

Cloudera Flow Management 2.1.5

Using DataFlow Catalog Registry Client

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The Cloudera logo is displayed in a bold, orange, sans-serif font. The word "CLOUDERA" is written in all caps, with a stylized 'E' that has a horizontal bar extending to the right.

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Creating a machine user

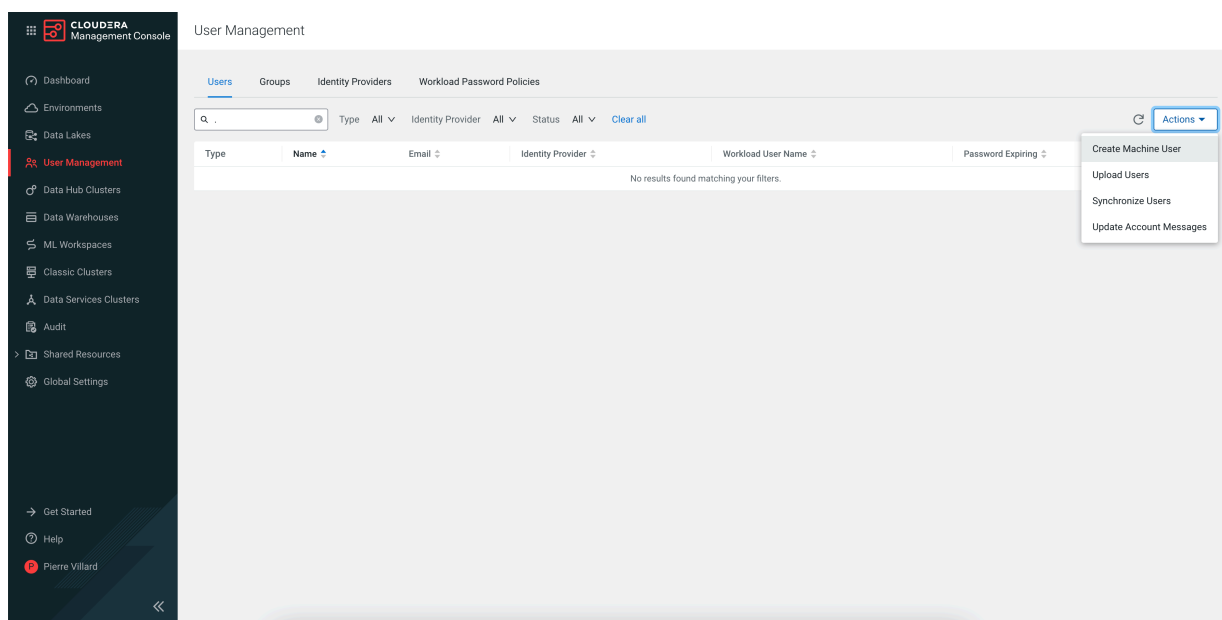
Learn how to create a machine user with the proper roles for the DataFlow Catalog and generate credentials.

Before you begin

You are a Cloudera customer for CDP Public Cloud.

Procedure

1. Log in to the CDP Public Cloud web interface.
2. Navigate to Management Console User Management to create a machine user that will be used by NiFi to interact with the DataFlow Catalog.
3. Select Create Machine User from the Actions menu on the Users tab.



- Give the user a meaningful name and give it the proper roles:

DFCatalogViewer

It gives read-only access to the DataFlow Catalog. This is enough if you just want to check out existing flows from the Catalog.

DFCatalogAdmin

It gives read-write access to the DataFlow Catalog. This would allow you to version and control flows from NiFi into the Catalog, and to check out existing flows from the Catalog.

The screenshot shows the Cloudera Management Console interface. On the left is a navigation sidebar with options like Dashboard, Environments, Data Lakes, User Management, Data Hub Clusters, Data Warehouses, ML Workspaces, Classic Clusters, Data Services Clusters, Audit, Shared Resources, and Global Settings. The main content area displays the details for a user named 'DFCatalogRegistryUser'. The user's metadata includes: Name (DFCatalogRegistryUser), Workload User Name (srv_dfccatalogregistryuser), CRN (cm:altusiam:us-west-1:9d74eee4-1cad-45d7-b645-7ccf9edbb73d:machine...), Tenant ID (9d74eee4-1cad-45d7-b645-7ccf9edbb73d), Creation Date (12/14/2022 7:10 PM CET), Workload Password (Set Workload Password), and Azure Object ID (Not available). Below the user details, there are tabs for Access Keys, Roles, Resources, Groups, and SSH Keys. The 'Roles' tab is active, showing a table with one role: 'DFCatalogAdmin'. An 'Update Roles' button is visible above the table.

