , ##
## Chicago , IL , 60542: }
69{ : 4175 , Anderson , Jack , 8947 San Andreas , ##
## Klamath Falls , OR , 97603: }
70{ : 5510 , Samuelson , Doris , Bull Run Ranch , ##
## Aurora , CO , 89022: }
```

```
71 START_SET = %%. Resetting the start line character
72 END_SET = **. Resetting the end line character
```

```

73 %%Code      = 7777**
74 %%Name      = DACLIN**
75 %%FirstName = paul**
76 %%Address   = Madison Avenue**
77 %%City      = New York**
78 %%State     = NY**
79 %%Zip       = 55230**
80 %%STOP**

```

Note

Numbering the lines is strictly optional. The use of numbers simply makes it easier to organize your document.

The file delimiters specified in the **CODESOFT Sentinel Print Pack** application can all, except for the assignment operator, be redefined in the file itself.

To do so, just fill in the right system variable through direct assignment (see the table of pairs), making sure not to assign the same value to two different delimiters.

The new assignment takes effect on the next line.

Table of Pairs:

direct assignment delimiters

[start line]:	START_SET
[end assignment]:	END_SET
[end label]:	SEP_LABEL

table assignment delimiters

[start header]:	START_HEADER
[end header]:	END_HEADER
[start table]:	START_ARRAY
[end table]:	END_ARRAY
[separator]:	SEP_DATA
[line break]:	BREAK_LINE

This type of direct assignment reserved for the control variables of **CODESOFT Sentinel Print Pack** must employ the following syntax:

[name of the system variable associated with the delimiter] [assignment]
[value]•

The period at the end of the assignment is necessary to indicate that it has ended.

If you want to specify a delimiter that includes as part of the delimiter one or more periods, just double them in the assignment value to make sure they are recognized.

Example: To redefine the start line delimiter, just bring it up in the print file.

Example:

...

...

START_SET = >>> •

...

After this line, all the direct assignments will have to begin with: >>>

APPENDIX 2

ASCII File Sentinel

This appendix presents and discusses a sample ASCII file featuring both direct and table assignments.

```
LAB_NAME = i3240.lab¶
```

Note that there is no header; the label to be loaded is specified by direct assignment.

This first label is described entirely by direct assignments.

The “END” delimiter makes it possible to incorporate and print the label.

```
Code=1909¶  
Name=Cole¶  
FirstName=Warren¶  
Address=3434 Washington Blvd¶  
City=Indianapolis¶  
State=IN¶  
Zip=46241¶  
END¶
```

Direct assignment: note that it is possible to specify another printer from the ASCII file.

```
THT_NAME = Tec B572,\\PC 9719\PRINTER¶
```

Table assignment: each line corresponds to one label.

```
Code,Name,FirstName,Address,City,State,Zip¶  
1969,O'Hare,Ned,4950 Pullman Ave. NE,Seattle,WA,98105¶  
2001,Bowman,Dave,1 Discovery Lane,Pueblo,CO,81002¶  
2589,Thompson,Donald,2339 Broadway,San Francisco,CA,94123¶  
3154,Yee,Emerson,2938 42nd Street,New York,NY,10032¶
```

Changing printers through direct assignment

```
THT_NAME = Ubi 91 (203DPI/8dots),LPT1: ¶
```

Direct assignment

```
Code=7658¶  
Name=debie¶  
FirstName=LAURA¶  
Address=3434 Washington Blvd¶  
City=Indianapolis¶  
State=IN¶  
Zip=46241¶  
END¶
```

Table assignment: the printer variable "THT_NAME" is incorporated into the header of the table, making it possible to change printers with each new label .

```
THT_NAME , Code , Name , FirstName , Address , City , State , Zip¶  
Tec B572, , \\PC 9719\PRINTER , 1969 , O'Hare , Ned , 4950 Pullman Ave. NE ,  
Seattle , WA , 98105¶  
Intermec 3240 (400 DPI) , , \\PC9604\GENTEXTE , 2001 , Bowman , Dave , 1  
Discovery Lane , Pueblo , CO , 81002¶  
Ubi 91 (203DPI/8dots) , , LPT1: , 2589 , Thompson, Donald , 2339 Broadway,  
San Francisco , CA , 94123¶
```

Note: We have deliberately represented the characters CRLF by ¶ to highlight the importance of their presence.