Oracle® Cloud

Migrating Oracle Visual Builder Studio to Oracle Cloud Infrastructure

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Oracle Cloud Migrating Oracle Visual Builder Studio to Oracle Cloud Infrastructure,

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1

Prepare to Migrate VB Studio to Oracle Cloud Infrastructure

Before you migrate your service instance from Oracle Cloud Infrastructure Classic (OCI Classic) to Oracle Cloud Infrastructure (OCI), you should create and configure required resources, and learn about the required identity domain roles for the migration.

In this documentation, VB Studio on OCI Classic is referred as the source instance and VB Studio on OCI is referred as the target instance. A project in the source or the target instance is referred as the source project or the target project.

To prepare for migration, you'll do the following:

1. Assign the required identity domain roles to yourself in the source and the target Oracle Cloud account.
2. Create the target VB Studio instance in the OCI region.
3. Set up the required OCI connections in the target Oracle Cloud account.
4. Set up an OCI Object Storage bucket in the target Oracle Cloud account.
   You'll use the bucket to export the data of the source VB Studio projects.

Required Identity Domain Roles

Make sure you're assigned the identity domain roles required for the migration. If you're the OCI account subscriber, you already have the required roles to set up the VB Studio instance. If you're not the subscriber, make sure that you've been assigned the correct roles in Oracle Identity Cloud Service (IDCS).

You must be assigned this role:	To ...
Cloud Account Administrator or Tenancy Administrator	Set up Oracle Cloud Infrastructure (OCI) compartments, policies, dynamic groups, and permission to create and manage the VB Studio instance. If you're not an account or tenancy administrator, contact the administrator to add you to the **OCI_Administrators** IDCS group.
Identity Domain Administrator or User Administrator	Add users and assign IDCS roles. If you're not an IDCS domain or user administrator, make sure that your OCI group is assigned a policy like this: `Allow group MyGroup to inspect identity-providers in tenancy`

To find out how to grant an identity domain role, see Add Users, Assign Policies and Roles in *Getting Started with Oracle Cloud*.

Create the Target VB Studio Instance

You can create only one VB Studio instance in an Oracle Cloud account. You must create it in your tenancy's root compartment.

1. In a web browser, go to `https://cloud.oracle.com`.

   To view the list of supported browsers for the OCI Console, see Supported Browsers.

2. In **Cloud Account Name**, enter your Oracle Cloud account or tenancy name and click **Next**.
3. On the Single Sign-On (SSO) panel, if required, select your identity provider and click **Continue**.
4. Enter your Oracle Cloud account credentials and click **Sign In**.

   The Oracle Cloud Console, also called the OCI console, opens. If you've recently created your Oracle Cloud account, wait for some time to see your services in the Oracle Cloud Console.

5. In the upper-left corner, click **Navigation Menu** ☰.
6. Select **Developer Services** and then select **Visual Builder Studio**.
7. On the Visual Builder Studio Instances page, from the **Compartment** drop-down list, select the root compartment.
8. Click **Create VB Studio Instance**.
9. In **Instance Name**, enter the VB Studio's instance name and click **Next**.
10. On the CI/CD Setup page, click the **Yes, I authorize this** check box. This authorizes VB Studio to create and use Compute and Storage instances.

    In addition, this option automatically creates an additional policy that authorizes VB Studio to perform the necessary operations in the selected compartment for the CI/CD resources. For this automatic policy creation to succeed, the user who creates the instance must also have permissions to manage policies in the root compartment. See Required Identity Domain Roles.

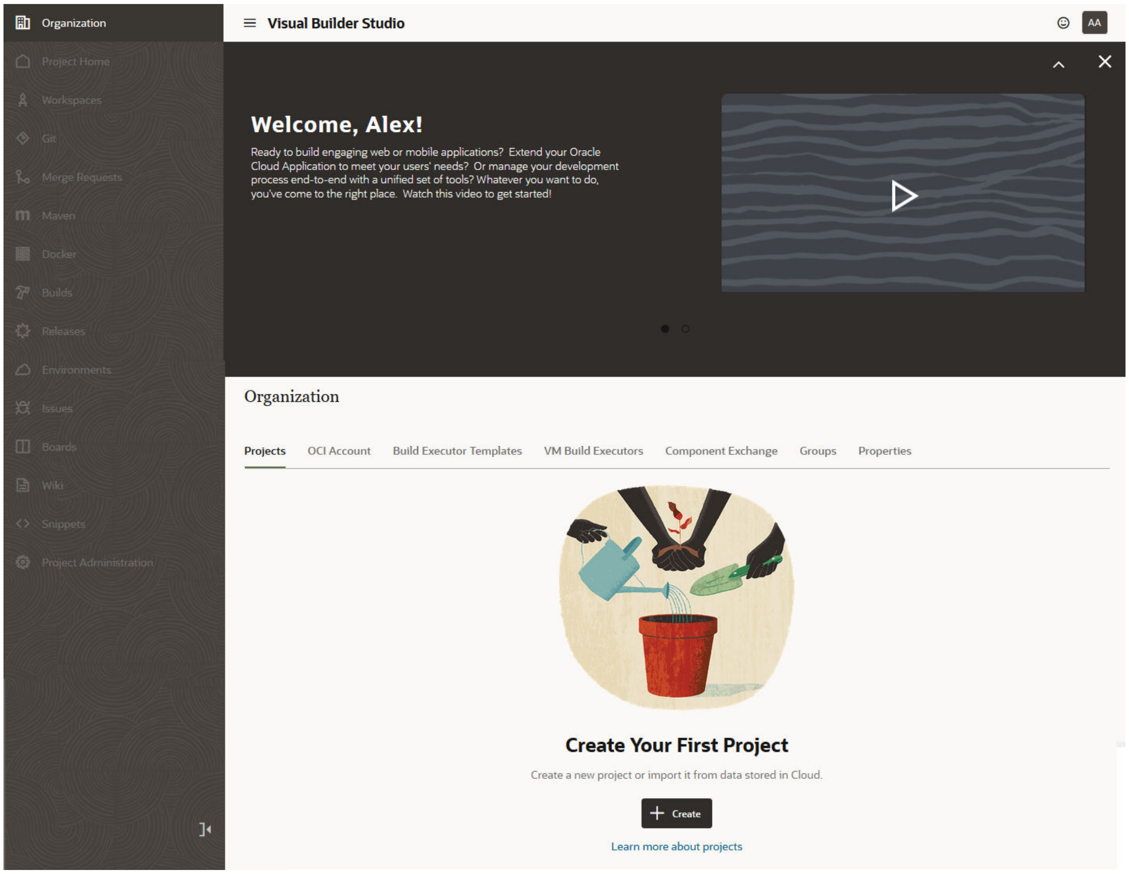
    Typically, tenancy administrators have these permissions, so the easiest way to create a VB Studio instance is to have a tenancy administrator do it. However, if that isn't feasible, it's also possible to create the VB Studio instance without the CI/CD authorization and then set it up later by performing an edit operation.

11. If you've selected the **Yes, I authorize this** check box, in **Compartment**, select the compartment you created to host VB Studio's Compute and Storage instances.

    When you select the check box, the required policies are applied to the selected compartment.

12. Click **Submit**.

Once the service instance is created, click **Service Console** to open VB Studio's Organization page.
Here's an example:



Welcome, Alex!

Ready to build engaging web or mobile applications? Extend your Oracle Cloud Application to meet your users' needs? Or manage your development process end-to-end with a unified set of tools? Whatever you want to do, you've come to the right place. Watch this video to get started!

Create Your First Project

Create a new project or import it from data stored in Cloud.

What Are the Next Steps?

After you create the instance:

1. You're assigned the DEVELOPER_ADMINISTRATOR IDCS role, which enables you to set up VB Studio, manage the VM build executors, and update the organization details. After you're assigned the role, you become a VB Studio *Organization Administrator*.
2. You'll receive an email with the subject **Verify your Oracle Visual Builder Studio email**. Open the email and click the URL link in the email body to verify your email. If you don't do this, you won't receive important email notifications.
3. After verifying the email address, you'll receive another email with the subject **Welcome to Oracle Visual Builder Studio**. This email contains the VB Studio URL that you can bookmark.
4. Default tags are created that help you identify the instance. On the VB Studio's Instance Details page, click the **Tags** tab to see the created tags. If you don't know how to use tags, see How Tagging Works.
5. You now need to provide access for additional VB Studio users. See Set Up IDCS Users and Groups to add individual users or Manage Your Organization's Groups to add groups of users.

Set Up an OCI Object Storage Bucket

To export a project's data, you need an OCI Object Storage bucket to host the data.

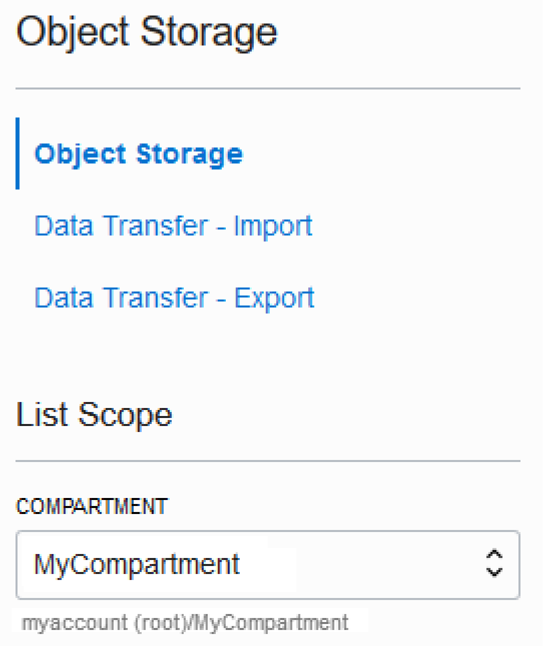
You can use a common bucket for all the projects in your source VB Studio instance, or use a separate bucket for each project. There's a bit of a tradeoff in using a separate bucket: doing so allows you to organize archive files better, as they aren't mixed up with the archive files of other projects, but it does consume more storage resources to do it this way.

Set Up the OCI Object Storage Bucket

To set up the OCI Object Storage bucket, sign in as the OCI administrator and follow these steps:

1. In the compartment that hosts VB Studio resources, create a bucket for the project.
    a. In the left navigation bar, under **Core Infrastructure**, go to **Object Storage** and click **Object Storage**.
    b. On the left side of the Object Storage page, from the **Compartment** list, select the VB Studio compartment.

       Example:

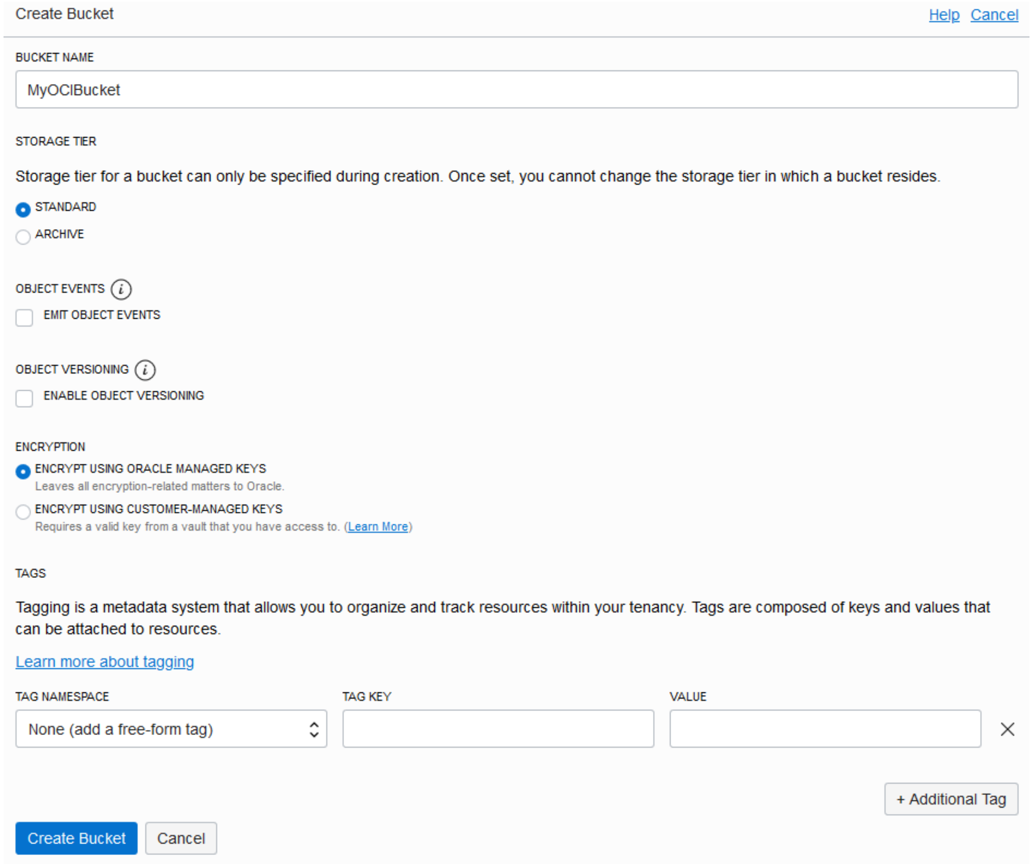
       

       MyCompartment

       myaccount (root)/MyCompartment

    c. Click **Create Bucket**.
    d. In the Create Bucket dialog box, fill in the details, and click **Create Bucket**.

       Example:



BUCKET NAME

MyOCIBucket

STORAGE TIER

Storage tier for a bucket can only be specified during creation. Once set, you cannot change the storage tier in which a bucket resides.

● STANDARD

○ ARCHIVE

OBJECT EVENTS

☐ EMIT OBJECT EVENTS

OBJECT VERSIONING

☐ ENABLE OBJECT VERSIONING

ENCRYPTION

● ENCRYPT USING ORACLE MANAGED KEYS
Leaves all encryption-related matters to Oracle.

○ ENCRYPT USING CUSTOMER-MANAGED KEYS
Requires a valid key from a vault that you have access to. (Learn More)

TAGS

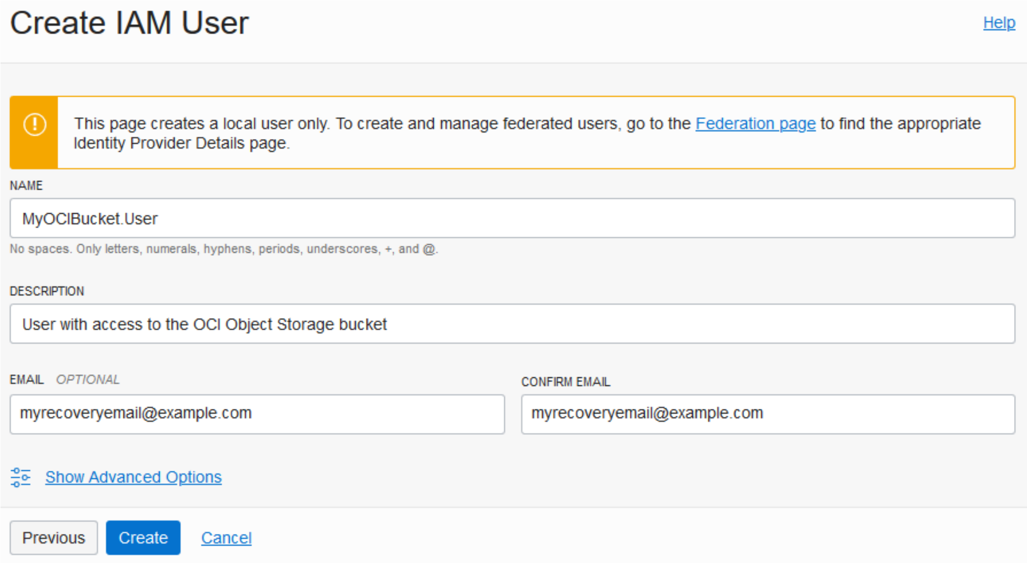
Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

Learn more about tagging

TAG NAMESPACE	TAG KEY	VALUE
None (add a free-form tag)		

2. Create a user to access the bucket.
   a. In the left navigation bar, under **Governance and Administration**, go to **Identity** and click **Users**.
   b. Click **Create User**.
   c. Select the user type: **Oracle Identity Cloud Services** or **IAM**.
   d. Click **Next**.
   e. In the Create User dialog box, fill in the fields, and click **Create**.

      Example:



This page creates a local user only. To create and manage federated users, go to the Federation page to find the appropriate Identity Provider Details page.

NAME
MyOCIBucket.User
No spaces. Only letters, numerals, hyphens, periods, underscores, +, and @.

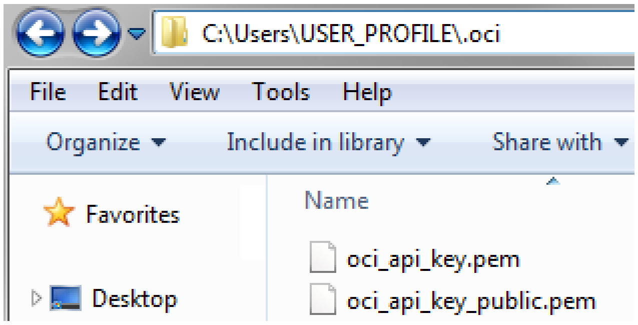
DESCRIPTION
User with access to the OCI Object Storage bucket

EMAIL *OPTIONAL*
myrecoveryemail@example.com

CONFIRM EMAIL
myrecoveryemail@example.com

3. On your computer, generate a private-public key pair in the PEM format.

   To learn more, see How to Generate an API Signing Key.
   Example of private-public key files on a Windows computer:

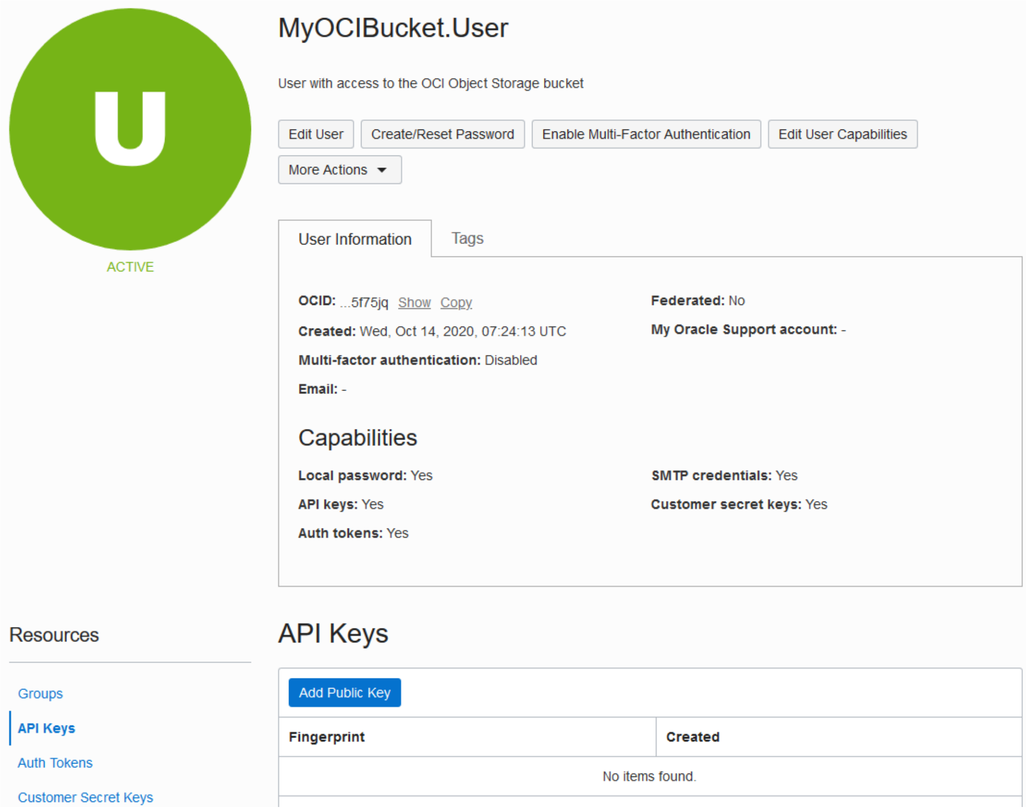


C:\Users\USER_PROFILE\.oci

oci_api_key.pem
oci_api_key_public.pem

4. Upload the public key to the user's details page.
   a. Open the public key file in a text editor and copy its contents.
   b. In the left navigation bar of the OCI dashboard, under **Governance and Administration**, go to **Identity** and click **Users**.
   c. Click the user's name created in Step 2.
   d. In the User Details page, click **Add Public Key**.

