CodeArts Repo

FAQs

Issue 01

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Contents

1 Authentication

1.1 TLS Handshake Fails and the Error Message "ssl handshake failure" Is Displayed

Symptom

Run the following command on the local host to establish a TLS1.0 connection with the specified server and obtain the certificate information:

```
openssl s_client -connect test.com:443 -tls1
```

The following error message is displayed.

```
CONNECTED(00000003)
140155533838224:error:1409442E:SSL routines:ssl3_read_bytes:tlsv1 alert protocol version:s3_pkt.c:1493:SSL alert number 70
140155533838224:error:1409E0E5:SSL routines:ssl3_write_bytes:ssl handshake failure:s3_pkt.c:659:
---
no peer certificate available
---
No client certificate CA names sent
---
SSL handshake has read 7 bytes and written 0 bytes
---
New, (NONE), Cipher is (NONE)
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
    Protocol  : TLSv1
    Cipher    : 0000
    Session-ID:
    Session-ID-ctx:
    Master-Key:
    Key-Arg   : None
    Krb5 Principal: None
    PSK identity: None
    PSK identity hint: None
    Start Time: 1720443876
    Timeout   : 7200 (sec)
    Verify return code: 0 (ok)
---
```


Analysis

CodeArts Repo supports TLS1.2 and TLS1.3.

Solution

Step 1 Run the following command on the Git Bash client to check your Git version:

```
git --version
```

Step 2 If your Git is earlier than 2.6.0, upgrade it to the **latest version**. The latest Git supports TLSv1.2 by default. If your Git version is 2.6.0 or later, specify the TLS protocol version:

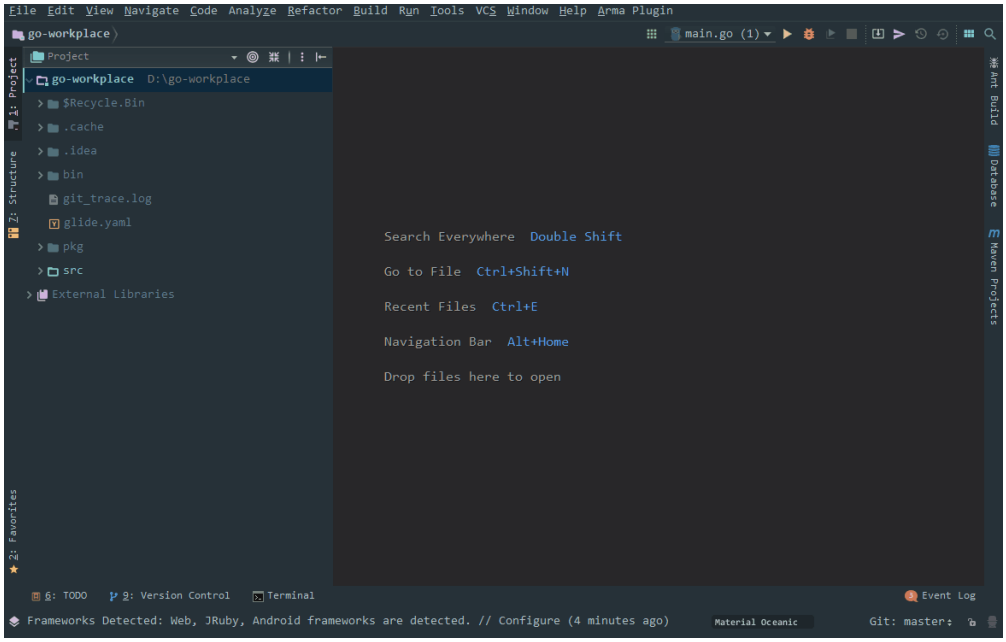
```
openssl s_client -connect test.com:443 -tls1_2
```

