# REST API for Ruby Configuration Guide

# and User Management Script User Instructions

## Introduction

The Rally REST API tool is built on a Ruby interface to the Rally REST web service API. This set of scripts are *not officially supported* and are *used at your own risk.*

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### Installing Ruby on Windows

Install the Ruby 1.9.3 Runtime Environment: <http://rubyinstaller.org/downloads/>

1. During installation, please make sure to add the Ruby executable to your Path:



1. Open a command prompt window and go to the ruby directory that was created. In this example, Ruby was installed into C:\Ruby193:
   1. Click on your “Start” button, then enter cmd into the search dialog and hit Enter.



1. The Command prompt window appears. Navigate to where you installed Ruby:



1. Install the rally\_api gem. This will also install its dependent gems. ***Requires rally\_api 0.9.1 or higher:*** gem install rally\_api.



1. When finished, you can verify all RubyGems installed by typing “**gem list –l”:**

### Configuring a Proxy Server

1. If your company is behind a firewall or a proxy server, you may need to take additional steps in order to run Rally ruby scripting tools. To access the internet via a proxy-server using Windows, go to:  
     
    Start -> Computer (Right Click) -> Properties:



1. Advanced System Settings:



1. Environment Variables:  
     
   
2. Use the New button to create a new environment variable:



1. Create the following environment variables:  
   * HTTP\_PROXY
   * HTTPS\_PROXY
   * FTP\_PROXY

The value for each of the 3 variables is *usually* the same and of the general format: <http://[name:password@]ipaddress:port/>

1. Create HTTP\_PROXY as an example:





In this example you entered:

Variable name: HTTP\_PROXY

Variable value: <https://username:password@10.32.12.20:8080>

The actual values of username, password, and the proxy server address:port (10.32.12.20:8080) are going to vary according to your environment. You may need to check with your IT department concerning the appropriate information.

1. Completed Environment Variable Entry:



1. Note that you will have to open a ***New Command Prompt window*** after creating any environment variables in order for them to take effect in the Command prompt.

### User Management Tool: Create New Users and Assign Workspace and Project Permissions

1. Using your preferred Git client, clone the following GIT repo:  
     
   <https://github.com/RallyTools/Rally-User-Management>
2. Configure the login parameters for my\_vars.rb to match yours. Note that to properly manage user permissions, the Rally User ID of the individual running the scripts should be a Subscription Administrator within Rally:

$my\_username = 'user@company.com'

$my\_password = 'topsecret'

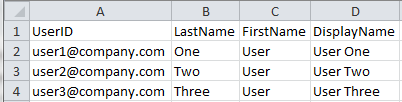
$my\_base\_url = "https://rally1.rallydev.com/slm"

#API Version

$wsapi\_version = "1.40"

1. Scripts used:   
   * user\_permissions\_template\_generator.rb
   * user\_permissions\_uploader.rb
2. Prepare a four-column, *tab-delimited* text file containing a list of New Users you wish to Create/Assign Permissions to. There is a template New User file called new\_user\_list\_template.txt to get you started. The file should contain the following information:

* UserName: user1@company.com
* LastName: One
* FirstName: User
* DisplayName: User One



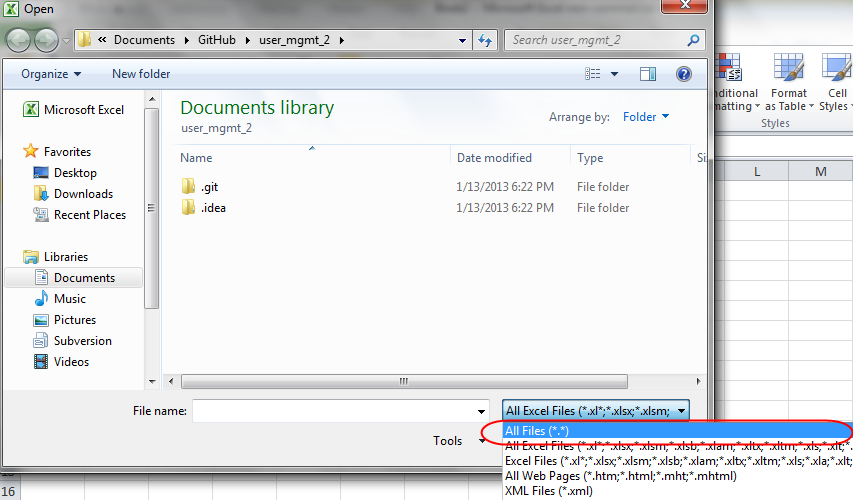
1. Find the user\_permissions\_template\_generator.rb script. This script will use the list of New Users to prepare a *tab-delimited text template file of UserPermissions* that is editable in Excel. The output file is called user\_permissions\_loader\_template.txt by default.
2. Run the script.

C:\> ruby user\_permissions\_template\_generator.rb new\_user\_list\_template.txt

Connecting to Rally: https://rally1.rallydev.com/slm as sample.admin@rallydev.com...

Querying Workspace/Projects and caching results...

Permission upload template written to user\_permissions\_loader\_template.txt.

1. Open the user\_permissions\_loader\_template.txt in Excel. Since it is a *tab-delimited text file*, you’ll need to start Excel first.
2. File -> Open and navigate to and open user\_permissions\_loader\_template.txt
3. Note that in order to show .txt files within the File -> Open dialog, you’ll need to adjust the Filetype Filter from “Excel Files” to “All Files”.  
     
