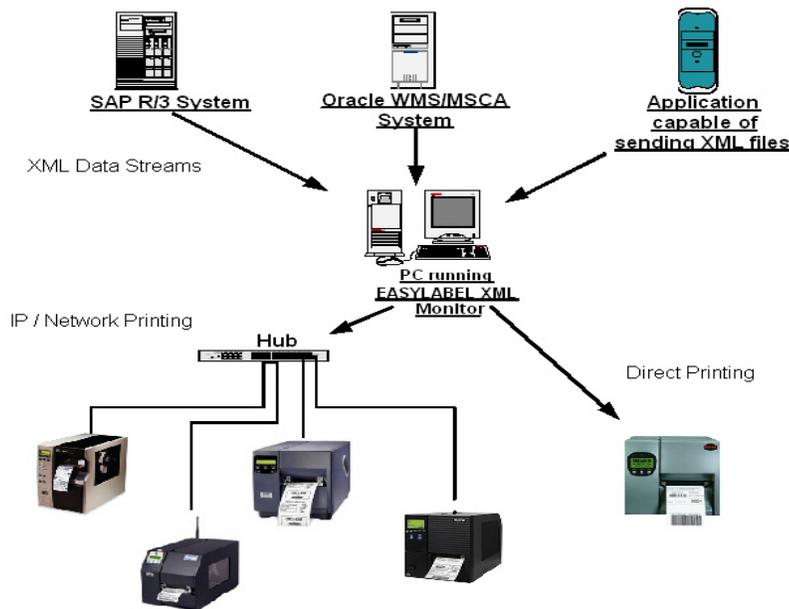


Bar Codes and RFID using XML

Overview

Tharo Systems, Inc. now provides an easy solution for printing bar code and RFID labels using XML. This solution is made possible through the use of EASYLABEL®'s XML Generator and XML Monitor and does not require special XML enabled printers. You will be able design label formats using EASYLABEL's label design tools and then populate and print them by sending XML files to a monitored folder or TCP/IP port.



The EASYLABEL XML Generator will easily allow you to create XML files that will populate and print specified EASYLABEL formats. XML files created with the EASYLABEL XML Generator can then be used as templates to create your own EASYLABEL compatible XML files. These XML templates could be uploaded to an XML enabled application, modified and then sent to the monitored folder or TCP/IP port. SAP and Oracle XML files intended for label printing are directly supported and the use of the EASYLABEL XML Generator is not required. For more information on using EASYLABEL to print labels from SAP or Oracle see the whitepapers listed below.

[Bar Codes and RFID from SAP](#)
[Bar Codes and RFID from Oracle](#)

The EASYLABEL XML Monitor allows you to automatically print EASYLABEL formats to your current label and RFID printers upon receiving a compatible XML file. Compatible XML files include XML files created by SAP, Oracle, and the EASYLABEL XML Generator. The EASYLABEL XML Monitor can receive XML files by monitoring a specified folder in which an XML file is dropped, or by monitoring a specified TCP/IP port that is used to send an XML file from your application. The data in an XML file will then be used to populate the variable fields on previously designed label formats, determine the printer(s) that will be used to print the labels, and the number of labels to print.

Advantages

- The ability to use EASYLABEL's WYSIWYG label design tools
- The ability to print to any printer directly supported by EASYLABEL or any Windows printer
- The ability to establish a direct connection to MRP, ERP, WMS and MES systems that have the ability to send EASYLABEL compatible XML files
- The ability to use graphics and TrueType fonts on your labels
- The ability to print unique labels with little or no special programming required.

Requirements

The following are the requirements for the PC running the EASYLABEL XML Monitor:

- EASYLABEL Platinum
- EASYLABEL Version 5.5 or higher
- Windows 2000 or higher
- Version 1.1 or higher of Microsoft .NET framework. The .NET framework can be installed from the EASYLABEL installation CD or downloaded for free from Microsoft at the following URL: windowsupdate.microsoft.com

Implementation

The EASYLABEL XML Generator and Monitor can be installed when EASYLABEL is installed or separately after EASYLABEL has been installed. EASYLABEL version 5.5 or higher is required to use the EASYLABEL XML features. Three (3) printer 'seats' are included with EASYLABEL Platinum. This allows an unlimited amount of users to send XML print jobs to three of the printers defined in EASYLABEL. Up to 255 printer seats per system are available in increments of 10, 25 and 252.