----End

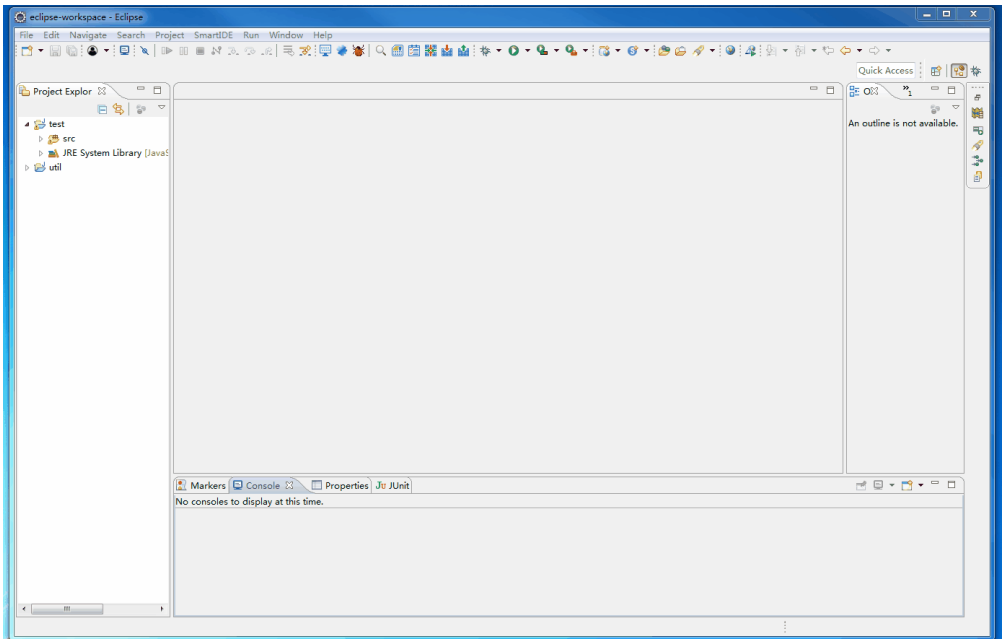
Third-party Git GUIs

If you use a third-party Git client, such as Eclipse, JetBrains, SourceTree, VSCode, Tower, or TortoiseGit, you are advised to download the latest Git Bash and use the native Git instead of the built-in type in the tool.

- Settings in IDEA



- Settings in Eclipse



1.2 Upgrading the SSH Function of CodeArts Repo

Some insecure encryption algorithms have been removed from the SSH function of CodeArts Repo.

Key Exchange (KEX) and Message Authentication Code (MAC) no longer support the following algorithms:

KEX:

- diffie-hellman-group18-sha512
- diffie-hellman-group-exchange-sha1
- diffie-hellman-group-exchange-sha256

MAC:

- hmac-md5
- hmac-md5-96
- hmac-sha1-etm@openssh.com
- hmac-sha1-96-etm@openssh.com
- hmac-md5-etm@openssh.com
- hmac-md5-96-etm@openssh.com
- umac-64@openssh.com
- umac-128@openssh.com

Upgrade your code commit tool (such as Git Bash, Eclipse, and Idea) to the latest version. By default, the new version uses algorithms that are more secure.

If you have any questions, contact technical support.

1.3 How Can I Set Multiple SSH Keys on My Computer?

Scenario

Developers generate only one public SSH key named **id_rsa** and submit it to multiple websites.

However, one public SSH key cannot be shared by two accounts in a website. In this case, you need to generate two SSH keys.

Procedure

Step 1 Generate two different SSH keys in your local Git repository.

```
ssh-keygen -t rsa -C "email"
Generating public/private rsa key pair.
Enter file in which to save the key (~/.ssh/id_rsa):<Type two file names before pressing Enter.>
Enter passphrase(empty for no passphrase):<Enter your custom password before pressing Enter.>
```

NOTE

To generate two SSH keys, name two different file names **github_1** and **github_2**.

Step 2 Upload the two keys to the two accounts respectively.

Print the content of the ***.pub** file and paste it to the service website. Take note of the two usernames and their mappings to the keys.

Step 3 Edit the **~/.ssh/config** file.

```
Host dc_1
HostName *******.com
IdentityFile ~/.ssh/dc_1
PreferredAuthentications publickey
User username1
Host dc_2
HostName *******.com
IdentityFile ~/.ssh/dc_2
PreferredAuthentications publickey
User username2
```

Note that **Host** and **HostName** should be set to different values.

- **HostName**: Enter the service address.
- **Host**: Enter an alias for each key. The aliases will be used when you access the service.
- **IdentityFile**: Enter the location of each SSH key file. SSH key files can be stored in any directory you want.

Step 4 Read and write code.

In cases where only one SSH key is set, the SSH URL obtained from the service web page can be directly used to communicate with the service.

```
git@*****.com:name/repo.git
```

With two SSH keys on your computer, you need to replace the service address in the URL with a corresponding alias configured previously based on which account you are using.


```
git@dc_1:name/repo.git or git@dc_2:name/repo.git
```

----End

2 Member Permissions

2.1 How Do I Quickly Add Members to All Code Repositories?

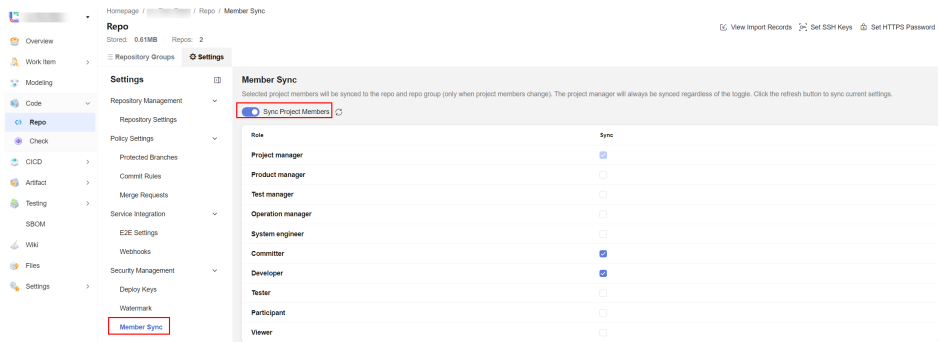
Scenario

There are too many repositories to configure for new members in a project group and the configuration is complex and difficult to manage. It is complex to configure permissions in each repository for new project members.

