![BarTender logo - BY SEAGULL SCIENTIFIC]

Understanding the BarTender System Database

SUPPORTS: BARTENDER® 2019 AND LATER VERSIONS

Contents

Overview

The BarTender System Database is the central data storage for applications in the BarTender Suite and is required for most of the features that are included in the Automation and Enterprise editions of BarTender. It stores data such as the following:

- Events that are encountered by any BarTender application (such as error messages and dialogs)
- Information about each print job that is sent from BarTender (such as the document that was printed and the time when the job was sent)
- Security settings and permission checks that are defined in Administration Console
- Template designs and preview images (for reprinting items)
- Global data fields
- Librarian files and revision information

The default BarTender System Database uses Microsoft SQL Server Express, which is free but which has a 10 GB database size limit. If you want multiple computers to share a centralized database, or if you have a single computer logging a high volume of print jobs, you might want to use your own database server.

About the BarTender System Database

The BarTender System Database is a central storage space and resource for BarTender and most of the companion applications. In addition, the System Database enables BarTender and the companion applications to communicate with each other. The BarTender System Database works with the BarTender System Service to store and share data.

The BarTender System Database is installed by default whenever a new instance of BarTender is installed.

> The BarTender System Database is not a database that you would connect to your BarTender document to populate template objects at print time. The business databases that are used in document design often contain such data as customer names and addresses or product information, and they are used only by the documents that they are connected to. The BarTender System Database is used by all BarTender documents and by other applications in the BarTender Suite.

For more information, refer to the System Database section of the BarTender help system.

We do not publicly document the BarTender System Database schema, but you can use the BarTender .NET software development kit (SDK) to retrieve data from the System Database. For more information, refer to the Automating BarTender topic in the BarTender help system and the System Database API chapter of this technical document.

BarTender System Service

The BarTender System Service is installed automatically when you install BarTender and enables BarTender Designer and the companion applications to communicate and write to the BarTender System Database. It is used to manage BarTender application messages, print job history, and printer status. If you ever need to monitor or administer the service, you can do so by using the **Windows Services** page of Administration Console. For more information, refer to the Administration Console book of the BarTender help system.

System Database Usage by Application

Many applications of the BarTender Suite interact with the BarTender System Database. Some applications save information to the System Database, and others retrieve data that is stored in it. This chapter describes how each application works with the BarTender System Database to provide a seamless designing, printing, and auditing environment for your business.

Administration Console

By using Administration Console, administrators can control and customize important aspects of BarTender, such as security, integrations, and Windows services. You also use Administration Console to install, set up, configure, and maintain the BarTender System Database.

Security options that you configure can be stored in the BarTender System Database or in a shared or local file. Cloud storage file system configurations, such as those you might use in Integration Builder or Process Builder, are always stored in the BarTender System Database.

For more information, refer to the Administration Console book of the BarTender help system.

BarTender Designer

BarTender Designer uses the BarTender System Database to store the following items:

- **Global data fields**, which are used to share data between multiple documents. For more information, refer to the Using Global Data Fields topic in the BarTender help system.

- **Application messages**, which can be used to audit and track the behavior of the BarTender application. For more information, refer to the Logging Application Messages topic in the BarTender help system or the *Getting Started with BarTender* user guide:

    https://support.seagullscientific.com/hc/categories/200267887

- **Print job information**, which is used to save backup copies of your print jobs so that you can later retrieve or reprint them. For more information, refer to the Print Job Logging Page topic in the BarTender help system.

> BarTender Designer does not automatically save BarTender documents to the System Database. However, you can set up Librarian to automatically store saved BarTender documents to the System Database, where they are accessible to all users who have the correct permissions.

History Explorer

History Explorer provides a customizable interface that you can use to monitor information that is stored in the BarTender System Database and to reprint items as needed. History Explorer draws the information that it displays from the BarTender System Database. You can view the following information:

- Messages that are generated by applications in the BarTender Suite
- BarTender print jobs, which are listed by printer, document, or computer, including canceled and failed jobs
- Printer Maestro print jobs, printer events, and inventory events
- Security permission checks by action, user, and computer, including denied permission requests

> To view the information, you might need to enable logging for each type of information that you want to view.

For more information about how to configure the BarTender logging options, refer to the History Explorer book of the BarTender help system or the *History Explorer* technical document:

https://www.seagullscientific.com/resources/white-papers/

Integration Builder

Use BarTender Integration Builder to create highly customizable integrations that let you seamlessly connect the BarTender printing capabilities with virtually any enterprise business operation. Integration Builder uses the BarTender System Database to store integration messages.

