Plugin PivotTable

Introduced in Tiki 16.2

se this wiki plugin to create dashboards with summaries of data in Tiki objects through the unified search index to produc
pivot table report of your choice. Initially this plugin works with tracker data, but other Tiki objects can be connected late
with this plugin. Results for the variables of interest (tracker fields, as well as creation_date, modification_date and
tracker_status of the items) are aggregated by criteria selected by the user.

It produces the JavaScript Pivot Table (aka Pivot Grid, Pivot Chart, Cross-Tab) implementation from Nicolas Kruchten with
drag'n'drop (see the list of changes in each version).

Parameters

Create and display data in pivot table for reporting

Introduced in Tiki 16.1. Required parameters are in **`bold`**.

Go to the source code

Preferences required: wikiplugin_pivottable

Parameters	Accepted Values	Description	Default	Since
(body of plugin)		Leave one space in the box below to allow easier editing of current values with the plugin popup helper later on		
`data`	text *separator:* `:`	For example 'tracker:1' or 'activitystream'	0	
`dataCallback`	text	Pass a custom javascript function to tweak the final layout and data traces before rendering them.		24.7
`chartTitle`	text	Override title when using Chart renderers.		16.3
`menuLimit`	digits	Pivottable menuLimit option override - number of entries to consider the menu list too big when filtering on a particular column or row.		16.2
`inclusions`	text	Filter values for fields in rows or columns. Contains JSON encoded object of arrays of strings.		
`xAxisLabel`	text	Override label of horizontal axis when using Chart renderers.		16.3
`yAxisLabel`	text	Override label of vertical axis when using Chart renderers.		16.3
`aggregateDetailsFormat`	text	Uses the translate function to replace %0 etc with the aggregate field values. E.g. "%0 any text %1"		22.1
`aggregateDetailsCallback`	text	Use custom javascript function to build the aggregate details popup window.		24.1
`colOrder`	text	The order in which column data is provided to the renderer, must be one of "key_a_to_z", "value_a_to_z", "value_z_to_a", ordering by value orders by column total.	key_a_to_z	
`height`	word	Height of charts. You have to only put the value (Unit: px). For instance, use `500` for 500 pixels.	400px	

`lang`	text	This helps to avoid pivotUI missing the choosen aggregator next time you change the site language. Default value: "site" if you want to keep using the site language	site	26
`rowOrder`	text	The order in which row data is provided to the renderer, must be one of "key_a_to_z", "value_a_to_z", "value_z_to_a", ordering by value orders by row total.	key_a_to_z	
`highlightChartType`	text			24.7
`width`	word	Width of charts. You have to only put the value (Unit: px). For instance, use `500` for 500 pixels.	100%	
`aggregatorName`	Count| Count Unique Values| List Unique Values| Sum| Integer Sum| Average| Minimum| Maximum| Sum over Sum| 80% Upper Bound| 80% Lower Bound| Sum as Fraction of Total| Sum as Fraction of Rows| Sum as Fraction of Columns| Count as Fraction of Total| Count as Fraction of Rows| Count as Fraction of Columns	Function to apply on the numeric values from the variables selected.	Count	
`allowStickyHeaders`	(blank) n y	Sticky Headers for the Pivot Table when scrolling top or left Default value: No	n	26
`chartHoverBar`	y n	Display the Chart hover bar or not.	y	16.3
`heatmapColors`	text *separator:* `:`			17
`highlightGroupColors`	text *separator:* `:`			18.1
`highlightRequest`	text *separator:* `:`	Highlight items' values matching those coming from request like a search form POST. List pairs of tracker field names and incoming request variable names separated by a dash.		24.7
`highlightGroup`	(blank) y n	Highlight items' values belonging to one of my groups in Charts.	n	16.3

Notes on **aggregateDetails**:

- The aggregateDetails accepts multiple field names or permNames separated by colon.
- The aggregateDetails parameter is also enabled by default and can be disabled setting aggregateDetails to an empty string.
- Each item has the associated object_link available by default and clickable in the popup where the aggregateDetails field data is shown.
    - It will work with other unified search index content entries (not only tracker items) but might be slow for large result sets.
    - It is only activated if aggregateDetails is not disabled. Therefore, there is a workaround to disable this feature for large sets of data (e.g. containing several or hundreds of thousands of items).

