



Informatica®

Informatica® Cloud Data Integration
July 2024

Introduction

Informatica Cloud Data Integration Introduction
July 2024

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Preface

Read *Introduction* to learn about the tasks you can perform using Informatica Intelligent Cloud ServicesSM Data Integration.

CHAPTER 1

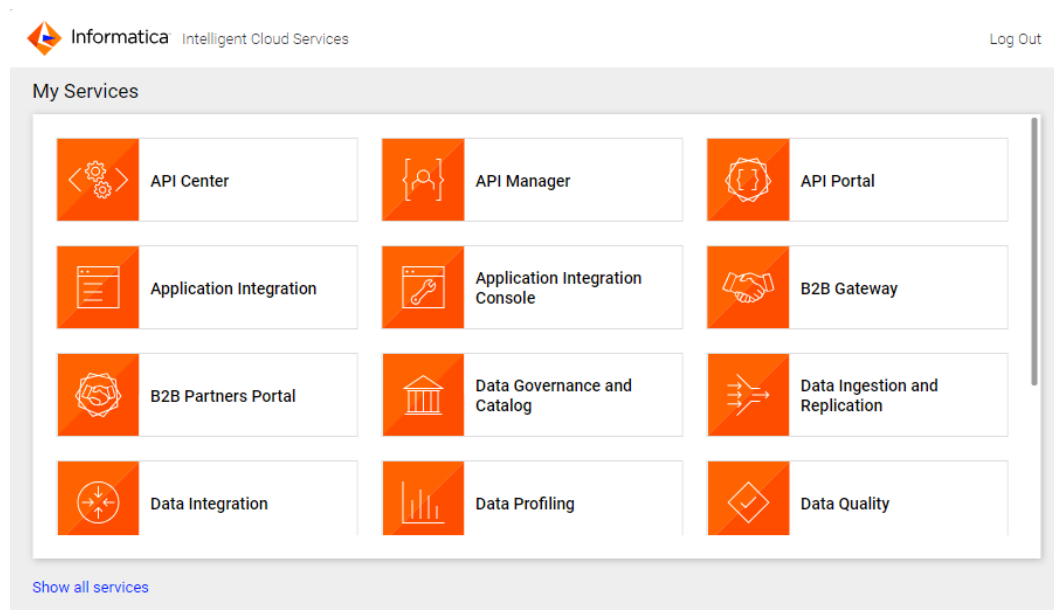
Introducing Informatica Cloud® Data Integration

Informatica Intelligent Cloud ServicesSM is an integration platform as a service (iPaas) that includes multiple cloud data management products designed to accelerate productivity and improve speed and scale.

Informatica Cloud® Data Integration is one of several services available in Informatica Intelligent Cloud Services. Use Data Integration to easily load, transform, and integrate data.

When you log in to Informatica Intelligent Cloud Services, the **My Services** page displays the Data Integration service and services that apply to data integration. The **My Services** page might also include other services that you subscribe to and trial versions of other services.

The following image shows the **My Services** page:



The following services apply to data integration:

Data Integration

Manage data integration projects, create assets such as mappings, tasks, and taskflows, and run tasks and taskflows.

Administrator

Perform administrative tasks such as creating users and managing privileges, downloading Secure Agents and configuring runtime environments, configuring connections, managing licenses, and creating schedules.

Monitor

Check the status of tasks that are in progress and tasks that have completed.

You might want to use other services with Data Integration, for example, Application Integration, Data Quality, Cloud Integration Hub, or Operational Insights.

Note: Some of the functionality that's mentioned in the help might not be available due to your organization's Informatica Intelligent Cloud Services license agreement.

Data Integration

Use Data Integration to load, transform, and integrate your data. You can create data integration projects and run data integration tasks.

Data Integration is an on-demand subscription service that provides a complete platform for cloud data integration and management. You can use Data Integration to build and run advanced, complex integrations using pre-built functions and templates for mappings and transformations. Data Integration has the features you need to create a variety of data integration projects to fit your business needs.

