



Drivers by Seagull™
The Advantages of Using
Drivers by Seagull with BarTender

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Overview

Drivers by Seagull™ bring standard printing functionality to any Windows program.

Although Drivers by Seagull work with any correctly-written Windows application, when you use them with our BarTender design and print software, you can take advantage of special high-performance printing features that are not typically accessible to other Windows programs.

Seagull Scientific was the very first company to design Windows drivers for label printers. Over the years, we have added support for a variety of printing technologies, including color label printers, card printers, RFID and smart card encoding, industrial marking and coding systems, and more.

Today, we are the world's largest developer of such drivers and proud to be the official driver supplier to many well-known printer manufacturers. Drivers by Seagull are widely recognized as the fastest and most reliable Windows drivers in the world, which is why so many printer manufacturers ship them in the box with their printers.

Understanding Printer Drivers

Drivers are special software modules that are used by programs to communicate with hardware and software. The main job of a printer driver is to translate the graphic control commands that are generated by your programs into commands that are understood by your printer. Also, if a printer offers status information, a full-featured printer driver can make that information available to Windows and certain other programs.

There are two kinds of printer drivers in today's industry: *embedded printer drivers* and *Windows printer drivers* (such as Drivers by Seagull).

Embedded Printer Drivers

Before Microsoft created open driver standards for Windows, most of a program's printing functions were locked (or "embedded") inside the program and could be used only by that program. Some industrial printing programs still use embedded printing methods. In these applications, the driver does not let other Windows applications use the printer, and it cannot be managed from the Windows printer directory.

Windows Printer Drivers

Windows printer drivers (such as Drivers by Seagull) are installed on a computer or network and are shared by a number of printing applications. Windows printer drivers make it possible for you to use standard Windows functions to set print access rights, configure printers, monitor job queues and delete print jobs.

Applications that are designed to use Windows printer drivers automatically have access to the Windows print spooler, Print Manager, advanced printer port control, high-speed network printing, extended font capabilities and additional Microsoft-provided features and functions.

Drivers by Seagull

Drivers by Seagull expand upon Windows printing architecture by providing access to advanced printer features such as serialization, native barcode printing and RFID support.

Using Drivers by Seagull with BarTender

When you use Drivers by Seagull with BarTender, you get exclusive access to additional printer optimizations and advanced features that are unavailable with other applications. These include device barcodes, RFID support, smart card encoding, caching functionality and device serialization. (Some features, such as font downloading and caching, depend on sufficient memory being available in the printer.)

For more information about how to use fonts and Drivers by Seagull to improve print performance, refer to the *Optimizing Print Performance* white paper:

<https://www.seagullscientific.com/support/white-papers>

The following high speed printer optimizations and advanced features are available only when you use BarTender:

Printer-based Serialization

In print jobs that include serial numbers, many printers can accept a starting value and the incremental step size. When you use this printer-based serialization, you can print a large number of serialized items without having to send any data after the first label.

Printer-based Barcodes

Printers that have built-in barcode functionality make it possible for software programs to request complex barcodes by using simple text strings (such as “1234”). This process is much faster than sending bitmap images (or pictures) of barcodes that consume hundreds or thousands of extra bytes per printed item. (When you use software other than BarTender, our driver fonts give you some limited functionality.)

Printer-encoded RFID Tags, Smart Cards and Magnetic Stripes

Printers that have built-in RFID encoders make it possible for you to encode RFID tags while items are printed. When you use Drivers by Seagull, BarTender can present a simplified user interface for users to supply the data to be encoded in the tags. (When you use software other than BarTender, our driver fonts give you some limited functionality.)

Drivers by Seagull also support the encoding of data into magnetic stripes and both types of smart card memory:

- Contactless (or RFID)
- Contact (or “touch”)

Printer-based Real Time Clock

Printers that have a built-in real time clock can print the time and date in a text object, barcode or RFID tag. When you use Drivers by Seagull, BarTender can present a simplified user interface for users to access the printer’s clock.

Printer-based Optimizations

When the printer supports optimizations, BarTender and Drivers by Seagull can send all of the required text, barcode and graphic formatting commands just one time at the beginning of a print job and then send only the variable character data for each item to be printed.

Furthermore, many printers can store the unchanging parts of your template design at the start of a print job, so that they do not have to be re-sent with each item to be printed.

Caching of Graphics and Printer Code Templates

Most printers allow for templates and graphics to be stored indefinitely in the printer for reuse at any future time. Drivers by Seagull take advantage of these features to implement automatic graphic and template caching. So, whether you specify a graphic that changes, specify a graphic that stays the same for several different documents, or print several different templates, our drivers can cache this information in your printer to allow for faster printing.

Additional Features of Drivers by Seagull

Drivers by Seagull offer a variety of features that are available to all Windows applications. These advanced features may not be available in other drivers that are available for your printer.

Advanced Status Monitor Support

By using bidirectional printer communication (“bi-di”), many printer drivers can report basic conditions such as “printer offline” and “toner low” to the Windows spooler. Drivers by Seagull can report a great variety of status conditions. These range from the basic (such as ribbon and label out) to the more advanced (such as a print-head temperature error).

