

JEVP Online Plot Package

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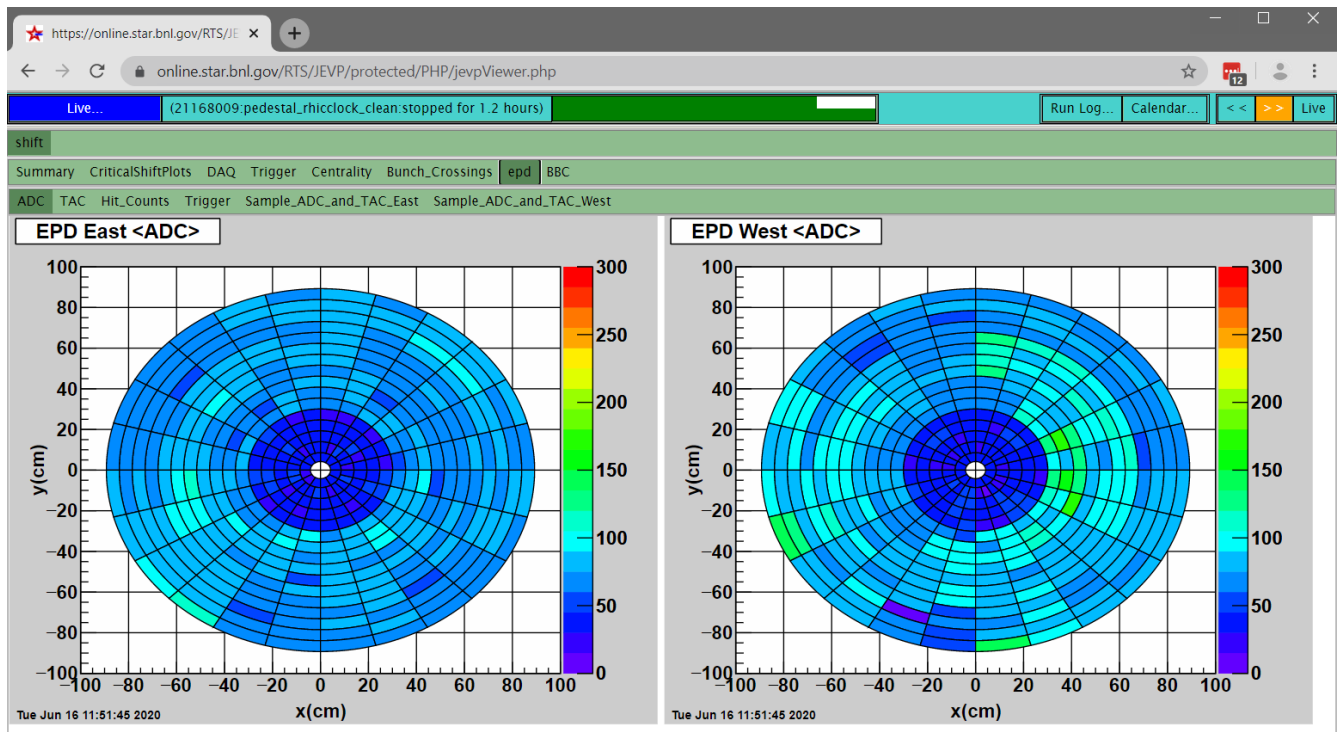
As of June 2020 there are two different ways to access the online histograms. The main system is now online at the URL:

<https://online.star.bnl.gov/RTS/JEVP/protected/PHP/jevpViewer.php>

In addition, you can navigate to this web page from the online web page via "Online Q/A histograms". You can also find direct links to any run after March 27th, 2020 via trigger details in the run log.

The second method is the old Jevp Presenter that runs on "rts04" in the control room. This interface is now obsolete.

I. The jevpViewer Web Page



The jevpViewer web page should be simple to navigate. Simply click the appropriate tabs in order to select the desired detector/plots. It is possible to zoom in on a specific plot simply by clicking the plot. Clicking it again, will shrink it.