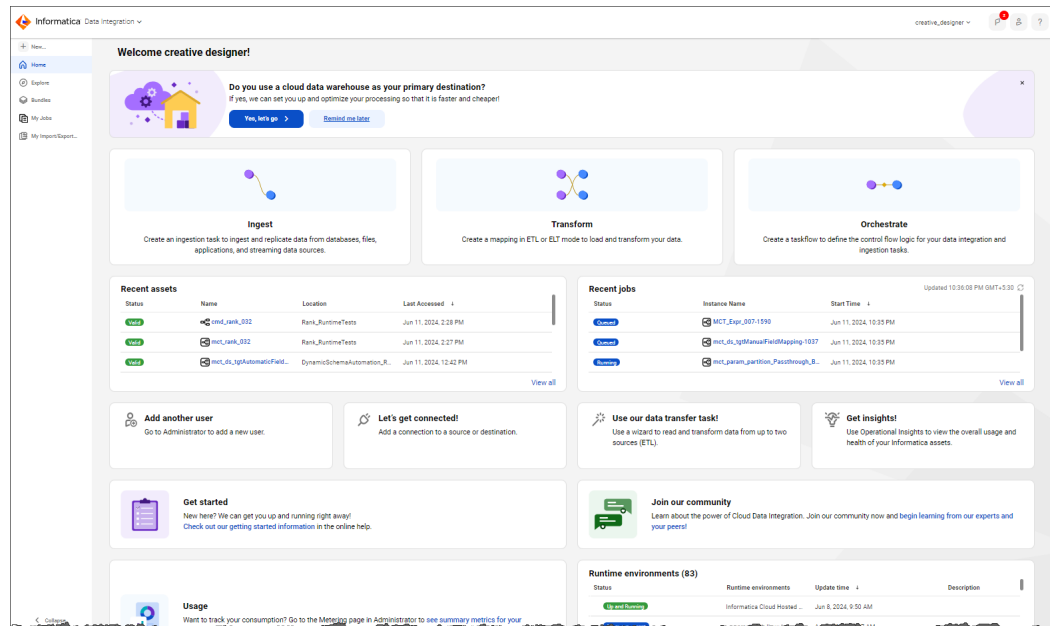
Home page

When you select Data Integration from the **My Services** page, the **Home** page appears. The **Home** page provides a guided and unified experience for Data Integration users and Data Ingestion and Replication users.

The **Home** page is customized for each user in an organization. It displays different panels based on the following criteria:

- Your organization's licenses
- Your user roles
- Whether you've configured a primary cloud data warehouse
- Whether your organization has any runtime environments
- Whether you've created assets or run jobs

For example, if you're an Admin user who has already created assets and run jobs, you might see a **Home** page that looks like the following image:



The page displays the following rows of panels:

Do you use a cloud data warehouse as your primary destination?

This panel appears if you haven't selected a cloud data warehouse as your primary destination. Click **Next** to select a primary cloud data warehouse. If you load data to different destinations, you can dismiss this panel and move it to the bottom of the page.

Primary task panels

Use the following panels to load and transform your data:

- **Ingest.** Create Data Ingestion and Replication tasks to ingest and replicate your data.
- **Transform.** Create data transfer tasks or mappings to load and transform your data.
- **Orchestrate.** Create taskflows to define the control flow logic for your tasks.

If you've chosen a primary cloud data warehouse, the panel names include the data warehouse type, for example, **Ingest into Snowflake**.

Recent assets, Recent jobs

These panels display the assets you've most recently modified and the jobs you've most recently run.

Secondary task panels

These panels allow you to perform other tasks like adding users, creating connections, or creating mapplets.

Help panels

Use these panels to view getting started information or access the community for help.

Usage, Runtime environments

These panels allow you to access your usage metrics and view the status of the runtime environments available to you, respectively.

Try out our mapping templates!

Click this panel to create a mapping based on a pre-defined mapping template.

You can also access the following pages from the navigation bar:

- **New.** Create new data integration assets such as mappings, tasks, and taskflows. You can create assets from scratch or use templates as a head start.
- **Home.** Return to the Home page.
- **Explore.** Create and manage projects and assets.
- **Bundles.** Create and manage bundles of assets to share with your organization or other organizations.
- **My Jobs.** View the status of your mapping, task, and taskflow instances.
- **My Import/Export Logs.** View the status of your imports and exports.

When you switch from Data Integration to another service such as Administrator or Monitor, the options in the navigation bar change to suit the service.

