**Confluence Space Permission Tool**

This tool is used to batch modify space permissions in both Confluence Data Center/Server and Confluence Cloud.

# Prerequisites

1. Java Runtime version 1.8 or later is required.
2. For Data Center/Server, the tool uses Confluence REST APIs, so network access to Confluence Data Center/Server is required.
3. For Cloud, the tool uses Confluence Cloud REST APIs, so network access to Confluence Cloud is required.
4. A user account with administrator permission is required to modify space permissions.

# Installation

Unzip ConfluenceSpacePermission-[version].zip to a folder.

# Usage

## Usage Help

The tool will print its usage if you run it without any arguments, i.e.   
java -jar ConfluenceSpacePermission.jar

## ID Retrieval

### Generate Cloud API Token

Cloud REST API uses API token instead of password for authentication.

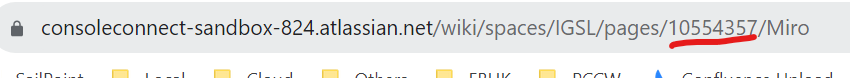
1. Go to <https://id.atlassian.com/manage-profile/security/api-tokens> and login as an administrator user with sufficient access to modify space permissions.
2. Click “Create API Token”. Enter a name for reference, then click “Create”.   
   A screenshot of a computer

   Description automatically generated
3. Copy the API token value. Atlassian will never show you the value after this screen is closed.   
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   Description automatically generated
4. Your tokens are displayed on this screen. You can click “Revoke” to revoke the token. You can have up to 25 tokens at a time.   
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### Retrieve Cloud Confluence Page ID

1. Login Confluence site.
2. Open required page.
3. The page’s page ID is in the URL, between /pages and /[Page title].  
   

### Retrieve Cloud User/Group ID

Atlassian Cloud no longer uses username and instead uses account ID for privacy reasons. So you will need to obtain the account IDs of the users/groups.

1. Login <https://admin.atlassian.com/> as site administrator user.
2. Click “Directory” from top navigator bar, then “Users” in the left panel.
3. Click on a target user. You can find the account ID in the last segment of the URL:   
   A screenshot of a computer

   Description automatically generated
4. Note that there are multiple account ID formats (Atlassian keeps changing it without altering account IDs for existing users).
5. Click “Groups” in the left panel.
6. Click on a target group. You can find the group ID in the last segment of the URL:   
   A screenshot of a computer

   Description automatically generated

### Retrieve Data Center/Server User/Group Name

1. Login Confluence using administrator account.
2. Gear | User Management.
3. Click “Users” in the left panel. Locate the target user and copy its username in “Username” column.  
   A screenshot of a computer

   Description automatically generated
4. Click “Groups” in the left panel. Locate the target group and copy the text in “Group name” column.   
   A screenshot of a group

   Description automatically generated

### Retrieve Data Center/Server Confluence Page ID

1. Login Confluence site.
2. Open required page.
3. Click 3-dots in upper right corner, click “Page information”.
4. The page’s page ID is in the value of pageId query parameter.  
   

## Data Center/Server Space Permission

Execute the following command:

java -jar ConfluenceCloudPermission.jar -d [-s Scheme] -h <Confluence hostname> -u <Admin user name> [-w Password] -k <Space key> -p <Permission> [-au AddUser] [-ru RemoveUser] [-ag AddGroup] [-rg RemoveGroup]