For more information, refer to the Integration Builder book of the BarTender help system or the *Integrating with BarTender Integration Builder* technical document:

https://www.seagullscientific.com/resources/white-papers/

Process Builder

Process Builder is a BarTender companion application that you can use to create customizable process files so that you can automate repetitive operations. Process Builder uses the BarTender System Database to store messages that are related to the running of process files.

For more information about how to create and use process files, refer to the Process Builder book in the BarTender help system.

Librarian

Librarian, the BarTender native revision control system, uses the BarTender System Database to store its files. Files that are stored in Librarian can be accessed from applications in the BarTender Suite, including BarTender Designer, Process Builder, Print Station, Integration Builder, and Print Portal.

> You must set up the BarTender System Database to edit any files that are stored in Librarian, even if the application that generated the file does not require the BarTender System Database.

Librarian is available with the Enterprise edition of BarTender. For more information, refer to the Librarian book of the BarTender help system or the *Librarian* technical document:

> https://www.seagullscientific.com/resources/white-papers/

Print Station

Print Station provides a simple process for locating and printing your existing BarTender documents. When you use Print Station, you need not open BarTender or an external application. Print Station does not store data in the BarTender System Database. It uses the BarTender System Database only if it references a file that is stored in Librarian.

For more information, refer to the Print Station book of the BarTender help system or the *Print Station* technical document:

> https://www.seagullscientific.com/resources/white-papers/

Print Portal

Print Portal is a web-based interface that you use to select and print BarTender documents. (In versions of BarTender that are earlier than BarTender 2016, this application was called Web Print Server [WPS].)

By using Print Portal, users can print documents by browsing to a web page that is hosted by a server that has BarTender installed. Print Portal stores all of its application settings in the BarTender System Database.

For more information, refer to the Print Portal section of the BarTender help system or the *BarTender Print Portal* technical document:

> https://www.seagullscientific.com/resources/white-papers/

Printer Maestro

Printer Maestro provides a convenient way to monitor the printers and print jobs on your network. Additionally, it contains tools to help track your printing-related inventory items, such as toner, labels, print heads, and memory. Printer Maestro uses the Printer Maestro Service to gather this information, and you can configure the application to store this data in the BarTender System Database.

For more information, refer to the Printer Maestro book of the BarTender help system or the *Printer Maestro* technical document:

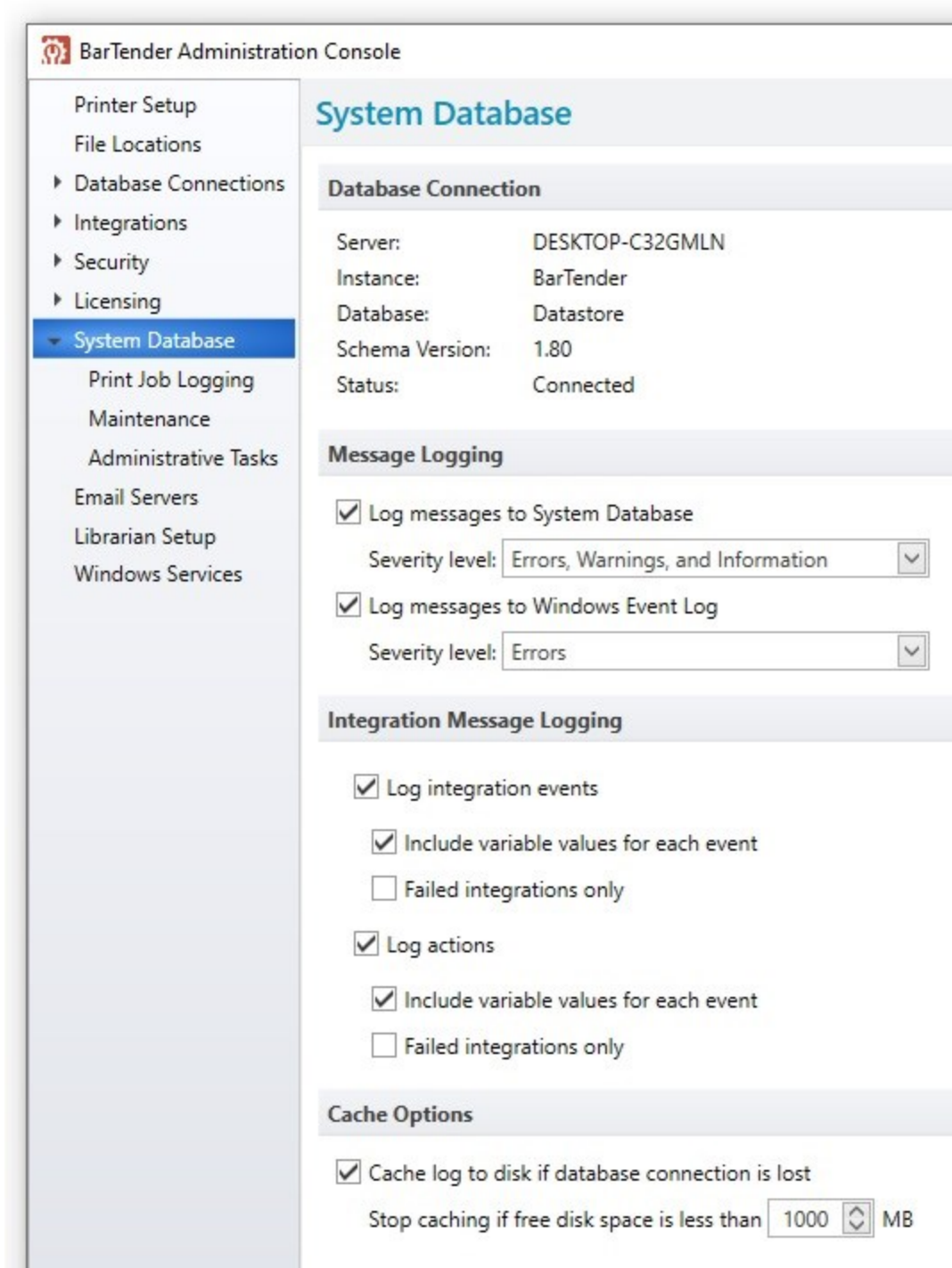> https://www.seagullscientific.com/resources/white-papers/

