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Plugin Overview

Don't waste time. Use this simple, yet flexible time tracking & user assignment extension to accurately assign individual task time across a range of roles. E.g. Developers, Testers & Designers.

So easy to use and a must have extension for any team.

The JIRA Role Based Estimations and Tracking plugin includes the following functionality:

- Original / Remaining Estimates broken down to roles (e.g. Developers / Designers / Testers etc.)
- Ability to assign multiple users (based on role) for each task
- Workflow enhancements to auto assign tasks to users based on their role assigned for the task
- Ability to create work logs that specify the type of work the time was spent on (e.g. development, code reviews)
- Ability to view the exact status (remaining estimate) of an issue in the Agile board for each user assigned to the task
- Ability to filter issues based on a user’s role
- Ability to track role based estimate accuracy

The following documentation will outline how to setup a project within JIRA to support role based estimations and tracking.
Highlights

Why only set one user as the assignee when you can have multiple users predefined for each role:

![Create Subtask: MYIDII-447](image)

*Figure 1: Example of the Assignees (By Roles) Custom Field during Issue creation. Each Project Role setup within the Scheme will be shown as a field that allows a user to be selected using JIRA’s inbuilt user picker.*

As the task moves through a work flow the multiple users defined during issue creation can then be referenced for auto re-assignment which is customised by you.

Similarly you can break down the task Original & Remaining Estimates so that each role can maintain an accurate remaining estimate throughout the issues life cycle:
This means that as a user logs time they can updating their own remaining estimate without having to worry about gathering such information from all the other users working on the same issue in other roles.

The plugin can then provide you with this information instantly via the details pane:

![Estimations By Role]

*Figure 3: Within the details pane of each issue will be a section detailing each of the users Original / Remaining estimates as well as the time logged under that specific role.*

Which means that at any time an accurate break down estimates is available with the click of a button.
Schemes

The first step in configuring this plugin is to take a look at Schemes. Schemes are how the plugin determines what Project Roles each issue type within your plugin should be used.

For example I may want to setup my project so that for issues of type “Bug Task”, Developers, Designers & Testers can all be assigned & estimate a role specific Original or Remaining estimate.

Scheme Administration

To view, create and edit existing schemes as an administrator follow the steps below:

1. In the JIRA Administration Navigate to the “Issues” section;
2. In the left navigation there will be a new section titled “ROLE BASED ESTIMATIONS”;
3. Under “ROLE BASED ESTIMATIONS” will be a navigation item “Schemes” which, when clicked, will take you to the plugins Scheme administration pages.

By default there will be an existing Scheme title “Example Scheme” that was created by the plugin during installation. The purpose of this Scheme is to provide you with a quick example of how a scheme can be setup.

With the Scheme Administration page there is the following functionality:

1. **Add Scheme:**
   This allows you to add another scheme. Multiple schemes are beneficial when you want to customise the plugins role based estimations by projects rather than just issue types;

2. **Configure:**
   Set which configuration(s) the scheme associates with an Issue Type. Here you can assign a default configuration that all issue types for a project will use. Alternatively you can use the “Associate an Issue Type with a Configuration” button to specifically set which configuration an Issue Type should use.

See the configuration section for more information on what configurations set within the plugin.
3. **Edit:**  
   The edit link provides you with the ability to change the Schemes Title & Description;

4. **Delete:**  
   The delete link provides you with the ability to delete a scheme.

   *Note: If a project is currently using the scheme it will revert back to single Original / Remaining estimates & user assignments.*
Configurations

Configurations provide the plugin with a means to determine which Project Roles should be provided to the user when creating, editing & logging time on an issue.

Configuration Administration

To view, create and edit existing configurations as an administrator follow the steps below:

1. In the JIRA Administration Navigate to the “Issues” section;
2. In the left navigation there will be a new section titled “ROLE BASED ESTIMATIONS”.

Under “ROLE BASED ESTIMATIONS” will be a navigation item “Configurations” which, when clicked, will take you to the plugins Configurations administration pages.

By default there will be an existing Configuration title “Example Config” that was created by the plugin during installation. The purpose of this Config is to provide you with a quick example of how a config can be setup.

