BarTender®

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Revision Control
Solutions to Protect Your Documents
and Track Workflow

Contents

Overview

A *revision control system* is based around the concept of tracking changes that happen within directories or files, and preventing one user from overwriting the work of another. Some revision control systems are also used to establish and track workflow for the progression of a file through a series of states. The collection of files or directories in a revision control system are usually called a *repository*.

These systems allow you to specify a directory, file or group of files that will have their changes tracked. This frequently entails users "checking out" and "checking in" files from a repository. Changes are tracked as the user edits the folder or file; these changes will be visible to all users once the item is checked back in. Each revision is annotated with a timestamp and the person making the change.

Some of the benefits of revision control include:

- Automatic revision numbering for easy tracking.
- Enhanced security. Not only does a "check in" and "check out" system keep one user's work from overwriting another, it can prevent unauthorized or even malicious users from accessing a document.
- Some revision control systems include publishing "states," which allow you to track the publishing progress of a document and establish a logical, traceable workflow.

BarTender can work with almost any revision control system. The Enterprise Automation edition of BarTender includes Librarian, a revision control system created specifically for use with BarTender. Librarian offers smooth integration with BarTender, and a high level of security.

Common Revision Control Systems

There are many brands and types of revision control systems. Evaluate your company's needs, and decide which version control software is best for you. Whatever you choose, BarTender can almost certainly work with it. Or, if you have the Enterprise Automation edition of BarTender, consider using Librarian, which is built specifically for use with BarTender.

Revision Control Systems

These systems are full-fledged revision control systems and support the features listed in the Overview. They vary slightly and may include additional features not discussed in this white paper. Evaluate each one to determine the system that works best for you.

There are a number of open source revision control systems available. Some of the most common include:

- Concurrent Versions Systems (CVS)
- Subversion (SVN)
- Vesta

There are many, many proprietary revision control systems. Some of the most common include:

- AccuRev
- Autodesk Vault
- Computer Aided Design and Evaluation System (CADES)
- Perforce
- Polytron Version Control System (PVCS)
- Team Foundation Server
- Sharepoint
- Vault

Using BarTender with Revision Control Systems

To use BarTender with your chosen revision control system:

1. Implement the system and set up security as needed.
2. Check your BarTender documents into the security system.
3. When you're ready to open the documents, select **Open** from the BarTender **File** menu, and select the document from the revision control system's repository.
4. Go through the required check-out or security procedures for your system to unlock the file and open it in BarTender.
5. Edit the file with BarTender.
6. When you've finished editing, save the file in BarTender, and check it back in to the system repository using that system's controls.

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

Limitations of Windows Security

Windows Security is not a revision control system, although it offers a certain amount of document protection. Note that this is not a high-security system. Using Windows, you can:

- 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 you can restore them if you need to.
- Edit permissions for users and groups that define what they can and can't do with a document.

Note that you *cannot* check files in and out or track file states using Windows Security.

For details, refer to your Windows documentation.

Librarian

Librarian is one of many Companion Applications in the BarTender Suite. It lets groups of designers, administrators and other users cooperatively and securely manage the storage and revision of BarTender documents and other files. Librarian can help you better 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 applications in the BarTender Suite, so that you can save BarTender-related files from the Companion Applications and open them from Librarian.

Librarian's file management features, in combination with precisely set Administration Console security permissions, provide you with a level of publishing workflow, revision control, and record keeping simply not available with more conventional file management systems.

NOTE: Librarian is supported only by the Enterprise Automation edition of BarTender.

Librarian Features

- **Centralized File Storage and Management** allows you to store files in a database rather than "loose" on various hard drives.

- Librarian's **Check-in and Check-out** functionality prevents users from overwriting each other's changes.

- A robust **Revision Control** system retains copies of all previous versions of a file so that you not only have a history of who has made what changes and when, but you can retrieve actual copies of the previous versions and even "roll back" to an older version if desired.

- Defining and implementing a **Workflow** allows you to specify custom named "states" for files that are in different phases of the publishing process and builds upon user-defined file states by adding rules for the allowable transitions between the files states. This makes it easy to manage multiple levels of review prior to publishing.

- Native **Integration with BarTender and Companion Applications** allows BarTender documents stored in Librarian to be directly loaded from within BarTender for printing and modification.

- Integrated **Security Measures** provides administrators with control over which users can access files within Librarian, and what the users can do with the files.

- A defined **Syntax for Referencing Files in the Library** lets you directly reference files in the Library from any application within the BarTender Suite.

- The **BarTender .NET Librarian SDK** allows a developer to check files in and out of Librarian, roll back to specific revisions of a file and get file information that is saved to the BarTender System Database using any .NET programming language.

Benefits of Using Librarian with BarTender

There are a number of features that make using Librarian with BarTender smooth, effective and convenient.

Enhanced File Opening Functionality

Librarian offers enhanced functionality when you select **Open** from the BarTender **File** menu.