- Go to the Access Keys tab and generate credentials for your user.

This screenshot shows the same user details page as above, but with the 'Access Keys' tab selected. A 'Generate Access Key' dialog box is open in the foreground. The dialog has a green success message: 'Success: Your access key has been successfully created.' It displays the generated 'Access Key ID' (7dbb019c-eb51-480e-b8f9-d0f6178f977c) and 'Private Key' (xXBHlEtE4oshirt34OuTMgUg74X9C+ce7MT5+J5FxlVg=). Below the keys, there is a note: 'To use the access key, download the credentials file into the .cdp directory in your user home directory. Or run the command cdp conf1gure and enter the access key ID and private key to create a CDP credentials file in the same directory.' There are 'Close' and 'Download Credentials File' buttons at the bottom of the dialog. In the background, the 'Access Keys' table now shows one entry with Type 'v2' and Access Key ID '7dbb019c-eb51-480e-b8f9-d0f6178f977c'.



Note: Make sure to keep track of the access key ID and the private key as you will need these credentials to configure the Registry Client in NiFi.

What to do next

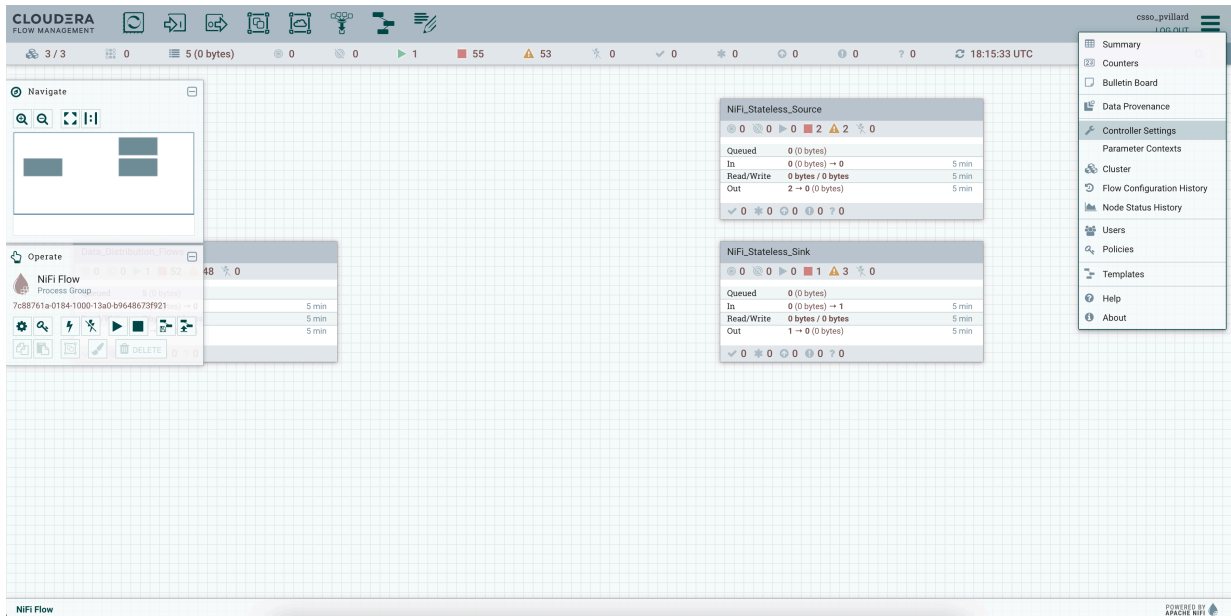
You can now create and configure the DF Catalog client with the available credentials.

