

Innovar Channel History Plugin

Git v2.1

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Introduction

Welcome to the Channel History plugin documentation for BridgeLink. This plugin is designed to allow you to utilize Git version control automatically with BridgeLink interface development.

NOTE: Channel History Plugin can be used with both BridgeLink and Mirth Connect.

Why channel history?

During the development of healthcare interfaces, the importance of version control can not be overemphasized. As more and more clients are on board with your team, it is challenging to track the progress of programming development on the BridgeLink engine. Therefore, Innovar built this channel history plugin that not only provides the differing view of commits within the BridgeLink administrator tool but automatically pushes the commits to your remote repository. With this powerful plugin, you will no longer lose track of your code and will be able to restore to the previous version quickly.

Key Features

- History and Rollback: The ability to view the history of changes and roll back to previous versions is crucial. If a new change introduces a bug or an issue, it can be reverted to a stable state quickly.
- Remote Repository: Storing BridgeLink channels and code templates on GitHub provides a remote backup. This is essential for disaster recovery, ensuring that configurations are not lost due to local hardware failures or other issues.

Getting Started

Before you dive into the documentation, make sure to review the installation prerequisites and check compatibility with your existing BridgeLink setup. The subsequent sections will guide you through the configuration and how to use the Channel History plugin.

Let's get started!



Installation

If you are subscribed to the BridgeLink package from Innovar Healthcare on the AWS Marketplace, the extension should be pre-installed in the 'BridgeLink Standard Edition an Open Source Mirth Connect Fork', 'BridgeLink Enterprise Edition an Open Source Mirth Connect Fork versions'.

If, for some reason, you need to reinstall or update the plugin, you can do this from the BridgeLink application.

You can find the latest version of the plugin, as well as older releases and user guides, on our Innovar Website or here:

https://innovar-userdocuments.s3.us-east-2.amazonaws.com/index.html

- 1. While logged into BridgeLink, click on **Extensions**, then at the bottom of the screen, click **Browse**
- 2. A new window will pop up to allow you to browse for your plugin zip file on your local machine.
- 3. Browse to the appropriate zip file and click **Open**. Once back on the Extensions screen, your file path should be filled in.
- 4. Click **Install** to upload the file.
- 5. Once completed, you will need to restart the BridgeLinkt Service on the remote server.

Prerequisites

You will need to create a new repository on a version control platform (such as GitHub, Bitbucket, AWS CodeCommit, etc.) and attach your SSH public key to the remote repository. Below we will provide information on Bitbucket and Github.

Steps to Configure Your SSH Key in Bitbucket

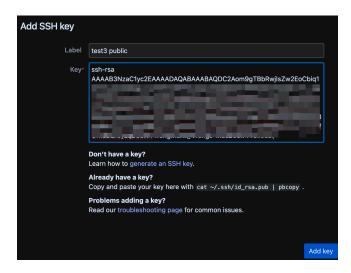
1. Use the following command to generate an SSH key pair. It will create a key pair named "test3", where "test3" is the private key and "test3.pub" is the public key.

ssh-keygen -t rsa -b 2048 -f test3



2. Go to your version control tool and add the public key to your user account or target repository.

Example for Bitbucket:



3. Please run the following command to convert your ssh private key into PEM format. Make sure you back up your private key first.

```
cp test3 test3_backup
ssh-keygen -p -f test3 -m PEM
```

Then you are good to upload the private key PEM file to the channel history plugin setting!

Configure SSH key on GitHub

1. Please use the following command to generate the ssh key:It will create a key pair "test3". The "test3" file is the private key and the "test3.pub" file is the public key.

ssh-keygen -t rsa -b 4096 -E sha256 -m PEM -f test3

2. Go to your GitHub repository. Select "Settings" > "Deploy keys" > "Add deploy keys". Paste your ssh public key and click "Add key".

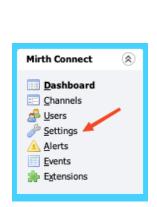


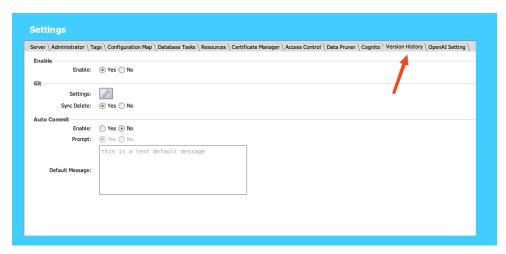


Then you are good to upload the private key PEM file to the channel history plugin setting!