Reprint Console

Reprint Console accesses information in the BarTender System Database to process and reprint items that might have been lost or damaged. To view the information or to use Reprint Console, you must first enable logging for print job information.

For more information, refer to the Reprint Console book of the BarTender help system or the *Reprint Console* technical document:

https://www.seagullscientific.com/resources/white-papers/

Setting Up the BarTender System Database

A local instance of the BarTender System Database is created when you install BarTender. To set up another local System Database or a centralized System Database for your network, run the System Database Setup wizard. To do this, click the **System Database Setup Wizard** link on the **System Database** page of Administration Console.

For more information, refer to the Setting Up the BarTender System Database topic in the BarTender help system.

Message Logging

You can configure the BarTender System Database to log the messages that it generates about itself. These messages include the following:

- Database maintenance updates
- Backup reports
- Purge and restore reports
- System errors and warnings
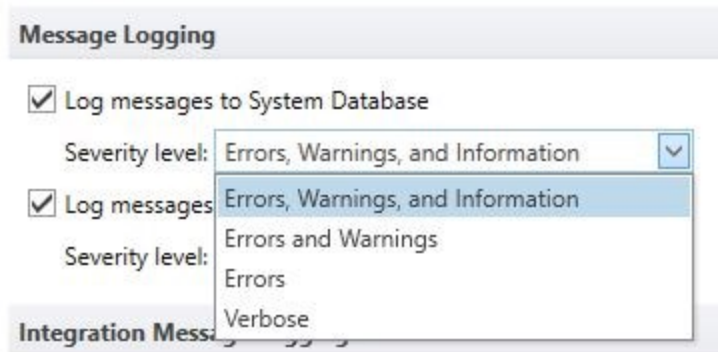
You can view System Database messages in History Explorer. For more information, refer to the History Explorer book of the BarTender help system.

Integration Message Logging

You can specify that messages about Integration Builder integration events and actions are logged to the System Database. You can configure the options so that initial variable values are included in the log or limit the logged information to failed integrations only.

Cache Options

If the connection to the BarTender System Database is lost for any reason, the BarTender System Service can cache print job data to an external file until the connection is restored.

Although this option can minimize data loss if the database connection is disconnected and not immediately restored, the cached data can use a large amount of memory or even fill your hard disk. This is more likely to occur in large production environments or in the case of an unexpected long-term connection loss.

To prevent the BarTender System Service from using all of the available disk space on the computer for caching purposes, you can reserve a minimum amount of disk space that cannot be used for caching. When the file cache reaches the defined reserve minimum, caching stops, and the BarTender System Service sends an error message to the event log that states the available disk space limitations and also sends a warning that future print data will be lost.

BarTender System Database Maintenance

The BarTender System Database can become very large over time by storing old records that you might no longer need. This can slow the System Database performance and take up large amounts of disk space. You can use Administration Console to perform administrative tasks to help you maintain the BarTender System Database by deleting or archiving records. You can also use Administration Console to back up and restore the database.