Adding a new Registry Client

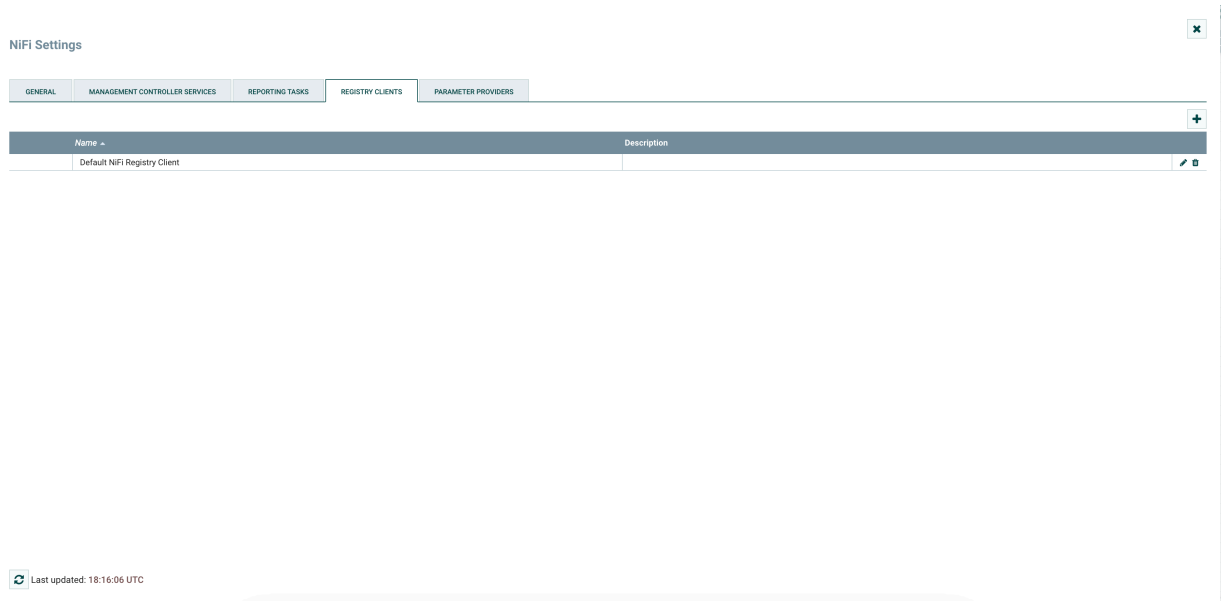
Learn how to add and configure the DF Catalog client as a new Registry Client.

Procedure

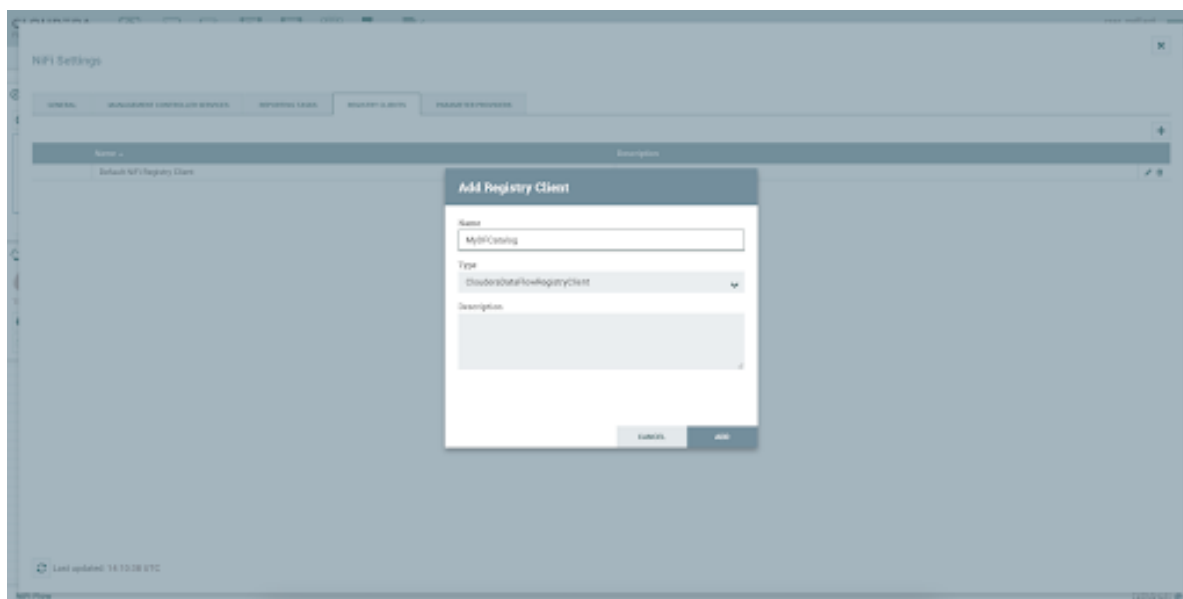
1. Open the NiFi UI.
2. Click the Global menu and select Controller Settings.



