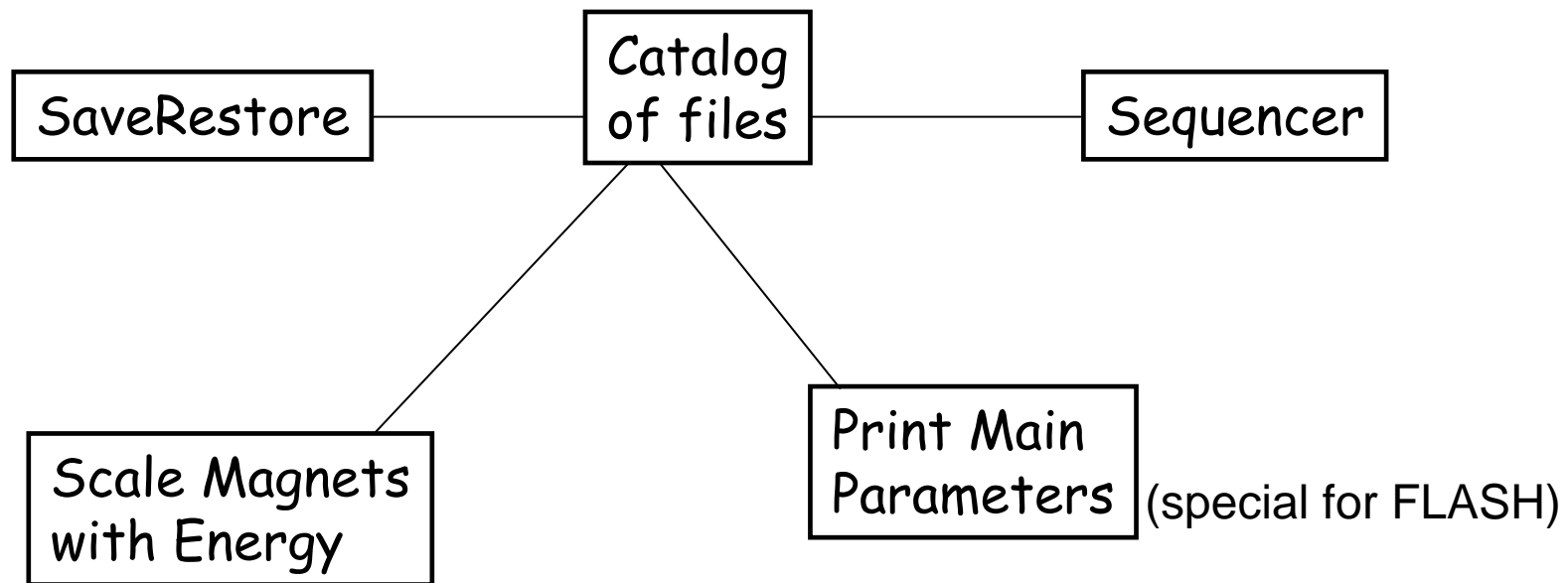


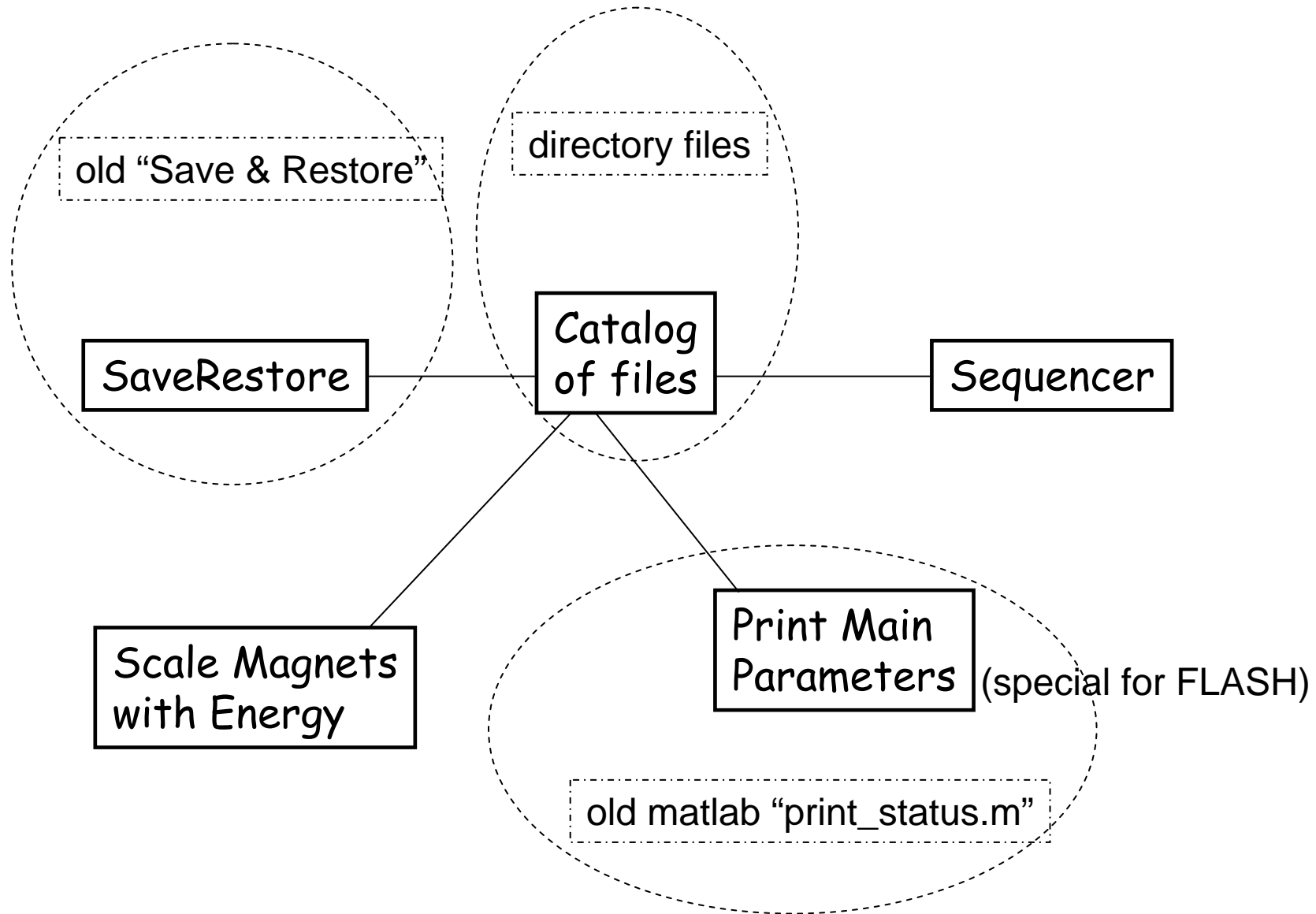
The File Catalog System at FLASH: a tutorial

Jürgen Maass (MCS4) and Pedro Castro (MPY)