The top row gives additional control and information:

"Live..." button - Click this for a dropdown window allowing one to navigate to another run, or to pause the updating of the histograms.

The configuration file name - The run number/configuration file name is also an active button. Click this for additional status information.

The slider bars - The slider bars indicate the update status of the histograms. The top line repeats every five seconds when the system is auto-updating. This indicates the last time that the web page has contacted the web server to determine if any new plots have been generated. The lower line repeats every two minutes. This line indicates the age of the displayed plots, as measured from the time the last event was added. There is a typical delay of 20-30 seconds before the online plots will be available after the events have been taken.

If the current run is running, the slider bars should be green. If the run is paused the slider bars will be yellow. If the slider bars are red, then something about the status of the servers is inconsistent.

Navigation Buttons - There are also additional buttons to bring up the run log, the trigger versioning pages, and to quickly navigate to different runs.

II. Debugging

Only detectors that are in the run will be displayed in the online plots. In particular, if the L4 trigger is not in the run (or if there are no active L4 triggers), then there will be no L4 tab. However, if there is no "SHIFT" tab for a run in progress, or if L4 is in the run but there is no "L4" tab it may indicate that one of the servers is not running. In these cases follow these steps:

1. First make sure that there is a run taking events. The presenter does not start accumulating events unless there are "built" events in the daq monitor. If there are detector problems that lead to no events being built, the online histograms will not update.
2. Make sure that the top slider bar on the presenter window is green, and that it is moving. If not, try refreshing the web page.
3. Check the "daq monitoring" page. Click on the "trigger" line of the detector status and look for the node "EVP". If there are no events updating in the EVP section, then there will be no update to the histograms.

4. If the events are updating, then there is probably a problem with the Jevp Servers. Go to the next section and restart the servers.

III. The J EVP Servers

There are two J EVP servers: "SHIFT" and "L4". Both servers typically run at all times, and should restart themselves automatically if there is a problem. If one of the servers appears to be missing log in to `evpops@rts04`, and restart both sets of plots according to the following:

(SHIFT server)

```
> ssh evp (**** Note that there is NO space in this command!)
    And give the documented "evpops" password
> ./jevpHistoMother
```

(L4 server)

```
> ssh l4evp (**** Note that there is NO space in this command!)
    And give the documented "evpops" password
> ./l4HistoMother
```

IV. The JevpPresenter in the control room

The root based online presenter is obsolete and only runs on the "rts04" computer in the control room. It is used to view the histograms as they are produced by the currently run.

The program should be self-explanatory for most users. The plots will automatically begin updating when the first event of a new run arrives and remain visible until the next run begins.

Simply click on the tabs to change from one page of histograms to the next.

If the online presenter is not currently active, simply click the "Jevp" icon located on the desktop to start it. The launch of the presenter is very slow. If the presenter fails to start within about 30 seconds, the most likely reason is that the server has crashed.

The server should NOT crash frequently. Please make sure that you send an email to me (jml@bnl.gov) and make an entry in the shift log. Then proceed to the next step.

V. The historical run-by-run plots.

Plots in the `jevpViewer` web page remain visible forever. The plots are also saved in the database at the end of each run. To access them visit the standard STAR run log, and click on the pdf file which is listed under "QA Info Extended → #####.shift.pdf"

VI. Creating new plots:

The procedure for new plots is that the subsystem expert will write the code. There is a procedure to run the plotting code stand-alone, so the subsystem expert can debug the code using existing data files.

When the code is finished, it must be committed into CVS, and I will need to compile it into the running plot system.

For more information, checkout the code from the CVS repository in OnlTools/Jevp. In this directory follow the directions in the “readme.txt”, “readme-presenter.txt” and “readme-server.txt” files. These files contain information relating to the setup and development of histograms.