   
4. This will start an import Wizard. You can just click the “Finish” button to accept all defaults and open the file:



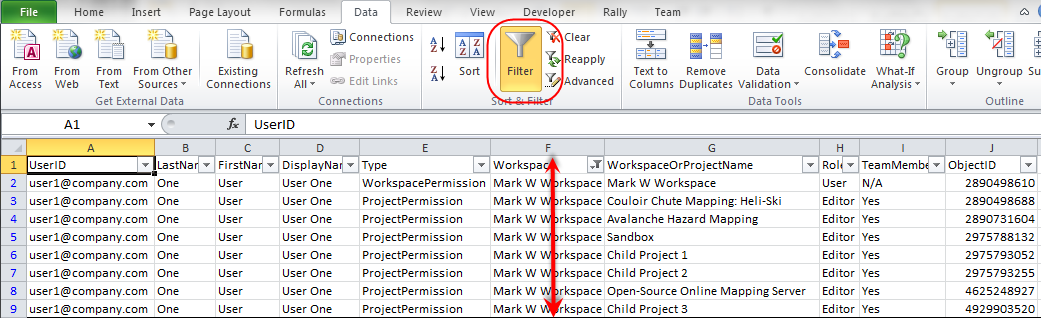
1. Here’s what the file should look like in Excel.

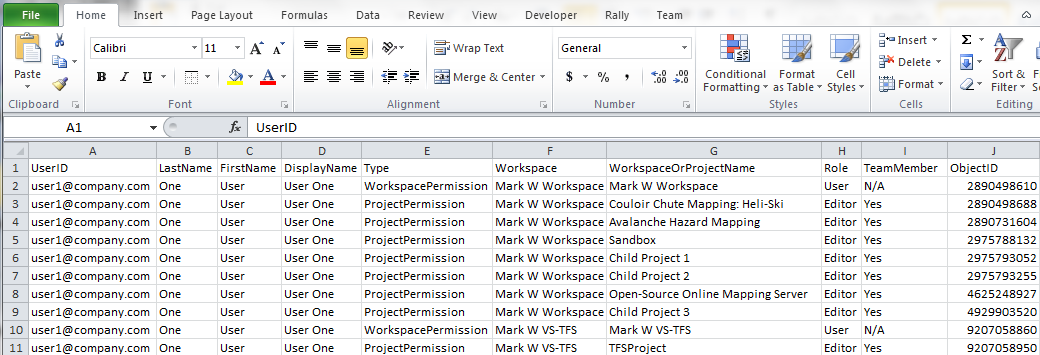


As a Template, this worksheet is intended to provide a Workspace/Project permissions framework from which to build your own worksheet of Permissions to assign when creating new users.

1. The fields within the file are described as follows:

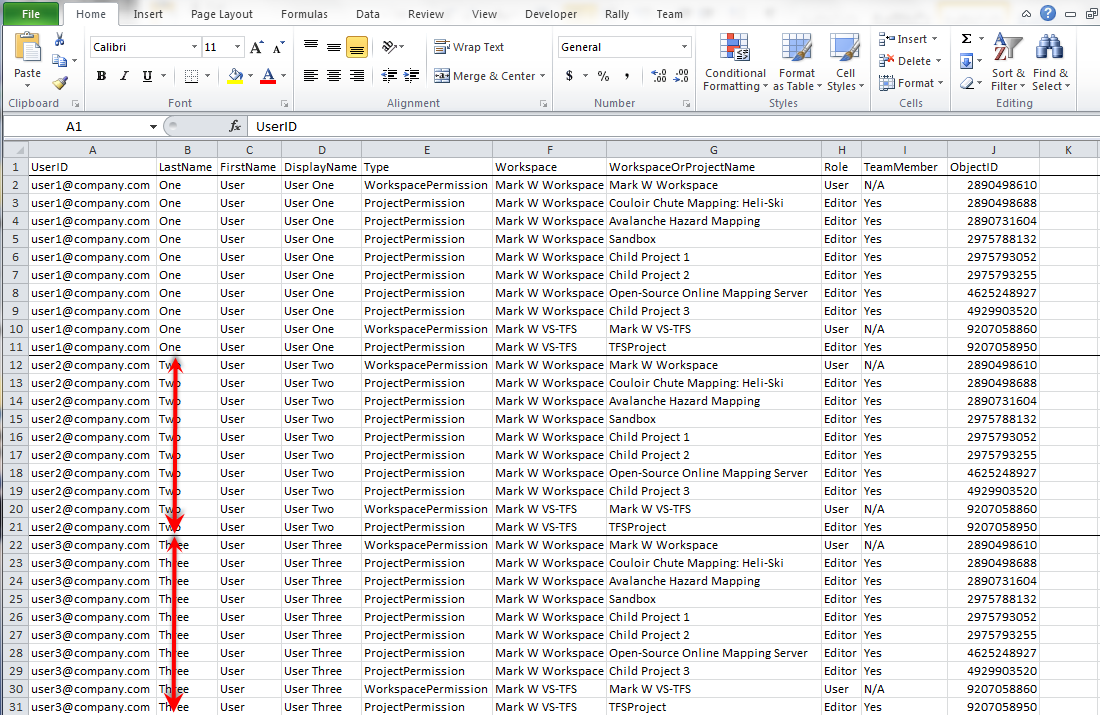
* **UserID:** This is the UserID / email address for the User you wish to create in Rally
* **LastName:** The new User’s Last Name
* **FirstName:** The new User’s First Name
* **DisplayName:** The new User’s Display Name within Rally
* **Type:** This field has two possible values:
  + WorkspacePermission: Designates that this row assigns to the User a Workspace-level permission
  + ProjectPermission: Designates that this row assigns to the User a Project-level permission
* **Workspace:** The Workspace within which this WorkspacePermission or ProjectPermission resides. Note that for WorkspacePermssions this is redundant with the WorkspaceOrProjectName field, however, it is repeated down through both Workspace and ProjectPermissions in order to make Workspace-level filtering easy in Excel:





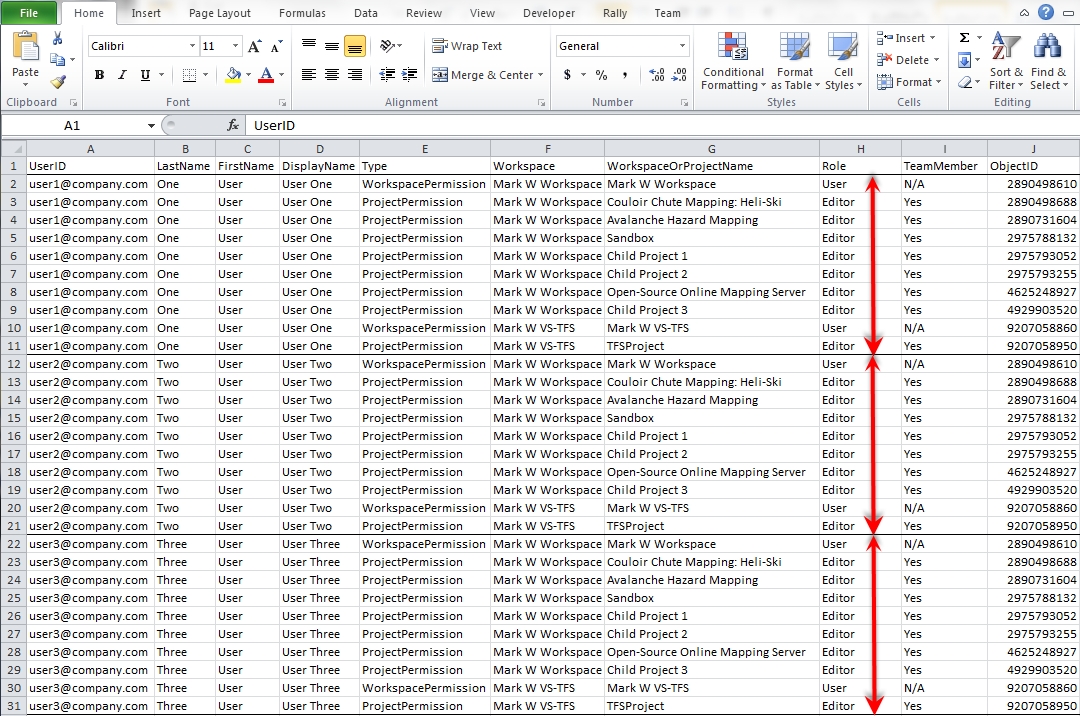
* **WorkspaceOrProjectName:** The Workspace or Project to which the **WorkspacePermission** or **ProjectPermission** will apply.
* **Role:** The Permission level being created for this **WorkspacePermission** or **ProjectPermission**
  + Valid **WorkspacePermission** Roles:
    - Administrator
    - User
    - No Access
  + Valid **ProjectPermission** Roles:
    - Editor
    - Viewer
    - No Access
* **TeamMember:** Whether or not the User is a Team Member for this Project (applicable to Projects only)
* **ObjectID:** The ObjectID of the Workspace or Project within which the Permission grant is to occur. The ruby scripts do all lookups against ObjectID to avoid issues with duplicate Workspace or Project Names (allowed within Rally), as well as to avoid issues with special characters in these Names.

1. Now that the meanings of these fields are clear, you may start using the template to build your User Creation / Permissions assignment spreadsheet.
2. First, verify that there is a block of UserPermissions in the Template file for each New User you specified for creation in the new\_user\_list\_template.txt file.



In the example, you can see that the Permission template block has been replicated by the template generator to create blocks for a total of three users, and the Rally UserID’s and Names have been updated to user2@company.com, User Two, and user3@company.com, User Three, respectively. The underlines have been added for visual clarity to clearly show where each user starts and ends.

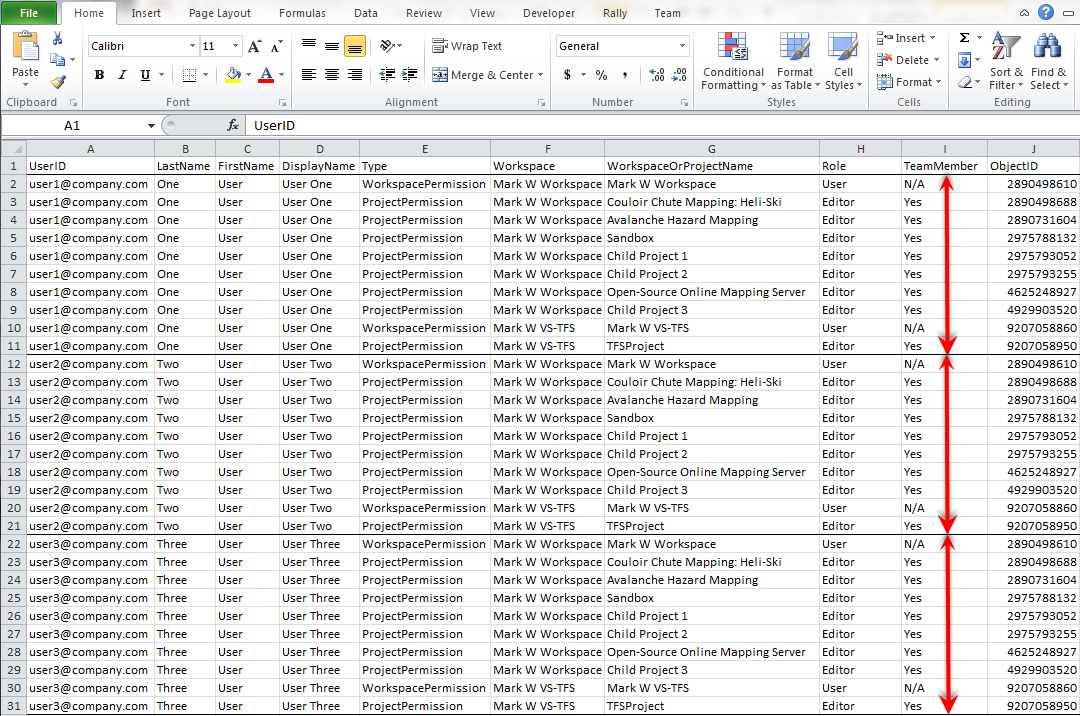
1. Now adjust the Role column to match the permissions desired for each user within the Workspace/Project of interest:



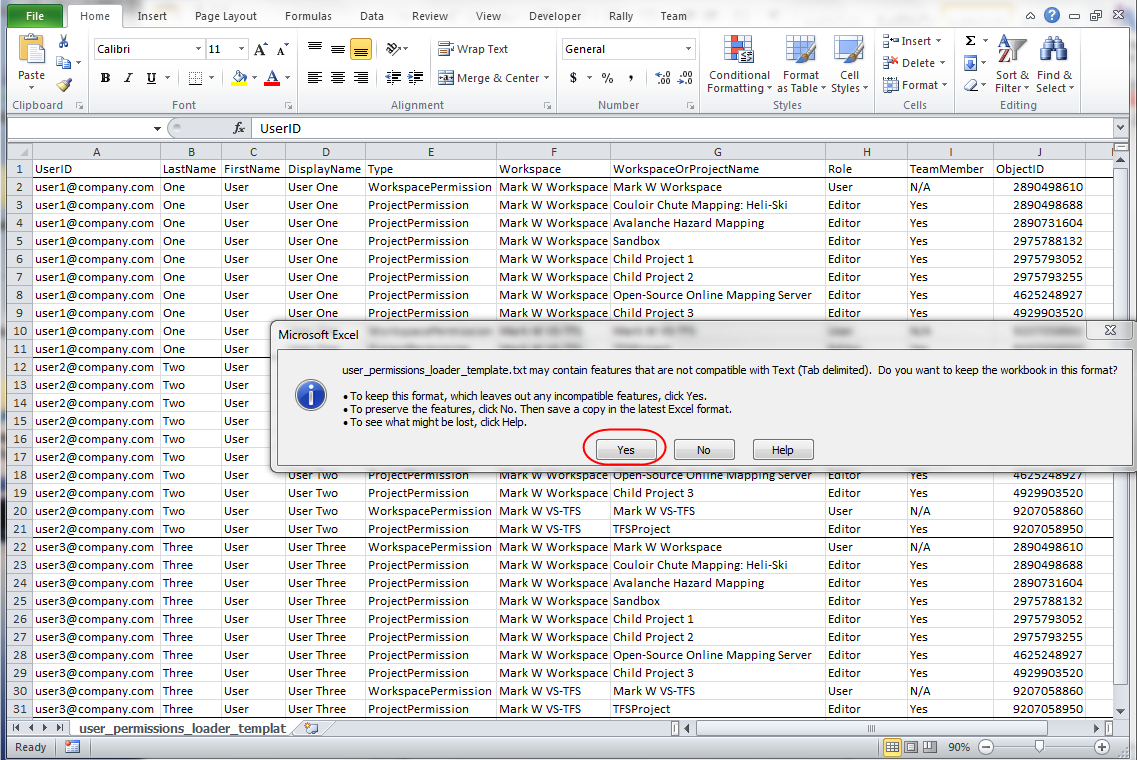
Important Usage Notes:

* *Spelling:* Make sure to use the *exact* spellings for the allowed Role definitions, repeated here:
  + Valid **WorkspacePermission** Roles:
    - Administrator
    - User
    - No Access
  + Valid **ProjectPermission** Roles:
    - Editor
    - Viewer
    - No Access
* *Order Matters:* Leave the **WorkspacePermission** and **ProjectPermission** rows *in the same order* as they were found in the template. When creating new users, the script goes in order of the rows in the worksheet. **WorkspacePermissions** must exist and be created before **ProjectPermissions** within that Workspace can be created.

1. Adjust the Team Membership Column to match the desired Team Membership status for the Project(s) of interest



1. Once you’ve completed making the Role and Team Membership assignments that you desire, save the worksheet. Excel will prompt you regarding preservation of formatting, etc. since you are saving a *Tab-Delimited Text* worksheet. Click “Yes” to Save as Tab-Delimited text:



***Important:*** Make *sure* to use Tab-Delimited text, *not* CSV, *not* XLSX or XLS. The loader script expects and processes only Tab-Delimited files.

1. Now you’re ready to run the uploader script to Create Users and Assign them your desired WorkspacePermissions and ProjectPermissions:

C:\> ruby user\_permissions\_loader.rb user\_permissions\_loader\_template.txt

I, [2013-02-03T23:14:41.675636 #4784] INFO -- : Connecting to https://rally1.rallydev.com/slm as sample.admin@rallydev.com...

