

# 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.

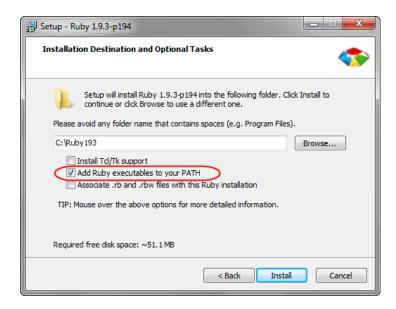
# **Contents**

RES	EST API FOR RUBY CONFIGURATION GUIDE							
AN	ND USER MANAGEMENT SCRIPT USER INSTRUCTIONS	1						
INT	TRODUCTION	1						
l.	Installing Ruby on Windows	1						
II.	Configuring a Proxy Server	4						
III.	USER MANAGEMENT TOOL: CREATE NEW USERS AND ASSIGN WORKSPACE AND PROJECT PERMISSIONS	8						
IV.	. USER MANAGEMENT TOOL: UPDATING USER PERMISSIONS	16						
V.	USER MANAGEMENT TOOL: BULK ENABLE OR DISABLE USERS	21						

## I. Installing Ruby on Windows

Install the Ruby 1.9.3 Runtime Environment: <a href="http://rubyinstaller.org/downloads/">http://rubyinstaller.org/downloads/</a>

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





2. Open a command prompt window and go to the ruby directory that was created. In this example, Ruby was installed into C:\Ruby193:



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

```
C:\Windows\system32\cmd.exe

Microsoft Windows [Version 6.1.7601]

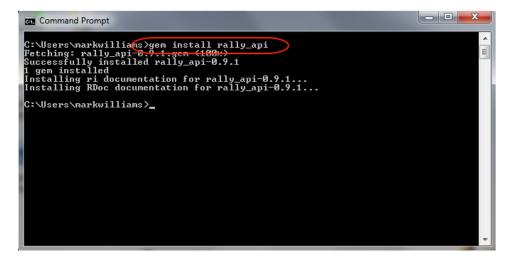
Gopyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\markwilliams\cd \Ruby193

C:\Ruby193
```



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



5. When finished, you can verify all RubyGems installed by typing "gem list -1":

```
C:\Users\markwilliams\gem list --local

*** LOCAL GEMS ***

bigdecimal (1.1.0)

httpclient (2.3.2)

io-console (0.3)

mime-types (1.19)

minitest (2.5.1)

pik (0.2.8)

rake (10.0.3)

rally_api (0.9.1)

rest-client (1.6.7)

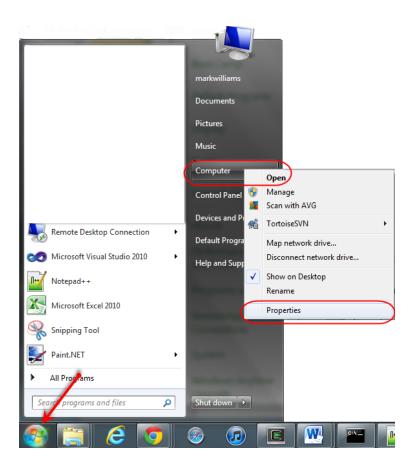
C:\Users\markwilliams\
```



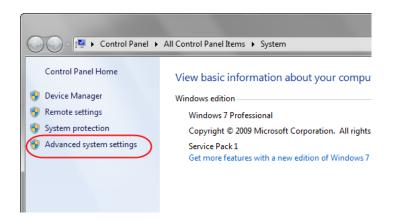
## II. Configuring a Proxy Server

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:

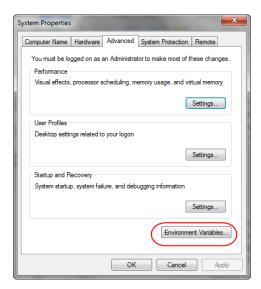


2. Advanced System Settings:

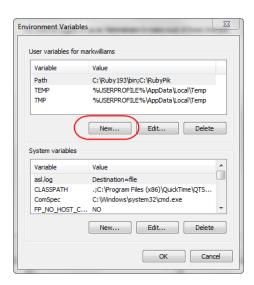




#### 3. Environment Variables:



4. Use the New button to create a new environment variable:

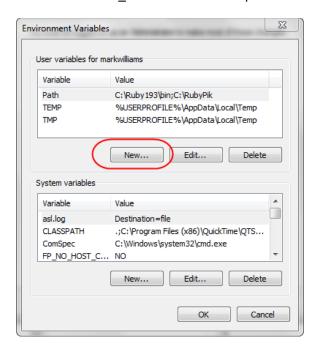


- 5. Create the following environment variables:
  - HTTP\_PROXY
  - HTTPS\_PROXY
  - FTP\_PROXY