- For users with **Full File Control**: If you open a file stored in Librarian from BarTender and the most recent revision of the file is in a "published" state, then that revision is automatically opened. Otherwise, a dialog opens prompting you to choose between opening the most recently published revision (even though it is not the latest revision) or opening the most recent overall revision (even though it is not yet in a published state).
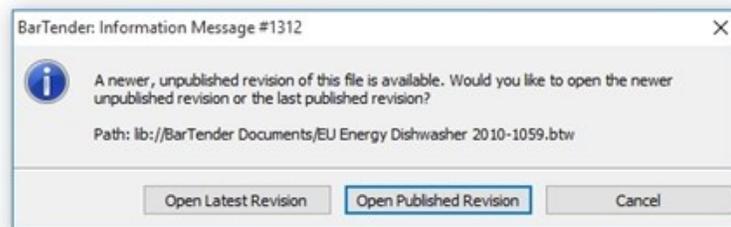
- For users with limited file access: The most recently published version of the file will be opened (regardless of whether or not it is the most recent revision overall.) Unpublished files are not displayed for this user in BarTender's **Open** dialog.

Automatic Check Out

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

If the user has the correct permissions in Administration Console, BarTender will ask them if they want to automatically check out the file. They don't have to go into Librarian to check the file out.

Enhanced File Save

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

- **Automatic Add:** New BarTender documents can be saved from BarTender and added directly into the Library. If you have defined a workflow in Librarian, you will have the opportunity to specify an initial state for the file.
- **Automatic Check In:** If you have a BarTender document checked out of the Library, and you use BarTender to edit and save changes to that document, then the document is automatically checked back in at the time of the save. This also automatically creates a new revision of the document in the Library, marked with a new revision number.

Syntax for Referencing Files in the Library

Librarian offers a syntax for referencing files in Librarian's Library quickly and easily. This syntax more closely resembles an internet location than a hard disk location:

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

Note that this internet-style URL uses forward slashes instead of backslashes. (The "lib://" at the beginning is always required to reference files in the Library.)

There are a number of methods for referencing files in the Library using this syntax. For more information, see the **Librarian** white paper:

> http://www.seagullscientific.com/support/white-papers

File States, Publishing and Workflow in Librarian

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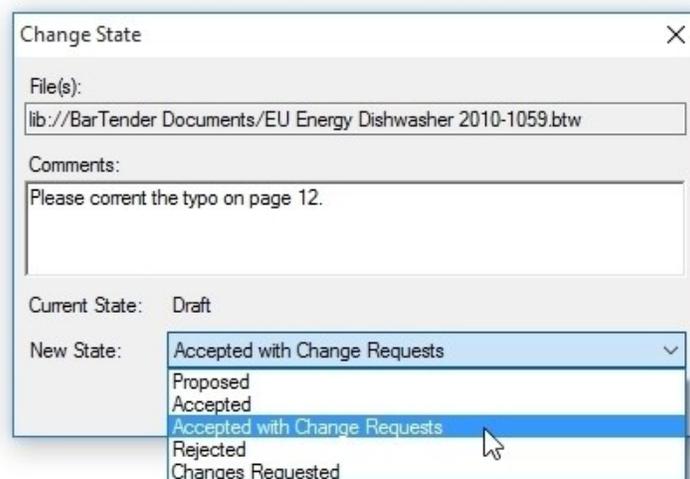
File States

Librarian lets you set a custom "state" for a file, so you can keep track of it throughout the production process. Examples of file states might 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.

You can define states for your document from the **Workflow Setup** dialog, accessed from the Librarian **Administer** menu.

Changing File States

You can change the state of a file at any time by selecting the file in Librarian, then selecting **Change State** from the Librarian **File** menu.

File State Settings and Publishing

You can refine states assigned to a file by editing the **Properties for Selected State** options in the **Workflow Setup** dialog.

- Set an **Allowable initial state** for add and check in. This means that you can use the state as the initial state for a file, but you don't have to.
- Set **Default initial state** for add and check in. This sets a default state for all new files checked in to Librarian.
- Mark a document **Published**. This not only defines the file's state, it allows Administration Console's security settings to control access to the document. Users whose permissions in Security Center are limited to **Open Published Files** will only be able to open files that have been assigned a "published" state. If two or more revisions of a file stored in the Library have states with the **Published** property enabled, users whose permissions are limited in Administration Console to **Open Published Files** will be able to 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 transactions. Setting allowable file state transactions is an important part of implementing true file publishing workflow.

For example, if you choose to have states called **Draft**, **Proposed**, and **Accepted**, you can impose an approval process by requiring that files that are set to **Draft** must first be **Proposed** before they can be **Approved**. (This is just an example. You can name your file states anything that you like, and create your own custom rules governing their workflow.)

Don't Forget About Security!

For secure file management and revision control, you also need to properly configure your system's security settings. This includes properly assigning access rights using Windows' security system and configuring the Librarian sections of the Administration Console's security settings. For more information, refer to the following white papers:

- Librarian
- BarTender System Security

http://www.seagullscientific.com/support/white-papers

Related Documentation

White Papers and Manuals

- Librarian
- BarTender System Security

For downloadable versions, visit:

http://www.seagullscientific.com/support/white-papers

BarTender Help System

- Librarian