Data Integration tasks

You can integrate and transform your data in Data Integration using the following tasks:

- **Mapping task.** Process data based on the data flow logic that you define in a mapping.
- **Synchronization task.** Load data and integrate applications, databases, and files. Includes add-on functionality such as mappers.
- **Masking task.** Replace source data in sensitive columns with realistic test data for non-production environments. Masking rules define the logic to replace the sensitive data. Assign masking rules to the columns you need to mask.
- **Replication task.** Replicate data from Salesforce or database sources to database or file targets. You might replicate data to archive the data, perform offline reporting, or consolidate and manage data.
- **PowerCenter task.** Import a PowerCenter workflow and run it as a Data Integration PowerCenter task.
- **Dynamic mapping task.** Use a dynamic mapping task to create and batch multiple jobs based on the same mapping.
- **Data transfer task.** Use a data transfer task to transfer data from a source to a target, for example, to transfer data from an on-premises database to a cloud data warehouse. Optionally, you can augment the source data with data from a lookup source and sort and filter the data before loading it to the target.

You can use taskflows for complex data integration projects. Taskflows orchestrate the execution sequence of multiple data integration tasks.

Data transformation options

You can transform your data in Data Integration using a wizard, the Mapping Designer, or the SQL ELT Mapping Designer.

When you click the **Transform** panel on the **Home** page, you see the following options for transforming your data:

Using a wizard

Select this option to create a data transfer task.

A data transfer task uses a step-by-step, wizard-based interface to transfer data from your source to your target. For example, you might create a data transfer task to transfer data from an on-premises database to your cloud data warehouse.

If you wish, you can augment the source data with data from a lookup source and also sort and filter the data before loading it to the target.

Using our mapping designer

Select this option to create a mapping using the Mapping Designer.

Create a mapping when you need flexibility in your sources, targets, and transformation options. A mapping can read and write to a wide variety of heterogeneous data sources. It also offers a large variety of data transformation options.

If you select this option, you can switch to advanced mode to process multilevel hierarchical data, embedded code snippets, or workloads at any scale. Mappings in advanced mode require an advanced cluster to run the mapping logic.

When you run a mapping or a mapping in advanced mode, Data Integration processes the transformation logic. However, you can choose to push some or all the transformation logic to the source, to the target, or both.

Using our SQL ELT mapping designer

Select this option to create a mapping in SQL ELT mode using the Mapping Designer.

Create a mapping in SQL ELT mode when your source and target are in the same cloud ecosystem and you want to perform the data transformation entirely within the cloud ecosystem. For example, you want to read data from your Snowflake cloud data warehouse or data lake, load it to your Snowflake cloud data warehouse, and perform all of the data transformation within Snowflake.

When you run a mapping in SQL ELT mode, Data Integration translates the transformation logic into ecosystem-specific SQL statements and commands that run in the underlying cloud data warehouse.

You can also create data transfer tasks and mappings by clicking **New** on the navigation bar.

Connectors

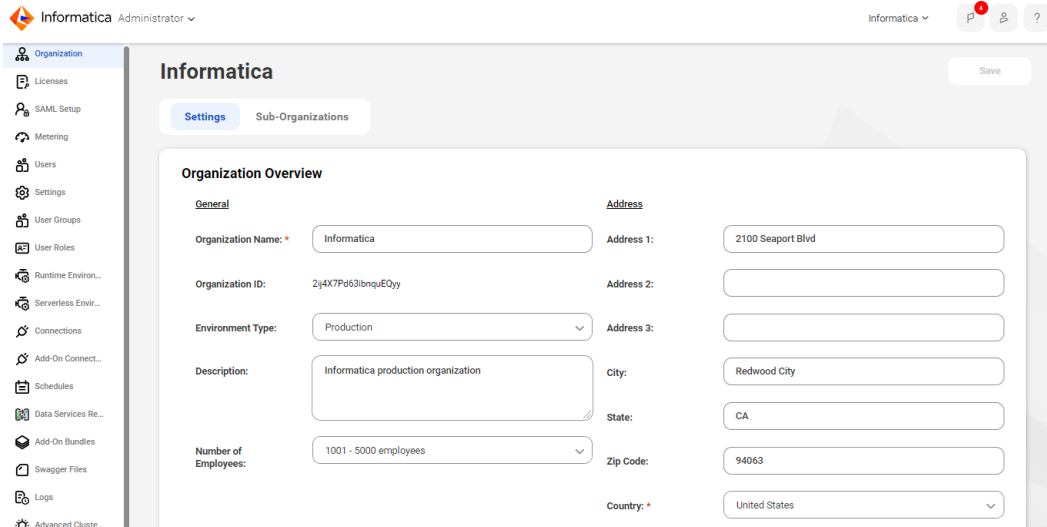
Informatica Intelligent Cloud Services can use a wide variety of connectors for data integration. You use connectors to create connections that provide access to data in cloud and on-premise applications, platforms, databases, and flat files.