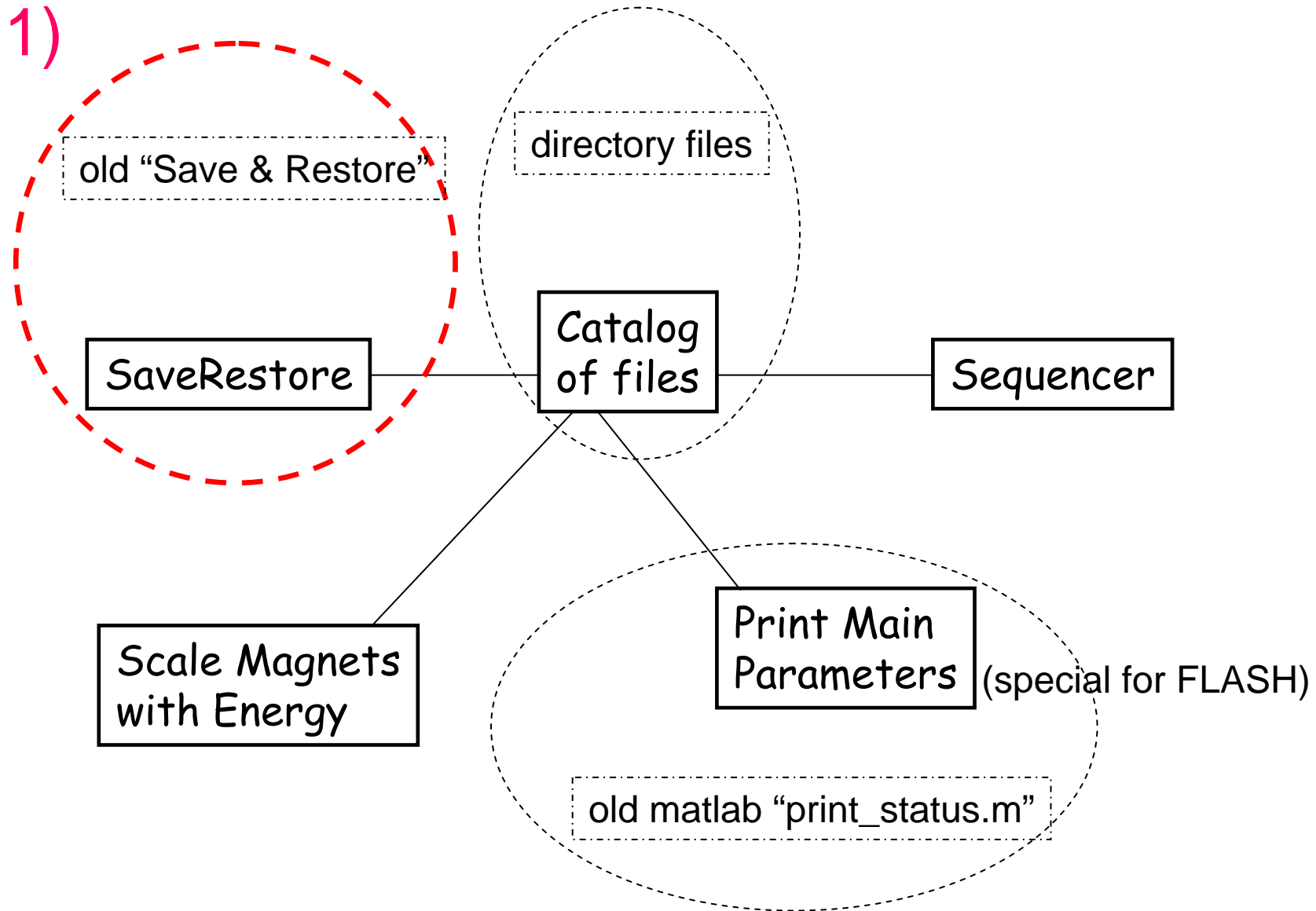
in collaboration with:

K. Rehlich, R. Kammering, O. Hensler, E. Sombrowski, S. Herb
and other people from MCS 1 and MCS 4



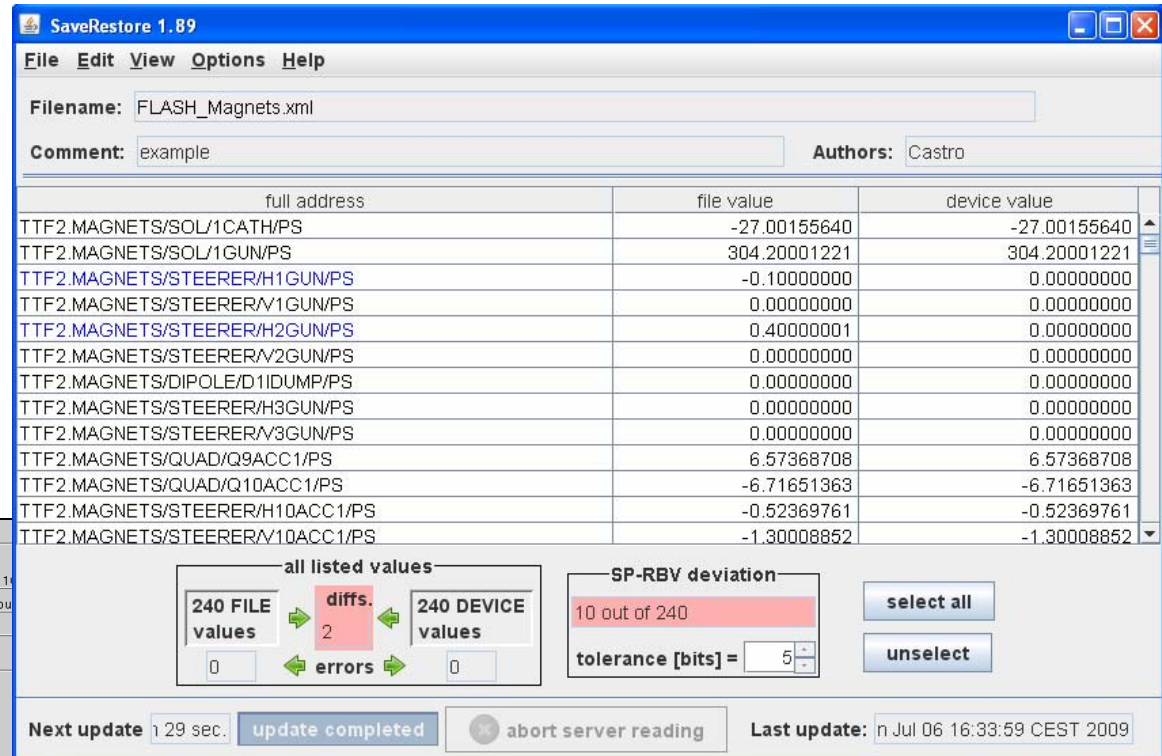
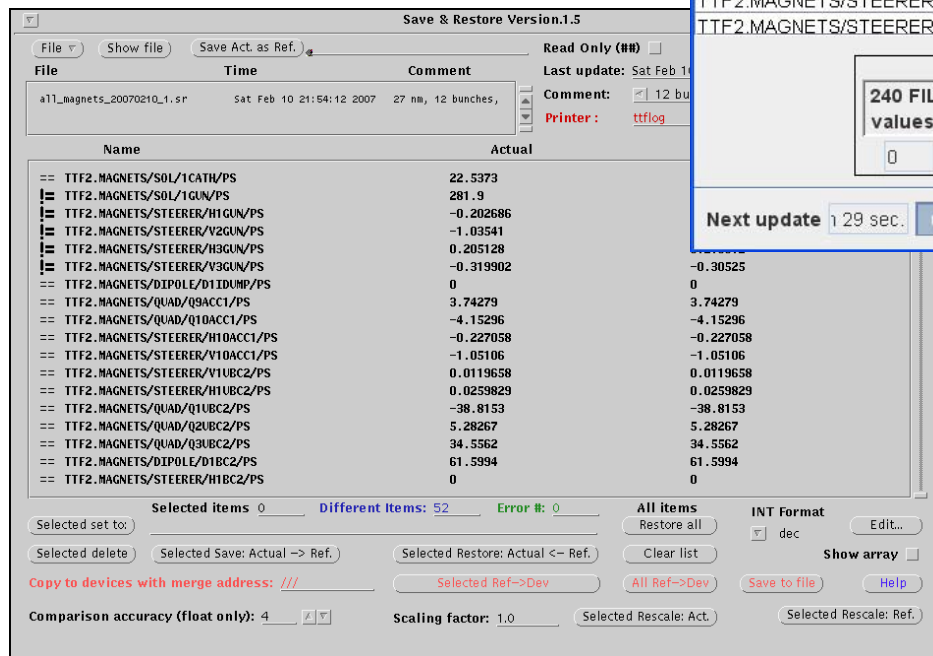


1)



