

**Deploy**

# **Getting Started**

**Issue**            01  
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# 1 Overview

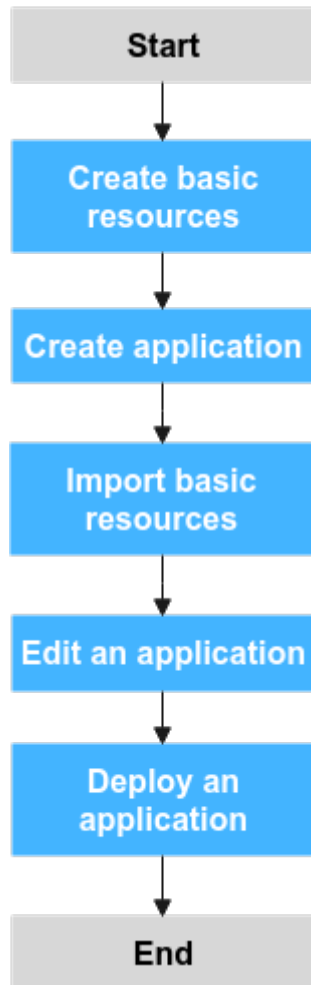
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CodeArts Deploy provides visualized and automatic deployment services. It has various deployment actions to help you make a standard deployment process, reduce deployment costs, and improve release efficiency.

CodeArts Deploy has the following features:

- Supports host (physical machine and virtual machine) and container deployment.
- Provides system templates such as Tomcat, Spring Boot, and Django for you to create applications quickly. You can drag and drop atomic actions to orchestrate applications flexibly.
- Supports multiple hosts in environment at the same time.
- Implements container deployment using Cloud Container Engine (CCE).
- Deploys microservice applications using ServiceStage.
- Saves custom templates to create applications at one click.
- Supports parameterized configuration, provides parameter types such as text, environment, and enumeration, and supports dynamic parameter replacement during application deployment.
- Seamlessly integrates with CodeArts Pipeline to support continuous service release.
- Generates run logs for atomic actions and provides keywords to accurately match FAQs. If the deployment fails, you can quickly locate the cause and find a solution.

If you are developing a project locally and want to use the deployment service to deploy the project, the process is as follows:



The operations are as follows:

- **Create basic resources**
- **Create an application**
- **Import basic resources.**
- **Edit an application**
- **Deploy an application**

# 2 Creating a Deployment Task

This section uses Tomcat as an example to describe how to deploy an application on a host.

## Preparations

- A project is available. If no project is available, [create a project](#) first.
- You have the permission to create applications. For details, see [Permission Management](#).
- The related software package has been compiled.

### NOTICE

In the deployment action **Select a Deployment Source**, you can set **Source** to **Software package** or **Build task**. In this example, **Software package** is selected. Therefore, you need to prepare the compiled software package in advance. If you select **Build task**, you do not need to prepare the software package.

## Procedure

**Step 1** Go to the CodeArts homepage and click the target project name to access the project.

**Step 2** Create basic resources.

1. Choose **Settings > General > Basic Resources**. The Host Cluster page is displayed by default.
2. Click **Create Host Cluster**, enter the following information, and click **Save**.

Parameter	Mandatory	Description
Cluster Name.	Yes	Enter a user-defined host cluster name.


Parameter	Mandatory	Description
OS	Yes	Select <b>Linux</b> or <b>Windows</b> based on the OS of the host to be added.
Proxy Access	Yes	If the target host cannot connect to the public network, you need to select a host bound with an EIP as the proxy host to connect CodeArts to the target host.
Execution Host	Yes	A resource pool is a collection of physical environments where deployment commands are executed during software package deployment. In this scenario, the execution host uses an official resource pool.
Description	No	Description of the host cluster.

- (The following uses a target host running Linux as an example.) Click **Add Target Host**, enter the following information, and click **OK**.

**Table 2-1** Parameters of the target host (Linux)

Parameter	Mandatory	Description
Host Name	Yes	Enter a user-defined target host name.
Proxy Host	Yes	Select the target proxy host as the network proxy of the target host that cannot connect to the public network.
IP	Yes	Enter the private or public IP address of the target host.
OS	Yes	Keep the default value because it is the OS of your host cluster.
Authorization	Yes	Select a <b>password</b> or <b>key</b> for authentication as required. <ul style="list-style-type: none"> <li>- Password: The <b>Username</b> and <b>Password</b> are displayed on the page. Take ECS as an example. You need to enter the ECS username and password.</li> <li>- Key: The <b>Username</b> and <b>Key</b> are displayed on the page. For details about how to generate and obtain a key, see <a href="#">Obtaining the Linux Key</a> in "Managing Basic Resources" &gt; "Managing Host Clusters" &gt; "Adding and Editing a Host Cluster" in the <i>User Guide</i>.</li> </ul>

Parameter	Mandatory	Description
SSH Port	Yes	Port 22 is recommended. User-defined ports are supported.

