

Cloudera Flow Management 4.11.0

Using DataFlow Catalog Registry Client

Date published: 2019-06-26

Date modified: 2025-09-30

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 Cloudera Data Flow Catalog and generate credentials.

About this task

You can connect the Registry Client can connect to the Cloudera Data Flow, expanding beyond NiFi Registry. This allows you to version and manage flow definitions in a unified location for both on-premises and cloud environments.

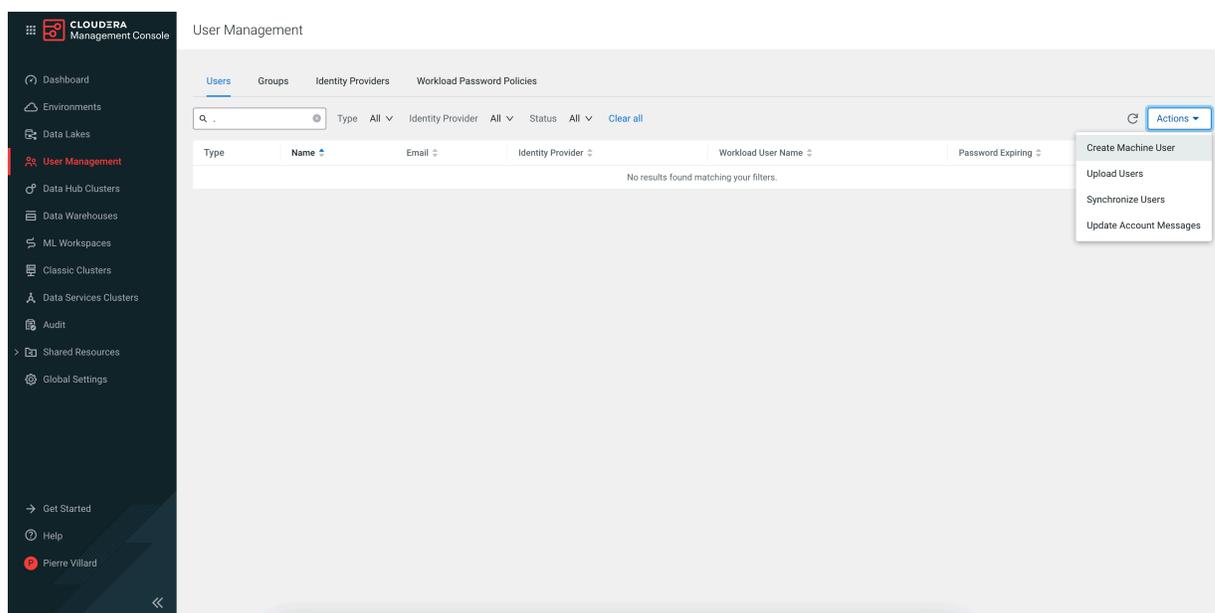
Hybrid customers can streamline flow versioning across deployments, while on-premises users with a public cloud tenant gain access to the Cloudera Data Flow ReadyFlow Gallery.

Before you begin

Besides using Cloudera Flow Management on premises, you are a Cloudera customer for Cloudera on cloud.

Procedure

1. Log in to the Cloudera on cloud web interface.
2. Navigate to Cloudera Management Console User Management to create a Machine User that will be used by NiFi to interact with the Cloudera Data Flow 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 Cloudera Data Flow Catalog. This is enough if you just want to check out existing flows from the Catalog.

DFCatalogAdmin

It gives read-write access to the Cloudera Data Flow 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 is titled 'Users / DFCatalogRegistryUser'. It displays user details in a key-value format:

- 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 (Workload password is currently not set)
- Azure Object ID: Not available

Below the details, there are tabs for 'Access Keys', 'Roles', 'Resources', 'Groups', and 'SSH Keys'. The 'Roles' tab is active, showing a table with one role:

Role	Group	Policies
DFCatalogAdmin		Policies

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

The screenshot shows the same user configuration page as above, but with the 'Access Keys' tab selected. A 'Generate Access Key' dialog box is open, displaying a success message: 'Success: Your access key has been successfully created.' Below the message, the generated credentials are shown:

- Access Key ID: 7dbb019c-eb51-480e-b8f9-d0f6178f977c
- Private Key: xXBHlEtE4oshirt34OuTMgUg74X9C+ce7MT5+J5FxlVg=

Below the keys, there is a 'Download Credentials File' button. The dialog also includes instructions: 'To use the access key, download the credentials file into the .cdp directory in your user home directory. Or run the command `cdp configure` and enter the access key ID and private key to create a CDP credentials file in the same directory.'



