Alibaba Cloud

DataWorks Workbench

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C-J Alibaba Cloud

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Document conventions

Style	Description	Example	
A Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	Danger: Resetting will result in the loss of user configuration data.	
O Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.	
○ Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	Notice: If the weight is set to 0, the server no longer receives new requests.	
⑦ Note	A note indicates supplemental instructions, best practices, tips, and other content.	Onte: You can use Ctrl + A to select all files.	
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings> Network> Set network type.	
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click OK.	
Courier font	Courier font is used for commands	Run the cd /d C:/window command to enter the Windows system folder.	
Italic	Italic formatting is used for parameters and variables.	bae log listinstanceid Instance_ID	
[] or [a b]	This format is used for an optional value, where only one item can be selected.	ipconfig [-all -t]	
{} or {a b}	This format is used for a required value, where only one item can be selected.		

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1.Overview of the DataWorks console

On the Overview page of the DataWorks console, you can find frequently used workspaces and go to the DataStudio, Data Integration, or DataService Studio page of a workspace to develop data or configure the workspace. You can also view product updates and news on the Overview page.

Log on to the DataWorks console as an organization administrator or by using an Alibaba Cloud account. The **Overview** page appears.

DataWorks	DataWorks / Open Platform		
Overview Workspaces	The DataWorks open platform consists of two modules: OpenAPI and OpenMessage, which allow you to develop and call API operations and subscribe to messages. These modules are suitable for scenarios in which different services are integrated. The OpenAPI module has been put into commercial use. The OpenMessage module is in public preview. You can upgrade DataWorks to Enterprise Edition to use the OpenMessage module.		
Resource Groups	OpenAPI OpenMessage Extensions		
Alerts ^			
Alert Resource	The Enterprise Edition DataWorks edition that you subscribe to expires in 1 days. Message Subscription will be disabled from Feb 11, 2022. To keep receiving event messages from DataWorks, renew your subscription.Renew DataWorks Enterprise Edition		
Alert Contacts			
Open Platform New	Free Quota of API Calls Data Timestamp:2022-02-08 Number of API Calls Data Timestamp:2022-02-08 % Free quota for API calls 1,000,000 calls per month. Remaining quota in the current month: 1,000,000 Times		
Compute Engines	105 quarte server como (presente como per institute remaining quarte in una curitaria manini (presente) Callo		
MaxCompute	API Call Details Data Timestamp:2022-02-08		
Graph Compute	Date 2022-02-01 - 2022-02-08 📾 API Type Please Select 🗸 API Level Please Select 🗸		
Hologres			
Lake and Warehouse Integratior	Date API Name API Type API Level 🚱 Number of Calls Today Number of Calls This Month 🖗		
	No matching record is found.		
	< Previous 1 Next >		

? Note

- If you log on as a RAM user, and no workspace is created, the system displays a message indicating that you must contact the administrator to obtain permissions related to workspaces. To allow a RAM user to create a workspace, grant the required permissions to the RAM user. For more information, see Grant a RAM user the permissions to perform operations in the DataWorks console and Create a workspace.
- A RAM user can go to the DataStudio page only after the RAM user is authorized.
- Workspaces in DataWorks are associated with projects in MaxCompute. For more information, see **Project**. You can view the MaxCompute project with which a DataWorks workspace is associated in the **Computing Engine information** section of the **Configuration** page. For more information, see **Configure a workspace**.

The **Overview** page shows the following items:

• Frequently used workspaces

The Frequently Used Workspaces section shows the workspaces that you frequently use. You can perform the following operations in this section:

- Click **Configuration** next to a workspace to modify the configurations of the workspace, such as the display name or recurrence setting. For more information, see **Configure a workspace**.
- Click a module name such as **Data Integration**, **Data Development**, or **Data Services** to go to a specific module to run nodes.

- Click create Workspace to create a workspace. For more information, see Create a workspace.
- Click **View all workspaces** to go to the Workspaces page page and perform the required operations.
- Regions where DataWorks is activated

The regions where DataWorks is activated within the current Alibaba Cloud account are displayed. You can click **open a new region** to activate DataWorks in a new region, view the version details of DataWorks that is activated in the current region, or upgrade the current version.

- Shortcuts
 - **Big data and AI experience pavilion**: Click **Big data and AI experience pavilion**. Then, you can view big data and artificial intelligence (AI) development cases in different scenes. You can also practice big data and AI development in your workspace based on the instructions provided in the DataWorks documentation.
 - **DataWorks product monthly**: Click **DataWorks product monthly**. Then, view the monthly feature updates and product activities of DataWorks.
 - New product recommendation: In the New product recommendation section, you can click Learn More that corresponds to the new feature that you want to understand.
 - **Recommended products:** In the right-side **Recommended products** section of the page, you can quickly go to the product pages of related Alibaba Cloud services to activate the required services, or go to the related consoles to perform operations.
 - Frequently Asked Questions: The Frequently Asked Questions section in the lower-right corner of the page provides answers to commonly asked questions. You can refer to this section to troubleshoot issues.

2.Workspaces page

On the Workspaces page in the DataWorks console, you can view all the workspaces within your account and perform relevant operations. For example, you can create, configure, delete, enable, and disable workspaces, and refresh the workspace list.

Go to the Workspaces page

- 1. Log on to the DataWorks console by using your Alibaba Cloud account. The **Overview** page appears.
- 2. In the left-side navigation pane, click **Workspaces**. On the Workspaces page, you can view all the workspaces within your Alibaba Cloud account.
 - Status: This column displays the status of each workspace. The status of a workspace may be Normal, Initializing, Initialization Failed, Deleting, Deleted, Disabled, or Update Failed. After you create a workspace, the workspace enters the Initializing state. Then, it enters the Initialization Failed or Normal state based on the initialization result.

After you disable a workspace, you can enable it again or delete it. After you enable the workspace again, the workspace enters the Normal state.

• Service: This column displays the icons of the types of compute engine instances that are associated with the workspace. When you move the pointer over an icon, all icons that represent the types of associated compute engine instances are displayed. If a compute engine instance of a specific type is available, its icon is in blue. If a compute engine instance of a specific type is overdue and has an overdue payment mark. If a compute engine instance of a specific type is overdue and deleted, its icon is dimmed. In most cases, a compute engine instance of a specific type is automatically deleted if you do not renew it within seven days after it is overdue.

Create a workspace

1. On the **Workspaces** page, select a region where you want to create a workspace in the top navigation bar.

? Note

- The time zone for the region that you select is automatically used as the time zone for scheduling. This indicates that the time zone is used when you configure the scheduling time for a node.
- If you select the US (Silicon Valley) or Germany (Frankfurt) region to create a workspace for the first time, a prompt message will be displayed. In the prompt message, you can submit a ticket to set the time zone for scheduling to the UTC+8 time zone.
- Take note of the following items when you change the time zone for scheduling:
 - You cannot change the time zone for scheduling twice. Proceed with caution.
 - Scope of impacts on the time:
 - The time zone that is used when you configure the scheduling time for a node on the DataStudio page is changed. For more information about how to configure the scheduling time for a node, see Configure time properties.
 - The time zone for the time that is displayed on pages in Operation Center is changed. For more information about Operation Center, see Overview.

Except for the page in DataStudio on which you configure the scheduling time for a node and the pages in Operation Center, other pages in DataStudio and pages of other DataWorks modules automatically use the time zone for the region in which the workspace resides.

Scope of impacts on users:

The change of the time zone for scheduling takes effect for regions. After you change the time zone for scheduling, the time zone that is used when you configure the scheduling time for a node and the time zone for the time that is displayed on pages in Operation Center are changed for all workspaces of all users in the current region.

2. Click **Create Workspace**. The **Basic Settings** step of the Create Workspace wizard appears. Configure the parameters and click **Next**.

Section	Parameter	Description
	Workspace Name	The name of the workspace. The name must be 3 to 23 characters in length and can contain letters, underscores (_), and digits. The name must start with a letter.
	Display Name	The display name of the workspace. The display name can be a maximum of 23 characters in length. It can contain letters, underscores (_), and digits and must start with a letter.

Section	Parameter	Description
Basic Information		 The mode of the workspace. Valid values: Basic Mode (Production Environment Only) and Standard Mode (Development and Production Environments). Basic Mode (Production Environment Only): A workspace in basic mode is associated with only one MaxCompute project. Workspaces in basic mode do not isolate the development environment from the production environment. In these workspaces, you can perform only basic data development and cannot strictly control the data development process and the permissions on tables.
	Mode	 Standard Mode (Development and Production Environments): A workspace in standard mode is associated with two MaxCompute projects. One serves as the development environment, and the other serves as the production environment. Workspaces in standard mode allow you to develop code in a standard way and strictly control the permissions on tables. These workspaces impose limits on table operations in the production environment for data security. For more information, see Basic mode and standard mode.
	Description	The description of the workspace.
Advanced Settings	Download SELECT Query Result	Specifies whether the query results that are returned by SELECT statements in DataStudio can be downloaded. If you turn off this switch, the query results cannot be downloaded. You can change the setting of this parameter for the workspace in the Workspace Settings panel after the workspace is created. For more information, see Configure security settings.

3. In the **Select Engines and Services** step, select compute engines and services based on your business requirements and click **Next**.

DataWorks is available as a commercial service. If you have not activated DataWorks in a region, activate it before you create a workspace in the region.

Section	Parameter	Description
DataWorks Services	Data Integration	Provides a stable, efficient, and scalable data synchronization platform. Data Integration is designed to efficiently transmit and synchronize data between heterogeneous data sources in complex network environments. For more information, see Data Integration.
Note The services that are enabled for the	Data Analytics	Allows you to design a data computing process that consists of multiple mutually dependent nodes based on your business requirements. The nodes are run by the scheduling system of DataWorks. For more information, see DataStudio.
workspace. By default, the check box in this	Operation Center	Allows you to view all your nodes and node instances and perform operations on them. For more information, see Operation Center.
section is selected.	Data Quality	Provides an end-to-end data quality solution that relies on DataWorks. This solution allows you to explore data, compare data, monitor data quality, scan SQL statements, and use intelligent alerting. For more information, see Data Quality.
MaxCompute	Provides a rapid, fully managed data warehouse solution that can process terabytes or petabytes of data. MaxCompute supports fast computing on large amounts of data, effectively reduces costs for enterprises, and ensures data security. For more information, see the MaxCompute documentation.	
		Note After you create workspaces in DataWorks, you must associate them with MaxCompute projects. Otherwise, the error project not found is returned when you run commands in the workspaces.
	Realtime Compute	Allows you to develop streaming computing nodes in DataWorks.
		Allows you to use E-MapReduce (EMR) to develop big data processing nodes in DataWorks. For more information, see the EMR documentation.
Compute	E-MapReduce	Notice The operation of associating an EMR compute engine instance with a workspace is suspended in DataWorks. If you need to perform such an operation, submit a ticket.
Engines	Hologres	Allows you to use HoloStudio in DataWorks to manage internal and foreign tables and develop Hologres SQL nodes.

