A Guide for

Using...

G **Gégan**

Tempo Analysis Add-in
for Microsoft Excel

Includes

API Extractor
Field Mapper
Data Transformers
Analysis Packs
Reports

Tempo Analysis Add-in
for Microsoft Excel

For Window

Contents

1 Introduction

The Tempo Analysis Add-in was designed to allow quick analysis of project timesheet data in order to:

1. Simplify and Automate project reports and metrics
2. Quickly respond to requests for information from multiple business stakeholders
3. Drive process improvement and data driven sprint retrospectives
4. Provide a non-technical tool that anyone could use

This Add-in (2016 Community Licence) is now freely available to anyone, by simply registering at shaungeoghegan.wix.com/gegan. By registering you will receive updates as we enhance the Add-in and notification about any new extensions that become available. Your information will not be provided to any 3rd Parties.

We hope you find the Add-in useful and do let us have your feedback and enhancement requests via the contact form on the Support page of our website site.

2 How the Add-in works

The Tempo Analysis Add-in uses API calls to connect with both Tempo and Jira to extract the worklog and epic data required for analysis.
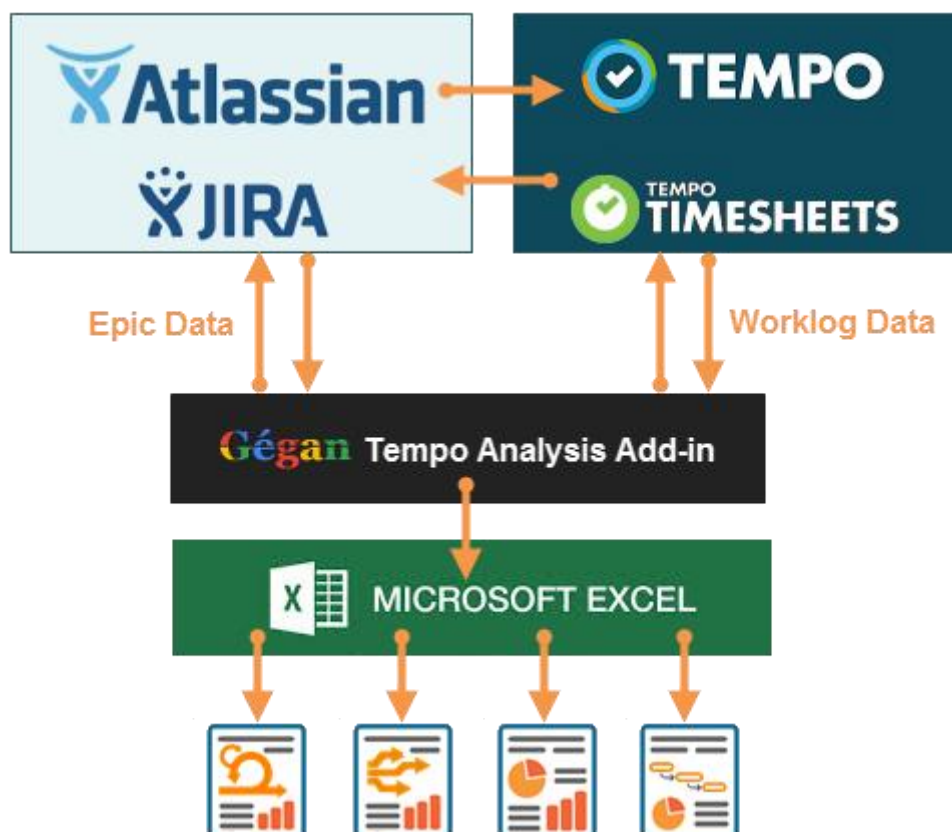
3 Feature Overview

The table below provides a high-level overview of each item on the Tempo Analysis Add-in ribbon bar, full details can be found in the pages below.

Settings	This screen allows you to setup fields mappings to make your Tempo data easier to read and use. You can also turn on additional data transformers (e.g. Epic Name Lookup) or turn off any of the default transformers.
Get Worklog data	This screen allows you to configure your Jira connection details, specify the data range to be returned and what data should be returned. You can also save your settings so you don't have to type them in again. If you're a developer, you can simply use this screen to construct API calls and embed them in your code. If this function is run after Pivot Graphs or Tables have been created all pivot graphs and tables will be automatically updated to reflect the new data.
Pivot Graphs	This menu allows you to quickly create Pivot Graphs using a range of standard templates. A 'Remove All Graphs' option is available just in case you want to discard them and start afresh.
Pivot Tables	This menu allows you to quickly create Pivot Tables using a range of standard templates. A 'Remove All Tables' option is available just in case you want to discard them and start afresh.
Reports	This menu allows you to quickly create 'Reports' using a range of standard templates. A 'Remove All Graphs' option is available just in case you want to discard them and start afresh.