Basic Usage

Basic usage requires just to provide the data source (e.g. a tracker with id 1: "**tracker:1**" since Tiki16, or **activitystream** also since Tiki19), and the rest will be taken as default values by the pivot table plugin, and you will e able to edit it through the PivotTable UI itself. That will allow you to display all field names of the tracker, and will le you drag and drop them in rows or columns of the pivot table editor.

That will cover most use cases. However, if your dataset is huge, or the tracker has many fields, and some of them carrying heavy data (long text fields, or big files/images attached to the tracker items in files tracker fields), you can use an advanced syntax to filter the number of items or reduce the amount of tracker fields exposed to the pivot table to work with, so that performance of the pivot table plugin is fast again. See below for "Advanced Usage"

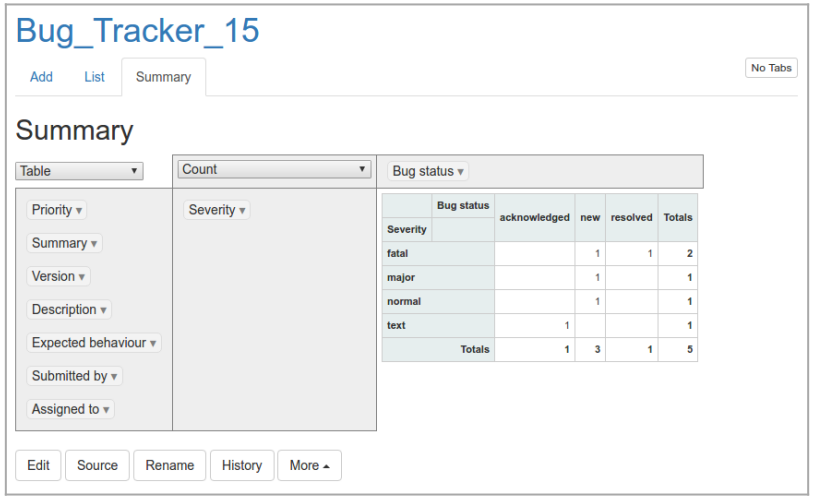
Example 1

After installing the Bug_Tracker_16 profile on a brand new Tiki 16, you will get a new tracker with id 1 to hold the data of the bug reports/issue tickets. When you add a few dozen items, you can use some syntax like the one indicated below to produce some demo pivot tables table with default values as a starting point, to let you start reviewing the data as wiki-wiki (quick) as possible.

This code:

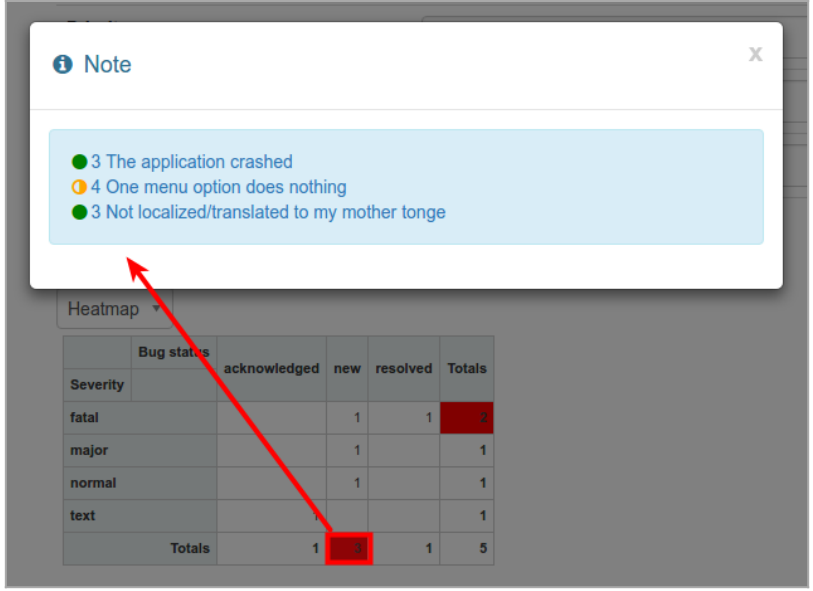
```
{pivottable data="tracker:1"}
```

Would produce with the data from that profile (at the time of this writing):



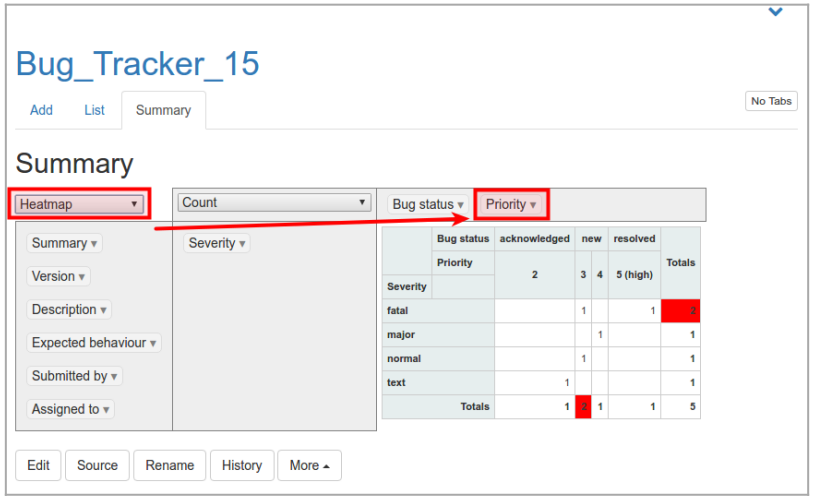
Click to expand

Once saved, you can click on any cell of the pivottable report, and you will be shown a popup with the information tracker items that produced the count for that cel, with a link to view the full record of each of the tracker items.



Click to expand

From there we can edit the Pivottable again through the PivotTable UI itself, and modify the variables to be used as row or column data, or add new variables in columns, change the type of table or chart produced, etc.
A table can even consider more than one value in a single dimension. The following example therefore uses both Status and Priority on the horizontal axis (meaning a column can have subcolumns):



Click to expand

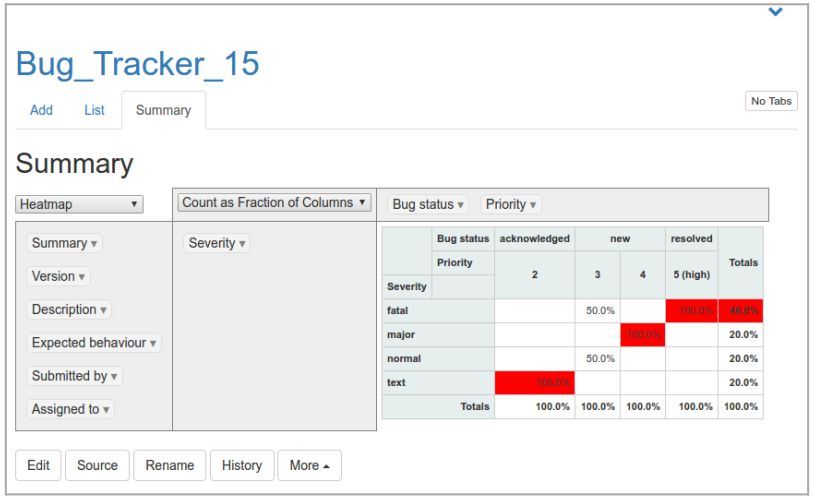
Example 2

A default configuration for each parameter of the plugin can also be specified. For instance, the values considered in both dimensions can be specified, using the *rows* and *cols* parameters, as in the following example (which considers 2 values on the horizontal axis, as in the previous screenshot).