3. Switch to the Registry Clients tab.



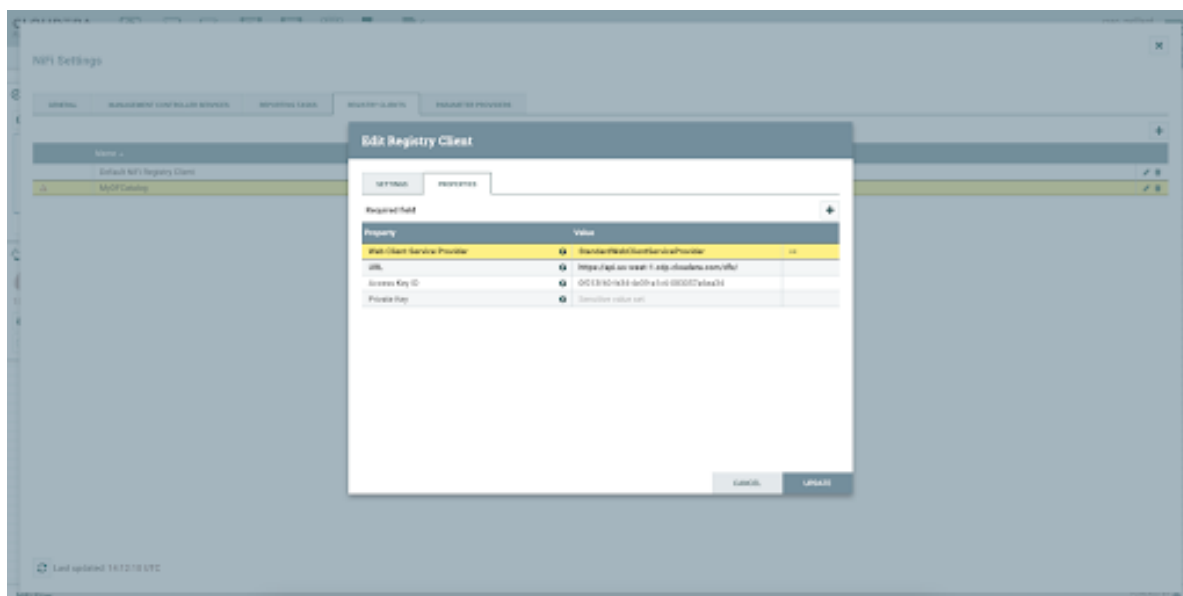
4. Add a new client.
 - a) Select the type and give it a name.



- b) Configure the client by providing the information related to your machine user.



Note: You will have to create a StandardWebClientServiceProvider controller service and start it with its default configuration.



Results

When properly configured, you are ready to use the DataFlow Catalog to either version control your flows or check out flow definitions from the Catalog into NiFi.

What to do next

You can now start using the new client to version or check out flows from the DataFlow Catalog.