Plugin Configuration

1. In the BridgeLink window, click on **Settings**. You will see a new tab for **Version History**.



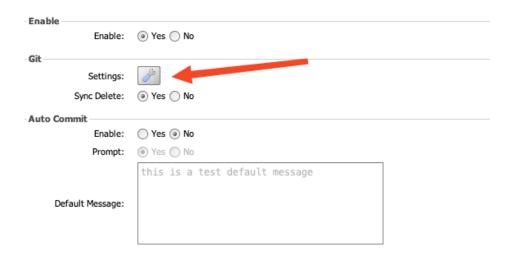


2. Please check **Enable** to enable the plugin.

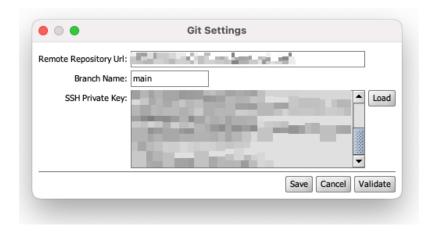




3. Under the Git field click the **Settings tool** and a pop up window will appear.



4. On the Git Settings window, Add your remote repository URL, your branch name and your SSH Private Key. For the Private Key, you can paste it on the text area or simply click **Upload** and select the key file from your directory.





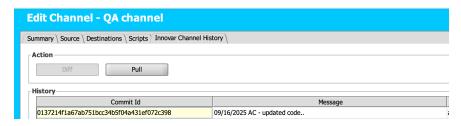
5. After adding the information, click **Validate** to make sure it works and you will see a successful message. Make sure you click **Save** after validating your Settings.





- 6. Under the Auto Commit field, you can Enable it to allow the application to automatically commit changes to the remote repository. If you prefer to commit manually, simply select **No**.
- 7. You can also add a default message that will appear when the code Auto Commits.







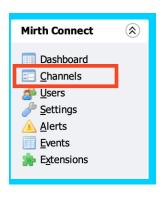
8. Make sure you click **Save** after making your changes on the Task Panel. The channel history plugin will clone your remote repo to /opt/mirthconnect/appdata/InnovarHealthcare-version-control folder

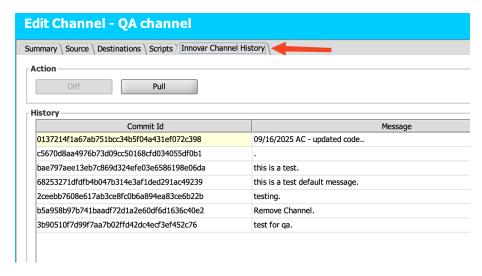


View Channel Code History

After configuring the settings, you can view the code history for channels. To do so, make a change to the target channel and save it.

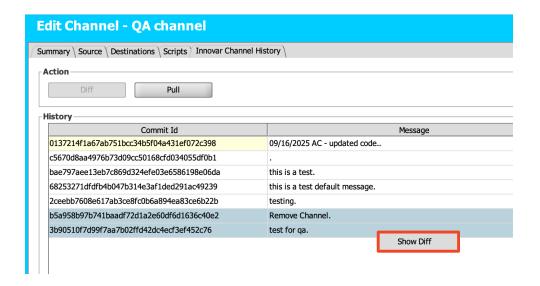
1. Please go to **Channels** and select the target channel. Go to the **Innovar Channel History** tab.

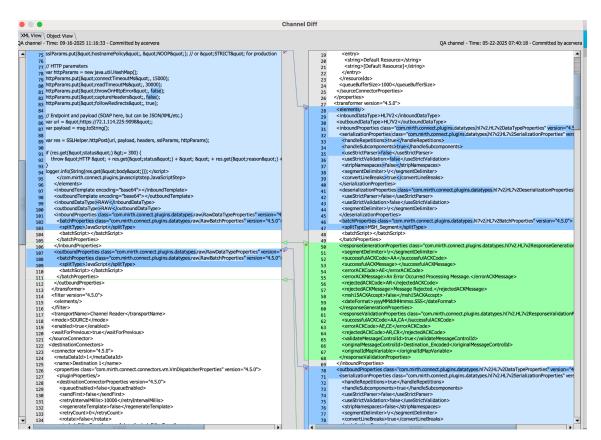






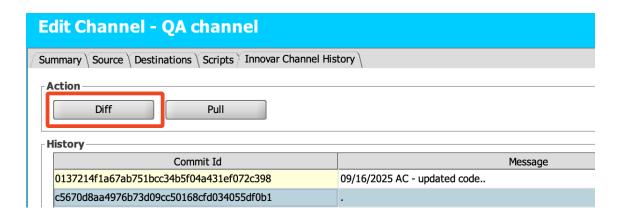
2. Press the Control key on your keyboard, click on two commits that you want to compare and then click **Show Diff**. The Diff window shows the difference between 2 commits.

