

# ERP Printing Solutions

## Three Alternatives for Integrating Thermal Printing

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# ERP Printing Solutions

Enterprise Resource Planning (ERP) is a large and growing industry as corporations look for more and better ways to streamline operations and improve the bottom line.

ERP applications include warehouse management, service and advanced planning and scheduling, from companies such as SAP, JDEdwards, Oracle, Baan and PeopleSoft. ERP has solved many problems, but one in particular remains—how to efficiently print bar coded labels using thermal printer technology.

*ERP provides businesses with greater control over their processes but thermal printing of labels is often overlooked or inefficient.*

## The Current Situation

The most common method for addressing this problem has been to write custom code, which tightly integrates the printing into the ERP application. There are several drawbacks to this approach:

- The code is printer and application specific, which makes it time consuming and difficult to quickly update the label formats or implement a new type of printer hardware.
- The programmers often have a limited understanding of thermal technology so they fail to make use of the printer features available for optimizing label output.
- Custom coding often limits the end user to a specific make and model of printer. There are too many variables and no standard programming language between printers, which makes it difficult to replace or upgrade printers.

The end user wants to eliminate the shortcomings of the custom code situation, and gain one or more of the following:

- Choices in printer manufacturer—SATO, Datamax, Intermec or other printers.
- Support for printer model X, not only printer model Y.
- Full use of the features in a thermal printer without sacrificing performance.
- A UNIX or AS/400 based solution without implementing NT to drive the printing.

## The Teklynx Alternatives

Teklynx provides three alternatives to the custom code approach. These alternatives provide the end user with the options they need to implement the best solution for their situation.

*The current platform and the approach to integration will determine the method to be implemented.*

The solution? CODESOFT™ POF, SENTINEL™ Print Pack or SENTINEL™ Print Agent, depending on the platform desired or the approach they take to integrating label printing.

Each of these tools will allow a user to continue printing to existing printers while at the same time implementing new printers or printer features to solve specific application needs.

### **CODESOFT Printer Object File (POF)**

The POF feature of CODESOFT label design software provides a non-middleware solution for companies looking to integrate new or existing printers into their host application. It creates an easy to implement solution that does not require any understanding of the printer's native code.

First a label is designed with CODESOFT, and then the label is output as a "smart" native printer code file. This printer code can then be uploaded to the host system for integration into the existing code.

This intelligent printer code includes placeholders for variable data. The placeholders allow the host application to "swap" field names within the output file with actual variable data from the host database before the code is sent to the printer. Placeholders and content in the POF file are completely customizable.

Once the POF file has been generated and incorporated into the host system, labels can be printed without a labeling software program, and can be printed from applications that run on platforms other than Windows.

*POF provides a non-middleware approach for integrating new or existing printers into a legacy host application.*

#### **Advantages**

- A non-middleware solution for legacy applications.
- The end user does not need to understand printer code.
- Can be easily integrated into an existing system by swapping out variables.

#### **Disadvantages**

- Loss of control in the printing system – it is controlled by the existing host system.

- Many of the performance and memory enhancement features in CODESOFT and the printers are sacrificed.
- Requires a significant knowledge of the existing system.
- Not an “on-the-fly” solution; it is better suited to producing a limited number of formats and labels.

### **SENTINEL Print Pack**

SENTINEL Print Pack is an NT-based middleware integration tool for providing ERP to thermal transfer printer connectivity—it can support any platform, any printer, any format. As long as the existing code can be output to a file directory, SENTINEL Print Pack can take that code and pull out the variable information, populate the label file, and print to any printer.

SENTINEL PRINT Pack automates the printing of labels designed with CODESOFT or LABELVIEW label design software. Using one of these packages, the label format is created by inserting fixed or variable text fields, graphics and bar codes. SENTINEL Print Pack interprets and reroutes the data from the host application to the fields on the label and directs it to the appropriate printer.

SENTINEL Print Pack is ideal for integrating thermal printers into legacy applications without making any modifications to the current code or processes. It creates a “Plug-n-Play” effect when replacing the thermal printers currently supported by a host solution with alternative printers.

### **Advantages**

- It is ideal for an application that requires many label formats.
- It can act as a printer code converter—take in printer code X, output to printer Y—to facilitate the implementation of new printer makes and models.
- Any data stream can be accepted; there is no need to recode the host system output. A variety of input/output options are available.
- Multi-threaded – print to many printers simultaneously.
- Separates the print process from the host application, providing greater control over the process and access to thermal printer features.
- NT Service – it automatically restarts when the server

*SENTINEL Print Pack provides a middleware solution that is platform and printer independent.*

is rebooted, requiring no user intervention.

### **Disadvantages**

- Although the host application can run on any platform, Sentinel Print Pack requires a Windows NT server to operate.

## ***SENTINEL Print Agent***

SENTINEL Print Agent is a multiple-platform middleware integration tool for situations where Windows NT is not an option. It offers the ability to accept, format and output raw data streams from a wide variety of software platforms. It processes data from nearly every platform and application and merges it with label formats designed with CODESOFT or LABELVIEW.

*SENTINEL Print Agent provides a multiple platform middleware solution for situations where Windows NT is not an option.*

Designed in conjunction with JetForm Corporation, it utilizes JetForm Central output management software. SENTINEL Print Agent becomes a process within JetForm Central, capable of supporting a wide variety of thermal printers from select manufacturers.

SENTINEL Print Agent provides a bar code labeling solution in addition to the forms output capabilities of JetForm and is ideal for "thermal printer-enabling" existing line-of-business applications. It separates the printing process from the host application, which provides greater control over thermal printer features and simplifies the label design and updating process.

### **Advantages**

- There is no need to introduce a new platform. It runs on a number of platforms, including Unix and Linux.
- Provides a "bolt-on" for label printing to the forms printing ability of JetForm Central.
- It is ideal for an application that requires many label formats.
- Any data stream can be accepted; there is no need to recode the host system output. A variety of input/output options are available.
- Multi-threaded – print to many printers simultaneously.

### **Disadvantages**

- Installation requires an in-depth understanding of the platform in use.

- Must operate in conjunction with JetForm Central, which may not be ideal for all situations.

## Conclusion

*Explore the three methods for ERP label printing integration and select the one appropriate to the situation.*

Teklynx provides not just a single solution for printing bar coded labels using thermal printer technology, but three methods that can be tailored to the specific needs of an ERP user. These offerings range from a variation on host-based custom coding (CODESOFT POF feature) to two solutions for separating printing from the host system for greater control of the printing process (SENTINEL Print Pack and Print Agent).

Additional information on CODESOFT POF, SENTINEL Print Pack and SENTINEL Print Agent can be found in the product-specific white papers, user's guides or on-line help.

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