

# Access to MIPP SlowMon Information

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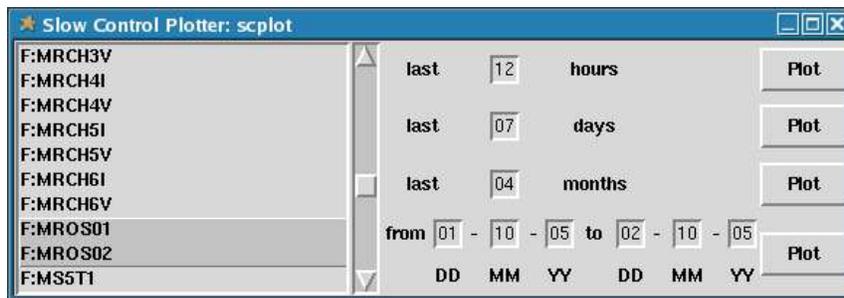
There are several ways to access the MIPP SlowMonitoring information.

1. For quick interactive plots use 'splot.py'
2. Direct access to the slowmon database with 'psql slowmon'
3. Converting a query to a ROOT NTuple
4. Through the MIPP offline software

## Scplot.py

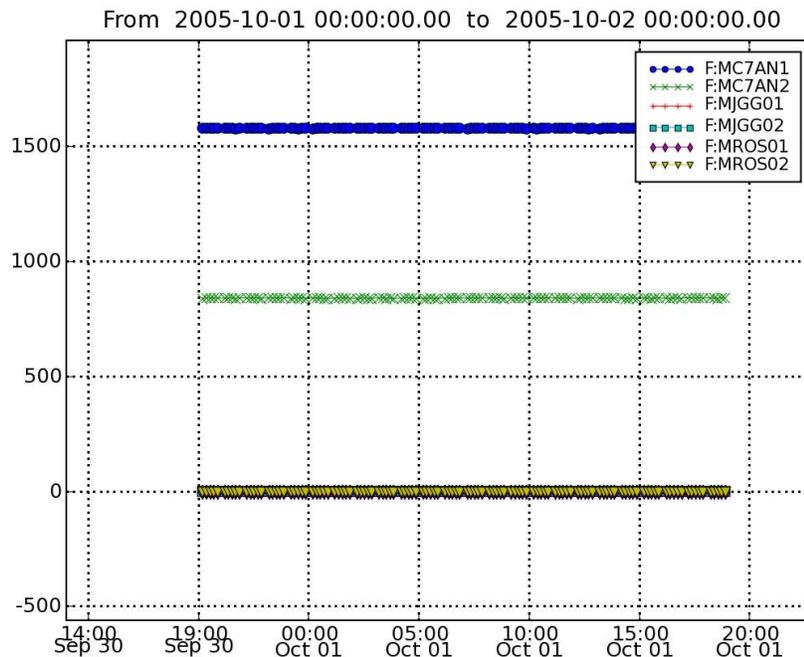
On e907ana2 or any other system with a working MIPP online release:

- >setrel devonline
- >splot.py



- Select devices and dates and click on 'Plot'. The example shows some devices on 1<sup>st</sup> October, 2005

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- Interactively zoom, etc.

## Direct access to slowmon database

If you are familiar with SQL syntax, direct access to the database may be the fastest way to get the answer. The database server can do simple computations for you. For example it can give minimum, maximum, and average for some device:

```
[hmeyer@e907anal ~]$ psql slowmon
Welcome to psql 7.4.11, the PostgreSQL interactive terminal.
```

```
Type:  \copyright for distribution terms
        \h for help with SQL commands
        \? for help on internal slash commands
        \g or terminate with semicolon to execute query
        \q to quit
```

```
SSL connection (cipher: DHE-RSA-AES256-SHA, bits: 256)
```

```
slowmon=> SELECT min(value),max(value),avg(value) AS average from
slowmon_report where date>'01-Oct-2005' and date<'02-Oct-2005' and
devname='F:MJGG01';
```

min	max	average
0.6888	0.68945	0.6890879166666666

(1 row)

```
slowmon=> \q
[hmeyer@e907anal ~]$
```

## ROOT Ntuple

Use the power of ROOT to easily make plots that are otherwise difficult to generate. Andre's dbToTree program, part of the MIPP offline releases, creates the ROOT file from any SQL query. You still have to know the SQL syntax:

```
- >setrel development
- >dbToTree slowmon "select value,date from slowmon_report where
  devname = 'F:MJGG01' and date>'01-oct-2005' and date<'02-oct-2005'"
- >root -l slowmon_slowmon_report.root
- root [1] slowmon_report->Draw("value:date")
```

This also works with other database tables, like 'calib' and 'runs'.

## MIPP offline software

Of course the offline software does interface with the slowmon and runs databases extensively. I will not describe this in detail here.

## General remarks

The information in the database is pretty complete. However, both Acnet and iFix keep detailed logs on their own. If you need more information than the MIPP slowmon db can provide, chances are that the information is available with some effort. Contact me for more details.

For example the information for MC6D during the last weeks of the run is unreliable in the database. The supply was ramped for each spill. Readings at regular 10 minute intervals mostly returned 0. The acnet log of MC6D for each spill is accessible from acnet page D44. Other devices are available for each spill, too.

iFix also keeps a log with multiple readings per minute of each device. This log can be exported.

Someone with too much time on their hands could even merge some of this additional information into the MIPP slowmon\_report database. ☺