With the Configuration Administration page there is the following functionality:

1. Add Configuration:
   This allows you to add another configuration. Multiple configurations are beneficial when you want to customise specific Issue Types to allow for different Project Role estimations & time tracking;
2. Configure:
   Sets which Project Roles the configuration will allow users to estimate & log time against.

When adding a Project Role to a configuration the user is provided with several customisation options:

a. The order of the Project Roles will determine how they are presented to the user within the plugins Custom Fields & Work Log interfaces;

b. Enabling a Project Role’s “Assignee” option will mean that during the creation and editing of an Issue a user can be assigned this Project Role.

c. Enabling a Project Role’s “Time Tracking” option will mean that during the creation and editing of an issue a user can enter a Project Role specific Original & Remaining estimate. It
will also mean that when logging work on the Issue the overall Issues Remaining estimates will be adjusted based on the values entered for the worklog.

Note: If this option is not checked users will still be able to log work into this Project Role but the Issues overall Remaining estimate will not be adjusted.

d. Enabling the Project Role’s “Worklog” option will mean that if an Original estimate has not be set for this Project Role specific entry the user will be prompted to enter one.

This is helpful for issues that during creation did not have a certain role estimate defined (e.g. a Tester created the task without the developer estimating how long it would take to complete)

e. For each of the “Assignee” & “Time Tracking” options there is also a sub option to ignore the required field configuration. If the respective Custom Field for these options is set to mandatory in the Field Configuration then this option provides a way for each role to override that (e.g. it allows for a setup where some roles are required and others are not)

3. **Edit:**
   The edit link provides you with the ability to change the Configurations Title & Description;

4. **Delete:**
   The delete link provides you with the ability to delete a configuration.

   Note: If a scheme is currently using the configuration it will not be able to be deleted.
Setting up a Project

While the rest of the documentation explains each part of the plugin individually, the following section is the step by step process required to get a project up and running using the JIRA Role Based Estimations and Tracking successfully.

Step 1 – Defining your Project Roles

The plugin foundation is built upon the in-built JIRA Project Roles. These roles are what we assign users to within a project & therefore they become the roles in which we allow users to estimate, be assigned to & log work on.

Project Roles can be created within the JIRA Administration as follows:

   a)  Login as a user with Administrator permissions to the JIRA installation;
   b)  Navigate to the Administration & Select the “System” section;
   c)  Within the System administration there will be a “Roles” menu item listed under “Security”.

       Clicking on this will bring up the Project Role Browser.

From the Project Role Browser you can review & create additional Project Roles that all projects will have access to.

For example in our organisation we have the following project roles for several of our internal projects:

- Developer
- Designer
- Tester
- Code Reviewer
- Product Owner
- Scrum Master
- Documentation
Step 2 – Assigning users to appropriate Project Roles

Once all the roles have been created within the JIRA Administration the next step is to assign users to the roles within your project.

Users can have multiple roles within a project, so the possibility to allow users to be assigned to multiple roles, or to log work under multiple roles is available if you wish.

For example you can assign users to both the Developer & Code Reviewer roles to allow them to log time under each role.

Figure 4: An example of a user being given multiple roles within the Project Administration. In the above scenario Steven Henderson will be able to be estimate on & be assigned as both the Developer & Code Reviewer roles.
Step 3 – Creating the Configurations

Once you have all the project roles & users assigned correctly the next step is create a series of configurations to be used.

Configurations provide the plugin with a means to determine which Project Roles should be provided to the user when creating, editing & logging time on an issue.

To view, create and edit existing configurations as an administrator follow the steps below:

1. In the JIRA Administration Navigate to the “Issues” section;
2. In the left navigation there will be a new section titled “ROLE BASED ESTIMATIONS”;

Under “ROLE BASED ESTIMATIONS” will be a navigation item “Configurations” which, when clicked, will take you to the plugins Configurations administration pages.