Some Data Integration settings are connector-specific. For more information, see the help for the relevant connector.

Administrator

Administrative tasks for Informatica Intelligent Cloud Services are performed in the Administrator service.

When you select Administrator from the **My Services** page, the navigation bar provides options for Informatica Intelligent Cloud Services administration, as shown in the following image:



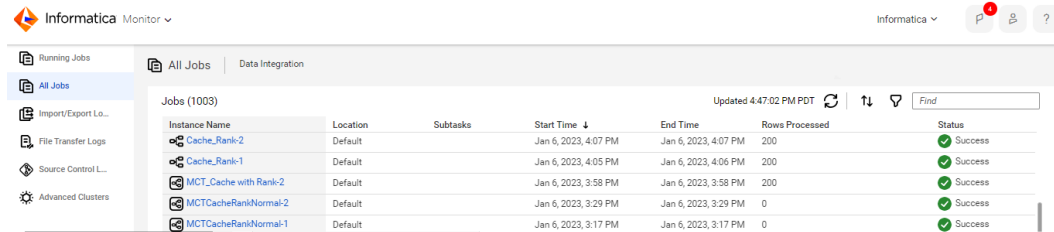
The following options are available based on your licenses:

- **Organization.** Manage your organization details and your sub-organizations.
- **Licenses.** View licenses for your organization and manage your sub-organization licenses.
- **Ecosystem single sign-on.** When you create your organization through Microsoft Azure, configure some single sign-on properties for Azure users.
- **SAML Setup.** Configure SAML single sign-on settings.
- **Settings.** Configure source control settings and upgrade settings for Secure Agent services.
- **Users.** Add new users. Configure user groups and roles for individual users.
- **User Groups.** Create user groups. Assign users to user groups.
- **User Roles.** Manage user roles for your organization. Configure the privileges associated with each role.
- **Runtime Environments.** Configure Secure Agents and Secure Agent groups.
- **Connections.** Create and manage connections.
- **Add-On Connectors.** Install add-on connectors.
- **Schedules.** Create and manage schedules for tasks.
- **Add-On Bundles.** Install, uninstall, upgrade, and copy bundles for your organization.
- **Swagger Files.** Generate swagger files for REST V2 connections.
- **Logs.** View asset and security logs.
- **File servers.** Configure file transfer servers and file transfer users to allow remote partners to send files to your organization.

Monitor

Use Monitor to monitor jobs, imports, and exports in your organization. A job is an instance of a mapping, task, or taskflow.

When you select Monitor from the **My Services** page, the navigation bar provides options for monitoring activity, as shown in the following image:



The navigation bar provides the following options:

- **Running Jobs.** Provides run-time details about the Data Integration jobs that are running or have completed within the last five minutes.
- **All Jobs.** Provides details about all Data Integration jobs in the organization.
- **Data Ingestion.** Provides details about the Data Ingestion and Replication jobs in the organization.
- **Import/Export Logs.** Provides details about imports and exports that are running and that have completed.
- **File Transfer Logs.** Provides details about the file transfers in the organization.
- **Source Control Logs.** Provides a log of actions on source-controlled objects in the organization.

To view details about a specific job, import instance, or export instance, click the instance name.

Informatica Intelligent Cloud Services security

Informatica Intelligent Cloud Services uses authentication and encryption to ensure that data is secure and available only to users within the organization. Informatica Intelligent Cloud Services uses industry approved algorithms to encrypt sensitive information. All customer data is encrypted at rest using an AES-256 key. Data in transit is encrypted using the TLS 1.2 protocol.

For more information, see the [Informatica Intelligent Cloud Services Trust Center](#).

REST API

If your organization has the REST API license, you can interact with Informatica Intelligent Cloud Services through REST API calls rather than through the user interface.

For more information, see *REST API Reference*.

CHAPTER 2

Data integration tools

Informatica Intelligent Cloud Services provides the following tools that you can use to satisfy your data integration business needs:

- Projects
- Assets
- Templates
- Explore page

Projects

Informatica Intelligent Cloud Services assets are organized in projects. You can create multiple folders within a project to contain the assets that you need for your project.

For example, you might have a business need to provide monthly analyses of your company's sales activity. You create a project called Monthly Sales Analysis. You create folders that contain the assets that you use on a monthly basis to integrate data from various systems to perform your analysis.

The types of assets that you use in your projects depends on the services that you use. For example, a Data Integration project can include assets such as mappings, tasks, and taskflows.