Checking out a readyflow

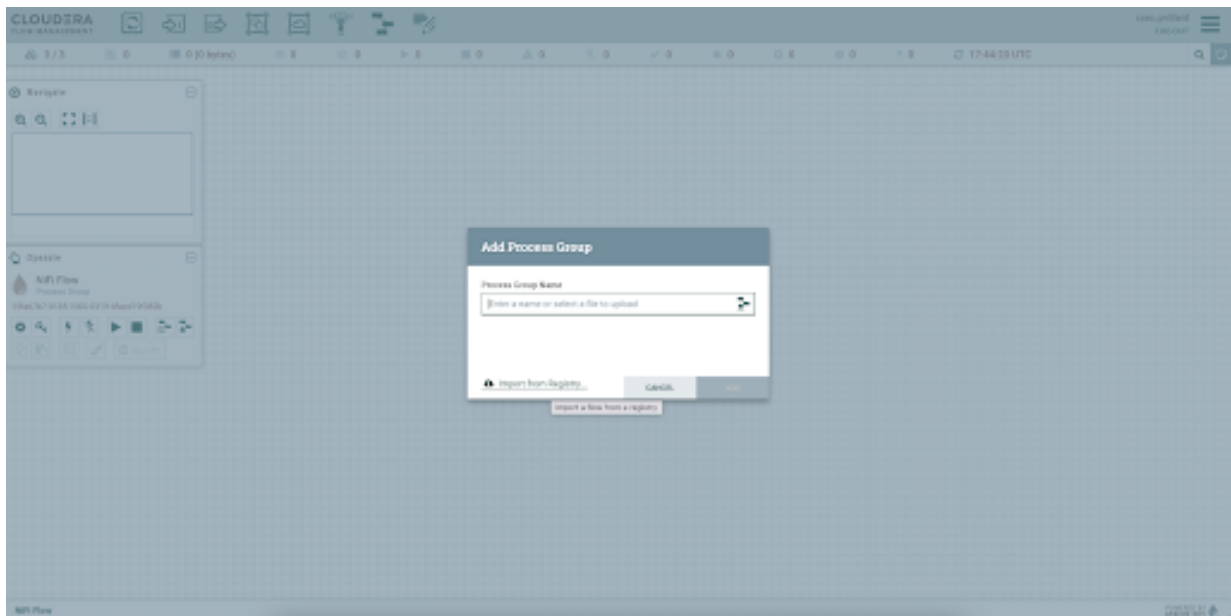
Learn how to check out a readyflow from the DataFlow Catalog.

About this task

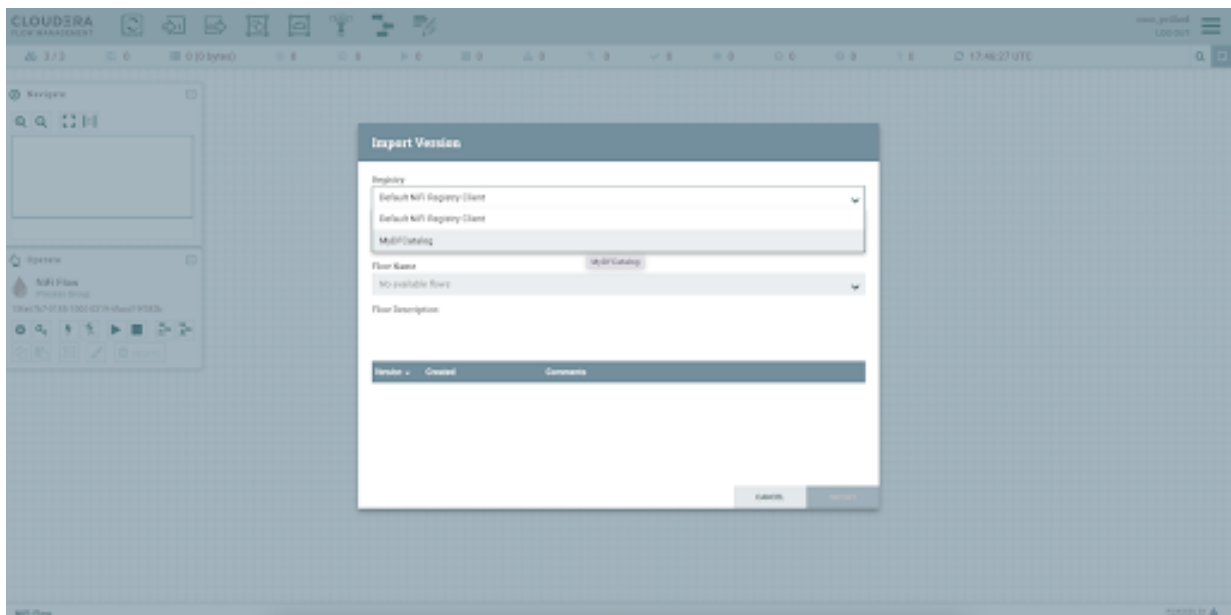
Readyflows are predefined, out-of-the-box data flows, which can be deployed by providing a small set of required parameters. They are read-only by default so you would not be able to commit any change made to them. With the Registry Client in NiFi connecting to Cloudera DataFlow Catalog, you can check out a readyflow from the Catalog and edit it as a custom flow.