Maintenance Page

On the Administration Console **Maintenance** page, you can perform the following tasks:

- Create a regular maintenance schedule to delete records that are older than a specified number of days, weeks, or months.
- Optionally archive the deleted records.
- Manually run maintenance whenever you want.

Administrative Tasks Page

On the Administration Console **Administrative Tasks** page, you can perform the following tasks:

- View the database. To do this, click **View Database Size** to see a detailed view of the current database size and data allocation.

- Manually run maintenance. After you configure a database maintenance schedule, you can choose to manually run maintenance whenever you want. To do this, click **Run Maintenance Now**.

- Back up the database. To do this, click **Backup Database** to save the contents of the BarTender System Database to a *.bak file. You can save the file to the default location or browse to another location on your computer or network.

- Restore the database. To do this, click **Restore Database** to specify a *.bak file to restore.

- Purge the database. To do this, click **Purge All Records Now** to delete all information that is logged to the BarTender System Database, including print job information, application messages, and other events. This option does not delete files that are stored in Librarian, global data fields, or other configuration information. We recommend that you back up your database before you purge it.
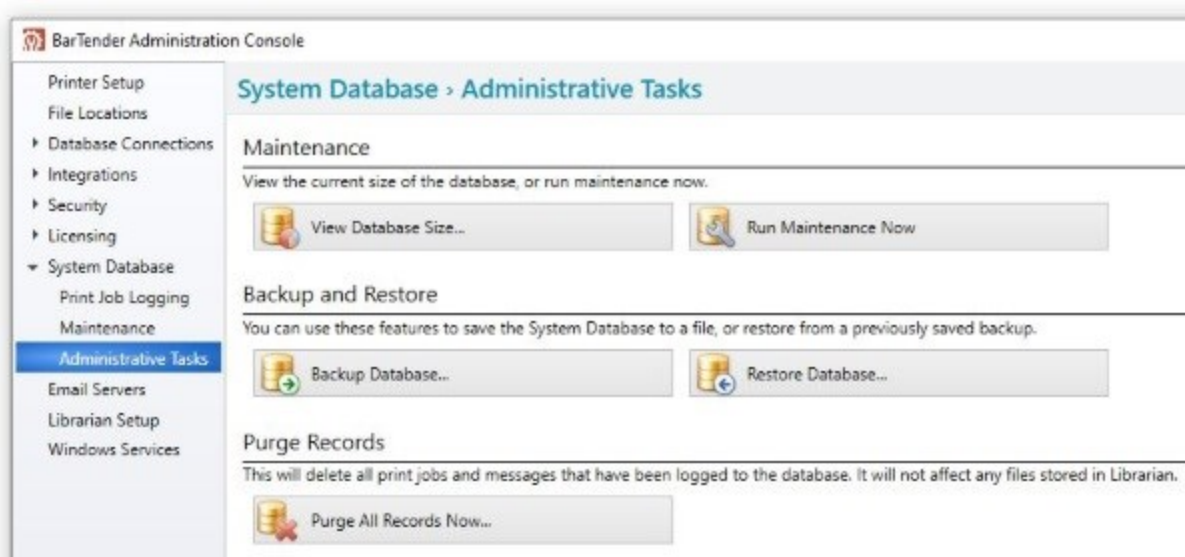
For more information, refer to the Performing Database Maintenance topic in the BarTender help system.

BarTender System Database Security

In the BarTender System Database Setup wizard, when you customize your connection settings, you can choose the authentication type that you want to use to control access to the server.

If you select Windows authentication, you can use the Windows users and groups functionality to control access to the System Database. If you select SQL Server authentication, you can configure user credentials (user name and password) to control access to the System Database. In either case, a user who tries to modify the System Database that is installed on that computer is prompted for user credentials. If the user does not have the required authentication permissions, they cannot modify the database.