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

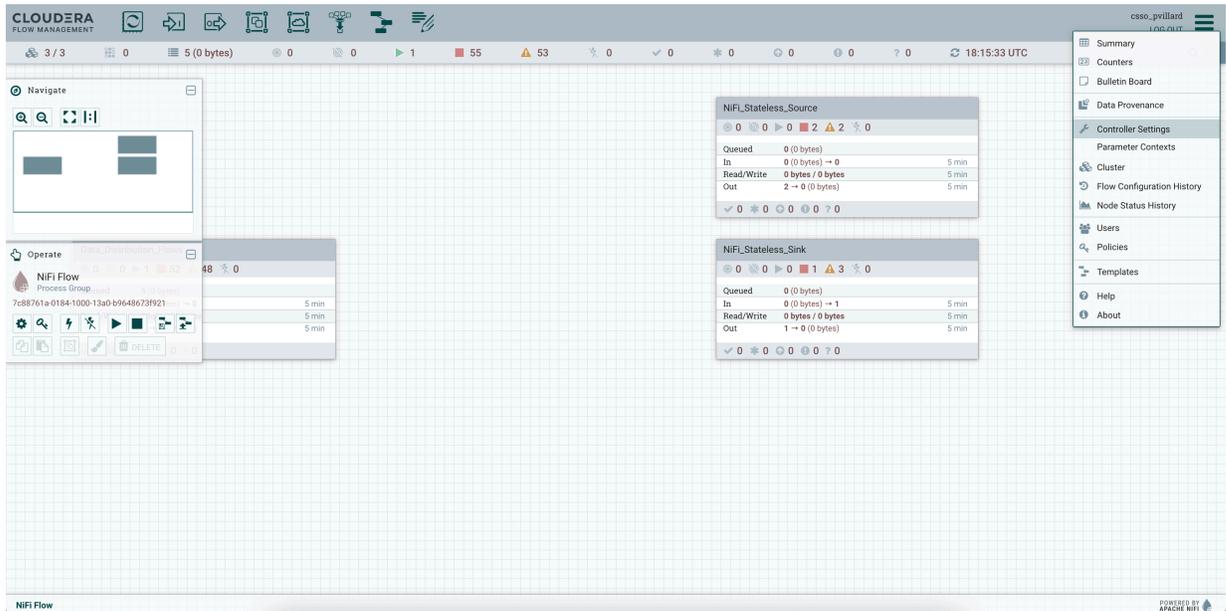
You can now create and configure the Cloudera Data Flow Catalog client with the available credentials.

Adding a new Registry Client

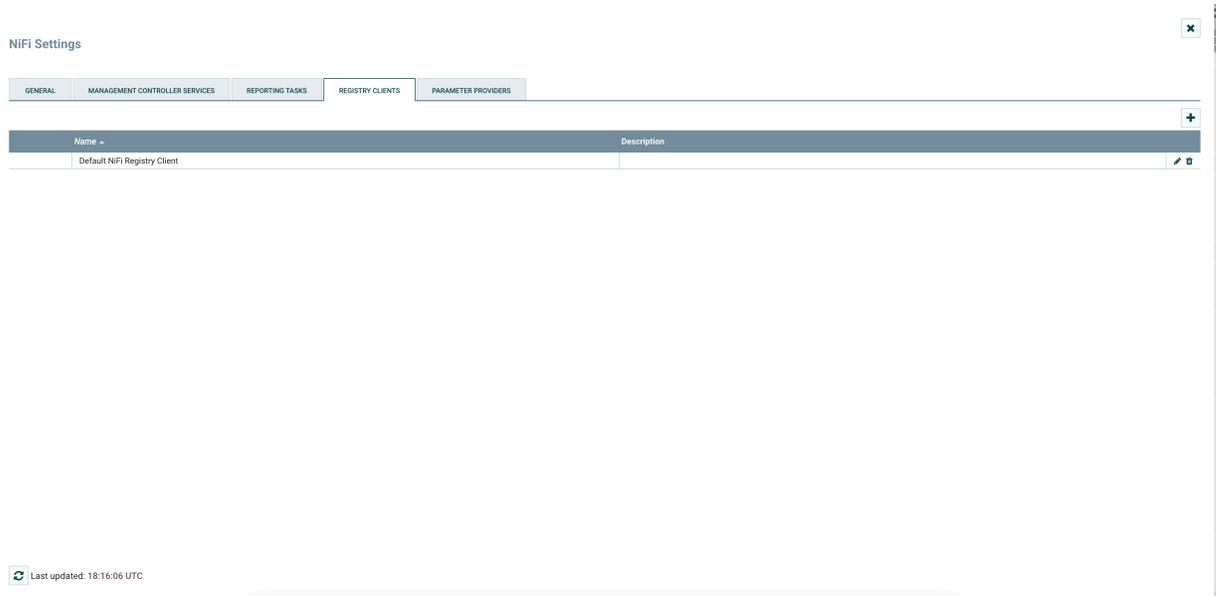
Learn how to add and configure the Cloudera Data Flow Catalog client as a new Registry Client.

