## eCD 2023 Training

## Main goals:

- 1. Remaind/try report features that allow avoiding creating calculations.
- 2. Understand what calculation is needed depending on the question and train to write some.
- 3. Feel free to explore a feature you are interested in or even apply to your own reports, and then come back we will try to follow the script. Ask help to support!

## Let's create a report.

Overview by resolved issues per each month with logged/estimated hours

- 1. Report with Time in rows, filter Projects. Measures "Issues resolved", "Hours spent", "Original estimated hours" in columns (use **Search** in measures)
  - a. Check in the **documentation** by what date each measure is counted to time: **U** Jira Core measures and dimensions
  - b. Drill through issues and notice the measures are not related to each other.
- 2. Draw a trendline of resolved issues and cumulative logged hours: use **Standard calculations:** UC Create reports
- 3. In a report chart:
  - a. Use separate axis option in the chart: Use Customize chart
  - b. Conditional chart formatting "top/bottom" option for resolved: III Charts conditional formatting
  - c. Save report
- 4. Back to the table: remove trendline and cumulative. Add measure "Days in transition status"
  - a. temporary add Page filter by "Resolution", select "Done" and understand why values disappear for historical measure: Unport issu e change history
  - b. drill into dimension "Transition status" from this measure: U Create reports
  - c. Conditional cell formatting "Heatmap" option for this measure: US Conditional cell formatting
  - d. Save as report

## eazy MDX - when you want to refine your report

- 1. We will use the first report (Time in rows, "Hours spent" and "Issues resolved" in columns, Time and Project in Pages), remove the trendline and cumulative.
- 2. If I want all logged hours (whenever they were logged) for resolved issues only....
  - a. Import time tracking measures and use "Hours spent resolved" III Time tracking measures
- 3. If I want hours logged during this month, but only for resolved issues...
  - a. use Resolution dimension
  - b. create a **calculated measure** with a **tuple** from Hours spent and this Resolution member: U Tuple

```
1 (
2 [Measures].[Hours spent],
3 [Resolution].[Done]
4 )
```

- 4. Hours spent only for parent issues (no subtasks) and only highest priorities
  - a. Find Issue type by Type hierarchy

b. Create calculated member "High importance" in the Priority dimension to aggregate the two highest priorities: III Calculated memb

```
ers in other dimensions
```

```
1 Aggregate(
2 -- notice set {}
3 {[Priority].[Highest],
4 [Priority].[High]}
5 )
```

c. or

```
1 Aggregate(
2 Filter(
3 --filter only Priority level members
4 [Priority].[Priority].Members,
5 [Priority].CurrentMember.Name MATCHES "High.*"
6 )
7 )
```

d. Calculated measure "Logged hours for high importance done parent issues" with a tuple

```
1 (
2 -- measure
3 [Measures].[Hours spent],
4 -- imported member
5 [Resolution].[Done],
6 -- imported member from specified hierarchy
7 [Issue Type.By type].[Standard],
8 --calculated member
9 [Priority].[High importance]
10 )
```

5. % of Hours spent in this month against the year

a. Use Add calculated: % of total - it calculates % for each row from visible rows

- 6. % of Hours spent for high-importance done parent issues against all logged hours per month
  - a. create calculated measure with division "% : CASE statement to avoid dividing by zero

```
1 CASE WHEN
2 --executed division only when there is a value
3 [Measures].[Hours spent]>0
4 THEN
5 -- arithmetical division between calculated measure and predefined measure
6 [Measures].[Logged hours for high importance done parent issues]
7 /
8 [Measures].[Hours spent]
9 END
```

- 7. Find months with actual hours more than estimated
  - a. Conditional cell formatting with a custom calculation: U Conditional cell formatting
  - b. For the calculation formula, use **comparable measures** that reflect the **report context** (time) in the same way: "Hours spent resolved" and "Original estimated hours resolved."
    - 1 [Measures].[Original estimated hours resolved] -
    - 2 [Measures].[Hours spent resolved]

| Cell formattin                                                                                                                                                                                                                                  | ig for: Hours spe | ent resolved Custo | om formula |      |            |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|------------|------|------------|--------------|
| <pre>1 [Measures].[Original estimated hours resolved] - 2 [Measures].[Hours spent resolved]</pre>                                                                                                                                               |                   |                    |            |      |            |              |
| Range Exact value Regular expression Top/Bottom Heatmap                                                                                                                                                                                         |                   |                    |            |      |            |              |
| Min                                                                                                                                                                                                                                             | Мах               | Text               | Background | Bold | Sample     |              |
| :                                                                                                                                                                                                                                               | -0.01             | Default            | × ×        |      | 123.45     | Delete       |
| : 0                                                                                                                                                                                                                                             |                   | Default            | × ×        |      | 123.45     | Delete       |
| Add new rule Specify ranges of values that should have different formatting. The first matching rule will be used (you can reorder rules with drag- and-drop). Leave the condition empty to specify default formatting.  Apply to all row cells |                   |                    |            |      |            |              |
|                                                                                                                                                                                                                                                 |                   |                    |            |      | Apply Clea | r all cancel |

8. Count resolved **issues** for each month that are underestimated

- a. there is more than one **measure** that must be all applied on the issue level → iterate through issues with **Descendants** or DescendantsSet: **U**Descendants
- b. Option with Count() (use NonZero() to avoid 0 instead of empty values):

```
1 NonZero(Count(
 2
    Filter(
 3 --itterate through issues
 4
        Descendants([Issue].CurrentMember, [Issue].[Issue]),
 5
   --filter by resolution date
 6
        DateInPeriod(
 7
         [Issue].CurrentMember.get('Resolved at'),
 8
         [Time].CurrentHierarchyMember
 9
        )
10
       AND
11 --underestimated only
12
        [Measures].[Original estimated hours resolved] - [Measures].[Hours spent resolved]<0
13
     )
14 ))
```

```
c. Option with Sum(): USum
```

```
1 Sum(
2 -- set expression
3 Filter(
4 Descendants([Issue].CurrentMember, [Issue].[Issue]),
5 DateInPeriod(
6 [Issue].CurrentMember.get('Resolved at'),
7 [Time].CurrentHierarchyMember
8 )),
```

```
9 -- numerical expression

10 CASE WHEN

11 --only when underestimated

12 [Measures].[Original estimated hours resolved] - [Measures].[Hours spent resolved]<0

13 THEN

14 --then count

15 [Measures].[Issues resolved]

16 END

17 )

18 )
```

d. Use integer formatting!