Assets

In Data Integration, assets are mappings, taskflows, and tasks such as mapping tasks, synchronization tasks, and replication tasks. Assets also include components such as business services, mapplets, and hierarchical schemas.

Create the assets you need to satisfy your business needs. Templates are available for certain asset types. You can use a template as-is, or you can use it as head start and customize it to meet your needs.

You can use assets in multiple projects. All assets must be part of at least one project. If you create an asset without specifying a project, the asset is created in the Default project.

Templates

When you create assets such as mappings, mapping tasks, or taskflows, you can either create the asset from scratch or use a template. Data Integration offers a variety of data manipulation templates to jump-start your project. Templates include pre-built logic that you can use for data integration, cleansing, and warehousing tasks.

To help you create assets quickly, Data Integration provides the following types of templates:

Mapping templates

Mapping templates are mappings in which the transformation logic and required parameters are defined for you. Data Integration provides mapping templates for integrating data, cleansing data, and loading slowly changing dimension tables. For example, the **Merge two data sources** mapping template is a mapping that merges two sources so that if a field in one source is empty, the value from the other source is used.

Create a mapping from a template when you want to reuse the logic in one of the template mappings, but you also want to customize the mapping to meet your needs. When you finish the mapping, create a mapping task to run it.

For example, you want to merge two sources so that if a field in one source is empty, the value from the other source is used. However, you also need to sort the data before loading it to the target. Create a mapping based on the **Merge two data sources** mapping template, and add a Sorter transformation to sort the data before loading it to the target. Then, create a mapping task to run the mapping.

Mapping task templates

Mapping task templates are mapping tasks that are based on the template mappings. Use a mapping task template when you want to run one of the template mappings without changing the transformation logic. When you create the mapping task, you only need to supply the runtime information such as the runtime environment, source and target information, and values for other mapping parameters.

For example, you want to augment data from a relational source with additional fields from a reference table. Create a mapping task based on the **Augment Data with Lookup** template. In the mapping task wizard, enter the runtime information such as the runtime environment, source table, target table, lookup table, and lookup condition.

Taskflow templates

Taskflow templates are taskflows that contain common control flow logic.

Use taskflow templates to organize tasks in common ways such as sequentially, in parallel, or based on a decision. When you create a taskflow based on a template, the flow is pre-defined. Add and remove tasks to reflect the actual task flow.

Explore page

Use the **Explore** page to work with your Informatica Intelligent Cloud Services projects, folders, and assets.

Finding projects and assets on the Explore page

Use any of the following methods to find your projects and assets on the **Explore** page:

- Explore by projects and folders. View all projects or select a particular project.

- Explore by asset types. View all assets or view assets of a particular type.
- Explore by tags. View assets associated with a particular tag.
- Search for projects, folders, or assets. To search for projects, folders, and assets in the organization, view the **Explore** page by **All Projects**, and then enter a name or description in the Find box. Or, view the **Explore** page by **Asset Types** and to narrow your search, select an asset type from the **All Assets** list. Then, in the Find box, enter a name or description in full or part.
- Sort the search results. Sort the **Explore** page by name, asset type, last update date, create date, or description. When you sort by type, the **Explore** page groups assets by asset type. It does not list the asset types in alphabetical order.
- Filter the objects on the page. To filter objects, click the **Filter** icon. To apply a filter, click **Add Filter**, select the property to filter by, and then enter the property value. The filters that are available depend on how you view the page. You can specify multiple filters.
For example, to find all the assets in your organization with the tag SW Region, view the **Explore** page by **All Assets** and then click the **Filter** icon. Add the **Tags** filter and enter "SW Region."

If the result size is large, for example, over 1000 objects, all the objects appear on the **Explore** page but the total number of objects that displays at the top and bottom of the page can be approximate for a minute or so.

Tip: Filtering is available on other pages in addition to the **Explore** page. For example, on the **Import Assets** page, you can filter by status to find the assets that imported successfully.