Procedure

1. Drag and drop a process group onto the canvas and click Import from Registry.

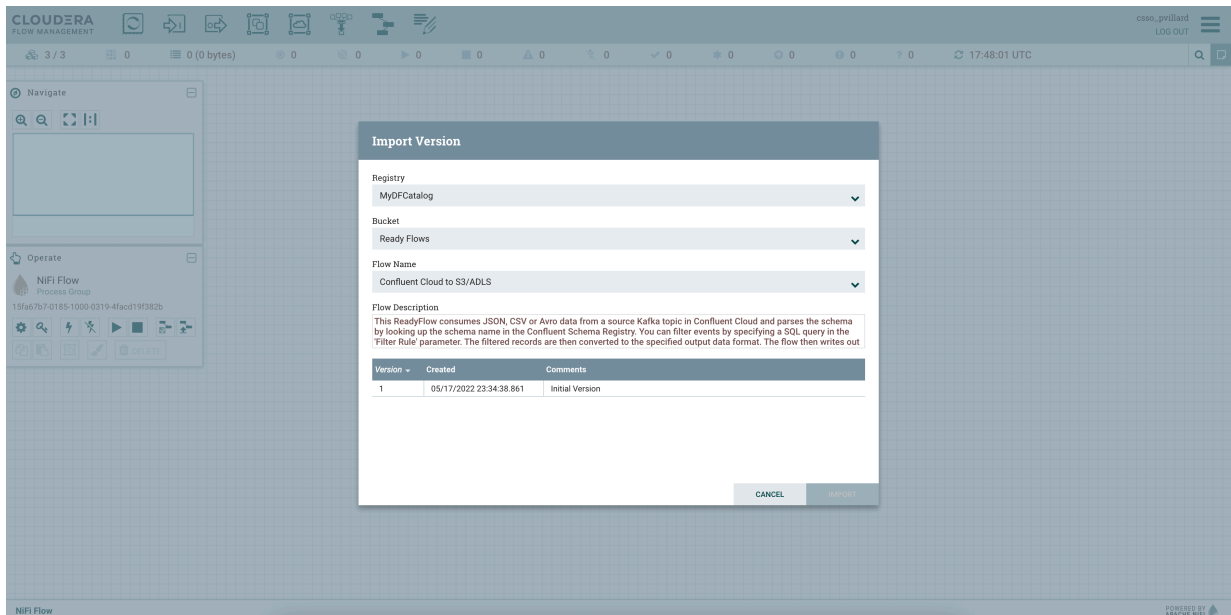


2. In the drop-down list, select the Registry Client configured to access your DataFlow Catalog.

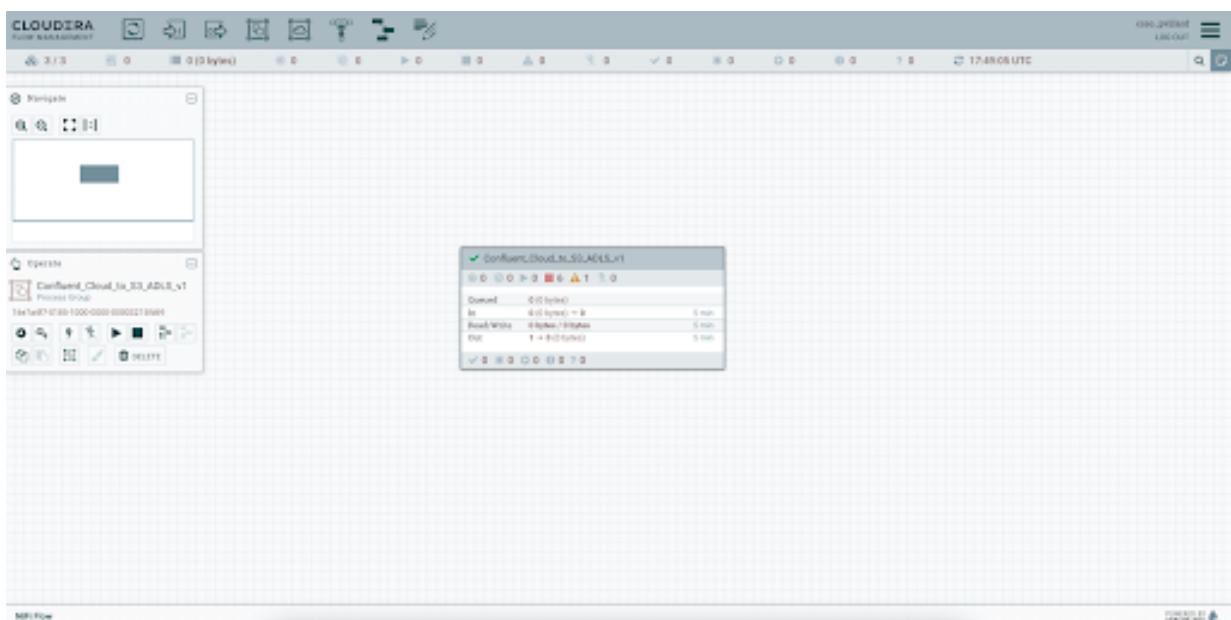


3. Select the ReadyFlows bucket.

You have two buckets - one for the readyflows (which is read-only) and one for your own flows that are stored in the Catalog.



4. Select the readyflow that you want to check out in NiFi by clicking the selected version and then clicking Import.



5. Readyflows are read-only so you would not be able to change flow. If you want to edit the flow:

- a) Right-click the process group, select Version and click Stop version control.
- b) Make the changes you want.
- c) Version the flow as a custom flow in your Catalog: right-click the process group, select Version and click Start version control.