      Example:



MyOCIBucket.User

User with access to the OCI Object Storage bucket

OCID: ...5f75jq
Created: Wed, Oct 14, 2020, 07:24:13 UTC
Multi-factor authentication: Disabled
Email: -
Federated: No
My Oracle Support account: -

Capabilities

Local password: Yes
API keys: Yes
Auth tokens: Yes
SMTP credentials: Yes
Customer secret keys: Yes

API Keys

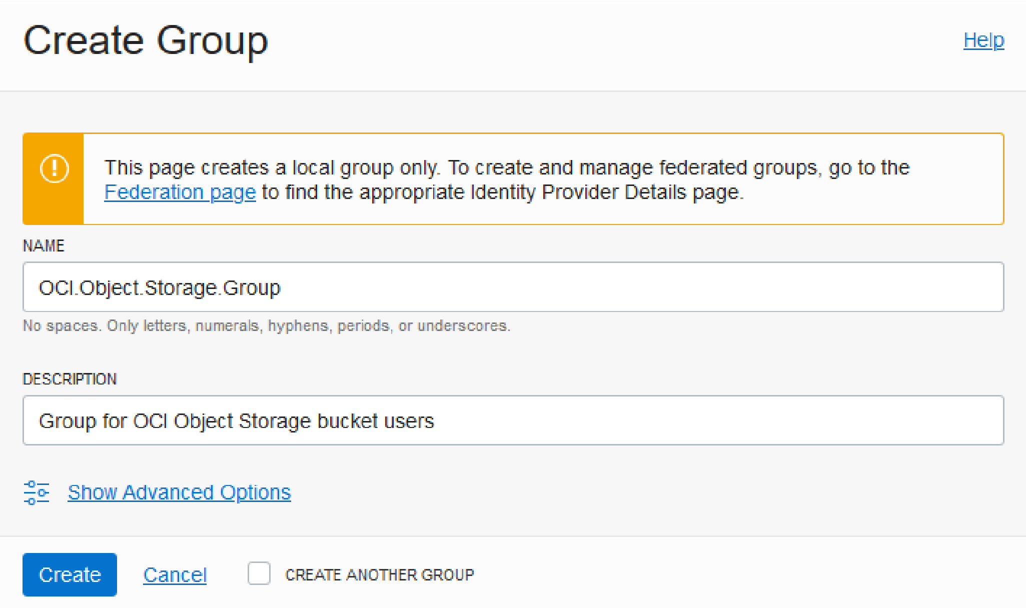
Fingerprint	Created
No items found.	

e. In the Add Public Key dialog box, paste the contents of the public key file, and click **Add**.

To learn more, see How to Upload the Public Key.

5. On the Groups page, create a group for the user who can access the bucket and add the user to the group.
   a. In the left navigation bar, under **Governance and Administration**, go to **Identity** and click **Groups**.
   b. Click **Create Group**.
   c. In the Create Group dialog, fill in the fields and click **Submit**.

      Example:



This page creates a local group only. To create and manage federated groups, go to the Federation page to find the appropriate Identity Provider Details page.

NAME

OCI.Object.Storage.Group

No spaces. Only letters, numerals, hyphens, periods, or underscores.

DESCRIPTION

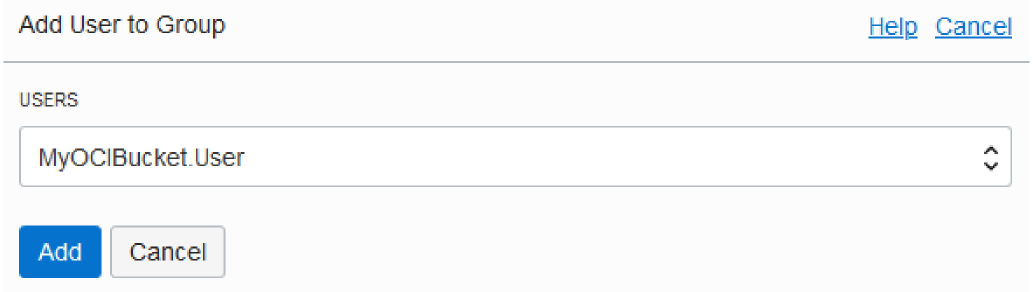
Group for OCI Object Storage bucket users

d. On the Groups page, click the group's name.

e. On the Group Details page, click **Add User to Group**.

f. In the Add User to Group dialog box, select the user created in Step 2, and click **Add**.

   Example:



USERS

MyOCIBucket.User

To learn more, see Managing Groups.

6. In the VB Studio compartment, create a policy with read and write access to the bucket.

   You can give read and write access to the same user, or create different users.

   a. In the left navigation bar, under **Governance and Administration**, go to **Identity** and click **Policies**.

   b. On the left side of the Policies page, from the **Compartment** list, select the VB Studio compartment.

   c. Click **Create Policy**.

   d. In **Name** and **Description**, enter a unique name and a description.

   e. In **Policy Builder**, click **Customize (Advanced)**.

   f. Add statements to restrict read and write access to the bucket.

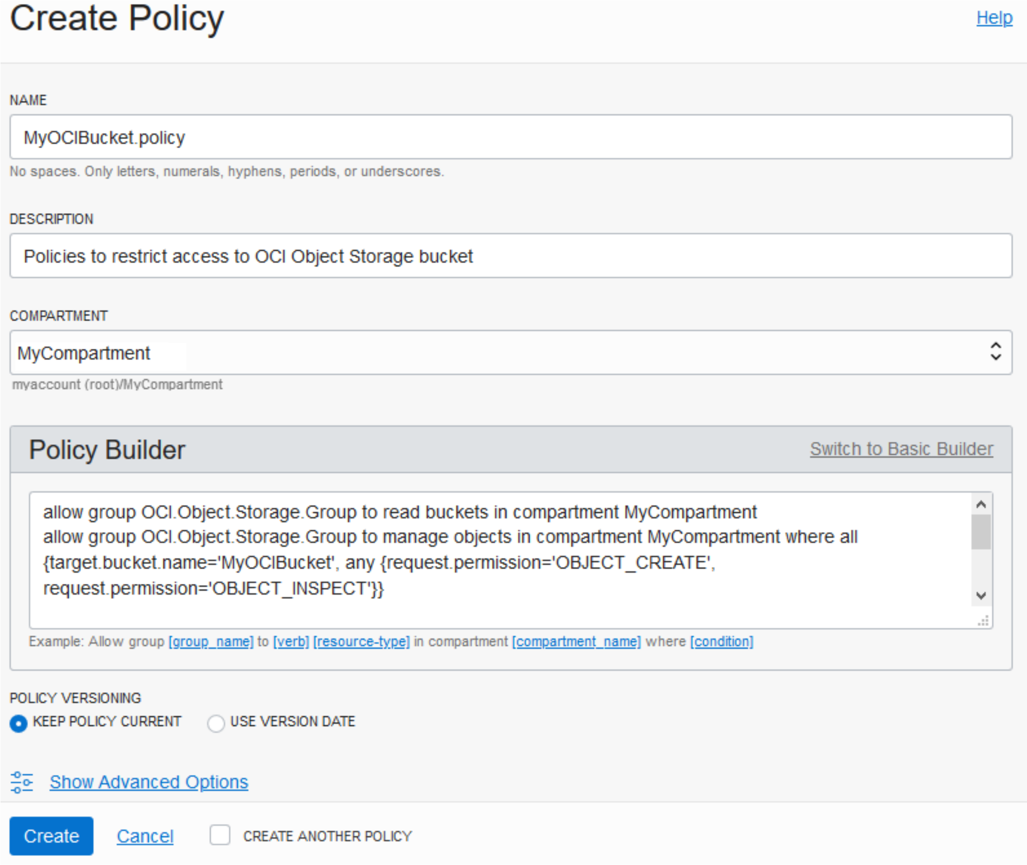
      To allow different user groups to read objects from and write objects to the bucket, create separate policies. Here are some examples:

To:	Add these statements:

Allow a group to read from and write objects to a bucket (required to import and export a project's data)	`allow group <group-name> to read buckets in compartment <compartment-name>`
	`allow group <group-name> to manage objects in compartment <compartment-name> where all {target.bucket.name='<bucket-name>', any {request.permission='OBJECT_CREATE', request.permission='OBJECT_INSPECT'}}`

Allow a group to download objects from a bucket (required to import a project's data)	`allow group <group-name> to read buckets in compartment <compartment-name>`
	`allow group <group-name> to read objects in compartment <compartment-name> where target.bucket.name='<bucket-name>'`

Example:



NAME: MyOCIBucket.policy

No spaces. Only letters, numerals, hyphens, periods, or underscores.

DESCRIPTION: Policies to restrict access to OCI Object Storage bucket

COMPARTMENT: MyCompartment

myaccount (root)/MyCompartment

```
allow group OCI.Object.Storage.Group to read buckets in compartment MyCompartment
allow group OCI.Object.Storage.Group to manage objects in compartment MyCompartment where all
{target.bucket.name='MyOCIBucket', any {request.permission='OBJECT_CREATE',
request.permission='OBJECT_INSPECT'}}
```

Example: Allow group [group_name] to [verb] [resource-type] in compartment [compartment_name] where [condition]

POLICY VERSIONING: ● KEEP POLICY CURRENT ○ USE VERSION DATE

g. Click **Create**.

To learn more, see Managing Policies.

Set Up IDCS Users and Groups

This step is required.

To add IDCS users to VB Studio and its projects, make sure they are added to the identity system and assigned the appropriate VB Studio roles. Optionally, if you want to add IDCS groups instead of adding IDCS users individually, see Manage Your Organization's Groups.

To add IDCS users manually to the identity system, follow these steps:

1. Open the Oracle Cloud Console page.
2. In the upper-left corner, click **Navigation Menu** ☰.
3. Under **Governance and Administration**, select **Identity**, and then select **Federation**.
4. On the Federation page, click the identity service provider's link.
5. On the Identity Provider Details page, click **Create IDCS User**.
6. In the Create IDCS User dialog box, enter the new user's details and click **Create**.
7. To send the password reset instructions and URL to the new user, click **Email Password Instructions**.
8. Click **close**.
9. On the Identity Provider Details page, click the user's IDCS Username link.
10. On the User Details page, click **Manage Service Roles**.
11. On the Manage Service Roles page, search for the service with **Developer Cloud Service** description, click the Actions icon (three dots) and select **Manage Instance Access**.
12. On the Manage Access page, in the **Instance Role** column, select the role you want to grant to the user. A user must be assigned one of these two roles to access VB Studio.

This VB Studio role...	Enables a user to:
DEVELOPER_ADMINISTRATOR	Set up VB Studio, manage all projects, manage VM build executors and build executor templates, and update the organization's details. The user with this role is also called the *Organization Administrator*. Assign this role role to users who can administer VB Studio.
DEVELOPER_USER	Create and access VB Studio projects. All non-admin users of VB Studio must be assigned this role. Note that this role doesn't allow the user to update the organization details.

13. Click **Save Instance Settings**.
14. On the Manage Service Roles page, click **Apply Role Settings**.

For more details about adding users to IDCS and assigning them roles, see Managing Oracle Identity Cloud Service Users in the Console and Managing Instance Roles in the Console.

Manage Your Organization's Groups

Working with IDCS groups is optional. If a customer hasn't created IDCS groups on their OCI Classic instance, they wouldn't want to recreate or replicate those groups to their OCI Gen 2 instance.

In VB Studio, you can create groups of your VB Studio organization's users or import existing Oracle Identity Cloud Service (IDCS) groups, and then add these groups to VB Studio projects. When you add a group to a project, you assign a common membership type to all group's users.

After creating a group, you can add more members to it and add the group to projects. You can also import IDCS groups to VB Studio, but can't add or remove users from the imported IDCS group. To do that, sign in to the IDCS Console. Note that the imported IDCS group is synced with IDCS every five minutes.

This table describes the actions you can perform to create and manage groups.

Action	How To
Create a VB Studio group	1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Click **+ Create Group**. 4. In **Type**, if not already selected, select the **VB Studio** tile. 5. In **Name** and **Description** (optional), enter the group's name and description. 6. To see all members you can add, click the members list. Users who are assigned the DEVELOPER_ADMINISTRATOR or the DEVELOPER_USER IDCS role are displayed. 7. From the users drop-down list, select users to add to the group. If you can't find a particular user, enter the user's name or username in the search box. As you type, the drop-down list displays users matching the search term. 8. Click **Create**.
Import an IDCS group	1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Click **+ Create Group**. 4. In **Type**, select the **IDCS** tile. 5. Under the filter box, select the group to import. The drop-down list displays IDCS groups that are assigned either the DEVELOPER_ADMINISTRATOR or the DEVELOPER_USER IDCS role. To select multiple groups, press the Ctrl key or the Shift key, and then select groups. If you can't find a particular group, enter the group's name in the search box. As you type, the drop-down list displays groups matching the search term. 6. Click **Create**. From VB Studio, you can't add or remove users of an IDCS group. You can do that from the IDCS Console. See Manage Oracle Identity Cloud Service Groups.
See a group's members	1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Locate the VB Studio group and click the user gravatars in the **Members** column.

Action	How To
Add members to an existing VB Studio group	1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Locate the VB Studio group and click **Add Member to the Group**. 4. Click the members drop-down list. All users who are assigned the DEVELOPER_ADMINISTRATOR or the DEVELOPER_USER IDCS role are displayed. 5. Select the user from the drop-down list. If you can't find the user, enter the user's name or username in the search box. As you type, users matching the search term are displayed. 6. Click **Add**. 7. In the **Members** tab, verify the added members. 8. Click **Close**.
Remove members from a VB Studio group	1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Locate and double-click the VB Studio group. 4. In the **Members** tab, select the members to remove. 5. Click **Remove Members**. 6. Click **Remove Members** to confirm.
Add a group to a project	To add a group to a project, you must be assigned the project's Project Owner membership. 1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Locate the VB Studio group and click **Add Group to a Project** 4. From the project drop-down list, select the project. 5. From the roles list, select the role you want to assign to the group's members. 6. Click **Add**. 7. Click **Close**.
Remove a group from a project	To remove a group from a project, you must be assigned the project's Project Owner membership. 1. In the navigation menu, click **Organization**. 2. Click the **Groups** tab. 3. Locate and double-click the VB Studio group. 4. In the **Projects** tab, select the projects to remove. 5. Click **Remove Group from Projects**. 6. Click **Remove Group from Projects** to confirm.

Action	How To
See the projects a group is added to	1. In the navigation menu, click **Organization** 🏢. 2. Click the **Groups** tab. 3. Locate the VB Studio group and click the user gravatars in the **Projects** column. 4. Click **Close**.
Edit a group's name or description	1. In the navigation menu, click **Organization** 🏢. 2. Click the **Groups** tab. 3. Locate and double-click the VB Studio group. 4. Click **Actions** ⋯ and select **Edit**. 5. Update the group's name and description 6. Click **Save**. 7. Click **Close**.
Delete a group	1. In the navigation menu, click **Organization** 🏢. 2. Click the **Groups** tab. 3. Locate the VB Studio group. 4. Click **Delete**. 5. Click **Delete** to confirm.

2

Migrate a Visual Builder Studio (VB Studio) Instance on OCI Classic to Visual Builder Studio on OCI

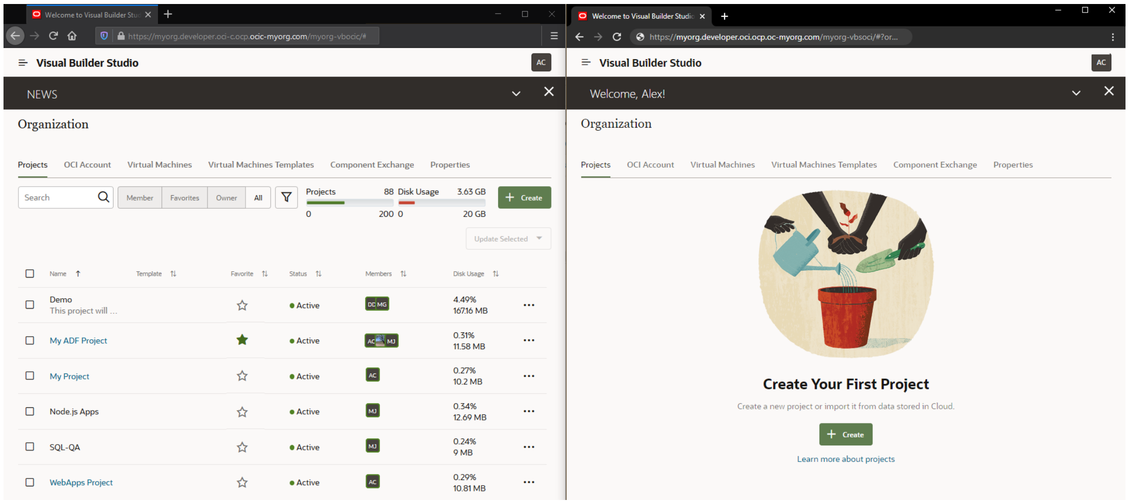
Migrating your projects from the source VB Studio instance to the target VB Studio instance involves migrating the source instance's build executors, build executor templates, and each project's data to the target instance.

In this documentation, the icon indicates either the source VB Studio instance or the source project. The icon indicates either the target VB Studio instance or the target project.

Open the Source and the Target Instances

Open the source VB Studio instance in a browser and the target VB Studio instance in another browser. Note that you can't open both instances in the same session of a browser; however, you may open one instance in a tab and another instance in an incognito or a private tab in the same browser.

For example, in this image the source VB Studio instance on the left is open in Mozilla Firefox, and the target VB Studio instance on the right is open in Google Chrome.