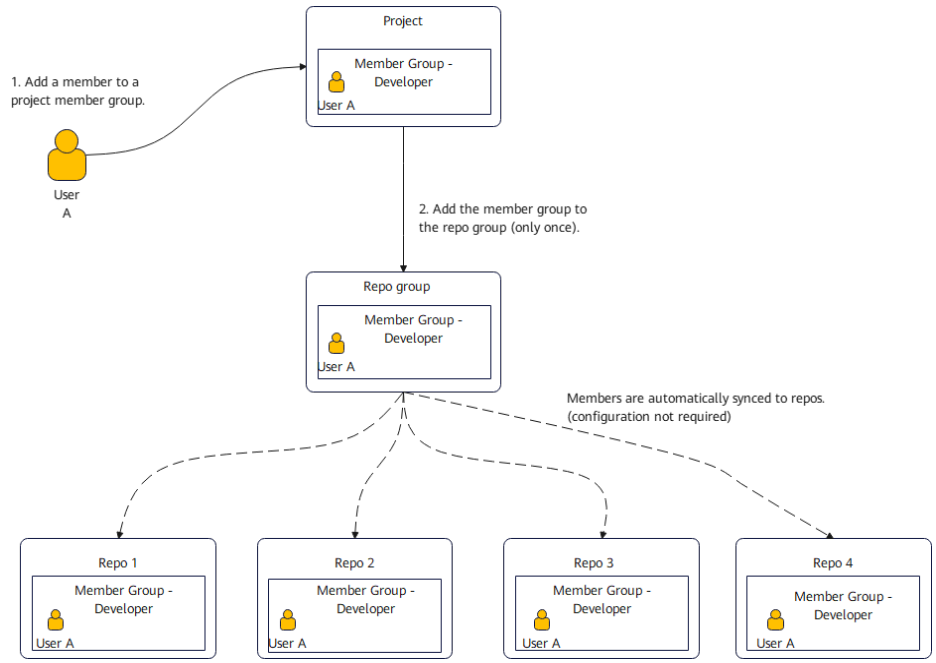
Solution

- Solution 1: Syncing Members in CodeArts Repo

Selected project members will be synced to the repo and repo group (only when project members change). The project manager will always be synced regardless of the toggle. Click the refresh button to sync current settings.



- Solution 2: Managing Members by Group



The procedure is as follows:

Step 1 Define member groups in the project.

Step 2 The repository group is used to manage repositories hierarchically. Repositories are created under the repository group.

Step 3 After a project member group is added to the repository group, new members in the project member group are automatically synced to the repository group. Add members to all repositories.

----End

3 Uploading and Downloading Code

3.1 "Error: Deny by project hooks setting 'default': message of commit" Is Reported When Code Repository Is Pushed from the Local Host to CodeArts Repo

Symptom

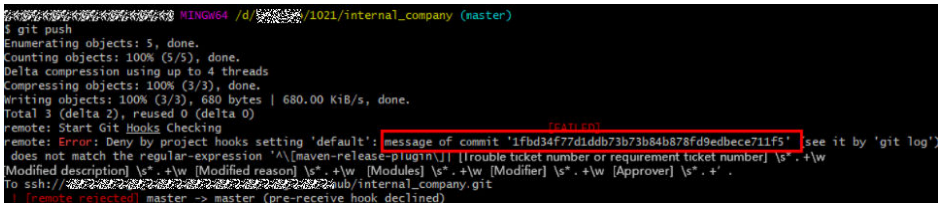
If the format of the code file to be pushed to the remote repository is not standard and the ticket number and modifier are not provided, the error information shown in the following figure is displayed.

Figure 3-1 Error information displayed when code is pushed

Analysis

The commit message does not match the regular-expression: ^\[maven-release-plugin\]|[Trouble ticket number or requirement ticket number]\s*.+\W[Modified description]\s*.+\W[Modified reason]\s*.+\W[Modules] \s*.+\W[Modifier]\s*.+ \W[Approver]\s*.+

Figure 3-2 Commit message when code is pushed



Solution

- To modify the latest incorrect commit message, perform the following operations.