I, [2013-02-03T23:14:41.676636 #4784] INFO -- : Instantiating User Helper...

I, [2013-02-03T23:14:41.676636 #4784] INFO -- : Caching workspaces and projects...

I, [2013-02-03T23:14:42.230668 #4784] INFO -- : This subscription has: 2 workspaces.

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Workspace: Mark W Workspace.

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Workspace: Mark W Workspace has: 7 open projects.

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Project: Couloir Chute Mapping: Heli-Ski

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Project: Avalanche Hazard Mapping

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Project: Sandbox

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Project: Child Project 1

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Project: Child Project 2

I, [2013-02-03T23:14:42.321673 #4784] INFO -- : Caching Project: Open-Source Online Mapping Server

I, [2013-02-03T23:14:42.322673 #4784] INFO -- : Caching Project: Child Project 3

I, [2013-02-03T23:14:42.414678 #4784] INFO -- : Caching Workspace: Mark W VS-TFS.

I, [2013-02-03T23:14:42.414678 #4784] INFO -- : Workspace: Mark W VS-TFS has: 1 open projects.

I, [2013-02-03T23:14:42.414678 #4784] INFO -- : Caching Project: TFSProject

I, [2013-02-03T23:14:42.415678 #4784] INFO -- : Caching user list...

I, [2013-02-03T23:14:44.363790 #4784] INFO -- : Cached 25 of 269 users

I, [2013-02-03T23:14:44.364790 #4784] INFO -- : Cached 50 of 269 users

I, [2013-02-03T23:14:44.364790 #4784] INFO -- : Cached 75 of 269 users

I, [2013-02-03T23:14:44.364790 #4784] INFO -- : Cached 100 of 269 users

I, [2013-02-03T23:14:44.365790 #4784] INFO -- : Cached 125 of 269 users

I, [2013-02-03T23:14:44.365790 #4784] INFO -- : Cached 150 of 269 users

I, [2013-02-03T23:14:44.365790 #4784] INFO -- : Cached 175 of 269 users

I, [2013-02-03T23:14:44.366790 #4784] INFO -- : Cached 200 of 269 users

I, [2013-02-03T23:14:44.366790 #4784] INFO -- : Cached 225 of 269 users

I, [2013-02-03T23:14:44.366790 #4784] INFO -- : Cached 250 of 269 users

I, [2013-02-03T23:14:44.463796 #4784] INFO -- : User user1@company.com does not yet exist. Creating...

I, [2013-02-03T23:14:44.928822 #4784] INFO -- : Created Rally user user1@company.com

I, [2013-02-03T23:14:45.016827 #4784] INFO -- : user1@company.com Mark W Workspace - Permission set to User

I, [2013-02-03T23:14:45.222839 #4784] INFO -- : user1@company.com Couloir Chute Mapping: Heli-Ski - Permission set to Editor

I, [2013-02-03T23:14:45.476853 #4784] INFO -- : user1@company.com Couloir Chute Mapping: Heli-Ski - No changes to Team Membership

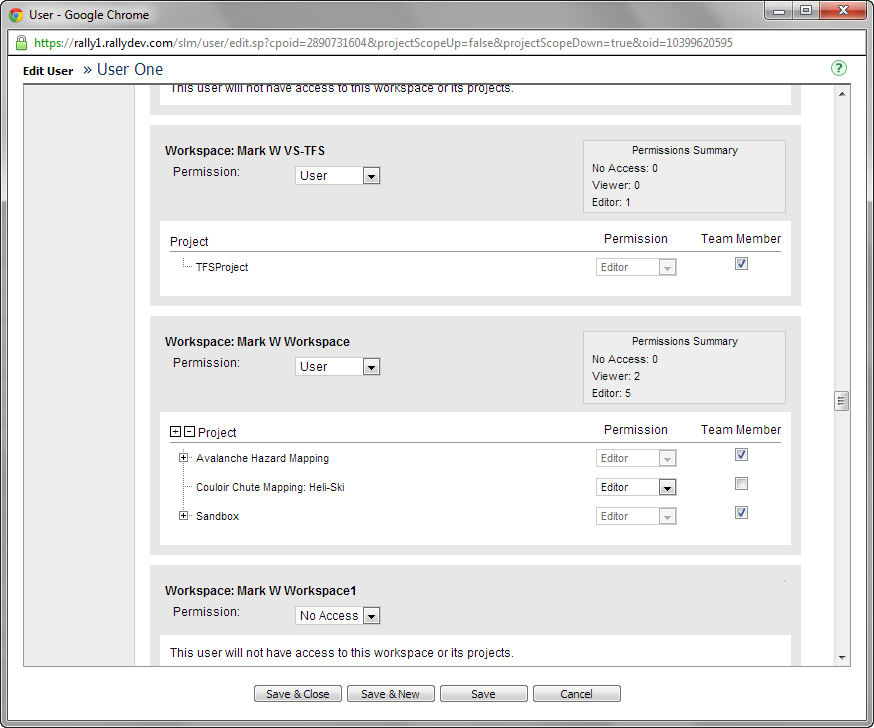
I, [2013-02-03T23:14:45.477854 #4784] INFO -- : user1@company.com Avalanche Hazard Mapping - Permission set to Editor

I, [2013-02-03T23:14:45.885877 #4784] INFO -- : user1@company.com Avalanche Hazard Mapping - Team Membership set to Yes

I, [2013-02-03T23:14:45.886877 #4784] INFO -- : user1@company.com Sandbox - Permission set to Editor

I, [2013-02-03T23:14:46.317902 #4784] INFO -- : user1@company.com Sandbox - Team Membership set to Yes

1. Check the Users in Rally and verify the appropriate Permissions and Team Memberships:





1. You can see that the Permissions assigned in your bulk upload match the ones in the tool! This can save a lot of clicking when creating new users.