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



## 6. Create HTTP\_PROXY as an example:





In this example you entered:

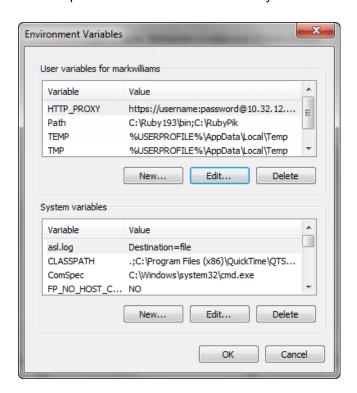
Variable name: HTTP\_PROXY

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.



7. Completed Environment Variable Entry:



8. 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.



## III. 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:

- 3. Scripts used:
  - user permissions template generator.rb
  - user\_permissions\_uploader.rb
- 4. 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: OneFirstName: User

DisplayName: User One

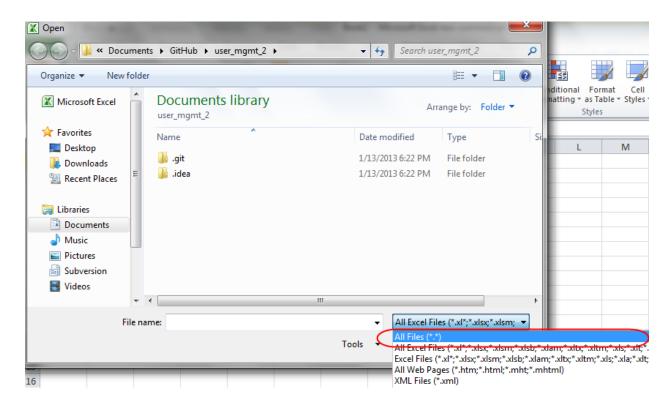
	А	В	С	D	
1	UserID	LastName	FirstName	DisplayName	
2	user1@company.com	One	User	User One	
3	user2@company.com	Two	User	User Two	
4	user3@company.com	Three	User	User Three	

- 5. 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.
- 6. Run the script.

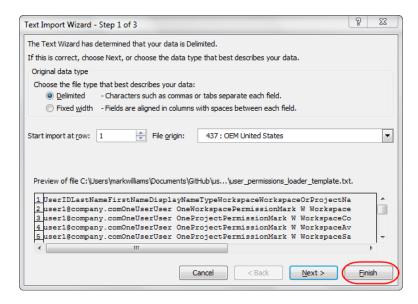
```
C:\> ruby user_permissions_template_generator.rb new_user_list_template.txt
Connecting to Rally: https://rally1.rallydev.com/slm as
sample.admin@rallydev.com...
Querying Workspace/Projects and caching results...
Permission upload template written to user_permissions_loader_template.txt.
```



- 7. Open the user\_permissions\_loader\_template.txt in Excel. Since it is a tab-delimited text file, you'll need to start Excel first.
- 8. File -> Open and navigate to and open user permissions loader template.txt
- 9. 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".