Note: *Report are Static and reflect the data at the time of creation and are not updated if data is refresh using the 'Get Worklog data' option.* |
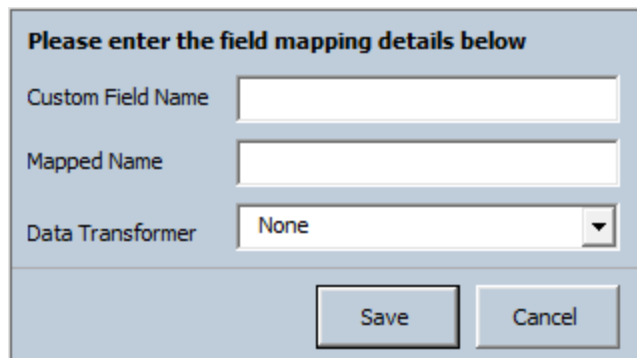| **Help** | This screen provides Help on how to get started, covering configuration of Jira and Tempo and how to produce your first data extract. This information is also available for download in PDF format (here) and is also covered in this guide. |
| **About** | This screen provides details about the versions of the Add-in and provides a link to the Support page of our website. |
| **My Extensions** | This menu is where extensions will appear should you purchase additional Analysis Packs or commission a bespoke extension. |

4 Settings

4.1 Mapped Fields

When data is extracted from the Tempo API the headings returned are field IDs (e.g. customField_10007). The Add-in comes prepopulated with the most common fields pre-mapped. As these mapped names are used by the templates these mappings cannot be updated or deleted.
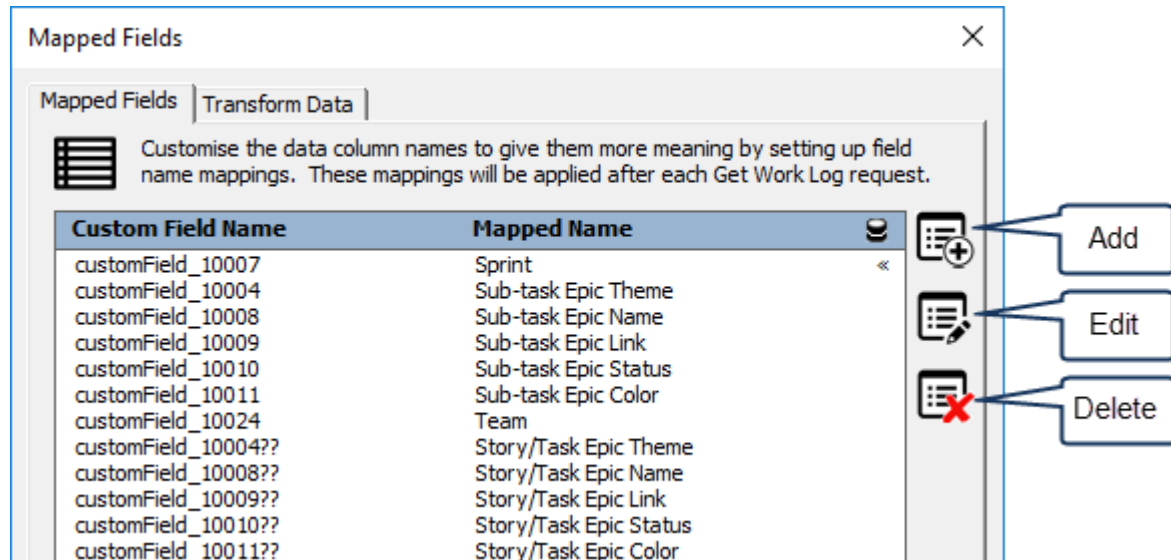
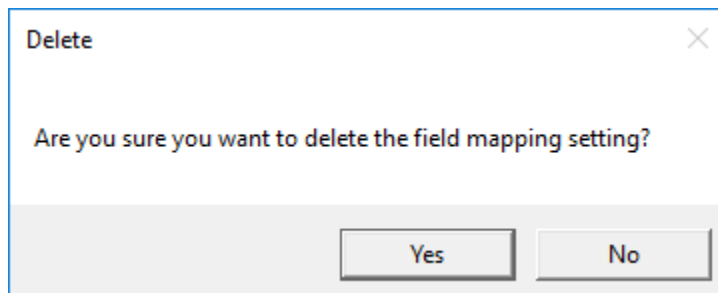Clicking on the Add or edit button will display the following:

