Configuring the Alarm Printer

About Alarm Printer Configuration

You can configure a serial or parallel printer in CIMPLICITY HMI software that prints alarms and/or events as they occur. You may also configure an alarm printer to write to a file, rather than to a device. You may configure a local or network printer as the alarm printer. If your project includes the Host Redundancy option, you may configure a redundant alarm printer.

Important: Before you start, make sure that the printer is *not* configured in Windows.

Alarm Printer Selection

The Workbench displays a project's existing alarm printers in the right pane.

To view a project's existing alarm printers:

1. Expand the Advanced folder in the left pane of the Workbench.
2. Expand **Alarms** 

.
3. Select **Alarm Printer** 

.

   The Workbench right pane displays the following attributes for each Alarm Printer:

Name	The name of the alarm printer.
Node ID	The node to which the alarm printer is connected.
Destination	The actual device or file name of the printer (like **`LPT1:`** or **`amlp.fil`**).
Page Width	The page width in characters.
Page Length	The page length in lines.

New Alarm Log Printer Dialog Box

To name a new printer:

1. Enter the name of the new alarm printer, or the name of the file you want to write alarms to in the **Name** field

   You may enter a maximum of 11 characters.

2. Click **OK**.

Result: The system verifies that the alarm printer name does not already exist, and that no invalid characters have been used.

If the alarm printer name you entered is valid, the Alarm Printer dialog box for the new alarm printer opens.

Modifying an Existing Alarm Printer

To modify an existing Alarm Printer, you simply open the selected alarm printer's dialog box and make your modifications.

To open an existing Alarm Printer's dialog box:

1. Expand the Advanced folder in the left pane of the Workbench.
2. Expand **Alarms**.
3. Select **Alarm Printer**.
4. Do one of the following.

   Method 1

   Double-click an Alarm Printer in the right pane of the Workbench.

   Method 2

   A. Select an Alarm Printer in the right pane of the Workbench.

   B. Click Edit on the Workbench menu bar.

   C. Select Properties.

   Method 3

   A. Select an Alarm Printer in the right pane of the Workbench.

   B. Click the **Properties** button  on the Workbench menu bar.

Result: An Alarm Printer dialog box associated with the selected alarm string opens when you use any method.

Log Alarms

Check this check box if you want to log alarms to the printer.

Note: If you uncheck this check box, the **Alarm logging options** are grayed out.

Alarm Logging Options

These options are available only when you select the Log alarms check box.

Use these fields to specify the types of alarms, and alarms classes that will be printed on this alarm printer:

Generated alarms

Set this check box to log messages when alarms are generated.

Acknowledged alarms

Set this check box to log messages when alarms are acknowledged.

Reset alarms

Set this check box to log messages when alarms are reset.

Deleted alarms

Set this check box to log messages when alarms are deleted.

All alarm classes

Set this check box to log messages for all alarm classes. When you do, the Alarm Class field will be dimmed.

Alarm Class

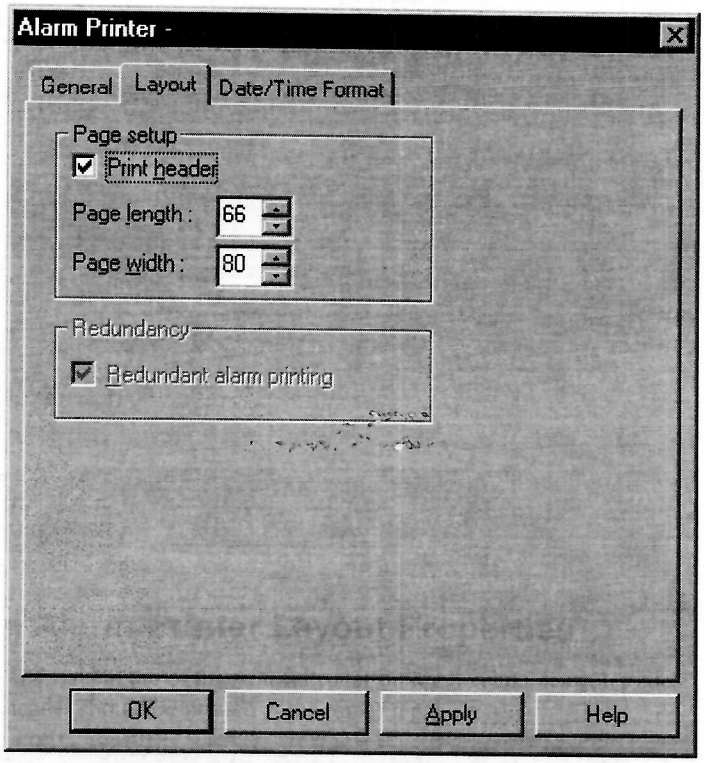
This field is available when you uncheck the All alarm classes check box.