Section	Parameter	Description
	Graph Compute	Allows you to use Graph Studio in DataWorks to manage Graph Compute instances.
		Allows you to develop AnalyticDB for PostgreSQL nodes in DataWorks. For more information, see 产品概述.
	AnalyticDB for PostgreSQL	Note You can use the AnalyticDB for PostgreSQL compute engine only in DataWorks Standard Edition or a more advanced edition.
	AnalyticDB for MySQL	Allows you to develop AnalyticDB for MySQL nodes in DataWorks. For more information about AnalyticDB for MySQL, see Product introduction.
		Note You can use the AnalyticDB for MySQL compute engine only in DataWorks Standard Edition or a more advanced edition.
Machine Learning Services	PAI Studio	Uses statistical algorithms to learn large amounts of historical data and generate an empirical model to provide business strategies.

4. In the Engine Details step, configure the parameters for the selected compute engines.

0	Associate a MaxCompute compute engine instance with a workspace	

Parameter	Description	
Method	Specifies whether to create a MaxCompute project or use an existing MaxCompute project. Valid values: Create Project and Associate Existing Project .	
Instance Display Name	The display name of the MaxCompute compute engine instance. The display name must be 3 to 28 characters in length and can contain letters, underscores (_), and digits. The display name must start with a letter.	
Region	The region of the workspace.	
	The billing method of the MaxCompute compute engine instance. Valid values: The pay-as-you-go billing method , Monthly package , and Developer version .	
Payment mode	Note A MaxCompute compute engine instance of the developer version cannot be associated with a workspace in standard mode.	

Parameter	Description
	Description
Quota group	The quotas of computing resources and disk space for the MaxCompute compute engine instance.
MaxCompute data type	The data type edition of the MaxCompute compute engine instance. Valid values: 2.0 data type (recommended), 1.0 data type (for users who already use 1.0 data type), and Hive compatible types (for Hive migration users). For more information, see Data type editions.
Whether to encrypt	Specifies whether to encrypt the MaxCompute compute engine instance.
Production Environment	 Configure the MaxCompute Project Name and Access Identity parameters for the production environment. MaxCompute Project Name: the name of the MaxCompute project that you want to associate with the workspace as the compute engine instance in the production environment. Access Identity: the identity that is used to access the MaxCompute project. Valid values: Alibaba Cloud primary account, Alibaba Cloud sub-account, and Alibaba Cloud RAM role.
Development Environment	 Configure the MaxCompute Project Name and Access Identity parameters for the development environment. MaxCompute Project Name: the name of the MaxCompute project that you want to associate with the workspace as the compute engine instance in the development environment. Note This MaxCompute project provides computing and storage resources. Access Identity: The default value is Task owner and cannot be changed.

• Associate an EMR compute engine instance with a workspace

Parameter	Description
Instance Display Name	The display name of the EMR compute engine instance.
Region	The region of the workspace.

Parameter	Description
Access Mode	 In shortcut mode, if you run or schedule EMR nodes in DataWorks by using an Alibaba Cloud account or a RAM user, the code of the nodes is committed to the EMR compute engine instance and run by a Hadoop user in the EMR compute engine instance. In security mode, if you run or schedule EMR nodes in DataWorks by using an Alibaba Cloud account or a RAM user, the code of the nodes is committed to the EMR compute engine instance and run by a user that has the same name as the Alibaba Cloud account or RAM user in the EMR compute engine instance. You can use EMR Ranger to manage the permissions of each user in the EMR compute engine instance. This ensures that Alibaba Cloud account accounts, node owners, or RAM users have different data permissions when they run EMR nodes in DataWorks. This way, higher data security is implemented.
Scheduling access identity	 If you set the Access Mode parameter to Shortcut mode, you can commit the code of an EMR node to the EMR compute engine instance by using an Alibaba Cloud account or a RAM user after the node is committed and deployed to the scheduling system of DataWorks. If you set the Access Mode parameter to Security mode, you can commit the code of an EMR node to the EMR compute engine instance by using an Alibaba Cloud account or a RAM user or as a node owner after the node is committed and deployed to the production environment. A Hadoop user that corresponds to the identity in the EMR compute engine instance is used to run the code.
	 Note This parameter is available only for the production environment. Before you associate an EMR compute engine instance with a workspace, you must attach the AliyunEMRDevelopAccess policy to workspace roles such as developers and administrators. This way, the roles can be used to create and run EMR nodes in DataStudio. The AliyunEMRDevelopAccess policy is attached to Alibaba Cloud accounts by default. If you want to use a RAM user to run EMR nodes, you must attach the AliyunEMRDevelopAccess policy to the RAM user. For more information, see Grant permissions to RAM users.

Parameter	Description		
	The identity that is used to commit the code of an EMR node in the development environment to the EMR compute engine instance. Default value: Task owner .		
	 Note This parameter is available only for the development environment of a workspace in standard mode. 		
Access identity	 Task owner can be an Alibaba Cloud account or a RAM user. Before you associate an EMR compute engine instance with a workspace, you must attach the AliyunEMRDevelopAccess policy to workspace roles such as developers and administrators. This way, the roles can be used to create and run EMR nodes in DataStudio. 		
	 The AliyunEMRDevelopAccess policy is attached to Alibaba Cloud accounts by default. If you want to use a RAM user to run EMR nodes, you must attach the AliyunEMRDevelopAccess policy to the RAM user. 		
Cluster ID	The ID of the EMR cluster that you want to associate with the workspace as the compute engine instance. Select an ID from the drop-down list. The EMR cluster is used as the runtime environment of EMR nodes.		
Project ID	The ID of the EMR project that you want to associate with the workspace. Select an ID from the drop-down list. The EMR project is used as the runtime environment of EMR nodes.		
	Note If you set Access Mode to Security mode , no EMR project IDs are displayed and can be selected.		
YARN resource queue	The name of the YARN resource queue in the EMR cluster. Unless otherwise specified, set this parameter to <i>default</i> .		

Parameter	Description			
Override DataStudio YARN resource queue	 Override DataStudio YARN resource queue is selected: All EMR nodes are run based on the specified YARN resource queue. 			
	Override DataStudio YARN resource queue is not selected:			
	 If you configure the queue parameter for an EMR node on the Advanced Settings tab, the EMR node is run based on the configured YARN resource queue. 			
	If you do not configure the queue parameter for an EMR node or you delete the setting of the queue parameter for an EMR node on the Advanced Settings tab, the EMR node is run based on the specified YARN resource queue.			
	Note If the Override DataStudio YARN resource queue check box is not displayed, submit a ticket to upgrade the DataWorks edition.			
Endpoint	The endpoint of the EMR cluster. The value of this parameter cannot be changed.			
	Select an exclusive resource group for scheduling that connects to the DataWorks workspace. If no exclusive resource group for scheduling is available, create one. For more information about how to create an exclusive resource group for scheduling and configure network connectivity, see Create and use an exclusive resource group for scheduling.			
Resource Group	After you select an exclusive resource group for scheduling, click Test Connectivity to test the connectivity between the exclusive resource group for scheduling and the EMR cluster. After the connectivity test is passed, the system initializes the exclusive resource group for scheduling.			
	Note The exclusive resource group for scheduling must be reinitialized if the configuration of the EMR cluster is modified.			

• Associate a Hologres compute engine instance with a workspace

Parameter	Description
Instance Display Name	The display name of the Hologres compute engine instance.

Parameter	Description		
Access identity	 The identity that is used to run the code of committed Hologres nodes. Valid values: Alibaba Cloud primary account and Alibaba Cloud sub-account. 		
	Note This parameter is available only for the production environment.		
	The default value of this parameter for the development environment is Task owner.		
Hologres instance name	The name of the Hologres instance that you want to associate with the workspace as the compute engine instance.		
Database name	The name of the database that is created in SQL Console , such as testdb.		

• Associate a Graph Compute compute engine instance with a workspace

Parameter	Description			
Instance Display Name	The display name of the Graph Compute compute engine instance. The display name must be 3 to 27 characters in length and can contain letters, underscores (_), and digits. The display name must start with a letter.			
Graph Compute Instance Name	The name of the Graph Compute instance that you want to associate with the workspace as the compute engine instance. If you do not have a Graph Compute instance, click Create an instance to purchase a Graph Compute instance.			
	Notice By default, each Alibaba Cloud account can purchase only one Graph Compute instance.			

$\circ~$ Associate an AnalyticDB for PostgreSQL compute engine instance with a workspace

Parameter	Description		
Instance Display Name	The display name of the AnalyticDB for PostgreSQL compute engine instance. The display name must be unique.		
InstanceName	The name of the AnalyticDB for PostgreSQL instance that you want to associate with the workspace as the compute engine instance.		
DatabaseName	The name of the AnalyticDB for PostgreSQL database that you want to associate with the workspace.		

Parameter	Description			
Username	The username that you can use to connect to the database. You can obtain the information from the Account Management page in the AnalyticDB for PostgreSQL console. For more information, see Create a database account.			
Password	The password that you can use to connect to the database.You can obtain the information from the Account Management page in the AnalyticDB for PostgreSQL console. For more information, see Create a database account.			
Connectivity Test	AnalyticDB for PostgreSQL nodes must be run on exclusive resource groups for scheduling. Therefore, you must select an exclusive resource group for scheduling. For more information, see Exclusive resource group mode.			
	Click Test Connectivity to test the connectivity between the specified exclusive resource group for scheduling and AnalyticDB for PostgreSQL instance. If no exclusive resource group for scheduling is available, click Create Exclusive Resource Group to create one.			

• Associate an AnalyticDB for MySQL compute engine instance with a workspace

♥ Notice

- You can use the AnalyticDB for MySQL compute engine only in DataWorks Standard Edition or a more advanced edition. Therefore, the **AnalyticDB for MySQL** tab is displayed only in DataWorks Standard Edition or a more advanced edition.
- AnalyticDB for MySQL nodes can run only on exclusive resource groups for scheduling.
- If you want to use a RAM user to associate an AnalyticDB for MySQL compute engine instance with a workspace, you must make sure that the RAM user is granted the DescribeDBClusters permission. For more information about how to grant permissions to a RAM user, see RAM users and permissions.

Parameter	Description		
Instance Display Name	The display name of the AnalyticDB for MySQL compute engine instance. The display name must be unique.		
InstanceName	The name of the AnalyticDB for MySQL cluster that you want to associate with the workspace as the compute engine instance.		
DatabaseName	The name of the AnalyticDB for MySQL database that you want to associate with the workspace.		
Username	The username that you can use to connect to the database. You can obtain the information from the Accounts page in the AnalyticDB for MySQL console. For more information, see Database accounts and permissions.		