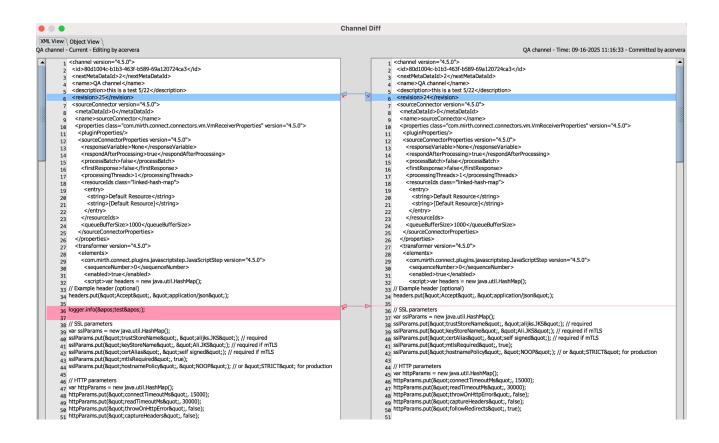






If you select 1 of the versions and click the **Diff** button, it will open the Channel Diff window where you can see the Current version of the Channel on the left and the version you are comparing it with on the right.





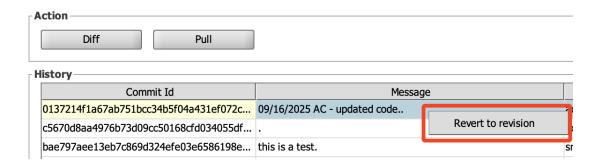


Remote Repository Features

Retrieving channel revision

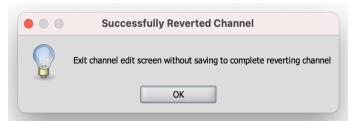
Retrieving channel revision from repo refers to the process of fetching the latest version or specific revision of a channel stored in the remote repository.

1. Within your channel, right-click on the commit you wish to revert to and select **Revert Revision**.



2. Select **Yes** to revert the channel to the selected revision. Then press **OK** to exit the channel edit screen.



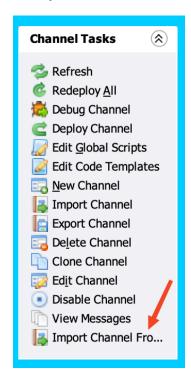


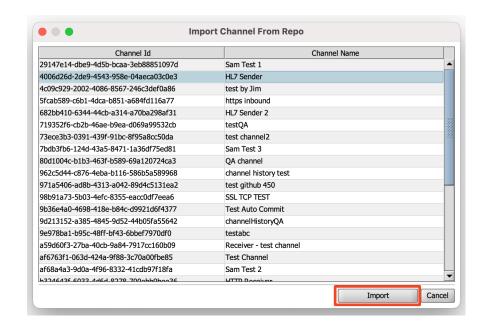


Import a Channel

You can import channels into BridgeLink directly from the repository.

 On the Channels Tab and under the Channel Tasks panel, select Import Channel from Repo. A list with the available channels to import from your repository will appear and you can select which one you want to import.

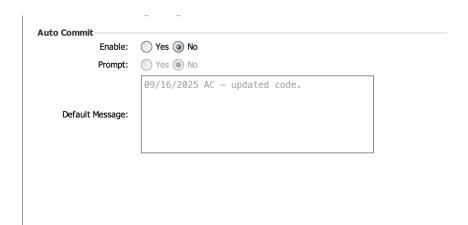




2. Click **Import** and save the Channel Settings.

Manual/Auto Commit

In Channel History Settings, there is an Auto Commit option.





When Auto Commit is enabled, the Commit & Push action will not be visible and you only
will be able to see Diff and Pull.



 When Auto Commit is disabled, there will be three action options Diff, Commit & Push, and Pull under the Channel History tab on each of your channels.



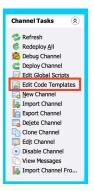
Code Templates

View history on Code templates

We can also review the code template history. Start by modifying the target code template and saving it.

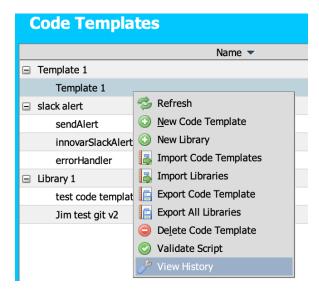
1. Click on **Channels** and select **Edit Code Templates** in the Channel Tasks.