Procedure

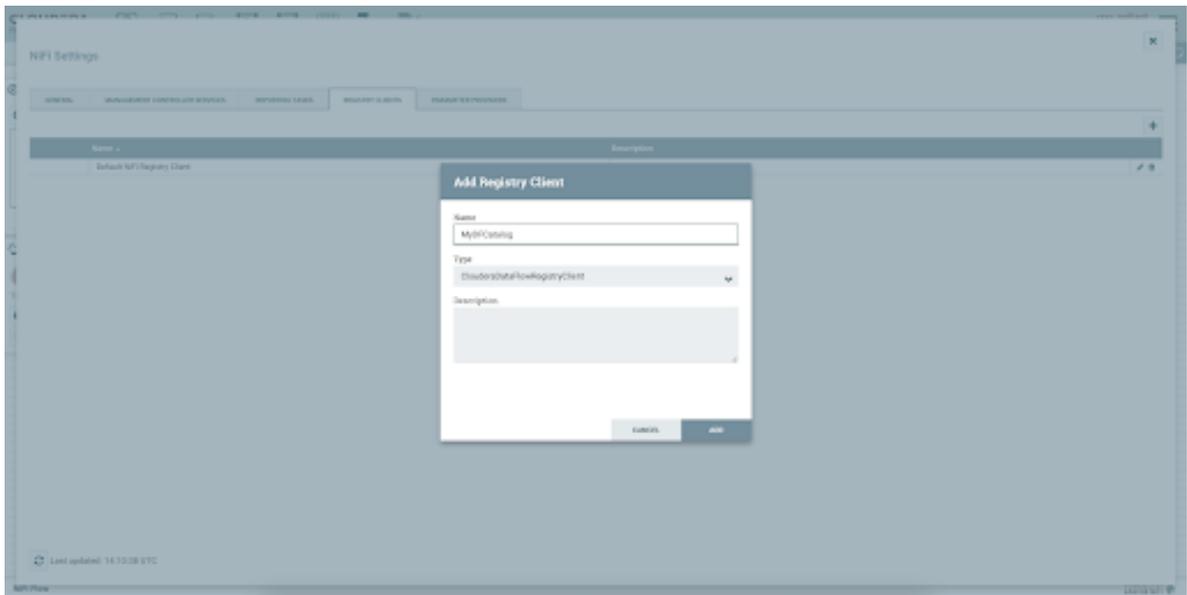
1. Open the NiFi UI.
2. Click the Global menu and select Controller Settings.



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.

Edit Registry Client

SETTINGS | PROPERTIES

Required field +

Property	Value
Web Client Service Provider	No value set
URL	No value set
Access Key ID	No value set
Private Key	No value set

CANCEL | UPDATE

Results

When properly configured, you are ready to use the Cloudera Data Flow 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 Cloudera Data Flow Catalog.