Parameter	Description		
Password	The password that you can use to connect to the database.You can obtain the information from the Accounts page in the AnalyticDB for MySQL console. For more information, see Database accounts and permissions.		
Connectivity Test	AnalyticDB for MySQL nodes must be run on exclusive resource groups for scheduling. Therefore, you must select an exclusive resource group for scheduling. For more information, see Exclusive resource group mode.		
	Click Test Connectivity to test the connectivity between the specified exclusive resource group for scheduling and AnalyticDB for MySQL cluster. If no exclusive resource group for scheduling is available, click Create Exclusive Resource Group to create one.		

5. Click Create Workspace.

After the workspace is created, you can view the information about the workspace on the **Workspaces** page.

? Note

- If you are the owner of a workspace, all data in the workspace belongs to you. Other users can access the workspace only after you grant permissions to them. If you create a workspace by using a RAM user of an Alibaba Cloud account, the workspace belongs to both the RAM user and the Alibaba Cloud account.
- You can add a RAM user to a workspace so that the RAM user can use the workspace. This way, the RAM user does not need to create a workspace.

Configure a workspace

On the Workspaces page, you can find a workspace and click the 📰 icon in the Actions column. You can

select **Workspace Settings** from the drop-down list that appears to configure the basic and advanced settings of the workspace. For example, you can modify the display name and description of the workspace and enable the recurrence feature for the workspace. For more information, see Configure a workspace.

Dat aWorks

orkspaces						
sur current edition is Standard Edition . Expired At: May 13, 2022 $_{\rm o}$						Upgrade Extend View Edition Details Purchase Exclusive Resource
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forkspace Name/Display Name	Mode	Created At	Administrator	Status	Service	Actions
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	and the second second		100000	🗸 Normal	~	DataStudio Data In Operation Center DataStudio Data In Operation Center
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			101103-0010	🗸 Normal	~	DataStudio Data in Disable Workspace
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						Total 3 Pages < 1 2 3

Configure compute engines

You can configure DataWorks services, compute engines, and machine learning services for a workspace. You can select a compute engine of a specific type in the Modify service configuration pane of a workspace only after you purchase a compute engine instance of this compute engine type.

On the Workspaces page, you can find a workspace and click the 🗐 icon in the Actions column. You can

select **Engine Configuration** from the drop-down list that appears. In the dialog box that appears, you can configure the parameters.

To use a new compute engine in your workspace, select the compute engine and click **Next**. In the **Engine Details** step, configure the parameters for the compute engine and click **OK**.

Go to the DataStudio, Data Integration, or Data Map page

On the Workspaces page, find a workspace and click **Data Development**, **Data Integration**, or **Data Map** in the Actions column to go to the related page.

Delete or disable a workspace

On the Workspaces page, you can find a workspace and click the 📑 icon in the Actions column. You can

select Delete Workspace or Disable Workspace from the drop-down list that appears to delete or disable the current workspace.

• Delete a workspace

Select **Delete Workspace** from the drop-down list that appears. In the **Delete Workspace** panel, enter the verification code **YES** and click **OK**.

? Note

- In the Delete Workspace panel, the verification code is fixed as YES.
- After you delete a workspace, you cannot recover it. Proceed with caution when you delete a workspace.
- Disable a workspace

Select **Disable Workspace** from the drop-down list that appears. In the **Disable Workspace** panel, click **OK**.

? Note

- After you disable a workspace, the system no longer generates instances for auto triggered nodes in the workspace. The instances that are generated before you disable the workspace automatically run at the specified time. However, you cannot log on to the workspace to view information about these instances.
- After you disable a workspace, compute engine instances that are associated with the workspace still exist, and you may be still charged for the compute engine instances that you use to store data. You are not charged in the DataWorks service but in the Alibaba Cloud services to which the compute engine instances you use to store data belong. If you have questions about billing, you can contact the technical support of the Alibaba Cloud services.

3.Resource group list3.1. View resource groups

On the Resource Groups page, you can view and manage all exclusive and shared resource groups of your Alibaba Cloud account.

Go to the Resource Groups page

- 1. Log on to the DataWorks console by using your Alibaba Cloud account.
- 2. In the left-side navigation pane, click **Resource Groups** and select the required region.

On the **Resource Groups** page, you can view and manage all the resource groups of your Alibaba Cloud account.

? Note

- The peak hours for DataWorks tenants are from 00:00 to 09:00 each day. If you use shared resource groups during the peak hours, you share resources with other tenants.
- In this case, some tenants may preempt the resources. If you have high requirements on the output time of nodes, use exclusive resource groups to run the nodes. Regardless of the edition of DataWorks, you do not need to pay extra fees for node instances that are run on an exclusive resource group. For more information, see Exclusive resource group mode.

View an exclusive resource group

On the **Exclusive Resource Groups** tab of the **Resource Groups** page, you can view and manage the exclusive resource groups of your Alibaba Cloud account.

ltem	Description			
Create a dedicated resource group	DataWorks provides you with the exclusive resource group mode, which allows you to purchase exclusive resource groups and assign them to workspaces to run nodes. You can click Create Resource Group for Scheduling or Create Resource Group for Data Integration to create an exclusive resource group. For more information, see Purchase exclusive resources.			
Refresh	You can click the c icon in the upper-right corner to obtain the latest list of exclusive resource groups.			
Resource Group name	The name of the exclusive resource group. The name can contain letters, underscores (_), and digits, and can be up to 60 characters in length. You cannot change the name after the exclusive resource group is created.			
remarks	The description of the exclusive resource group that you enter when you create the resource group.			

ltem	Description			
Туре	The type of the exclusive resource group. A value of Resource Groups indicates an exclusive resource group for scheduling that is used to schedule general nodes. A value of Data Integration Resource Groups indicates an exclusive resource group for Data Integration that is used to synchronize data.			
Status	The status of the exclusive resource group. Valid values: Running , Expired , Released , Starting , Failed to perform the create operation , Updating , and Failed to perform the update operation .			
Valid Until	The date on which the exclusive resource group expires, which is based on the billing cycle that you set when you purchase the exclusive resource group. For more information, see DataWorks exclusive resources.			
Groups	The number of the resource groups that you have purchased.			
Resource Group Usage	The usage of the exclusive resource group, in percentage.			

ltem	Description
Actions	 You can perform the following operations on the exclusive resource group: View Information: View information about the exclusive resource group, including the resource type, security group, virtual private cloud (VPC), vSwitch, elastic IP address (EIP), and CIDR block. Scale Out: If the usage of the exclusive resource group remains high or the current resources are insufficient to run your nodes, scale out the exclusive resource group. Click Scale Out to change the configuration of the exclusive resource group by increasing the number of Elastic Compute Service (ECS) instances of the same specifications. Scale In: If the exclusive resource group is sometimes idle, scale in the exclusive resource group by reducing the number of ECS instances of the same specifications. Renew: To extend the validity period of the exclusive resource group, find the required resource group and click Renew. Network Settings: Each exclusive resource group is deployed in a VPC that is managed by DataWorks. If you do not bind an exclusive resource group to your VPC, the exclusive resource group to a workspace so that the exclusive resource group cannot be connected to data sources in your VPC. Change Workspace: Bind the exclusive resource group to a workspace so that the exclusive resource group can be used by the nodes in this workspaces. Change Specifications: If the specifications of the exclusive resource group cannot meet your business requirements, click Change Specifications to change the specifications of the resource groups are in the running state. On the page, you can perform 0&M operations. For example, you can create, run, and delete commands, and orchestrate commands in the environment baseline. For more information, see 0&M Assistant.
	 Note In the /home/ directory, only the /home/admin/userto ols/tools/ directory is writable. Other directories in the /home/ directory are not writable. We recommend that you install required packages in the /home/ad min/usertools/tools/ directory or a directory that is not in the /hom e/ directory.
	For more information, see Exclusive resource group mode.

View shared resource groups

Click the **Public Resource Groups** tab of the **Resource Groups** page to view the usage of the shared resource groups of your Alibaba Cloud account.

ltem	Description
Purchase Service Plan	You can click this button to go to the buy page. DataWorks provides resource plans for shared resource groups for scheduling. You can purchase a resource plan based on your business requirements.
Consumption Details	You can click this button to go to the User Center page, where you can view the consumption details of your Alibaba Cloud account.
Name	The name of the shared resource group. The name can contain letters, underscores (_), and digits, and can be up to 60 characters in length. You cannot change the name after the shared resource group is created.
Specification	For shared resource groups for scheduling, the specifications are 1,500,000 instances per month.
Margin	The remaining quotas in the shared resource group. From the date of purchase, non-dry-run nodes that are running preferentially consume quotas in the shared resource group.
Valid From	A shared resource group takes effect immediately after it is purchased.
Expired At	The date on which the shared resource group expires, which is based on the subscription period that you set when you purchase the shared resource group.

3.2. View the resource usage of an exclusive resource group

You can view the resource usage, resource usage trend, running nodes, and queued nodes of your exclusive resource group in real time. Then, you can monitor the resource usage of specific nodes and adjust inefficient resource use.

Procedure

- 1. Log on to the DataWorks console.
- 2. In the top navigation bar, select a region. In the left-side navigation pane, click **Resource Groups**. On the Exclusive Resource Groups tab, you can view **Type** and **Resource Group Usage** of each exclusive resource group.

Workbench Resource group list

Dat aWorks

C-C Alibaba Cloud	China (Shanghai) 👻		Q Search	Exp	penses Tickets ICP Enterprise Support	Official Site 🖾 🎝 🗑 EN
lataWorks	DataWorks / Resource Groups					Product Updates Document
Verview	Exclusive Resource Groups Public Resource Groups Cus	tom Resource Groups				
/orkspaces	Create a dedicated resource group Enter a search keywor	Q				c
esource Groups	Resource Group name/remarks	Туре	Status 🏆 🛛 Valid Until	Groups	Resource Group Usage	Actions
ompute Engines	10100	Data Integration Resource Groups	✓ Running 2021-01-29	1	0%	View Information Scale Out Scale In Renew Network settings Change Workspace
Graph Compute	22 M	Data Integration Resource Groups	✓ Running 2021-01-29	2		View Information Scale Out Scale In Renew Network settings Change Workspace
Hologres	Concession of the second se	Data Integration Resource Groups	✓ Running 2021-01-08	1	0%	View Information Scale Out Scale In Renew Network settings Change Workspace
	0	Resource Groups	✓ Running 2021-01-08	1	0%	View Information O&M Assistant Scale Out Scale In Renew Network settings Change Workspace
	10-0-0000	Resource Groups	✓ Running 2021-01-08	1	0%	View Information O&M Assistant Scale Out. Scale In Renew Network settings Change Workspace
	00-0-010	Data Integration Resource Groups	✓ Running 2021-01-30	1	0%	View Information Scale Out Scale In Renew Network settings Change Workspace
	2	Resource Groups	✓ Running 2021-01-27	1	0%	View Information O&M Assistant Scale Out Scale In Renew Network settings Change Workspace
		Resource Groups	✓ Running 2021-01-27	1	0%	View Information O&M Assistant Scale Out Scale In Renew Network settings Change Workspace
	10.4	Data Integration Resource Groups	✓ Running 2021-01-26	1	31.25%	View Information Scale Out Scale In Renew Network settings

3. On the **Exclusive Resource Groups** tab, find the exclusive resource group whose resource usage you want to view and click the value in the **Resource Group Usage** column. On the page that appears, you can view the resource usage of your exclusive resource group.