This code:

```
{PIVOTTABLE(data="tracker:1" width="100%" height="500px" rows="bug_tracker_severity"
cols="bug_tracker_bug_status:bug_tracker_priority" rendererName="Heatmap" aggregatorName="Count as Fractio
of Columns" vals="bug_tracker_priority")} {PIVOTTABLE}
```

Would produce with the data from that profile (at the time of this writing):



Click to expand

Example 3

You can also make some charts:

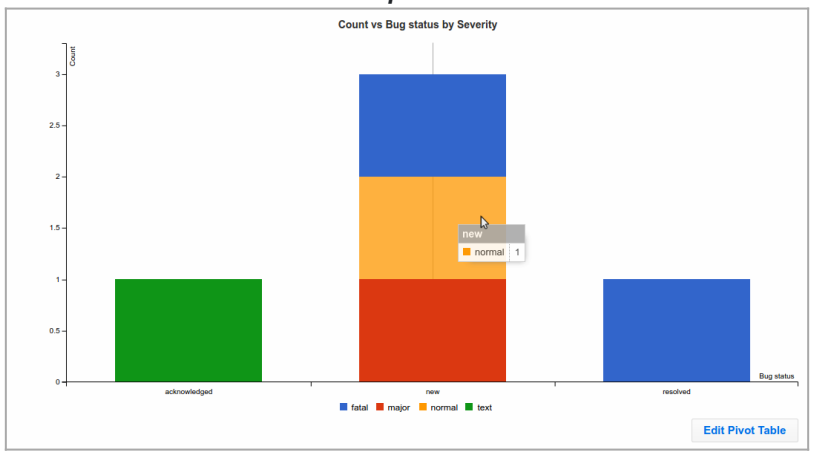
- Line Chart
- Bar Chart

- Stacked Bar Chart
- Area Chart
- Scatter Chart

For instance...
This code:

{PIVOTTABLE(data="tracker:1" width="400px" height="300px" rows="bug_tracker_severity" cols="bug_tracker_bug_status" rendererName="Stacked Bar Chart" aggregatorName="Count")} {PIVOTTABLE}

Would produce:



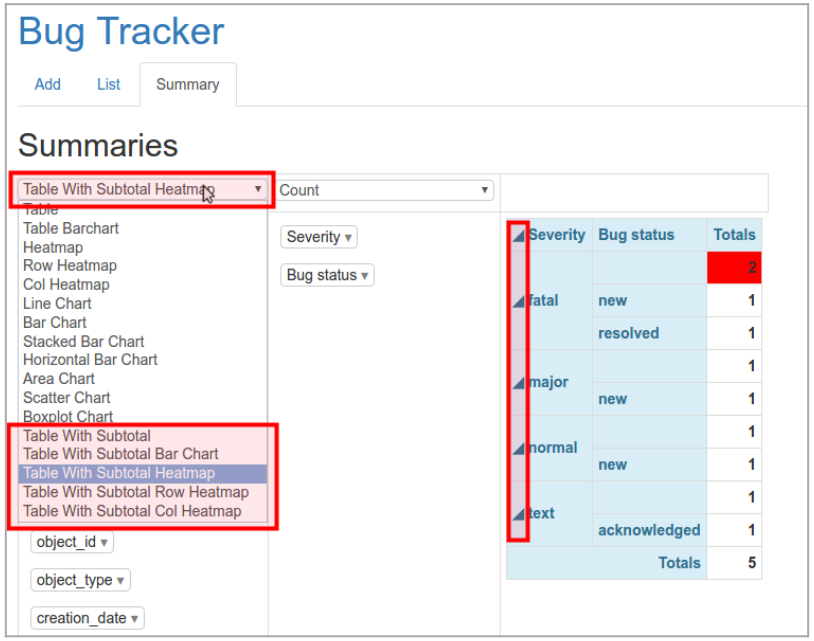
Click to expand

Example 4 (subtotals since Tiki 18)