Step 1 Perform the following operations to modify the latest incorrect commit message:

Right-click the **.git** hidden folder and choose **Open Git Bash here** from the shortcut menu to open Git Bash.

Step 2 Run the **git log** command to find the incorrect commit message.

Step 3 Enter the information again according to the commit message specifications: ^\[maven-release-plugin\]|[Trouble ticket No. or requirement No.]\s*.+\W[Modification description]\s*.+\W[Modification reason]\s*.+\W[Module] \s*.+\W[Modified by] \s*.+\W [Approver] \s*.+. Run the **git commit --amend -m'[Trouble ticket or requirement ticket ID] US20250211529** command and press **Enter**. Enter **[Modification description] Test commit rules not qualified** and press **Enter**. Enter **[Modification reason] Test commit rules not qualified** and press **Enter**. Enter **[Module] example** and press **Enter**. Enter **[Modifier] example** and press **Enter**. Enter **[approver] Test**'.

Note that there is a space between the command text and the commit message in each line.

This example indicates that the commit message set in CodeArts Repo includes the trouble ticket ID or requirement ID, modification description, modification reason, module, and modifier. Enter the information based on the your configuration settings.

----End

- For details about how to modify the commit record that was incorrectly written for the Nth last time, see the following example (the second last).

Step 1 Run the **git log** command on Git Bash to search for incorrect commit messages. As shown in the following figure, there are three commit records. If the second last commit message is modified, then the ID of the second commit is **e7d52124aef603f2fe94b001435962c4ffa51be9**.

Step 2 Run the **git rebase -i HEAD~2** command. The commit ID to be modified is **e7d5212**. Change **pick** to **edit** and save the modification.

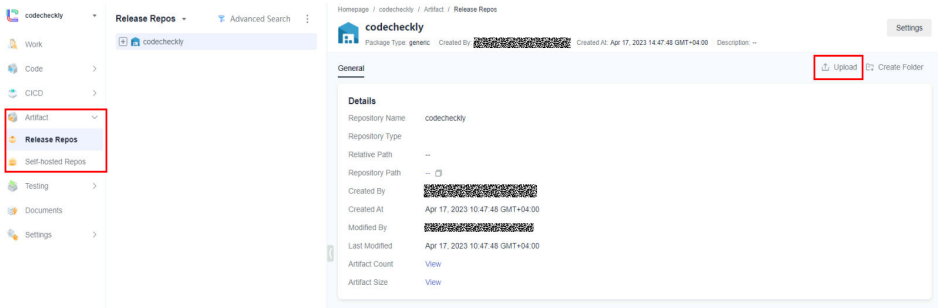
Step 3 Run **Step 3** to apply the commit message modification.

----End

3.2 Pushing Binary Files to CodeArts Repo Failed

CodeArts Repo supports binary file commit control. Check whether binary file commit is prohibited for your repos.

You are not advised storing binary files in the CodeArts Repo repository. Otherwise, the performance and stability will be affected. You are advised to upload the binary file to **CodeArts Artifact** for storage.



3.3 Error "'origin' does not appear to be a git repository..." Is Reported When the Git Push Command Is Executed

Symptom

Error **'origin' does not appear to be a git repository...** is reported when you run the following command:

```
git push --set-upstream origin feature1
```

Analysis

origin does not appear to be a git repository.

Solution

Verify the name and path of the remote repository, delete the false name and add another remote repository. Run the following commands:

Step 1 Check the details of the remote repository, including its name and associated address.

```
git remote -v
```

Step 2 Delete the false origin repository.

```
git remote remove origin
```

Step 3 Add another remote repository address.

```
git remote add origin
```

Step 4 Commit the code file to the master branch of the remote code repository again.

```
git push -u origin master
```

----End

3.4 Error "The requested URL returned error: 401" Is Reported When HTTPS Is Used to Clone Code in CentOS

Symptom

Error **The requested URL returned error: 401** is reported when HTTPS is used to clone code in CentOS.

Analysis

The built-in Git version of CentOS is 1.7.1 or earlier.

Solution

Step 1 Run the following command in Git Bash to check the Git version provided by the system: If the version is 1.7.1 or earlier, go to Step 2.

```
git --version
```

Step 2 Run the following command to uninstall the Git provided by CentOS:

```
yum remove git
```

Step 3 Download the latest version from the **Git website** and add Git to the environment variables.