The following figure shows the details and resource usage of an exclusive resource group.

E Alibaba Cloud	China (Shanghai) 👻					Q Search	Expenses	Tickets I	CP Enterprise	Support	Official Site	۵ ¢	∀'@	EN 🌔
DataWorks	DataWorks / Resource Groups											Product Up	dates ¹⁰ Do	ocumentation
Overview	←													
Workspaces	Resource Group Details					Resource Usage 3						6	Scale Out	t Scale In
Resource Groups	Resource Group Name	10.0		2		-								
Alert Resource	Description: Resource Group Type	Data Integration Resource Groups		1	0									
Compute Engines	Service Status	 Running 		Running Nodes	Queuing Nodes			31	.25%					
MaxCompute														
Graph Compute	Trend for Resource Usage	e 🕘												
Hologres	Date: 2020-12-06	2021-01-04	m											C
	100%													
	75%													
	50%													
	25%													
	0% Dec 6, 2020, 00:00	00		Dec 15, 2020, 15:46:04		Dec 25	2020, 07:32:09					Jan 3	2021, 23:18:14	1

The following figure shows running nodes.

Running Nodes						×
						C
Nodes	Status	Node Type	Owner	Scheduled Time	Start From	Actions
1.000.000	✓ Running			Jan 4, 2021, 17:49:33		Go to operations
						< 1 >
						Closed

The following table describes the details and resource usage of an exclusive resource group.

No.	Parameter	Description
1	Resource Group Details	The basic information about the exclusive resource group, including the name, description, type, and service status.

No.	Parameter	Description
2	Running Nodes	 The number of nodes that are running by using resources in the exclusive resource group. Click Running Nodes. Then, you can view the details of the running nodes in the Running Nodes dialog box. The details include the following parameters: Nodes: the type of the node that is running by using resources in the exclusive resource group, including development nodes, manually triggered nodes, and auto triggered nodes. For an instance such as an auto triggered node instance or a retroactive instance in a production environment, you can click Go to operations in the Actions column to go to Operation Center and view the instance details. Notice For an auto triggered node instance, the Go to operations entry is available only after the auto triggered node is deployed. The following types of nodes are auto triggered nodes: Nodes on the DataStudio page that use resources in exclusive resource groups Real-time synchronization nodes on the Operation Center page that use resources in exclusive resource groups for data integration You can go to the related development pages to view the details of specific nodes. Node Type: the type of node, such as Data Integration and ODPS SQL. Owner: the owner of the node. Scheduled Time: the time at which the node is scheduled to run. For a running node on the DataStudio page, the value of this parameter indicates the time at which the node is manually triggered.
	Queuing Nodes	The number of nodes that are waiting for resources in the exclusive resource group.
3	Resource Usage	The real-time usage of the resources in the exclusive resource group.
4	Trend for Resource Usage	The resource usage of the exclusive resource group over time. You can specify a time range to view the trend of resource usage in that period.

No.	Parameter	Description
		The entries for scaling out or in the exclusive resource group. Set the number of resources that you want to add or remove and click Buy Now .
5	5 Scale Out and Scale In	The specifications of the resource group that you want to scale out or in must be the same as those specified when you purchase the resource group.

3.3. O&M Assistant

O&M Assistant allows you to create, run, and delete commands on an exclusive resource group. The feature also allows you to view the execution results of the commands and orchestrate commands in the environment baseline.

Notice The O&M Assistant feature is available only for exclusive resource groups for scheduling that are in the running state.

Limits

- You cannot edit a command after you create it. To edit a command, delete it and create another one.
- To prevent commands from being repeatedly run and avoid inconsistency between environment baselines, O&M Assistant does not allow you to manually run or delete commands that have been added to the environment baseline.
- Only shell commands are supported.
- In the */home/* directory, only the */home/admin/usertools/tools/* directory is writable. Other directories in the */home/* directory are not writable.

We recommend that you install the required packages in the */home/admin/usertools/tools/* directory or a directory that is not in the */home/* directory.

Go to the O&M Assistant page

- 1. Log on to the DataWorks console.
- 2. In the left-side navigation pane, click **Resource Groups**. By default, the **Exclusive Resource Groups** tab appears.
- 3. Find the required resource group and click **O&M Assist ant**.

On the **O&M** Assistant page of the resource group, you can perform the following operations: create and run commands, view execution results, and orchestrate commands in the environment baseline.

Create a command

- 1. On the **O&M Assistant** page, click **Create Command**.
- 2. In the Create Command panel, set the parameters as required.

Parameter	Description			
Command Name	The name of the command.			
Command Description	The brief description of the command.			
Command Type	The type of the command. Only shell commands are supported.			
	The content of the command to be run.			
Command Content	Note In the /home/ directory, only the /home/admin/usert ools/tools/ directory is writable. Other directories in the /home/ directory are not writable. The directory is writable only on the O&M Assistant page. You cannot write data to the directory when you run nodes. We recommend that you install the required packages in the /hom e/admin/usertools/tools/ directory or a directory that is not in the /home/ directory.			
Installation Directories	The parent directory of the directory where the command is to be run. The specified parent directory will be added to the directory whitelist. Separate multiple directories with semicolons (;). Example: /usr/tools/ tool_a;/usr/tools/tool_b.			
Timeout	The timeout period of the command. Unit: seconds. When the command times out, the system forcibly stops running the command.			

3. After you set the preceding parameters, click **Create**.

Run a command

After you create a command, find the command and click **Run command**.

View the execution result

After you run a command, click **View Result** for the command in the lower part of the page to view the execution result and details.

Delete a command

To delete a command, find the command and click **Delete**. In the **Delete Command** message, click **OK**.

Orchestrate commands in the environment baseline

The environment baseline indicates a series of commands to be run in the specified sequence for preparing the environment for an exclusive resource group. When you scale out an exclusive resource group, the environment baseline is run to prepare the environment. This ensures consistency between the new environment and original environment. This way, nodes can be run in the same environment.

After you add the commands that are run in O&M Assistant to the environment baseline, the commands are also run in the specified sequence for the resources that are obtained after the scale-out.

Note Only commands added to the environment baseline are run in the new environment based on the specified sequence.

- 1. Click Environment Baseline Command Orchestration.
- 2. In the **Environment Baseline Command Orchestration** dialog box, set the **Commands** parameter and adjust the sequence of the commands.
- 3. Select The content and sequence of the baseline commands have been confirmed.
- 4. Click OK.

3.4. Add a route

This topic describes how to add a route to a virtual private cloud (VPC) or a data center.

Prerequisites

Your VPC is associated with an exclusive resource group. For more information, see Create and use an exclusive resource group for scheduling and Create and use an exclusive resource group for Data Integration.

Context

You can add a route to connect your exclusive resource group to a data source. If a network connectivity issue still exists after you add the route, fix the issue based on the following guidelines:

- If you use an exclusive resource group for Data Integration to access a data source in a data center or access a data source across accounts, you must associate the exclusive resource group with the VPC to which the data source is connected. For more information, see Select a network connectivity solution.
- Check whether the data source has a whitelist or the access port is controlled by a security group. If so, make sure that the data source can be accessed from the Elastic Network Interface (ENI) IP address of the exclusive resource group.
- Make sure that Object Storage Service (OSS) and the required service port are normal.

Add a route to a VPC

- 1. Log on to the DataWorks console.
- 2. In the left-side navigation pane, click **Resource Groups**.
- 3. Find the required exclusive resource group that is associated with a VPC and click **Network Settings** in the Actions column.
- 4. Find the VPC to which you want to add a route, click **Custom Route** in the Actions column.
- 5. In the Custom Route panel, click Add Route.

If the exclusive resource group is bound to a vSwitch, the system adds a route for the resource group by default. The destination of this route is the CIDR block of the VPC where the vSwitch resides. This ensures that the exclusive resource group can access all data sources in this VPC. You can delete this route in the **Custom Route** panel.

6. In the Add Route dialog box, set the parameters as required.

New route	×
* Purpose type VPC IDC	
* Destination China (Shan V Destination VPC VPC	\sim
* Connection	5
* Destination	\sim
Switch instance New Switch	
Routing	
Diagram	·
Generate route	Close

Parameter	Description
Destination Type	If your data source resides in a VPC, select VPC .
	The region and name of the VPC where the data source is deployed.
Destination VPC	Note This parameter is displayed only if the Destination Type parameter is set to VPC .

Parameter	Description				
	 Valid values: Switch, Fixed IP Address, and CIDR Block. Switch: You can select a destination vSwitch from the Destination VSwitch drop-down list. 				
	Note You must set the Destination VSwitch parameter only if you set the Connection Method parameter to Switch .				
Connection Method	If you add a route in this mode, make sure that the required data source is bound to the specified vSwitch. If the required data source resides on multiple ECS instances that are bound to different vSwitches, add a route to each vSwitch.				
	• Fixed IP Address : You can enter a fixed IP address as the destination of the route.				
	You must enter the IP address of the ECS instance on which the data source resides in the destination VPC.				
	• CIDR Block : You can enter a CIDR block as the destination of the route.				
	You must enter a subset of the CIDR block of the destination VPC, which contains the IP address of the ECS instance on which the required data source resides.				
Routing	By default, the value cannot be changed.				

7. Click Generate Route.

Add a route to a data center

- 1. In the left-side navigation pane of the DataWorks console, click **Resource Groups**.
- 2. Find the required exclusive resource group that is associated with a VPC and click **Network Settings** in the Actions column.
- 3. Find the VPC to which you want to add a route and click **Custom Route**.
- 4. In the Custom Route panel, click Add Route.
- 5. In the Add Route dialog box, set the parameters as required.

New route	×
* Purpose type	O VPC IDC
* Connection	Fixed IP Specify the CIDR block
mode	
* Fixed IP	Please enter a fixed IP
Routing	
Diagram	
	Generate route Close

Parameter	Description
Destination Type	If the data source resides in a data center, select IDC.
Connection Method	Valid values: Fixed IP Address and CIDR Block.
	• Fixed IP Address : You can enter a fixed IP address as the destination of the route.
	You must enter the IP address of the host on which the required data source resides in the destination data center.
	• CIDR Block : You can enter a CIDR block as the destination of the route.
	You must enter a subset of the CIDR block of the destination data center, which contains the IP address of the host on which the required data source resides.
Routing	By default, the value cannot be changed.