Since Tiki18 new renderers were added to allow displaying subtotal sums for rows in the table, through the addition o subtotal.js to the plugin:

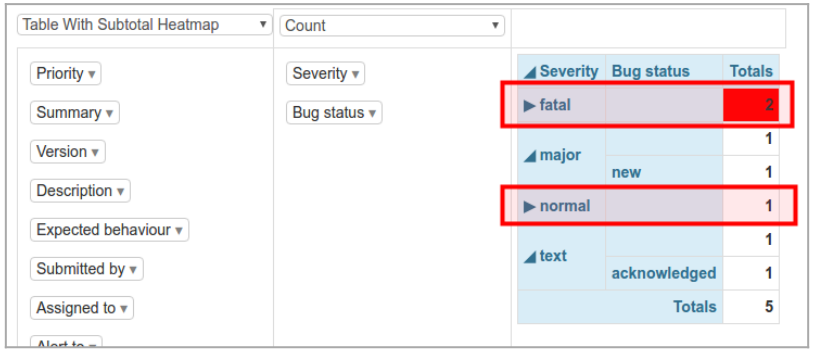
- Table With Subtotal
- Table With Subtotal Bar Chart

- Table With Subtotal Heatmap
- Table With Subtotal Row Heatmap
- Table With Subtotal Col Heatmap



Click to expand

If you click on the triangle at the left of each row name ("Severity" values, in this example), you will get the options of the next column ("Bug Status", in this example) contracted, hiding the different values of this other column, and showing only the subtotals for the field where you first clicked at (a "severity" value, or the whole column "Severity").



Click to expand

Example 5 (activity stream since Tiki19)

Since Tiki19, you can display data from the PluginActivityStream into the Plugin PivotTable.
Minimum syntax to let the user choose options throught the PivotTable UI:

```
{pivottable data="activitystream"}
```

Example:

```
{pivottable data="activitystream" rows="object:type" cols="modification_date" width="100%" height="1000px"
rendererName="Bar Chart" aggregatorName="Count" inclusions="{}" menuLimit="500"
aggregateDetails="object_type"}
```

Advanced Usage

f your dataset is huge (many thousands), or the tracker has many fields (many hundreds), and some of them carrying heavy data (long text fields, or big files/images attached to the tracker items in files tracker fields), you can use an dvanced syntax to filter the number of items or reduce the amount of tracker fields exposed to the pivot table to wor with, so that the good performance of the pivot table plugin is preserved.
You can use the **filter** or **display** commands (both from PluginList) to indicate which items (filter) or tracker fields (display) you want to use, respectively, in the pivot table plugin.
Example:

```
{display name="tracker_field_JobType"}
```

See:

- PluginList filter control block
- PluginList display control block

Add creation_date, modification_date and status

You can also indicate if you want the creation_date, modification_date and status if the tracker items to be displayed as optional variables to be used in the report.

{display name="creation_date" format="datetime"} {display name="modification_date" format="datetime"} {display name="tracker_status"}