Clicking the delete button will ask you to confirm the deletion for non-default field maps.
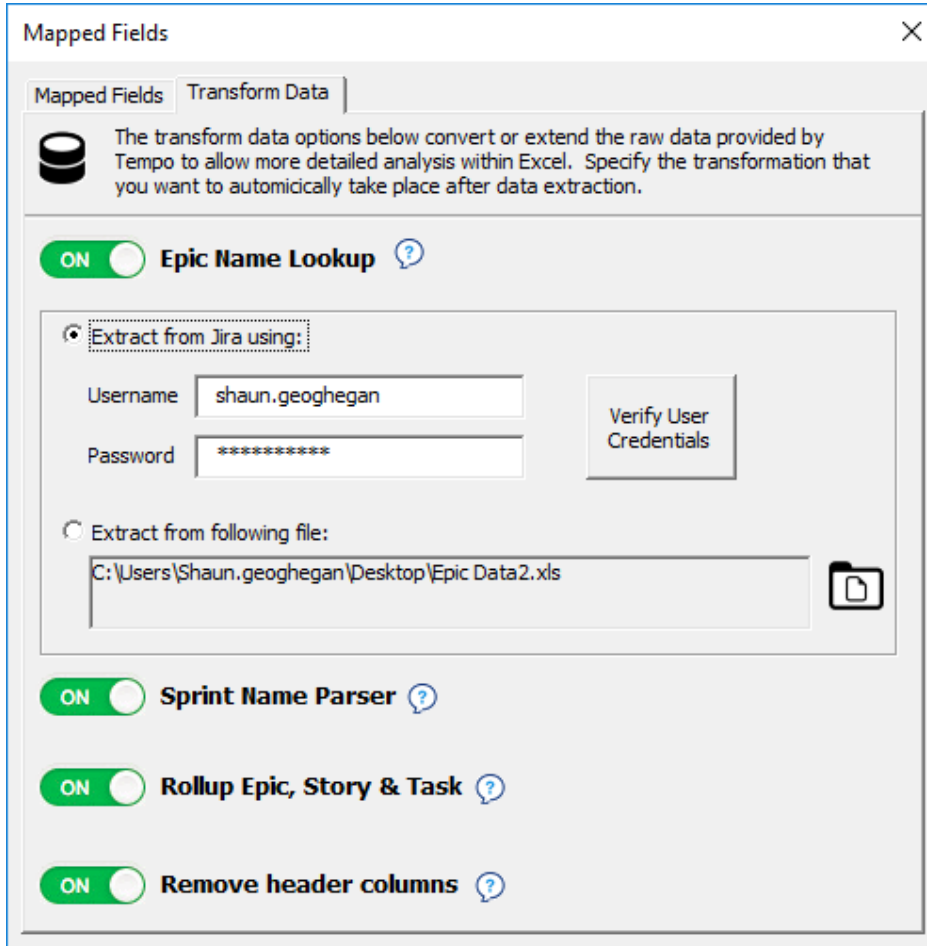
4.2 Transform Data

The Tempo API returns some data in a format that needs further processing in order for it to be of analytical value (e.g. Sprint) or simply does not return some related parent task data (e.g. Epic name) which is why 'transformers' have been provided. By default, all transformers with the exception 'Epic Name Lookup' are enabled.

4.2.1 Epic Name Lookup

Currently the Tempo API does not return the Epic Name for Stories, Tasks, Sub tasks, etc. This transformer provides two methods of extracting an epic lookup table from Jira so that the Epic Name can be populated to allow meaningful Analysis to take place.

4.2.1.1 Extract Epic data directly from Jira

Using your Jira username and password the Tempo Analysis Add-in extracts 'Epic Data' via the Jira API. If you Leave these fields blank you will be prompted to enter them when you extract the Worklog data. An 'Epic Data' tab will be created if this transformer is enabled.

> *For the Add-in to collect this data you must have the 'Browse Team' permission, for all teams. Talk to your Jira administrator about getting these permissions.*


4.2.2   Extract Epic data from a file

If can't get 'Browse Team' permission, then you can export Epic Data as an excel file from Jira and the Tempo Analysis Add-in will use this as the source of your epic data. You do however need to remember to re-export your Epic Data each time new epics are added in Jira.

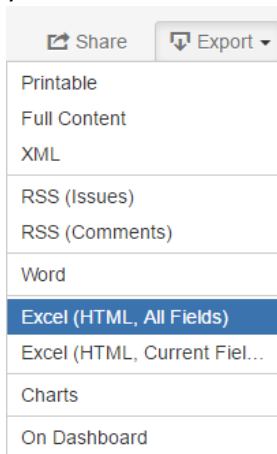To create an Epic Data file in Jira:

- Select 'Search for issues' from the 'Issues' menu
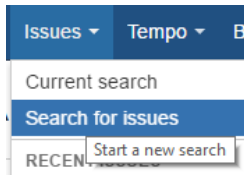
- Create a filter to show only issues of the type Epic (Save the filter so that is can be used in the future).
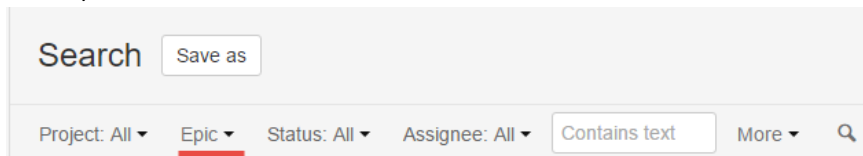
- From the 'Export Menu' select 'Excel (HTML, All Fields) and save the excel file to a location of your choice


4.2.3   Sprint Name Parser

This transformer extracts the relevant Sprint Name from the Raw Sprint history array returned by the Tempo API by matching the Work Log date with the Sprint start and end date.

4.2.4   Rollup Epic, Story & Task

This transformer generates additional data columns, 'Epic Link Rollup', 'Epic Name Rollup' and 'Story/Task Rollup' based on the parent/child hierarchy of all worklog entries.   This allows stories, tasks and sub-tasks, etc. to be analyses at either Epic or Story/Task level easily within Excel.
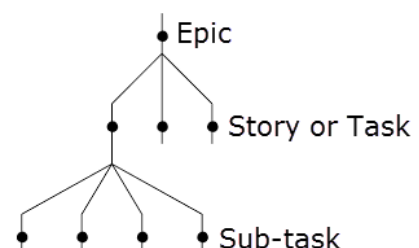
4.2.5 Remove header columns

This transformer removes the header columns as they provide no analytical value.

This transformer is not run if the 'Return only header information (no data)' option is selected in the 'Get Worklog data' Screen.