|  |  |  |
| --- | --- | --- |
| **Argument** | **Required** | **Description** |
| -d | Yes | Data Center/Server mode. |
| -s --scheme | No | Scheme to use.  Defaults to “https”. |
| -h  --host | Yes | Data Center/Server host.  e.g. localhost:8080 |
| -u  --user | Yes | Administrator user.  e.g. admin |
| -w  --password | No | Password for administrator user.  You will be prompted to input password if omitted. |
| -k  --spacekey | Yes | Space key.  You can specify multiple space keys delimited by space.  Specify % to modify all spaces accessible by administrator user. |
| -p  --permission | Yes | Permission to add/remove.  You can specify multiple permissions delimited by space.  The following permissions are supported:  EDITSPACE - Edit space  VIEWSPACE - View space  EXPORTPAGE - Export page  SETPAGEPERMISSIONS - Set page permissions  REMOVEPAGE - Remove page  EDITBLOG - Edit blog  REMOVEBLOG - Remove blog  COMMENT - Comment  REMOVECOMMENT - Remove comment  CREATEATTACHMENT - Create attachment  REMOVEATTACHMENT - Remove attachment  REMOVEMAIL - Remove email  EXPORTSPACE - Export space  SETSPACEPERMISSIONS - Set space permissions |
| -au  --adduser | No | Add user.  You can specify multiple users delimited by space. |
| -ru  --removeuser | No | Add group.  You can specify multiple groups delimited by space. |
| -ag  --addgroup | No | Remove user.  You can specify multiple users delimited by space. |
| -rg  --removegroup | No | Remove group.  You can specify multiple groups delimited by space. |

## Data Center/Server Confluence Content Restriction

### Note

1. This is implemented with an experimental API provided by Atlassian.
2. If the page is not restricted, no add/remove actions will be performed.
3. When adding restrictions, you should include the administrator user used.
   1. The restriction update is not performed as an addition or removal, but overwrites.
   2. This program will retrieve the original restrictions and modify it.
   3. But if the original restriction is empty, it will be overwritten by the users specified in the parameters. If those parameters do not include the administrator user, the API will return error as it does not allow a user to remove his own access.
4. This command uses username instead of email.
5. This command uses group name instead of group ID.

Execute the following command:

java -jar ConfluenceCloudPermission.jar -do [-s Scheme] -h <Confluence hostname> -u <Admin user name> [-w Password] -k <Space key> -t <Content ID> -p <Permission> [-au AddUser] [-ru RemoveUser] [-ag AddGroup] [-rg RemoveGroup]

|  |  |  |
| --- | --- | --- |
| **Argument** | **Required** | **Description** |
| -co | Yes | Data Center/Server Confluence Content Restriction mode. |
| -s --scheme | No | Scheme to use.  Defaults to “https”. |
| -h  --host | Yes | Data Center/Server host.  e.g. localhost:8090 |
| -u  --user | Yes | Administrator user name.  e.g. admin |
| -w  --password | No | Password for administrator user.  You will be prompted to input password if omitted. |
| -k  --spacekey | Yes | Space key.  You can specify multiple space keys delimited by space.  Specify % to modify all spaces accessible by administrator user. |
| -t  --contentid | Yes | Page ID.  You can specify multiple pages delimited by space.  Specify % to modify all pages accessible by administrator user within the specified spaces. |
| -p  --permission | Yes | Permission to add/remove.  You can specify multiple permissions delimited by space.  The following permissions are supported:  read  update |
| -au  --adduser | No | Add user.  You can specify multiple users delimited by space. |
| -ru  --removeuser | No | Add group.  You can specify multiple groups delimited by space. |
| -ag  --addgroup | No | Remove user.  You can specify multiple users delimited by space. |
| -rg  --removegroup | No | Remove group.  You can specify multiple groups delimited by space. |

## Cloud Confluence Space Permission

Execute the following command:

java -jar ConfluenceCloudPermission.jar -cc [-s Scheme] -h <Confluence hostname> -u <Admin user name> [-w Password] -k <Space key> -p <Permission> [-au AddUser] [-ru RemoveUser] [-ag AddGroup] [-rg RemoveGroup]

|  |  |  |
| --- | --- | --- |
| **Argument** | **Required** | **Description** |
| -cc | Yes | Cloud Confluence mode. |
| -s --scheme | No | Scheme to use.  Defaults to “https”. |
| -h  --host | Yes | Cloud host.  e.g. consoleconnect-sandbox-824.atlassian.net |
| -u  --user | Yes | Administrator user email.  e.g. admin@company.com |
| -w  --password | No | API token for administrator user.  You will be prompted to input API token if omitted. |
| -k  --spacekey | Yes | Space key.  You can specify multiple space keys delimited by space.  Specify % to modify all spaces accessible by administrator user. |
| -p  --permission | Yes | Permission to add/remove.  You can specify multiple permissions delimited by space.  The following permissions are supported:  readspace - Read space  createpage - Create or update page  administer - Administer space |
| -au  --adduser | No | Add user.  You can specify multiple users delimited by space. |
| -ru  --removeuser | No | Add group.  You can specify multiple groups delimited by space. |
| -ag  --addgroup | No | Remove user.  You can specify multiple users delimited by space. |
| -rg  --removegroup | No | Remove group.  You can specify multiple groups delimited by space. |