Welcome to Visual Builder Stu
https://myorg.developer.oci-c.ocp.ocic-myorg.com/myorg-vbocic/#
Visual Builder Studio
AC
NEWS
Organization
Projects
OCI Account
Virtual Machines
Virtual Machines Templates
Component Exchange
Properties
Search
Member
Favorites
Owner
All
Projects 88
0 200
Disk Usage 3.63 GB
0 20 GB
Create
Update Selected
Welcome to Visual Builder Studio
https://myorg.developer.oci.ocp.oc-myorg.com/myorg-vbsoci/#?or...
Visual Builder Studio
AC
Welcome, Alex!
Organization
Projects
OCI Account
Virtual Machines
Virtual Machines Templates
Component Exchange
Properties
Create Your First Project
Create a new project or import it from data stored in Cloud.
Create
Learn more about projects

☐	Name	Template	Favorite	Status	Members	Disk Usage
☐	Demo This project will ...		☆	● Active	DD MG	4.49% 167.16 MB
☐	My ADF Project		★	● Active	AC MJ	0.31% 11.58 MB
☐	My Project		☆	● Active	AC	0.27% 10.2 MB
☐	Node.js Apps		☆	● Active	MJ	0.34% 12.69 MB
☐	SQL-QA		☆	● Active	MJ	0.24% 9 MB
☐	WebApps Project		☆	● Active	AC	0.29% 10.81 MB

To open source and target instances as described here, you must be assigned the `DEVCS_APP_ENTITLEMENT_ADMINISTRATOR` identity domain role for both the source and target instances.

To open the source VB Studio instance:

1. In a web browser, go to `https://www.oracle.com/cloud/sign-in.html`.
2. In **Cloud Account Name,** enter your tenant name or the identity domain name.

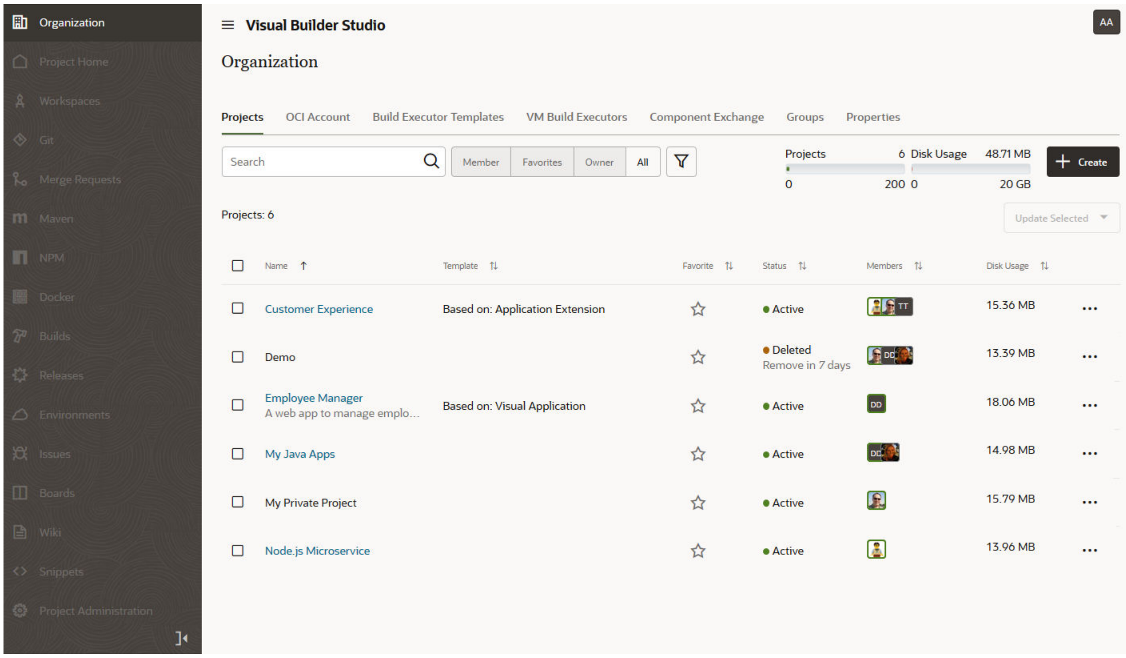
3. Click **Next**.
4. On the sign-in page, enter your Oracle Cloud account credentials, and click **Sign In**.
5. On the OCI console, in the upper-left corner, click **Navigation Menu** ☰.
6. Under **More Oracle Cloud Services**, select **Platform Services**, and then select **Developer Classic**.
7. On the **Instances** tab, click **Manage this instance** ☰ and select **Access service instance**.

To open the target VB Studio instance:

1. In a web browser, go to `https://cloud.oracle.com`.
2. On the Sign-In page, in **Cloud Account Name**, enter your Oracle Cloud account or tenancy name and click **Next**.
3. On the Single Sign-On (SSO) panel, if required, select your identity provider and click **Continue**.
4. Enter your Oracle Cloud account credentials and click **Sign In**.
   The Oracle Cloud Console, also called the OCI console, opens. If you've recently created your Oracle Cloud account, wait for some time to see your services in the Oracle Cloud Console.
5. In the upper-left corner, click **Navigation Menu** ☰.
6. Select **Developer Services** and then select **Visual Builder Studio**.
7. On the Visual Builder Studio Instances page, click the VB Studio instance's name.
8. On the Instance Details page, click **Service Console**.

The VB Studio **Organization** page opens, which displays all the projects you're a member of, as well as your favorite projects, the projects you own, and all the shared projects in your organization.

Here's an example of the Organization page with some projects:



Projects: 6

☐	Name	Template	Favorite	Status	Members	Disk Usage
☐	Customer Experience	Based on: Application Extension	☆	● Active	TT	15.36 MB
☐	Demo		☆	● Deleted Remove in 7 days	DD	13.39 MB
☐	Employee Manager A web app to manage emplo...	Based on: Visual Application	☆	● Active	DD	18.06 MB
☐	My Java Apps		☆	● Active	DD	14.98 MB
☐	My Private Project		☆	● Active		15.79 MB
☐	Node.js Microservice		☆	● Active		13.96 MB

Migrate the Organization's Properties

To migrate the source VB Studio instance's organization properties, note its details and then configure the target VB Studio instance's Organization with the same properties.

Gather Information About the Organization From the Source VB Studio Instance

Perform these steps in the source VB Studio instance.

1. Switch to the browser with the source VB Studio instance.
2. In the navigation menu, click **Organization**.
3. Click the **Properties** tab.
4. Note the values for the organization's name, description, and default wiki markup language (Markdown, Coinfluence, or Textile).

   Example:

Configure the Organization's Properties in the Target VB Studio Instance

Perform these steps in the target VB Studio instance.

1. Get the details of the Organization's properties from the source VB Studio instance.

   You'll use this information (organization;s name, description, and markup language) to configure the Organization properties in the target VB Studio instance.
2. Switch to the browser with the target VB Studio instance.
3. In the navigation menu, click **Organization**.
4. Click the **Properties** tab.
5. In **Name** and **Description**, update the organization's name and description.
6. In **Markup Language**, select the wiki markup language.

   Remember that the organization's wiki markup language defines the default wiki markup language for new projects. You can change the markup language when you create a project or after creating a project.

When you're done, verify that the Organization's properties that are set in the target VB Studio instance match those in the source VB Studio instance.

Migrate VMs

To migrate build executors from the source VB Studio instance to the target VB Studio instance, create build executor templates with the same name and software on the target VB Studio instance, and then allocate the same number of build executors to each template.

Follow these steps to migrate build executor templates and build executors:

1. Open the browser with the source VB Studio instance.

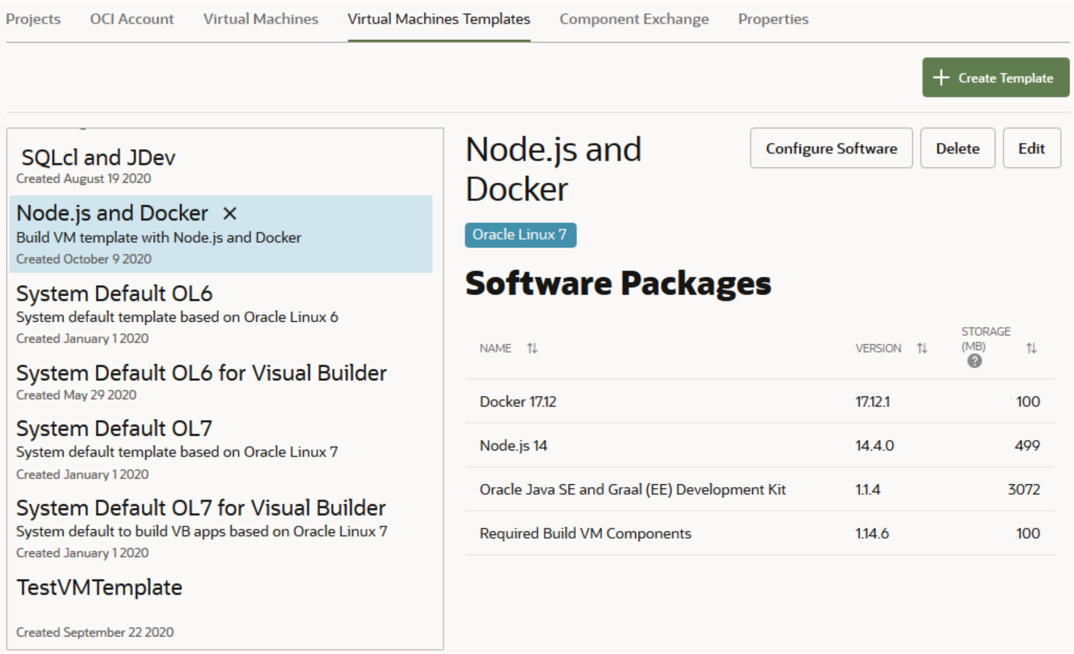
2. In the navigation menu, click **Organization** 🏢, and then click the **Build Executor Templates** tab.
3. Repeat these steps for each build executor template in the source VB Studio instance:
   a. In the source VB Studio instance, get the details of the build executor template and number of build executors allocated to it.
   b. In the target VB Studio instance, create the build executor template and allocate the same number of build executors to the build executor template.
4. After creating all build executor templates and build executors, with the **Build Executor Templates** tab open in both source VB Studio and target VB Studio instances, verify that the build executor templates in the target VB Studio instance match those in the source VB Studio instance.
5. Open the **Build Executors** tab in both source and target instances and verify that number of build executors in the target VB Studio instance matches the number of build executors in the source VB Studio instance.

Gather Information About a Build Executor Template and Its Build Executors From the Source VB Studio Instance

Perform these steps in the source VB Studio instance.

1. Switch to the browser with the source VB Studio instance.
2. In the **Virtual Machines Templates** tab, select the template name on the left.
3. Note the template's name, platform, and software packages.

   Example:



SQLcl and JDev
Created August 19 2020

Node.js and Docker ×
Build VM template with Node.js and Docker
Created October 9 2020

System Default OL6
System default template based on Oracle Linux 6
Created January 1 2020

System Default OL6 for Visual Builder
Created May 29 2020

System Default OL7
System default template based on Oracle Linux 7
Created January 1 2020

System Default OL7 for Visual Builder
System default to build VB apps based on Oracle Linux 7
Created January 1 2020

TestVMTemplate
Created September 22 2020

Node.js and Docker

Oracle Linux 7

Software Packages

NAME	VERSION	STORAGE (MB)
Docker 17.12	17.12.1	100
Node.js 14	14.4.0	499
Oracle Java SE and Graal (EE) Development Kit	1.1.4	3072
Required Build VM Components	1.14.6	100

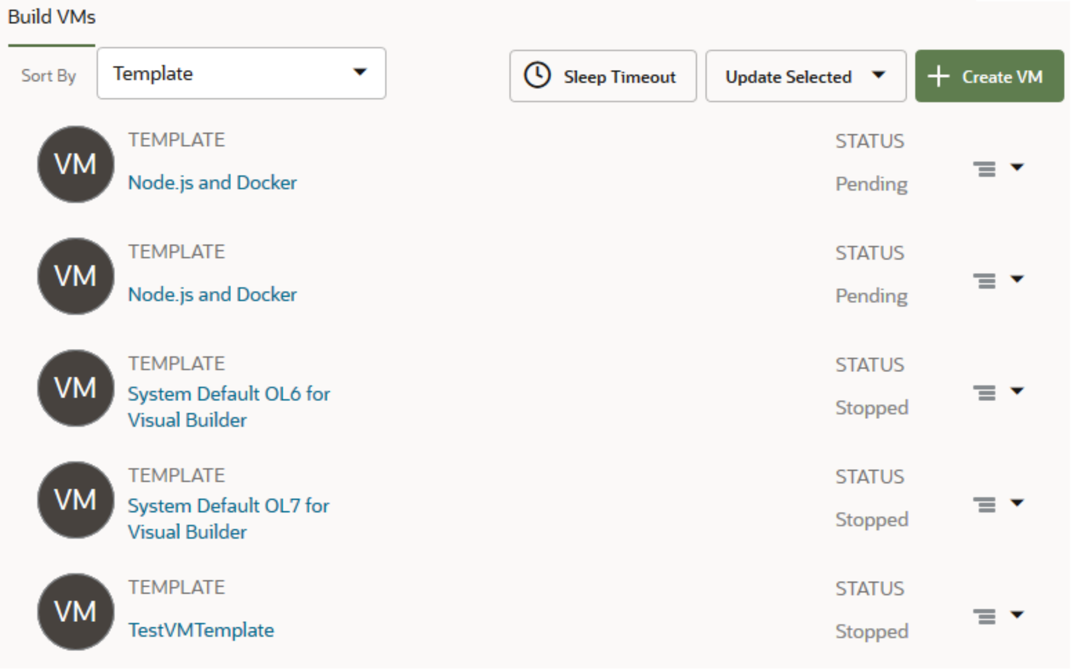
   This table shows the template's name, platform, and software values from the above image.

Field	Value
Template Name	Node.js and Docker
Description	Build Executor Template with Node.js and Docker
Platform	Oracle Linux 7
Software	• Docker 17.12 (ver 17.12.1) • Node.js 14 (ver 14.4.0) • SQLcl 18 (ver 18.4.0.007.1818) Don't add **Oracle Java SE and Graal ((EE) Development Kit** and **Required Build Executor Components** in the above list. They are available by default.

> **Note:**
>
> Don't add **Java** and **Required Software**. They are available by default.

4. Click the **Virtual Machines** tab.
5. If necessary, you can sort (with ascending or descending order) by Id, Template name, Region, Shape, or Status and then locate and select the template.
6. Note the number of VMs allocated to the VM template.

   Example:



TEMPLATE	STATUS
Node.js and Docker	Pending
Node.js and Docker	Pending
System Default OL6 for Visual Builder	Stopped
System Default OL7 for Visual Builder	Stopped
TestVMTemplate	Stopped

This table shows the Virtual Machine's details you noted in Step 5 with a new row at the bottom that describes the number of VMs allocated to it.

Field	Value
Template Name	Node.js and Docker

Field	Value
Description	Build VM Template with Node.js and Docker
Platform	Oracle Linux 7
Software	• Docker 17.12 (ver 17.12.1) • Node.js 14 (ver 14.4.0) • SQLcl 18 (ver 18.4.0.007.1818) Don't add **Oracle Java SE and Graal ((EE) Development Kit** and **Required Build VM Components** in the above list. They are available by default.
Number of VMs	2

Create a Build Executor Template and Its Build Executors in the Target VB Studio Instance

☁ Perform these steps in the target VB Studio instance.

1. Get the details of the virtual machines template and its virtual machines from the source VB Studio instance.
2. Switch to the browser with the target VB Studio instance.
3. In the the **Build Executor Templates** tab (called **Virtual Machines Templates** in the source instance), click **+ Create Template**.
4. In the New Build Executor Template dialog box, enter a name and description for the build executor template.
5. In **Platform**, use the selector to choose the operating system.
6. Click **Create**.
7. Select the template you just created and click **Configure Software**.

   The Software Catalog is displayed.
8. Click the check box for each software package that you want to add to the build executor template. You'll see a message when a software package is dependent on another software package.

   If you can't find a software package, enter a search term in the Search bar and click **Search** 🔍.

   To see the latest version of the software, select the **Show latest versions only** check box. This can be helpful when multiple versions of the same software are available in the catalog.
9. Click **Done**.
10. Click the **Build Executors** tab (called **Virtual Machine**s in the source instance).
11. Click **+ Create VM**.
12. In the Add VM Build Executor dialog box:
    a. Use the up and down arrows to set the number of build executors in **Quantity**.
    b. Use the selector in **Build Executor Template** to choose the build executor template.
    c. Select the build executor's region and shape in **Region** and **Shape**.

   d. Enter a number between 50 and 500 in **Volume Size (GB)** to override the default size of 100 GB.

13. Click **Add**.

When you're done, verify that the build executor template's details and the build executors that were created in the target VB Studio instance match the ones in the source VB Studio instance.

Migrate the Organization's Component Exchange

If teams in your organization develop custom components (web components, application templates, UI patterns, and actions) for visual applications, a Component Exchange may have been set up to make the components available to all VB Studio users.

To host the custom components, you can define either a VB Studio project or an external server as the Componengt Exchange. Although any VB Studio project can be used as the Component Exchange, you should create and set up a separate project to host components. If you have multiple VB Studio instances across multiple tenancies, you can specify an external server as the common Component Exchange for all VB Studio instances.

To use a project or a server as the Component Exchange, you specify its details on the Organization page. When set, the VB Studio Designer automatically shows the Component Exchange's hosted components in the Components tab.

To migrate the Component Exchange from the source VB Studio instance to the target VB Studio instance, configure the Component Exchange with the same project name or server on the target VB Studio instance.

1. Open the browser with the source VB Studio instance.
2. In the left navigator, click **Organization**, then click the **Component Exchange** tab.
3. In the source VB Studio instance, get the details of the Component Exchange's project or server.
4. In the target VB Studio instance, create the Component Exchange using the source VB Studio instance's details (project or server).
5. After creating the Component Exchange in the target VB Studio instance, with the **Component Exchange** tab open in both the source VB Studio and target VB Studio instances, verify that settings in the target instance match those in the source instance.

Gather Information About the Component Exchange From the Source VB Studio Instance

Perform these steps in the source VB Studio instance.

1. Switch to the browser with the source VB Studio instance.
2. In the **Component Exchange** tab, note whether or not the **Enable organization-wide component hosting** check box has been selected.

   If the check box isn't selected, you have nothing else to do for this part of the migration. If the check box is selected, go to the next step.
3. Note where the source instance's custom components are hosted:
   - If **In a project** is selected, note the project name displayed in the **Project** field. Example:

Field	Value
Project Name	HCM Project Custom Compents

- If **On a custom server** is selected, note the URL in the **Server URL** field. The credentials (username and password) are optional. If a username is displayed, note it. Example:

Field	Value
Server URL	https://exchange.mycompany.com/api/0.2.0
Username	(Optional) alex.admin
Password	(Optional) *********

4. If the **Validate** button is active, click it and make sure that the connection to the custom server works.

Create the Component Exchange in the Target VB Studio Instance

Perform these steps in the target VB Studio instance:

1. Get the details of the Component Exchange from the source instance.
2. Switch to the browser with the target VB Studio instance.
3. Go to the **Component Exchange** tab, and select the **Enable organization-wide component hosting** check box.
4. Select where the target instance's custom components will be hosted:
    - Select **In a project** and then use the selector in the **Project** field to select the project that will host the custom components.

        > **Note:**
        >
        > If you are going to use a project to host custom components, the project's security setting in the project's Properties must be set to Shared.