Customize aggregation date values

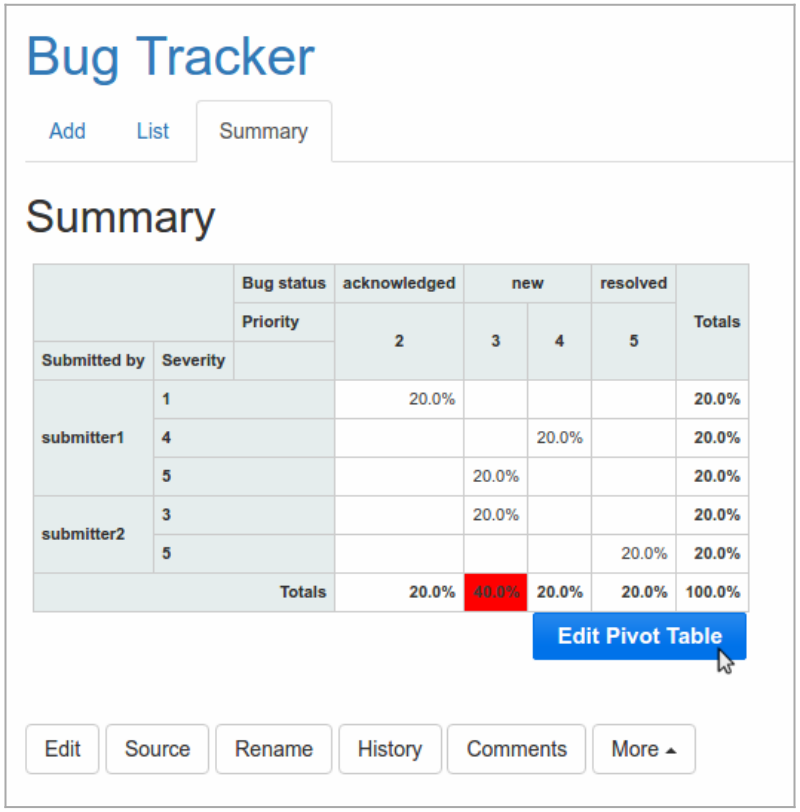
See Derived Attribute of a date

Advanced Example 1

This code:

{PIVOTTABLE(data="tracker:4" rows="bug_tracker_submitted_by:bug_tracker_severity:" cols="bug_tracker_bug_status:bug_tracker_priority:" rendererName="Heatmap" aggregatorName="Count as Fraction of Total")} {display name="tracker_field_bug_tracker_submitted_by" default=""} {display name="tracker_field_bug_tracker_severity" default=""} {display name="tracker_field_bug_tracker_bug_status" default=""} {display name="tracker_field_bug_tracker_priority" default=""} {display name="tracker_field_bug_tracker_version" default=""} {PIVOTTABLE}

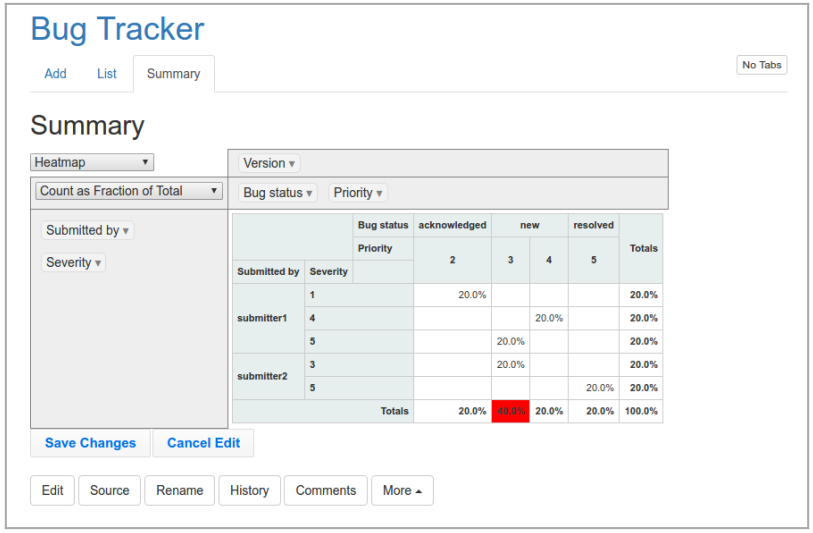
Would produce with the data from that profile (at the time of this writing):



		Bug status	acknowledged	new		resolved	Totals
		Priority	2	3	4	5	
Submitted by	Severity						
submitter1	1		20.0%				20.0%
	4				20.0%		20.0%
	5			20.0%			20.0%
submitter2	3			20.0%			20.0%
	5					20.0%	20.0%
Totals			20.0%	40.0%	20.0%	20.0%	100.0%