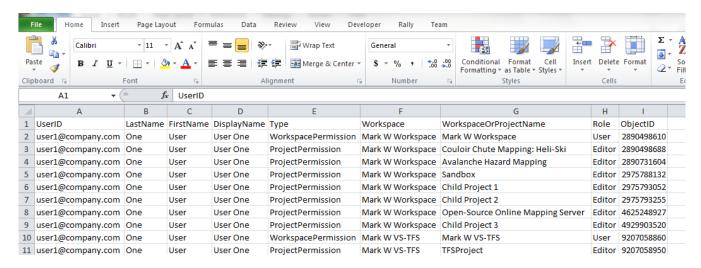


10. This will start an import Wizard. You can just click the "Finish" button to accept all defaults and open the file:



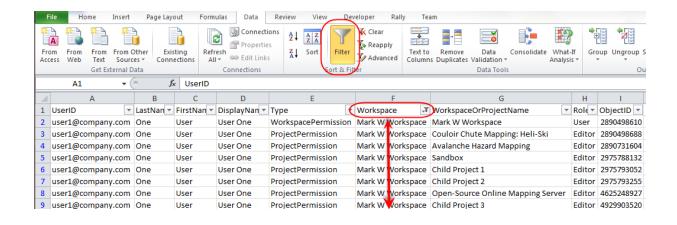


11. Here's what the file should look like in Excel.

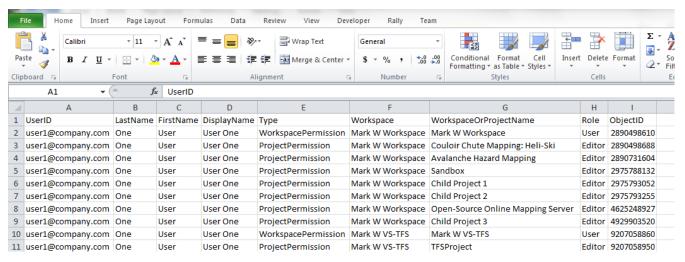


As a Template, this worksheet is intended to provide a Workspace/Project permissions framework from which to build your own worksheet of Permissions to assign when creating new users.

- 12. 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 WorkspacePermssiosn 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:



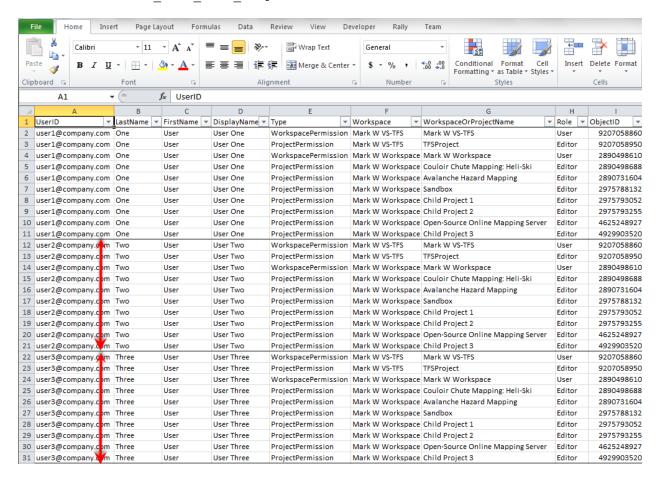




- WorkspaceOrProjectName: The Workspace or Project to which the WorkspacePermission or ProjectPermission will apply.
- Role: The Permission level being created for this WorkspacePermission or ProjectPermission
  - Valid WorkspacePermission Roles:
    - Administrator
    - User
    - No Access
  - o Valid ProjectPermission Roles:
    - Editor
    - Viewer
    - No Access
- **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.
- 13. Now that the meanings of these fields are clear, you may start using the template to build your User Creation / Permissions assignment spreadsheet.



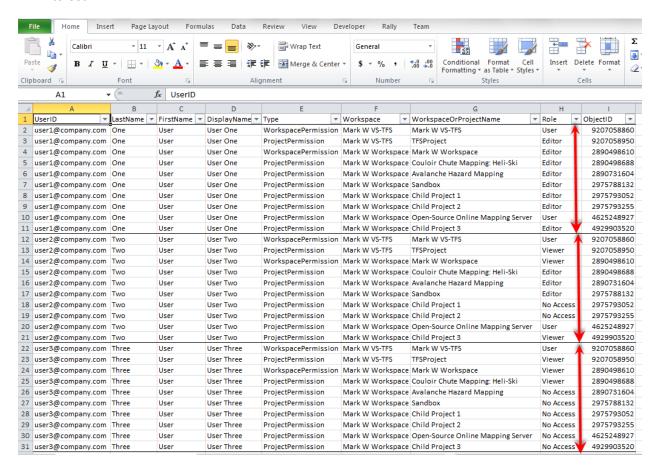
14. First, verify that there is a block of UserPermissions in the Template file for each New User you specified for creation in the new user list template.txt file.