Checking out your flows

Learn how to check out your own flows from the DataFlow Catalog.

About this task

If you want check out your own flow from the Catalog, you can follow the same approach as when checking out a ReadyFlow. You just need to select the Custom flows bucket. You can then make changes to your flow and commit the changes to create a new version of the flow in the Catalog.

Procedure

1. Drag and drop a process group onto the canvas and click Import from Registry.
2. In the drop-down list, select the Registry Client configured to access your DataFlow Catalog.
3. Select the Custom flows bucket.
4. Edit your flow and commit the changes to create a new flow version in the Catalog.

Versioning a flow in the Catalog

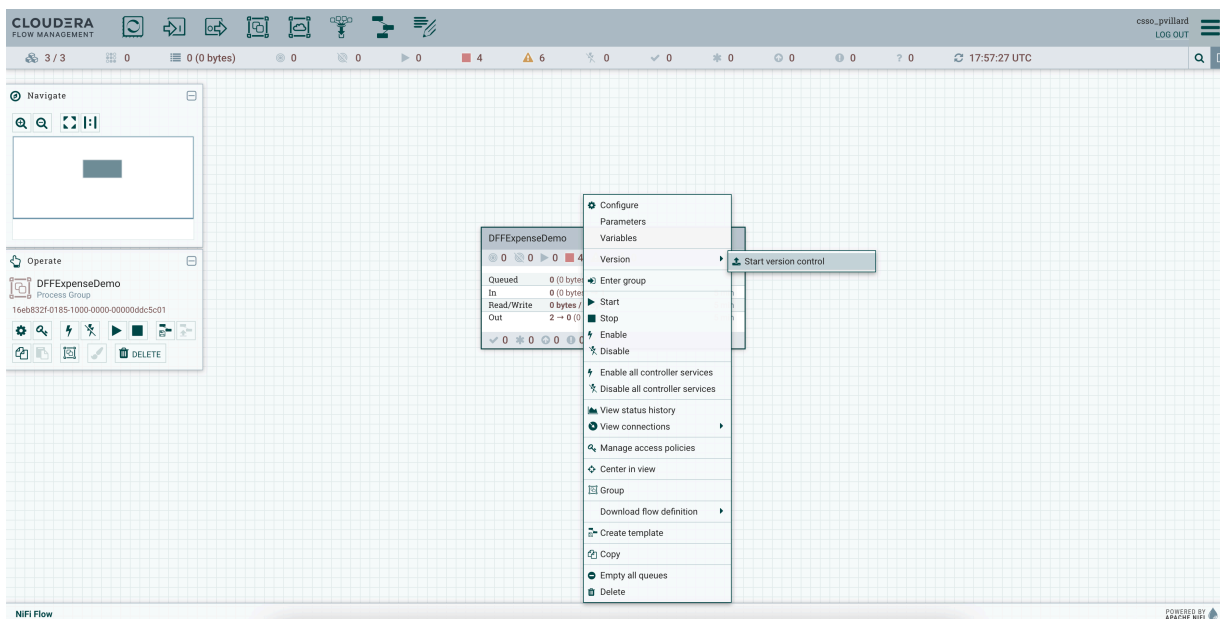
Learn how to use the DataFlow Catalog to version your flows.

