Status Monitor Overview
Using Drivers by Seagull™ to Display Important Printer Status Information
**Printer Communications**

The communication capabilities of Windows printer drivers can be broken down into three basic categories.

**Unidirectional**

**Capabilities:**
- Print
- Write Configuration Commands

**Description:**
The most basic printer communication is purely unidirectional. That means that all data is sent from the computer to the printer, and never from the printer to the computer. This facilitates printing and can also be used to send configuration data to the printer; however, the current printer configuration cannot be read back to the computer.

**Partially Bidirectional**

**Capabilities:**
- Print
- Write Configuration Commands
- Read Configuration Commands

**Description:**
This level of bidirectionality allows for configuration data to be read from the printer back to the computer. This allows the driver to show the current configuration of the printer to the user. This reading of the configuration is usually done from a dialog in the driver that allows the user to set the driver's configuration. Drivers by Seagull™ have been offering this level of communication since their introduction in 1993.

**Fully Bidirectional**

**Capabilities:**
- Print
- Write Configuration Commands
- Read Configuration Commands
- Read Real-Time Printer Status
Description:

In addition to the capabilities of a partially bidirectional driver, when a driver is fully bidirectional, the status of the printer can be read at any time, including during print jobs. This allows for error conditions such as “out of ribbon” to be reported on the computer.

Fully Bidirectional communication was first introduced in Drivers by Seagull in 2003 for just a few printer families and was more broadly propagated in early 2006. It is implemented by a component called the Status Monitor.

The fully bidirectional communications necessary for Status Monitoring require that:

1. The printer needs to support the transmission of status messages during print jobs. (Some do and some don’t.)
2. The printer must be equipped with at least one fully bidirectional communications port. Be advised that different printer models come with different combinations of serial, parallel, USB and TCP/IP ports and not all are guaranteed to be bidirectional.
3. You must use a bidirectional cable. (These days, most are.)

And, finally, you need a Printer Driver running on Windows that supports both your printer model and its status functions. (At this time, Seagull provides Status Monitor support for the selected printer models listed under Supported Printers, below.)

The Seagull Status Monitor

The Seagull Status Monitor periodically polls the printer’s status and reports that information to the Windows spooler. Windows displays this information in the Printers folder, the Print Queue windows, and in the system tray. Seagull’s Status Monitor can also continuously display the printer’s status information in its own window. The Status Monitor can read the printer’s status across serial, parallel, USB, and TCP/IP ports, as long as the printer supports it.

Important Benefits

Print Verification Ensures Label Job Integrity

With production for some industries, such as medical, pharmaceutical and the military, it is not enough to transmit a print job under the hopeful assumption that the requested number of labels were successfully printed. Accordingly, you may encounter regulations that mandate software verification of an entire print job. Seagull drivers with Status Monitoring facilitate compliance with such requirements by optionally holding all unprinted label information in a buffer until the printer reports back that each previous label has been printed. You can further enhance the
integrity of your label jobs by configuring BarTender (or your other print application) to generate a record-by-record log of the requested label jobs, so you have the option of comparing what was sent against what was printed.

**Fully Network Compatible**
The drivers’ printer Status Monitor information can be viewed from any computer on a network. Therefore, regardless of whether you are printing locally, whether BarTender is run from a server or a local PC, real-time printer status information can be easily viewed. That means that you can keep track of your label print jobs from anywhere at your facility.

**Summary of Benefits**
- Timely notification lets you take corrective action before a stalled printer adversely affects your production.
- Facilitates compliance with industries with strict production verification requirements.
- Network compatibility gives you the flexibility to move around a facility while printing is in progress.
The printer’s status can be seen in several places: the Printers Folder, the Print Queue window, and Seagull’s Status Monitor Window. All of these are shown in Figure 1. In the Printers Folder, the “Details” view is best because the Comments field shows additional status information.
Enabling and Configuring the Status Monitor

After installing a Seagull Printer Driver, the Status Monitor is usually disabled by default. To enable and configure Status Monitoring:

1. Right-click the desired printer in the Printers folder.
2. Select “Properties.”
3. Select the “Tools” tab.

Press the “Status Monitoring” button shown in Figure 2. This will open the Status Monitoring dialog shown below.

The Status Monitoring Dialog

The Status Monitoring Dialog has three tabs: Status, Job Verification, and Communication. They are shown in Figures 3a, 3b, and 3c. The Status tab allows you to enable Status Monitoring, and specify when it should be done. You can also specify whether or not to display the Status Monitor Window.
The Job Verification tab determines when the printer’s status must be verified before sending more data.

The Communications tab has advanced settings that usually do not need to be changed. For more information on the options on these tabs refer to the drivers online help.
Prior to March 2007 Status Monitoring was only available for a few manufacturers. Since then it has been implemented for a wide variety of printers. The best way to determine whether or not a particular printer is supported is to install the driver and check to see that the Status Monitoring button on the Tools tab is enabled.
Available Seagull White Papers

General White Papers
- The Advantage of Drivers by Seagull

Companion Applications
- Printer Maestro: True Enterprise Print Management for Windows
- 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 Remote Desktop Services and Citrix XenApp
- 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 Compliance Labeling
- Licensing for BarTender's Automation Editions
- Printing International Characters Using BarTender
- BarTender Software Activation
- Using BarTender's Application Identifier Wizard
- Optimizing Output Performance
- Status Monitor Overview
- Silent Install

For downloadable versions, visit:
www.seagullscientific.com/aspx/white-papers.aspx