6. Click Generate Route.

3.5. Exclusive resource group mode

DataWorks provides the exclusive resource group mode that allows you to create exclusive resource groups and assign them to workspaces to run nodes. This topic describes how to purchase exclusive resources and create, view, manage, and use exclusive resource groups.

Background information

In exclusive resource group mode, physical resources such as the networks, disks, CPU, and memory are completely exclusive. The exclusive resource group mode has the following features:

- Resources of different users are isolated.
- Resources that are used to run nodes in different workspaces are isolated.
- Exclusive resources can be scaled in or out. You can use and flexibly configure exclusive resources.

? Note If you use shared resource groups, you share resources with other tenants. The peak hours for DataWorks tenants to run nodes are from 00:00 to 09:00 each day. If you want to run a large number of nodes during peak hours in your workspace, we recommend that you use an exclusive resource group. For more information about exclusive resource groups, see Create and use an exclusive resource group for scheduling and Create and use an exclusive resource group for Data Integration.

RAM users to which the AliyunBSSOrderAccess policy is attached can create exclusive resource groups and perform operations on them.

Purchase exclusive resources

You can purchase DataWorks exclusive resources based on the subscription billing method. To purchase exclusive resources, you can go to the **product page** or open the **Create a dedicated resource group** panel.

- Go to the product page
- Open the Create a dedicated resource group panel
 - i. Log on to the DataWorks console.
 - ii. In the left-side navigation pane, click **Resource Groups**. The **Exclusive Resource Groups** tab appears.
 - iii. If you have not purchased exclusive resources in the current region, click **Create Resource Group for Scheduling** or **Create Resource Group for Data Integration**.
 - iv. In the **Create a dedicated resource group** panel, click **Purchase** next to Order Number to go to the buy page.

Create a dedicated resource group		
() Exclusive resources for scheduling and exclusive resources for Data Integration are used for different purposes. For more information, see the documentation.		
Resource Group Type: Exclusive Resource Groups Exclusive Resource Groups for Data Integration * Resource Group Name:		
Enter a resource group name.		
* Resource Group Description: Enter the resource group description.		
* Order Number: Purchase Current region:华东2(上海). Purchase a resource group that resides in th current region.	ne	
Select an order number.	\sim	

On the buy page, set the **Region**, **Type**, **Exclusive Resources for Scheduling**, **Units**, and **Duration** parameters as required and click **Buy Now**.

? Note Exclusive resource groups cannot be shared among regions. For example, an exclusive resource group in the China (Shanghai) region can be used only by workspaces in the China (Shanghai) region.

Create an exclusive resource group

1. On the Exclusive Resource Groups tab of the Resource Groups page, click Create Resource Group for Scheduling or Create Resource Group for Data Integration.

Parameter	Description	
Resource Group Type	The type of the resource group. Exclusive resource groups are classified into exclusive resource groups for scheduling and exclusive resource groups for Data Integration. The former type is used to schedule general nodes and the latter type is used to run sync nodes.	
	The name of the resource group. The name must be unique within the current tenant.	
Resource Group Name	Note A tenant refers to an Alibaba Cloud account. Each tenant may have multiple RAM users.	
Resource Group Description	The description of the resource group.	
Order Number	The ID of the order that you placed to purchase the exclusive resources. If you have not purchased exclusive resources, click Purchase .	

2. In the Create a dedicated resource group panel, set the parameters as required.

3. After the configuration is complete, click **OK**.

? Note The exclusive resource group is initialized within 20 minutes. Wait until its status changes to **Running**.

View an exclusive resource group

After you create an exclusive resource group, you can view its basic information, such as the expiration time, resource quantity, and resource group usage, in the exclusive resource group list.

- Valid Until: the time when the exclusive resource group expires. The expiration time is determined based on the duration that you set when you placed the relevant order.
 - You can renew an exclusive resource group before it expires. If an exclusive resource group is not renewed after it expires, the exclusive resource group is in the Expired state and cannot be used for new nodes.
 - You can activate an expired exclusive resource group within seven days after it expires. If you do not activate an exclusive resource group within seven days after it expires, it is released.

- Groups: the quantity of resources that you purchased.
- **Resource Group Usage**: the usage of the resource group in percentage.

Manage an exclusive resource group

After you create an exclusive resource group, you can manage it in the exclusive resource group list. For example, you can scale in, scale out, or renew the exclusive resource group, configure network settings, or change the workspace to which the exclusive resource group belongs.

• Scale Out

If the usage of an exclusive resource group remains high or fails to meet your business requirements, find the exclusive resource group and click **Scale Out** in the Actions column. You can purchase more resources for the resource group.

• Scale In

If an exclusive resource group is sometimes idle, find the exclusive resource group and click **Scale In** in the Actions column. You can decrease the quantity of resources in the resource group.

• Renew

To extend the validity period of an exclusive resource group, find the exclusive resource group and click **Renew** in the Actions column.

• Network Settings

Exclusive resource groups are deployed in a virtual private cloud (VPC) that is managed by DataWorks. If you want to connect an exclusive resource group to a data source in your own VPC, you must associate the exclusive resource group with your VPC.

i. Find the required resource group and click **Network Settings** in the Actions column to associate the resource group with a VPC on the **VPC Binding** tab.

Before the association, authorize DataWorks to access your cloud resources in the RAM console.

- ii. After the authorization is complete, click Add Binding.
- iii. In the Add VPC Binding panel, set the parameters as required.

Ad	dd VPC Binding 😮	
	* Resource Group Name:	
	dx_hangzhou_test	\sim
	Type: Resource Group Zone: cn-hangzhou-i Remaining VPCs Th 1	nat Can Be Bound:
	* VPC: 😨	Create VPC
	Please Select	\sim
	* VSwitch: 😧	Create VSwitch
	Please Select	\sim
	Select the VSwitch bound to the data store to be synchronized.	
	* Security Groups: 😢	Create Security
	Please Select	Group
	Note: A new binding creates an ENI in your VPC and consumes your quota service availability, do not delete it.	ı. To guarantee
	Cancel	

Notice You must associate the exclusive resource group with the VPC which the required data source is located in or connected to.

If you want to use an exclusive resource group to access a data source in a data center or access a data source across Alibaba Cloud accounts or regions, you must associate the exclusive resource group with the VPC to which the data source is connected. For more information, see Create and use an exclusive resource group for Data Integration. You must also add a custom route entry when you associate the exclusive resource group with the VPC. For more information, see Add a route.

If relevant information changes after the association, find the resource group and click **Unbind**. Then, you can associate the resource group with the VPC again.

Change Workspace

You must associate an exclusive resource group with a workspace so that the exclusive resource group can be used by nodes in the workspace. You can associate an exclusive resource group with multiple workspaces.

• Change Specifications

If the specifications of an exclusive resource group cannot meet your business requirements, find the exclusive resource group and click **Change Specifications** in the Actions column. In the **Change Specifications of Resource Group** dialog box, change the specifications. For information about available specifications of resource groups, see Performance metrics and Performance metrics.

Change Specifications of Resource Group	×
If you change the specifications of a resource group, resources in the resource group will be replaced. Before you perform this operation, make sure that no node instare group. If a node instance is running on the resource group, stop the node instance or wait until the running of the node instance is complete.	nce is running on the resource
Specifications 2 Pay 3 Stop Node Instance Current Configurations: 2 Pay 3 Stop Node Instance	4 Update Configurations
Instance ID: d6aa93de-eec0-4346-9cb2-67e0c707259d Exclusive Resource Group Type: Resource Groups Region and Zone: cn-hangzhou Resources: 1 Expired At: Nov 15, 2021, 00:00:00 Expired At: Nov 15, 2021, 00:00:00	
Resource Groups: 4c8g * Change 12 vCPU 24 GiB	
Specifications: Terms of Service: DataWorks Exclusive Resources (Subscription) Terms of Service	

Note When you change the specifications, you change server resources for the resource group. After the payment is complete, if node instances are running on the resource group, they are listed in the Stop Node Instance step. Click Stop Now in the Actions column of the required node instances to stop the node instances, or change the specifications after the execution of the node instances is complete. Otherwise, you cannot change the specifications of the resource group.

Use an exclusive resource group

After an exclusive resource group is associated with a workspace, you can assign the exclusive resource group to nodes in the workspace.

Exclusive resource groups are classified into exclusive resource groups for scheduling and exclusive resource groups for Data Integration.

- Exclusive resource groups for scheduling
 - i. Log on to the DataWorks console.
 - ii. In the left-side navigation pane, click **Workspaces**.
 - iii. Find the required workspace and click Data Analytics in the Actions column.
 - iv. On the DataStudio page, double-click the required node. The node configuration tab appears.
 - v. Click the Properties tab in the right-side navigation pane.
 - vi. In the **Resource Group** section, select a resource group from the **Resource Group** drop-down list.

Properties Auto Rerun up on Error	Properties
* Validity Perio 1970-01-01 - 9999-01-1 d ① Resource Group Purchase Resource Group	Versions
Resource Gr Please Select V	Resource Group
Dependencies ? Same Cycle Previous Cycle Analyze Code Clear Code Analysis Results	Group configuration

• Exclusive resource groups for Data Integration

After you create an exclusive resource group for Data Integration, you can select it when you configure a data integration node.

- i. On the **Exclusive Resource Groups** tab of the **Resource Groups** page, find the required exclusive resource group and click **Change Workspace**. Associate the exclusive resource group for Data Integration with a workspace.
- ii. On the configuration tab of a batch sync node, configure scheduling properties, test the node, and then select the resource group that is used to run the node.
 - a. Click the 🔳 icon in the upper-left corner and choose All Products > Data Development >

DataStudio. Switch to the required workspace.

- b. In the **Scheduled Workflow** pane, double-click the required node to go to the node configuration tab.
- c. Click the **Resource Group configuration** tab in the right-side pane.

d. In the **Resource Group configuration** panel, select the required resource group type and resource group.

			Deploy 🏞	Operation Cen	ter 🏞
× Resource Group configura	tion ⑦				Pro
					per
		joint debugging operation with the da			Properties
appropriate resource gr	oup for your network scenario.				Ver
					Versions
Resource Group comparison in Programme: () Exclusive		rce Groups 💿 Common Resource Grou			
Intelligent recommendation					New
You can use DataWorks to pur resources and maximum time		esource group for data integration tasks. Thi	s ensures exclus	live access to	
	Public Network Acce	ssible Data Source			
	Public Network	DataWorks			
	Accessible	VPC			
	-	<u>→</u> _			
	Data Source	Exclusive			
	Data Source	Resource Group			
The exclusive re	source group can directly access data sou	rces on the public network			
* Exclusive Resource Groups:	xiangcui_vpc	New Exclusive Resource Grou	IP I		
	✓ xiangcui_vpc				

e. On the configuration tab of the node, click the 📳 icon in the toolbar.