5 Get Worklog data

5.1 Connection Details

Enter your Atlassian domain name and the security token provided by your administrator. Without these details you can't extract the Tempo worklog data.
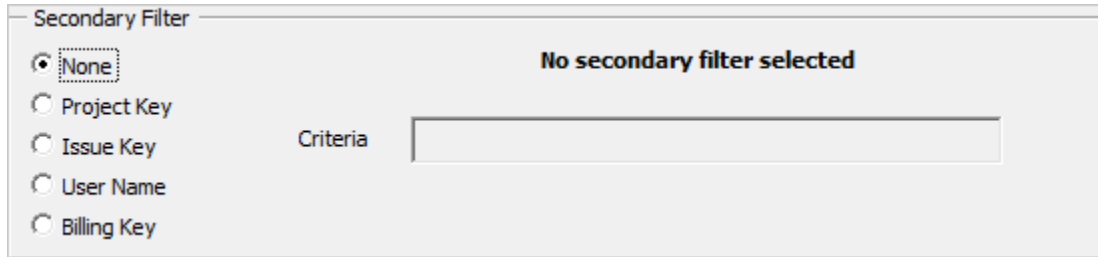

5.2 Primary Filter

The primary filter specifies the date range you would like to return data for. You need to ensure this is correct for the analysis you want to perform otherwise your analysis results will be skewed.

5.3 Secondary Filter

The secondary filter allows you to refine the amount of data returned should it be required.
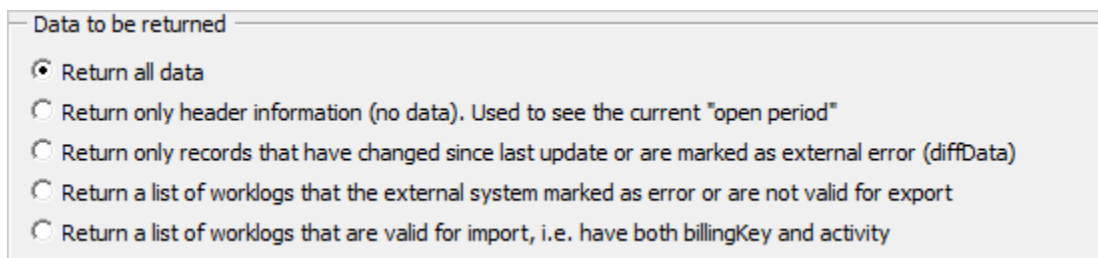
5.4 Data to be returned

It is recommended that you return all data, however if you only require a special subset of the data to be returned then choose the appropriate option.

5.5 Include Additional Data

The Tempo Add-in Default Settings (Shown below) should suit most analytical purposes, however you can choose to return additional data if required. The additional data options are cumulative, each option selected will return between 1 -19 additional data items.

Adding additional data may add duplicate data items, however unique column names will be returned.

5.6 Getting the Data

Clicking the 'Get Data' button will initiate the data extraction (Tempo and Jira) and the data transformations selected.
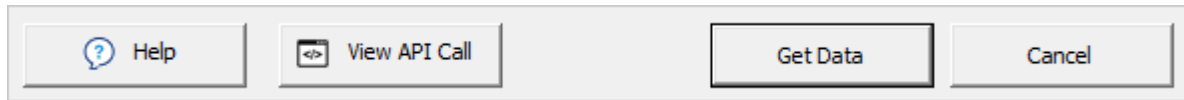
The progress of the data extraction and transformation is shown on screen
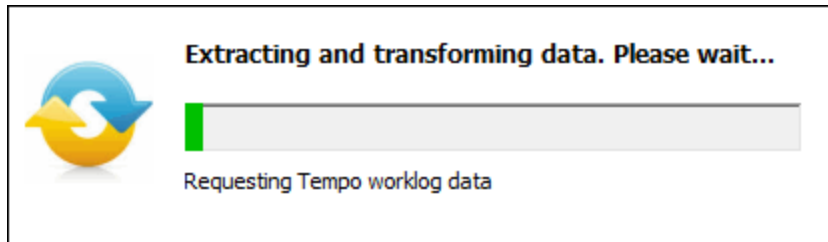
If you have enabled the 'Epic Name Lookup' data transformer and chosen to extract 'Epic Data' directly from Jira, but did not saved any user credentials, you will be asked to enter your Jira user details.
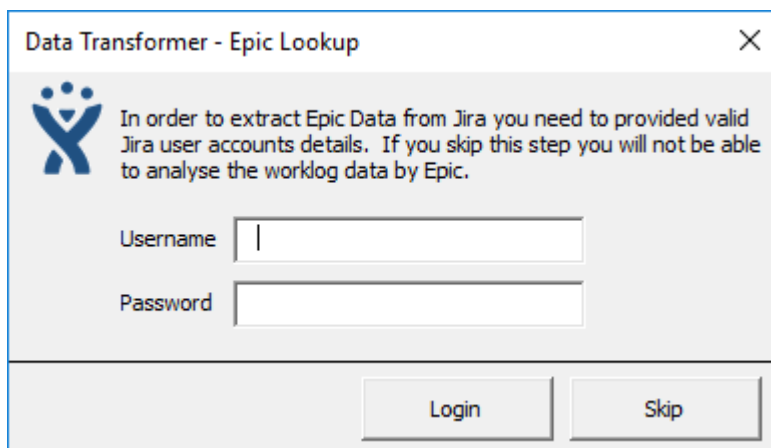
You can choose to skip this step but no epic data will be retrieved.