Click to expand

And once you click at the **Edit Pivot Table** button, you would see the controls to edit variable selection, but notice that you have less amount of variables to choose from than before; only the ones you have selected in the display commands of the plugin body above:



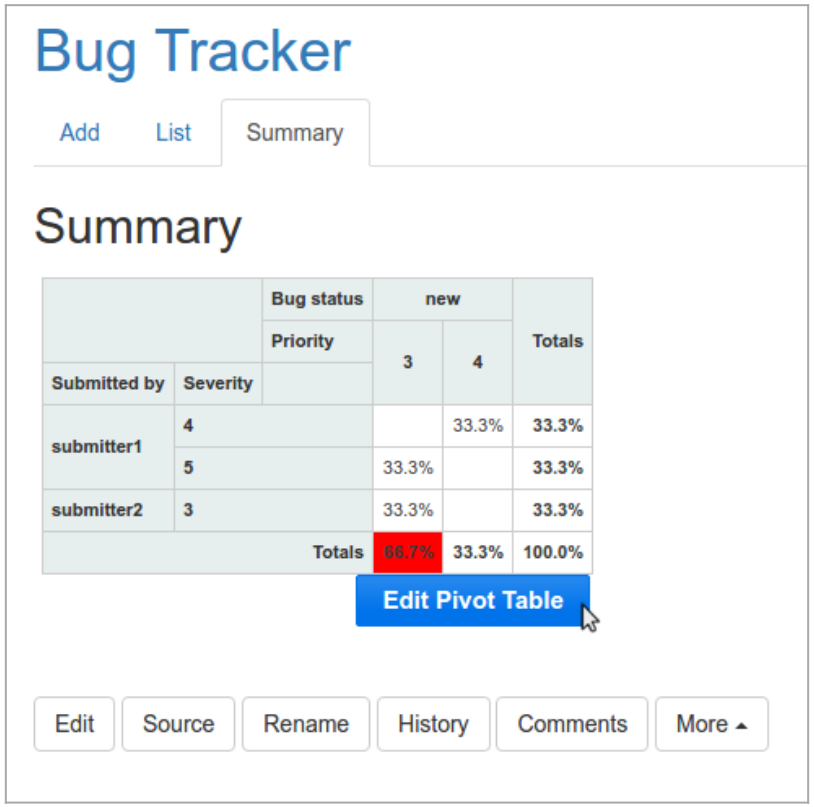
Click to expand

Advanced example 2

This code:

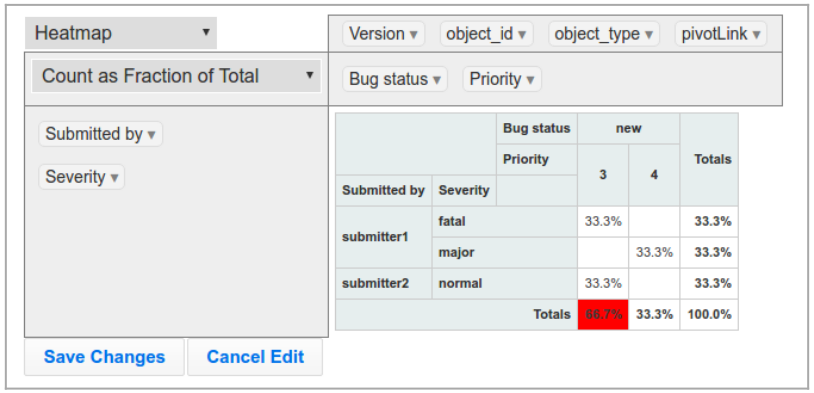
{PIVOTTABLE(data="tracker:4" rows="bug_tracker_submitted_by:bug_tracker_severity:" cols="bug_tracker_bug_status:bug_tracker_priority:" rendererName="Heatmap" aggregatorName="Count as Fraction of Total")} {filter field="tracker_field_bug_tracker_bug_status" content="new"} {display name="tracker_field_bug_tracker_submitted_by" default=""} {display name="tracker_field_bug_tracker_severity" default=""} {display name="tracker_field_bug_tracker_bug_status" default=""} {display name="tracker_field_bug_tracker_priority" default=""} {display name="tracker_field_bug_tracker_version" default=""} {PIVOTTABLE}