If you want log alarms for a particular Alarm Class, enter that class name in this field. You can also:

- Display the Select Alarm Class browser and use it to select the Alarm Class.
- Click the **Pop-up Menu** button  to create a new Alarm Class, edit the current Alarm Class, or browse for an Alarm Class.

Configuring Alarm Printer Layout Properties

The Layout tab of the Alarm Printer dialog box enables you to determine whether a header should be printed at the top of a page.



Specifications include:

Print Headers

Check this check box if you want to print a header at the top of each page.

If you have more than one alarm printer process sending messages to the same printer or file, uncheck this check box. When you uncheck the check box, the Page length field is disabled.

Page Length

Enter the number of lines per page that can be printed. The number must be an integer between 1 and 999.

Page Width

Enter the number of characters that can be printed on a line. The number must be an integer between 80 and 157.

Redundant Alarm Printing

This field is enabled if your project has the Host Redundancy option.

Check this check box if you want both the Master and Slave computers to print alarms.

Uncheck this check box if you only want the Master computer to print alarms.

Alarm Date/Time

Select the format you want to use to print the date and time of each alarm. A sample for the format you choose displays in the Sample field in this box. You may select one of the formats from the list, or construct your own format.

To construct date formats, use the following information:

m	Numeric month with no leading zero.
mm	Numeric month with leading zero.
mmm	Short text month.
mmmm	Long Text month.
d	Numeric day with no leading zero.
dd	Numeric day with leading zero.
ddd	Short text day of the week.
dddd	Long text day of the week.
y	Last two digits of year. For digits 00 through 09, only the last digit is displayed.
yy	Last two digits of year. For digits 00 through 09, both digits are displayed.
yyyy	All four digits of year

Example

If you enter dddd dd mmmm yyyy, the sample date will be Saturday 05 March 1994.

You may use spaces, dashes, slashes or any other delimiter of your choice to separate the date fields.

To construct time formats, use the following information:

H	Hours based on a twelve-hour clock with no leading zero.
HH	Hours based on a twelve-hour clock with leading zero.
HHH	Hours based on a 24-hour clock with no leading zero.
HHHH	Hours based on a 24-hour clock with leading zero.
M	Minutes with no leading zero.
MM	Minutes with leading zero.
S	Seconds with no leading zero.
SS	Seconds with leading zero.
T	Hundredths of seconds with no leading zero.
TT	Hundredths of seconds with leading zeros.
P, A, p, or a	AM/PM indicator.

For example, if you enter HHHH:MM:SS:TT p, the sample time will be 13:05:06:08 PM.

You may use colons, spaces or any other delimiter of your choice to separate the time fields.

- If you enter **\\ABC\NET1** in the Output field and uncheck Redundant alarm printing, the Master project on COMP1 sends alarms to the network device. The Slave project on COMP2 sends no alarms until it becomes the Master project.

  When the project on COMP2 becomes the Master project, it sends alarm messages to **\\ABC\NET1**.

Note: Check Redundant alarm printing on the Layout tab in the Alarm Printer dialog box if you want both the master and slave computers to print alarms. *See page 23-7.*

Additional Steps for Serial Printers

If you are configuring a serial printer, its printer baud rate, parity, and data length will have to be set each time your system is rebooted. You can do this by creating a file called **cimp_port.bat** in the top-level directory on the disk where your project is located. The file will be called by the Alarm Printer program when it initiates printing on the printer. The file contains:

```
@echo off
mode <port> baud=<rate> parity=<set> data=<n> stop=<m>
```

Where

<port>	Is the serial port to which the printer is connected.
<rate>	Is the baud rate of the printer.
<set>	Is the parity used by the printer.
<n>	Is the number of data bits.
<m>	Is the number of stop bits.

Example

If you have a printer on COM1: port that communicates at 9600 baud, no parity, 8 data bits and 1 stop bit, the file would look like this:

```
@echo off
mode COM1: baud=9600 parity=n data=8 stop=1
```

If you have more than one serial printer, you will need one mode line per printer.

To create mode line file:

1. Open a Notepad window.
2. Enter the printer configuration information according to the above template.
3. Save the file called **cimp_port.bat** in the top-level directory on the disk where your project is located.

About Alarm Printer Global Parameters

1. The Alarm Line Printer program (AMLP) assumes that there is no restriction for the size of the alarm message queue. If the output device is disabled, a virtual memory overflow can result.

   You can use the **AMLP_MAX_QUEUE** global parameter to restrict the size of the alarm message queue.

2. The Alarm Line Printer program (AMLP) assumes that the time to be printed when an alarm is acknowledged or deleted is the time the alarm was generated.

   You can use the **AMLP_USE_GEN_TIME** global parameter to select whether you want the generation time or the action (acknowledge or delete) time to be printed.

   See the "Using Global Parameters" chapter in this manual for details about global parameters.