<input type="checkbox"/>	Name ↑	Type	Updated On	Location	Tags
<input type="checkbox"/>	EC_AcctExps	Mapping	Oct 1, 2020, 2:34 PM	ECDistr_SC\EC_Accts	map, east, map, east, l...
<input type="checkbox"/>	MapLkUpSQLOR	Mapping	Mar 21, 2024, 4:51 PM	Default\Tag	east
<input type="checkbox"/>	MapLkUpSQLOR	Mapping	Mar 19, 2024, 5:05 PM	Default	east
<input type="checkbox"/>	MapLkUpSQLOR -	Mapping	Mar 21, 2024, 4:49 PM	Default	east
<input type="checkbox"/>	MappingTask41	Mapping Task	Mar 21, 2024, 4:51 PM	Default\Tag	map, east

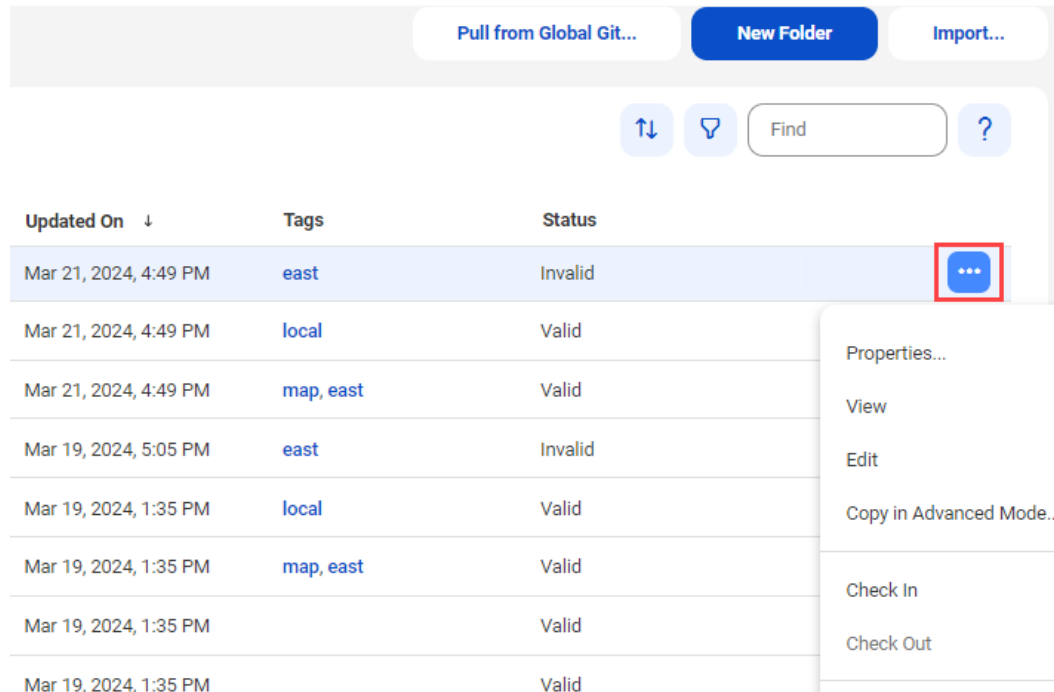
You can see projects, folders, and assets for all of the services that you use. If you select an asset to open it or perform an action, and the asset is created in a different service than the one you have open, the service opens in a new browser tab.

You can't use the following characters:

? ' | { } " ^ & [] / \

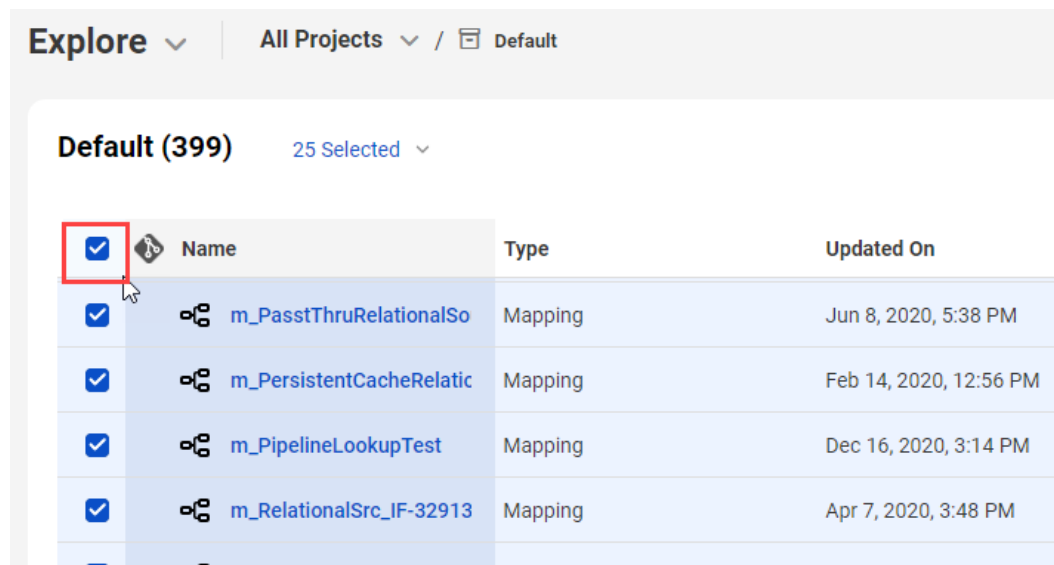
Working with projects and assets on the Explore page

