

HOW TO RUN THE MIDAS ANALYZER ON DRAGON DATA FILES

This document describes a procedure for analyzing Midas data on isdaq03. The offline Analyzer program is the same as the online one, however the resulting histograms, to be displayed by paw, are specialized to perform whatever event sorting is desired by the person doing the analysis. In the following example, two runs were analyzed to produce a postscript file, a printout of which is attached to this document.

1. Login to isdaq03 as Username:dragon with password:dragonTail.
2. Pop a shell window by clicking on the shell icon on the bottom tool bar.
3. Find some "Available" disk space and create a working directory:

```
>cd /isdaq/data42/dragon
>df
>mkdir joel0
```
4. Copy the analyzer executable and current online data base (ODB) files:

```
>cd /isdaq/data42/dragon/joel0
>cp /midmes01/dragon/online/analyzer analyzer
>cp /midmes01/dragon/online/.ODB.SHM .ODB.SHM
```
5. Copy Midas data files to be analyzed:

```
>cd /isdaq/data42/dragon/joel0
>cp /midmes01/data/dragon/data7/run06946.mid run06946.mid
>cp /midmes01/data/dragon/data7/run06947.mid run06947.mid
```
6. Set the Midas environment and start the paw program:

```
>cd /isdaq/data42/dragon/joel0
>setenv MIDAS_DIR /isdaq/data42/dragon/joel0
>odb -c "set 'Logger/Data dir' $MIDAS_DIR"
>paw++&
```
7. Establish the desired odb variables by using the odb "set" command.

```
>odb
>cd /Analyzer/Parameters/Histogram/
>set "Xname x Yname" "c[g]0 Energy"
>set ...
>quit
```
8. Run the analyzer to create 2 histogram files:

```
>analyzer -i run06946.mid -o his06946d.rz
>odb
>set /Analyzer/Parameters/Histogram/X_low[4] 7050
>...
>save oct21a_his.odb (See listing of this file below.)
>quit
>analyzer -i run06947.mid -o his06947d.rz
```
9. Connect the new histogram files by typing in the paw "Executive" window:

```
>hist/file 20 his06946d.rz 0 -X
>hist/file 21 his06947d.rz 0 -X
```
10. Create a title for the display by typing in the paw "Executive" window:

```
>title '4.6 Torr He Target ^14!N([a,g])^18!F and 2.2 Torr He Target'
```
11. Display histograms with the mouse, using the buttons on the "Style Panel", ending with "Do Postscript". Print the postscript file in the shell window:

```
>lpr -Plas70 paw.ps
```
12. To sum histograms acquired in separate runs i.e. in separate .rz files: Select PAWC on the left in the paw Browser. Type in the Executive Window: "hist/delete 0" to clear histos. Click on LUN20 and type "hrin 0" in the Executive Window. Click on LUN21 and type "hrin 0 ! 99999" to add into PAWC. Repeat the above line for additional LUN's if summing more than 2. Display the summed histograms by first clicking on Browser's "PAWC".

Following logout/login, continued analyses should start at step 6..

(over)

paw HISTOGRAM DEFINITIONS - OCT 18, 2002

1/ndog/bia41/dragon/joel9/oct21a-his.o

Xname x Yname	Mask	Dimension
[0] : c[g]0 Energy	0x14	[0] : 80
[1] : H-Energy	0x0	[1] : 80
[2] : cH-Energy	0x11	[2] : 80
[3] : cH-Energy	0x21	[3] : 80
[4] : c[g] HI Time	0x5	[4] : 50
[5] : c[g] HI Time	0x5	[5] : 50
[6] : c[g]0 Energy	0x14	[6] : 100
[7] : c[g]0 Energy	0x24	[7] : 100
[8] : H-Front-strip x H-Back-strip	0x2	[8] : 160016
[9] : H-Front-strip	0x2	[9] : 160016
[10] : cH-Front-strip x cH-Back-strip	0x15	[10] : 160016
[11] : cH-Front-strip	0x15	[11] : 16
[12] : cH-Front-strip	0x25	[12] : 16
[13] : c[g]0 Z(cm)	0x15	[13] : 13
[14] : Elastic-energy	0x0	[14] : 100
[15] : H-Run-time	0x4000	[15] : 220
[16] : c[g]0 Lrf Time	0x15	[16] : 60
[17] : c[g] HI Time	0x0	[17] : 500
[18] : c[g]0 Energy	0x10	[18] : 20
[19] : c[g]0 Energy	0x20	[19] : 20
[20] : [g]0 Energy	0x0	[20] : 500
[21] :	0x0	[21] : 0
[22] :	0x0	[22] : 0
[23] :	0x0	[23] : 0
[24] :	0x0	[24] : 0
[25] :	0x0	[25] : 0
[26] :	0x0	[26] : 0
[27] :	0x0	[27] : 0
[28] :	0x0	[28] : 0
[29] :	0x0	[29] : 0
[30] :	0x0	[30] : 0
[31] :	0x0	[31] : 0

XLow

Analyzer/Parameters/Histogram/X	X-hi
[0] : 200	[0] : 1000
[1] : 0	[1] : 400
[2] : 0	[2] : 400
[3] : 0	[3] : 400
[4] : 7050	[4] : 7300
[5] : 7300	[5] : 17300
[6] : 0	[6] : 1000
[7] : 0	[7] : 1000
[8] : 0	[8] : 16
[9] : 0	[9] : 16
[10] : 0	[10] : 16
[11] : 0	[11] : 16
[12] : 0	[12] : 16
[13] : -20.4	[13] : 16
[14] : 250	[14] : 16
[15] : 0	[15] : 16
[16] : -400	[16] : 16
[17] : 0	[17] : 16
[18] : 0	[18] : 20.4
[19] : 0	[19] : 2250
[20] : 0	[20] : 22000
[21] : 0	[21] : 0
[22] : 0	[22] : 20000
[23] : 0	[23] : 1000
[24] : 0	[24] : 1000
[25] : 0	[25] : 1000
[26] : 0	[26] : 0
[27] : 0	[27] : 0
[28] : 0	[28] : 0
[29] : 0	[29] : 0
[30] : 0	[30] : 0
[31] : 0	[31] : 0