- Click  in the Operation column of a host to start the host for connectivity verification.

**Step 3** Choose **CICD > Deploy**.

**Step 4** Create an application.


- Click **Create Application**. On the **Set Basic Information** page that is displayed, modify the basic information such as **App Name**, **Description**, and **Execution Resource Pool** as required.
- After editing the basic application information, click **Next**. The deployment template selection page is displayed.

Select the template **Deploy a Tomcat Application** and click **OK**.

 **NOTE**

The following describes the initialization procedure and parameters of the Tomcat application deployment template. For details, see [Deployment Actions](#).

**Step 5** Import basic resources.

Switch to the **Environment Management** tab page and click **Resources**. Click **Import Host**. The system automatically filters all clusters that meet the requirements of the current environment. In the pop-up box, select the target host cluster and click  in the Operation column of a host to import the host to the environment.

**Step 6** Edit an application.

- Install JDK.

**Table 2-2** Parameters for installing the JDK

Parameter	Description
Action Name	Name of an action displayed in the deployment action.
Environment	Target environment.
JDK Version	JDK version.
Installation Path	Installation path of JDK.



Parameter	Description
Action Control	<ul style="list-style-type: none"> <li>- Enable this action</li> <li>- Continue the task even if this action fails</li> <li>- Execute this action with the sudo permission</li> </ul>

2. Install Tomcat.

**Table 2-3** Parameters for installing Tomcat

Parameter	Description
Action Name	Name of an action displayed in the deployment action.
Environment	Target environment.
Tomcat Version	Tomcat version.
Installation Path	Installation path of Tomcat.
HTTP Port	Default port: <b>8080</b>
AJP Port	Default port: <b>8009</b>
Service Shutdown Port	Default port: <b>8005</b>
Action Control	<ul style="list-style-type: none"> <li>- Enable this action</li> <li>- Continue the task even if this action fails</li> <li>- Execute this action with the sudo permission</li> </ul>

3. Stop Tomcat.

**Table 2-4** Parameters for stopping Tomcat

Parameter	Description
Action Name	Name of an action displayed in the deployment action.
Environment	Target environment.
Operation	<b>Start</b> and <b>Stop</b> are available.
Absolute Path	Absolute path of the Tomcat service.
Action Control	<ul style="list-style-type: none"> <li>- Enable this action</li> <li>- Continue the task even if this action fails</li> <li>- Execute this action with the sudo permission</li> </ul>

4. Select a deployment source.

**Table 2-5** Parameters for selecting a deployment source

Parameter	Description
Action Name	Name of an action displayed in the deployment action.
Source	Two types are available: <b>Software package</b> and <b>Build task</b> .
Environment	Target environment.
Software package	You can select an existing software package in CodeArts Artifact or from a local host. <b>package_url</b> indicates the path of the software package in CodeArts Artifact. <b>NOTE</b> Local software packages or files uploaded to CodeArts Artifact can be reused.
Download Path	Where the downloaded software package is stored.
Action Control	<ul style="list-style-type: none"> <li>- Enable this action</li> <li>- Continue the task even if this action fails</li> <li>- Execute this action with the sudo permission</li> </ul>

**NOTICE**

In this example, **Software package** is selected as the deployment source. If you select **Build task**, see [Selecting a Deployment Source](#) in the *User Guide*.

5. Start Tomcat.

**Table 2-6** Parameters for starting Tomcat

Parameter	Description
Action Name	Name of an action displayed in the deployment action.
Environment	Target environment.
Operation	<b>Start</b> and <b>Stop</b> are available.
Absolute Path	Absolute path of the Tomcat service.
HTTP Port	HTTP port of the Tomcat service.
AJP Port	AJP port of the Tomcat service.