If no data can be returned as a result of your configuration settings a single header record will be returned in the Tempo data tab.

5.7 Saved Settings

The Saved Settings toolbar allows you to store different worklog request settings so that you can quickly extract the data you need based on the specific analysis you are undertaking. The 'Default Settings' is a recommended starting point on which to define your personal settings. The primary filter date range for the default settings is dynamic and is set to the last 90 days, but this may be over written.
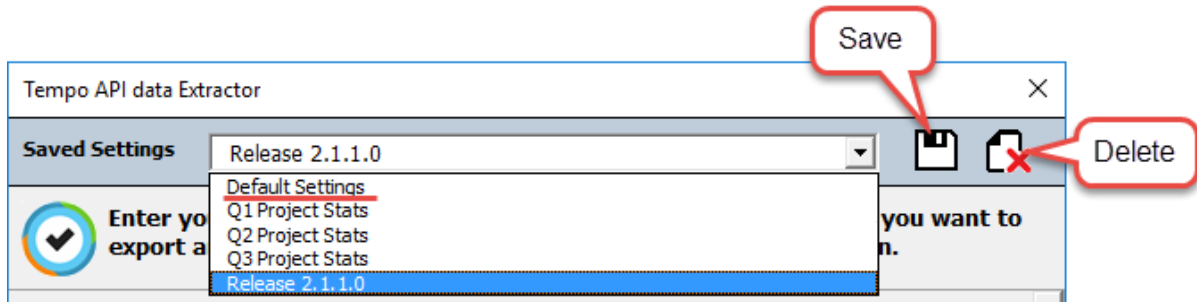
To save a custom setting simply select the required options in each section, click on the Save icon, enter a descriptive name and click the 'Save' button.
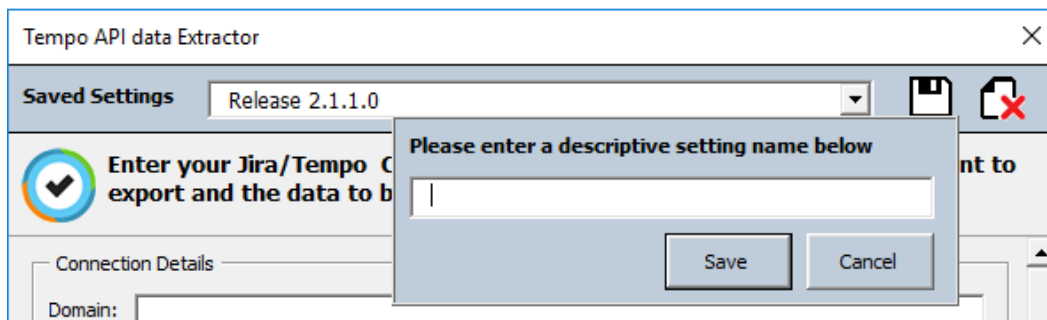
Unwanted saved setting can be removed by selecting the required setting and clicking the 'Delete' icon.

5.8 Support for developers

The Tempo Analysis Add-in can also be used by developers as an integration test tool. Firstly, the 'Get Worklog data' Screen can be used to easily construct API calls that can be used to integrate Tempo data into other systems. Clicking on the 'View API Call' button will show the appropriate API call based on the options selected with in the screen.
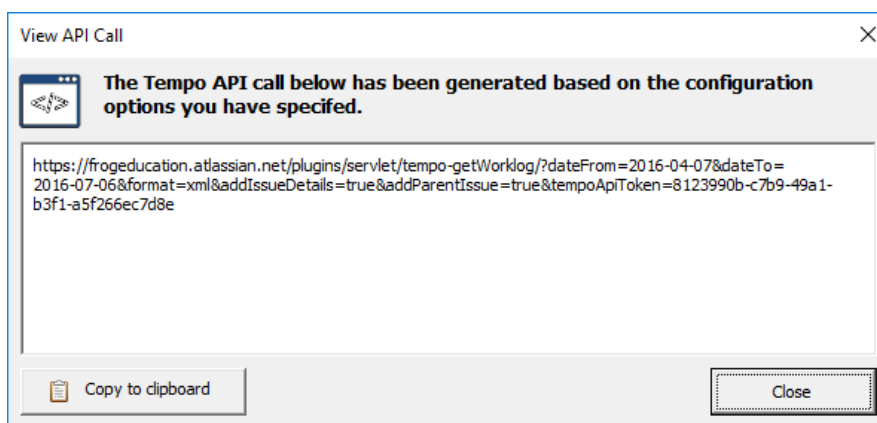
Secondly by turning off all the data transformers (See Transform Data on page 5 of this user guide) the Add-in can be used as a test tool to verify the results returned by integration tools.

6   Pivot Graphs

To get you started with your analysis a number of standard templates are available. On selecting a template, a new Tab will be created containing a pivot table and an associated graph. Once generated you can modify the pivot table and /or graph to suit your needs and preferred graphing style.

The 'Create Custom Graph' options creates a new tab with a blank pivot table and graph ready for you to populate. See Understanding the Pivot Table Structures on page 14 if you are unfamiliar with how pivot tables work.