4.Alert configurations4.1. Configure and view alert contacts

You can log on to the DataWorks console and add a RAM user or a RAM role as an alert contact on the Alert Contacts page. If an error occurs during the running of a node, DataWorks sends alert notifications to the alert contact that you specified. This allows you to handle exceptions at the earliest opportunity. This topic describes how to configure and view alert contacts.

Prerequisites

A RAM user or a RAM role is created and added to a DataWorks workspace. For more information about how to create a RAM user or a RAM role, see Create a RAM user and RAM role overview. For more information about how to add a RAM user or a RAM role to a DataWorks workspace, see Add workspace members.

Limits

- When you specify the mobile phone number of an alert contact, you must add a country code before the mobile phone number. For example, you must specify a mobile phone number in the Chinese mainland in the format of *86139********.
- Only an Alibaba Cloud account and a RAM user that is attached the AliyunDataWorksFullAccess policy can configure an alert contact.

Go to the Alert Contacts page

- 1. Log on to the DataWorks console.
- 2. In the left-side navigation pane, choose Alerts > Alert Contacts.
- 3. In the top navigation bar, select the region where your workspace resides to go to the **Alert Contacts** page of the current logon account.

On the **Alert Contacts** page, you can specify a RAM user or a RAM role as an alert contact. If an error occurs during the running of a node, DataWorks sends alert notifications to the alert contact that you specified by phone call or email. This allows you to handle exceptions at the earliest opportunity. For more information about how to specify a RAM user as an alert contact, see Specify a RAM user as an alert contact. For more information about how to specify a RAM role as an alert contact, see Specify a RAM user as an alert contact.

Specify a RAM user as an alert contact

taWorks	DataWorks / Alert Contacts Product Updates							
rerview	Alert Contacts							
Vorkspaces	The following tabs show RAM roles and the RAM	I users that are added as members of the DataWorks workspace.						
Resource Groups	Mobile phone numbers and emails are applied to	o node monitoring in Operation Center, data quality monitoring, and	approval process notifications.					
Alerts	RAM Users RAM Role							
Alert Resource			7					
Alert Contacts	Synchronize Contact Information of RAM Users	Search by RAM user Q 1			(
Open Platform New	RAM User	Display Name of RAM User	Mobile Phone Number	Email	Actions 2			
Compute Engines	THE PROPERTY	10000	100		Edit			
MaxCompute	4		10.0	100 M	Edit			
	No. of Concession		10.0	100	Edit			
Graph Compute	8-10-	1010	AL 100-101-1	CONTRACTOR NO.	Edit			
Hologres	10000 C			10000000000000000	Edit			
Lake and Warehouse Integration	and the second sec		4-101000	10.000	Edit			
		-		101003000000000000000000000000000000000	Edit			
	49.44T		10.0	And a second sec	Edit			
	er later in den i	the definition of the definition		1000	Edit			
	and the second sec	10	10.0	1000	Edit			

On the **RAM Users** tab, you can view all the RAM users of the current logon account, including the display names, mobile phone numbers, and email addresses of the RAM users. If no **mobile phone number** or **email address** is specified for a RAM user, **None** is displayed in the Mobile Phone Number column or the Email column for the RAM user. In this case, the RAM user is not added as an alert contact and DataWorks does not send an alert notification to the RAM user even if a monitoring task generates an alert. If you want to add a RAM user as an alert contact, perform the following steps:

• Customize the contact information.

Specify the mobile phone number or email address of an alert contact.

- i. On the RAM Users tab, find the RAM user for which you want to configure contact information and click **Edit** in the **Actions** column.
- ii. In the Set Alert Contact dialog box, set the **Mobile Phone Number** and **Email Address** parameters.

? Note You can set both or either of the Mobile Phone Number and Email Address parameters based on your business requirements. You can receive alert notifications by using the method that you specify.

Set Alert Cor	ntact	×
the aler	e configuration is complete, a confirmation message is sent to t contact over the mobile phone number or email address of the . The link provided in the message is valid for 24 hours.	
* Name:		
Mobile		
Phone		
Number:		
Email		
Address:		
	OK Cance	el

iii. Click **OK**. The contact information is added.

After you add the contact information, the status of the contact information changes to **Waiting for Activation**. You must activate the contact information for the contact information to take effect.

RAM Users	RAM Role						
Synchronize Contac	ct Information of RAM U	ers Search by F	AM user	Q			C
RAM User			Display Name of R	AM User	Mobile Phone Number	Email	Actions
moriartychen			moriartychen		Waiting for Activation @	A confirmation message is sent to ye click the link provided in the confirm	our mobile phone. Check your text message and nation message to confirm the operation.

iv. Activate the contact information.

After you set the **Mobile Phone Number** or **Email Address** parameter for an alert contact, you will receive a text message or an email. You must activate the contact information by following the instructions in the text message or email. The contact information takes effect only after you activate it.

? Note

- The configured **mobile phone number** or **email address** takes effect only after you activate them.
- The activation link in the text message or email that you received is valid for 24 hours. Check the text message or email to activate the contact information within 24 hours.
- Synchronize the contact information that is configured for RAM users with one click.

If the contact information about RAM users of the current logon account has been configured in the RAM console, you can click Synchronize Contact Information of RAM Users in the rectangle marked with 2 in the preceding figure to overwrite all the custom contact information on the RAM Users tab with the contact information that you configured for the RAM users. For more information about how to view and modify the contact information that is configured for RAM users, see Use a RAM user to log on to the DataWorks console and use DataWorks.

? Note

- You must configure valid contact information for RAM users.
- If all the alert contact information in the current workspace is synchronized from the RAM console, **Synchronize Contact Information of RAM Users** is dimmed.

Specify a RAM role as an alert contact

Dat aWorks

DataWorks	Interfollowing tabs show RAM roles and the RAM users that are added as members of the DataWorks workspace.			
Overview	Mobile phone numbers and emails are applied to node monitoring in Operation Center, data quality monitoring, and approv.	al process notifications.		
Workspaces Resource Groups	RAM Users RAM Role			
Alerts ^	Search by display name of RAM user Q.			С
Alert Resource	Role Name	Mobile Phone Number	Email	Actions
Alert Contacts	1.818	Waiting for Activation	None	Edit
Open Platform	10 m m m m	None	None	Edit
	10-10-10-10-10-10-1	None	None	Edit
compose engines	The American States	None	None	Edit
MaxCompute <	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	None	None	Edit
Graph Compute	10 M M	None	None	Edit
Hologres	Name and Address and Ad	None	None	Edit
ake and Warehouse Integratior	republic called colorations	None	None	Edit
	No. An Antoine Contract of Con	None	None	Edit
	No. Colorisa (Cha	None	None	Edit
				Previous 1 2 Next >

On the **RAM Role** tab, you can view all the RAM roles of the current logon account, including the role names, mobile phone numbers, and email addresses of the RAM roles. If no **mobile phone number** or **email address** is configured for a RAM role, **None** is displayed in the Mobile Phone Number or Email column for the RAM role. In this case, the RAM role is not added as an alert contact. As a result, DataWorks does not send an alert notification to the RAM role even if a monitoring task generates an alert. If you want to add a RAM role as an alert contact, perform the following steps:

• Customize the contact information.

Specify the mobile phone number or email address of an alert contact.

- i. On the RAM Role tab, find the RAM role for which you want to configure contact information and click Edit in the Actions column.
- ii. In the Set Alert Contact dialog box, set the **Mobile Phone Number** and **Email Address** parameters.

? Note You can set both or either of the Mobile Phone Number and Email Address parameters based on your business requirements. You can receive alert notifications by using the method that you specify.

Set Alert Cor	ntact	\times
the ale	e configuration is complete, a confirmation message is sent to t contact over the mobile phone number or email address of the . The link provided in the message is valid for 24 hours.	
* Name:		
Mobile	10000000	
Phone		
Number:		
Email		
Address:		
	OK Canc	el

iii. Click **OK**. The contact information is added.

After you add the contact information, the status of the contact information changes to **Waiting for Activation**. You must activate the contact information for the contact information to take effect.

RAM Users RAM Role			
Search by display name of RAM user Q			C
Role Name	Mobile Phone Number	Email	Actions
xc-dw-rle	Waiting for Activation 🔞	A confirmation message is sent to your mobile phone. click the link provided in the confirmation message to	Check your text message and confirm the operation.

iv. Activate the contact information.

After you set the **Mobile Phone Number** or **Email Address** parameter for an alert contact, you will receive a text message or an email. You must activate the contact information by following the instructions in the text message or email. The contact information takes effect only after you activate it.

⑦ Note

- The configured mobile phone number or email address takes effect only after you activate them.
- The activation link in the text message or email that you received is valid for 24 hours. Check the text message or email to activate the contact information within 24 hours.

5.Compute engine list

You can view information about the compute engines that you have activated on the compute engine pages in the DataWorks console.

View the compute engine list

- 1. Log on to the DataWorks console by using your Alibaba Cloud account.
- 2. In the left-side navigation pane, click **Compute Engines**. Then, click **MaxCompute**, **Graph Compute**, or **Interactive Analytics** to view the list of the corresponding compute engines.

MaxCompute

In the left-side navigation pane, choose **Compute Engines > MaxCompute**. On the page that appears, you can manage the billing methods and view the activated MaxCompute projects.

- Currently, MaxCompute supports the following billing methods: pay-as-you-go and subscription. For more information, see Overview.
- Activation: In this section, you can search for MaxCompute projects by project name. This section displays MaxCompute project names, regions in which MaxCompute projects are activated, billing methods of the projects, DataWorks workspaces to which the projects belong, regions in which the workspaces are activated, resource groups used by the projects, and project owners.

You can also click **Change Resource Group** to change the resource group used by a project activated in subscription mode. After you click **Change Resource Group**, the compute unit (CU) management page appears. If you have not purchased any MaxCompute resources in subscription mode, a message appears after you click **Change Resource Group**, indicating that no resources are available for the current account.

Graph Compute

In the left-side navigation pane, choose **Compute Engines > Graph Compute**. On the page that appears, you can view the names, IDs, running and production status, regions, zones, billing methods, creation time, and versions of your Graph Compute instances, and perform relevant operations. For example, you can click **Graph Studio** to manage your instances in Graph Studio and click **Rest art Instance** to restart your instances.

Create Engine Instance

Click **Create Engine Instance**. On the **Graph Compute Public Preview** page that appears, set parameters as required to purchase a Graph Compute instance.

