



Revision Control

Solutions to Protect Your Documents
and Track Workflow

Supports the following BarTender software versions:
BarTender 2019

Contents

- Overview** 3
- Common Revision Control Systems** 4
 - Revision Control Systems 4
 - Using BarTender with Revision Control Systems 4
 - Limitations of Windows Security 5
- Librarian** 6
 - Librarian Features 6
 - Benefits of Using Librarian with BarTender 7
 - File States, Publishing and Workflow in Librarian 8
 - Security Considerations 9
- Related Documentation** 10

Overview

A *revision control system* tracks changes that users make in directories or files and prevents one user from overwriting the work of another. Some revision control systems also establish and track workflows for the progression of a file through a series of states. The collection of files and directories in a revision control system is usually called a *repository*.

You can use a revision control system to specify the directory, file or group of files whose changes you want to be tracked. Typically, this is done by having users check files in to and out of a repository. Changes are tracked as the user edits the folder or file, and these changes are visible to all users after the item is checked back in. Each revision is annotated with a timestamp and the user name of the person who made the changes.

Some of the benefits of revision control include the following:

- Automatic revision numbering for easy tracking.
- Enhanced security: The check-in and check-out system not only prevents one user from overwriting another's work, but it can also prevent unauthorized or malicious users from accessing a document.
- Workflow states, which some revision control systems include so that you can track the progress of a document towards publishing and establish a logical, traceable workflow.

BarTender can work with almost any revision control system. In addition, the Enterprise edition of BarTender supports Librarian, which is a revision control system that was created specifically for use with BarTender. Librarian offers smooth integration with BarTender and a high level of security.

Common Revision Control Systems

Many brands and types of revision control systems are available. Evaluate your company's needs and then decide which version control software is best for you. Whatever system you choose, BarTender almost certainly can work with it.

If you are running the Enterprise edition of BarTender, consider using Librarian, which is built specifically for use with BarTender. For more information, refer to the [Librarian](#) chapter of this white paper.

Revision Control Systems

These fully featured revision control systems support the features that are listed in the previous chapter. They vary slightly and may include additional features that this white paper does not describe. Evaluate each one to determine the system that works best for you.

Open source revision control systems include the following:

- Concurrent Versions System (CVS)
- Apache Subversion
- Vesta Configuration Management System

Proprietary revision control systems include the following:

- Micro Focus AccuRev
- Autodesk Vault
- Computer Aided Design and Evaluation System (CADES)
- Perforce
- Micro Focus PVCS (formerly Polytron Version Control System)
- Microsoft Team Foundation Server (TFS)
- Microsoft SharePoint

Using BarTender with Revision Control Systems

To use BarTender with your chosen revision control system, follow these steps:

1. Install the system, and then configure security as needed.
2. Check your BarTender documents in to the system.
3. To open a document, click **Open** on the BarTender **File** menu, and then select the document from the revision control system's repository.
4. Follow the system's check-out or security procedures to unlock the file and then open it in BarTender.
5. Use BarTender to edit the file.
6. Save the file in BarTender, and then check it back in to the system repository by using that system's controls.

Add new BarTender documents to your system by saving them to your system repository from BarTender or by otherwise following your system's check-in procedures.

Limitations of Windows Security

Windows Security is not a revision control system, although it offers a limited amount of document protection. It is not a high-security system.

By using Windows, you can do the following:

- View a document's properties, including the file type, location, date created, date modified, and date accessed.
- Set a document to read-only.
- Configure your system to save previous versions of your documents, so that you can restore them if you need to.
- Edit permissions for users and groups that define what document-related actions they can take.

You cannot check files in and out or track file states by using Windows Security. For more information, refer to your Windows documentation.

Librarian

Librarian is one of the companion applications in the BarTender Suite. Groups of designers, administrators and other users can use it to cooperatively and securely store and revise BarTender documents and other files.

Librarian can help you manage any printing system, but it is particularly valuable in highly regulated environments (such as the medical and pharmaceutical industries) and highly secure environments (such as the military and chemical industries).

Librarian is integrated with many companion applications in the BarTender Suite, so you can save BarTender-related files in the companion applications and then open them in Librarian.

Use the Librarian file management features together with the Administration Console security permissions settings to take advantage of the publishing workflow, revision control, and record keeping features that are not available with more conventional file management systems.

Librarian is supported by the Enterprise edition of BarTender.

Librarian Features

- Centralized file storage and management means that files are stored in a database repository rather than “loose” on various hard drives. In Librarian, the repository is the Library folder.
- Check-in and check-out functionality prevents users from overwriting each other's changes.
- The revision control system retains copies of all previous versions of a file so that you not only have a history of who made what changes to the file and when, but you can also retrieve copies of the previous versions and revert to an older version.
- You can specify custom-named workflow states for files that are in different phases of the publishing process and create rules that govern the workflow. This makes it easy to manage multiple levels of review before a document is published.
- Native integration with BarTender and the companion applications means that BarTender documents that are stored in Librarian can be opened in BarTender for printing and modification.
- Integrated security features give administrators control over which users can access files in Librarian and the actions that users can take with the files.
- You can use the defined file reference syntax to reference files in the Library folder from any application in the BarTender Suite.
- Developers can use the Librarian application program interface (API), which uses any .NET language, to check files in and out of Librarian, to revert to specific revisions of a file, and to get file information that is saved to the BarTender System Database.