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 UserlD'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.



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

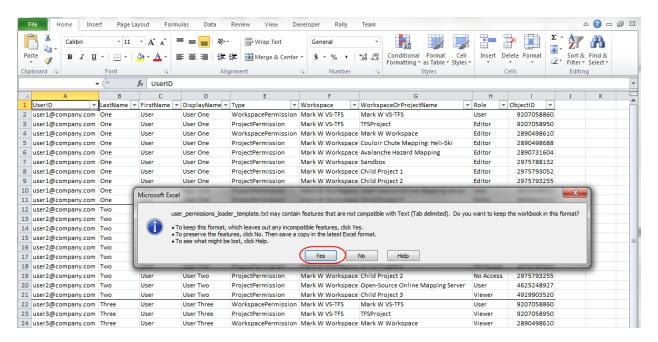


## Important Usage Notes:

- Spelling: Make sure to use the exact spellings for the allowed Role definitions, repeated here:
  - Valid WorkspacePermission Roles:
    - Administrator
    - User
    - No Access
  - o 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.



12. Once you've completed making 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:



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

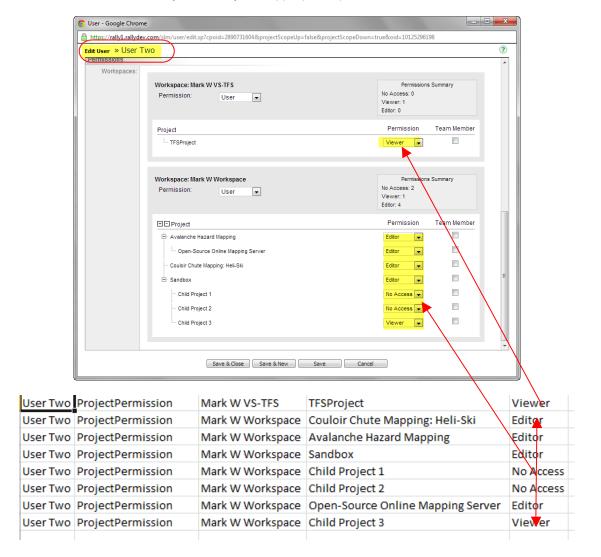
13. Now you're ready to run the uploader script to Create Users and Assign them your desired WorkspacePermissions and ProjectPermissions:

```
C:\> ruby user_permissions_loader.rb user_permissions_loader.txt
I, [2013-01-13T17:59:59.544734 #5556] INFO -- : Connecting to
https://rally1.rallydev.com/slm as sample.admin@rallydev.com...
I, [2013-01-13T18:00:00.516789 #5556] INFO -- : Instantiating User Helper...
I, [2013-01-13T18:00:00.517789 #5556] INFO --: Caching workspaces and projects...
I, [2013-01-13T18:00:00.806806 #5556] INFO --: This subscription has: 2 workspaces.
I, [2013-01-13T18:00:01.025818 #5556] INFO -- : Caching Workspace: Mark W Workspace.
I, [2013-01-13T18:00:01.025818 #5556] INFO --: Workspace: Mark W Workspace has: 7 open
projects.
I, [2013-01-13T18:00:01.025818 #5556]
                                      INFO -- : Caching Project: Couloir Chute Mapping:
Heli-Ski
I, [2013-01-13T18:00:01.025818 #5556]
                                      INFO -- : Caching Project: Avalanche Hazard Mapping
                                      INFO -- : Caching Project: Sandbox
I, [2013-01-13T18:00:01.025818 #5556]
                                      INFO -- : Caching Project: Child Project 1
I, [2013-01-13T18:00:01.026819 #5556]
I, [2013-01-13T18:00:01.026819 #5556]
                                      INFO -- : Caching Project: Child Project 2
I, [2013-01-13T18:00:01.026819 #5556] INFO -- : Caching Project: Open-Source Online Mapping
I, [2013-01-13T18:00:01.026819 #5556]
                                      INFO --: Caching Project: Child Project 3
I, [2013-01-13T18:00:01.186828 #5556] INFO -- : Caching Workspace: Mark W VS-TFS.
I, [2013-01-13T18:00:01.186828 #5556] INFO --: Workspace: Mark W VS-TFS has: 1 open
projects.
I, [2013-01-13T18:00:01.187828 #5556] INFO -- : Caching Project: TFSProject
I, [2013-01-13T18:00:01.187828 #5556] INFO -- : Caching user list...
                                      INFO --: Cached 25 of 263 users
I, [2013-01-13T18:00:02.621910 #5556]
  [2013-01-13T18:00:02.621910 #5556]
                                      INFO --: Cached 50 of 263 users
I, [2013-01-13T18:00:02.621910 #5556] INFO --: Cached 75 of 263 users
```



```
I, [2013-01-13T18:00:02.622910 #5556] INFO -- : Cached 100 of 263 users
I, [2013-01-13T18:00:02.622910 #5556] INFO -- : Cached 125 of 263 users
I, [2013-01-13T18:00:02.622910 #5556] INFO -- : Cached 150 of 263 users
I, [2013-01-13T18:00:02.622910 #5556] INFO -- : Cached 175 of 263 users
I, [2013-01-13T18:00:02.623910 #5556] INFO -- : Cached 200 of 263 users
I, [2013-01-13T18:00:02.623910 #5556] INFO -- : Cached 225 of 263 users
I, [2013-01-13T18:00:02.623910 #5556] INFO -- : Cached 250 of 263 users
I, [2013-01-13T18:00:02.757918 #5556] INFO -- : Cached 250 of 263 users
I, [2013-01-13T18:00:03.448957 #5556] INFO -- : User user1@company.com does not yet exist.
Creating...
I, [2013-01-13T18:00:03.448957 #5556] INFO -- : Created Rally user user1@company.com
I, [2013-01-13T18:00:04.094994 #5556] INFO -- : User1@company.com Mark W VS-TFS -
Permission set to User
I, [2013-01-13T18:00:04.094994 #5556] INFO -- : Editor
I, [2013-01-13T18:00:04.094994 #5556] INFO -- : user1@company.com TFSProject - Permission
set to Editor
```