### User Management Tool: Updating User Permissions

1. Scripts used:  
   * user\_permissions\_summary.rb
   * user\_permissions\_uploader.rb
2. Find the user\_permissions\_uploader.rb script. This script will prepare a *tab-delimited text file* that is editable in Excel. The output file is called user\_permissions\_summary.txt by default.
3. Run the script:

C:\> ruby user\_permissions\_summary.rb

Connecting to Rally: https://rally1.rallydev.com/slm as sample.admin@rallydev.com...

Querying users...

Found 266 users.

Summarizing users and writing permission summary output file...

Processed 25 of 266 users

Processed 50 of 266 users

Processed 75 of 266 users

Processed 100 of 266 users

Processed 125 of 266 users

Processed 150 of 266 users

Processed 175 of 266 users

Processed 200 of 266 users

Processed 225 of 266 users

Processed 250 of 266 users

Done! Permission summary written to user\_permissions\_summary.txt.

1. Open the file in Excel. Since it is a *tab-delimited text file*, you’ll need to start Excel first.
2. File -> Open and navigate to and open user\_permissions\_summary.txt
3. This will start an import Wizard. You can just click the “Finish” button to accept all defaults and open the file:  
     
   
4. Here’s what the file should look like in Excel.

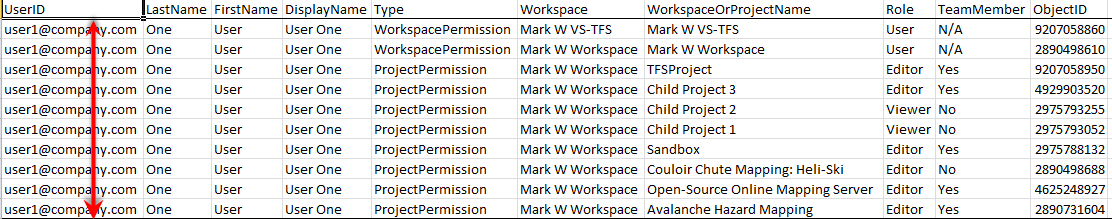


The file contains a summary of all User Permissions assigned to users within the Workspaces of interest.

***Note:*** If a User has No Access within a particular Workspace or Project, there is *No Permission Summary Row* shown within the summary output file. This is because the summary script enumerates UserPermission attributes on the User object within Rally, and if a User does not have access to a particular Workspace or Project, no {Workspace,Project}Permission attribute is present in the collection of UserPermissions for a User.

If you see “N/A” entries within this file, the User of concern is a Subscription or Workspace Administrator, for whom the collection of UserPermissions is empty by default in Rally.

1. To update permissions for User 1, you may wish to filter for just that user in Excel, and copy the permissions for that user to a blank Worksheet.



1. Now, adjust the Role and/or Team Member columns as appropriate to change the desired permissions:



1. There’s no need to change or delete rows for which Permissions are not changing. When uploading updated Permissions, the user management scripts automatically check to see if a permission is changed in the file relative to Rally. If no change has been made, the scripts skip the entry and do not make any update to that particular Permission structure in Rally.
2. Once you’ve completed updating the Role assignments that you desire, save the worksheet. Excel will prompt you regarding preservation of formatting, etc. since you are saving a *Tab-Delimited Text* worksheet. Click “Yes” to Save as Tab-Delimited text.
3. Now you’re ready to run the uploader script to Update UserPermissions with your desired WorkspacePermissions and ProjectPermissions:

C:\> ruby user\_permissions\_loader.rb user\_permissions\_summary.txt

I, [2013-02-03T23:27:30.171591 #7092] INFO -- : Connecting to https://rally1.rallydev.com/slm as sample.admin@rallydev.com...

I, [2013-02-03T23:27:30.172592 #7092] INFO -- : Instantiating User Helper...

I, [2013-02-03T23:27:30.172592 #7092] INFO -- : Caching workspaces and projects...

I, [2013-02-03T23:27:30.817628 #7092] INFO -- : This subscription has: 2 workspaces.

I, [2013-02-03T23:27:30.905633 #7092] INFO -- : Caching Workspace: Mark W Workspace.

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Workspace: Mark W Workspace has: 7 open projects.

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Couloir Chute Mapping: Heli-Ski

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Avalanche Hazard Mapping

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Sandbox

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Child Project 1

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Child Project 2

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Open-Source Online Mapping Server

I, [2013-02-03T23:27:30.906634 #7092] INFO -- : Caching Project: Child Project 3

I, [2013-02-03T23:27:30.997639 #7092] INFO -- : Caching Workspace: Mark W VS-TFS.

I, [2013-02-03T23:27:30.997639 #7092] INFO -- : Workspace: Mark W VS-TFS has: 1 open projects.

I, [2013-02-03T23:27:30.997639 #7092] INFO -- : Caching Project: TFSProject

I, [2013-02-03T23:27:30.998639 #7092] INFO -- : Caching user list...