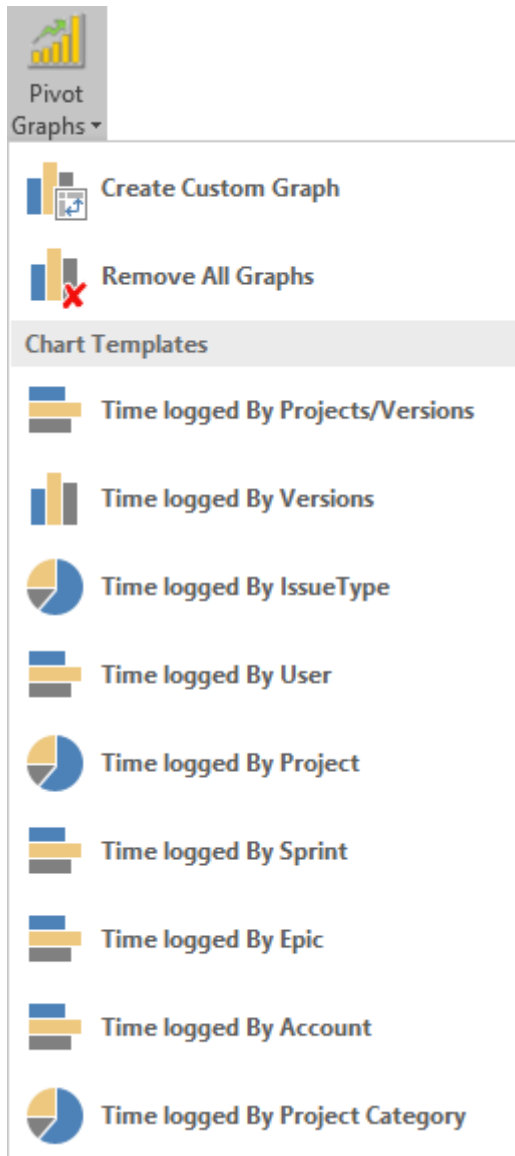The 'Remove All Graphs' option is available just in case you want to discard the graphs and start afresh. This is particularly useful whilst you are experimenting with the add-in.

If 'Get Worklog data' is run after Pivot Graphs have been created, all pivot graphs and tables will be automatically updated to reflect the new data, even if you have made changes to the original template.

If you modify or create Pivot Graphs which includes an 'additional data' field (see Include Additional Data on page 8) which is subsequently removed in the next 'Get Worklog data' request, these fields will be removed from any pivot tables and charts previously containing them.

7 Pivot Tables

To get you started with your analysis an example template has been provided. On selecting the template, a new Tab will be created containing a pivot table. Once generated you can modify the pivot table to suit your needs.

The 'Create Custom Table' options creates a new tab with a blank pivot table ready for you to populate. See Understanding the Pivot Table Structures on page 14 if you are unfamiliar with how pivot tables work.

The 'Remove All Tables' option is available just in case you want to discard the graphs and start afresh. This is particularly useful whilst you are experimenting with the add-in.
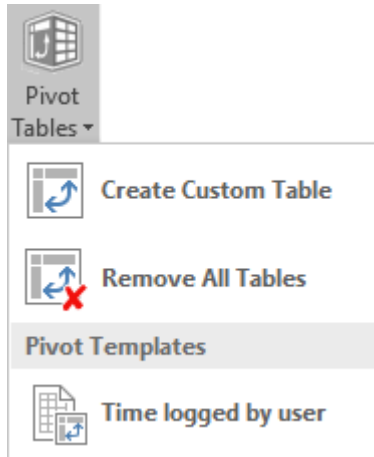
If 'Get Worklog data' is run after Pivot Tables have been created, all pivot graphs and tables will be automatically updated to reflect the new data, even if you have made changes to the original template.

If you modify or create Pivot Graphs which includes an 'additional data' field (see Include Additional Data on page 8) which is subsequently removed in the next 'Get Worklog data' request, these fields will be removed from any pivot tables and charts previously containing them.

8 Reports

For more complicated analysis, specific report templates are required. A range of 'Estimation Analysis' report templates are provided by default that allow you to quickly create one of the predefined reports. A 'Remove All Report option is available just in case you want to discard them and start afresh, however if you rename the report tab you will need to delete it manually.
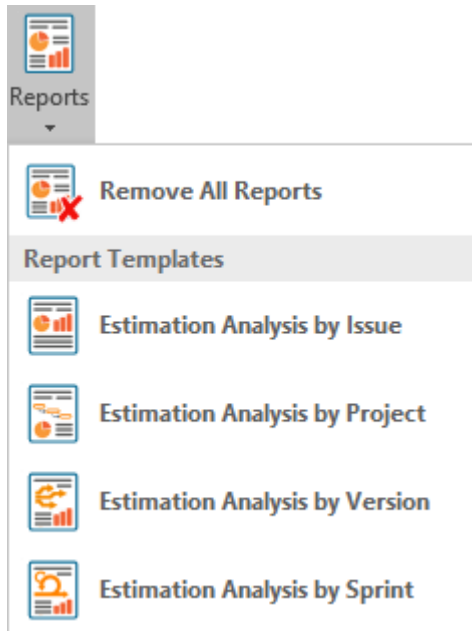
Regenerating the report will overwrite the existing report, however you will be prompted to confirm this action.

Report are Static and reflect the data at the time of creation and are not updated if data is refresh using the 'Get Worklog data' option.