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



12. 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.



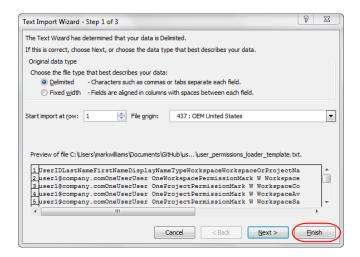
## IV. User Management Tool: Updating User Permissions

<u>Warning!!!</u> Although Team Membership is a Read-Only attribute in Rally Webservices, it is possible to remove the Team Membership attribute by setting a User's ProjectPermission to NoAccess on a Project for which that User is a Team Member. The Team Membership attribute <u>is not guaranteed to be preserved</u> when Updating User Permissions using this script.

- 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:

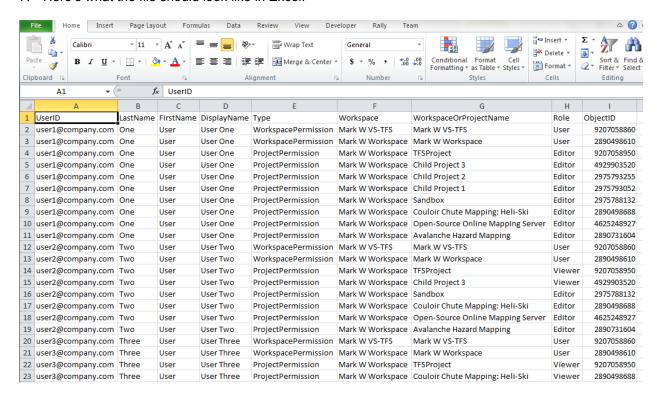
```
C:\> ruby user permissions summary.rb
Connecting to Rally: https://rally1.rallydev.com/slm as sample.admin@rallydev.com...
Querying users...
Found 266 users.
Summarizing users and writing permission summary output file...
Processed 25 of 266 users
Processed 50 of 266 users
Processed 75 of 266 users
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.
```