I, [2013-02-03T23:27:33.096759 #7092] INFO -- : Cached 25 of 272 users

I, [2013-02-03T23:27:33.096759 #7092] INFO -- : Cached 50 of 272 users

I, [2013-02-03T23:27:33.096759 #7092] INFO -- : Cached 75 of 272 users

I, [2013-02-03T23:27:33.097759 #7092] INFO -- : Cached 100 of 272 users

I, [2013-02-03T23:27:33.097759 #7092] INFO -- : Cached 125 of 272 users

I, [2013-02-03T23:27:33.097759 #7092] INFO -- : Cached 150 of 272 users

I, [2013-02-03T23:27:33.098759 #7092] INFO -- : Cached 175 of 272 users

I, [2013-02-03T23:27:33.098759 #7092] INFO -- : Cached 200 of 272 users

I, [2013-02-03T23:27:33.098759 #7092] INFO -- : Cached 225 of 272 users

I, [2013-02-03T23:27:33.099759 #7092] INFO -- : Cached 250 of 272 users

I, [2013-02-03T23:27:33.103759 #7092] INFO -- : user1@company.com Mark W VS-TFS - No permission updates

I, [2013-02-03T23:27:33.103759 #7092] INFO -- : user1@company.com Mark W Workspace - No permission updates

I, [2013-02-03T23:27:33.103759 #7092] INFO -- : user1@company.com TFSProject - No permission updates

I, [2013-02-03T23:27:33.103759 #7092] INFO -- : user1@company.com TFSProject - No changes to Team Membership

I, [2013-02-03T23:27:33.103759 #7092] INFO -- : user1@company.com Child Project 3 - No permission updates

I, [2013-02-03T23:27:33.104759 #7092] INFO -- : user1@company.com Child Project 3 - No changes to Team Membership

I, [2013-02-03T23:27:33.104759 #7092] INFO -- : user1@company.com Child Project 2 - Permission set to No Access

I, [2013-02-03T23:27:33.321772 #7092] INFO -- : user1@company.com Child Project 2 - No changes to Team Membership

I, [2013-02-03T23:27:33.322772 #7092] INFO -- : user1@company.com Child Project 1 - Permission set to No Access

I, [2013-02-03T23:27:33.539784 #7092] INFO -- : user1@company.com Child Project 1 - No changes to Team Membership

I, [2013-02-03T23:27:33.539784 #7092] INFO -- : user1@company.com Sandbox - No permission updates

I, [2013-02-03T23:27:33.540784 #7092] INFO -- : user1@company.com Sandbox - No changes to Team Membership

I, [2013-02-03T23:27:33.541784 #7092] INFO -- : user1@company.com Couloir Chute Mapping: Heli-Ski - No permission updates

I, [2013-02-03T23:27:33.541784 #7092] INFO -- : user1@company.com Couloir Chute Mapping: Heli-Ski - No changes to Team Membership

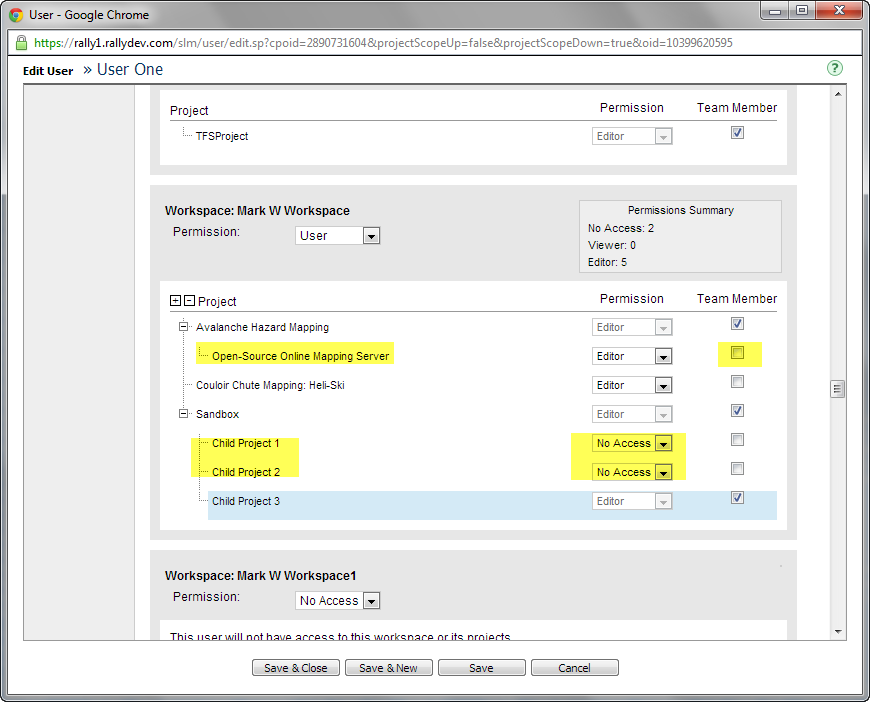
I, [2013-02-03T23:27:33.541784 #7092] INFO -- : user1@company.com Open-Source Online Mapping Server - No permission updates

I, [2013-02-03T23:27:34.290827 #7092] INFO -- : user1@company.com Open-Source Online Mapping Server - Team Membership set to No

I, [2013-02-03T23:27:34.291827 #7092] INFO -- : user1@company.com Avalanche Hazard Mapping - No permission updates

I, [2013-02-03T23:27:34.291827 #7092] INFO -- : user1@company.com Avalanche Hazard Mapping - No changes to Team Membership

1. Check the Users in Rally and verify the Appropriate permissions:





### User Management Tool: Bulk Enable or Disable Users

1. During routine User maintenance, it may be desirable to bulk disable or enable Users. For instance, a bulk disable procedure may be desired in order to free up Rally seats by disabling Users who infrequently use the tool.
2. Scripts used:  
   * 1. enable\_or\_disable\_users.rb
3. Find the enable\_or\_disable\_users.rb script.
4. Prepare a simple “one-column” Text file containing a list of the Rally UserID’s you wish to Enable or Disable:

user\_list.txt:  
==================  
  
UserID  
user2@company.com  
user3@company.com

1. Make sure to leave the first row column header “UserID” intact – the script automatically skips the first row.
2. Execute the script, providing an argument specifying whether you wish to enable or disable the users in the file:

C:\> ruby enable\_or\_disable\_users.rb **user\_list.txt** **disable**

Rally user user2@company.com successfully disabled.