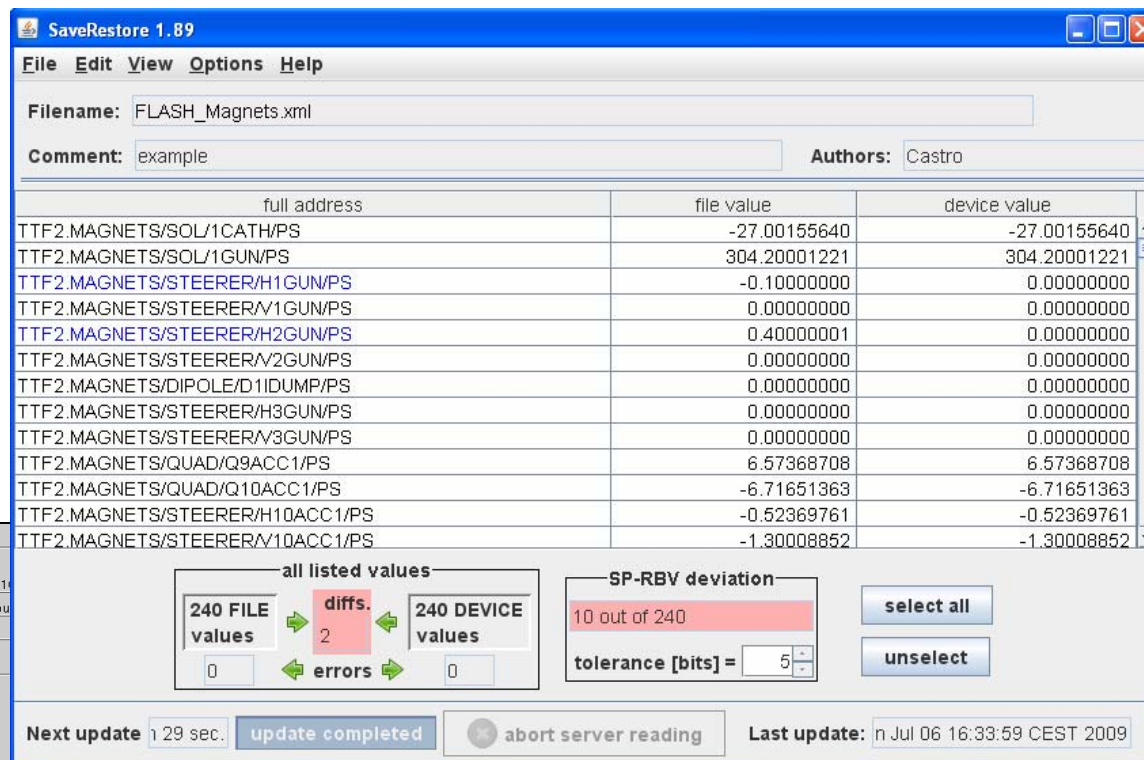
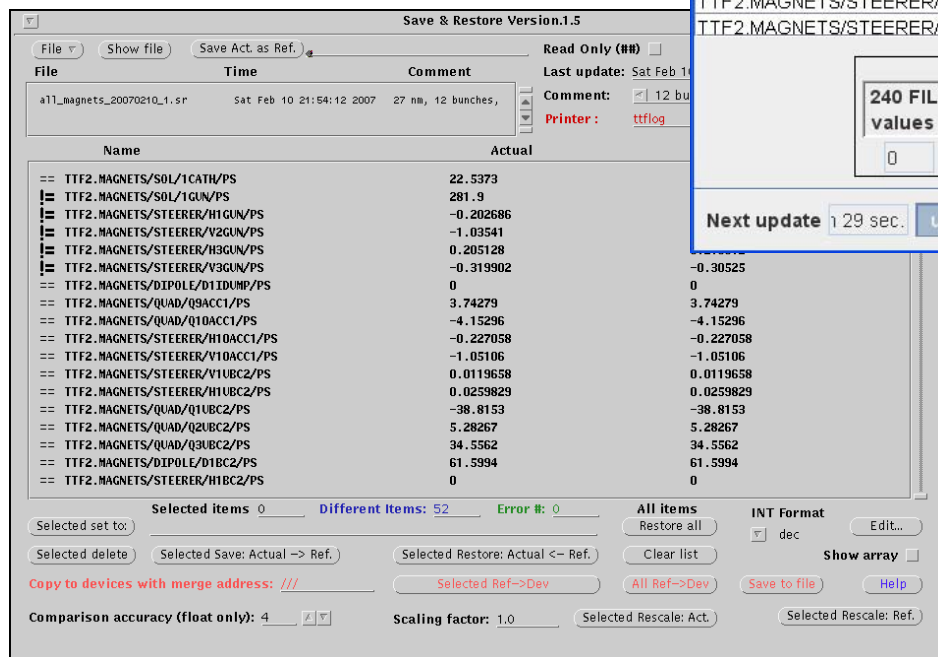
"old" vs "new" Save & Restore tools

versus



"old" vs "new" Save & Restore tools

versus

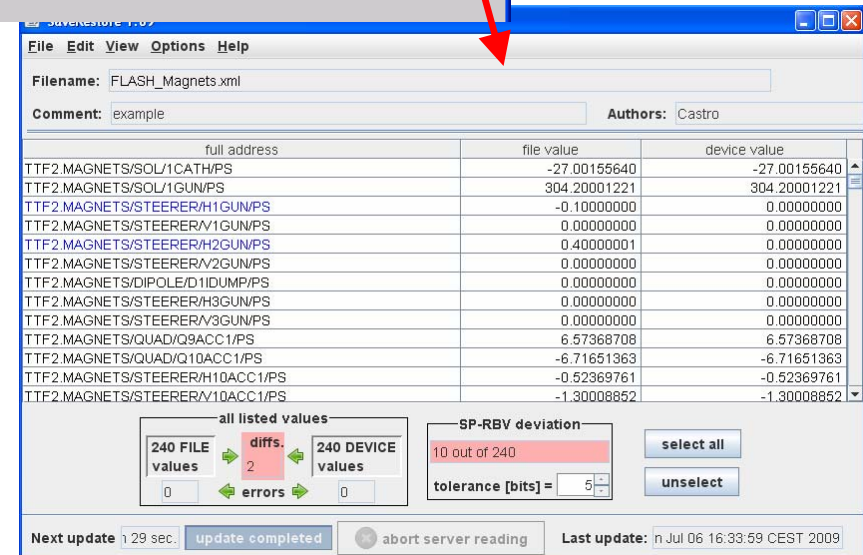
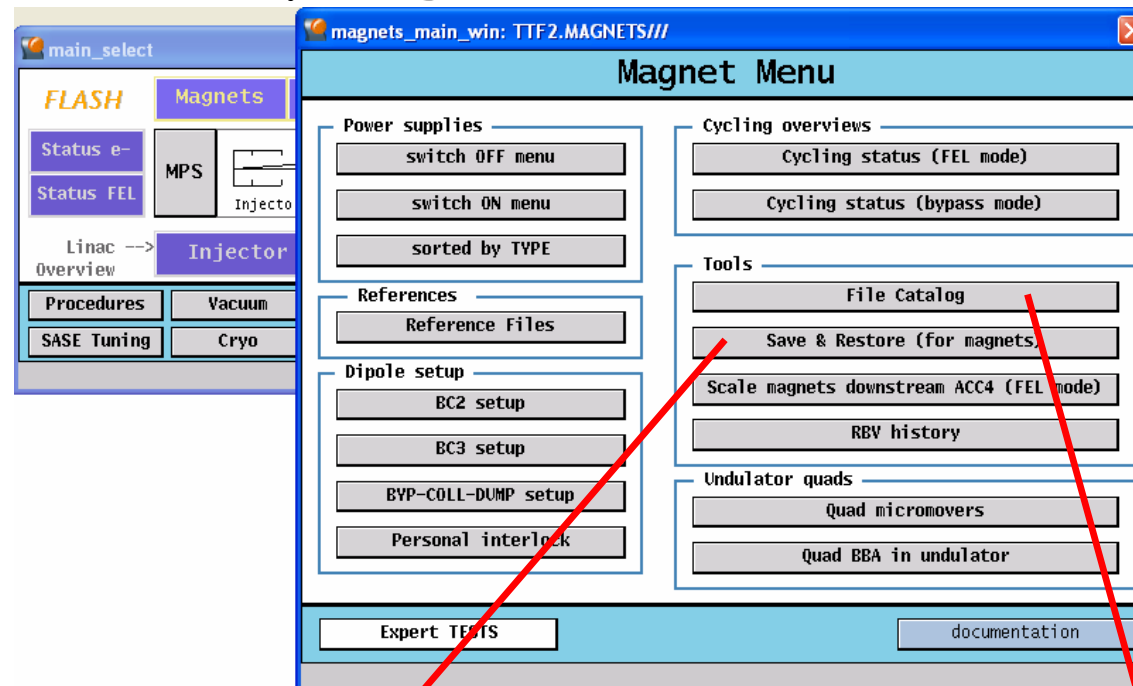