? Note

- Currently, only **Zone E** is supported.
- If you cannot find the required Virtual Private Cloud (VPC) or vSwitch, log on to the VPC console to check whether the VPC or vSwitch exists. Create a VPC or vSwitch if needed.
 For more information, see Create and manage a VPC and Work with vSwitches.
- During the public preview, you must obtain the public preview qualification of Graph Compute before you can purchase a Graph Compute instance. You can submit an application on the public preview application page as prompted. One account only needs to apply for the public preview qualification once.
- You can create up to three Graph Compute instances and can only use one Graph Compute instance in a DataWorks workspace.

• Graph Studio

After creating a Graph Compute instance, you can click **Graph Studio** to open the **Graph Studio** page and perform relevant operations.

• Learn More about Graph Compute

Click Learn More about Graph Compute to learn more about Graph Compute on its product landing page.

Restart Instance

Click **Restart Instance** in the Actions column of an instance and then click **Yes** in the dialog box that appears to restart the instance.

Interactive Analytics

In the left-side navigation pane, choose **Compute Engines > Interactive Analytics**. On the page that appears, you can view the names, IDs, running status, and creation time of your instances, check the regions of DataWorks workspaces to which your instances are bound, and perform relevant operations. For example, you can click **HoloStudio** to manage your instances in HoloStudio and click **Workspace Settings** to bind your instances to DataWorks workspaces.

• Create Engine Instance

Click **Create Engine Instance**. On the **Interactive Analytics (Subscription)** page that appears, set parameters as required to purchase an Interactive Analytics instance.

• HoloStudio

After creating an Interactive Analytics instance, you can click **HoloStudio** to open the **Holo Studio** page and perform relevant operations.

• Workspace Settings

If the running status of an Interactive Analytics instance is **Normal**, click **Workspace Settings** in the **Actions** column of the instance to bind the instance to a DataWorks workspace.

6.Use MaxCompute Management

This topic describes how to use MaxCompute Management to view the running status and operation records of jobs, terminate jobs, and configure quota groups. It also describes how to view the consumption of storage resources and compute units (CUs).

Prerequisites

MaxCompute CUs that use the subscription billing method are purchased.

? Note

- We recommend that you purchase sufficient CUs to meet your business needs and make full use of MaxCompute Management.
- If you disable the AccessKey pair of your Alibaba Cloud account, you are unable to use MaxCompute Management as a RAM user of this account.

Go to MaxCompute Management

To go to MaxCompute Management, perform the following steps:

1. Log on to the MaxCompute console and select a region in the upper-left corner.

C-J Alibaba Cloud	🛱 Workbench 🔮 China (Ho	ng Kong) 🗸	Q Search	Expenses	Tickets ICP Enterprise Support 🔄 🛕 🕐	EN (
faxCompute						
Project management Ser	rvice Resources 🖉 Query	editing 🖉 Notebo	ook Analysis 🛛 🥜 Housekeeper			
Create project Enter the MaxC	Compute project name to search	Q C				
MaxCompute Project Name	MaxCompute Region	Billing Method	DataWorks Workspace	Workspace Region	C Actions	
	China (Hong Kong)	Pay-As-You-Go		China (Hong Kong)	P Data Development Member management C Project permission management Switch quota group	:
	China (Hong Kong)	Pay-As-You-Go		China (Hong Kong)	P Data Development Member management Project permission management Switch quota group	:
						•

2. Click the Housekeeper tab to go to MaxCompute Management.

Overview

On the **Overview** page, you can select a quota group and a time range in the **Overview of Subscription Resources** section to view the information about CUs and storage resources. The information includes **Used CUs**, **Total CUs**, **Used Storage**, **CU Usage Trend**, and **Storage Usage Trend**.

? Note The Overview of Pay-As-You-Go Resources section has no data displayed.

Workbench Use MaxCompute Mana

gement

MaxCompute 💼	La la las sur a	Quota Group V Enter a value V Q Dec 17, 2020, 15:34:21 ~ Dec 18, 2020, 15:34:21 🗎
	Overview of Subscription Resources	Dec 17, 2020, 15:34:21 ~ Dec 18, 2020, 15:34:21
🖧 Overview	Used CUs	Hand Gamma
Projects	0	Used Storage
🗅 Quotas		-
Q Jobs	Total CUs 10	
	CU Usage Trend	Storage Usage Trend
	12.5	
	10	
	7.5	
		ပို က
	5	
	2.5	
	0	_
	- Requested CUs - Total CUs Used CUs	— Storage Size
	Overview of Pay-As-You-Go Resources	
Parameter	Description	

Parameter	Description
Quota Group	The quota group that you want to query. By default, this parameter is empty, which indicates that all quota groups are queried. You can select a time range from the date and time picker next to Quota Group . By default, data from the past 24 hours is queried.
	The number of CUs that are used by all projects in the specified quota group within the specified time range. You can click a time point in the CU Usage Trend chart to view the job snapshots at that time point.
Used CUs	Note If a custom quota group exists and it is a sharing group, the number of used CUs may be greater than that of the purchased CUs in each quota group at a specific time point. The purpose is to ensure the minimum number of exclusive CUs. A sharing quota group refers to a group for which the maximum number of exclusive CUs is not equal to the minimum number.
Total CUs	 If you do not specify a quota group, the total number of CUs is calculated by using the following formula: Total number of CUs = Number of exclusi ve CUs in the current order within the specified time range + Num ber of shared CUs in the current order within the specified time range . If you specify a quota group, the total number of CUs is calculated by using the following formula: Total number of CUs = Maximum quota of exclusive CUs in the specified quota group within the specified time range + Maximum quota of shared CUs in the specified quota group within the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota of shared CUs in the specified quota group within the specified time range - Maximum quota specified time range - Maximum quota
Used Storage	The storage resources that are used by all the projects in the specified quota group within the specified time range.

Parameter	Description
Requested CUs	The trend in the number of exclusive and shared CUs that are requested by all the projects in the specified quota group within the specified time range.
Used CUs	The trend in the number of exclusive and shared CUs that are used by all the projects in the specified quota group within the specified time range.
Total CUs	The trend in the total number of exclusive and shared CUs in the specified quota group within the specified time range.
Storage Size	The trend in the number of storage resources that are used by all the projects in the specified quota group within the specified time range.

View the running status of jobs

MaxCompute Management takes job snapshots every 2 minutes. Job snapshots allow you to view the running status of jobs in a specific quota group at a specific time point. Fixed parameters are displayed in job snapshots at each time point. This enables you to trace the resource usage of a specific quota group at any time point.

When a job is running, multiple snapshots may be taken for the job in different states. For example, for a job that is running at a specific time point, you can view the snapshots that are taken later to check the subsequent job status.

- 1. In the left-side navigation pane, click **Jobs**.
- 2. On the **Job Snapshots** tab, select a quota group or a project that uses the subscription or pay-asyou-go billing method and select a time point to view job snapshots.

? Note On the Overview page, you can click a time point in the CU Usage Trend chart to view job snapshots at that time point.

MaxCompute 🧮	Job Snapshots Operation Records of Job Snapshots					
a, Overview	Job Snapshots of Subscription Projects	Quota Group ∨ Enter a value ∨ Q 2020-12-18 15:43 □ ●				
Projects						
🗅 Quotas	All Running 0 0	Pending for Resources 0				
Q Jobs						
	Stop Jobs					
	InstanceID 💠 Submitted By 💠 Project 💠 Quota Group 💠 DataWorks Node ID 🌲 I	riority 🖕 Billing Method 🖕 CPU Utilization (%) 👙 Memory Usage (%) 🐥 R Actions 🌲				
	No Data					
	Job Snapshots of Pay-As-You-Go Projects	Project ∨ Enter a value ∨ Q 2020-12-18 15:43 □ ●				
	All Running	Pending for Resources				
	0 0	0				
Parameter	Description					
Instance IDThe instance ID of the job. Each MaxCompute job runs as an instance.InstanceIDclick the instance ID to go to the Logview page and view the progress the job. For more information, see Use Logview to view job information						

Parameter	Description			
Submitted By	The Alibaba Cloud account that is used to run the job. You can find the job owner based on the account information. If a job occupies excessive resources and affects the running of other jobs, you can request the job owner to terminate the job. For more information about how to terminate a job, see Instance operations.			
Project	The project to which the job belongs.			
Quota Group	Only subscription quota groups can be selected. This parameter is available only for the jobs that use subscription resources.			
DataWorks Node ID The ID of the DataWorks node on which the job is running. If thi empty, the job is not submitted in DataWorks.				
Priority	The priority of the job. This parameter is available only for the jobs that use subscription resources. Valid values: 0 to 9. A small value indicates a high priority.			
Billing Method	The billing method that is used by the project to which the job belongs. Valid values: Subscription and Pay-as-you-go.			
CPU Utilization (%)	The percentage of CPU resources used by the MaxCompute job to the maximum value in the quota group. This parameter is available only for the jobs that use subscription resources.			
Memory Usage (%)	The percentage of memory resources used by the MaxCompute job to the maximum value in the quota group. This parameter is available only for the jobs that use subscription resources.			
Running Status	The running status of the job.			
Job type	The type of the job.			
Waiting Time	The time spent waiting for available resources to run the instance.			
Running Duration	The running duration of the job.			
Submitted At	The time when the job was submitted.			

3. In the upper-right corner of the **Job Snapshots** tab, click the → icon to enable auto-refresh. In the dialog box that appears, specify a refresh interval.

MaxCompute 📃	Job Snapshots Operation Records of Job Snaps		
å, Overview	Job Snapshots of Subscription Projects		Enter a value 🗸 🔍 2020-12-18 15:43 🖶 🔿 🕨
Projects	4	* Refreshing every: 15s V	
🗅 Quotas	All O	Cancel	Pending for Resources 0
Q Jobs			

To disable auto-refresh, click the inicon in the upper-right corner of the **Job Snapshots** tab.

Terminate jobs

As a job owner, you can terminate the jobs that you no longer require. You can terminate a maximum of 10 jobs at a time.

- 1. On the Job Snapshots tab, click Stop Jobs above the job list.
- 2. In the **Terminate Job_Subscription** dialog box, specify **Instance IDs** and **Description**. In this example, a project that uses the subscription billing method is used.

Terminate Job_Subscription		Х
* Instance IDs :	Enter a valueInstance IDs	
* Description:	Enter a valueDescription	
		11
	Cancel Run	

3. Click Run.

View the operation records of jobs

MaxCompute Management allows you to view the operation records of jobs from the last seven days.

- 1. In the left-side navigation pane, click **Jobs**.
- 2. On the page that appears, click the **Operation Records of Job Snapshots** tab to view the operation records of jobs.