Rally user user3@company.com successfully disabled.

1. Enabling Users is exactly analogous, except using the **enable** flag:  
     
   C:\> ruby enable\_or\_disable\_users.rb **user\_list.txt** **enable**

Rally user user2@company.com successfully enabled.

Rally user user3@company.com successfully enabled.

### User Management Tool: Bulk Change Usernames and Email Addresses

1. Scripts used:  
   * change\_usernames.rb
2. Create your user mapping file. It must be a plain text CSV file with the following format:

Existing Username/Email, New Username/Email

aragorn@midearth.com, aragorn@gondor.com

boromir@midearth.com, boromir@gondor.com

1. There is a sample template file called change\_usernames\_template.csv in the user management directory.
2. The script will update *both* Username and Email address from the value in the first column, to the value in the second column. If the script lookup against Rally for the Existing Username in the first column fails to find the user of interest, it will skip that row and move on.
3. Using a text editor, customize the code parameters in the my\_vars.rb file for your environment. ***Note:***The credentials used in this script must belong to a Subscription Administrator in order to have the appropriate level of permissions to make these changes.

my\_vars.rb:

===========

$my\_username = 'user@company.com'

$my\_password = 'topsecret'

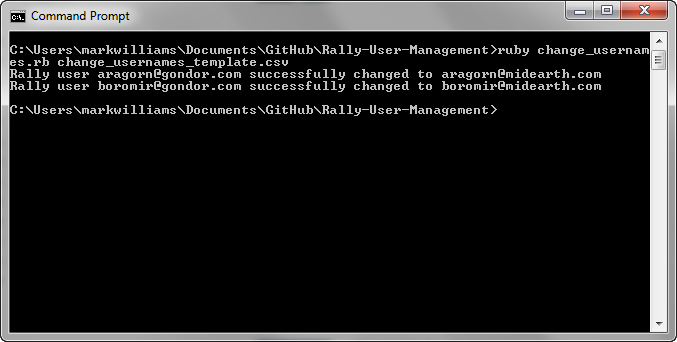
$my\_base\_url = "https://rally1.rallydev.com/slm"

#API Version

$wsapi\_version = "1.41"

1. Run the script.

ruby change\_usernames.rb change\_usernames.csv



***Please Note:*** This will update the username for ALL USERS listed in the users\_update.csv file. Please be CAUTIOUS WHEN USING THIS SCRIPT.

### User Management Tool: LDAP user load script for Rally On-Premise

1. During setup of Rally On-Premise LDAP feature, you may need to update all existing users in your Rally subscription with the corresponding “Onprem Ldap Username”.
2. Scripts used:  
   * 1. ldap\_user\_load\_script.rb
3. Find the ldap\_user\_load\_script.rb script.
4. Use a text editor to edit the scprit above to match your own Rally On-Premise settings:

rally\_url = <https://10.32.16.78/slm> (*Enter the IP address/hostname of your own server*)

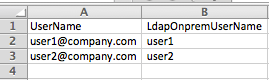
rally\_user = [test@rallydev.com](mailto:test@rallydev.com) (*Enter credentials for a Rally Subscription Administrator*)

rally\_password = "treblid!"

rally\_ws\_version = "1.33"(*Modify the WSAPI version if desired*)

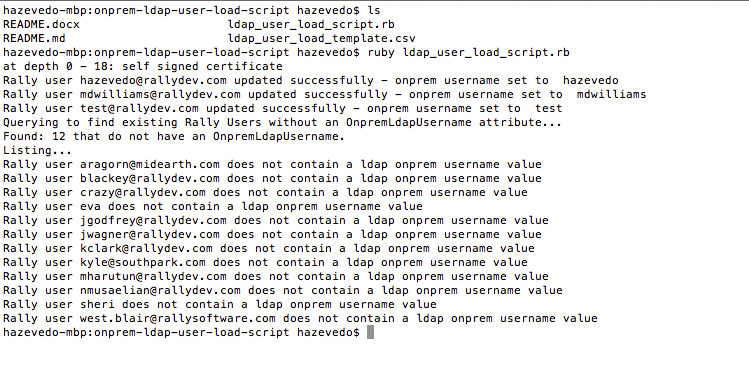
filename = 'ldap\_user\_load\_template.csv' (*Edit to match the filename of your .csv*)

1. Prepare a two-column, *tab-delimited* text file containing a list of values for the fields UserName and LdapOnpremUserName. There is a template file called ldap\_user\_load\_template.csv to get you started. The name of this file needs to match the “filename” variable as seen on step 4.The file should contain the following information:



1. Run the script with the following command:

$ ruby ldap\_user\_load\_script.rb



1. As seen in the screen capture above the script will output the users that have been updated successfully and the users that do not contain a value in the Ldap Onprem Username field.
2. If the LDAP feature has been enabled in the Control Panel, try the login using one of the Onprem Ldap Usernames created.