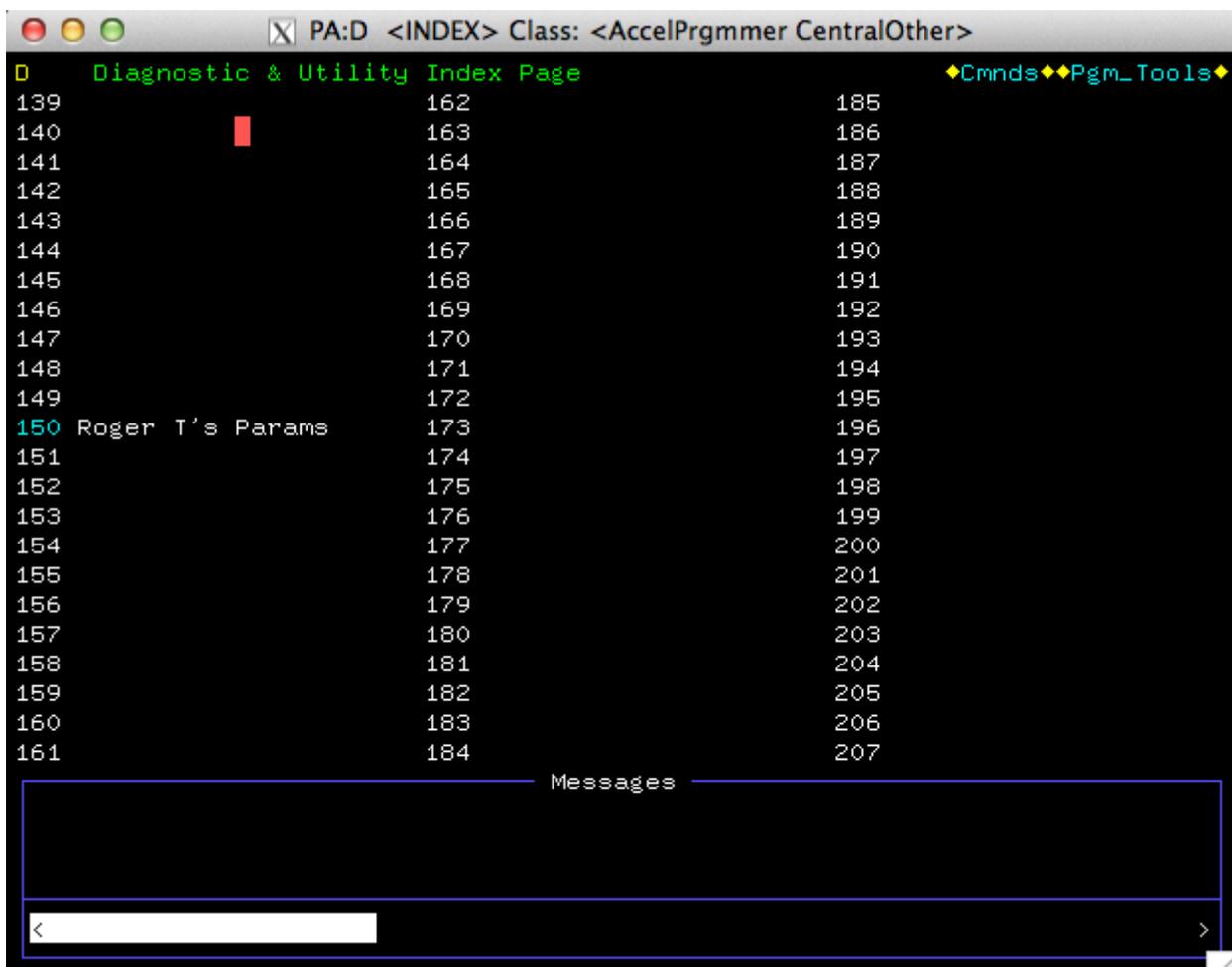


## PLOT ARRAY DATA

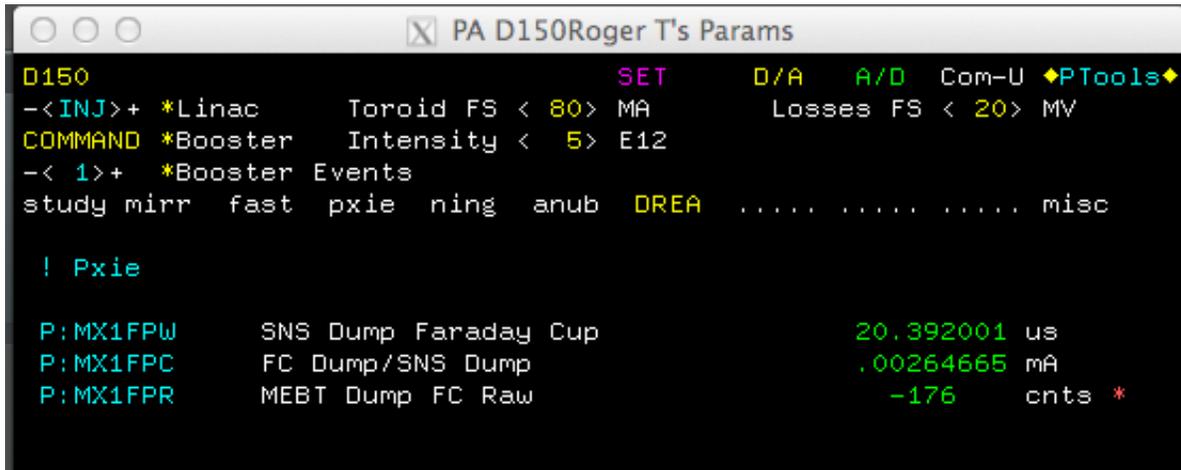
A tutorial on how to plot array data using P:MX1FPR.

Roger Tokarek  
Andrea Saewert  
May 2, 2016

1. Start with console page D150.



2. Go to sub-page 1 in sub-directory drea.



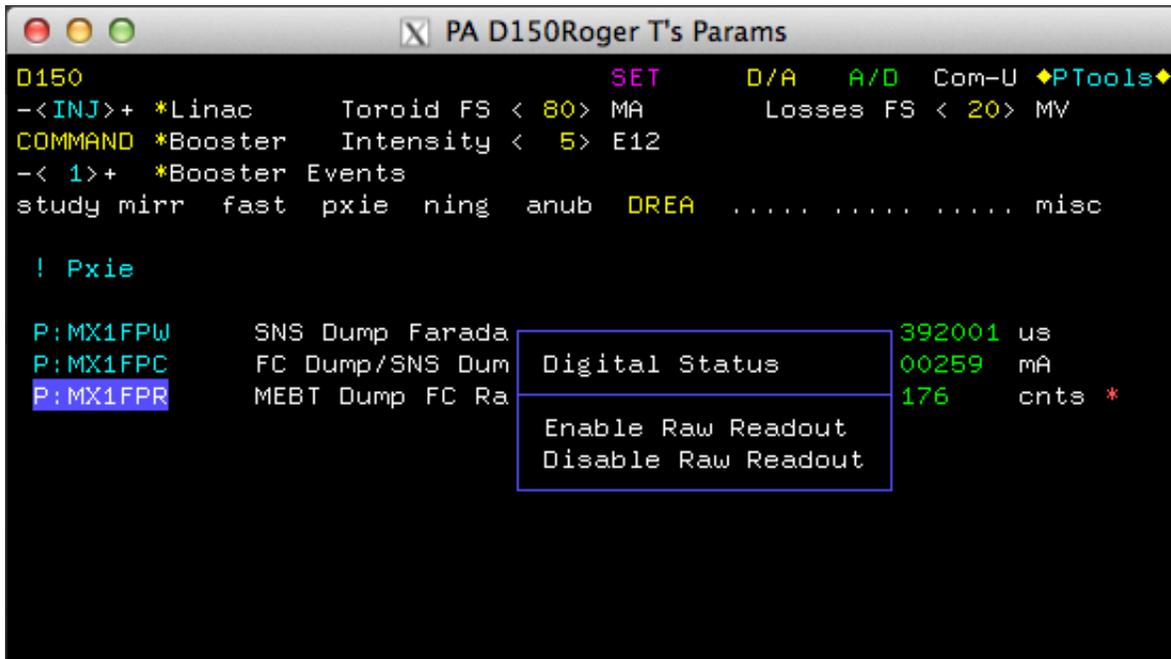
```
PA D150Roger T's Params
D150
-<INJ>+ *Linac      Toroid FS < 80> MA      D/A  A/D  Com-U  ♦PTools♦
                Losses FS < 20> MV
COMMAND *Booster  Intensity < 5> E12
-< 1>+ *Booster Events
study mirr fast pxie ning anub DREA ..... misc

! Pxie

P:MX1FPW      SNS Dump Faraday Cup      20,392001 us
P:MX1FPC      FC Dump/SNS Dump          .00264665 mA
P:MX1FPR      MEBT Dump FC Raw          -176      cnts *
```