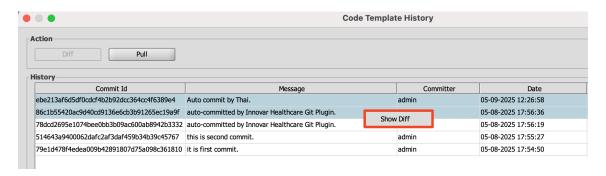




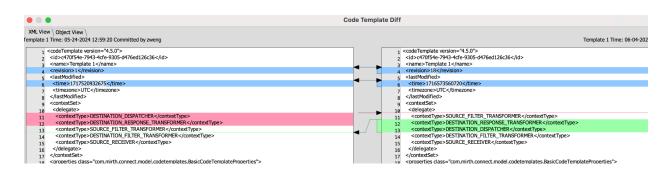
2. Highlight the code template that you want to check the History for, right-click, and select **View History**.



Select two commits in the Code Template History window, right-click, and choose Show Diff.



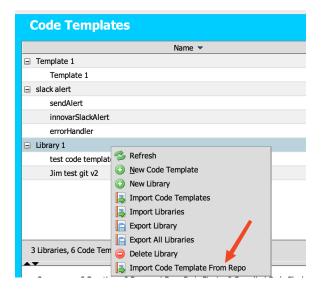
4. The Diff window displays the differences between the two selected commits.

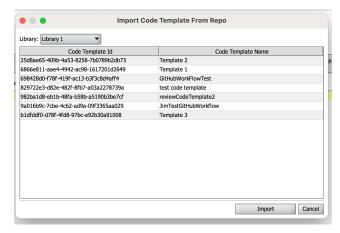




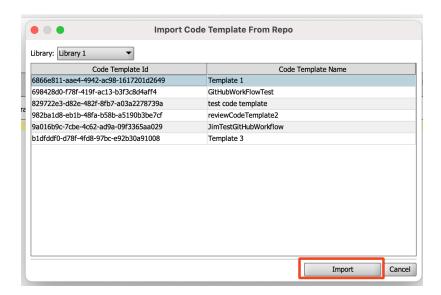
Import code templates

1. Right click on a library and select Import Code Template From Repo.



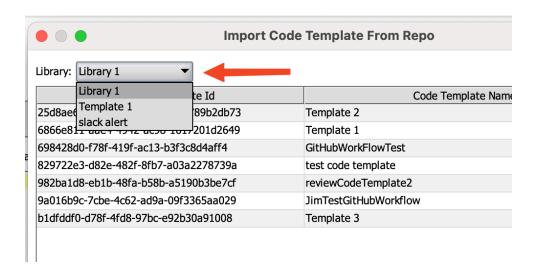


2. Choose the code template you want to import from the list and click Import.



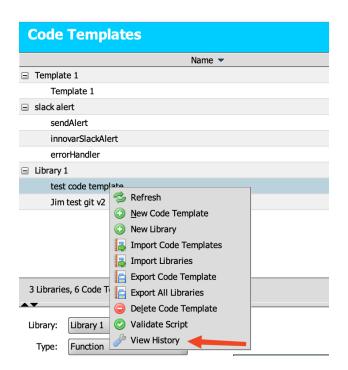


3. The imported Code Template will appear under the selected library. Also you can select which library you want to import it on the dropdown button.



Revert code template changes

1. Right click on the template and click View History.





2. Right click on the desired commit and press Revert to revision.



3. Press **Yes** and the Code Template will be reverted to the version selected.



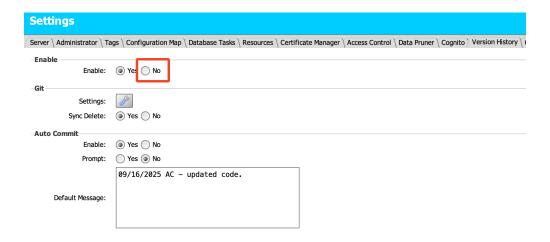


Disabling the Channel History Plugin in BridgeLink

Sometimes, committing and pushing every change to the remote repository might not be necessary. This section explains how to disable the Channel History plugin.



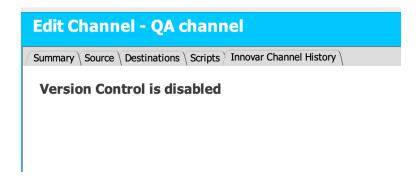
1. Navigate to the settings and click on the Version History tab and under Enable field, select **No**.



2. Click **Save** on the task panel to disable the plugin.



3. Now you will see this message under the Innovar Channel History tab on your channels.





View the code history on remote repository

The Channel History plugin pushes every new commit to your remote repository. The XML files for channels and code templates are stored in their respective folders, with the XML file names corresponding to either the channel ID or the code template ID.