Perform actions on projects, folders, and assets on the **Explore** page. To see what actions you can perform on an object, in the row that contains the object, click the **Actions** icon, as shown in the following image:



The Actions menu lists the actions you can perform based on your user role privileges and the permissions specified for the selected object. For example, your user role might have privileges to view and run tasks but not to delete tasks. You might not have permission to run a particular task because of the permissions set by the creator of the task.

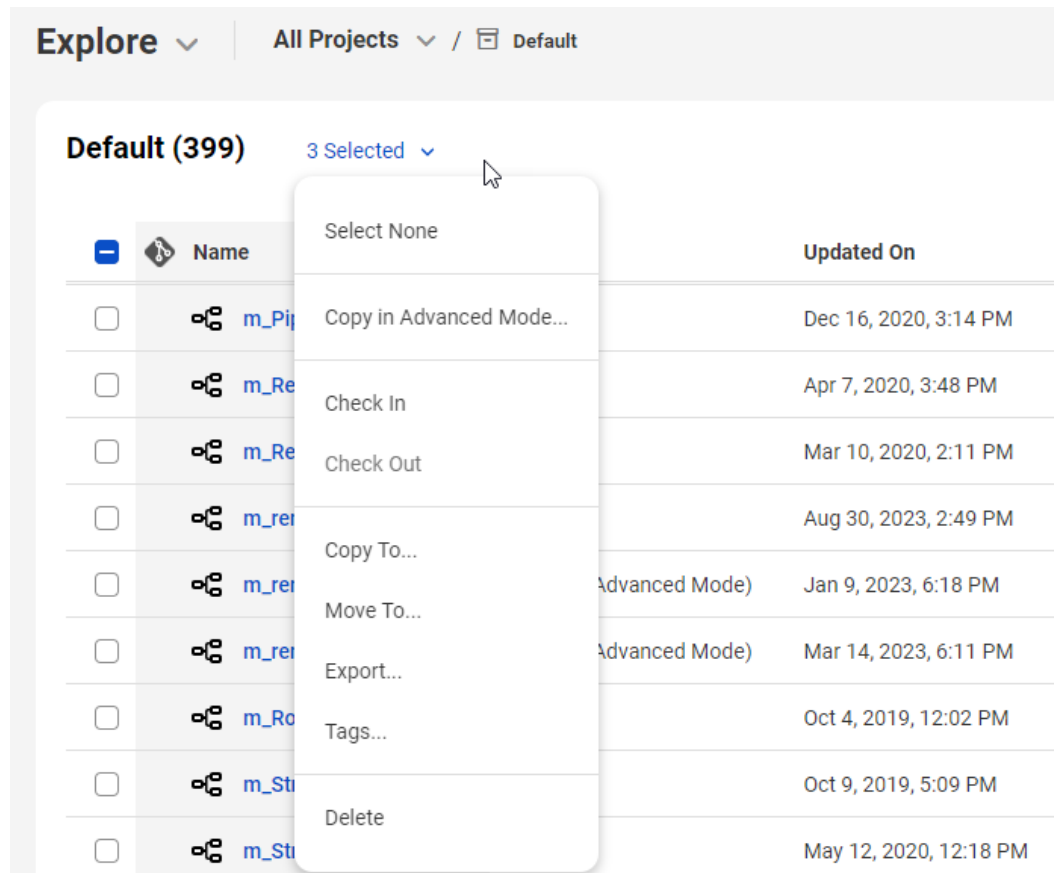
You can also perform an action on multiple objects at one time. Select the check box to the left of each object, or select the Select All check box to select all of the objects that are displayed on the current page. The following image shows the Select All check box in use:



After you select the objects, click **Actions** in the row of any of the selected objects.

The Actions menu will list the actions available for the selected assets based on your user role and privileges.

Alternatively, you can use the Selection menu to choose the action, as shown in the following image:



Customizing the Explore page

You can display, hide, or rearrange columns on the **Explore** page. To display or hide columns, right-click the column heading area and select or clear the column headings in the list. The headings in the list depend on whether projects, assets, or tags are in view on the **Explore** page.