MaxCompute 📃	Job Snapshots	Operation Records of Job Snapshots			
🙏 Overview	Operation Records				
I Projects	Refresh				
🗅 Quotas	Created At 👙	□ Ghange Type 👙	□ Change Progress 🖕	♡ Submitted By 🌲	∀ Actions
Q. Jobs					
			No Data		

3. Find the required operation record and click **View Details** in the Actions column. In the panel that appears, view the operation details.

View the consumption of storage resources

On the **Projects** page, you can view the consumption of storage resources. MaxCompute Management collects statistics on storage resources on an hourly basis.

1. In the left-side navigation pane, click **Projects**. On the page that appears, you can separately view the projects that use the subscription and pay-as-you-go billing methods.

In a project list, you can view the storage resources that are used by each project. You can also select a quota group or a project in the upper-right corner of a section to filter projects. The following figure shows the Subscription Projects section.

MaxCompute 🧮	Subscription Projects						Project V Enter a value V			
å, Overview										
Projects	Project 👙	DataWorks Workspace 🍦	Owner 👙	Quota Group 👙	Pay-As-You-Go Quota 🍦	Used Storage 👙	Actions			
e Projects	10.00	and Parks		默认预付费Quota	Not Added	0 B	Modify Add Pay-As-You-Go Quota			
🗅 Quotas	and the second	salayar (BERR)		默认预付费Quota	Not Added	0 B	Modify Add Pay-As-You-Go Quota			
Q, Jobs							Total Items: 2 $<$ 1 $>$ 10 / page \vee			

2. In the Subscription Projects section, click the name of a project. The Storage tab appears.

←Back
Storage
Dec 17, 2020, 15:54:11 ~ Dec 18, 2020, 15:54:11 📋
Storage Resource Usage
No data available.
— Storage (Bytes)

3. Select a time range from the date and time picker and click **OK**.

View the consumption of CUs

On the **Quotas** page, you can view the consumption of CUs in projects that use the subscription billing method. MaxCompute Management collects statistics on CUs every 2 minutes.

Note The **Pay-as-you-go Quota Groups** section has no data displayed.

1. In the left-side navigation pane, click **Quotas**.

MaxCompute 📃	Subscription Quota	a Groups				Quota Group V Enter a value	v ٩	Create Quota Group Set Periods
"å, Overview	Quota Group 👙	Minimum Reserved CUs 👙	Maximum Reserved CUs 👙	Maximum Non-reserved CUs 👙	Quota Group Tag 👙	♡ Included Projects 👙	Status 👙	
Projects		10	10	0		2	100	Modify Delete
🗈 Quotas							Total	Items: 1 < 1 > 10 / page ∨
Q, Jobs								

2. In the **Subscription Quota Groups** section, click the name of a quota group. The Resource Consumption tab appears.

←Back ■ ■ ■ ■ ■ ■						
Resource Consumption Included Pr	rojects					
Dec 17, 2020, 15:57:26 ~ Dec 18, 202	0, 15:57:26 📋					
	Usage Trend of Reserved CUs			Usage Trend of Non-reserved CUs		
12.5						
10						
7.5			0			
5						
2.5						
0	15.30	15:45	15 15	15:30	15:4	
	n Reserved CUs — Minimum Reserved CUs — Used Re		13.13	Maximum Non-reserved CUs Used Non-reserved CUs	15:4	

- 3. Select a time range from the date and time picker and click **OK**.
 - Onte The interval at which data is displayed depends on the selected time range.

Configure quota groups

On the **Quotas** page, you can create, modify, or delete quota groups and specify multiple periods for resource scheduling. You can configure quota groups only for projects that use the subscription billing method.

MaxCompute 🧮	Subscription Quota	Groups				Quota Group \lor Enter a value	× ٩	Create Quota Group Set Periods
,å, Overview	Quota Group 👙	Minimum Reserved CUs 👙	Maximum Reserved CUs 👙	Maximum Non-reserved CUs 👙	Quota Group Tag 👙		Status 👙	∀ Actions
Projects	1000	10	10	0		2	100	Modify Delete
🗅 Quotas							Total I	ems: 1 < 1 > 10 / page >
Q Jobs								

The following table describes the operations in detail.

Operation	Description	Step

Operation	Description	Step
Create a quota group	You can create a quota group. After a quota group is created, click Projects in the left-side navigation pane. Find the project that you want to modify and click Modify in the Actions column. In the Modify Quota Group Info panel, change the quota group of the project to the created quota group. Then, the jobs in the project use the CUs of the new quota group by default.	 Click Create Quota Group. In the Create Quota Group panel, specify Quota Group Name, Minimum Reserved CU Quota, Maximum Reserved CU Quota, Maximum Non-reserved CU Quota, and Tag. Note The Maximum Non-reserved CU Quota parameter specifies the number of subscription-based shared CUs. For more information, see Computing pricing. A tag is used to specify the quota group for a job. If the tag that you specify for a job is the same as that of an existing quota group, the job is preferentially scheduled to this quota group. For more information, see SET operations. Make sure that each tag name is unique. Otherwise, jobs are
Modify a	derault. You can modify an existing quota	 randomly scheduled to one of the quota groups that have the same tag instead of being evenly scheduled to the quota groups. Click Run. Find the quota group that you want to modify and click Modify in the Actions column. In the Modify Quota Group panel, modify the
quota group	group.	values of Minimum Reserved CU Quota, Maximum Reserved CU Quota, Maximum Non-reserved CU Quota, and Tag. 3. Click Run.

Dat aWorks

Operation	Description	Step
Delete a quota group	You can delete an existing quota group. You cannot delete a quota group that contains projects. Before you delete such a quota group, you must migrate the projects from the quota group to another quota group.	 Find the quota group that you want to delete and click Delete in the Actions column. In the Delete message, click Run.

Operation	Description	Step
Specify multiple periods for resource scheduling	 You can specify periods for resource scheduling. This way, different projects can use exclusive CUs in different periods based on business needs. For example, production projects require more CUs at night and fewer CUs in the daytime. Development or analysis projects require more CUs in the daytime and fewer CUs at night. You can specify different periods for these projects to schedule resources. This improves the CU usage. Take note of the following configuration rules: For quota groups, the default period for resource scheduling is from 00:00:00 to 23:59:59. You can specify a maximum of three periods for resource scheduling. The specified periods for resource scheduling apply to all quota groups. You must set each period on the hour, such as 00:00:00 to 07:00:00. The end time of the last period must be 23:59:59. You can specify multiple periods for resource scheduling only for exclusive CUs in quota groups. For the default quota group, you cannot change the minimum or maximum quota of exclusive CUs for the specified periods. 	 Click Schedule Resources. In the Schedule Resources dialog box, add periods for resource scheduling and click Enable. Configure the minimum and maximum quotas of exclusive CUs for the specified periods for custom quota groups. If you have created custom quota groups, find the required quota group and click Modify in the Actions column. In the Modify Quota Group panel, click the clicon in the Actions column of each period and configure the minimum and maximum quotas of exclusive CUs. If you have not created custom quota groups, click Create Quota Group to create one. Note If the minimum or maximum quota of exclusive CUs must remain the same for a quota group, configure the same quota for all the specified periods. Within a specified period, the sum of the minimum quotas of exclusive CUs that you have purchased. Click Run. Optional. Disable multiple periods for resource scheduling. If the specified periods for resource scheduling are inappropriate or need to be modified, click Schedule Resources. In the Schedule Resources dialog box, click Disable. Then, the original settings of Reserved CU Quota take effect for all quota groups. Optional. Modify the specified periods for resource scheduling. To do so, you must disable the existing periods, specify new periods, and then enable the new periods. After that, you must configure the minimum and maximum quotas of exclusive CUs for the specified periods for custom quota groups.

? Note

- If you increase or decrease the number of available CUs, the minimum and maximum quotas of CUs vary accordingly for the default quota group. However, in this case, the quotas remain the same for custom quota groups.
- You cannot reduce the number of available exclusive CUs to a value that is less than the minimum quota of exclusive CUs in the default quota group.
- The minimum quota of CUs indicates the minimum number of CUs that a quota group can provide. The maximum quota of CUs indicates the maximum number of CUs that a quota group can provide.

Quot a group configuration examples

In the following examples, 60 exclusive CUs and no shared CUs are available for quota groups A and B. The resources are allocated in different ways with or without multiple periods for resource scheduling.

- Without multiple periods for resource scheduling
 - Resources are exclusively allocated to each quota group.

[Maximum Reserved CU Quota, Minimum Reserved CU Quota, Maximum Non-reserved CU Quota]: [40,40,0] for quota group A and [20,20,0] for quota group B

• Resources are allocated to quot a groups on a first come, first served basis.

[Maximum Reserved CU Quota, Minimum Reserved CU Quota, Maximum Non-reserved CU Quota]: [60,40,0] for quota group A and [40,20,0] for quota group B

• With multiple periods for resource scheduling

For example, a production project, a development project, and an analysis project exist. The peak hours of the production project are from 00:00:00 to 08:00:00, and the peak hours of the development and analysis projects are from 08:00:00 to 23:59:59. The resources are allocated in the following way:

- Two periods for resource scheduling: 00:00:00 to 08:00:00 as Period 1 and 08:00:00 to 23:59:59 as Period 2.
- [Maximum Reserved CU Quota, Minimum Reserved CU Quota, Maximum Non-reserved CU Quota] in Period 1: [60,50,0] for a custom quota group and [60,10,0] for the default quota group.
- [Maximum Reserved CU Quota, Minimum Reserved CU Quota, Maximum Non-reserved CU Quota] in Period 2: [60,20,0] for a custom quota group and [60,40,0] for the default quota group.
- The production project uses the resources in the custom quota group. The development and analysis projects use the resources in the default quota group.

You cannot specify the scheduling sequence for quota groups. Resources are used on a first come, first served basis and cannot be preempted. For example, 60 exclusive CUs and no shared CUs are available for quota groups A and B. You set [Maximum Reserved CU Quota,Minimum Reserved CU Quota,Maximum Non-reserved CU Quota] to [40,20,0] for quota group A and [30,10,0] for quota group B. If quota group A uses 40 CUs first, quota group B can use only the remaining 20 CUs and cannot preempt resources that are being used by quota group A. If quota group A releases 10 CUs after a period of use, quota group B can then use 30 CUs.

Change the quota group of a project

You can create a quota group and change the quota group of a project to the created quota group. This way, you can use the created quota group to isolate CUs for the project.

- 1. In the left-side navigation pane, click **Projects**.
- 2. In the Subscription Projects or Pay-As-You-Go Projects section, find the project that you want to modify and click Modify in the Actions column.
- 3. In the **Modify Quota Group Info** panel, select another quota group from the **Quota Group** drop-down list.

Modify Quota Group Information		Х
* Quota Group :		~
	Cancel Run	

4. Click Run.