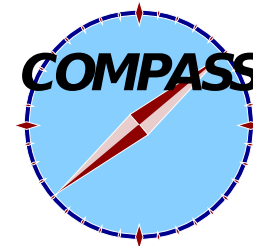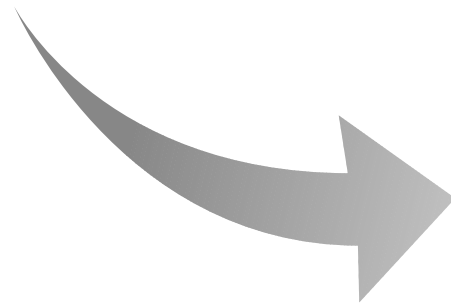# COMPASS DCS

Trending

Trending: Custom Plots

From last minutes

" a general note that the trending configuration should be easy to use for non-WinCC OA users; ie. trending should show devices (LOGICAL view, or FSM) and not only the datapoint tree"
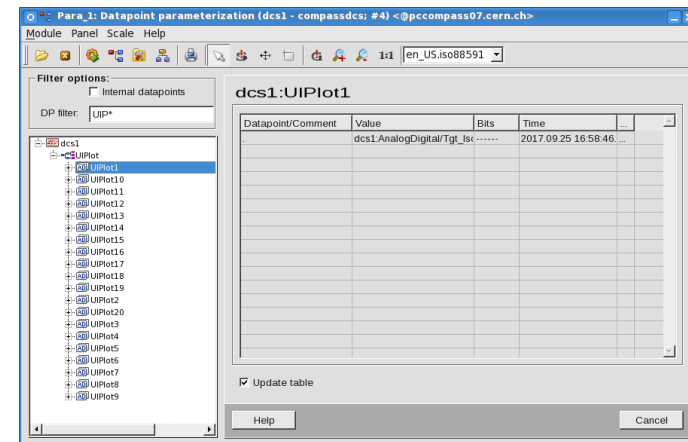
Custom Plots