3. Find the array data device P:MX1FPR.

Click on the red \* at the end of the line to open Digital Status box. Select "Enable Raw Readout".

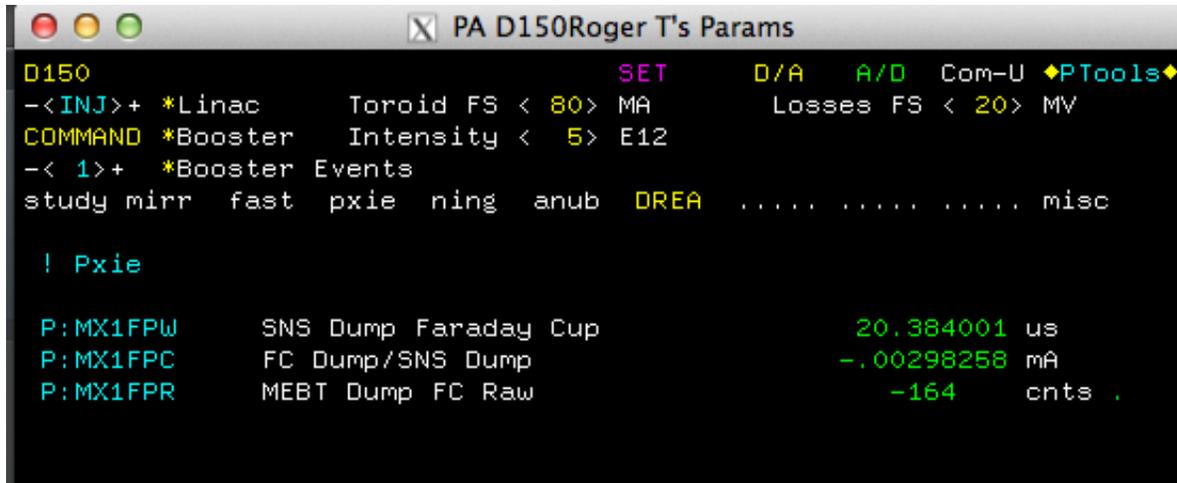


```
PA D150Roger T's Params
D150
-<INJ>+ *Linac      Toroid FS < 80> MA      D/A  A/D  Com-U  ♦PTools♦
                Losses FS < 20> MV
COMMAND *Booster  Intensity < 5> E12
-< 1>+ *Booster Events
study mirr fast pxie ning anub DREA ..... misc

! Pxie

P:MX1FPW      SNS Dump Farada      392001 us
P:MX1FPC      FC Dump/SNS Dum     00259 mA
P:MX1FPR      MEBT Dump FC Ra     176      cnts *
  Digital Status
  Enable Raw Readout
  Disable Raw Readout
```