Checking out a ReadyFlow

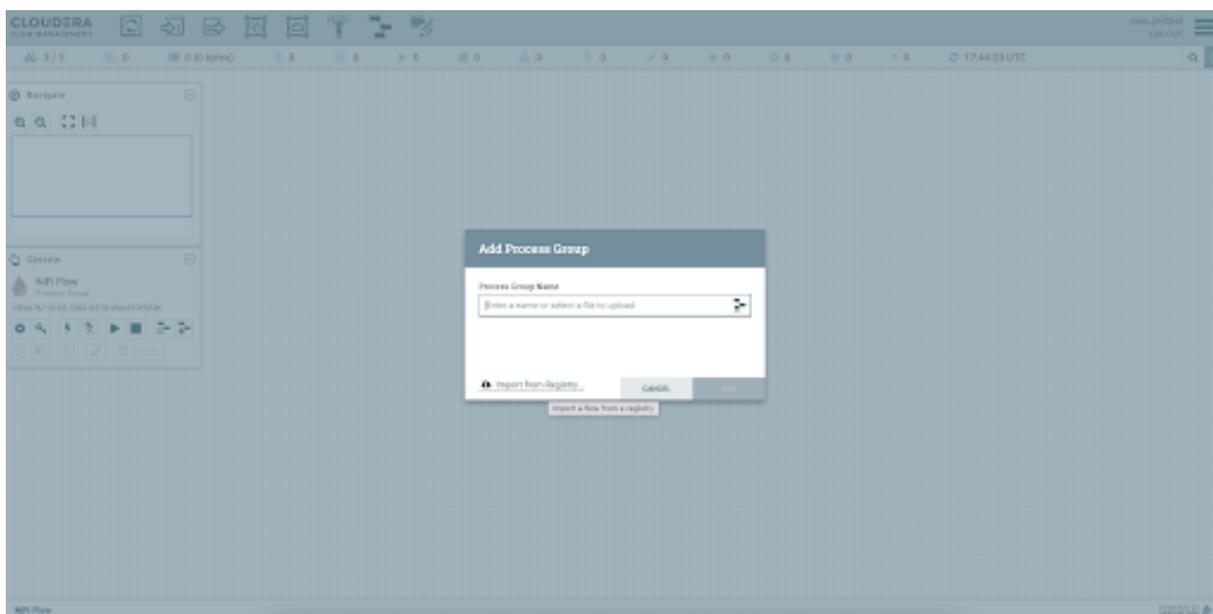
Learn how to check out a ReadyFlow from the Cloudera Data Flow Catalog.

About this task

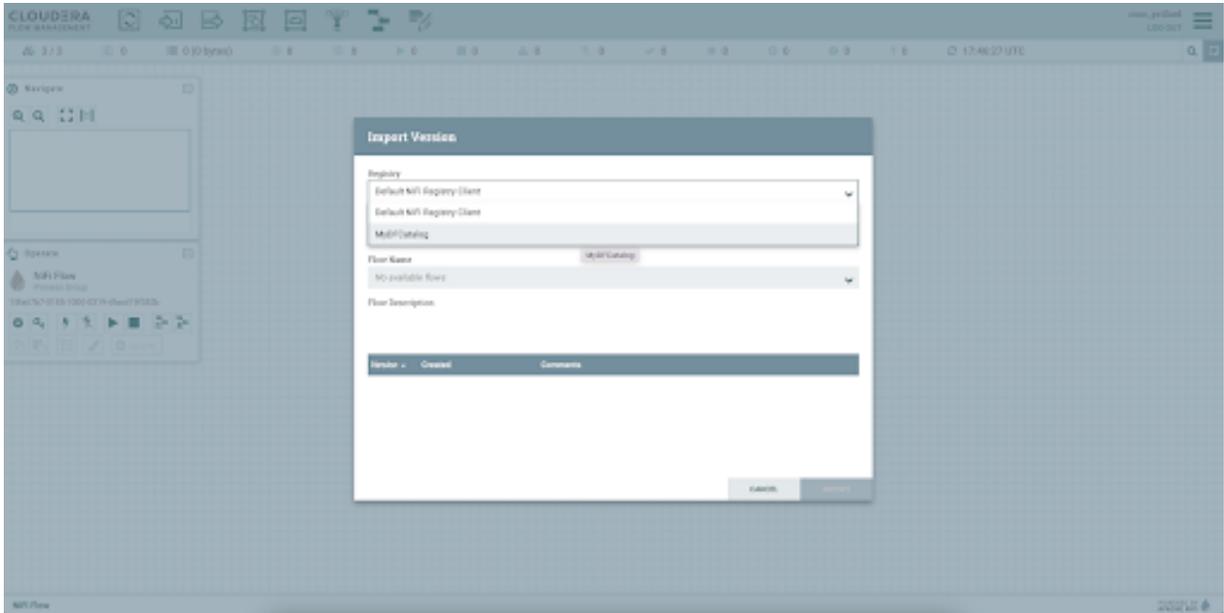
ReadyFlows are predefined, out-of-the-box data flows, which can be deployed by providing a small set of required parameters. They are read-only by default so you would not be able to commit any change made to them. With the Registry Client in NiFi connecting to Cloudera Data Flow Catalog, you can check 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.