new version in Java:

beta version

starts very slow

To start the programs:



name

actual value

reference value

Save & Restore Version.1.5

File ▾ Show file Save Act. as Ref. ▾ Read Only (##) ☐ Update [sec]: 30 ▾

Last update: Sat Feb 10 21:54:12 2007

Comment: 12 bunches, 28 uJ @ GMD-8 (5 mm ap.)

Printer: ttflog

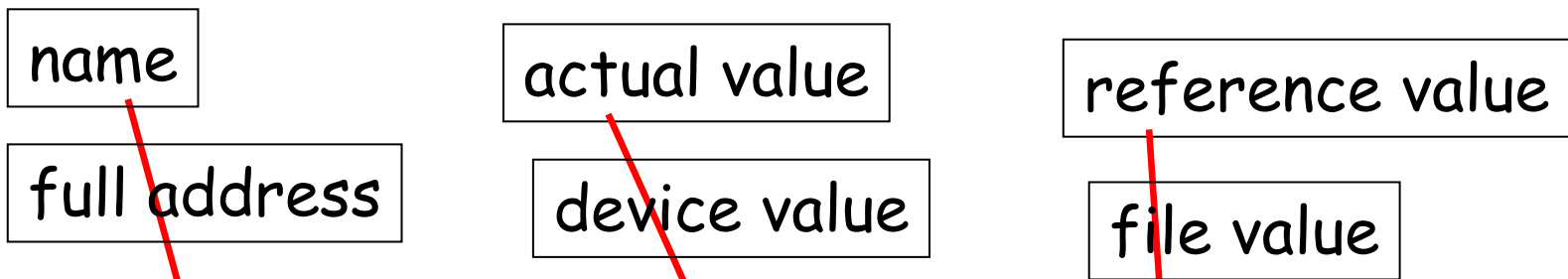
Name	Actual	Reference
== TTF2.MAGNETS/SOL/1CATH/PS	22.5373	22.5373
!= TTF2.MAGNETS/SOL/1GUN/PS	281.9	282.1
!= TTF2.MAGNETS/STEERER/H1GUN/PS	-0.202686	-0.20757
!= TTF2.MAGNETS/STEERER/V2GUN/PS	-1.03541	-1.07937
!= TTF2.MAGNETS/STEERER/H3GUN/PS	0.205128	0.210012
!= TTF2.MAGNETS/STEERER/V3GUN/PS	-0.319902	-0.30525
== TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	0	0
== TTF2.MAGNETS/QUAD/Q9ACC1/PS	3.74279	3.74279
== TTF2.MAGNETS/QUAD/Q10ACC1/PS	-4.15296	-4.15296
== TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.227058	-0.227058
== TTF2.MAGNETS/STEERER/V10ACC1/PS	-1.05106	-1.05106
== TTF2.MAGNETS/STEERER/V1UBC2/PS	0.0119658	0.0119658
== TTF2.MAGNETS/STEERER/H1UBC2/PS	0.0259829	0.0259829
== TTF2.MAGNETS/QUAD/Q1UBC2/PS	-38.8153	-38.8153
== TTF2.MAGNETS/QUAD/Q2UBC2/PS	5.28267	5.28267
== TTF2.MAGNETS/QUAD/Q3UBC2/PS	34.5562	34.5562
== TTF2.MAGNETS/DIPOLE/D1BC2/PS	61.5994	61.5994
== TTF2.MAGNETS/STEERER/H1BC2/PS	0	0

Selected items 0 Different Items: 52 Error #: 0

Selected set to: Selected delete Selected Save: Actual → Ref. Selected Restore: Actual ← Ref. Clear list

Copy to devices with merge address: /// Selected Ref→Dev All Ref→Dev Save to file Help

Comparison accuracy (float only): 4 Scaling factor: 1.0 Selected Rescale: Act. Selected Rescale: Ref.



SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example

Authors: Castro

full address	device value	file value
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221
TTF2.MAGNETS/STEERER/H1GUN/PS	0.00000000	-0.10000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.00000000	0.40000001
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1DUMP/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761
TTF2.MAGNETS/STEERER/V10ACC1/PS	-1.30008852	-1.30008852

all listed values

240 FILE values

diffs. 2

240 DEVICE values

errors

SP-RBV deviation

11 out of 240

tolerance [bits] = 5

selected values

0 FILE values selected

Copy

Restore

0 DEVICE values selected

select all

unselect

Next update in 6 sec. update completed

abort server reading

Last update: n Jul 06 16:58:59 CEST 2009 age:

Extras:

name

full address

actual value

device value

reference value

file value

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example

Authors: Castin

full address	file value	device value
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221
TTF2.MAGNETS/STEERER/H1GUN/PS	-0.10000000	0.00000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.40000001	0.00000000
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761
TTF2.MAGNETS/STEERER/V10ACC1/PS	-1.30008852	-1.30008852

all listed values

240 FILE values

diffs. 2

240 DEVICE values

errors 0

SP-RBV deviation

10 out of 240

tolerance [bits] = 5

selected values

0 FILE values selected

Copy

Restore

0 DEVICE values selected

Next update: 20 sec. update completed

abort server reading

Last update: Jul 06 17:09:13 CEST 2009 age:

Extras:

name

actual value

reference value

full address

device value

file value

difference

SaveRestore 1.8.9

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example Authors: Castro

full address	file value	device value	diff.
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640	0.00000000
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221	0.00000000
TTF2.MAGNETS/STEERER/H1GUN/PS	-0.10000000	0.00000000	0.10000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.40000001	0.00000000	-0.40000001
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708	0.00000000
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363	0.00000000
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761	0.00000000

all listed values

240 FILE values → 240 DEVICE values

diffs. 2 errors

SP-RBV deviation

11 out of 240

tolerance [bits] = 5

select all

unselect

selected values

0 FILE values selected

Copy

Restore

0 DEVICE values selected

Next update 127 sec. update completed

abort server reading

Last update: n Jul 06 17:54:34 CEST 2009 age:

Extras:

facility

device

location

property

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example Authors: Castro

facility	device	location	dev. property	file value	device value
TTF2.MAGNETS	SOL	1CATH	PS	-27.00155640	-27.00155640
TTF2.MAGNETS	SOL	1GUN	PS	304.20001221	304.20001221
TTF2.MAGNETS	STEERER	H1GUN	PS	-0.10000000	0.00000000
TTF2.MAGNETS	STEERER	V1GUN	PS	0.00000000	0.00000000
TTF2.MAGNETS	STEERER	H2GUN	PS	0.40000001	0.00000000
TTF2.MAGNETS	STEERER	V2GUN	PS	0.00000000	0.00000000
TTF2.MAGNETS	DIPOLE	D1IDUMP	PS	0.00000000	0.00000000
TTF2.MAGNETS	STEERER	H3GUN	PS	0.00000000	0.00000000
TTF2.MAGNETS	STEERER	V3GUN	PS	0.00000000	0.00000000
TTF2.MAGNETS	QUAD	Q9ACC1	PS	6.57368708	6.57368708
TTF2.MAGNETS	QUAD	Q10ACC1	PS	-6.71651363	-6.71651363
TTF2.MAGNETS	STEERER	H10ACC1	PS	-0.52369761	-0.52369761
TTF2.MAGNETS	STEERER	V10ACC1	PS	-1.30008852	-1.30008852

all listed values

240 FILE values → 240 DEVICE values

diffs. 2 errors

SP-RBV deviation

12 out of 240

tolerance [bits] = 5

selected values

0 FILE values selected 0 DEVICE values selected

select all unselect Copy Restore

Next update in 5 sec. update completed abort server reading Last update: in Jul 06 17:11:40 CEST 2009 age:

Extras: all columns can be sorted

facility

device

location

property

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example Authors: Castro

facility	device	location	dev. property	file value	device value
TTF2.MAGNETS	DIPOLE	D1IDUMP	PS	0.00000000	0.00000000
TTF2.MAGNETS	DIPOLE	D1BC2	PS	66.25039673	66.25039673
TTF2.MAGNETS	DIPOLE	D1BC3	PS	49.99954224	49.99954224
TTF2.MAGNETS	DIPOLE	D1ECOL	PS	122.81803894	122.81803894
TTF2.MAGNETS	DIPOLE	D14SEED	PS	0.00000000	0.00000000
TTF2.MAGNETS	DIPOLE	D1BYP	PS	0.00000000	0.00000000
TTF2.MAGNETS	DIPOLE	D1DUMP	PS	0.00000000	0.00000000
TTF2.MAGNETS	DIPOLE	D6DUMP	PS	149.90199280	149.90199280
TTF2.MAGNETS	DIPOLE	RD13DUMP	PS	0.00000000	0.00000000
TTF2.MAGNETS	QUAD	Q9ACC1	PS	6.57368708	6.57368708
TTF2.MAGNETS	QUAD	Q10ACC1	PS	-6.71651363	-6.71651363
TTF2.MAGNETS	QUAD	Q1.1UBC2	PS	-23.09396553	-23.09396553
TTF2.MAGNETS	QUAD	Q1.2UBC2	PS	8.48536682	8.48536682

all listed values

240 FILE values → diffs. ← 240 DEVICE values

0 errors → 0

SP-RBV deviation

13 out of 240

tolerance [bits] = 5

selected values

0 FILE values selected ← Copy → 0 DEVICE values selected

Restore

Next update in 6 sec. update completed abort server reading Last update: in Jul 06 17:16:30 CEST 2009 age:

Save & Restore Version.1.5

File ▾ Show file Save Act. as Ref. ▾ Read Only (##) ☐ Update [Sec] : 30 ▾ ▾
Last update: Sat Feb 10 21:54:12 2007
Comment:
Printer :

Name	Actual	Reference
== TTF2.MAGNETS/SOL/1CATH/PS	22.5373	22.5373
!= TTF2.MAGNETS/SOL/1GUN/PS	281.9	282.1
!= TTF2.MAGNETS/STEERER/H1GUN/PS	-0.202686	-0.20757
!= TTF2.MAGNETS/STEERER/V2GUN/PS	-1.03541	-1.07937
!= TTF2.MAGNETS/STEERER/H3GUN/PS	0.205128	0.210012
!= TTF2.MAGNETS/STEERER/V3GUN/PS	-0.319902	-0.30525
== TTF2.MAGNETS/DIPOLE/D1DUMP/PS	0	0
== TTF2.MAGNETS/QUAD/Q9ACC1/PS	3.74279	3.74279
== TTF2.MAGNETS/QUAD/Q10ACC1/PS	-4.15296	-4.15296
== TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.227058	-0.227058
== TTF2.MAGNETS/STEERER/V10ACC1/PS	-1.05106	-1.05106
== TTF2.MAGNETS/STEERER/V1UBC2/PS	0.0119658	0.0119658
== TTF2.MAGNETS/STEERER/H1UBC2/PS	0.0259829	0.0259829
== TTF2.MAGNETS/QUAD/Q1UBC2/PS	-38.8153	-38.8153
== TTF2.MAGNETS/QUAD/Q2UBC2/PS	5.28267	5.28267
== TTF2.MAGNETS/QUAD/Q3UBC2/PS	34.5562	34.5562
== TTF2.MAGNETS/DIPOLE/D1BC2/PS	61.5994	61.5994
== TTF2.MAGNETS/STEERER/H1BC2/PS	0	0

Selected items 0 Different Items: 52 Error #: 0 All items
Selected set to: Restore all INT Format
Selected delete Selected Save: Actual → Ref. Selected Restore: Actual ← Ref. Clear list dec Edit..
Copy to devices with merge address: /// Selected Ref → Dev All Ref → Dev Show array ☐
Comparison accuracy (float only): 4 Selected Rescale: Act. Save to file Help
Scaling factor: 1.0 Selected Rescale: Ref.

counters

actions

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example Authors: Castro

full address	file value	device value
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221
TTF2.MAGNETS/STEERER/H1GUN/PS	-0.10000000	0.00000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.40000001	0.00000000
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761

all listed values

240 FILE values → diffs. ← 240 DEVICE values

0 → errors → 0

SP-RBV deviation

11 out of 240

tolerance [bits] = 5

selected values

5 FILE values selected → Copy ← 5 DEVICE values selected

Restore →

Next update 129 sec. update completed abort server reading Last update: n Jul 06 17:24:28 CEST 2009 age:

counters

actions

Difference !