## Cloud Jira Project Permission

Execute the following command:

java -jar ConfluenceCloudPermission.jar -cj [-s Scheme] -h <Confluence hostname> -u <Admin user name> [-w Password] -k <Project key> -p <Permission> [-au AddUser] [-ru RemoveUser] [-ag AddGroup] [-rg RemoveGroup]

|  |  |  |
| --- | --- | --- |
| **Argument** | **Required** | **Description** |
| -cj | Yes | Cloud Jira mode. |
| -s --scheme | No | Scheme to use.  Defaults to “https”. |
| -h  --host | Yes | Cloud host.  e.g. consoleconnect-sandbox-824.atlassian.net |
| -u  --user | Yes | Administrator user email.  e.g. admin@company.com |
| -w  --password | No | API token for administrator user.  You will be prompted to input API token if omitted. |
| -k  --projectkey | Yes | Project key.  You can specify multiple project keys delimited by space.  Specify % to modify all projects accessible by administrator user. |
| -p  --permission | Yes | Project role to add/remove user/group to/from.  You can specify multiple roles delimited by space.  The following roles are supported:  ADMINISTRATORS  ADMINISTRATOR  MEMBER  VIEWER |
| -au  --adduser | No | Add user.  You can specify multiple users delimited by space. |
| -ru  --removeuser | No | Add group.  You can specify multiple groups delimited by space. |
| -ag  --addgroup | No | Remove user.  You can specify multiple users delimited by space. |
| -rg  --removegroup | No | Remove group.  You can specify multiple groups delimited by space. |

## Cloud Confluence Content Restriction

### Incomplete Implementation

1. Anonymous and known (space owner) users are not supported.
2. Content restriction in Confluence web UI only uses read and update permissions. The others seem to be not used.
3. Content restriction in Confluence web UI has three states:
   1. Everyone can view and edit. Read and update permissions are associated with 0 users and groups.
   2. Everyone can view and only some can edit. Read permission is associated with 0 users. Update permission is associated with users, with space owner as known.
   3. Only specific users can view and edit. Read and update permissions are associated with users. Space owner is listed as known in both.
4. For case A, the program will not perform any update and treat the actions as successful.

Execute the following command:

java -jar ConfluenceCloudPermission.jar -co [-s Scheme] -h <Confluence hostname> -u <Admin user name> [-w Password] -k <Space key> -t <Content ID> -p <Permission> [-au AddUser] [-ru RemoveUser] [-ag AddGroup] [-rg RemoveGroup]

|  |  |  |
| --- | --- | --- |
| **Argument** | **Required** | **Description** |
| -co | Yes | Cloud Confluence Content Restriction mode. |
| -s --scheme | No | Scheme to use.  Defaults to “https”. |
| -h  --host | Yes | Cloud host.  e.g. consoleconnect-sandbox-824.atlassian.net |
| -u  --user | Yes | Administrator user email.  e.g. admin@company.com |
| -w  --password | No | API token for administrator user.  You will be prompted to input API token if omitted. |
| -k  --spacekey | Yes | Space key.  You can specify multiple space keys delimited by space.  Specify % to modify all spaces accessible by administrator user. |
| -t  --contentid | Yes | Page ID.  You can specify multiple pages delimited by space.  Specify % to modify all pages accessible by administrator user within the specified spaces. |
| -p  --permission | Yes | Permission to add/remove.  You can specify multiple permissions delimited by space.  The following permissions are supported:  administer  copy  create  delete  export  move  purge  purge\_version  read  restore  update  use |
| -au  --adduser | No | Add user.  You can specify multiple users delimited by space. |
| -ru  --removeuser | No | Add group.  You can specify multiple groups delimited by space. |
| -ag  --addgroup | No | Remove user.  You can specify multiple users delimited by space. |
| -rg  --removegroup | No | Remove group.  You can specify multiple groups delimited by space. |