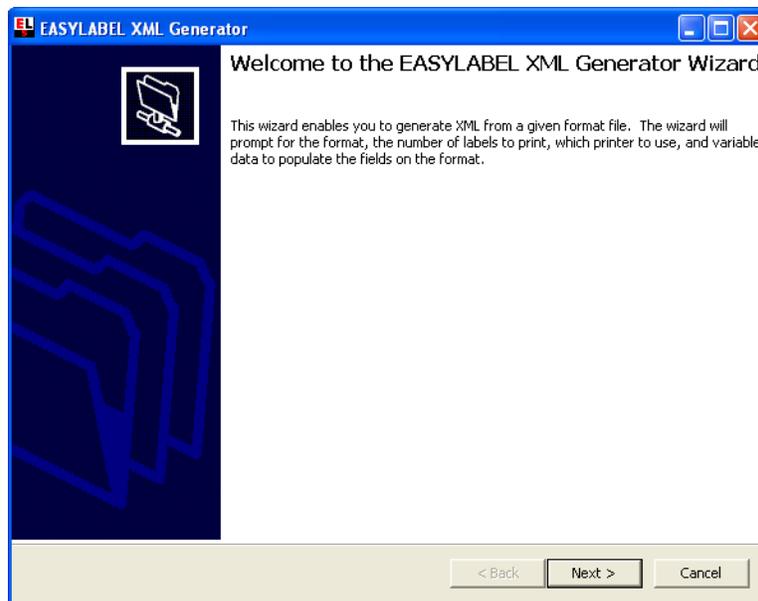
EASYLABEL Label Format Configuration

When designing your label formats in EASYLABEL, every field that uses “When Printed” as the source of data can be populated with data from an XML file. The following criteria need to be met in order for an XML file to populate and print EASYLABEL formats:

1. The format name in the XML file has to specify the path and name of the EASYLABEL format.
2. The variable names in the XML file have to match the “When Printed” field names of the EASYLABEL format. **EASYLABEL field names cannot contain dashes (-)**, which means that underscores (_) have to be used instead of dashes. If a variable field name in an XML file contains dashes, EASYLABEL will automatically convert them to underscores.
3. The printer name in the XML file has to match the EASYLABEL printer name.

Generating an XML file using the EASYLABEL XML Generator

When you start the EASYLABEL XML Generator, you will be presented with the Welcome screen.

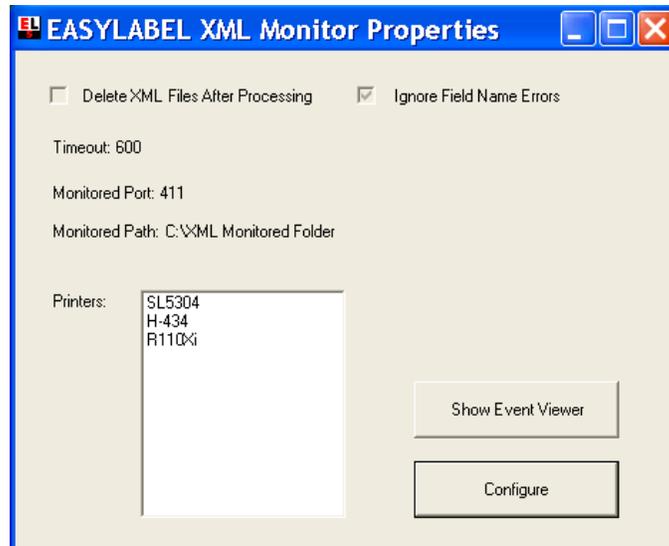


Click “Next” and the EASYLABEL XML Generator will guide you step by step through the process of generating an XML file based on your EASYLABEL formats. The steps of generating an XML file are outlined below:

1. Select an EASYLABEL format, enter the number of batches, and if applicable, the batch size. You may also enter a job description.
2. Click "Next" to continue.
3. Select where the generated XML file will be saved and give it a name.
4. Click "Next" to continue.
5. You will be presented with a list of EASYLABEL named printers for which the label format is designed. Select the printer name of the printer that will print your label format.
6. Click "Next" to continue.
7. You will be presented with a list of variable fields on the label format that can be populated using XML. You may now enter the data that the generated XML file will provide to populate the fields displayed on this screen. If you're going to modify the generated XML file, it is recommended that you use descriptive terms for these fields.
8. Click "Next" to continue.
9. You will now be presented with the EASYLABEL XML Generator summary page.
10. Click "Back" to change any of the displayed options or "Next" to continue.
11. At this screen you may specify if you would like to add additional label formats to the XML file or generate the XML file based on the information you have provided.
12. Click "Next" to continue.
13. If you have decided to add additional label formats to the XML file you will start again at step one. Otherwise you may click "Finish" to generate the XML file. (In most cases you will use one XML file per label format.)

EASYLABEL XML Monitor Configuration

Start the EASYLABEL XML Monitor and double-click on the XML Monitor icon in the taskbar notification area to open the EASYLABEL XML Monitor Properties page. You can also right-click on the EASYLABEL XML Monitor and select "Properties" from the pop-up menu. On the property page is a summary of the current settings for the EASYLABEL XML Monitor including the monitored path, timeout, and the printers that will be used to print XML jobs.