Selecting items

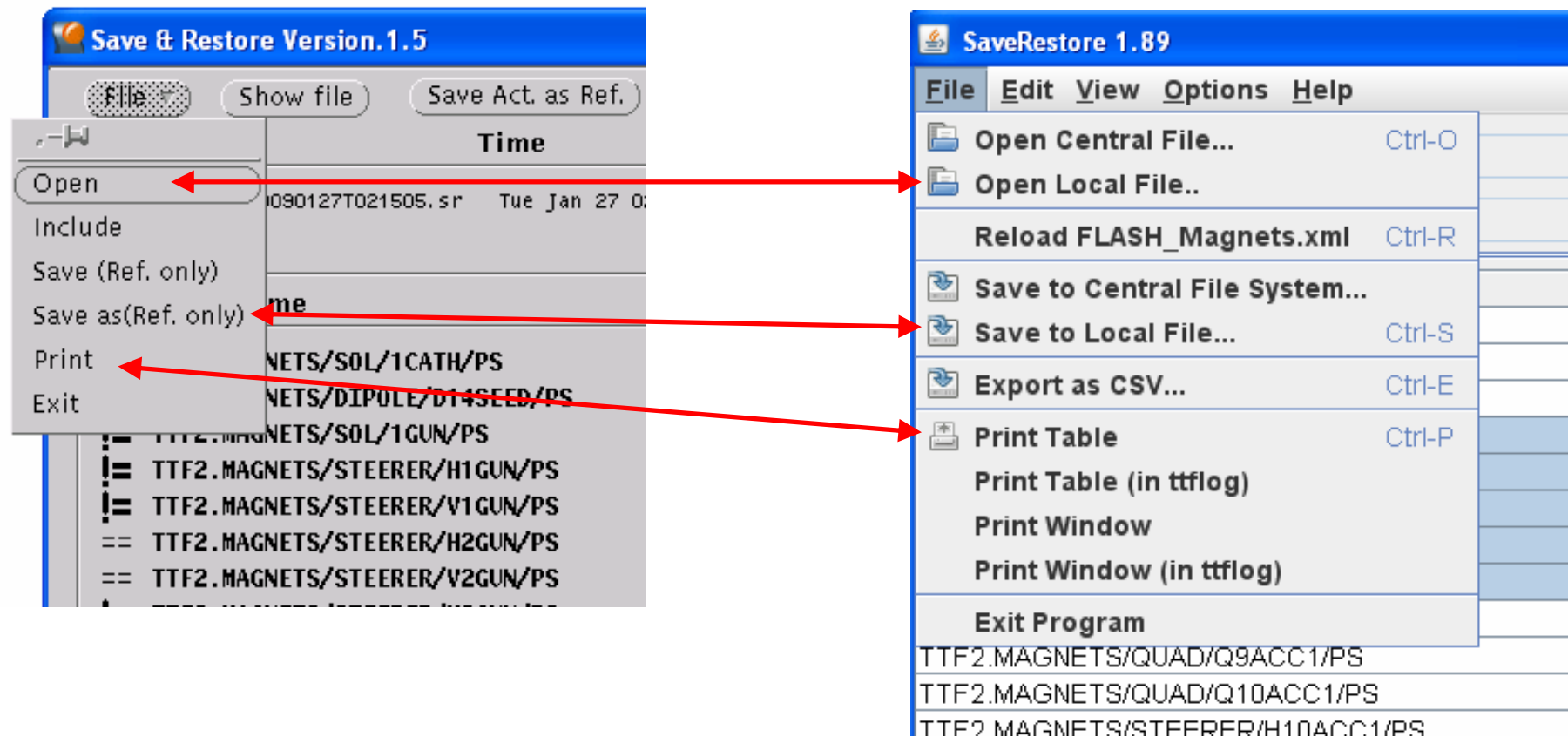
select items one by one

Name	Actual	Reference
TTF2.MAGNETS/SOL/1CATH/PS	22.5373	22.5373
TTF2.MAGNETS/SOL/1GUN/PS	281.9	282.1
TTF2.MAGNETS/STEERER/H1GUN/PS	-0.202686	-0.20757
TTF2.MAGNETS/STEERER/V2GUN/PS	-1.03541	-1.07937
TTF2.MAGNETS/STEERER/V3GUN/PS	0.205128	0.210012
TTF2.MAGNETS/STEERER/V3GUN/PS	-0.315902	-0.30525
TTF2.MAGNETS/DIPOLE/D1DUMP/PS	0	0
TTF2.MAGNETS/QUAD/Q9ACC1/PS	3.74279	3.74279
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-4.15296	-4.15296
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.227058	-0.227058
TTF2.MAGNETS/STEERER/V10ACC1/PS	-1.05106	-1.05106
TTF2.MAGNETS/STEERER/V10ACC2/PS	0.0119658	0.0119658
TTF2.MAGNETS/STEERER/V10ACC2/PS	0.0259829	0.0259829
TTF2.MAGNETS/QUAD/Q10ACC2/PS	-38.8153	-38.8153
TTF2.MAGNETS/QUAD/Q20ACC2/PS	5.28267	5.28267
TTF2.MAGNETS/QUAD/Q30ACC2/PS	34.5562	34.5562
TTF2.MAGNETS/DIPOLE/D10ACC2/PS	61.5994	61.5994
TTF2.MAGNETS/STEERER/H10ACC2/PS	0	0

select items as in EXCEL:
multiple selections
with "shift" and "control"

full address	device value	file value
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221
TTF2.MAGNETS/STEERER/H1GUN/PS	0.00000000	-0.10000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.00000000	0.40000001
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1DUMP/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761
TTF2.MAGNETS/STEERER/V10ACC1/PS	-1.30008852	-1.30008852

Open/Save/Print



"Central file": is a file repository

"CSV": "comma-separated values" format

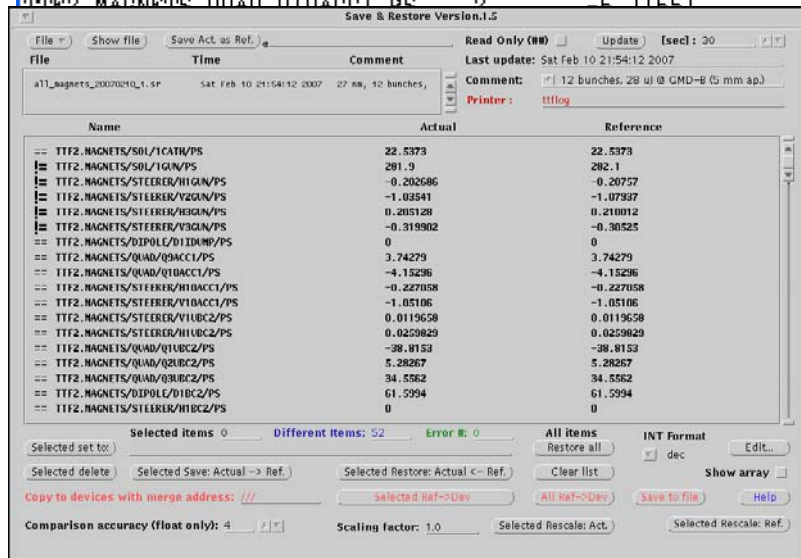
new version can read old Save&Restore format

Difference !

file format

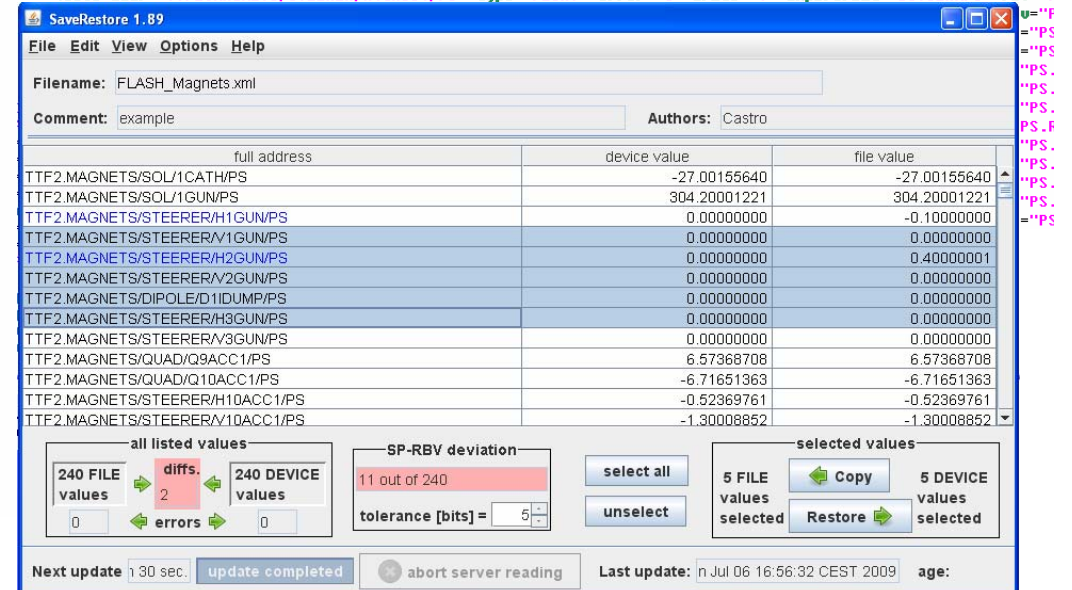
3-column format

```
//Save & Restore//
<Logbook: ttflg > autosaved ;
Mon Jul 6 14:00:30 2009
;
TTF2.MAGNETS SOL 1CATH PS 2 -27.0016 ;
TTF2.MAGNETS DIPOLE D14SEED PS 2 0 ;
TTF2.MAGNETS SOL 1GUN PS 2 304.2 ;
TTF2.MAGNETS STEERER H1GUN PS 2 0 ;
TTF2.MAGNETS STEERER V1GUN PS 2 0 ;
TTF2.MAGNETS STEERER H2GUN PS 2 0 ;
TTF2.MAGNETS STEERER V2GUN PS 2 0 ;
TTF2.MAGNETS STEERER H3GUN PS 2 0 ;
TTF2.MAGNETS STEERER V3GUN PS 2 0 ;
TTF2.MAGNETS DIPOLE D1IDUMP PS 2 0 ;
TTF2.MAGNETS QUAD Q9ACC1 PS 2 6.57369 ;
TTF2.MAGNETS QUAD Q10ACC1 PS 2 6.71651 ;
```