For our example let’s work off the assumption that I want users to be able to do the following:

   a) Estimate Original & Remaining Estimates for the Developer & Code Reviewer Roles only;
   b) Allow users to assigned as a Developer, Code Reviewer & Consultation roles;
   c) Allow users to log work as either a Developer, Code Reviewer & Consultation role;

Create a new configuration

Let’s create a new Configuration as below:

![Add Configuration](image)

*Figure 5: Creating a new configuration*
Configuring the Configuration

Once the config has been created we can then configure it. This is where we define what roles this control & what each role should be allowed to do. Initially there will be no roles listed so the first step is to click on the “Associate a Role with the Configuration” button in the top right corner of the page.

This will open up a new modal that has several options:

Figure 6: The Add Project Role modal of the configuration page that allows you to define what roles should be utilised by a project.

The settings work as follows:

a) Role – The role in which we are customising for this configuration;

b) Assignees – Defines if the role should be listed within the Assignees (By Roles) custom field which determines if a user can be assigned this role;

c) Time Tracking – Defines if the role should be listed within the Time Tracking (By Roles) custom field which determines if a user can provide an original & remaining estimate for this role;

d) Worklog – This option makes the Original Estimate mandatory for any user the first time they log work against that role.

Refer to the Configurations section within this documentation for more information.
In our example we would add both the Developer & Code Review roles with the following settings so that both role assignment & estimations are possible:

![Add Project Role](image1)

Figure 7: Example settings that allow the Developer role to be estimated on & users to be assigned to.

For the Consultation role we would add the role with the following settings so that the role can have time logged for it but it is neither an assignable role nor requires original & remaining estimates.

![Add Project Role](image2)

Figure 8: Example settings that prevent the consultation role from having estimates or assigned users but still allows times to be logged against the role.
Step 4 – Creating a scheme
Once our configuration(s) have been setup the next step is to create a scheme & set which issue types map to which configurations.

To view, create and edit existing schemes as an administrator follow the steps below:

1. In the JIRA Administration Navigate to the “Issues” section;
2. In the left navigation there will be a new section titled “ROLE BASED ESTIMATIONS”;
3. Under “ROLE BASED ESTIMATIONS” will be a navigation item “Schemes” which, when clicked, will take you to the plugins Scheme administration pages.

Creating a new Scheme

Let’s create a new Scheme as below:

![Add Scheme](image)

*Figure 9: Creating a new scheme*

Configuring the Scheme

Once the scheme has been created we can then configure it. This is where we define what configurations map to issue Types.

For our simple example though let’s use the “Default” option and map that to our configuration created above. This will mean that all issue types within a project will map to the single configuration we have created.
To do this we click on the edit link next to the “Default” listing within the table as shown below:

![Update Estimations: Basic Project Scheme](image)

Figure 10: Editing the Default listing that maps configurations to issue types

On the edit screen we are then presented with a list of all the current configurations within the plugin. For our example we want to select the “Dev, Review & Consultation example” config we created early & then click Submit.

![Select the Default Configuration for all the unmapped Issues](image)

Figure 11: Setting the default issue type mapping to the configuration created.

Once that has been submitted we are nearly to the point where any project that now references the “Basic Project Scheme” will have the ability to assign and estimate for the Developer & Code Review roles & log time against the Developer, Code Reviewer & Consultation roles.
Step 5 – Assigning a Scheme to a Project

Now that we have our scheme created the next step is to choose which projects should use the scheme. To do this we go to each of the projects administration section as shown below:

Clicking on the Add a scheme link will take you to the project’s Time Tracking administration page where you can use the Actions button in the top right corner to set a scheme.

Once a scheme has been selected the last step is to make sure the appropriate custom fields have been added to the projects screen scheme.
Step 6 – Using Custom Fields

⚠️ Note: This is the key to the plugin. If these steps below are not followed then you will not be able to assign multiple users nor estimate or log work to a specific role.

The next step is to modify your existing screen schemes to replace the existing Time Tracking field & Log Work fields with the plugin’s own custom fields.