    - Select **On a custom server** and enter the Server URL shown in the source instance's **Server URL** field. If any credentials (username and password) were shown in their respective fields for the source instance, enter those in the Username and Password fields now.
5. Click the **Test Connection** button to make sure that the connection to the custom server works.
6. Click **Save**.

Migrate Projects

To migrate projects from the source VB Studio instance, you will export each project's data to an OCI Object Storage bucket.

You'll then create projects in the target VB Studio instance using the exported data. Finally, you will copy any data or artifacts that were not part of the export from the source VB Studio instance to the target VB Studio instance.

Gather Information About a Project From the Source VB Studio Instance

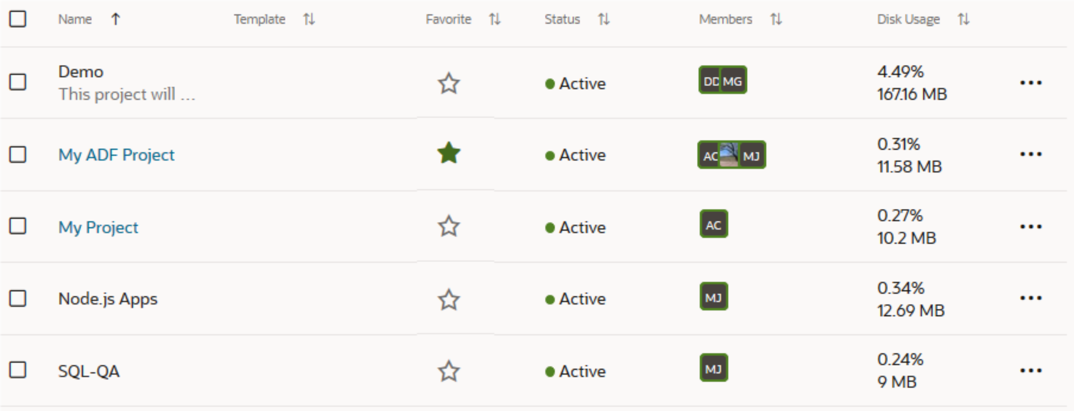
Note the name, description, security, and the wiki markup language of the project in the source VB Studio instance.

To get the details, you must be assigned the project's **Owner** role. If the role is not assigned to you, sign in as the **Organization Administrator** and assign the **Owner** role to yourself.

Perform these steps in the source VB Studio instance.

1. Switch to the browser with the source VB Studio instance.
2. In the navigation menu, click **Organization**.
3. In the **Projects** tab, click the **All** toggle button.
4. Find the project to migrate. If you can't find it in the list, use the Search box.
5. After finding the project, note whether the project's name is a link and whether you are an owner. Projects where you're not a member don't appear as links. If you're a member, but not an owner, your name wouldn't appear in the **Owners** list.

   In this example, you're signed in as Alex Cloud. Note that some projects aren't links.

☐	Name ↑	Template ⇅	Favorite ⇅	Status ⇅	Members ⇅	Disk Usage ⇅	
☐	Demo This project will ...		☆	● Active	DD MG	4.49% 167.16 MB	⋯
☐	My ADF Project		★	● Active	AC MJ	0.31% 11.58 MB	⋯
☐	My Project		☆	● Active	AC	0.27% 10.2 MB	⋯
☐	Node.js Apps		☆	● Active	MJ	0.34% 12.69 MB	⋯
☐	SQL-QA		☆	● Active	MJ	0.24% 9 MB	⋯

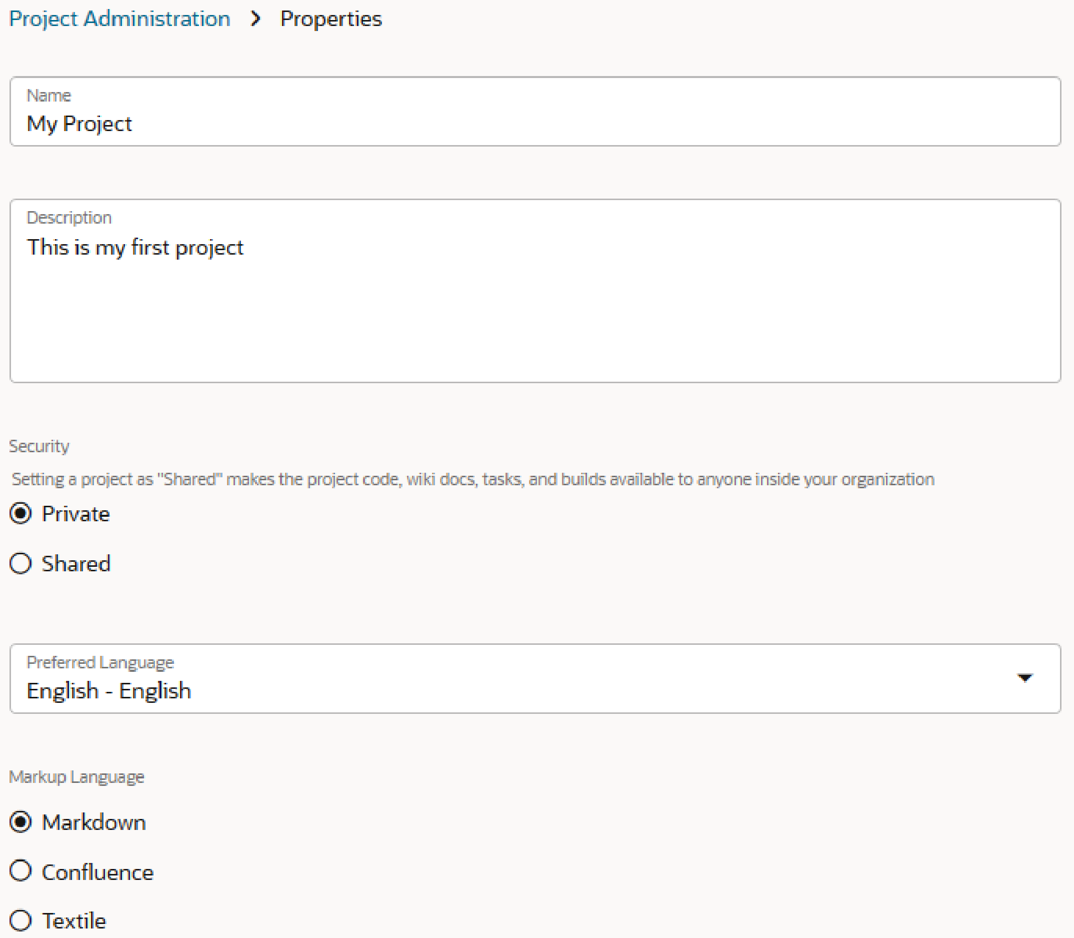
   This table shows the project's name and information whether you're a member of the project.

Field	Value
Project Name	My Project
Are you a Member?	Yes
Are you an Owner?	Yes

6. If you're not an owner or the project doesn't appear as a link, select the project's check box. From **Update Selected** ⋯, select **Assign Me as Owner**.
7. Click the project name.
8. In the navigation menu, click **Project Administration**.
9. Click **Properties**.

10. Note the values of **Name**, **Description**, **Security**, and **Markup Language**.

    Example:



Project Administration > Properties

Name
My Project

Description
This is my first project

Security
Setting a project as "Shared" makes the project code, wiki docs, tasks, and builds available to anyone inside your organization
● Private
○ Shared

Preferred Language
English - English

Markup Language
● Markdown
○ Confluence
○ Textile

This table shows the Project Name, Description, Security, and Wiki values from the above image.

Field	Value
Project Name	My Project
Description	This is my first project
Security	Private
Wiki	Markdown

Export Project Data From the Source VB Studio Instance

You can export a project’s data to an OCI Object Storage bucket.

When you export project data, not all the artifacts are included. You'll have to manually export the remaining artifacts and data manually.

This table shows you which artifacts are exported and which are not:

Artifact	Exported?	Notes
Project users	No	When you export a project's data, its users are not exported. However, all the data associated with the usernames (issue ownership and reviewers of a merge request, for example) will be preserved. After you import the project's data to another project, all the data associated with the username will automatically be restored after you add a user with the same username to the project.
User's favorite settings or personal preferences	No	
Hosted Git repositories	Yes	
Mirrored public external Git repositories	Yes	
Mirrored private external Git repositories	No	Password-protected external Git repositories aren't exported. After you import the project's data to another project, you must add each external private Git repository.
Branch restrictions	Yes	
Merge Requests	Yes	
Default reviewers of a branch	Yes	After you import the project's data to another project, default reviewers are added automatically after the same users are added to the target project.
Workspaces	No	Repositories that are associated with your user's workspaces will be exported, but the workspaces themselves will not be. Users must push all workspace changes to their Git repository before those changes can be exported/imported.
Maven artifacts	No	
NPM artifacts	No	
Linked Docker registries	No	
Build jobs	Yes	All builds of jobs are exported, along with their logs and artifacts. If a job retains an excessive number of builds, it will adversely affect the export process and will require a large amount of storage space in your bucket. Configure a job to retain a *reasonable* number of builds before you export the project.
Build job's history and artifacts	Yes	

Artifact	Exported?	Notes
Name of the build job's build executor template	No	
Pipelines	Yes	
Releases	Yes	
Deployment configurations	No	
Environments	No	
Issues	Yes	
Agile boards	Yes	
Wiki pages	Yes	
Snippets	Yes	
Project template definition	No	
Announcements	No	
Webhooks	No	
RSS/ATOM feeds	No	
Link rules	No	
Project tags	Yes	
Issue products and components	Yes	
Default owners of issue components	Yes	After you import the project's data to another project, owners are activated automatically after the same users are added to the target project.
Issue custom fields	Yes	
Named passwords/private keys	Yes	**Note:** The passwords are securely exported and imported as keystore binary data.

Export a Project's Data to an OCI Object Storage Bucket

To export a project's data to an OCI Object Storage bucket, you need the bucket's name, private key and fingerprint of a user who can write objects to the bucket, and details of the compartment that hosts the bucket.

To get the input values, see Get the Required OCI Input Values in *Administering Visual Builder Studio*.

Perform these steps for each project in the source VB Studio instance as the project's **Owner**.

1. Open the source project.
2. In the navigation menu, click **Project Administration** .
3. Click **Data Export/Import**.
4. Click the **Job** tab.
5. In **Account Type**, select **OCI**.
6. In **Tenancy OCID**, enter the tenancy's OCID copied from the Tenancy Details page.
7. In **User OCID**, enter the user's OCID value who can access the bucket.
8. In **Home Region**, select the home region of the OCI account.
9. In **Private Key**, enter the private key of the user who can access the bucket.
10. In **Passphrase**, enter the passphrase used to encrypt the private key. If no passphrase was used, leave the field empty.
11. In **Fingerprint**, enter the fingerprint value of the private-public key pair.
12. In **Compartment OCID**, enter the compartment's OCID copied from the Compartments page.
13. In **Storage Namespace**, enter the storage namespace copied from the Tenancy Details page.
14. Click **Connect**.
15. In the Create Job section, in **Type**, select **Export**.
16. In **Name**, enter a name for the export job.
17. In **Description**, enter the job's description.
18. In **Storage Container**, select the bucket to export the project data.
19. In **Storage Object**, if required, update the default `.zip` file name.
20. Click **Export**.
21. In the Confirm Project Export dialog box, select the **Export project data** check box, and click **Yes**.
22. In the Exporting Project page, expand **Steps** to see the status of each module.
23. After the project export is successful, make a note of the bucket name and the archive file along with the project's other details.

    Example:

Field	Value
Project Name	My Project
Description	This is my first project
Security	Private
Wiki	Markdown
Bucket/Container Name	MyProjects.Bucket
Archive File	Export-my-domain_My Project_2019-03-12T05-34-20.627Z-by_alex.admin.zip

Create a Project With an Exported Project's Data in the Target VB Studio Instance

While creating a project, you can import data from an exported project's archive file stored in an OCI Object Storage bucket.

To import project data, you need these details:

- Name of the target bucket
- Name of the exported archive file
- Private key and fingerprint of a user who has the `BUCKET_INSPECT` (or `BUCKET_READ`) and `OBJECT_READ` permissions of the bucket
- Details of the compartment that hosts the bucket

Note that if you've moved the exported file to an OCI Archive Storage bucket, you must restore the exported file object and move it to an OCI Object Storage bucket before creating the project. To restore objects in OCI Object Storage, see Managing Objects.

After you have the required input values, you can import the project.

Perform these steps in the target VB Studio instance.

1. Get the details of the project from the source VB Studio instance.

   Example:

Field	Value
Project Name	My Project
Description	This is my first project
Security	Private
Wiki	Markdown
Bucket/Container Name	MyProjects.Bucket
Archive File	Export-my-domain_My Project_2019-03-12T05-34-20.627Z-by_alex.admin.zip

2. Switch to the browser with the target VB Studio instance.
3. In the navigation menu, click **Organization** 🏢, if required.
4. On the Organization page, click **+ Create**.
5. On the Project Details page of the New Project wizard, in **Name** and **Description**, enter the project name and a description.

6. In **Security**, select the project's privacy.
7. Click **Next**.
8. On the Template page, select **Import Project**, and click **Next**.
9. In the Storage Connection section of the Project Properties page, to import the project's data from an OCI Object Storage bucket, in **Account Type**, select **OCI**.
10. If you selected **OCI** as **Account Type**, enter the required connection details.
    a. In **Tenancy OCID**, enter the tenancy's OCID copied from the Tenancy Details page.
    b. In **User OCID**, enter the user's OCID value who can access the bucket.
    c. In **Home Region**, select the home region of the OCI account.
    d. In **Private Key**, enter the private key of the user who can access the bucket.
    e. In **Passphrase**, enter the passphrase used to encrypt the private key. If no passphrase was used, leave the field empty.
    f. In **Fingerprint**, enter the fingerprint value of the private-public key pair.
    g. In **Compartment OCID**, enter the compartment's OCID copied from the Compartments page.
    h. In **Storage Namespace**, enter the storage namespace copied from the Tenancy Details page.
11. If you selected **OCI Classic** as **Account Type**, enter the required connection details.
    a. In **Service ID**, enter the value copied from the last part of the **REST Endpoint** URL field of the Service Details page.

       For example, if the value of **REST Endpoint** URL is `https://demo12345678.storage.oraclecloud.com/v1/`**`Storage-demo12345678`**, then enter `Storage-demo12345678`.
    b. In **Username** and **Password**, enter the credentials of the user who can access the archive file.
    c. In **Authorization URL**, enter the URL copied from the **Auth V1 Endpoint** field of the Service Details page.

       Example: `http://storagetria01234-usoracletria12345.storage.oraclecloud.com/auth/v1.0`.
12. Click **Next**.
13. On the Project Properties page, from **Wiki Markup**, select the project’s wiki markup language.
14. In **Container**, select the storage bucket where the data was exported.
15. In **File**, select the exported file.
16. Click **Finish**.
17. After the import is complete, check the log to learn about the imported artifacts.
    a. In the navigation menu, click **Project Administration** ⚙.
    b. Click **Data Export/Import**.
    c. Click the **History** tab.
    d. Select the import entry.
    e. In the **Job Details** section, expand **Steps**.

In the created project, verify artifacts listed in the table of Export Project Data From the Source VB Studio Instance with **Yes** value in the **Exported?** column have been imported.

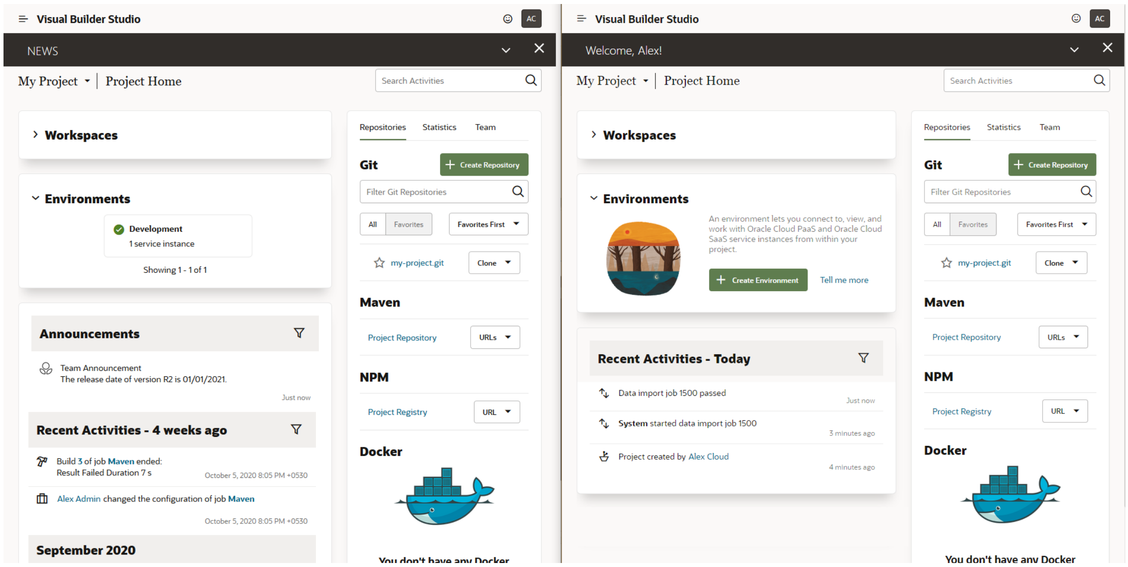
If the import fails, you can import the data again without creating the project. See Export and Import Project Data in *Using Visual Builder Studio*.

Migrate Other Artifacts and Data

After exporting a project from the source VB Studio instance and creating a project of the same name with the exported project's data in the target VB Studio instance, migrate the artifacts that weren't exported.

Before you begin, open the source project in a browser and the target project in another browser. Then, to migrate an artifact, note and copy its details from the source project and create or add it manually to the new project.

For example, in this image, the source project, on the left, is open in Mozilla Firefox and the target project, on the right, is open in Google Chrome.



Project Users

To migrate users, you'll need to add them manually to the new project.

If you're switching to another identity domain, make sure that VB Studio users of the source identity domain are added to the target identity domain with the same usernames and roles. See Create Users and Assign Roles in *Getting Started with Oracle Cloud*.

Follow these steps to migrate project users:

1. Open the source project. In the navigation menu, click **Project Home** ⌂.
2. Open the target project. In the navigation menu, click **Project Home** ⌂.
3. Click the **Team** tab.
4. In the source project, gather information about the usernames and roles of project users.