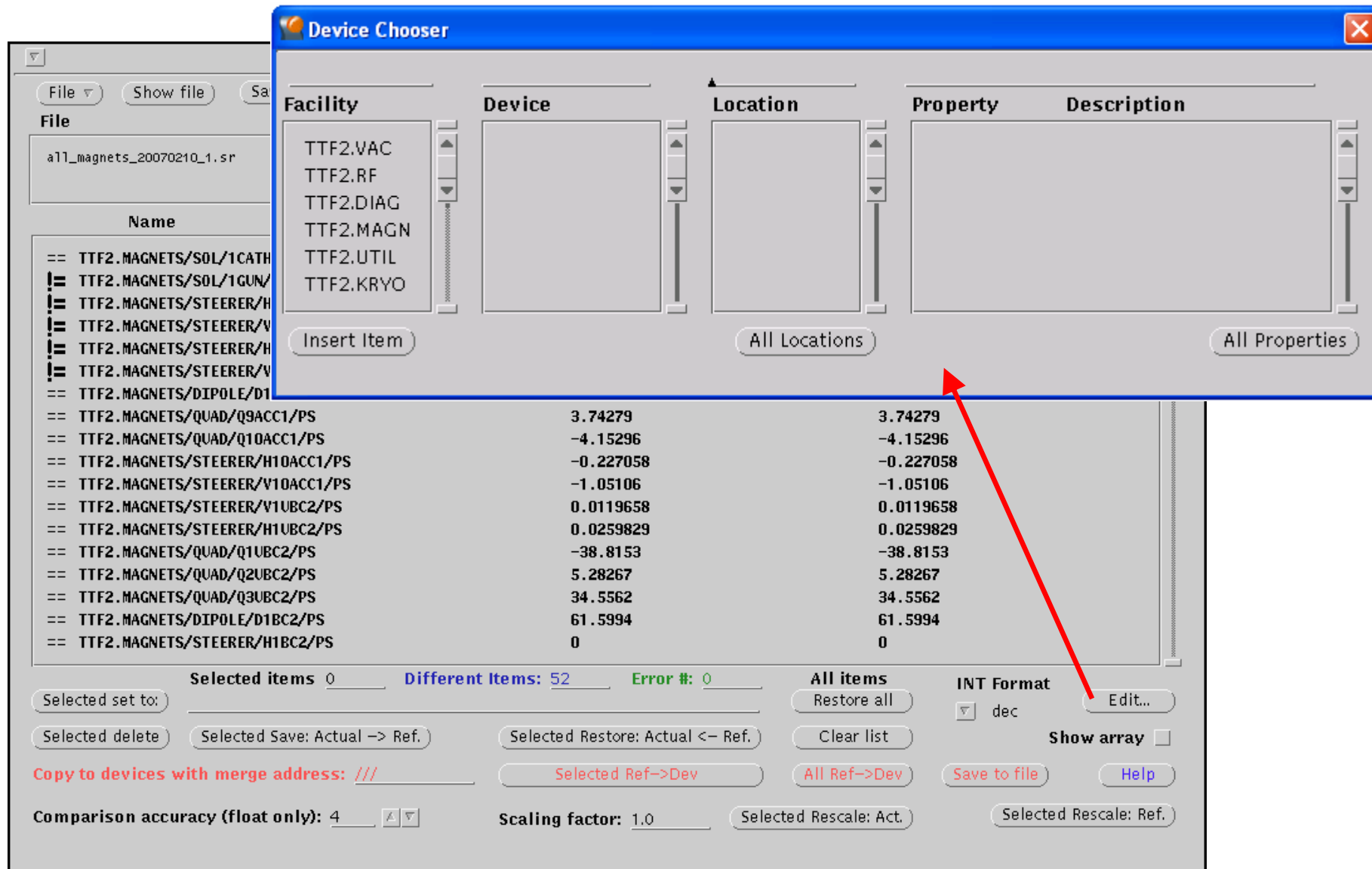


XML format

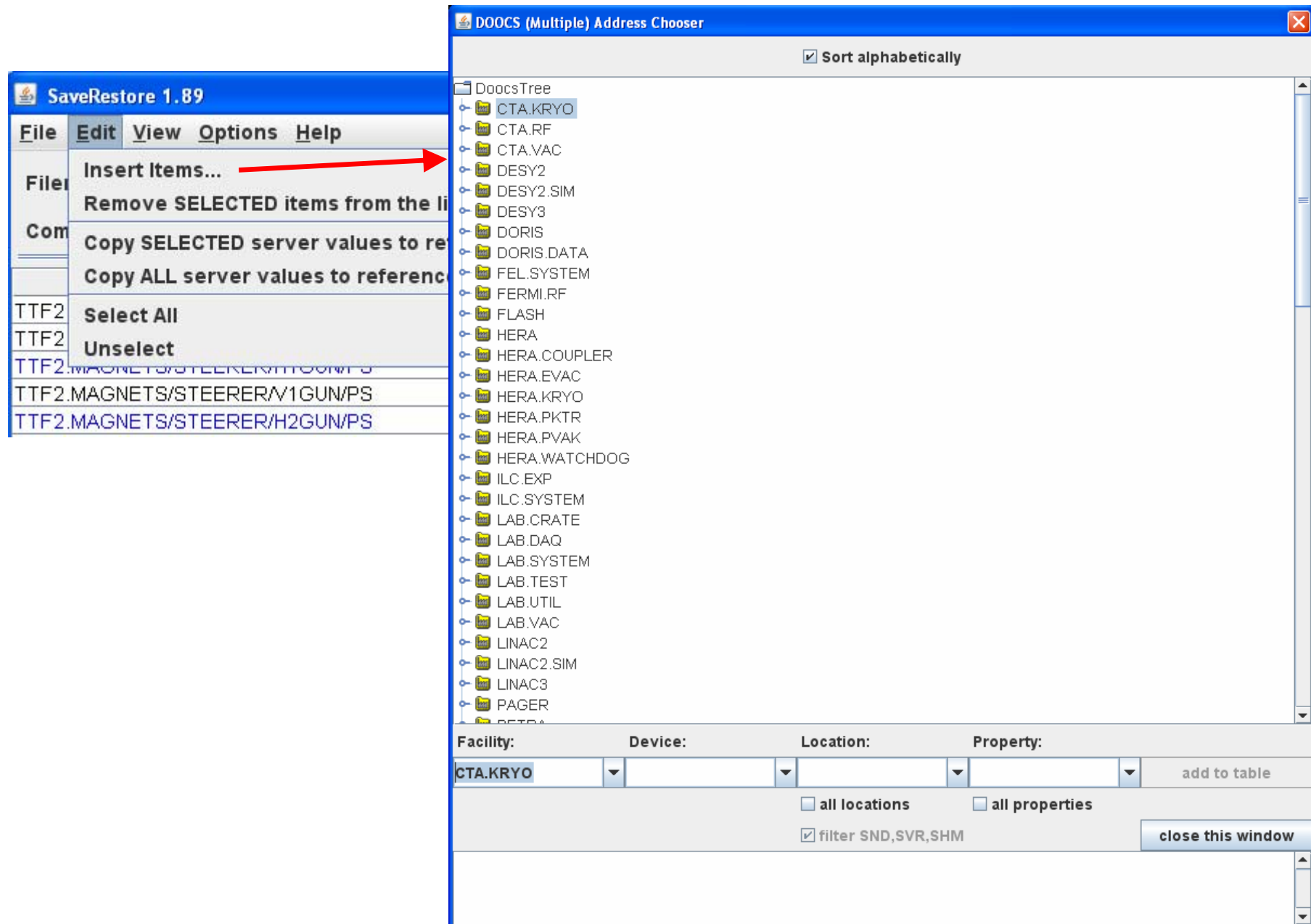
```
<machineStatusFile>
<header>
  <Filename>FLASH_Magnets.xml</Filename>
  <timestamp>2009-07-06T16:32:26+02</timestamp>
  <comment>example</comment>
  <author>Castro</author>
  <systemSet>Dummy</systemSet>
</header>
<listOfData>
  <data addr="TTF2.MAGNETS/SOL/1CATH/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.RBU"
  <data addr="TTF2.MAGNETS/SOL/1GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.RBU"
  <data addr="TTF2.MAGNETS/STEERER/H1GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/STEERER/V1GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/STEERER/H2GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/STEERER/V2GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/DIPOLE/D1IDUMP/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/STEERER/H3GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/STEERER/V3GUN/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.
  <data addr="TTF2.MAGNETS/QUAD/Q9ACC1/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.RE
  <data addr="TTF2.MAGNETS/QUAD/Q10ACC1/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="PS.F
  <data addr="TTF2.MAGNETS/STEERER/H10ACC1/PS" type="FLOAT" error="0" write="1" ampsPerBit="BITS2AMPS" rbu="F
```