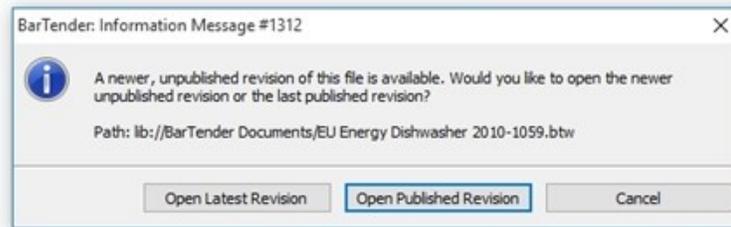
Benefits of Using Librarian with BarTender

The following features make the process of using Librarian with BarTender smooth, effective and convenient.

Enhanced File Opening Functionality

When a user clicks **Open** on the BarTender **File** menu, Librarian offers different levels of functionality based on the user's permissions, as follows:

- When a user who has Full File Control permissions opens a file that is stored in Librarian, and the most recent revision of the file is in a “published” state, then that revision is automatically opened. Otherwise, the user is prompted to choose between opening the most recently published revision (even though it is not the latest revision) and opening the most recent overall revision (even though it is not yet in a published state).



- When a user who has limited file access opens a file that is stored in Librarian, the most recently published version of the file is opened (regardless of whether it is the most recent revision overall.) Unpublished files are not displayed for this user in the BarTender **Open** dialog.

Automatic Check Out

When a user first opens a BarTender document that is stored in Librarian, a lock icon appears in one of the corners of the template design area in BarTender.

If the user has the correct check-out permissions in Administration Console, BarTender prompts the user to decide whether to automatically check the file out. The user does not need to open Librarian to check the file out.



Enhanced File Check-in and Saving Functionality

BarTender can automatically check in and save BarTender documents to the Library.

- **Automatic check in:** When you check a BarTender document out of the Library and then use BarTender to edit and save changes to that document, the document is automatically checked back in at the time of the save operation. This process also automatically creates a new revision of the document in the Library that is marked with a new revision number.

- **Automatic save:** When a new BarTender document is saved in BarTender, it is also automatically saved to the Library. If you defined a workflow in Librarian, you are prompted to specify an initial state for the file.

Syntax for Referencing Files in the Library

Librarian offers a syntax for referencing files in the Library. This syntax more closely resembles an Internet location than a hard drive location, as follows:

```
lib://<path>/<filename>
```

Note that this URL uses forward slashes instead of backslashes. The "lib://" term is always required to reference files in the Library.

There are several ways to reference files in the Library by using this syntax. For more information, refer to the *Librarian* white paper:

<https://www.bartendersoftware.com/resources/white-papers/>

File States, Publishing and Workflow in Librarian

Librarian has tools to make your document production process work smoothly and to help you keep track of a document's progress from first draft to publishing.

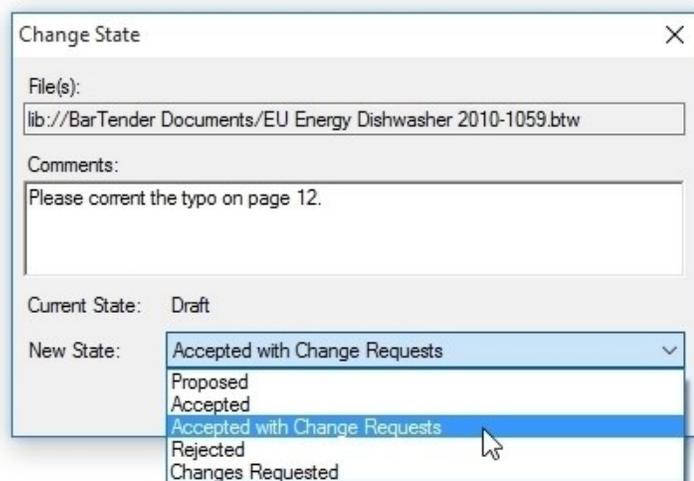
File States

You can use Librarian to configure custom states for a file so that you can track it throughout the production process. Examples of file states include "First Draft," "Editorial Review," "Project Manager Review," "Legal Review," and so on. You can create states that are specifically tailored to your publishing needs.

To configure file states, click **Workflow Setup** on the **Administer** menu to open the **Workflow Setup** dialog.

Changing File States

You can change the state of a file by selecting the file in Librarian and then clicking **Change State** on the Librarian **File** menu.



File State Settings and Publishing

You can refine the states that are assigned to a file by editing the **Properties for Selected State** options in the **Workflow Setup** dialog, as follows:

- **Allowable initial state:** Specifies that you can use the state as the initial state for a file.
- **Default initial state:** Specifies a default state for all new files that are checked in to Librarian.
- **Published:** Specifies the file's state and allows the Administration Console security settings to control access to the document. For example, users who have only Open Published Files permissions can open only those files that are assigned a “published” state. If two or more revisions of a file are assigned a "published" state, these users can open only the most recently published revision.

In the **Properties for Selected State** options, you can use **Allowable Previous State** and **Allowable Subsequent State** to define allowable file state transitions, which is an important part of a true file publishing workflow.

For example, suppose that you create file states that are called **Draft**, **Proposed**, and **Approved**. You can impose an approval process workflow by requiring that files that are set to **Draft** must first be transitioned to **Proposed** before they can be transitioned to **Approved**.

Security Considerations

For secure file management and revision control, you must correctly configure your system's security settings. This includes assigning user access rights by using the Windows security system and by configuring the Librarian settings in the Security module in Administration Console. For more information, refer to the *Librarian* and *BarTender System Security* white papers:

<https://www.bartendersoftware.com/resources/white-papers/>

Related Documentation

White Papers

- *Librarian*
- *BarTender System Security*

To view and download white papers, visit:

<https://www.bartendersoftware.com/resources/white-papers/>

Manuals

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

BarTender Help System

- [Librarian](#)

Other Resources

Please visit the BarTender website at <https://www.bartendersoftware.com>.