Trending: Custom Plots

- Easy way to create custom plots

  - Right-click UI objects to add devices via popup menu

    - No need to know names

  - Custom Plot button

  - Plot

C. Pires - September, 2017   **COMPASS DCS: Trending**

Trending: Custom Plots

Demo

Trending: Custom Plots

- A datapoint to hold the currently selected devices

  - One per UI

    - Created/Cleared at start

  - One function to add/check the selected devices

- UI object

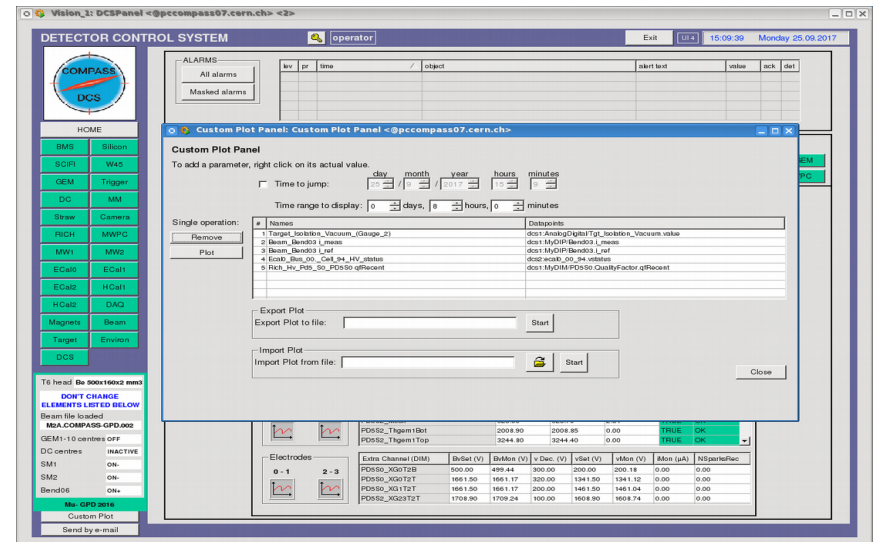 - RightMousePressed event

    - PopupMenu()


```
1  main() {
2
3    int answer, result;
4    dyn_string txt = makeDynString("PUSH_BUTTON, Add to custom Plot,2,1");
5
6    txt = makeDynString("PUSH_BUTTON, Add to custom Plot,2,1");
7
8    int result = popupMenu(txt, answer);
9
10   if(result != -1)  {
11     switch(answer){
12       case 2:
13         addToDpUIPlot($sDpName);
14         break;
15       default: break;
16     }
17   }
18 }
```
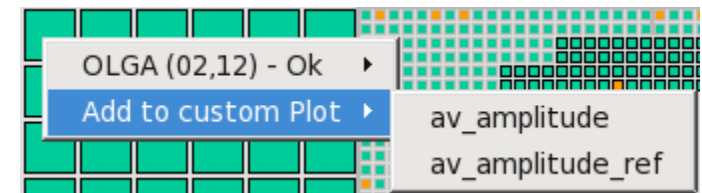
Trending: Custom Plots

- Custom Plot button

    - Popup panel

        - selected devices

        - Starting time

        - Time range

        - Export/Import to/from file

- Plot – like fwTrendingQuickPlotButton.pnl

    - dpGet UIPlot datapoint

    - fwTrending/fwTrendingZoomedWindow.pnl

        - $sDpName dollar parameter

Trending: Custom Plots

- RightMousePressed event

  - Generic function?

    - For common DPTs
    - Event might be already used for another purpose

  - Replace by DragDrop event?

    - How to handle secondary/non visible parameters?

- Use fwTrendingPlotConfPanel.pnl instead of custom popup panel?
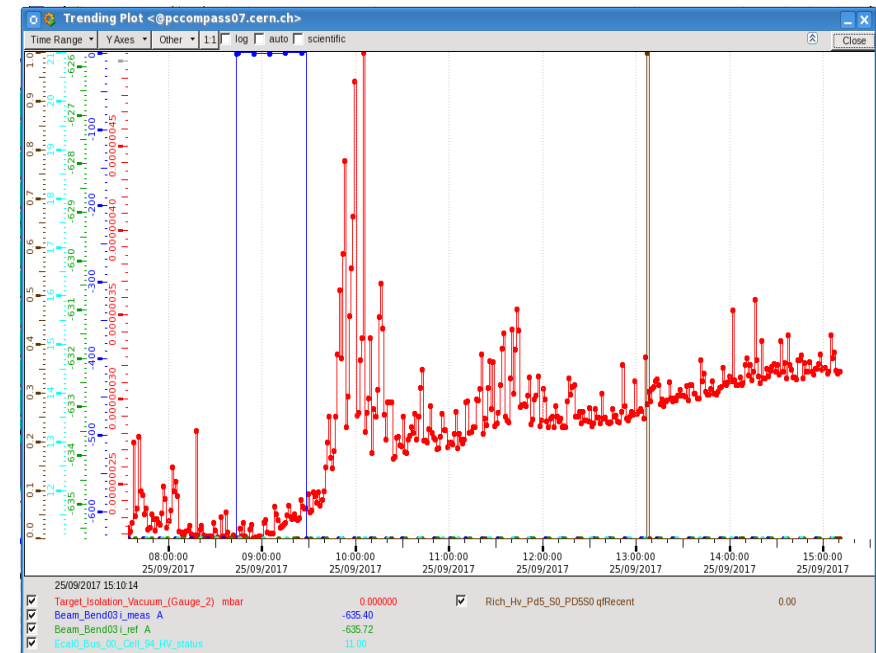
  - Save as FwTrendingPlot

Extra

Trending: Scientific notation

Trending: Scientific notation

- Linear scale

  - Regular decimals notation

    - Hard/Impossible to read small/big values

      - Curve value
      - Legend value
      - YY axis scale

- Logarithmic scale

  - Unreadable YY axis scales when the value doesn't change much

Trending: Scientific notation

- Scientific notation

    - New checkbox, when active

        - YY axis scale updated

        - Value curve updated

            - TextChanged event

- TextChanged event

    - Called two times per new reading

        - Flickering if the parameter changes too often

            - Dirty/Not optimal