PAL^{TM} Print and Program Overview

Printers featuring PAL^{TM} Print and Program utility can be used in several ways in any given environment. This section describes 3 common ways this advanced capability is used. For help and assistance determining the best way to use this utility in your situation, please consult your sales representative.

Traditional Printing

This environment represents the most common use of printers. Generally, a single print job (PAL^{TM} print sequences) generates a single label. In this role the PAL^{TM} Print and Program interpreter accepts the print job, performs the required operator processing and prints the; label, tag, or ticket. Using a Windows driver in conjunction with a Windows application program is a typical way to print in this environment. Alternatively, PAL^{TM} print sequences may also be generated by any host application written to take advantage of this powerful language.

When a PAL^{TM} capable printer is used this way, no special "PAL^{TM} program" must be loaded on the printer. Print sequences generated by a Windows driver or host program are simply sent to the printer resulting in print output just like traditional printers.

Legacy Data Stream Interpretation

PAL^{TM} Print and Program capable printers uniquely address applications where upgrading to modern cost effective technology is desired. Often cost-prohibitive software reprogramming to change a data stream prevents an organization from moving to new printing technologies.

Using a PAL^{TM} Print and Program capable printer solves this problem. In this case a PAL^{TM} program is written which interprets a data stream normally sent to the legacy device being replaced. This program is stored on the printer and is automatically executed each time the printer is powered on. This program is able to produce a new label format based on this legacy data. Even though the host computer is sending the exact same legacy data to the printer, the label format can be completely different. For example, the new format may include bar codes, scaled and/or rotated fonts, lines, logo's etc. Even though the legacy device being replaced does not support these print abilities, the new label format can.

For example, text only outputs such as produced by a dot-matrix printer or card embosser may now be presented in a more functional format. Information in the data stream can be reformatted into any size font in any rotation, or even printed as bar code. This example demonstrates how PAL^{TM} Print and Program capable printers can replace a legacy print device with no host software changes required.
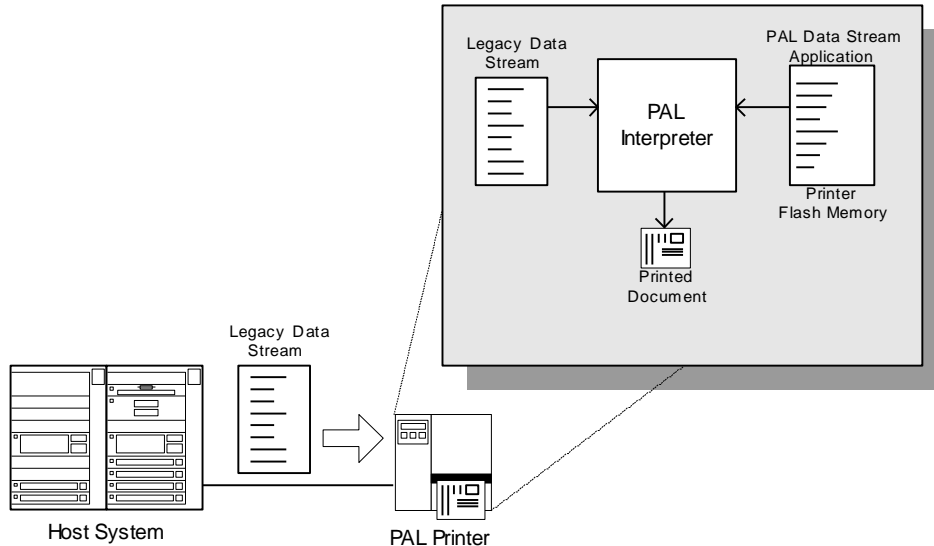
Standalone/Downtime Applications

PAL^{TM} Print and Program capable printers may be programmed to operate independent of a PC/host connection. This standalone ability may be used in cases where no PC/host connection is needed or as a fail-safe backup when the PC/host or network is unavailable. The Standalone Application program is stored in the printer memory and can accept input from a PS/2 keyboard, bar code scanner, or other serial device such as an electronic scale. These programs may use the printer's LCD to prompt for user input and may also include databases. Unlike other bar code printers that allow basic static forms to be loaded in the printer, PAL™ Print and Program capable printers provide advanced capabilities.

Examples of these advanced capabilities are:

- ❑ Ability to operate on line from host or off line in stand-alone mode
- ❑ Ability to range check user input
- ❑ Ability to combine data from multiple fields into a single bar code
- ❑ Ability to access database stored in printer
- ❑ Ability to perform math calculations (addition, subtraction, multiplication, division, etc.)
- ❑ Ability to perform logical calculations (equal to, less than, greater than, etc.)

Shown below is an example where a stand-alone PAL^{TM} application and database is stored in the printer. Operator input combined with internal database information is used to create a label. For example, this application could request a part number and physical dimensions of a particular part by prompting for this information on the printer LCD. After the operator inputs the requested information on the PS/2 keyboard, the printer could calculate the volume, and then based on the part number lookup the part description in a database to produce a label.