1. Download the Git source code package from GitHub. Replace the version number with the actual one.
   ```
   wget https://github.com/git/git/archive/Version number.tar.gz
   ```
2. Decompress the source code package.
   ```
   tar zxvf Version number.tar.gz
   ```
3. Switch to the Git source code directory containing the decompressed files.
   ```
   cd git-Version number
   ```
4. Generate the configuration file.
   ```
   make configure
   ```
5. Configure the Git installation path and code conversion library.
   ```
   ./configure --prefix=/usr/local/git --with-iconv=/usr/local/libiconv
   ```
6. Compile the Git source code and documents.
   ```
   make all doc
   ```
7. Install Git and its documents.
   ```
   make install install-doc install-html
   ```
8. Add the path of the Git executable file to the system environment variables.
   ```
   echo "export PATH=$PATH:/usr/local/git/bin" >> /etc/bashrc
   ```
9. Apply the environment variables.
   ```
   source /etc/bashrc
   ```

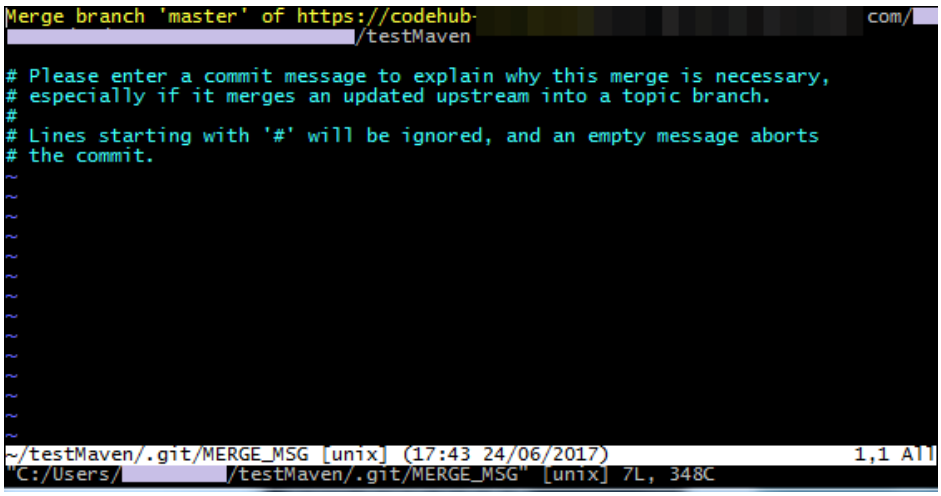
----End

3.5 Error "Merge branch 'master' of https://test.com Please Enter a commit" Is Reported When Pulling Code Using the Git Pull Command

Symptom

Error **Merge branch 'master' of https://test.com Please enter a commit message to explain why this merge is necessary...** is reported when pulling code using the **git pull** command, as shown in the following figure.

Figure 3-3 Error message



Analysis

The code in CodeArts Repo is different from the code in your local repository. Therefore, when **git pull** is executed, the remote code will be merged to the local code. The dialog box displayed asks if you confirm the merge, and prompts you to enter a commit message.

Solution

Go to the local repository directory and run the following command in Git Bash:

Step 1 Cancel the merge.

```
git merge --abort
```

Step 2 Merge the master branch of the remote repository (origin) to the current branch:

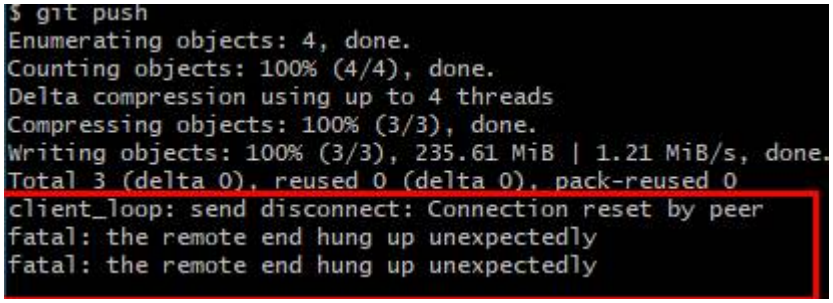
```
git merge origin/master
```

----End

3.6 Client Disconnects When a File Is Pushed

Symptom

If the file to be pushed is too large and the file transfer is not complete within 5 minutes, the connection is disconnected.



Analysis

A request is sent to ELB to push a file. The request timeout of ELB is 5 minutes. If a file is too large and the transmission is not complete within 5 minutes, ELB disconnects the file.

Solution

Keep the SSH connection.

1. Find the local Git installation directory and modify the **ssh_config** file in **etc/ssh**.
2. Add **ServerAliveInterval 60** to the last line of the file and save the file.

3.7 Message "fatal: refusing to merge unrelated histories" Is Displayed

Symptom

The message **refusing to merge unrelated histories** is displayed after **git pull** is executed.

Analysis

The objects of the merge attempt are two unrelated repositories or branches.

Solution

Run **git pull origin master --allow-unrelated-histories** for force merge.

3.8 How Do I Prevent Files Containing Secrets from Being Pushed to CodeArts Repo?

Background

- You can go to the repository details page, choose **Settings** > **Commit Rules**, and select **Files containing secrets cannot be committed**.
- CodeArts Repo will refuse push attempts when the name of file to be pushed matches the regular expressions listed below.