If you have an Ideas for report templates let us know via the contact form on the support page of our website.

The estimation analysis reports consist of 4 areas:- the header containing the report title, data Range used and date created; a graph area; a summary area (the data from which the graphs are generated); and the raw data area (the data from which the summary data was derived).
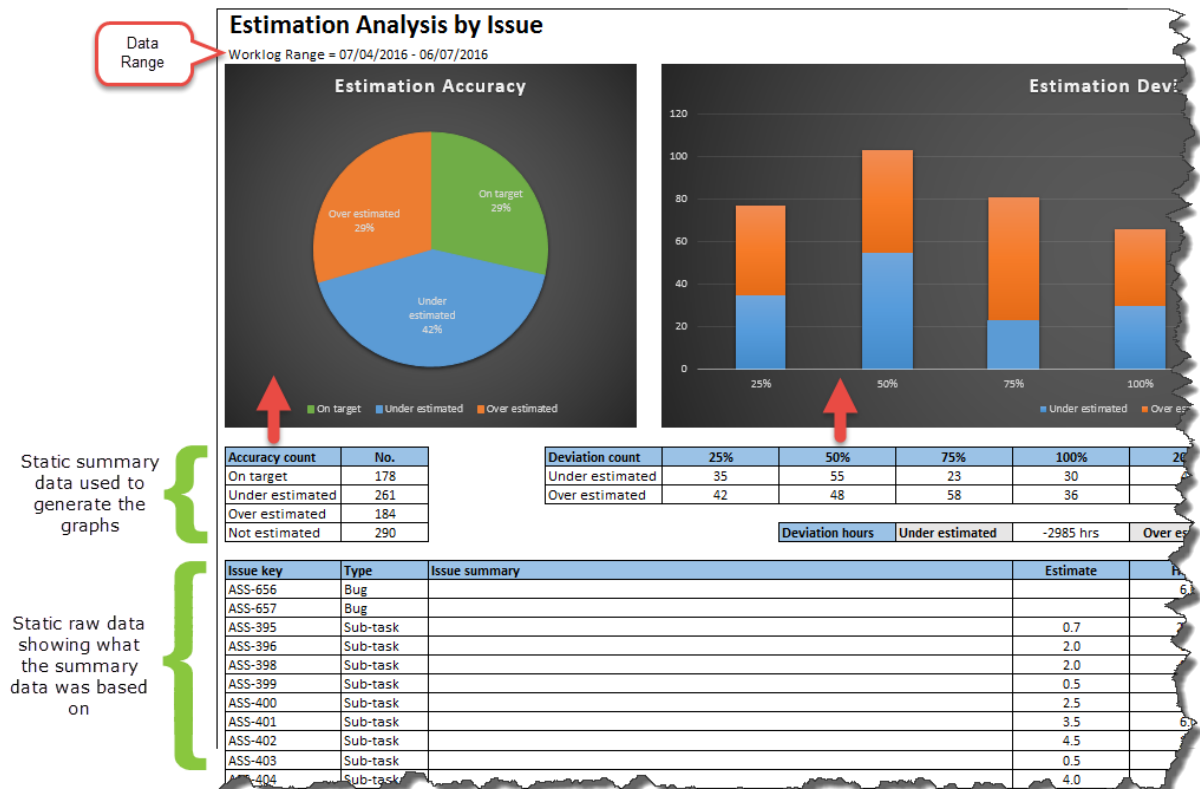
9 My Extensions

One size does not fit all especially if you create additional custom fields in Jira that you want to form part of your analysis, this is where custom extension come in. If you want any Pivot Graph, Pivot Table or Report templates that are specific to your organisation then simply request a Quote for the work via the contact form on the Support page of our website.