You can change the EASYLABEL XML Monitor settings by clicking the “Configure” button and following the steps outlined below:

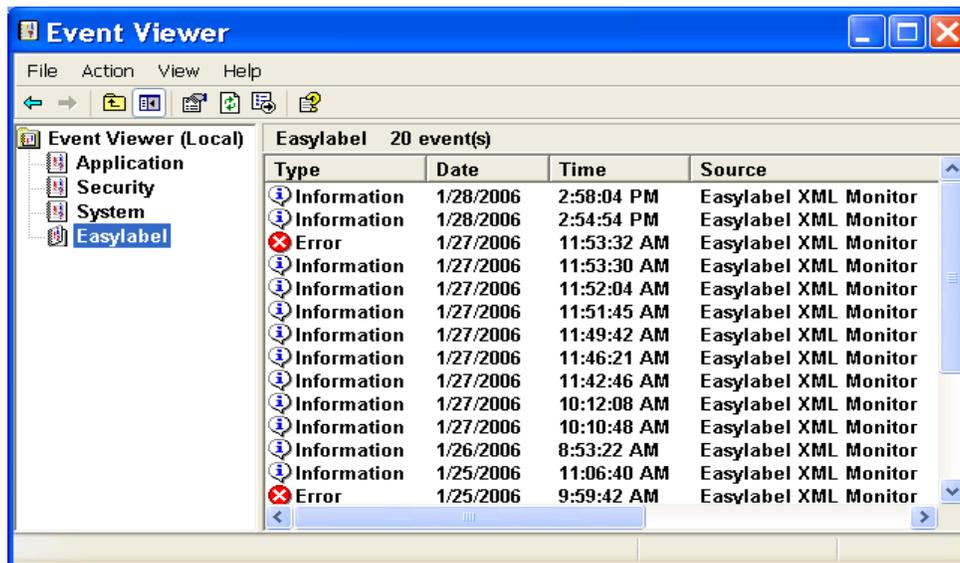
1. Click “Next” to continue.
2. Select the printers that should be used to print XML jobs from the list of named printers set up in EASYLABEL. The configuration wizard will tell you how many printers you can select.
3. Click “Next” to continue.
4. Enter or browse for the monitored path. This is the path to the directory that you want the EASYLABEL XML Monitor to ‘watch’ for XML files being modified or dropped.
5. Finally, set the option if you want to have the XML files deleted after processing.
6. Click “Next” to continue.
7. You will be presented with the EASYLABEL XML Monitor Setup Summary page.
8. Click “Back” to change any of the options or click “Next” to continue.
9. The configuration wizard is now finished.
10. Click the “Finish” button to set the EASYLABEL XML Monitor options.

Printing Procedure

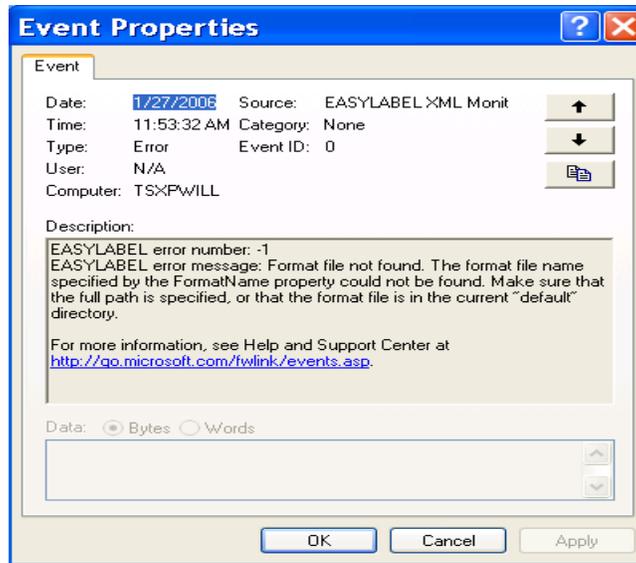
1. Start the EASYLABEL XML Monitor by double-clicking on the XML Monitor icon in the taskbar notification area.
2. Create, modify or select an EASYLABEL compatible XML file. This may be done manually or by using an XML enabled application.
3. Send the XML file to a folder/directory or TCP/IP port that is monitored by the EASYLABEL XML Monitor.
4. EASYLABEL will automatically populate label formats with the data contained in an XML file.
5. EASYLABEL will automatically print your labels on the specified printer.

Troubleshooting

The EASYLABEL XML Monitor writes a log to the Windows Event Viewer, which includes every successful and failed XML print request received by the EASYLABEL XML Monitor. To view this log, open the EASYLABEL XML Monitor Properties window and click on the Event Viewer button. Now select EASYLABEL from within the Event Viewer and you will be able to review the status information of every XML file processed by the EASYLABEL XML Monitor.



The Event Viewer will let you know if there was an error processing an XML file and by double-clicking on the error with the appropriate time stamp you will be able to review the cause of the XML processing error.



Summary

The EASYLABEL XML Generator and Monitor provide an easy to implement solution for printing bar code and RFID labels using XML. This solution does not require special XML label printers and provides an easy to follow guideline. It also allows you to design label templates using the EASYLABEL label design software and print labels by manually or automatically sending an XML file.