Convenient Display of Status Information

You don’t need BarTender or its Printer Maestro companion application to view enhanced printer status information. Just install the appropriate Drivers by Seagull printer driver on a client computer, and the status of the printer appears in the following locations:

- Your computer's **Devices and Printers** folder
- Your printer's **Print Queue** window
- Your computer's notification area (system tray)

Success Verification

By using the status monitor functionality for Drivers by Seagull, you can pause for success verification at each printed page or job. This feature is helpful in heavily regulated environments, such as the medical and pharmaceutical industries.

For more information about the status monitor functions of our drivers, refer to the *Status Monitoring* white paper:

<https://www.seagullscientific.com/support/white-papers>

Special Font Functions

By simulating certain features as fonts, Drivers by Seagull can give conventional Windows programs limited access to some printer features that they would otherwise not be able to use.

Barcode and RFID Fonts

Drivers by Seagull let your conventional Windows programs access some of your printer’s built-in barcode and RFID functions as fonts.

Printer Command Fonts

When you specify “Printer Command Font” as the font for a text string, you can use Drivers by Seagull to embed any printer-specific code sequence directly into your document.

Driver Command Fonts

When you specify “Driver Command Font” as the font for a text string, Drivers by Seagull let your programs control drawing functions (such as lines, boxes, circles or ellipses) and print settings (such as mirror or inverse) if they are available in your printer.

Downloaded Fonts

The fastest way to print text is by using a printer’s built-in fonts. However, no printer offers the full variety of font styles that are available in Windows. Drivers by Seagull can download fonts from Windows into printers that support doing so. Depending on the capabilities of your printer, you can download these fonts as TrueType fonts or as bitmap fonts. Your Windows programs can then print items with these fonts as quickly and easily as if they had been built into the printer.

For more information about how to use fonts and Drivers by Seagull to improve print performance, refer to the *Optimizing Print Performance* white paper:

<https://www.seagullscientific.com/support/white-papers>

Advanced Media Handling

Drivers by Seagull support a variety of actions that are taken at specified intervals in the print job. You can incorporate these actions, such as cutting the label stock or detecting that a label was removed, in a print job in addition to settings such as "number of labels." By using Drivers by Seagull, you can use your printer's cutters and sensors, including the “label taken” sensor.

Logging Functions

Drivers by Seagull can generate log files for the following types of information:

- General print job information, including job name, time, date and user
- Events that occur during the print job, such as job start, pause, restart, delete, out of labels, complete and more
- The actual print code that was used to generate the job

Printer Configuration and Diagnostics

By using Drivers by Seagull, you can perform printer management functions that otherwise require you to use the printer’s front panel and/or a custom program from the printer manufacturer. These functions include the following:

- Printing a variety of test and diagnostic items
- Calibrating the printer
- Reading the printer’s configuration
- Managing files that are stored in the printer
- Configuring and formatting printer memory

Printer Driver Administration

Drivers by Seagull provide convenient functions to import and export driver settings. These functions make it possible for you to export a variety of printer settings, stock specifications and other information from one driver and then import these items to another driver for another printer. This feature simplifies the administration of large numbers of printers.

For example, Drivers by Seagull offer a command line interface that you can use to automate the importing and exporting of driver settings without using the drivers' Windows dialogs. And, by replacing the default configuration settings for a driver installation package with settings that you have exported, you can even create your own fully-configured driver installation packages.

International Language Support

You can configure the user interface of Seagull's Windows printer drivers to be displayed in any of the more than 20 languages that are supported by the BarTender user interface. You can then view and set your printer options in a familiar language.

Appendix A: Using Printer-based Fonts in Microsoft Word



Microsoft no longer supports the use of printer-based fonts in other programs such as Microsoft Excel and Microsoft Access.

Word supports printing with printer-based fonts. When you use Word to print your items by using a printer-based font, you enter text in that font into your document, and the printer then prints the text or converts it to a graphic or a different encoding, depending on the font. If you are using a barcode font, when you print the item, the text is converted to a barcode. This process eliminates the need to import a graphic file that contains the barcode symbol into Word for printing.

To make printer-based fonts available for use in Word, you must select the **Use fonts that are stored on the printer** option. After you do this, the printer-based fonts are listed in the **Font** list in Word.

To select this option, follow these steps:

1. In Word, click **File**, and then click **Options**.
2. In the left navigation pane of the Word Options dialog, click **Advanced**.
3. Under **Show document content**, click to select the **Use fonts that are stored on the printer** check box, and then click **OK**.

To use Drivers by Seagull to add a new barcode font to your printer's list of already available printer-based fonts, follow these steps:

1. On the driver's **Properties** page, click the **Fonts** tab.
2. Click **Font**, and then click **New Bar Code Font**.
3. In the **Bar Code Font** dialog, enter a font name in the **Font Name** field, select the symbology that you want in the **Symbology** list, configure the other settings as needed, and then click **OK**.

When the **Use fonts that are stored on the printer** check box is selected in Word, the new font appears with the other printer-based fonts in the **Font** list in Word.

Related Documentation

White Papers and Manuals

- Installing Drivers by Seagull™
- Optimizing Print Performance
- Status Monitoring
- Printer Maestro

For downloadable versions, visit:

<https://www.seagullscientific.com/support/white-papers>