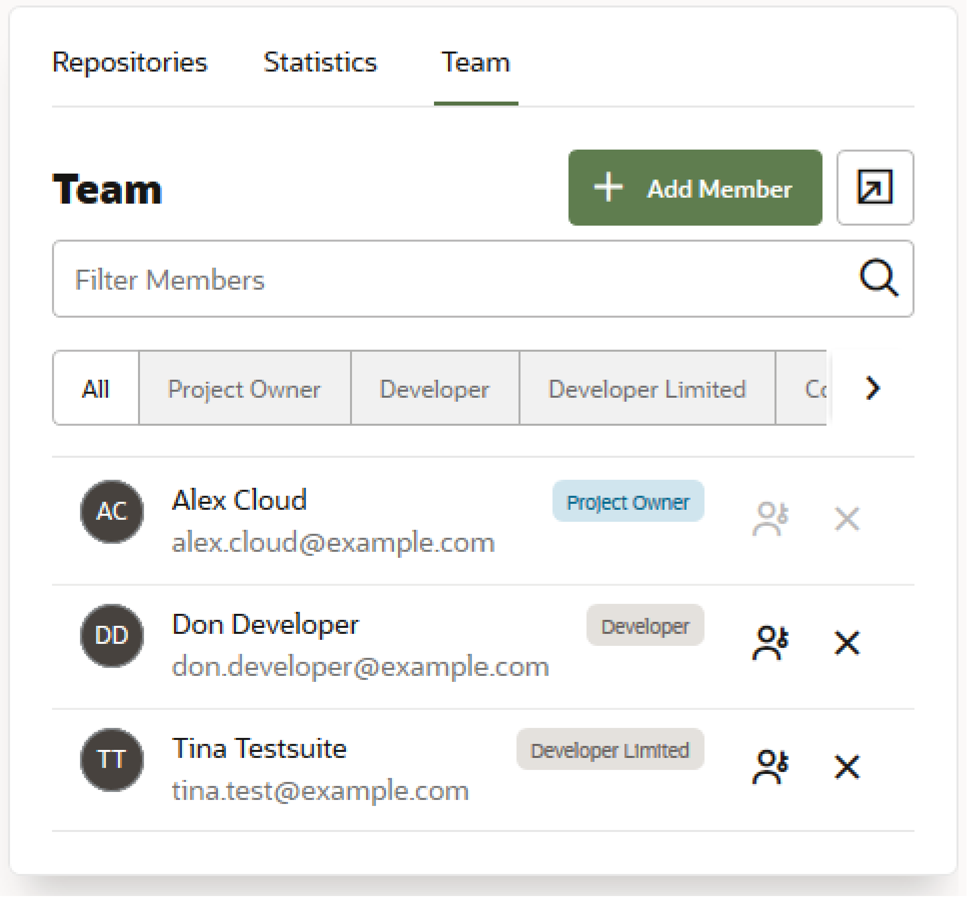
5. In the target project, add the users and assign them the same membership types.
6. After adding users, with the **Team** tab open in both source and target projects, verify that users and roles in the target project match the source project.

Gather Information About Users From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. In the **Team** tab, for each user, note the usernames and project membership types.

   Example:



AC Alex Cloud alex.cloud@example.com Project Owner

DD Don Developer don.developer@example.com Developer

TT Tina Testsuite tina.test@example.com Developer Limited

This table shows the User Name and Owner values from the above image.

User Name	Project Role
Alex Admin	Owner
Don Developer	Developer
Tina Testsuite	Developer Limited

3. Click **Export**.
4. In the Members List Export dialog box, copy the names of project members.

5. Click **OK** to close the dialog box.

Add Users in the Target Project

Perform these steps in the target project.

1. Get the details of users from the source project. You'll use the information to add users and assign them the same roles in the target project.

   Example:

User Name	Project Role
Alex Admin	Owner
Don Developer	Developer
Tina Testsuite	Developer Limited

2. Switch to the browser with the target project.
3. In the **Team** tab, click **+ Add Member**.
4. In the New Member dialog box, in **Membership**, select **Project Owner**.
5. Select the **Multiple Users** toggle button.
6. In **Username List** text box, enter the comma delimited list of usernames exported from the source project.
7. Click **Add**.
8. For each user who wasn't assigned the **Owner** role, click **Change Membership** and select the new project membership for that user.

When you're done, verify that the users and roles in the target project match the source project.

Before you exported the source project's data, you noted whether you're a member or an owner in the source project. Don't delete that data. You'll need it after migrating all source project's artifacts to the target project.

Mirrored Private Git Repositories

If the project users have been using private Git repositories on another platform, such as GitHub or Bitbucket, and have mirrored them to the project, note that they aren't exported to the archive file when you export project data.

Follow these steps to migrate a project's mirrored private Git repositories:

1. Open the source project. In the navigation menu, click **Project Administration** ⚙.
2. Open the target project. In the navigation menu, click **Project Administration** ⚙.
3. In the source and target projects, follow these steps:
   a. Click **Repositories**.
   b. Expand **External Repositories**.
4. Repeat these steps to migrate each mirrored private Git repository:
   a. In the source project, gather information about a mirrored private Git repository.
   b. In the target project, add a mirror to the private Git repository.

5. After migrating all private Git repositories, with the **Repositories** page open in both source and target projects, verify that repositories in the target project match the source project.

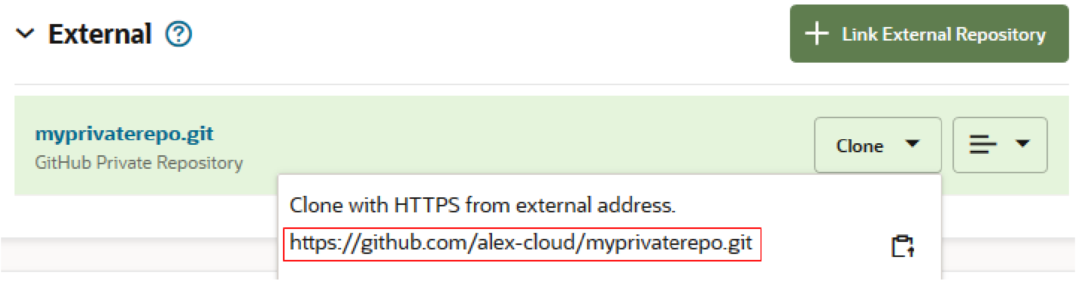
Gather Information About a Mirrored Private Git Repository From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. In **External Repositories**, note the name, description, and URL of the mirrored Git repository.

   You can get the URL from the **Clone** drop-down menu.

   Example:

   Clone with HTTPS from external address.

   https://github.com/alex-cloud/myprivaterepo.git

   This table shows the Name, Description, and URL values from the above image.

Field	Value
Repository Name	myprivaterepo
Description	GitHub Private Repository
URL	https://github.com/alex-cloud/myprivaterepo.git

   Get the credentials of the repository too. They aren't displayed in the drop-down menu.

Mirror a Private Git Repository in the Target Project

Perform these steps in the target project.

1. Get the details of the mirrored private Git repository from the source project. You'll use the information to add the external Git repository in the target project.

   Example:

Field	Value
Repository Name	myprivaterepo
Description	GitHub Private Repository
URL	https://github.com/alex-cloud/myprivaterepo.git

2. Switch to the browser with the target project.
3. In **External Repositories**, click **+ Link External Repository**
4. In the New Repository dialog box, enter the URL of the external Git repository in **URL** and enter the repository's description in **Description**.

5. Expand the **Credentials for non-public repos** section and enter the credentials to access the external Git repository.
6. Click **Create**.
7. In the navigation menu, click **Git**.
8. From the **Repository** list, select the external repository and verify that you can view its files.

Docker Registries

Follow these steps to migrate Docker registries:

1. Open the source project. In the navigation menu, click **Project Administration**.
2. Open the target project. In the navigation menu, click **Project Administration**.
3. In the source and target projects, follow these steps:
    a. Click **Repositories**.
    b. Expand **Docker Repositories**.
4. Repeat these steps to migrate each Docker registry:
    a. In the source project, gather information about a Docker registry.
    b. In the target project, add the Docker registry.
5. After migrating all Docker registries, with the **Repositories** page open in both source and target projects, verify that registries in the target project match the source project.

Gather Information About a Linked Docker Registry From the Source Project

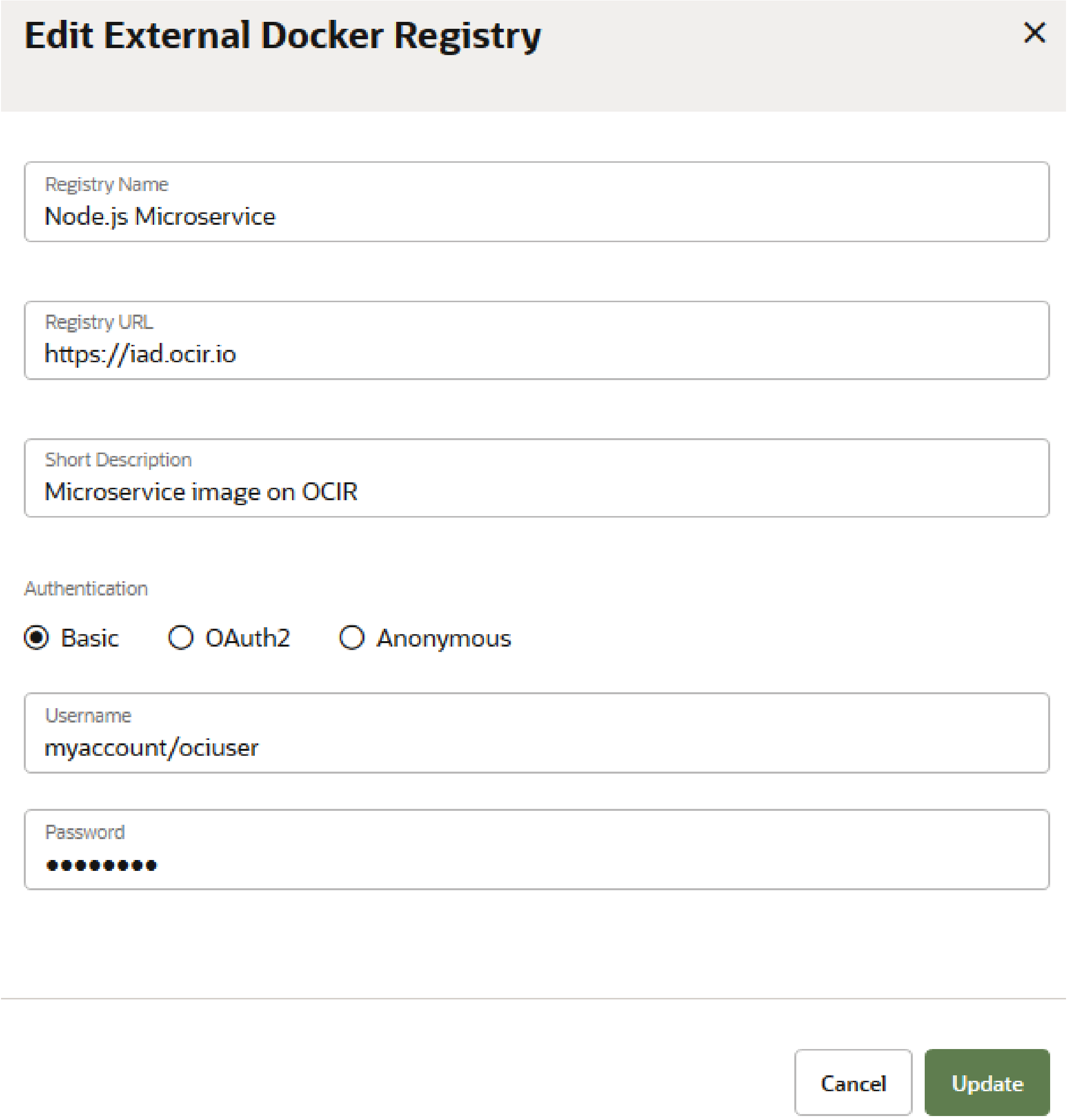
Perform these steps in the source project.

1. Switch to the browser with the source project.
2. In **Docker Repositories**, note the linked Docker registry's name, URL, description, and authentication.

    Click **Menu** of the registry and select **Edit**. Copy the required details from the Edit Registry dialog box.

    If a registry is private, get its access credentials too. The password (or the auth token) is not visible in the dialog box.

    Example:



Edit External Docker Registry

Registry Name: Node.js Microservice

Registry URL: https://iad.ocir.io

Short Description: Microservice image on OCIR

Authentication: ● Basic ○ OAuth2 ○ Anonymous

Username: myaccount/ociuser

Password: ●●●●●●●●

This table shows the Name, Description, URL, and Authentication values from the above image.

Field	Value
Registry Name	Node.js Microservice
Registry URL	https://iad.ocir.io
Short Description	Microservice image on OCIR
Authentication	Basic Get the authorised user's access credentials too.

Link a Docker Registry in the Target Project

Perform these steps in the target project.

1. Get the details of the Docker registry from the source project. You'll use the information to add the Docker registry in the target project.

Example:

Field	Value
Registry Name	Node.js Microservice
Registry URL	https://iad.ocir.io
Short Description	Microservice image on OCIR
Authentication	Basic Get the authorised user's access credentials too.

2. Switch to the browser with the target project.
3. In **Docker Registries**, click **+ Link External Registry**.
4. In **Registry Name** and **Short Description**, enter the Docker registry name and a description.
5. In **Registry URL**, enter the URL of the Docker registry.
6. In **Authentication**, select the authentication type.
7. Click **Create**.
8. In the navigation menu, click **Docker** ▦.
9. Browse and verify that you can access the repositories and images of the linked Docker registry.

Maven Artifacts

You might have several artifacts in the source project's Maven repository, such as dependencies and build artifacts. To migrate them, you'll need to note details of each artifact, download it, and then upload it again in the target project. You may choose not to migrate build artifacts stored in the Maven repository of the source project as you can generate and archive them by running a build in the target project.

Follow these steps to migrate Maven artifacts:

1. Open the source project. In the navigation menu, click **Maven** m.
2. Open the target project. In the navigation menu, click **Maven** m.
3. Repeat these steps to migrate each Maven artifact:
    a. In the source project, gather information about a Maven artifact and download it to your computer.
    b. In the target project, upload the Maven artifact.
4. After migrating all Maven artifacts, with the **Maven** page open in both source and target projects, verify that artifacts in the target project match the source project.
5. Switch to the browser with the source project. In the navigation menu, click **Project Administration** ⚙ and then click **Repositories**.
6. Switch to the browser with the target project. In the navigation menu, click **Project Administration** ⚙ and then click **Repositories**.
7. Note the Maven auto-cleanup and overwrite settings of the source project and make the same settings in the target project.

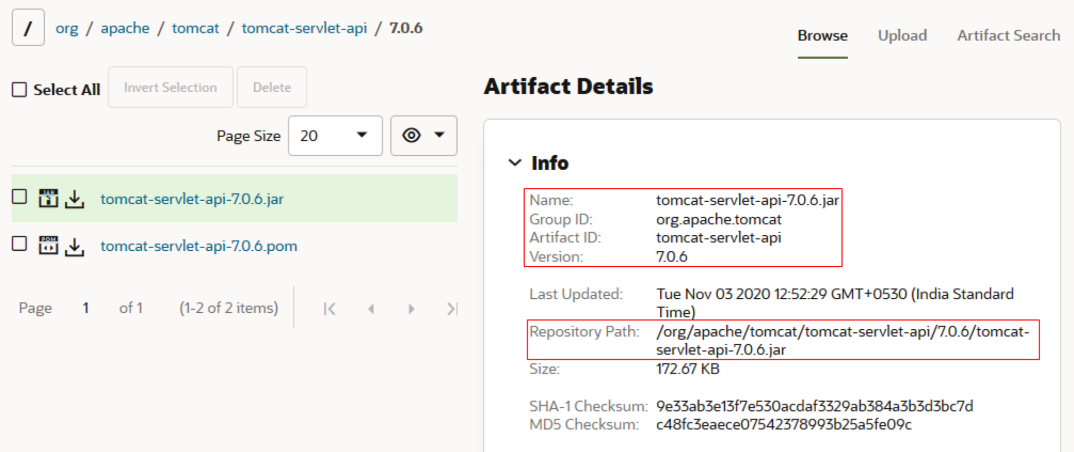
8. After migrating all Maven settings, with the **Repositories** page open in both source and target projects, verify that Maven settings in the target project match the source project.

Gather Information About a Maven Artifact From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. On the right side of the page, click **Browse**.
3. Browse and select the artifact.
4. From the **Artifact Details** section on the right, note the artifact's name, path, group ID, artifact ID, and version number.

   Example:


/ org / apache / tomcat / tomcat-servlet-api / 7.0.6
Browse
Upload
Artifact Search
☐ Select All
Invert Selection
Delete
Page Size 20
☐ tomcat-servlet-api-7.0.6.jar
☐ tomcat-servlet-api-7.0.6.pom
Page 1 of 1 (1-2 of 2 items)

Artifact Details

Info

Name: tomcat-servlet-api-7.0.6.jar
Group ID: org.apache.tomcat
Artifact ID: tomcat-servlet-api
Version: 7.0.6

Last Updated: Tue Nov 03 2020 12:52:29 GMT+0530 (India Standard Time)
Repository Path: /org/apache/tomcat/tomcat-servlet-api/7.0.6/tomcat-servlet-api-7.0.6.jar
Size: 172.67 KB

SHA-1 Checksum: 9e33ab3e13f7e530acdaf3329ab384a3b3d3bc7d
MD5 Checksum: c48fc3eaece07542378993b25a5fe09c

This table shows the Artifact Name, Path, Group ID, Artifact ID, and Version Number values from the above image.

Field	Value
Name	tomcat-servlet-api-7.0.6.jar
Path	tomcat/servlet/api/tomcat-servlet-api/7.0.6
Group ID	tomcat-servlet-api
Artifact ID	tomcat-servlet-api
Version Number	7.0.6

5. Click **Download** ⤓.

Upload a Maven Artifact in the Target Project

Perform these steps in the target project.

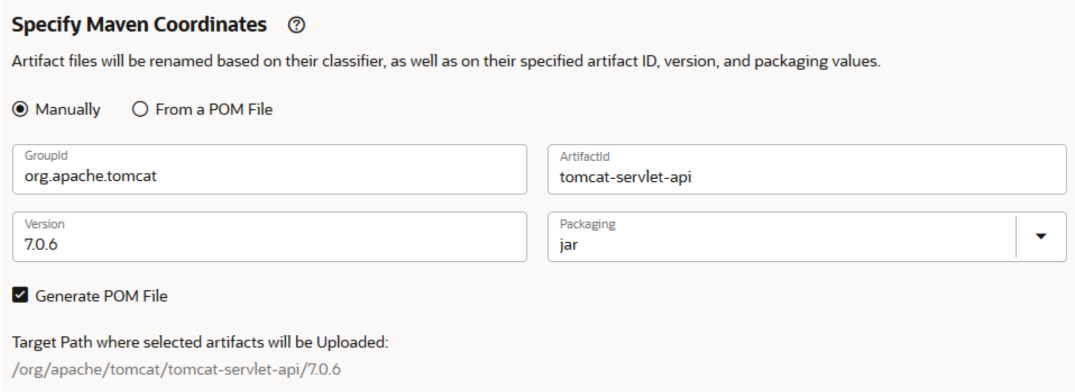
1. Get the details of the Maven artifact from the source project. You'll use the information to upload the artifact in the target project.

   Example:

Field	Value
Name	tomcat-servlet-api-7.0.6.jar
Path	tomcat/servlet/api/tomcat-servlet-api/7.0.6
Group ID	tomcat-servlet-api
Artifact ID	tomcat-servlet-api
Version Number	7.0.6

2. Switch to the browser with the target project.
3. On the right side of the **Maven** page, click **Upload**.
4. In the **Upload Artifacts** section, add the artifact to upload, and specify its Maven coordinates (Group ID, Artifact ID, and version number) that you noted.