## Cloud Confluence Content Restriction List

Execute the following command:

java -jar ConfluenceCloudPermission.jar -cl [-s Scheme] -h <Confluence hostname> -u <Admin user name> [-w Password] -k <Space key> -t <Content ID>

|  |  |  |
| --- | --- | --- |
| **Argument** | **Required** | **Description** |
| -cl | Yes | Cloud Confluence Content Restriction List mode. |
| -s --scheme | No | Scheme to use.  Defaults to “https”. |
| -h  --host | Yes | Cloud host.  e.g. consoleconnect-sandbox-824.atlassian.net |
| -u  --user | Yes | Administrator user email.  e.g. admin@company.com |
| -w  --password | No | API token for administrator user.  You will be prompted to input API token if omitted. |
| -k  --spacekey | Yes | Space key.  You can specify multiple space keys delimited by space.  Specify % to modify all spaces accessible by administrator user. |
| -t  --contentid | Yes | Page ID.  You can specify multiple pages delimited by space.  Specify % to modify all pages accessible by administrator user within the specified spaces. |

# Output

The output has the same format for both Data Center/Server and Cloud mode.

### Example Command 1

This command grants 1 user and 1 group to read and modify all spaces.

java -jar ConfluenceSpacePermission.jar -d -s http -h localhost:8090 -u admin -w admin -k % -p VIEWSPACE EDITSPACE -au admin -ag confluence-users

### Example Output 1

Wildcard space found, all spaces will be processed

Space found: HOME

Space found: UTS

Added Target: admin Permission: VIEWSPACE Space: HOME

Added Target: confluence-users Permission: VIEWSPACE Space: HOME

Added Target: admin Permission: EDITSPACE Space: HOME

Added Target: confluence-users Permission: EDITSPACE Space: HOME

Added Target: admin Permission: VIEWSPACE Space: UTS

Added Target: confluence-users Permission: VIEWSPACE Space: UTS

Added Target: admin Permission: EDITSPACE Space: UTS

Added Target: confluence-users Permission: EDITSPACE Space: UTS

Success/total: 8/8

### Example Command 2

This command undos example command 1.

java -jar ConfluenceSpacePermission.jar -d -s http -h localhost:8090 -u admin -w admin -k % -p VIEWSPACE EDITSPACE -ru admin -rg confluence-users

### Example Output 2

Wildcard space found, all spaces will be processed

Space found: HOME

Space found: UTS

Removed Target: admin Permission: VIEWSPACE Space: HOME

Removed Target: confluence-users Permission: VIEWSPACE Space: HOME

Removed Target: admin Permission: EDITSPACE Space: HOME

Removed Target: confluence-users Permission: EDITSPACE Space: HOME

Removed Target: admin Permission: VIEWSPACE Space: UTS

Removed Target: confluence-users Permission: VIEWSPACE Space: UTS

Removed Target: admin Permission: EDITSPACE Space: UTS

Removed Target: confluence-users Permission: EDITSPACE Space: UTS

Success/total: 8/8

### Example Error Output

Wildcard space found, all spaces will be processed

Space found: UTS = 18546688

Space found: HOME = 16318464

Failed to add Target: 62a037af954f50006fcbfef6 Permission: space:read Space: UTS: 403 {"statusCode":403,"data":{"authorized":false,"valid":false,"errors":[{"message":{"translation":"User isn't authorized to modify permissions.","args":[]}}],"successful":false},"message":"com.atlassian.confluence.api.service.exceptions.PermissionException: User isn't authorized to modify permissions."}

Failed to add Target: 62a037af954f50006fcbfef6 Permission: space:read Space: HOME: 403 {"statusCode":403,"data":{"authorized":false,"valid":false,"errors":[{"message":{"translation":"User isn't authorized to modify permissions.","args":[]}}],"successful":false},"message":"com.atlassian.confluence.api.service.exceptions.PermissionException: User isn't authorized to modify permissions."}

Success/total: 0/2