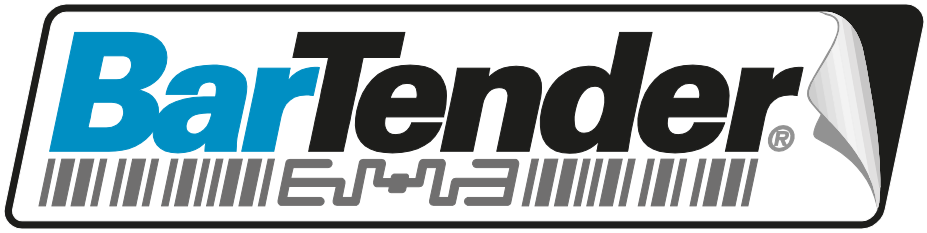

White Paper

Integration with Oracle's WMS and MSCA

How to Automatically Print Labels from Oracle Applications

SEAGULL SCIENTIFIC

Contents

Overview

This white paper explains how Oracle's WMS and MSCA can be integrated with the Enterprise Automation edition of BarTender to automatically print labels.

Oracle Warehouse Management (WMS) and Oracle Mobile Supply Chain Architecture (MSCA) are logistics management software products within the Oracle E-Business Suite. Both WMS and MSCA offer integration capabilities that allow for automatic label printing when used with the right external software products, such as the Enterprise Automation edition of BarTender from Seagull Scientific.

There are two primary tasks that must be completed in order to implement this label printing integration:

- **Configuring Oracle's WMS and MSCA Applications:** Label printing integration with Oracle's WMS and MSCA is based on the generation of an XML file (called an "XML label request") containing all of the information needed to describe a label job. These applications must be configured to create the desired XML file and place it in the proper folder or send it to a TCP/IP socket. The steps to do this are not documented here but can be found in the "WMS Implementation Guide," available online to Oracle partners and customers from *http://metalink.oracle.com*. Oracle is responsible for helping users get to the point where they are properly generating these XML files. For additional information on Oracle WMS/MSCA and label integration, please see *For More Information*, below.

- **Configuring Commander:** To handle Oracle XML print requests, Commander must be configured to monitor the folder in which the XML files will be created or the TCP/IP Socket over which the XML will be received. Then, it must be configured to respond by executing the desired print job. This white paper documents the steps necessary to accomplish that.

Seagull Scientific's Commander Utility

Commander is a utility provided with both BarTender Automation editions that allows BarTender to automatically print label jobs in response to certain triggering events from other software. One of these events can be the generation of a "trigger file" (such as an XML label request) in a particular file folder. When a file of a given name or type is detected, Commander reads commands and/or data from that file and passes them on to BarTender, which executes the print job. Commander can also be triggered by and process data sent over a TCP/IP socket.

For more extensive information about using the Commander utility, please see the Commander whitepapers at:

http://www.seagullscientific.com/aspx/whitepapers.aspx

Differences in Commander Editions

Oracle XML print requests can only be processed by the Enterprise Automation edition of Commander. This is because the Enterprise Automation edition of Commander provides some functionality that is not available with the base Automation edition.

Enhanced Capabilities with the Enterprise Automation Edition

In addition to detecting file and e-mail triggers, such as that for Oracle XML print requests, the Enterprise Automation edition of Commander can also trigger based on TCP/IP socket communications.

Also, the Enterprise Automation edition supports transformation of incoming XML data into other formats using XSL. The XSL-based conversion process built into the Commander is a fast and direct way to convert XML. For the special case of converting Oracle XML Print Requests into BarTender XML Script, Commander includes a built-in XSL style sheet designed for this purpose.

Performance in heavy utilization environments is facilitated with the Enterprise Automation edition of Commander, as it can launch and communicate with multiple instances of BarTender.

Included Files

Several files are installed with BarTender to make integration with Oracle applications easier. They are installed into the BarTender\Formats\Oracle sub folder of your Documents folder.

Label Formats

A set of sample label formats that implement Oracle's 10 "Seeded Label Formats" are provided. The format names and a brief description are listed below:

1. LPN (License plate information)
2. LPN Content (LPN plus details about contents)
3. LPN Summary (LPN plus nested contents summarized)
4. Material (Item, quantity, lot, and revision details)
5. Serial (Material plus serial details)

6. Location (Organization, subinventory, and locator)
7. Shipping (Customer and address)
8. Shipping Contents (Shipping plus content information)
9. WIP Contents (Discrete manufacturing details)
10. Flow Contents (Flow manufacturing plus customer information)

Commander Task List

A sample Commander Task List called "OracleXML.tl" is provided that implements reception of an Oracle XML Print Request through either a TCP/IP socket or a file.

Configuring Commander for Integration with Oracle WMS/MSCA

Integration Steps

1. Install and Activate the Enterprise Automation edition of BarTender. When BarTender installation is complete, use the Windows Explorer to browse to the Oracle samples folder, which should be located on your PC in the following subfolder of your Documents folder:

   BarTender\Formats\Oracle

2. Open the "OracleXML.tl" task list.
3. Start detection in Commander. This should cause a folder named "Scan" to appear in the **Oracle** folder.

Testing the Commander Configuration

In order to confirm that you have Commander properly configured, perform the following test:

1. Select one of the sample XML files in the Oracle sample directory and copy this file into the "Scan" folder which appeared when you started detection in Commander.
2. BarTender should respond to the appearance of this XML file by automatically printing a label using data from the XML file.

Finishing the Integration

Once you have used this procedure to verify that Commander and BarTender are properly responding to the creation of XML files, all that remains is to configure the Oracle application

to create the XML file in the Scan folder or send the data through a TCP/IP socket. You may also wish to use BarTender to load and edit some of the included Oracle "Seeded Label Formats" to better meet your specific requirements.

Further Reading: The Two Tasks of OracleXML.tl

This is an optional section you may want to read to aid your understanding of how the integration works, but it is not required reading in order to set up the integration.

There are two tasks in the task list: One that detects file triggers and one that is triggered by TCP/IP socket communications. Either method can be used.

Both tasks use an XSL style sheet to convert any Oracle XML Print Requests found in the trigger into BarTender XML Script. This script contains all of the BarTender commands and label data needed by BarTender to handle a print request. After generation by Commander, it is passed to BarTender's Automation interface and executed.

Both tasks contained in the task list share a single Command Handler that is configured to use one BarTender processes. You can increase the number of processes if you have multiple simultaneous print requests and find that it improves performance. For more guidance on setting the number of BarTender processes, see the Commander whitepaper.

For More Information

More information on Oracle WMS and MSCA is available at Oracle's website:

http://www.oracle.com
http://www.oracle.com/applications/order_mgmt/Warehouse.html
http://www.oracle.com/applications/order_mgmt/MSCA.html

More information on the Commander utility is available in the Commander white papers:

http://www.seagullscientific.com/aspx/whitepapers.aspx

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- Using BarTender with Terminal Services and Citrix MetaFrame
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- Integration with IBM WebSphere Sensor Events
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- Weighing Scales
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- GHS Labeling
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