   Some fields might get populated automatically when you add the artifact in the **Upload** section. Make sure the path of the uploaded artifact is the same as you noted. Example:



Specify Maven Coordinates

Artifact files will be renamed based on their classifier, as well as on their specified artifact ID, version, and packaging values.

● Manually ○ From a POM File

GroupId: org.apache.tomcat

ArtifactId: tomcat-servlet-api

Version: 7.0.6

Packaging: jar

☑ Generate POM File

Target Path where selected artifacts will be Uploaded:
/org/apache/tomcat/tomcat-servlet-api/7.0.6

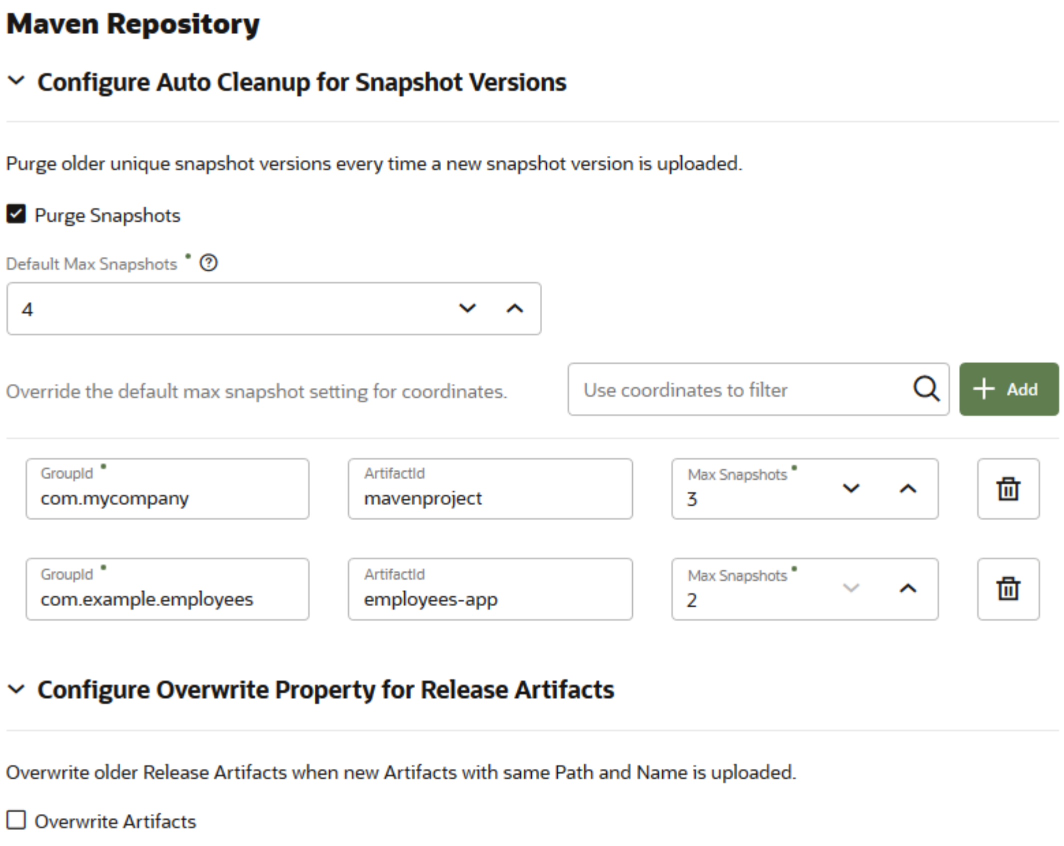
5. Click **Start Upload**.
6. After uploading, verify the path of the uploaded artifact is same as you noted in the source project.

Gather Information About Maven Administration Settings From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. In **Maven Repository**, expand **Configure auto cleanup for Snapshot versions** and **Configure Overwrite Property for Release Artifacts**, and note their field values.

   Example:



Maven Repository

Configure Auto Cleanup for Snapshot Versions

Purge older unique snapshot versions every time a new snapshot version is uploaded.

☑ Purge Snapshots

Default Max Snapshots *: 4

Override the default max snapshot setting for coordinates.

GroupId *	ArtifactId	Max Snapshots *
com.mycompany	mavenproject	3
com.example.employees	employees-app	2

Configure Overwrite Property for Release Artifacts

Overwrite older Release Artifacts when new Artifacts with same Path and Name is uploaded.

☐ Overwrite Artifacts

This table shows the fields and their values from the above image.

Field	Value
Purge Snapshots	Selected
Default Max Snapshots	4
Customized Snapshot Counts	Snapshot 1: • GroupID: com.mycompany • ArtifactID: mavenproject • Snapshot Count: 3 Snapshot 2: • GroupID: com.example.employees • ArtifactID: employees-app • Snapshot Count: 2
Overwrite Artifacts	Not selected

Configure Maven Administration Settings in the Target Project

Perform these steps in the target project.

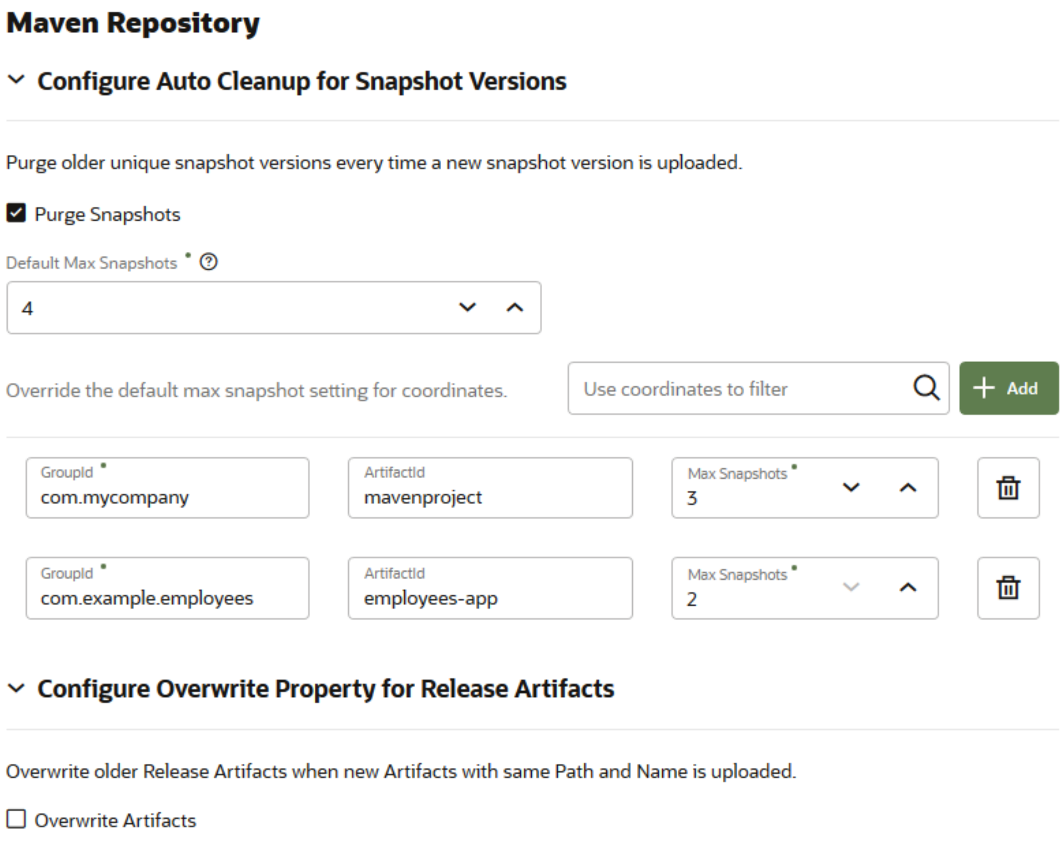
1. Get the details of Maven administration settings from the source project. You'll use the information to configure Maven admin settings in the target project.

   Example:

Field	Value
Purge Snapshots	Selected
Default Max Snapshots	4
Customized Snapshot Counts	Snapshot 1: • GroupID: com.mycompany • ArtifactID: mavenproject • Snapshot Count: 3 Snapshot 2: • GroupID: com.example.employees • ArtifactID: employees-app • Snapshot Count: 2
Overwrite Artifacts	Not selected

2. Switch to the browser with the target project.
3. In **Maven Repository**, expand **Configure auto cleanup for Snapshot versions** and **Configure Overwrite Property for Release Artifacts**.
4. Set the fields of both sections as noted in the table.

   Example:



Maven Repository

Configure Auto Cleanup for Snapshot Versions

Purge older unique snapshot versions every time a new snapshot version is uploaded.

☑ Purge Snapshots

Default Max Snapshots: 4

Override the default max snapshot setting for coordinates.

GroupId	ArtifactId	Max Snapshots
com.mycompany	mavenproject	3
com.example.employees	employees-app	2

Configure Overwrite Property for Release Artifacts

Overwrite older Release Artifacts when new Artifacts with same Path and Name is uploaded.

☐ Overwrite Artifacts

Environments

Follow these steps to migrate environments and its service instances:

1. Open the source project. In the navigation menu, click **Environments**.

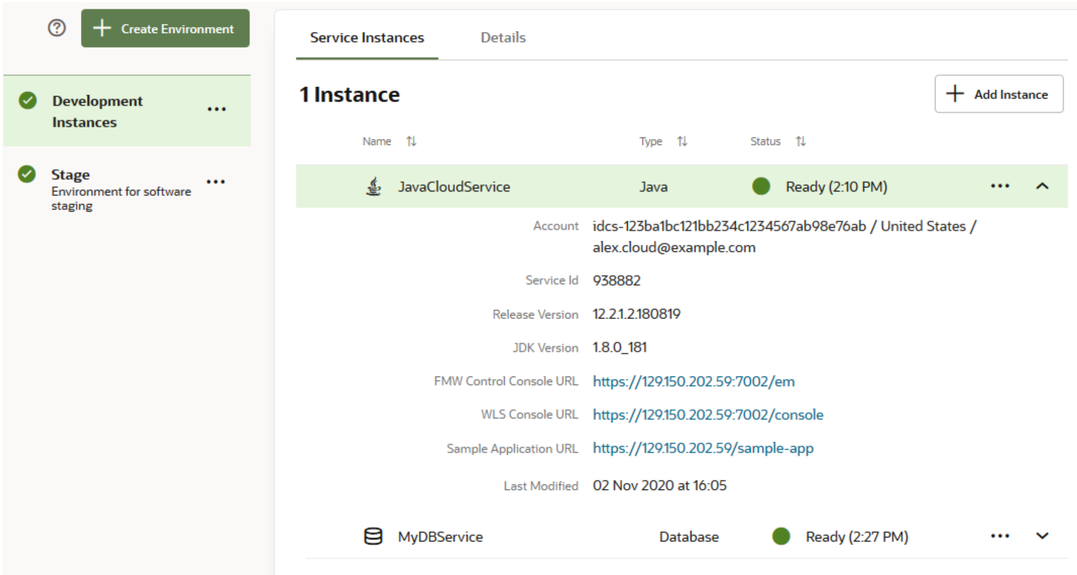
2. Open the target project. In the navigation menu, click **Environments** .
3. Repeat these steps to migrate each environment:
   a. In the source project, gather information about an environment and its service instances.
   b. In the target project, create the environment and add its service instances.
4. After migrating all environments, with the **Environments** page open in both source and target projects, verify that environments in the target project match the source project.

Gather Information About an Environment and Service Instances From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. On the **Environments** page, from the left list, select the environment.
3. Note the details of each service instance of the environment.

   Example:



JavaCloudService Java Ready (2:10 PM)

Account idcs-123ba1bc121bb234c1234567ab98e76ab / United States / alex.cloud@example.com

Service Id 938882

Release Version 12.2.1.2.180819

JDK Version 1.8.0_181

FMW Control Console URL https://129.150.202.59:7002/em

WLS Console URL https://129.150.202.59:7002/console

Sample Application URL https://129.150.202.59/sample-app

Last Modified 02 Nov 2020 at 16:05

MyDBService Database Ready (2:27 PM)

This table shows the Environment Name, Description, Service Instance, and Account values from the above image.

Environment Name	Description	Service Instance	Account
Development Instances	Environment for software development	Java	idcs-123a1bc121bb234c1234567ab98e76ab / United States / alex.cloud@example.com

Environment Name	Description	Service Instance	Account
Development Instances	Environment for software development	Database	idcs-123a1bc121bb234c1234567ab98e76ab / United States / alex.cloud@example.com

Create an Environment and Add Service Instances in the Target Project

Perform these steps in the target project.

1. Get the details of the environment from the source project. You'll use the information to create the environment and add its service instances to them in the target project.

   Example:

Environment Name	Description	Service Instance	Account
Development Instances	Environment for software development	Java	idcs-123a1bc121bb234c1234567ab98e76ab / United States / alex.cloud@example.com
Development Instances	Environment for software development	Database	idcs-123a1bc121bb234c1234567ab98e76ab / United States / alex.cloud@example.com

2. Switch to the browser with the target project.
3. On the **Environments** page, click **+ Create** (or **+ Create Environment** if the page is empty).
4. Enter the name of the environment in **Environment Name** and enter the description in **Description**.
5. Click **Create**.
6. In the **Service Instances** tab, click **Add**.
7. Add the relevant service instances listed in the table from the appropriate identity domain.

   To add instances from an identity domain other than the one you are currently connected to, click **Edit** at the top of the Add Service Instances dialog box.

After you recreate Environments on the target instance, update the entries in the individual build jobs that reference the environments. In some cases, you may also need to provide updated user credentials for any jobs that deploy artifacts to the target Environments.

Build Job's VM Template

When you create a project with the exported project's data, the build jobs of the source project are migrated to the target project, but the job's Build VM template's name, its Java version, its Notifications setting isn't migrated.

Follow these steps to migrate the Build VM Template information of jobs:

1. In the source and target projects, in the navigation bar, click **Builds** .
2. Repeat these steps to migrate each job:

   a. In the source project, gather information about a job's VM template, Java version, and notification settings.
   b. In the target project, configure the same job and specify its VM template, Java version, and notification setting.
3. After specifying VM templates to all jobs of the target project, run a build of each job. If a job's build fails, verify its configuration.

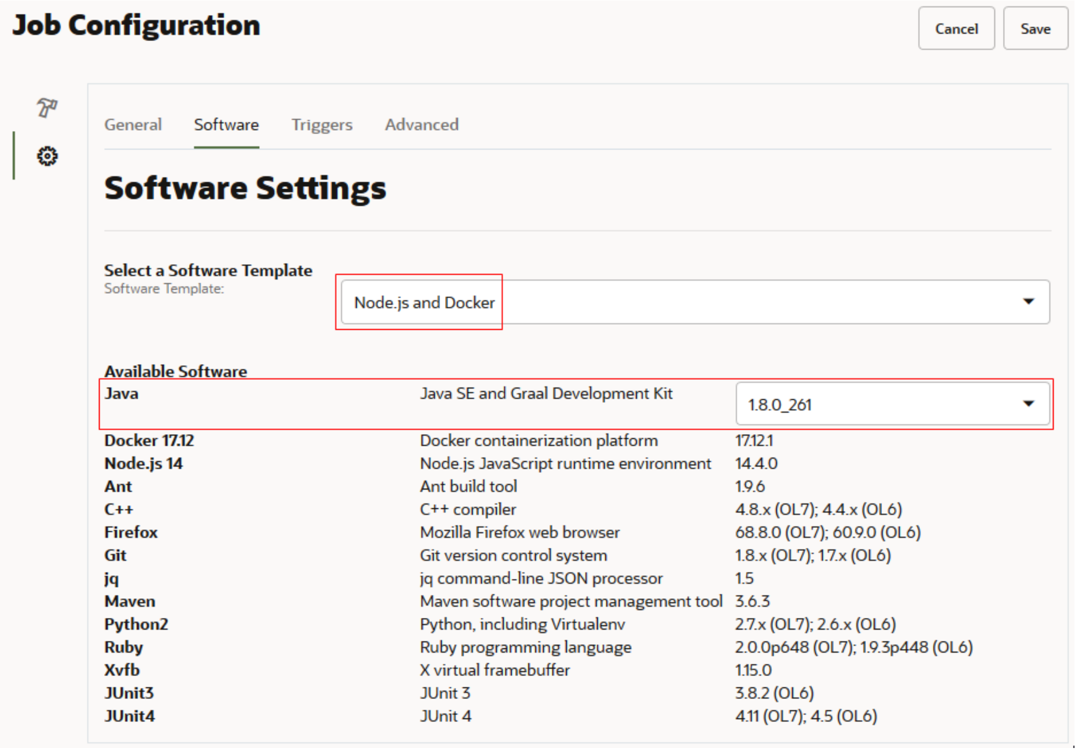
   Note that if a job is part of a pipeline, a build of its dependent jobs would run automatically after the build of the job is complete. So, trigger a build of all pipelines. This would ensure that dependent jobs do not fail. After builds of all pipelines is complete, run a build of jobs that aren't part of a pipeline.

Gather Information About a Job's Build VM Template From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. In the **Jobs** tab of the **Builds** page, click the job name.
3. Click **Settings** ⚙.
4. Click the **Software** tab.
5. Note the name of **Software Template** and the version of Java.

   Example:



Software Settings

Select a Software Template
Software Template: Node.js and Docker

Available Software

Java	Java SE and Graal Development Kit	1.8.0_261
Docker 17.12	Docker containerization platform	17.12.1
Node.js 14	Node.js JavaScript runtime environment	14.4.0
Ant	Ant build tool	1.9.6
C++	C++ compiler	4.8.x (OL7); 4.4.x (OL6)
Firefox	Mozilla Firefox web browser	68.8.0 (OL7); 60.9.0 (OL6)
Git	Git version control system	1.8.x (OL7); 1.7.x (OL6)
jq	jq command-line JSON processor	1.5
Maven	Maven software project management tool	3.6.3
Python2	Python, including Virtualenv	2.7.x (OL7); 2.6.x (OL6)
Ruby	Ruby programming language	2.0.0p648 (OL7); 1.9.3p448 (OL6)
Xvfb	X virtual framebuffer	1.15.0
JUnit3	JUnit 3	3.8.2 (OL6)
JUnit4	JUnit 4	4.11 (OL7); 4.5 (OL6)

   This table shows the Build VM Template Name and Java Version values from the above image.

Field	Value/Status
Job Name	build-microservice
Build VM Template Name	Node.js and Docker
Java Version	1.8.0_261

6. Click **Cancel**.
7. On the Job Details page, check whether **Notifications** is **On** or **Off**. If it's **Off**, note it.

Field	Value/Status
Job Name	build-microservice
Build VM Template Name	Node.js and Docker
Java Version	1.8.0_261
Notifications	Off

Set Build VM Template of a Job in the Target Project

☁ Perform these steps in the target project.

1. Get the details of Build VM template and Java version of the job from the source project.

   Example:

Field	Value/Status
Job Name	build-microservice
Build VM Template Name	Node.js and Docker
Java Version	1.8.0_261
Notifications	Off

2. Switch to the browser with the target project.
3. In the **Jobs** tab of the **Builds** page, click the job name.
4. Click **Settings** ⚙.
5. Click the **Software** tab.
6. In **Software Template**, select the VM template.
7. If required, in **Java**, select the version used in the source job.
8. Click **Save**.
9. On the Job Details page, set **Notifications**, if required.