4. Green dot indicates successful Raw Readout Enable.



```
PA D150Roger T's Params
D150                               SET      D/A   A/D   Com-U  ♦PTools♦
-<INJ>+ *Linac      Toroid FS < 80> MA      Losses FS < 20> MV
COMMAND *Booster  Intensity < 5> E12
-< 1>+ *Booster Events
study mirr fast pxie ning anub DREA ..... misc

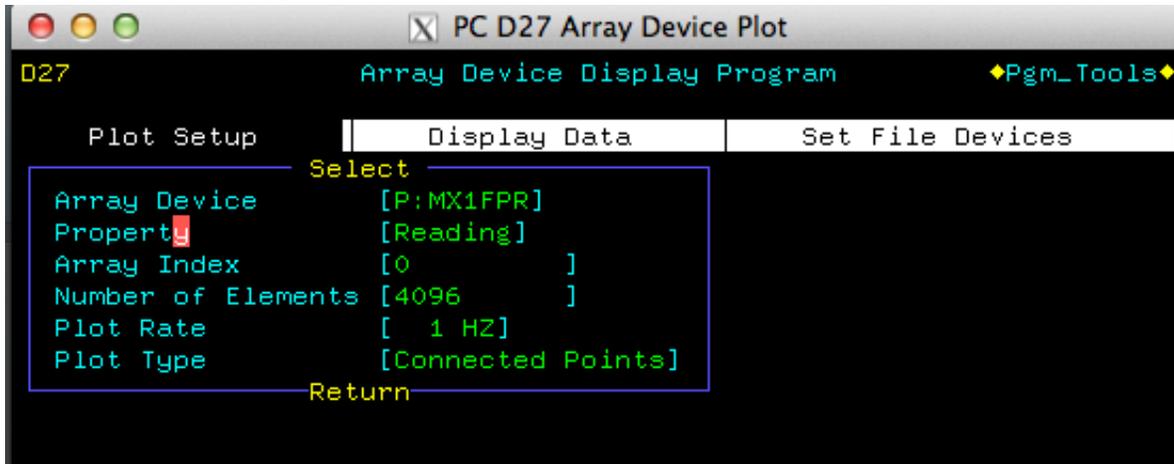
! Pxie

P:MX1FPW      SNS Dump Faraday Cup      20.384001 us
P:MX1FPC      FC Dump/SNS Dump      -.00298258 mA
P:MX1FPR      MEBT Dump FC Raw      -164 cnts .
```

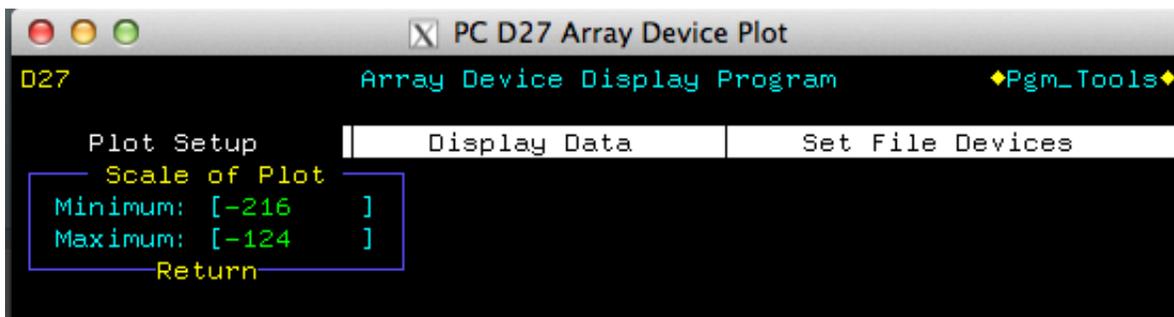
5. To plot array data go to page D27, and select Plot Setup.