About this task

Follow the below steps if you have a process group that you want to version as a completely new flow in the Catalog.

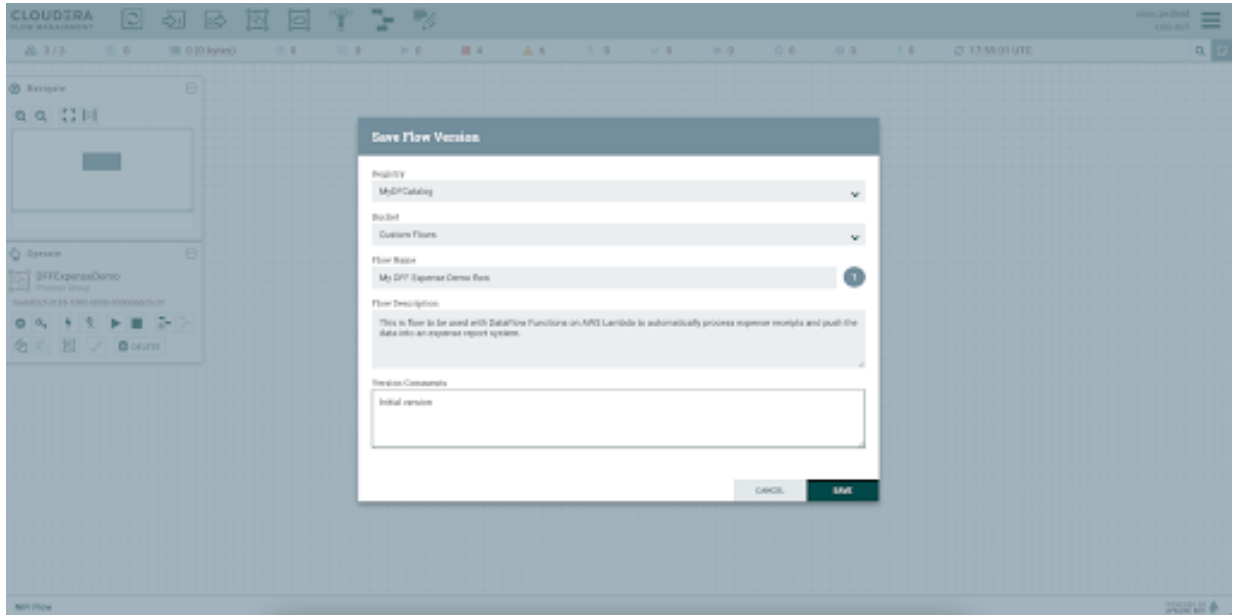
Procedure

1. Right-click the process group and select Version Start version control .



2. Select the Registry that you want to use.

3. Select Custom flows for the bucket and give your flow a name, a description, and a comment for the first version.



4. Click Save.

Results

The flow is now available in the DataFlow Catalog.



Note: All commits will be associated with the machine user you configured when creating the Registry client.