Webhooks

Follow these steps to migrate webhooks:

1. Open the source project. In the navigation menu, click **Project Administration** ⚙ and click **Webhooks**.
2. Open the target project. In the navigation menu, click **Project Administration** ⚙ and click **Webhooks**.

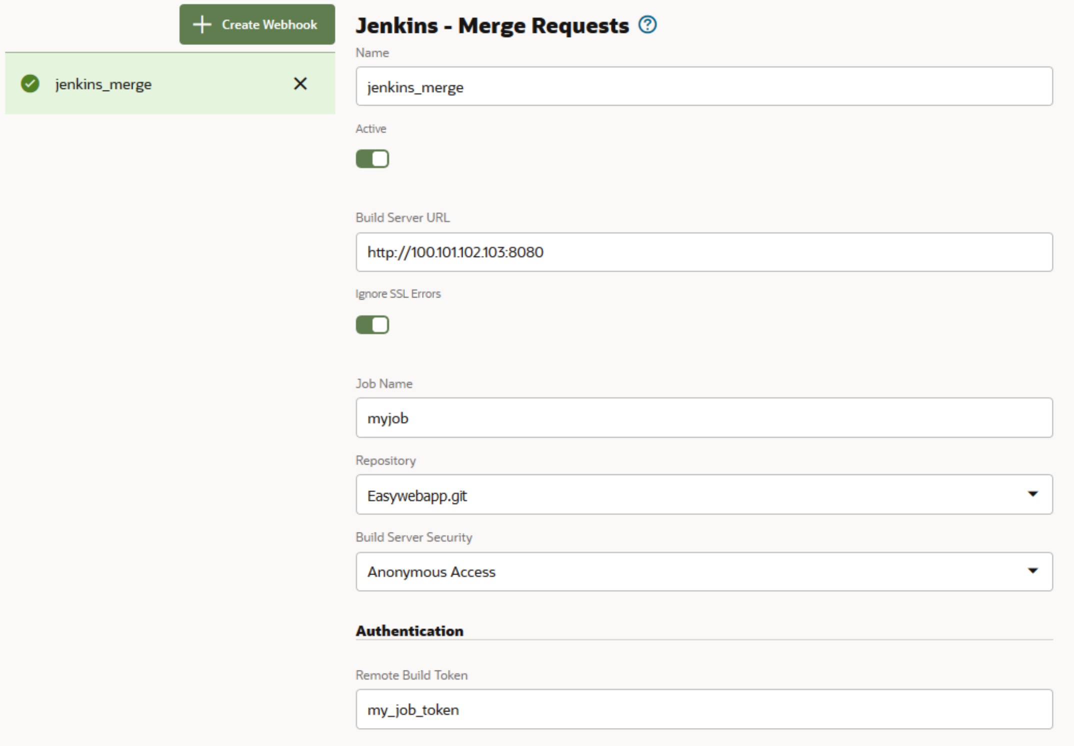
3. Repeat these steps to migrate each webhook:
    a. In the source project, gather information about a webhook.
    b. In the target project, create and configure the webhook.
4. After migrating all webhooks, with the **Webhooks** page open in both source and target projects, verify that webhooks in the target project match the source project.

Gather Information About a Webhook From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. On the **Webhooks** page, in the left list, select the webhook and note the type and values of its fields. The webhook type is displayed as the title.

   Example:



Jenkins - Merge Requests

Name
jenkins_merge

Active

Build Server URL
http://100.101.102.103:8080

Ignore SSL Errors

Job Name
myjob

Repository
Easywebapp.git

Build Server Security
Anonymous Access

Authentication

Remote Build Token
my_job_token

This table shows the webhook's fields and its values from the above image.

Field	Value
Webhook Type	Jenkins - Merge Requests
Name	jenkins_merge
Active	Selected
Build Server URL	http://100.101.102.103:8080/
Ignore SSL Errors	Not selected
Job Name	myjob

Field	Value
Repository	Easywebapp.git
Build Server Security	Anonymous Access
Remote Build Token	my_job_token

Create a Webhook in the Target Project

Perform these steps in the target project.

1. Get the details of the webhook from the source project. You'll use the information to create the webhook in the target project.

   Example:

Field	Value
Webhook Type	Jenkins - Merge Requests
Name	jenkins_merge
Active	Selected
Build Server URL	http://100.101.102.103:8080/
Ignore SSL Errors	Not selected
Job Name	myjob
Repository	Easywebapp.git
Build Server Security	Anonymous Access
Remote Build Token	my_job_token

2. Switch to the browser with the target project.
3. On the **Webhooks** page, click **Webhooks**.
4. Click **+ Create Webhook**.
5. In **Type**, select the webhook type.
6. In other fields, enter the values you noted.
7. When you're done, click **Create**.
8. On the Webhooks page, select the webhook, and click **Test**.

   If the test fails, reconfigure the webhook.

Template Definition

If the source project is a template, then to migrate its template variables and rules, you'll need to add them manually to the new project.

Follow these steps to migrate a project's template definition:

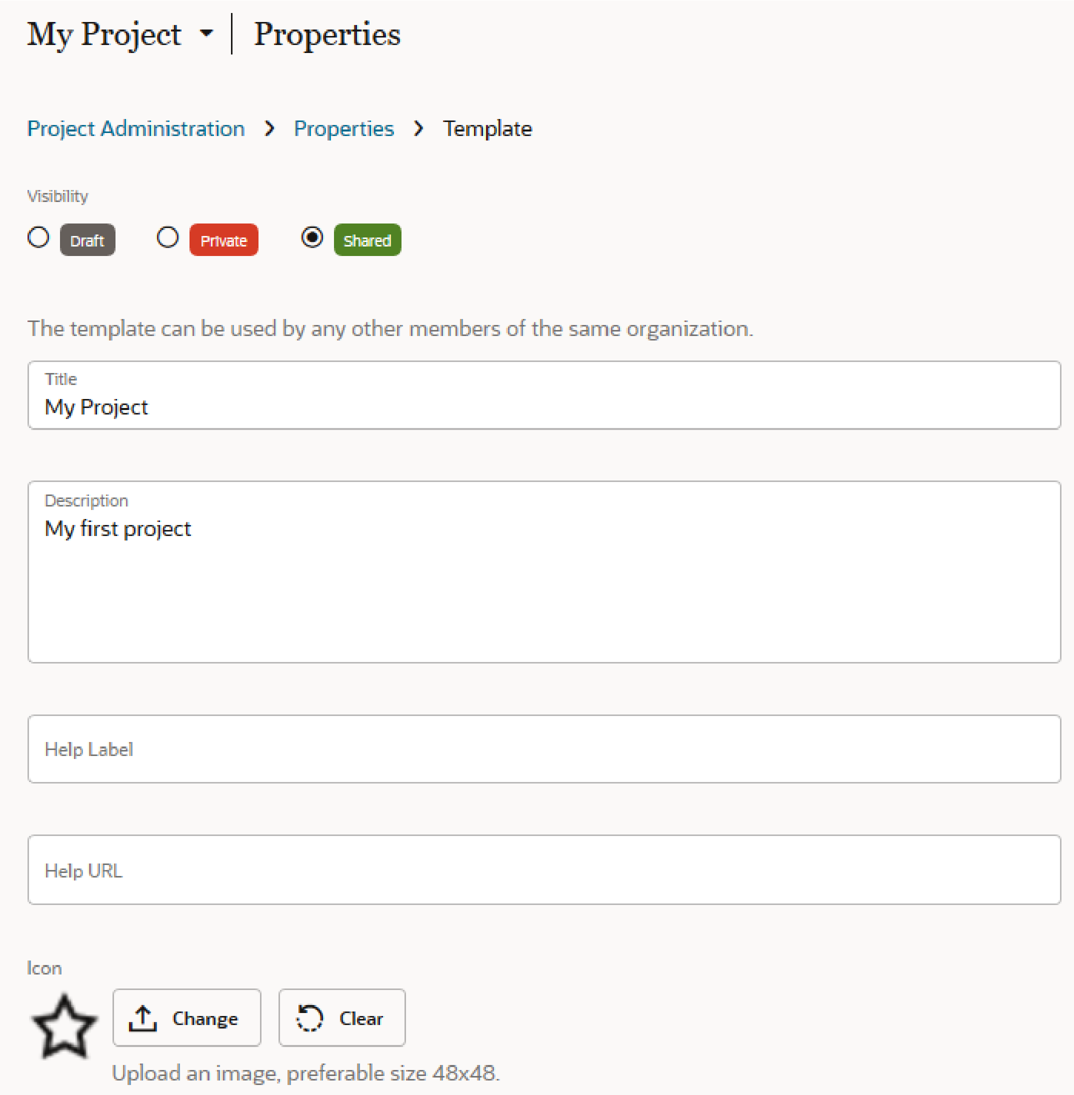
1. Open the source project. In the navigation menu, click **Project Administration** ⚙.
2. Open the target project. In the navigation menu, click **Project Administration** ⚙.
3. In both source and target projects, click **Properties**.
4. In the source project, gather information about the project's template definition.
5. In the target project, configure the template definition.

Gather Information About the Source Project's Template Definition

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. In the **Template** section of the **Properties** page, click **Edit**.
3. Note the project's title, description, help label, help URL, and visibility. If there's an icon, right-click the icon, save it to your computer, and note the path of the icon on your computer.

   Example:



My Project | Properties

Project Administration > Properties > Template

Visibility

○ Draft ○ Private ● Shared

The template can be used by any other members of the same organization.

Title: My Project

Description: My first project

Help Label:

Help URL:

Icon

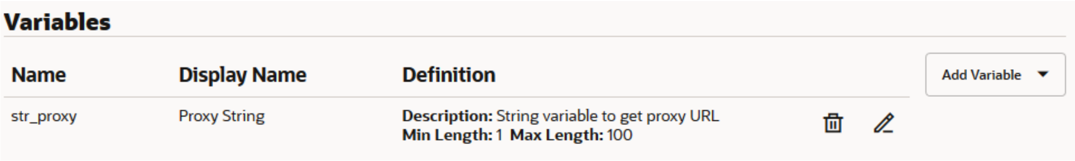
Upload an image, preferable size 48x48.

This table shows the Title and Visibility values from the above image. Also, note the icon's path.

Field	Value
Visibility	Shared
Title	My Project
Description	My first project
Help Text	
Help Label	
Icon path on your computer	D:\Images\Demo\demo_icon.png

4. For each variable in the **Variables** section, click **Edit** ✎ and note the name, display name, and values of the variable.

   Example:



Variables

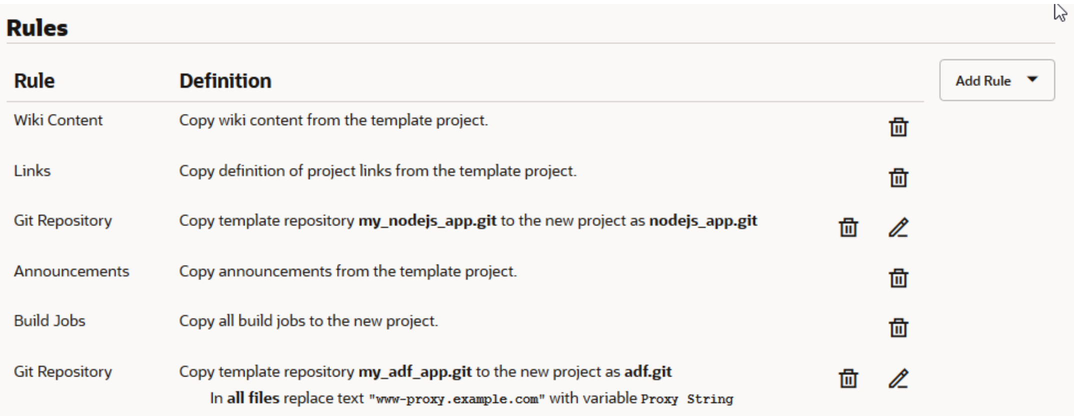
Name	Display Name	Definition
str_proxy	Proxy String	**Description:** String variable to get proxy URL **Min Length:** 1 **Max Length:** 100

   This table shows the Name, Display Name, Description, and Definition values from the above image.

Name	Display Name	Description	Definition
str_proxy	Proxy String	String variable to get proxy URL	Hint: Enter proxy URL Min Length: 1 Max Length: 100

5. For each rule in the **Rules** section, note its name and definition. For each Git repository, click **Edit** ✎ and note the source repository name, the target repository name, and the replacement rules (if any).

   Example:



Rules

Rule	Definition
Wiki Content	Copy wiki content from the template project.
Links	Copy definition of project links from the template project.
Git Repository	Copy template repository **my_nodejs_app.git** to the new project as **nodejs_app.git**
Announcements	Copy announcements from the template project.
Build Jobs	Copy all build jobs to the new project.
Git Repository	Copy template repository **my_adf_app.git** to the new project as **adf.git** In **all files** replace text `"www-proxy.example.com"` with variable `Proxy String`

   This table shows the Rule, Definition, and Additional Notes values from the above image.

Rule	Definition	Additional Notes
Build Jobs	Copy all build jobs to the new project.	
Wiki Content	Copy wiki content from the template project.	
Links	Copy definition of project links from the template project.	
Git Repository	Copy template repository **my_nodejs_app.git** to the new project as **nodejs_app.git**	Source Repository: my_nodejs_app.git Repository Name: nodejs_app.git Use target project name check box: Not selected Replacements: • In: All Files • Replace: www-proxy.example.com • With: Variable • variable value: str_proxy
Git Repository	Copy template repository **my_adf_app.git** to the new project as **adf.git**	Source Repository: my_adf_app.git Repository Name:adf.git Use target project name check box: Not selected
Announcements	Copy announcements from the template project.	

Define the Target Project as a Template

Perform these steps in the target project.

1. Get the details of the template from the source project. You'll use the information to define the project as a template.

   Example:

Field	Value
Visibility	Shared
Title	My Project
Description	My first project
Help Text	
Help Label	
Icon path on your computer	D:\Images\Demo\demo_icon.png

   Get the details of variables from the source project.

Name	Display Name	Description	Definition
str_proxy	Proxy String	String variable to get proxy URL	Hint: Enter proxy URL Min Length: 1 Max Length: 100

Get the details of rules from the source project.

Rule	Definition	Additional Notes
Build Jobs	Copy all build jobs to the new project.	
Wiki Content	Copy wiki content from the template project.	
Links	Copy definition of project links from the template project.	
Git Repository	Copy template repository **my_nodejs_app.git** to the new project as **nodejs_app.git**	Source Repository: my_nodejs_app.git Repository Name: nodejs_app.git Use target project name check box: Not selected Replacements: • In: All Files • Replace: www-proxy.example.com • With: Variable • variable value: str_proxy
Git Repository	Copy template repository **my_adf_app.git** to the new project as **adf.git**	Source Repository: my_adf_app.git Repository Name:adf.git Use target project name check box: Not selected
Announcements	Copy announcements from the template project.	

2. Switch to the browser with the target project.
3. In the **Template** section of the **Properties** page, click **Define Template**.
4. Click **Edit**.
5. In **Visibility**, set the template's visibility.
6. Update **Title** and **Description**.
7. Add **Help Text** and **Help URL**.
8. In **Variables**, define the variables.

   For each variable to add, from the **Add Variable** menu, select the variable type. Fill in the fields of the variable and click **Save** ✓.
9. In the **Rules** section, define the rules.
10. Click **Save**.

Announcements

Follow these steps to migrate announcements:

1. Open the source project. In the navigation menu, click **Project Administration** ⚙.
2. Open the target project. In the navigation menu, click **Project Administration** ⚙.

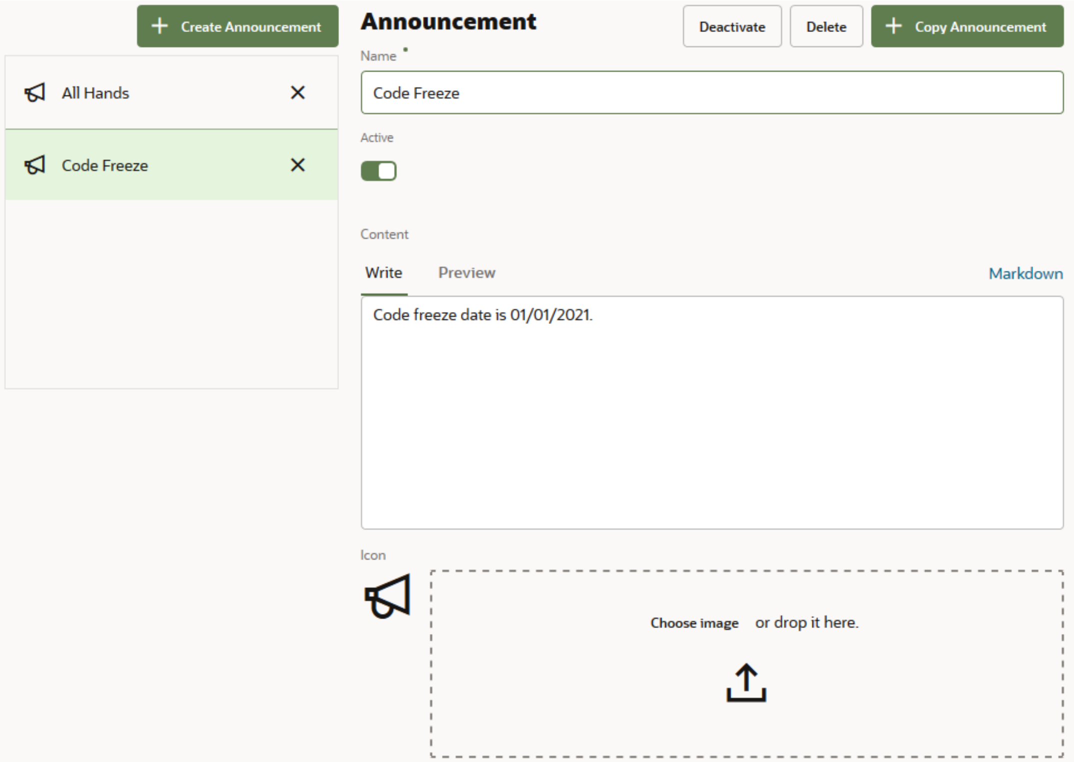
3. In both source and target projects, click **Announcements**.
4. Repeat these steps to migrate each announcement:
   a. In the source project, gather information about an announcement.
   b. In the target project, create and configure the announcement.
5. After migrating all announcements, with the **Announcements** page open in both source and target projects, verify that announcements in the target project match the source project.

Gather Information About an Announcement From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. On the **Announcements** page, in the left list, select the announcement and note its name, active status, and content. If there's an icon, right-click the icon, save it to your computer, and note the path of the icon on your computer.

   Example:



Announcement

Name *: Code Freeze

Active

Content

Code freeze date is 01/01/2021.

Icon

This table shows the Announcement Name, Active, Content, and Icon values from the above image.

Field	Value/Status
Announcement Name	Code Freeze
Active	Selected

Field	Value/Status
Content	Code freeze date is 01/01/2021
Icon's path on your computer	D:\Announcements\lock_icon.png

Create an Announcement in the Target Project

Perform these steps in the target project.