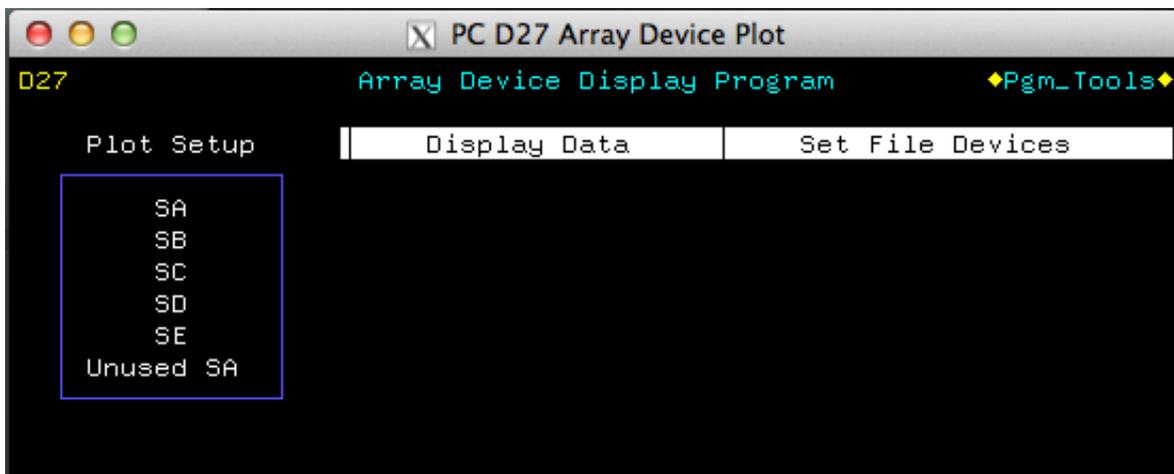
6. Max Number of Elements is 4096, however Array Index can start anywhere within your data boundaries. Remember to set Plot Rate, in this case, Periodic at 1 Hz.



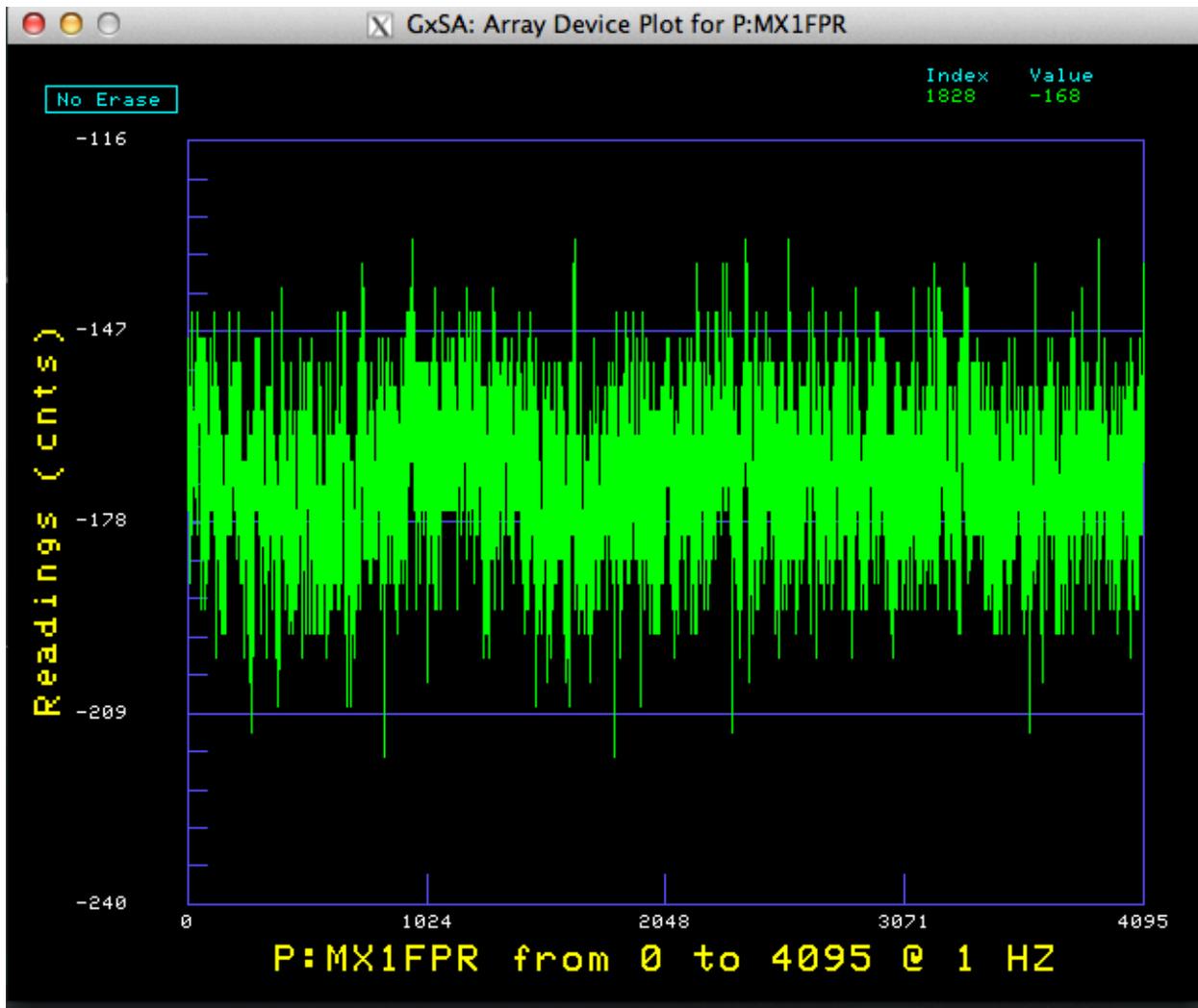
7. Set the y-axis range.



