



White Paper

# Integration with IBM WebSphere Sensor Events

How to Automatically Print Labels  
from IBM WebSphere Sensor Events

## Contents

<b>Overview</b> .....	3
<b>Seagull Scientific's Commander Utility</b> .....	3
<b>Differences in Commander Editions</b> .....	4
Enhanced Capabilities with the Enterprise Automation Edition .....	4
<b>Included Files</b> .....	4
Label Formats .....	4
Commander Task List .....	4
<b>Configuring Sensor Events</b> .....	5
<b>Steps</b> .....	5
<b>Configuring Commander</b> .....	7
<b>Steps</b> .....	7
<b>Testing the Commander Configuration</b> .....	7
<b>Finishing the Integration</b> .....	8
<b>Configuring Seagull Scientific Print Driver Status Monitor</b> .....	8
<b>Steps</b> .....	8
<b>Further Reading</b> .....	9
<b>For More Information</b> .....	9

## Overview

This white paper explains how IBM WebSphere Sensor Events can be integrated with the Enterprise Automation edition of BarTender to automatically print labels.

WebSphere is an application development and integration environment from IBM. WebSphere offers a suite of applications for managing ERP, supply chain and other business processes, as well as 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 is a Reference User Interface called "Print, Verify, Ship" that demonstrates the use of Print Profiles.

There are two primary tasks that must be completed in order to implement this label 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 getting 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. 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.

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

<http://www.seagullscientific.com/asp/whitepapers.aspx>

## Differences in Commander Editions

*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 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 Sensor Events 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 Sensor Events 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 Sensor Events easier. They are installed into the BarTender\Formats\IBMWebSphereSensorEvents sub folder of your Documents folder.

### Label Formats

Two sample label formats are provided:

1. DynamicCaseTag.btw
2. DynamicPalletTag.btw

### Commander Task List

Two sample Commander Task Lists are included:

1. IBMWebSphereSensorEvents.tl
2. IBMWebSphereSensorEvents\_WithPrintStatus.tl

Both 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 supports receiving the job status back by posting it to the Sensor Events web server.

## Configuring Sensor Events

The process of configuring Sensor Events to generate the XML print requests is outlined below. You will need to refer to the linked documentation from IBM for exact steps. The configuration for both versions Sensor Events 6.1.x and 6.2.x are identical, however at this time separate documentation is maintained by IBM. Links to both versions are provided.

### Steps

1. Open WebSphere Sensor Events Administration Console.

WebSphere® Premises Server 6.1x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc\\_6.1.0.1/admin\\_consoleov.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc_6.1.0.1/admin_consoleov.html)

WebSphere® Sensor Events 6.2.x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc\\_6.2.0/admin\\_consoleov.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc_6.2.0/admin_consoleov.html)

2. Create a new device configuration group.

WebSphere® Premises Server 6.1x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc\\_6.1.0.1/admin\\_adddcdevconfig.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc_6.1.0.1/admin_adddcdevconfig.html)

WebSphere® Sensor Events 6.2.x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc\\_6.2.0/admin\\_adddevconfig.html](http://publib.boulder.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 Label Printing  
**Device Manufacturer:** Seagull Scientific  
**Device Model:** XML  
**Category:** Printer

3. Create a new printer device.

WebSphere® Premises Server 6.1x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc.6.1.0.1/admin\\_add\\_dcdevice.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc.6.1.0.1/admin_add_dcdevice.html)

WebSphere® Sensor Events 6.2.x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc.6.2.0/admin\\_adddevice.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc.6.2.0/admin_adddevice.html)

Use the following settings for the new printer device:

**Device ID:** 100 (must be numeric and unique from other devices)

**Device Name:** (Enter in 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. This can either be on the WebSphere server, e.g. “file://C:\XMLPrint”, or on the BarTender server e.g. “file://\btpc\XMLPrint”)

**XSL File URL:** (Leave this blank.)

4. Create a new print template.

WebSphere® Premises Server 6.1x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc.6.1.0.1/admin\\_add\\_dcprinttemp.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc.6.1.0.1/admin_add_dcprinttemp.html)

WebSphere® Sensor Events 6.2.x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc.6.2.0/admin\\_addprinttemp.html](http://publib.boulder.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 you have a matching .properties file as specified in the above IBM documentation)

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

WebSphere® Premises Server 6.1x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc.6.1.0.1/dev\\_pvs.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r1m0/topic/com.ibm.wrps.doc.6.1.0.1/dev_pvs.html)

WebSphere® Sensor Events 6.2.x:

[http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc.6.2.0/pvs\\_ov.html](http://publib.boulder.ibm.com/infocenter/pvcsensa/v6r2m0/topic/com.ibm.wse.doc.6.2.0/pvs_ov.html)

Open Print, Verify, Ship. Create a print job. Check that the that the XML file has been created in the C:\XMLPrint directory.

## Configuring Commander

### Steps

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

BarTender\Formats\IBMWebSphereSensorEvents

2. Open either the “IBMWebSphereSensorEvents.tl” or the “IBMWebSphereSensorEvents\_WithPrintStatus.tl” task list, depending on whether or not you want unidirectional or bidirectional printing.
3. Start detection in Commander. This should cause a folder named “Scan” to appear in the **IBMWebSphereSensorEvents** 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 IBMWebSphereSensorEvents sample directory 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 this procedure 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 label formats 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 configure the status monitor are below.

### Steps

1. In Printer Maestro, right click the printer and choose properties.
2. Select the Tools tab.
3. Press the Status Monitoring button.
4. Select Continuous on the Status tab.
5. Close out of the dialog and driver by choosing OK.

For more information on the Seagull Status Monitor, see:

[http://www.seagullscientific.com/ftp/whitepapers/WhitePaper\\_StatusMonitor\\_Overview.pdf](http://www.seagullscientific.com/ftp/whitepapers/WhitePaper_StatusMonitor_Overview.pdf)

## **Further Reading**

### **For More Information**

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

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

More information on the Commander utility is available in the Commander whitepapers:

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

## Available Seagull White Papers

### General White Papers

- The Advantage of Drivers by Seagull

### Companion Applications

- Printer Maestro: Enterprise Print Management
- Librarian
- BarTender Security Center
- BarTender Web Print Server

### Recent Upgrades

- What's New in the Latest BarTender

### Integration White Papers

- Integration Overview
- Commander
- Commander Examples
- BarTender's .NET SDKs
- BarTender's ActiveX Automation Interface
- Exporting Printer Code Templates
- Using BarTender with Terminal Services and Citrix MetaFrame
- Integration with Oracle's WMS and MSCA
- Integration with IBM WebSphere Sensor Events
- Integration with SAP

### Miscellaneous White Papers

- Weighing Scales
- Dynamically Changing Objects at Print-Time using VB Script
- GHS Labeling
- Licensing for BarTender's Automation Editions
- Printing International Characters Using BarTender
- BarTender Software Activation
- Using BarTender's Application Identifier Wizard
- Optimizing Label Printing Performance
- Status Monitor Overview
- Silent Install

For downloadable versions, visit:

[www.seagullscientific.com/aspx/white-papers.aspx](http://www.seagullscientific.com/aspx/white-papers.aspx)