Would produce the same as before, but restricting the data set to only those items tagged as new bugs (bug status is "new"):



Click to expand

Again, if you edit the pivot table, you will see that also have the restricted the number of fields, as well as the data points, that comply with your filtering criteria:



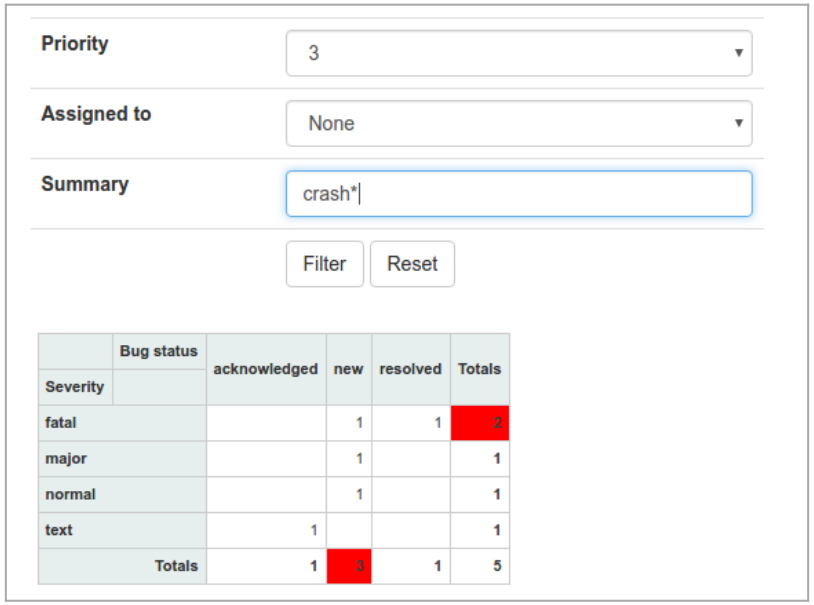
Click to expand

Advanced example 3

Since Tiki 16.2, any plugin using unified index search formatter and wikibuilder (aka filter, output, display, format, etc wiki syntax, such as PluginPivottable) now accepts `{filter field=... editable=...}` syntax to allow user enter a search value instead of hard-coding it. This means a trackerfilter-like functionality for unified index-based plugins.
You can see this feature in action if you apply profile Bug_Tracker_16
Therefore, this code:

{PIVOTTABLE(data="tracker:4" rows="bug_tracker_severity" cols="bug_tracker_bug_status" rendererName="Heatmap" aggregatorName="Count")} {filter field="tracker_field_bug_tracker_priority" editable="content"} {filter field="tracker_field_bug_tracker_assignee" editable="content"} {filter field="tracker_field_bug_tracker_summary" editable="content"} {PIVOTTABLE}

Would produce the expected pivottable report, with some fields on top to allow the user to filter results before re-drawing the table or chart:



Severity	Bug status	acknowledged	new	resolved	Totals
fatal			1	1	2
major			1		1
normal			1		1
text		1			1
Totals		1	3	1	5

Click to expand

Related pages

- Grouped Data
- Derived Attribute of a date
- Profiles Wizard
- Trackers
- http://nicolas.kruchten.com/pivottable/
    - https://github.com/nicolaskruchten/pivottable/wiki

Aliases

Plugin Pivot Table | Plugin PivotTable | PluginPivot Table | Pivot Table | PivotTable | Plugin Pivot Tables | Plugin PivotTables | PluginPivot Tables | Pivot Tables | PivotTables | Plugin Data Pilot | Plugin DataPilot | PluginData Pilot | Dat Pilot | Data Pilot |