In the following example, the **Updated By**, **Created On**, and **Created By** columns will be hidden when **All Projects** is selected:

The screenshot shows the 'Explore' interface with the following elements:

- Navigation: **Explore** (dropdown), **All Projects** (dropdown), **Default** (icon)
- Table Header: **Default (399)**, **3 Selected** (dropdown)
- Table Columns: **Name**, **Type**, **Updated On**
- Table Rows:
 - m_PipelineLookupTest** Mapping
 - m_RelationalSrc_IF-329** Mapping
 - m_RelationalTarget** Mapping
 - m_remove_duplicates** Mapping
 - m_remove_duplicates-A** Mapping (Advanced Mod)
 - m_remove_duplicates-A** Mapping (Advanced Mod)
 - m_RouteCustDataByTie** Mapping
- Context Menu (over 'Type' header):
 - Name**
 - Type** (highlighted)
 - Last Pull Time**
 - Git Hash**
 - Checked Out By**
 - Last Check In**
 - Updated On**

To rearrange columns, click a column heading and drag it to a different location.

CHAPTER 3

Informatica resources

In addition to the online help, you can find information about Informatica Intelligent Cloud Services using the following resources.

Informatica Intelligent Cloud Services web site

You can access the Informatica Intelligent Cloud Services web site at <http://www.informatica.com/cloud>. This site contains information about Informatica Cloud integration services.

Informatica Intelligent Cloud Services Communities

Use the Informatica Intelligent Cloud Services Community to discuss and resolve technical issues. You can also find technical tips, documentation updates, and answers to frequently asked questions.

Access the Informatica Intelligent Cloud Services Community at:

<https://network.informatica.com/community/informatica-network/products/cloud-integration>

Developers can learn more and share tips at the Cloud Developer community:

<https://network.informatica.com/community/informatica-network/products/cloud-integration/cloud-developers>

Informatica Intelligent Cloud Services Marketplace

Visit the Informatica Marketplace to try and buy Data Integration Connectors, templates, and mapplets:

<https://marketplace.informatica.com/>

Informatica Intelligent Cloud Services Trust Center

The Informatica Intelligent Cloud Services Trust Center provides information about Informatica security policies and real-time system availability.

You can access the trust center at <https://www.informatica.com/trust-center.html>.

Subscribe to the Informatica Intelligent Cloud Services Trust Center to receive upgrade, maintenance, and incident notifications. The [Informatica Intelligent Cloud Services Status](#) page displays the production status of all the Informatica cloud products. All maintenance updates are posted to this page, and during an outage, it will have the most current information. To ensure you are notified of updates and outages, you can subscribe to receive updates for a single component or all Informatica Intelligent Cloud Services components. Subscribing to all components is the best way to be certain you never miss an update.

To subscribe, on the [Informatica Intelligent Cloud Services Status](#) page, click **SUBSCRIBE TO UPDATES**. You can choose to receive notifications sent as emails, SMS text messages, webhooks, RSS feeds, or any combination of the four.

Informatica Product Availability Matrices

Product Availability Matrices (PAMs) indicate the versions of the operating systems, databases, and types of data sources and targets that a product release supports. You can browse the Informatica PAMs at <https://network.informatica.com/community/informatica-network/product-availability-matrices>.

Informatica Documentation

Use the Informatica Documentation Portal to explore an extensive library of documentation for current and recent product releases. To explore the Documentation Portal, visit <https://docs.informatica.com>.

If you have questions, comments, or ideas about the product documentation, contact the Informatica Documentation team at infa_documentation@informatica.com.

Data Integration connector documentation

You can access documentation for Data Integration Connectors at the Documentation Portal. To explore the Documentation Portal, visit <https://docs.informatica.com>.

Informatica Knowledge Base

Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

To search the Knowledge Base, visit <https://search.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB_Feedback@informatica.com.

Informatica Global Customer Support

You can contact a Global Support Center through the Informatica Network or by telephone.

To find online support resources on the Informatica Network, click **Contact Support** in the Informatica Intelligent Cloud Services Help menu to go to the **Cloud Support** page. The **Cloud Support** page includes system status information and community discussions. Log in to Informatica Network and click **Need Help** to find additional resources and to contact Informatica Global Customer Support through email.

The telephone numbers for Informatica Global Customer Support are available from the Informatica web site at <https://www.informatica.com/services-and-training/support-services/contact-us.html>.

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