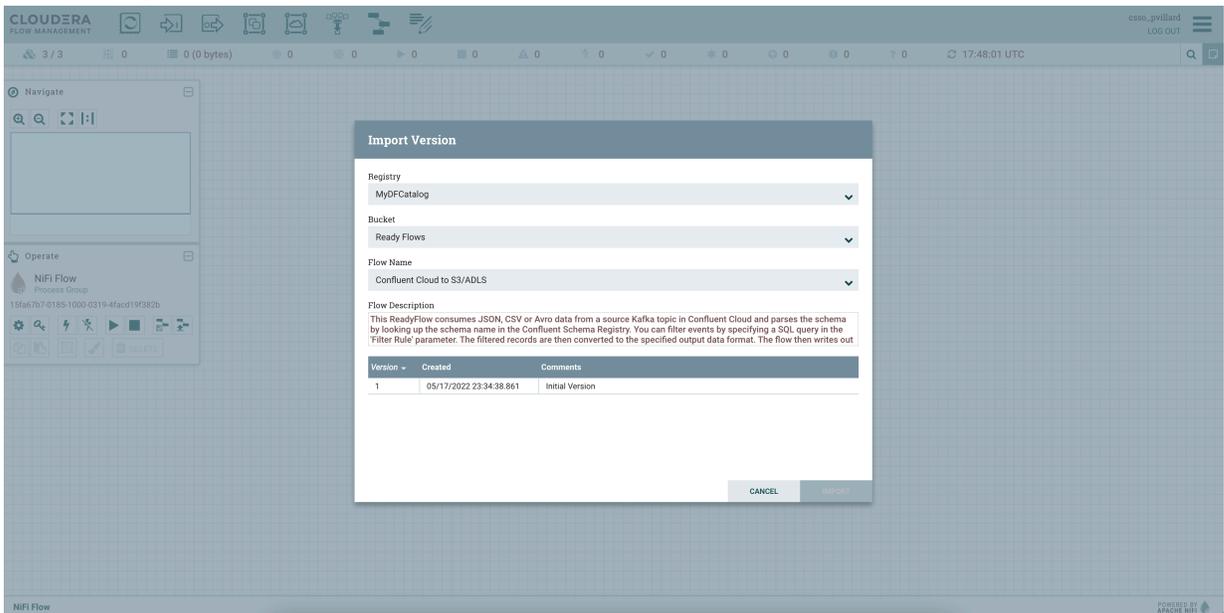


- In the drop-down list, select the Registry Client configured to access your Cloudera Data Flow Catalog.