1. Get the details of the announcement from the source project. You'll use the information to create the announcement in the target project

   Example:

Field	Value/Status
Announcement Name	Code Freeze
Active	Selected
Content	Code freeze date is 01/01/2021
Icon's path on your computer	D:\Announcements\lock_icon.png

2. Switch to the browser with the target project.
3. On the **Announcements** page, click **+ New Announcement**.
4. In **Name** and **Contents**, enter the name and the announcement’s text.
5. Upload the icon's image, if there was an icon associated with the announcement in the source project.
6. Click **Create**.
7. In the navigation menu, click **Project Home**.
8. Above the activities feed, verify the announcement.

RSS/ATOM Feeds

Follow these steps to migrate RSS/ATOM feeds:

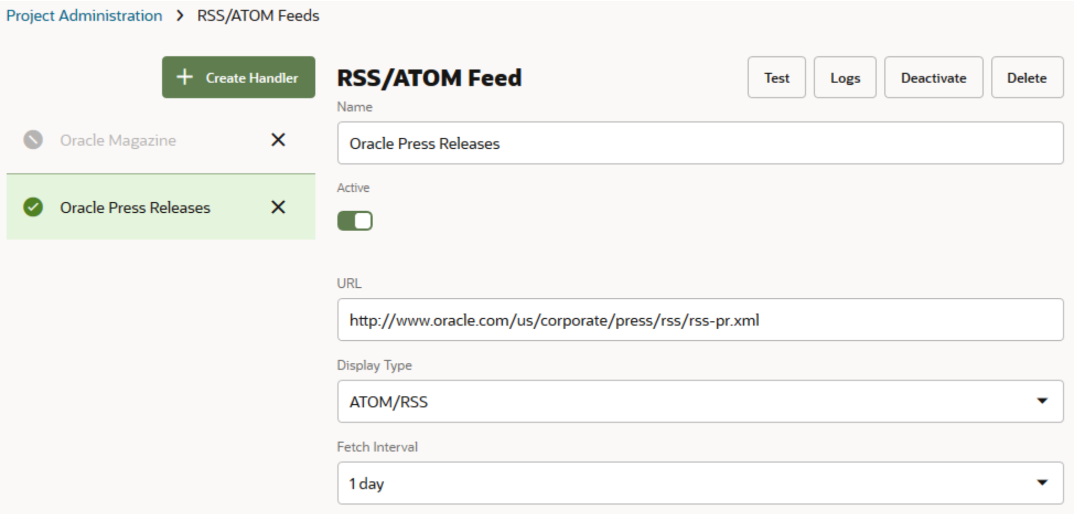
1. Open the source project. In the navigation menu, click **Project Administration**.
2. Open the target project. In the navigation menu, click **Project Administration**.
3. In both source and target projects, click **RSS/ATOM Feeds**.
4. Repeat these steps to migrate each RSS/ATOM feed:
   a. In the source project, gather information about a feed.
   b. In the target project, create and configure the feed.
5. After migrating all feeds, with the **RSS/ATOM Feeds** page open in both source and target projects, verify that feeds in the target project match the source project.

Gather Information About a RSS/ATOM Feed From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. On the **RSS/ATOM Feeds** page, in the left list, select a feed and note its name, active status, URL, display type, and fetch interval.

   Example:

   Name: Oracle Press Releases

   Active

   URL: http://www.oracle.com/us/corporate/press/rss/rss-pr.xml

   Display Type: ATOM/RSS

   Fetch Interval: 1 day

   This table shows the Feed Name, Active, URL, Display Type, and Fetch Interval values from the above image.

Field	Value/Status
Feed Name	Oracle Press Releases
Active	Yes
URL	http://www.oracle.com/us/corporate/press/rss/rss-pr.xml
Display Type	ATOM/RSS
Fetch Interval	1 day

Add a RSS/ATOM Feed in the Target Project

Perform these steps in the target project.

1. Get the details of the RSS/ATOM feeds from the source project. You'll use the information to create RSS/ATOM feeds in the target project.

   Example:

Field	Value/Status
Feed Name	Oracle Press Releases
Active	Yes
URL	http://www.oracle.com/us/corporate/press/rss/rss-pr.xml
Display Type	ATOM/RSS
Fetch Interval	1 day

2. Switch to the browser with the target project.

3. On the **RSS/ATOM Feeds** page, click **+ New Handler**.
4. In **Name**, enter the name of the handler.
5. In **URL**, enter the URL of the feed.
6. In **Display Type**, select the feed’s display type.
7. In **Fetch Interval**, enter the feed’s fetch interval.
8. Click **Create**.
9. On the **RSS/ATOM Feeds** page, select the feed, and click **Test**.

   If the test fails, reconfigure the RSS/ATOM feed.
10. In the navigation menu, click **Project Home** ⌂.
11. In the activities feed, verify the feed's results.

Custom Link Rules

You don't need to migrate the default link rules as they are available in the target project.

Follow these steps to migrate link rules:

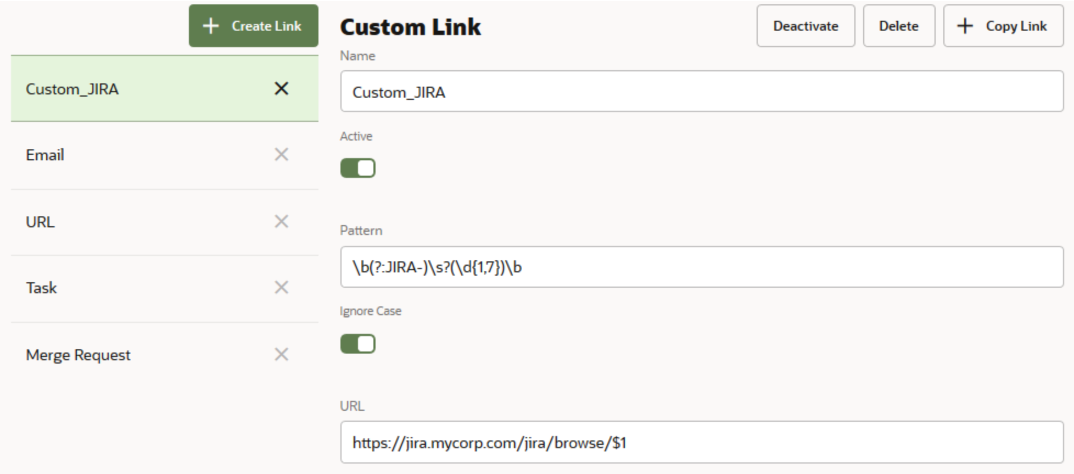
1. Open the source project. In the navigation menu, click **Project Administration** ⚙.
2. Open the target project. In the navigation menu, click **Project Administration** ⚙.
3. In both source and target projects, click **Links**.
4. Repeat these steps to migrate each link rule:
   a. In the source project, gather information about a rule.
   b. In the target project, create and configure the link rule.
5. After migrating all link rules, with the **Links** page open in both source and target projects, verify that link rules in the target project match the source project.

Gather Information About a Link Rule From the Source Project

Perform these steps in the source project.

1. Switch to the browser with the source project.
2. On the **Links** page, in the left list, select a custom rule and note its name, active status, pattern, ignore case status, and URL. Ignore the default link rules.

   Example:



Custom Link

Name: Custom_JIRA

Active: ●

Pattern: \b(?:JIRA-)\s?(\d{1,7})\b

Ignore Case: ●

URL: https://jira.mycorp.com/jira/browse/$1

This table shows the Rule Name, Active Status, Pattern, Ignore Case, and URL values from the above image.

Field	Value/Status
Name	Custom_JIRA
Active	Yes
Pattern	\b(?:JIRA-)\s?(\d{1,7})\b
Ignore Case	Selected
URL	https://jira.mycorp.com/jira/browse/$1

Create a Link Rule in the Target Project

Perform these steps in the target project.

1. Get the details of a link rule from the source project. You'll use the information to create a link rule in the target project.

   Example:

Field	Value/Status
Name	Custom_JIRA
Active	Yes
Pattern	\b(?:JIRA-)\s?(\d{1,7})\b
Ignore Case	Selected
URL	https://jira.mycorp.com/jira/browse/$1

2. Switch to the browser with the target project.
3. On the **Links** page, click **+ Create Link**.
4. In **Name**, enter a name.
5. Deselect the **Active** check box, if it wasn't selected in the source project.
6. In **Pattern**, enter the RegExp link rule pattern.
7. In **URL**, enter the link URL.
8. Deselect the **Ignore Case** check box, if it was in the source project.

9. Expand **Test** and in **Test Value**, enter a test value. Verify the result link in **Test Result**.
10. Click **Create**.

Remove Your Membership or Ownership

Before you exported the source project's data, you noted whether you're a member or an owner of the project. If you were not a member or owner, you assigned the project's ownership to yourself. See Gather Information About a Project From the Source VB Studio Instance.
After migrating all artifacts of the source project to the target project, if you were not a member or an owner of the source project, you should remove your membership or ownership of the target project.

Perform these steps in the target project.

1. Get the details of of the source project's ownership and membership.

   Example:

Field	Value
Project Name	Demo Project
Are you a Member?	No
Are you an Owner?	No

2. Open the target project.
3. In the navigation menu, click **Project Home** ⌂.
4. Click the **Team** tab.
5. FIf you were a member but not an owner of the source project, then for your username, click **Change Membership** and select your membership type.
6. If you were not a member or an owner of the source project, then for your username, click **Remove** ✕.

Migrate User Preferences

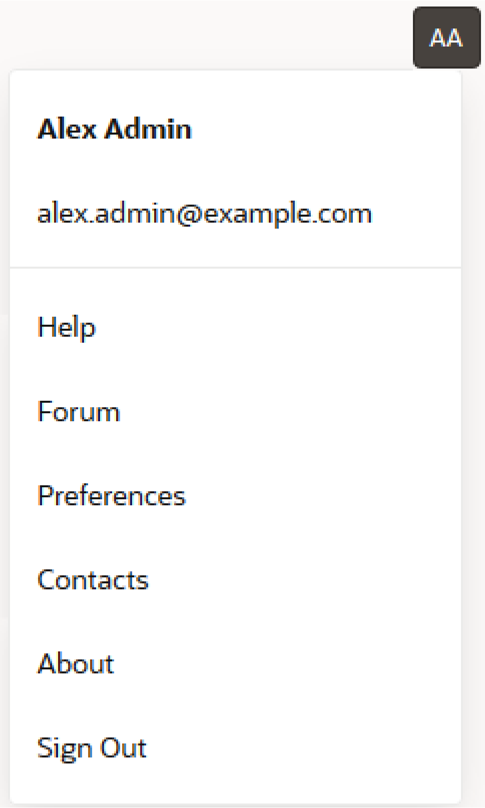
After migrating a project's artifacts and adding team members, ask each user to sign in to VB Studio and set their user preferences and project preferences.

User Preferences

To migrate your user preferences, note them in the source VB Studio instance and set them again in the target VB Studio instance.

User preferences include your display name, email address, and email notification preferences.

1. In the source VB Studio instances, click the user avatar, and select **Preferences**.



2. Gather information about your preferences.
3. In the target instance, set them.
4. After setting preferences, with the **User Preferences** tab open in both source and target instances, verify that your preferences in the target instance match the source instance.

Gather Information About Your User Preferences From the Source VB Studio Instance

Perform these steps in the source VB Studio instance.

1. Switch to the browser with the source VB Studio instance.
2. On the **User Preferences**, click the **Profile** tab.
3. Note the values of **First Name**, **Last Name**, and **Email Address**.

   Example:

Field	Value/Status
First Name	Alex
Last Name	Admin
Email Address	alex.admin@example.com

4. Click the **Notifications** tab.
5. Note the selected check boxes only.

   Example:

Field	Value/Status
First Name	Alex
Last Name	Admin
Email Address	alex.admin@example.com
Selected check boxes in **Notifications**	• **Issue updates, attachments, and comments** • **Merge Request updates and comments** • **Build activities** • **SCM/Push activities**

Set User Preferences in the Target VB Studio Instance

Perform these steps in the target VB Studio instance.

1. Get the details of the user preferences from the source VB Studio instance.

   Example:

Field	Value/Status
First Name	Alex
Last Name	Admin
Email Address	alex.admin@example.com
Selected check boxes in **Notifications**	• **Issue updates, attachments, and comments** • **Merge Request updates and comments** • **Build activities** • **SCM/Push activities**

2. Switch to the browser with the target VB Studio instance.
3. On the **User Preferences**, click the **Profile** tab.
4. Set the name and email address. Changing the name and email address doesn't change your account's name and email, but the display name and display email address on VB Studio pages.
5. Click the **Notifications** tab.
6. Select the check boxes that were selected in the source VB Studio instance.
7. Click the **Authentication** tab.
8. Add the public key of the SSH private-public key pair. You must upload the public key to access a Git repository via SSH.

   If you don't have a key pair, generate it. See Generate an SSH Key in *Using Visual Builder Studio*.
   If you don't plan to use SSH to access a Git repository, ignore this step.

Project Preferences

To migrate your project preferences, note them in the source project and set them again in the target project.

Project preferences include favorite Git repositories and Agile boards, and the watch settings of branches and jobs.

Git Repositories and Branches

1. Open the source project. In the navigation menu, click **Project Home** ⌂.
2. Open the target project. In the navigation menu, click **Project Home** ⌂.
3. In the source and target projects, click the **Repositories** tab.
4. Switch to the browser with the source project.
5. Note the repositories marked as your favorite. You can identify them with the ★ icon.
6. Switch to the browser with the target project.
7. In the **Repositories** tab, click the **Favorite** ☆icon of the repository to mark it as your favorite.
8. In the source project, click **Git** ◈ and then click **Refs**.
9. Switch to the browser with the source project.
10. For each repository in the **Repositories** list, note the branches you watch. They are marked with the **Subscribed** ✓ icon.
11. Switch to the browser with the target project.
12. In the **Refs** tab, select the repository and click **cc** in the branch to watch it.

Jobs

In the source and target projects, open the **Builds** page and repeat these steps for each job in the source project:

1. Switch to the browser with the source project.
2. Click the job's name to open it.
3. If **CCme** is **CCed**, click it and note the states of check boxes in the CC Me dialog box. Click **Cancel**. Then, follow these steps in the target project:
   a. Switch to the browser with the target project.
   b. Open the same job.
   c. Click **CCme**. In the CC Me dialog box, select the check boxes as noted, and click **OK**.
   d. Switch to the browser with the source project.

Agile Boards

1. In the source project's navigation bar, click **Boards** ◫.
2. In the target project's navigation bar, click **Boards** ◫.
3. Note the boards marked as your favorite. You can identify them with the ★ icon.
4. Switch to the browser with the target project.
5. For the boards marked as favorite in the source project, click the **Favorite** ☆icon to mark it as your favorite.

3

Complete the Post-Migration Tasks

After successfully migrating the projects and VMs from VB Studio on OCI Classic to VB Studio on OCI, test the projects and its artifacts thoroughly, and then perform cleanup tasks.

Test the Target VB Studio Instance

After all projects and their artifacts are migrated, thoroughly test all artifacts of each project.

You may open the source project in a web browser window and the target project in another browser window, and match each artifact in both projects. You have some time before you're asked to delete your source VB Studio instance and its projects.

Clean Up Resources in Oracle Cloud Infrastructure Classic

After thoroughly testing all projects and their data, clean up the resources in the source VB Studio instance.

Delete Projects in the Source VB Studio Instance

Perform these steps in the source VB Studio instance as the **Organization Administrator**.

1. Open the source VB Studio instance.
2. In the navigation menu, click **Organization** .
3. In the **Projects** tab, click **select all** to select all projects.
4. Click **Update Selected** ⋯ and select **Delete**.
5. In the Delete Project dialog box, click **Delete**.
6. With all projects selected, click **Update Selected** ⋯ and select **Remove Forever**.
7. In the Remove Forever dialog box, select the **I understand that projects will be permanently deleted** check box and click **Remove Forever**.

All projects of the source VB Studio instance are now deleted.

Delete Build VM Templates and VMs in the Source VB Studio Instance

Perform these steps in the source VB Studio instance as the **Organization Administrator**.

1. Open the source VB Studio instance.
2. In the navigation menu, click **Organization** .
3. Click the **Build Virtual Machines** tab.
4. Select all Build VMs.

   Press the Ctrl key and click a Build VM to select it.

5. Click **Update Selected** and select **Delete Selected VMs**.
6. In the Delete Build VMs dialog box, click **Yes**.
7. Click the **Virtual Machines Templates** tab.
8. For each template, select it, and click **Delete** on the right.

   In the Delete VM Template dialog box, click **Yes**.

Delete the Source VB Studio Instance

After deleting VMs and projects of the source VB Studio instance, you can delete the instance.

1. In a web browser, go to `https://www.oracle.com/cloud/sign-in.html`.
2. In **Cloud Account Name,** enter your tenant name or the identity domain name.
3. Click **Next**.
4. On the sign-in page, enter your Oracle Cloud account credentials, and click **Sign In**.
5. On the OCI console, in the upper-left corner, click **Navigation Menu** ☰.
6. Under **More Oracle Cloud Services**, select **Platform Services**, and then select **Developer Classic**.
7. On the **Instances** tab, click **Manage this instance** ☰ and select **Delete**.
8. In the Delete Instance dialog box, click **Delete**.

Delete OCI Object Storage Buckets

After deleting projects of the source VB Studio instance, delete the OCI Object Storage buckets you used to export project archive files, unless you want to use them for future storage.

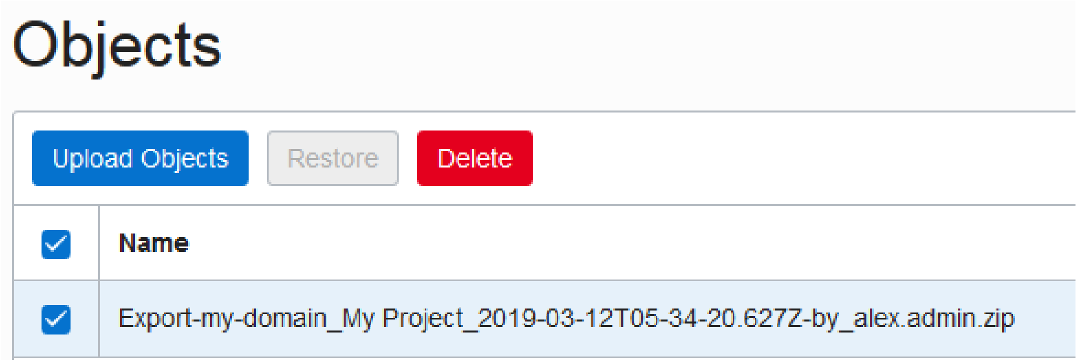
Delete an OCI Object Storage Bucket

To delete an OCI Object Storage bucket, delete its objects first.

To delete a bucket and its objects, sign in to OCI dashboard as the OCI administrator:

1. Open the OCI dashboard.
2. In the left navigation bar, under **Core Infrastructure**, go to **Object Storage** and click **Object Storage**.
3. Click the bucket name.
4. In the **Objects** section, select the check box of the first column heading to select all archive files.

   Example:



☑ Export-my-domain_My Project_2019-03-12T05-34-20.627Z-by_alex.admin.zip

5. Click **Delete**.
6. In the Delete Objects dialog box, click **Delete**.
7. Scroll up to the top of the page and click the **Delete** button below the bucket name.
8. In the Confirm Delete dialog box, click **Delete**.