NOTICE

This rule does not apply to files that have been pushed.

The following table lists the regular expressions for restricting pushes of files containing secrets and provides some file name examples.

Regular Expression	File Name Example
(ssh|config)\/(personal|server)_(rsa|dsa|ed\d+|ecdsa)	ssh_server_rsa
_rsa$	id_rsa
_dsa$	id_dsa
_ed25519$	id_ed25519
_ecdsa$	id_ecdsa
\.(pem|key)$	secret.key privatekey.pem
"[._]history$"	.bash_history

4 Migrating Repositories

4.1 When a Git-based Remote Repository Is Imported to CodeArts Repo, an Error Message "Accessing the remote repository timed out. Check the network." Is Displayed.

Symptom

- When a Git-based remote repository is imported to CodeArts Repo, the import takes more than 30 minutes, and an error message indicating that accessing the remote repository timed out and check the network is displayed.

Analysis

The code repository is too large or the network is poor.

Solution

Step 1 Download a repository from the source repository address. Go to the code repository to be downloaded and copy the HTTPS address.

Step 2 Open the Git Bash client and clone the code repository to the local computer:

```
git clone --bare <source_repository_address>
```

Step 3 Associate the cloned code repository and push it to CodeArts Repo.

1. Go to the CodeArts Repo homepage, click **New Repository**, and select an existing project from the **Project** drop-down list box or create a project.
2. Set **Repository Type** to **Common**, enter related parameters, deselect **Generate README** and set **.gitignore Programming Language** to create a code repository. The homepage of the code repository is displayed.
3. Choose **Clone/Download** > **Clone with HTTPS** in the upper right corner and copy the HTTPS address.
4. Open the Git Bash client and push the local code repository to the created code repository:


```
git push --mirror <Created_CodeArts Repo_repository_address>
```

When running commands, enter the HTTPS account and password of CodeArts Repo.

----End

NOTE

- If your local code repository has branches and tags, they will be pushed to the created code repository.
- After the push is successful, go to the code repository details page of CodeArts Repo to check whether the pushed code repository is complete. If the problem persists, contact Huawei Cloud technical support.

5 Merge Request

5.1 Why Is a Message Displayed Indicating Not Authorized When Merging an MR?

Symptom

On the MR details page, when a user clicks **Merge**, a message is displayed indicating **no permissions**.

Analysis

You must have the **Push** and **Merge** permissions for the target branch.

Solution

- If the target branch is a common branch, check whether you have these two permissions. If not, contact the administrator to add the permissions.
- If the target branch is a protected branch, go to the **Settings** page, choose **Policy Settings > Protected Branches**, and check whether you have the **Push** and **Merge** permissions. If not, contact the administrator to modify the branch configuration.

5.2 Error "failed to push some refs to '....git'" Is Reported When the Merge Request Is Committed Locally

Symptom

If two people modify the same line of code simultaneously, a code commit conflict may arise when the code is pushed to CodeArts Repo. As a result, the push fails and an error message "failed to push some refs to '....git'" is displayed, as shown in the following figure.

Figure 5-1 Error message displayed when pushing code

Analysis

A conflict occurs when the same line of the same file is modified (the current version of the local repository is different from that of the CodeArts Repo).

Solution

To resolve a code commit conflict, pull the remote repository to the working directory in the local repository. Git will merge the changes and display the conflicting file content that cannot be merged. Then, modify the conflicting content and push it to the remote repository again (by running the **add**, **commit**, and **push** commands in sequence).

Modify the conflicting file carefully. If necessary, negotiate with the other member to resolve the conflict and avoid overwriting the code of other members by mistake.

NOTE

git pull combines **git fetch** and **git merge**. The following describes the operations in detail.

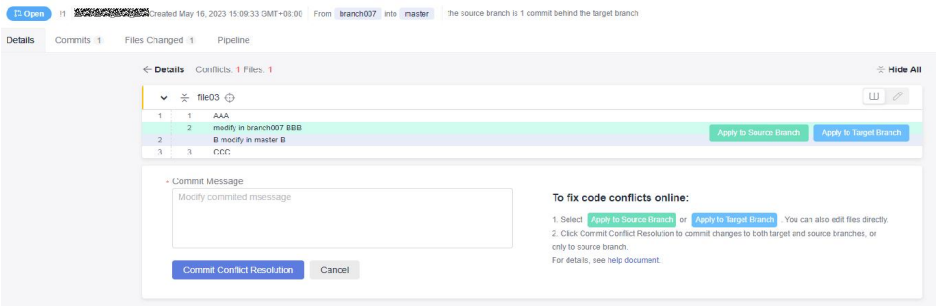
```
git fetch origin master # Pull the latest content from the master branch of the remote host.
git merge FETCH_HEAD    # Merge the latest content into the current branch.
```

During merge, a message indicating that the merge fails due to a conflict is displayed.