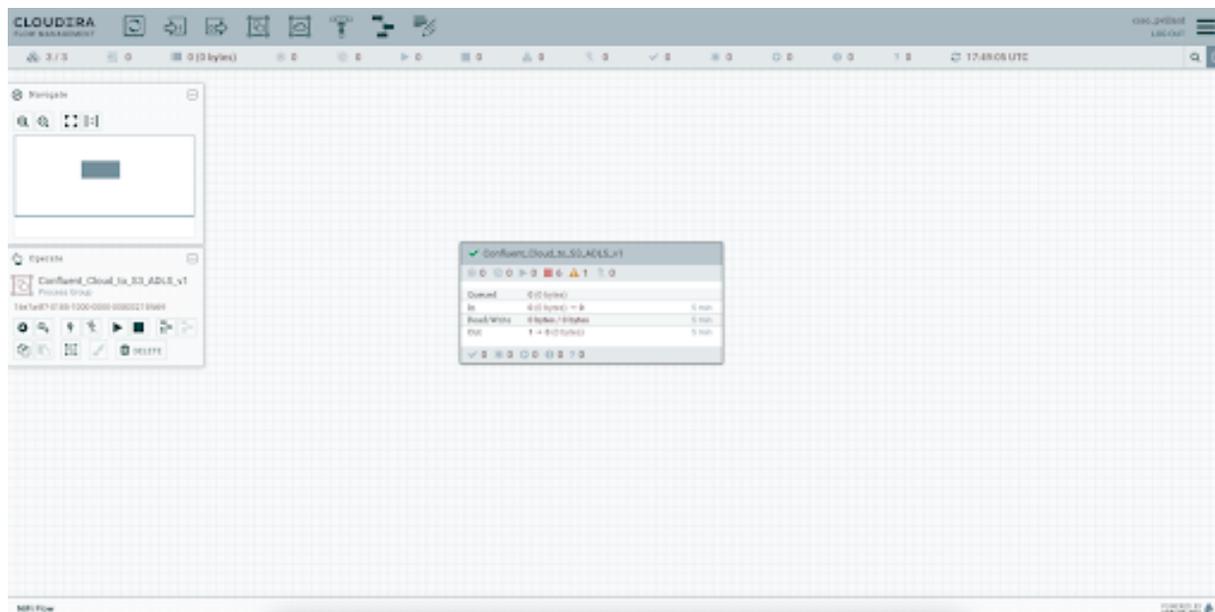


- Select the ReadyFlows bucket.

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 Cloudera Data Flow Catalog.

About this task

If you want check out your own flow from the Cloudera Data Flow 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 Cloudera Data Flow 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

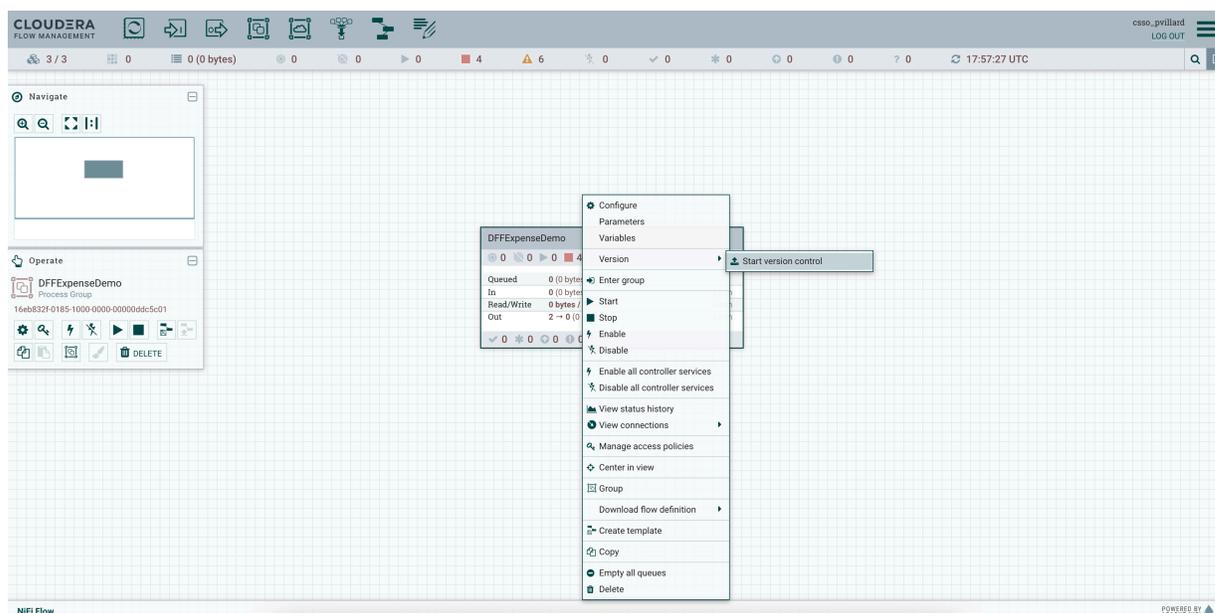
Learn how to use the DataFlow Catalog to version your flows.