Parameter	Description
Service Shutdown Port	Shutdown port listened by the Tomcat service.
Waiting Time	The time required for starting the service. If you set <b>Operation</b> to <b>Start</b> , the system checks the process during startup to determine whether the service is started successfully. You can adjust the time based on the actual time required for starting the service. If the time is improper, the check fails.
Action Control	<ul style="list-style-type: none"> <li>- Enable this action</li> <li>- Continue the task even if this action fails</li> <li>- Execute this action with the sudo permission</li> </ul>

6. Perform health test through URLs.

**Table 2-7** Parameters for configuring health test through URLs

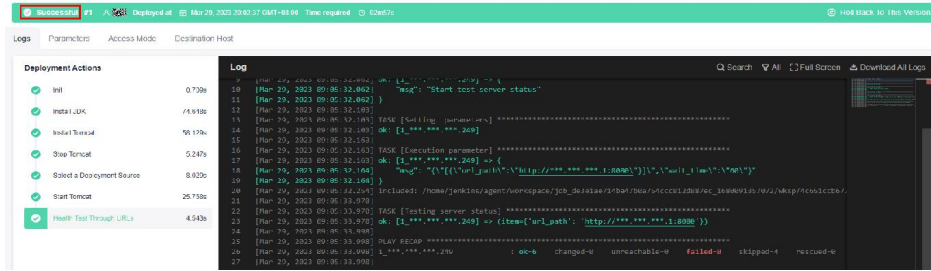
Parameter	Description
Action Name	Name of an action displayed in the deployment action.
Environment	Target environment.
Retries	The number of times you want the system to retry the health test before the test is considered to have failed.
Interval (s)	Test interval.
Test Path	Path of the service to be tested. You can add multiple paths.
Action Control	<ul style="list-style-type: none"> <li>- Enable this action</li> <li>- Continue the task even if this action fails</li> </ul>

After **Health Test Through URLs** parameters are set, all parameters are complete. For more configuration details, see [Editing an Application](#) in "Managing Applications" > "Editing an Application".

**Step 7** Deploy an application.

After setting the preceding parameters, click **Save and Deploy** to deploy an application.

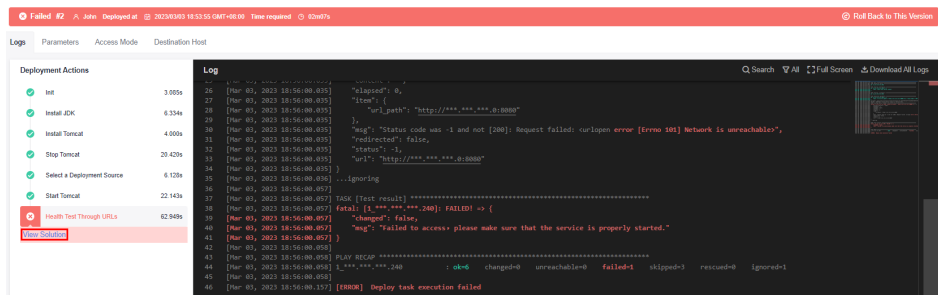
- Application deployed.



- If an application fails to be deployed, perform the following steps to locate the fault:

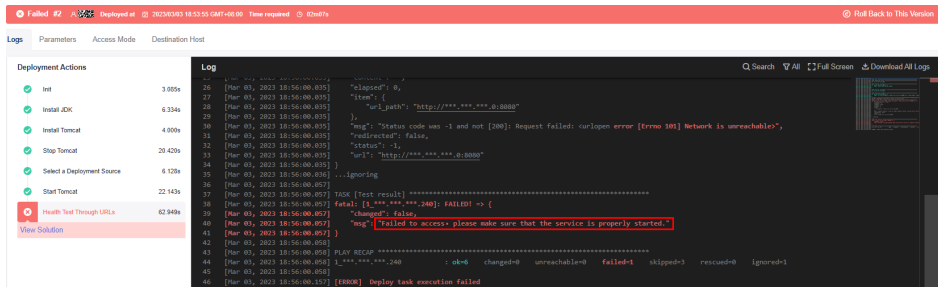
a. **View the automatic matching solution.**

If the deployment fails, click **View Solution** under deployment actions to go to the corresponding Help Center page.



b. **Search for a solution manually.**

If the issue persists, paste the error information (content in the red box) to the search box of the Help Center and manually search for the solution.



----End

**(Optional) Verifying the Deployment Result**

The **Deploying a Tomcat Application** template supports deployment result verification. This section describes how to verify the deployment result for this template. After the application is successfully deployed, enter the following information in the address box of the browser:

*<Public IP address of the target host>*:8080/tomcat-demo

Press **Enter**. If the following information is displayed, the application is successfully deployed.



**Hello Deploy!**