BarTender®

The World's Leading Software for
Label, Barcode, RFID & Card Printing

White Paper

Integration with IBM WebSphere Sensor Events

SEAGULL SCIENTIFIC

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Overview

This white paper explains how IBM WebSphere Sensor Events 6.2 can be integrated with the Enterprise Automation edition of BarTender to automatically print items, using Commander, Seagull's integration application.

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

- **Configuring Sensor Events:** Sensor Events must be configured to generate an XML print request and save it to a file. The steps to do this are only outlined here, and you will need to refer to IBM's documentation for details. We cannot provide technical support for this part of the task. IBM is responsible for training you to the point where you can successfully generate the XML print requests.
- **Configuring Commander:** To handle Sensor Events XML print requests, Commander must be configured to monitor the folder in which the XML files will be created, and to respond by executing the desired print job. This white paper documents the steps necessary to accomplish that.

IBM WebSphere Sensor Events

WebSphere is an application development and integration environment from IBM. WebSphere offers a suite of applications for managing enterprise resource planning (ERP), supply chain, and other business processes. WebSphere also gives you tools for connecting with other software environments and applications. One such tool is IBM's Sensor Events application (formerly Premises Server and RFID Premises Server). Included in Sensor Events 6.2 is a Reference User Interface called "Print, Verify, Ship" that demonstrates the use of Print Profiles.

Commander

Commander is an application included in the BarTender Suite, that allows BarTender to automatically print 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.

> **NOTE:** Sensor Events XML print requests can only be processed by the Enterprise Automation edition of Commander. This is because the Enterprise Automation edition of Commander provides the following functionality that is not available with the base Automation edition:
>
> - Monitors TCP/IP socket communications as trigger.
> - Transforms incoming XML data into other formats using XSL. For the special case of converting Sensor Events XML print requests into BarTender XML script, Commander includes a built-in XSL style sheet designed for this purpose.
> - Launches and communicates with multiple instances of BarTender in high-performance environments.

Included Files

Several files are installed with BarTender to make integration with Sensor Events easier. They are installed into the **BarTender\BarTender Documents\IBMWebSphereSensorEvents** subfolder of your Documents folder.

BarTender Documents

Two sample BarTender documents are provided:

- DynamicCaseTag.btw
- DynamicPalletTag.btw

BarTender XML Files

Two sample BarTender XML (BTXML) files are provided:

- DynamicCaseTag.xml
- DynamicPalletTag.xml

Commander Task List

Two sample Commander Task Lists are included:

- IBMWebSphereSensorEvents.tl
- IBMWebSphereSensorEvents_WithPrintStatus.tl

Both Task Lists implement the reception of a Sensor Events print request through a file. The first task list implements a unidirectional printing interface, while the second implements a bidirectional printing interface. “Bidirectional” simply means that once the job is complete, the job status is reported back to the calling application. Sensor Events 6.2 supports receiving the job status back by posting it to the Sensor Events 6.2 web server.

Configuring Sensor Events

The process of configuring Sensor Events 6.2 to generate the XML print requests is outlined below. You will need to refer to the linked documentation from IBM for exact steps.

1. Open WebSphere Sensor Events Administration Console.

   http://pic.dhe.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc_6.2.0/admin_opencon.html

2. Create a new device configuration group.

   http://pic.dhe.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc_6.2.0/admin_adddevconfig.html

   Use the following settings for the new device configuration group:

   - **Name:** BarTender XML Printing
   - **Description:** BarTender Printing Device
   - **Manufacturer:** Seagull Scientific
   - **Device Model:** XML
   - **Category:** Printer

3. Create a new print profile device.

   http://pic.dhe.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc_6.2.0/admin_pprofdevice.html

   Use the following settings for the new printer device:

   - **Device ID:** *(Must be numeric and unique from other devices, e.g. 100)*
   - **Device Name:** *(Enter the name of the printer as it appears on the PC running BarTender and Commander)*
   - **Location:** *(Leave this blank)*
   - **Print XML Location URL:** *(Specify a folder location where you would like the files to be placed)*
   - **XSL File URL:** *(Leave this blank)*

4. Create a new print template.

   http://pic.dhe.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc_6.2.0/admin_addprinttemp.html

   Use the following settings for the new print template:

   - **Print Template Name:** SampleDynamicCaseTag
   - **Configuration Groups:** BarTender XML Printing
   - **Properties Location URL:** file://SampleDynamicCaseTag.btw *(Ensure that you have a matching .properties file as specified in the above IBM documentation)*

5. Verify the setup using “Print, Verify, Ship” reference UI.

   http://pic.dhe.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc_6.2.0/pvs_ov.html

   a. Open Print, Verify, Ship.
   b. Create a print job.
   c. Check that the that the XML file has been created in the directory specified in step 3, above.

Configuring Commander

The process of configuring Commander to receive XML print requests and transform them into usable BTXML Script is outlined below. This process assumes that Commander is installed on your PC and BarTender is activated as the Enterprise Automation edition.

1. Open Commander.
2. From the **File** menu, select **Open**.
3. Browse to the **IBMWebSphereSensorEvents** samples folder (located in the `Document\BarTender\BarTender Documents` directory of your computer)
4. Open either the "IBMWebSphereSensorEvents.tl" or the "IBMWebSphereSensorEvents_WithPrintStatus.tl" task list, depending on whether or not you want unidirectional or bidirectional printing.
5. From the **Detection** menu, select **Start Detection**. This should cause a folder named "Scan" to appear in the `IBMWebSphereSensorEvents` folder.

Testing the Commander Configuration

To confirm that you have Commander properly configured, perform the following test:

1. Select one of the sample XML files (DynamicCaseTag.XML or DynamicPalletTag.XML) in the `IBMWebSphereSensorEvents` folder and open it in Notepad.
2. Change the _PRINTERNAME property to the name of the printer you wish to print to.
3. Copy this file into the "Scan" folder which appeared when you started detection in Commander.
4. 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 the procedure above to verify that Commander and BarTender are properly responding to the creation of XML files, you need to do the following:

1. Configure Commander to monitor the folder you specified when you created your printer device in Sensor Events.
2. If you want to use the IBMWebSphereSensorEvents_WithPrintStatus.tl task list and report print status back to Sensor Events, you will need to do the following:
    a. Specify the correct URL in the "Send to Web Server" command within Commander.
    b. Configure your Seagull printer drivers to enable the status monitor. See the section below for detailed steps.
3. You may also wish to use BarTender to load and edit the included sample documents to better meet your specific requirements.

Configuring Seagull Scientific Print Driver Status Monitor

If you are using the IBMWebSphereSensorEvents_WithPrintStatus.tl task list, and you want to verify that the job actually printed, you will need to use a driver that supports this type of status monitoring. Most of Seagull's printer drivers support this. The steps to enable the status monitor are below.

1. Open Printer Maestro.
2. Right-click the printer and select **Properties**. The **Properties** dialog opens.
3. Select the **Tools** tab.
4. Click the **Status Monitoring** button. The **Status Monitoring** dialog opens.
5. On the **Status** tab, select **Continuous**.
6. Click **OK** to close the **Status Monitoring** dialog.
7. Click **OK** to close the **Properties** dialog.

Related Documentation

IBM WebSphere Sensor Events

More information on Sensor Events is available at IBM's website:

http://www-01.ibm.com/software/integration/sensor-events/index.html

Seagull White Papers

- Commander
- Printer Maestro: True Enterprise Print Management for Windows
- Integration Overview
- Status Monitor Overview

Recent Upgrades

- What's New in the Latest BarTender

For downloadable versions, visit:

www.seagullscientific.com/label-software/white-papers.aspx

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