About this task

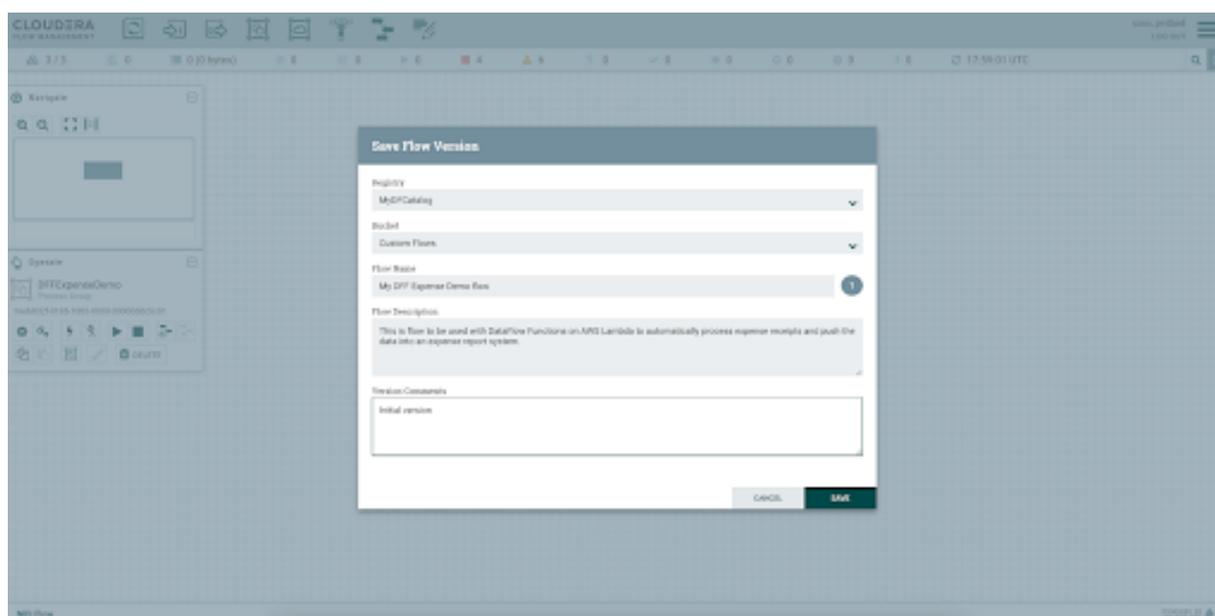
Follow the below steps if you have a process group that you want to version as a completely new flow in the Cloudera Data Flow Catalog.

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.

The screenshot displays the Cloudera DataFlow Flow Catalog interface. On the left is a dark sidebar with navigation options: Dashboard, Catalog (selected), ReadyFlow Gallery, Flow Design, Functions, and Environments. At the bottom of the sidebar are 'Get Started', 'Help', and the user 'Pierre Villard'. The main area is titled 'Flow Catalog' and contains a search bar with 'DFF Expense Demo'. Below the search bar is a list of flows, with 'My DFF Expense Demo flow' selected. The right-hand pane shows the details for this flow, including a description, CRN, and a table of versions and deployments.

Flow Catalog

Search: DFF Expense Demo

Name ↑

- My DFF Expense Demo flow

My DFF Expense Demo flow Updated 2 minutes ago by DFCatalogRegistryUser Actions

FLOW DESCRIPTION

This is flow to be used with DataFlow Functions on AWS Lambda to automatically process expense receipts and push the data into an expense report system.

CRN #

[crm.cdp.df.us-west-1-558bc1d2-8867-4357-8524-311d51259233:flow:My-DFF-Expense-Demo-flow](#)

Only show deployed versions

Version	Deployments
1	0

[Deploy →](#) [Download](#)

LAST UPDATE

2022-12-15 18:59 CET by [DFCatalogRegistryUser](#)

"Initial version"

CRN #

[crm.cdp.df.us-west-1-558bc1d2-8867-4357-8524-311d51259233:flow:My-DFF-Expense-Demo-flow/v.1](#)