To edit the projects’ screens you will need to go to the JIRA Administration & navigate to the Screens page as shown below:

![The Screens administration page within JIRA Administration.](image)

Within each Screen your project uses, you will need to change the built-in fields with the plugin’s custom fields.
For example in the image above clicking on the Configure link will allow us to define what fields are on all the standard screens. In our example setup we could setup the screens like follows:

**Figure 16:** Assignee Tab using both the built in Assignee field for single user assignment & the Assignees (By Role) custom field for multiple assignments

**Figure 17:** Replacing the built in Time Tracking field with the Time Tracking (By Roles) custom field for multiple estimations

**Figure 18:** Replacing the built in Log Work field with the Log Work (By Roles) custom field for logging times mapped to a Project Role.
With a screen setup as above it will mean that when creating or editing an issue the following will be displayed to users in our example project.

**Figure 19:** The ability to assign users to multiple roles based on the scheme / config setup in this example.

**Figure 20:** The ability to provide estimates for each role based on the scheme / config setup in this example.
That’s it! After following these steps you will have the basic idea on how to setup the plugin to allow users assign & estimate per Project Role.

Other things to try now include:

1. Creating alternative configurations;
2. Mapping configurations to specific issue types;
3. Modifying the workflows to auto assign users based on the Assignees (By Role) custom field.
Changes to Creating Work Logs

The plugin overrides the in-built Log Work functionality so that when a user creates a work log they now have to specify what Project Role they are logging work under.

⚠️ Note: This is the key to the plugin as if work logs are created without specifying an associated Project Role the issue will revert to non-user specific estimates. This means currently the plugin does not support working alongside 3rd party plugins that create work logs as they.

The Log Work Modal accessed via JIRA will now include an additional step for the user. For Issues within a Project using the plugin the dropdown item “Type of Work” will be displayed to the user* & contain all the available Project Role types the user can log time under.

* Note that if the dropdown has no available roles, or only a single role the dropdown will not be shown & the plugin will handle the role selection automatically.
Custom Fields

When the plugin is installed there will be three additional Custom Fields available for use. These include:

- Assignees (By Roles);
- Time Tracking (By Roles); and
- Log Work (By Roles)

⚠️ Note: In the administration the only thing that needs to be setup for these fields to work is the name of the custom field & which screens you want them to be visible on. There is no requirement to enter the Custom Fields configuration settings as currently this information is ignored by the plugin.

Below is an explanation of what each of these new Custom Fields provide:
Assignees (By Roles)

The “Assignees (By Roles)” Custom Field is the way in which the plugin provides multiple assignees to any issue.

Once the Custom Field has been placed onto a screen the plugin will automatically populate the Custom Field with the appropriate roles based on the Project’s scheme selected.

Figure 23: Example of the Assignees (By Roles) Custom Field during Issue creation. Each Project Role setup within the Scheme will be shown as a field that allows a user to be selected using JIRA’s inbuilt user picker.
How it works

- The in-built Assignee field should still be used when you want to manually assign the current user to an issue;
- The user picker will only return users that have permission to be assigned to the issue;
- If no Project Roles are defined for the issue type (see Configuration section) the field will load empty;
- If you want to automatically re-assign an issue to a user defined to a role please refer to the Post Functions section of this documentation.
Time Tracking (By Roles)

The “Time Tracking (By Roles)” Custom Field is the way in which the plugin provides multiple Original & Remaining estimates to any issue.

Once the Custom Field has been placed onto a screen the plugin will automatically populate the Custom Field with the appropriate roles based on the Project’s scheme selected.

![Figure 24: Example of the Time Tracking (By Roles) Custom Field during Issue creation. Each Project Role setup within the Scheme will be shown as a field that allows a user to provide an estimate.](image)

Similar to the built in Original & Remaining Estimate fields the Time Tracking (By Roles) Custom Field allows users to input times based on time units. For example you can specify a time unit after a time value ‘X’, such as Xw,Xd,Xh or Xm, to represent weeks (w), days (d), hours (h) and minutes (m), respectively.

**How it works**
- The in-built Time Tracking field should be replaced with this Custom Field on all screens where you want to use this plugin;
- If no Original value is specified the value will be taken from the Remaining Estimate;
- Similarly if no Remaining Estimate is specified it will be taken from the Original Estimate;
- The issues overall Original / Remaining estimates will be a total of all Project Role Specific estimates.
Log Work (By Roles)
The “Log Work (By Roles)” Custom Field is the way in which the plugin provides users with the ability to log work to a specific role.