- 4. Open the file in Excel. Since it is a tab-delimited text file, you'll need to start Excel first.
- 5. File -> Open and navigate to and open user permissions loader template.txt
- 6. This will start an import Wizard. You can just click the "Finish" button to accept all defaults and open the file:





7. Here's what the file should look like in Excel.

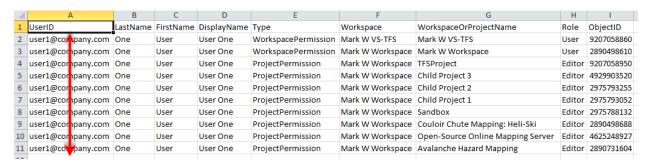


The file contains a summary of all User Permissions assigned to users within the Workspaces of interest.

**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.

8. 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.





9. Now, adjust the Role column as appropriate to change the desired permissions:

UserID	LastName	FirstName	DisplayName	Туре	Workspace	WorkspaceOrProjectName	Role	ObjectID
user1@company.com	One	User	User One	WorkspacePermission	Mark W VS-TFS	Mark W VS-TFS	User	9207058860
user1@company.com	One	User	User One	WorkspacePermission	Mark W Workspace	Mark W Workspace	User	2890498610
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	TFSProject	Editor	9207058950
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Child Project 3	Editor	4929903520
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Child Project 2	No Access	2975793255
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Child Project 1	No Access	2975793052
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Sandbox	Editor	2975788132
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Couloir Chute Mapping: Heli-Ski	No Access	2890498688
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Open-Source Online Mapping Server	Viewer	4625248927
user1@company.com	One	User	User One	ProjectPermission	Mark W Workspace	Avalanche Hazard Mapping	Editor	2890731604

- 10. 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.
- 11. 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.
- 12. Now you're ready to run the uploader script to Update UserPermissions with your desired WorkspacePermissions and ProjectPermissions:

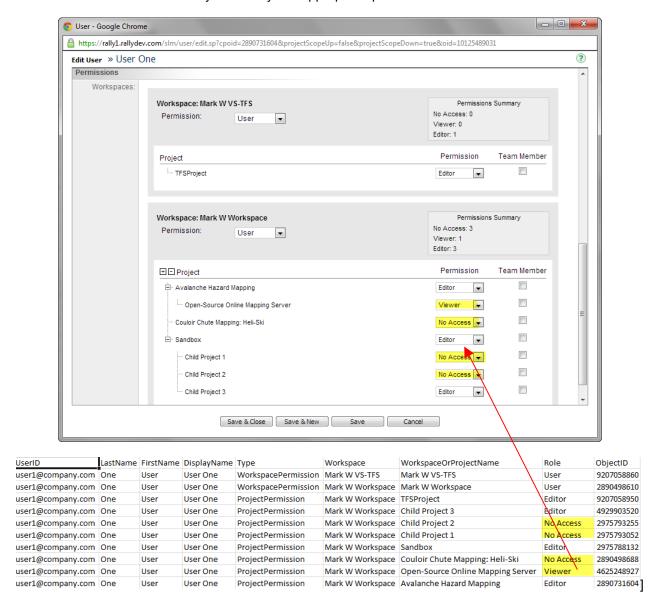
```
C:\> ruby user permissions loader.rb user permissions loader.txt
I, [2013-01-13T19:07:19.327796 #5324] INFO --: Connecting to
https://rallyd.rallydev.com/slm as sample.admin@rallydev.com...
I, [2013-01-13T19:07:20.027836 #5324] INFO --: Instantiating User Helper...
I, [2013-01-13T19:07:20.027836 #5324] INFO -- : Caching workspaces and
projects...
I, [2013-01-13T19:07:20.249849 #5324] INFO -- : This subscription has: 2
workspaces.
I, [2013-01-13T19:07:20.478862 #5324] INFO -- : Caching Workspace: Mark W
Workspace.
I, [2013-01-13T19:07:20.478862 #5324] INFO -- : Workspace: Mark W Workspace
has: 7 open projects.
I, [2013-01-13T19:07:20.478862 #5324] INFO -- : Caching Project: Couloir Chute
Mapping: Heli-Ski
I, [2013-01-13T19:07:20.479862 #5324] INFO -- : Caching Project: Avalanche
Hazard Mapping
I, [2013-01-13T19:07:20.479862 #5324] INFO -- : Caching Project: Sandbox
I, [2013-01-13T19:07:20.479862 #5324] INFO -- : Caching Project: Child Project
I, [2013-01-13T19:07:20.479862 #5324] INFO -- : Caching Project: Child Project
I, [2013-01-13T19:07:20.479862 #5324] INFO -- : Caching Project: Open-Source
Online Mapping Server
I, [2013-01-13T19:07:20.479862 #5324] INFO --: Caching Project: Child Project
3
```



```
I, [2013-01-13T19:07:20.827882 #5324] INFO -- : Caching Workspace: Mark W VS-
TFS.
I, [2013-01-13T19:07:20.827882 #5324] INFO -- : Workspace: Mark W VS-TFS has: 1
open projects.
I, [2013-01-13T19:07:20.827882 #5324] INFO -- : Caching Project: TFSProject
I, [2013-01-13T19:07:20.827882 #5324] INFO -- : Caching user list...
I, [2013-01-13T19:07:22.055952 #5324] INFO -- : Cached 25 of 266 users
I, [2013-01-13T19:07:22.056952 #5324] INFO -- : Cached 50 of 266 users
I, [2013-01-13T19:07:22.056952 #5324] INFO -- : Cached 75 of 266 users
I, [2013-01-13T19:07:22.057952 #5324] INFO --: Cached 100 of 266 users
I, [2013-01-13T19:07:22.057952 #5324] INFO -- : Cached 125 of 266 users
I, [2013-01-13T19:07:22.057952 #5324] INFO -- : Cached 150 of 266 users
I, [2013-01-13T19:07:22.058952 #5324] INFO -- : Cached 175 of 266 users
I, [2013-01-13T19:07:22.058952 #5324] INFO -- : Cached 200 of 266 users
I, [2013-01-13T19:07:22.058952 #5324] INFO -- : Cached 225 of 266 users
I, [2013-01-13T19:07:22.059952 #5324] INFO -- : Cached 250 of 266 users
I, [2013-01-13T19:07:22.062953 #5324] INFO --: user1@company.com Mark W VS-
TFS - No permission updates
I, [2013-01-13T19:07:22.062953 #5324] INFO --: user1@company.com Mark W
Workspace - No permission updates
I, [2013-01-13T19:07:22.062953 #5324] INFO -- : Editor
I, [2013-01-13T19:07:22.063953 #5324] INFO --: user1@company.com TFSProject
- No permission updates
I, [2013-01-13T19:07:22.063953 #5324] INFO -- : Editor
I, [2013-01-13T19:07:22.063953 #5324] INFO --: user1@company.com Child
Project 3 - No permission updates
I, [2013-01-13T19:07:22.063953 #5324] INFO -- : No Access
I, [2013-01-13T19:07:22.064953 #5324] INFO --: user1@company.com Child
Project 2 - Permission set to No Access
I, [2013-01-13T19:07:22.548980 #5324] INFO -- : No Access
I, [2013-01-13T19:07:22.549980 #5324] INFO --: user1@company.com Child
Project 1 - Permission set to No Access
I, [2013-01-13T19:07:22.918002 #5324] INFO -- : Editor
I, [2013-01-13T19:07:22.919002 #5324] INFO --: user1@company.com Sandbox -
No permission updates
I, [2013-01-13T19:07:22.919002 #5324] INFO -- : No Access
I, [2013-01-13T19:07:22.919002 #5324] INFO --:
                                                user1@company.com Couloir
Chute Mapping: Heli-Ski - Permission set to No Access
I, [2013-01-13T19:07:23.303024 #5324] INFO -- : Viewer
I, [2013-01-13T19:07:23.304024 #5324] INFO --: user1@company.com Open-Source
Online Mapping Server - Permission set to Viewer
I, [2013-01-13T19:07:23.800052 #5324] INFO -- : Editor
I, [2013-01-13T19:07:23.800052 #5324] INFO --: user1@company.com Avalanche
Hazard Mapping - No permission updates
```



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





## V. 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:
  - i. 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:

- 5. Make sure to leave the first row column header "UserID" intact the script automatically skips the first row.
- 6. 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.
```

7. 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.
```