Additional Security Options

To prevent users from inadvertently changing System Database settings, use the Administration Console **User Permissions** page to deny access to users or groups who do not regularly maintain or administer the System Database.
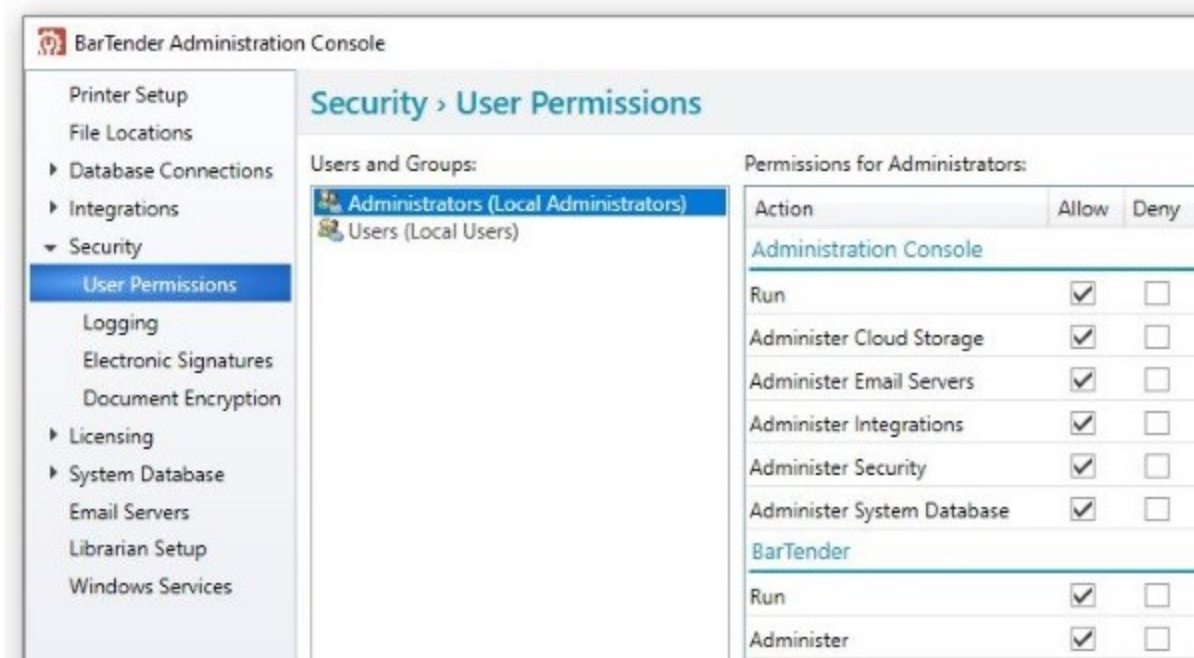
You can restrict access by using the following permissions:

- In the **Administration Console** list, use the **Administer System Database** permission to control access to the **System Database** node of Administration Console. When users are denied this permission, they cannot maintain or administer any System Database that is connected to this computer.
- In the **System Database Setup** list, deny the **Administer** permission to prevent users from creating a new BarTender System Database or from connecting to an existing one.

For more information, refer to the Defining User Permissions topic in the BarTender help system.

System Database API

The System Database application program interface (API), which is part of the BarTender.NET SDK, provides access to information that is stored in the BarTender System Database. By using the System Database API, developers can connect to a BarTender System Database and search for, retrieve, and filter the data that is stored on it. This provides quick access to detailed information about the following items:

- BarTender Suite application messages
- BarTender print jobs
- Printer Maestro print jobs
- Printer Maestro events
- Printer Maestro inventory
- Security permission checks

To use the System Database API, you must have the Automation or Enterprise edition of BarTender installed.

For more information, refer to the **System Database API** topic in the BarTender help system (available in the help system that is installed with Bartender).

Upgrading the BarTender System Database

We regularly release the following types of software updates:

- *Service releases* include fixes and minor feature upgrades. These updates are always free and require only that you download the latest version from our website and install it over the existing BarTender installation. Usually, a service release does not require you to upgrade the BarTender System Database.

- *Full version upgrades* include new features and updated software architecture as needed to meet the evolving needs of our customers. A full version upgrade requires that you also upgrade the BarTender System Database.

For information about how the BarTender System Database is upgraded during a BarTender upgrade, refer to the BarTender online Support Center article about BarTender version upgrades.

- Updating to BarTender 2019
  https://support.seagullscientific.com/hc/articles/360020811153

- Updating to BarTender 2021
  https://support.seagullscientific.com/hc/en-us/articles/360056301453-Updating-to-BarTender-2021

Related Documentation

Technical Documents

- *Administration Console*
- *History Explorer*
- *Integrating with BarTender Integration Builder*
- *Librarian*
- *Reprint Console*

To view and download technical documents, visit:

https://www.seagullscientific.com/resources/white-papers/

User Guides

- *Getting Started with BarTender*
  https://support.seagullscientific.com/hc/categories/200267887

BarTender Help System

- System Database
- Setting Up the BarTender System Database
- Performing Database Maintenance

Other Resources

Please visit the BarTender website at *https://www.seagullscientific.com*.

Please visit the BarTender online Support Center at *https://support.seagullscientific.com/*.

- Updating to BarTender 2019
  https://support.seagullscientific.com/hc/articles/360020811153

- Updating to BarTender 2021
  https://support.seagullscientific.com/hc/en-us/articles/360056301453-Updating-to-BarTender-2021

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