⚠️ **Note: This is the key to the plugin & it must replace the in-built Log Work field for the plugin to work.** If work logs are created without specifying an associated Project Role the issue will revert to non-user specific estimates.

Once the Custom Field has been placed onto a screen the plugin will automatically populate the Custom Field with the appropriate roles based on the Project’s scheme selected.

---

![Edit Issue: MYID11-886](image)

*Figure 25: Example of the Log Work (By Roles) Custom Field highlighting the additional “Type of Work” option that users are required to populate.*
Figure 26: Demonstrates the types of Project Roles a user can select from (if they have been added to these roles in Project Administration)

How it works

- The Type of Work dropdown options are sourced from the Scheme Configuration the Project is referencing.

  However unlike the other two Custom Fields the dropdown will only list the Project Roles that the user has been assigned to in the Project Administration;

- The dropdown will automatically select a Project Role if that user is currently assigned to that role in the Assignees (By Role) Custom Field.
**Post Functions**

The following post functions have been created so that a workflow can access data stored within the “Assignees by Role” Custom Field.

**ASSIGN TO ROLE PROVIDED BY ROLE BASED ESTIMATIONS AND TRACKING**

This post function allows you to update the issue’s current assignee field to a particular assignee assigned to a specific role.

*For example:*

> As the issue moves from a Developer to a Designer I want to automatically reassign the issue to the Designer specified in the “Assignees by Role” custom field.

**HOW TO USE THIS POST FUNCTION**

1. Edit the workflow that your issue type is currently using;
2. Select the transition where you want to change the current assignee;
3. Select “Post Functions” & then select Add Post functions.
4. From the options available select the post function titled “Assign to Role provided by Role Based Estimations and Tracking”;
5. Finally select the Project Role that you want to reassign the issue to. If when the transition occurs there is a user selected for that role the current assignee value will be changed to that user.
Add Parameters To Function

Add required parameters to the Function.

Role: **Developers**
Select the role that the user should be sourced from. If the role has no user selected the current assignee will not be changed.

[Add] [Cancel]

---

The following will be processed after the transition occurs

1. Current **Assignee** will be changed to the user specified for the **Developers** role.
2. Set issue status to the linked status of the destination workflow step.
3. Assign the issue to the current user. Please note that the issue will only be assigned to the current user if the current user has the 'Assignee User' permission.
4. Add a comment to an issue if one is entered during a transition.
5. Update change history for an issue and store the issue in the database.
6. Re-index an issue to keep indexes in sync with the database.
7. Fire a **Generic Event** event that can be processed by the listeners.
### Issue Filters & JQL Functions

The following JQL functions have been created so that issues can be search for in relation to values specified in both the Assignees (By Role) & Time Tracking (By Roles) custom fields.

**ASSIGNEES (BY ROLES)**

The Assignees (By Roles) custom field can be used to filter issues in a variety of ways:

1. Return issues where any user is assigned to a specific role

   When using the “Advanced” filter options the equivalent JQL for this is:

   
   \[
   "Assignees (By Roles)" = assignedRole("Developers")
   \]

   - Where "Assignees (By Roles)" is the Custom Field name
   - Where “Developers” is the Project Role you are filtering by
   - Using the != instead of = will do the opposite
2. Return issues where a specific user is assigned to at least one role (any role)

When using the “Advanced” filter options the equivalent JQL for this is:

"Assignees (By Roles)" = assignedRole("Developers", "Steven.Henderson")

a. Where “Assignees (By Roles)” is the Custom Field name
b. Where “Developers” is the Project Role you are filtering by
c. Where “Steven.Henderson” is the username you are filtering by
d. Using the ! instead of = will do the opposite
3. Return issues where a specific user is assigned to a specific role

When using the “Advanced” filter options the equivalent JQL for this is:

```
"Assignees (By Roles)" = assignedRole("Steven.Henderson")
```

a. Where "Assignees (By Roles)" is the Custom Field name

b. Where “Steven.Henderson” is the username you are filtering by

c. Using the != instead of = will do the opposite
**TIME TRACKING (BY ROLES)**

The Time Tracking (By Roles) custom field can be used to filter issues in the following way:

1. Return issues where an estimate has been specified for a specific role

When using the “Advanced” filter options the equivalent JQL for this is:

```
"Time Tracking (By Roles)" = timeTrackingRole("Developers")
```

a. Where “Time Tracking (By Roles)” is the Custom Field name
b. Where “Developers” is the Project Role you are filtering by
c. Using the != instead of = will do the opposite
REST – Time Tracking

The plugin supports getting or setting an issues Time Tracking (By Role) estimations via the following methods:

**Get Estimations**

To get a specific Issues role based estimations the following URL can be used:

```
/adweb/2/timetracking/{IssueKey}
```

Where the `{IssueKey}` is replaced with an existing issue key such as “MI-5”:

```
http://<localhost>/rest/adweb/2/timetracking/MI-5
```

The returned data will be in JSON format as shown below:

```json

{
    "key": "MI-5",
    "summary": "This is a shorthand for a set operation on the summary field",
    "estimates": [ 
        {
            "role": "Administrators",
            "id": "10002",
            "originalEstimate": "2d",
            "remainingEstimate": "40m"
        },
        {
            "role": "Developers",
            "id": "10001",
            "originalEstimate": "1d",
            "remainingEstimate": "20m"
        },
        {
            "role": "Users",
            "id": "10000",
            "originalEstimate": "0m",
            "remainingEstimate": "0m"
        }
    ]
}
```

**Set Estimations**

To set specific roles within for an issue the same format JSON must be passed as the body (a PUT call) to the following URL:

```
/adweb/2/timetracking/{IssueKey}
```
Where the {IssueKey} is replaced with an existing issue key such as “MI-5”:

http://<localhost>/rest/adweb/2/timetracking/MI-5

The sent data should be in JSON format as shown below:

```json
{
  "key": "MI-5",
  "estimates": [
    {
      "id": "10002",
      "originalEstimate": "2d",
      "remainingEstimate": "40m"
    },
    {
      "id": "10001",
      "originalEstimate": "1d",
      "remainingEstimate": "20m"
    },
    {
      "id": "10000",
      "originalEstimate": "0m",
      "remainingEstimate": "0m"
    }
  ]
}
```

Note: That the “id” field is the ID of the Project Role within your installation of Jira & can be retrieved by first doing a get on an issue that has the Time Tracking (By Role) Custom Field correctly setup & added to a screen.

The originalEstimate & remainingEstimate values must be in the accepted JIRA format such as “1d 54m” for times to be correctly updated.
FAQ / Troubleshooting

Question 1

I have just setup my project to use the Time Tracking (By Roles) Custom Field but it only shows a single Original / Remaining field on my existing issues, why are the Role Based estimation fields not visible?

**Answer:** When editing an issue the plugin verifies that the issues overall Original / Remaining values are in sync with the Role Based Estimations. This means when first installing the plugin any issues that already have an Original or Remaining estimate value will be out of sync (since role based estimates have yet to be set).

This means that the plugin defaults back to the single Original / Remaining estimate fields.

Question 2

Why have my role specific estimations been reset to a single Original / Remaining estimate?

**Answer:** In order for the plugin to correctly associate a work log with a project role the creation of a work log must be achieved through the standard JIRA interface. If times are logged using a different third party plugin the issues Original / Remaining estimates will be changed back to a single entry for each field.

This is done so that role specific entries that are now out of sync do not override the newly estimated remaining value.

Question 3

If an issue has reverted back to a single Original / Remaining estimated is there a way to revert the issue back to using role based estimations?

**Answer:** In order to reset the issue back to role based estimations the current Original / Remaining estimates will need to be cleared & the issue updated.
This will mean the next time the issue is edited the issues overall Original / Remaining values will no longer be out of sync with the role based estimates. Note: The role based estimates will be reset during this process so using the Issues History you will have to respecify them.
Support

If you would like to lodge a support ticket, please use the following portal:

https://adwebsoftware.atlassian.net/servicedesk/customer/portal/3