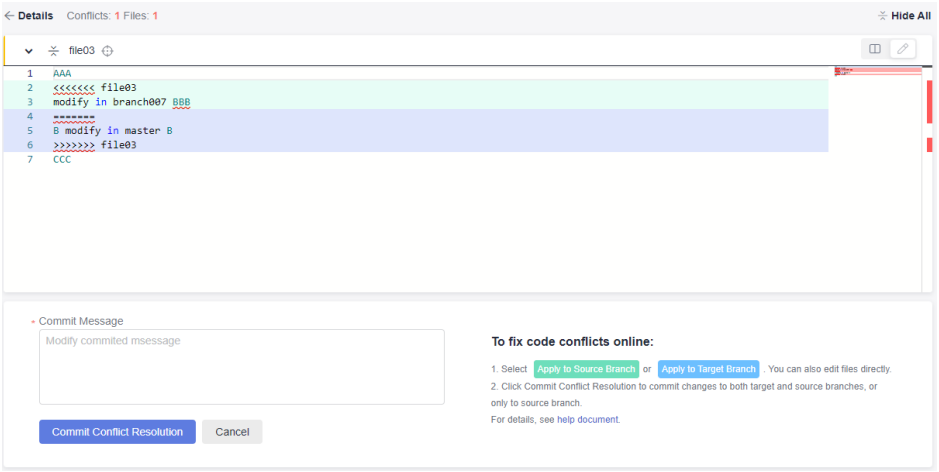
Resolving Merge Conflicts on the Console

- **Fix them online** (recommended for small code volume)
  a. Click **Fix them online**. A code conflict is displayed, as shown in the following figure.

     On this page, you can directly select the **Apply to Source Branch** or **Apply to Target Branch** to select the modification of one party as the final repaired content.



b. If the situation is complex and the problem cannot be solved by simple direct overwriting, click  to enter the manual editing mode, as shown in the following figure.



c. Manually modify the code to resolve the conflict and commit the changes.

NOTE

Enter a commit message.

In the preceding figure, the following signs are used for conflict display and separation: <<<<, >>>>, and ====. Delete the lines where the signs are located when modifying code.

5.3 How Do I Resolve Local Code File Conflicts?

Symptom

On the details page of an MR, the message **Unresolved** is displayed.

Analysis

The same file is modified by two users and a conflict is reported when an MR is merged.

Solution

Step 1 Update the code and switch to the source branch of this MR.

```
git fetch origin
git checkout -b feature_010 origin/feature_010
```

Step 2 Merge the target branch into the source branch.

```
git merge origin/master
```

Step 3 Manually resolve conflicts locally as prompted.

Step 4 Commit code to the remote repository after conflicts are resolved.

```
git add .
git commit -m'Commit information'
git push origin feature_010
```


Step 5 Refresh the page and continue to review the MR.

----End

6 Fork Sync

6.1 How Do I Sync Code from a Primary Database to a Derived Database Generated by Fork?

Symptom

In CodeArts Repo, you can fork the code repository of the primary repository to other projects for improved collaborative development. However, when the fork mode is used for development, the following problem may occur: After the primary repository (source project) is updated, you need to manually update the forked repository.

You can perform the following operations to sync the code of the primary library to the derived library generated by fork.

For example:

Primary repository address: https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/AlphaGo/TestService.git

Forked repository address: https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/Roger/TestService.git

Branch name: master

Solution

Step 1 Clone the forked repo in your personal space to the local host.

```
git clone https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/Roger/TestService.git
cd TestService
```

Step 2 Add the remote original repository (primary repository) to the local host. (You can run the **git remote -v** command to view the remote repository list.)

```
git remote -v
```

Step 3 If there is no remote original repository, add the following information:

```
git remote -v
origin  https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/Roger/TestService.git (fetch)
origin  https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/Roger/TestService.git (push)
```


Step 4 Check the remote repository list.

```
git remote -v
origin  https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/Roger/TestService.git (fetch)
origin  https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/Roger/TestService.git (push)
main https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/AlphaGo/TestService.git (fetch)
main https://test.com/f2e22eeb1b8c43cfb764765f5e3ff039/AlphaGo/TestService.git (push)
```

Step 5 Obtain the latest branch code of the original repository (primary repository) to the local host and merge the code of the two versions.

```
git pull main master
```

Step 6 Sync the latest merged code to the fork repository.

```
git push origin master
```

