Applying filters to historical data

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Neste artigo

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It's important to understand how filters are applied to historical revisions of the work item. This is especially relevant when reporting on trends. For example, tracking over time the number of Active Bugs or the number of Features with the tag "Customer".

Both Analytics Views and the Burndown and Burnup widgets let you configure filters which scope the data set to your needs. Filters can scope the data to specific teams, work item types, or backlogs. Filters may also include the ability to filter on any field and a corresponding value. For example, you could filter work items to "Bugs" belonging to team "Admirals" which have the tag "Customer".

How filters are applied to historical data

Filters are applied to each revision of a work item. For example, let's say we have a work item that has the following revisions:

Rev #	Changed Date	ID	Title	State	Area Path	Tags
1	Jan-01	1001	A bug	New		
2	Jan-02	1001	A bug	New	/Admirals	
3	Jan-10	1001	A bug	Active	/Admirals	
4	Jan-12	1001	A bug	Active	/Admirals	Customer
5	Jan-20	1001	A bug	Resolved	/Admirals	Customer
6 (Current)	Jan-28	1001	A bug	Closed	/Admirals	Customer

The latest revision (#6) is the Current revision of the work item. In Analytics Views, if you selected "Current only" in the History tab, you would get one row of data for this work item, the current row.

When reporting on history, we could potentially be pulling in revisions 1 through 6 for reporting.

Let's say when creating an Analytics View or configuring the Burndown widget, you set these two filters:

- Area Path = /Admirals
- Tags contains Customer

Applying these filters to the set of work item revisions yields the following matches:

Match?	Rev #	Changed Date	ID	Title	State	Area Path	Tags

Match?	Rev #	Changed Date	ID	Title	State	Area Path	Tags
✗	1	Jan-01	1001	A bug	New		
✗	2	Jan-02	1001	A bug	New	/Admirals	
✗	3	Jan-10	1001	A bug	Active	/Admirals	
✓	4	Jan-12	1001	A bug	Active	/Admirals	Customer
✓	5	Jan-20	1001	A bug	Resolved	/Admirals	Customer
✓	6 (Current)	Jan-28	1001	A bug	Closed	/Admirals	Customer

Revisions 1, 2 and 3 do not match, because those revisions did not match the filters. In short, the above work item would not appear in your data set, or in your trend chart, until revision 4, or Jan-12.

Let's say you wanted to report on your trend of Active bugs, you'd create a filter of State = Active. Those filters would match the following revisions:

Match?	Rev #	Changed Date	ID	Title	State	Area Path	Tags
✗	1	Jan-01	1001	A bug	New		
✗	2	Jan-02	1001	A bug	New	/Admirals	
✓	3	Jan-10	1001	A bug	Active	/Admirals	
✓	4	Jan-12	1001	A bug	Active	/Admirals	Customer
✗	5	Jan-20	1001	A bug	Resolved	/Admirals	Customer
✗	6 (Current)	Jan-28	1001	A bug	Closed	/Admirals	Customer

The filters would only match revision 3 and 4 of the work item, and would only include the Jan-10 and Jan-12 revisions in your trend chart.

What does this mean for Burndown?

If you configure a Burndown (or Burnup) widget that filters for a given Tag (e.g.: "Customer"), work items will not appear in your burndown until the date the work item has the Tag. If at any point, the Tag is removed from the work item, that work item will be omitted from the burndown after the date the Tag was removed.

Some have assumed that if the current version of a work item has the Tag, then it will be included in the burndown retroactively from the start. For example, if the current version of the work item has the tag "Customer", it was assumed that work item would be included in the burndown from the point the work item was created.

This is not how historical filtering works. If filters were only applied based on the current version of a work item, then trend charts would simply not work. You would not be able to remove an item from your burndown by removing a Tag, or by setting the Area Path to another team's area path.

> ⓘ **Observação**

We are considering adding a "was ever" operand to the filter criteria in Analytics Views and widgets such as Burndown/Burnup. This feature would allow you to create a filter like: "State **was ever** Active". This would mean a work item revision would match the filter criteria if any revision of the work item ever had State = Active. If you believe this feature is important, you can **vote for it on our Developer Community site**.

Conclusion

To restate, when reporting on historical data, all filters are applied to the work item's version as-of the historical point in time. Work items will appear in your trend when they meet the filter criteria. They will disappear from your trend when they no longer meet the filter criteria.