8. Request a graphics window, SA is fine.

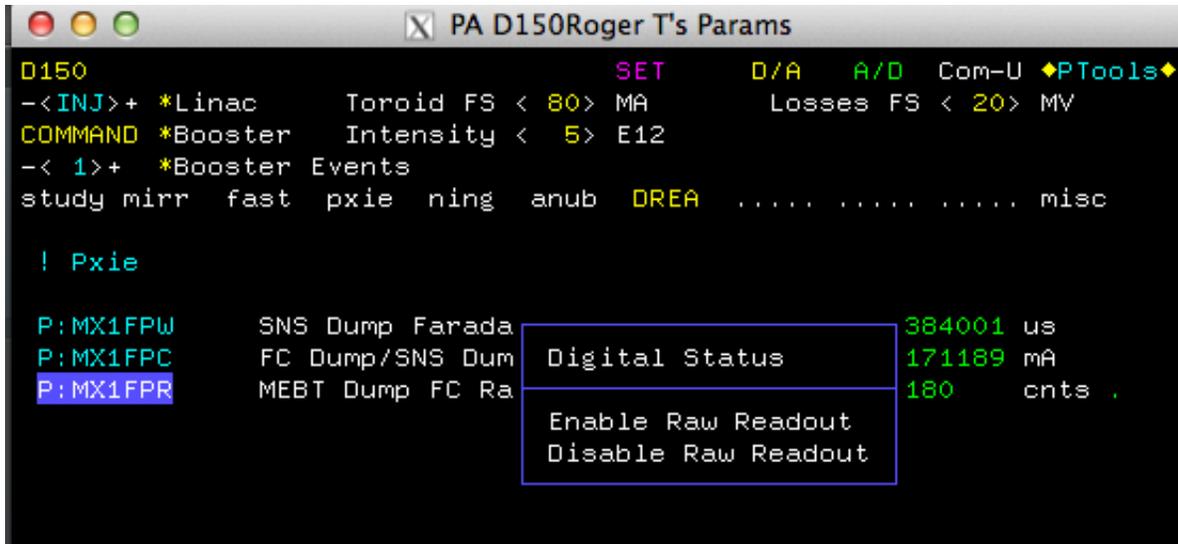


9. Display is automatic.



Remember to **Disable Raw Readout** when finished.

10. Open Digital Status box by clicking on the green dot at the end of the P:MX1FPR line and select "Disable Raw Readout".



11. Green dot turns to red \* indicating array plot is successfully disabled.