10 Additional Support

10.1 Understanding the Pivot Table Structures

In the screen below, the main areas of the pivot table have been numbered below the screen is a description of each of the three areas.
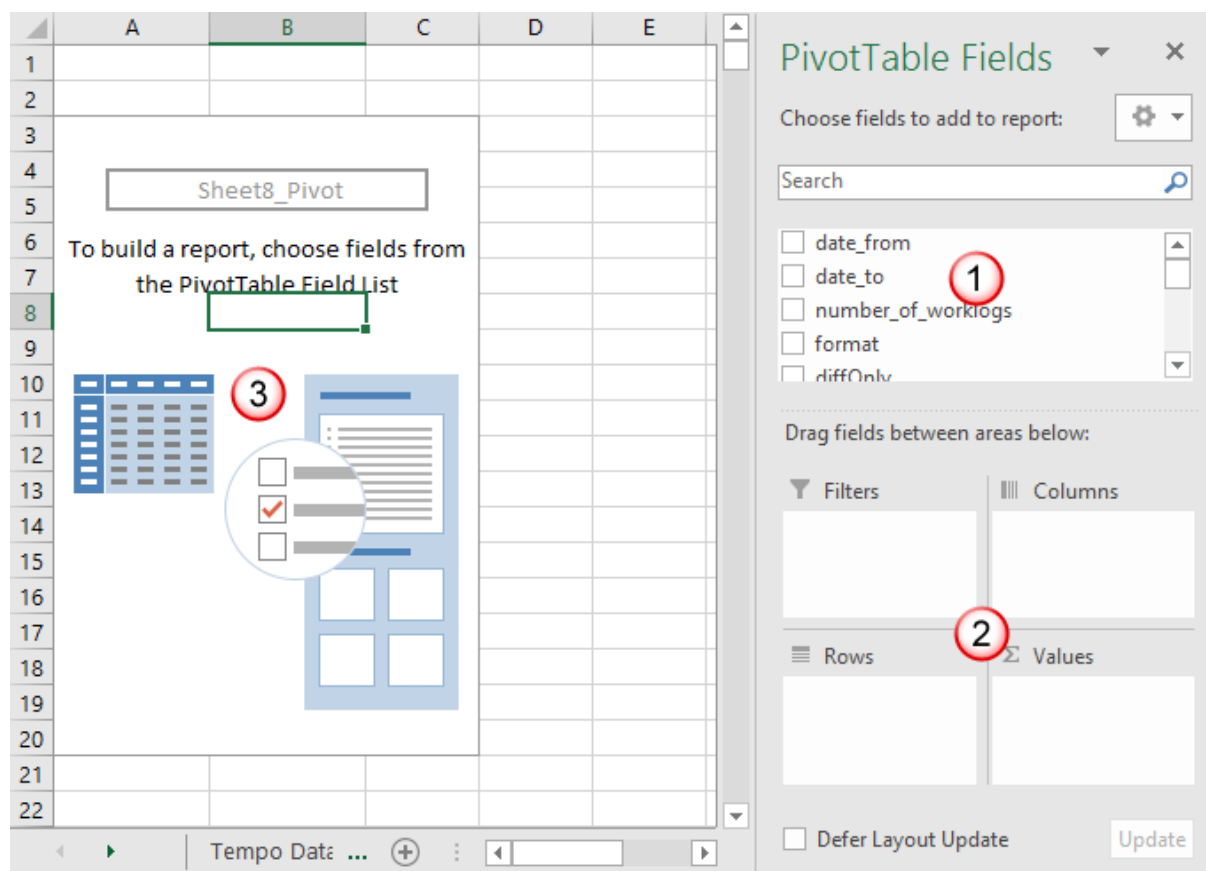
1. PivotTable Field List – this section in the top right displays the fields in your spreadsheet. You may check a field or drag it to a quadrant in the lower part.

2. Pivot Data quadrants – this area defines where and how the data shows on your pivot table. You can have a field show in either a column or row. You may also indicate if the information should be counted, summed, averaged, filtered and so on.

3. This area will show the results of your selections from (1) and (2).

10.2   Configuring Jira and Tempo

Prior to using this Tempo Analysis Add-in you will need your JIRA administrator to complete steps 1 and 2 below.

10.2.1 Step 1 – Enable Your IP Using Tempo Access Control

JIRA administrators will need to start by enabling the IP addresses of the machines that will be able to access Tempo services. Administrators can add IP addresses to the list of Allowed addresses using Tempo Access Control.

Users' IP addresses must be included in the list in order to use the 'GetWorklogs' function in the Tempo Analysis Add-in. The Account Manager needs to be enabled with at least one Account configured.

The security token required by the Add-in is also on the access control screen.
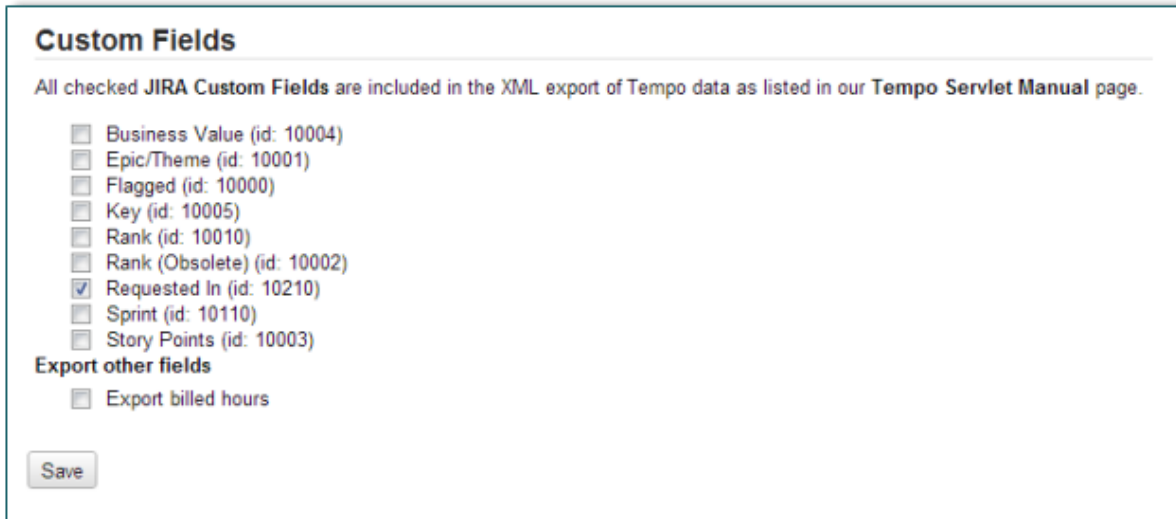
10.2.2 Step 2 – Configure JIRA Custom Field(s) for Export

If you would like to include JIRA custom fields to your Analysis, you will need to select them from the Tempo Administration's Fields section, as shown below.

Make a note of the ID next to each custom field the you include as you will need to include in the mapped fields list (see page 4)