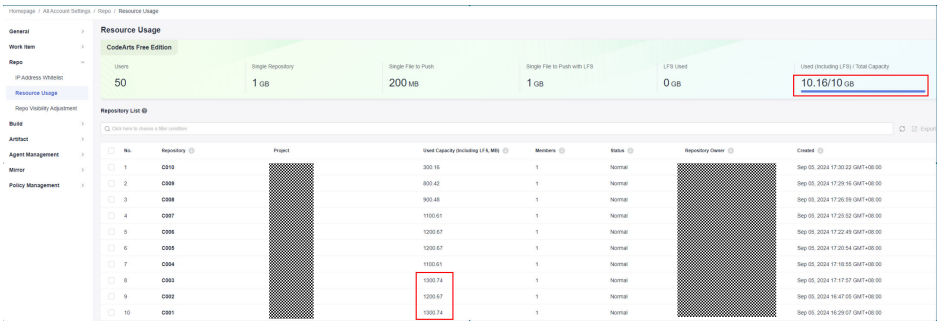
----End

7 Repository Capacity

7.1 Insufficient Remaining Repository Capacity

Scenario

If the capacity warning notification is configured and enabled, a notification will be sent when the repository capacity usage reaches a specified threshold. You can click the avatar and choose **All Account Settings** > **Repo** > **Resource Usage** to view the capacity usage. As shown in the following figure, the repo capacity usage has reached 10.16 GB, exceeding the maximum capacity.



Analysis

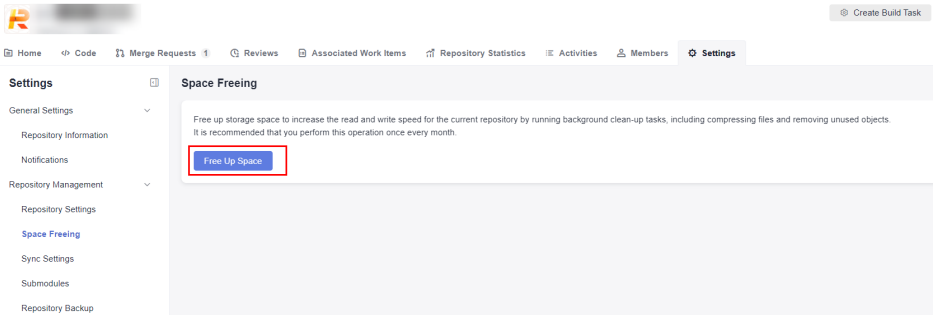
Some files may have occupied repository space.

Solution

- Method 1: Compress the repository to reduce the capacity usage. The procedure is as follows:

Step 1 Click the avatar and choose **All Account Settings** > **Repo** > **Resource Usage** to view the repositories with large capacity usage.

Step 2 Go to the repository homepage where a large amount of space is occupied, choose **Settings** > **Repository Management** > **Space Freeing**, and compress the repository that occupies a large amount of space to reduce the repository capacity.



----End

- Method 2: Purchase a storage expansion package for more capacity. and select the region which you want to purchase the package for.

8 FAQs

Does CodeArts Repo Support SVN?

No. CodeArts Repo is a Git-based distributed version control service that enables easier remote collaboration.

Does CodeArts Repo Support One-Click Import of External Git Sources?

Yes.

CodeArts Repo supports import of Git repositories from the following sources:

- bitbucket.org
- code.aliyun.com
- coding.net
- git.qcloud.com
- gitee.com
- github.com
- gitlab.com
- visualstudio.com
- xiaolvyun.baidu.com

Does CodeArts Repo Support Batch Download of Multiple Repository Packages?

No. CodeArts Repo does not support batch download or upload of multiple code repositories. You need to perform operations on each code repository one by one. To back up local repositories, an administrator can use Shell or batch processing commands to download multiple repositories.

How Do I Obtain the Path for Storing Downloaded Code in CodeArts Repo?

- If Git is installed in the default path and you open Git Bash from the start menu, downloaded code is stored in the default path **C:/User/*XX user***.
- If you open Git Bash by right-clicking in a directory and choosing **Git bash Here**, downloaded code is stored in this directory.

How Do I Obtain the Clone Address of a Repository in CodeArts Repo?

Step 1 On the CodeArts Repo homepage, click the name of a repository in the repository list. The repository details page is displayed.

Step 2 Click **Clone/Download** in the right navigation bar. Click **Clone with SSH** to obtain the SSH protocol address. Click **Clone with HTTPS** to obtain the HTTPS protocol address.

----End

Does the Repository Support Online Decompression When Uploading ZIP Archives?

No. Online decompression is no longer supported. You are advised to decompress the file package locally and use the Git command to upload the files.

Does the Repository Support Private or Public Conversions?

Yes. On the repository details page, click the **Settings** tab, and choose **General Settings** > **Repository Information** > **Visibility**.

Can All Users Upload and Download Code with the Same SSH Key?

No. An SSH key is used to establish a secure connection between a computer and CodeArts Repo. Different users should configure an SSH key on their own computers before connecting to CodeArts Repo via SSH.