Less used features: insert new address



Less used features: insert new address



More extras (for magnet power supplies):

Set-Points

diff.(SP-SP)

RBV

diff.(SP-RBV)

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example Authors: Castro

full address	file value	device value	diff.	RBV	diff.to RBV
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640	0.00000000	-27.00521851	-0.00366211
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221	0.00000000	304.077819...	-0.12219238
TTF2.MAGNETS/STEERER/H1GUN/PS	-0.10000000	0.00000000	0.10000000	0.00000000	0.10000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.40000001	0.00000000	-0.40000001	0.00000000	-0.40000001
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708	0.00000000	6.57002449	-0.00366259
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363	0.00000000	-6.71651363	0.00000000
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761	0.00000000	-0.52369761	0.00000000

all listed values

240 FILE values

diffs. 2

240 DEVICE values

errors 0

SP-RBV deviation

10 out of 240

tolerance [bits] = 5

selected values

0 FILE values selected

Copy

Restore

0 DEVICE values selected

select all

unselect

Next update in 0 sec. update completed

abort server reading

Last update: n Jul 06 18:00:36 CEST 2009 age:

More extras (for magnet power supplies):

Set-Points

diff.(SP-SP)

RBV

diff.(SP-RBV)

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example

Authors: Castro

full address	file value	device value	diff.	RBV	diff.to RBV
TTF2.MAGNETS/SOL/1CATH/PS	-27.00155640	-27.00155640	0.00000000	-27.00521851	-0.00366211
TTF2.MAGNETS/SOL/1GUN/PS	304.20001221	304.20001221	0.00000000	304.077819...	-0.12219238
TTF2.MAGNETS/STEERER/H1GUN/PS	-0.10000000	0.00000000	0.10000000	0.00000000	0.10000000
TTF2.MAGNETS/STEERER/V1GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	0.40000001	0.00000000	-0.40000001	0.00000000	-0.40000001
TTF2.MAGNETS/STEERER/V2GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	6.57368708	6.57368708	0.00000000	6.57002449	-0.00366259
TTF2.MAGNETS/QUAD/Q10ACC1/PS	-6.71651363	-6.71651363	0.00000000	-6.71651363	0.00000000
TTF2.MAGNETS/STEERER/H10ACC1/PS	-0.52369761	-0.52369761	0.00000000	-0.52369761	0.00000000

all listed values

240 FILE values

diffs. 2

240 DEVICE values

errors 0

SP-RBV deviation

10 out of 240

tolerance [bits] = 5

select all

unselect

selected values

0 FILE values selected

Copy

Restore

0 DEVICE values selected

Next update in 0 sec. update completed

abort server reading

Last update: n Jul 06 18:00:36 CEST 2009 age:

More extras:

SaveRestore 1.89

File Edit View Options Help

Filename: ☐ z position
 Comment: ☐ system-set
☒ full address
☐ facility
☐ device
☐ location
☐ dev. property
☐ description
☐ user's description
☐ write address
☐ write delay
☐ data type
☐ write flag
☐ message flag
☐ par.to show
☐ show level
☒ file value
☐ fix value
☒ device value
☒ diff. value
☐ diff. in %
☐ diff. in bits
☐ RBV prop.name
☒ Read-Back Value
☒ diff.to RBV
☐ diff.to RBV in %
☐ diff.to RBV in bits
☐ bit size prop.
☐ bit size
☐ tolerance
☐ bit tolerance
☐ scale factor
☒ Show Update Bar

Next update

	file value	device value
TTF2.MAGN	-27.00155640	-27.00155640
TTF2.MAGN	304.200012...	304.200012...
TTF2.MAGN	-0.10000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.40000001	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	6.57368708	6.57368708
TTF2.MAGN	-6.71651363	-6.71651363
TTF2.MAGN	/PS -0.52369761	-0.52369761
TTF2.MAGN	/PS -1.30008852	-1.30008852
TTF2.MAGN	PS 0.01598201	0.01598201

selected values

diffs. 2 ← 240 DEVICE values

errors → 0

SP-RBV deviation

11 out of 240

tolerance [bits] =

completed abort server reading

More extras:

'write' flag

SaveRestore 1.89

File Edit View Options Help

Filename: ☐ z position
Comment: ☐ system-set
☒ full address
☐ facility
☐ device
☐ location
☐ dev. property
☐ description
☐ user's description
☐ write address
☐ write delay
☐ data type
☒ write flag
☐ message flag
☐ par.to show
☐ show level
☒ file value
☐ fix value
☒ device value
☒ diff. value
☐ diff. in %
☐ diff. in bits
☐ RBV prop.name
☒ Read-Back Value
☒ diff.to RBV
☐ diff.to RBV in %
☐ diff.to RBV in bits
☐ bit size prop.
☐ bit size
☐ tolerance
☐ bit tolerance
☐ scale factor
☒ Show Update Bar

	file value	device value
TTF2.MAGN	-27.00155640	-27.00155640
TTF2.MAGN	304.200012...	304.200012...
TTF2.MAGN	-0.10000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.40000001	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	0.00000000	0.00000000
TTF2.MAGN	6.57368708	6.57368708
TTF2.MAGN	-6.71651363	-6.71651363
TTF2.MAGN	-0.52369761	-0.52369761
TTF2.MAGN	-1.30008852	-1.30008852
TTF2.MAGN	0.01598201	0.01598201

tested values

diffs. 240 DEVICE values

errors 0

SP-RBV deviation

11 out of 240

tolerance [bits] =

Completed abort server reading

More extras:

'write' flag

SaveRestore 1.89

File Edit View Options Help

Filename: FLASH_Magnets.xml

Comment: example Authors: Castro

full address	write	file value	device value	diff.	RBV	diff.to RBV
TTF2.MAGNETS/SOL/1CATH/PS	1	-27.001556...	-22.99874878	4.00280762	-22.998748...	4.00280762
TTF2.MAGNETS/SOL/1GUN/PS	1	304.20001...	303.20001221	-1.00000000	303.07806...	-1.12194824
TTF2.MAGNETS/STEERER/H1GUN/PS	1	-0.10000000	0.00100000	0.10100000	0.00000000	0.10000000
TTF2.MAGNETS/STEERER/V1GUN/PS	1	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H2GUN/PS	1	0.40000001	0.00000000	-0.40000001	0.00000000	-0.40000001
TTF2.MAGNETS/STEERER/V2GUN/PS	1	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/DIPOLE/D1IDUMP/PS	1	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/H3GUN/PS	1	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/STEERER/V3GUN/PS	1	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TTF2.MAGNETS/QUAD/Q9ACC1/PS	1	6.57368708	6.57368708	0.00000000	6.57368708	0.00000000
TTF2.MAGNETS/QUAD/Q10ACC1/PS	1	-6.71651363	-6.71651363	0.00000000	-6.71651363	0.00000000
TTF2.MAGNETS/STEERER/H10ACC1/PS	1	-0.52369761	-0.54567093	-0.02197331	-0.54933316	-0.02563554
TTF2.MAGNETS/STEERER/V10ACC1/PS	1	-1.30008852	-1.30008852	0.00000000	-1.30008852	0.00000000
TTF2.MAGNETS/STEERER/H10ACC2/PS	1	0.01598291	0.01598290	0.00000001	0.01598291	0.00000000

all listed values

240 FILE values → diffs. 118 ← 240 DEVICE values

errors 0

SP-RBV deviation

119 out of 240

tolerance [bits] = 5

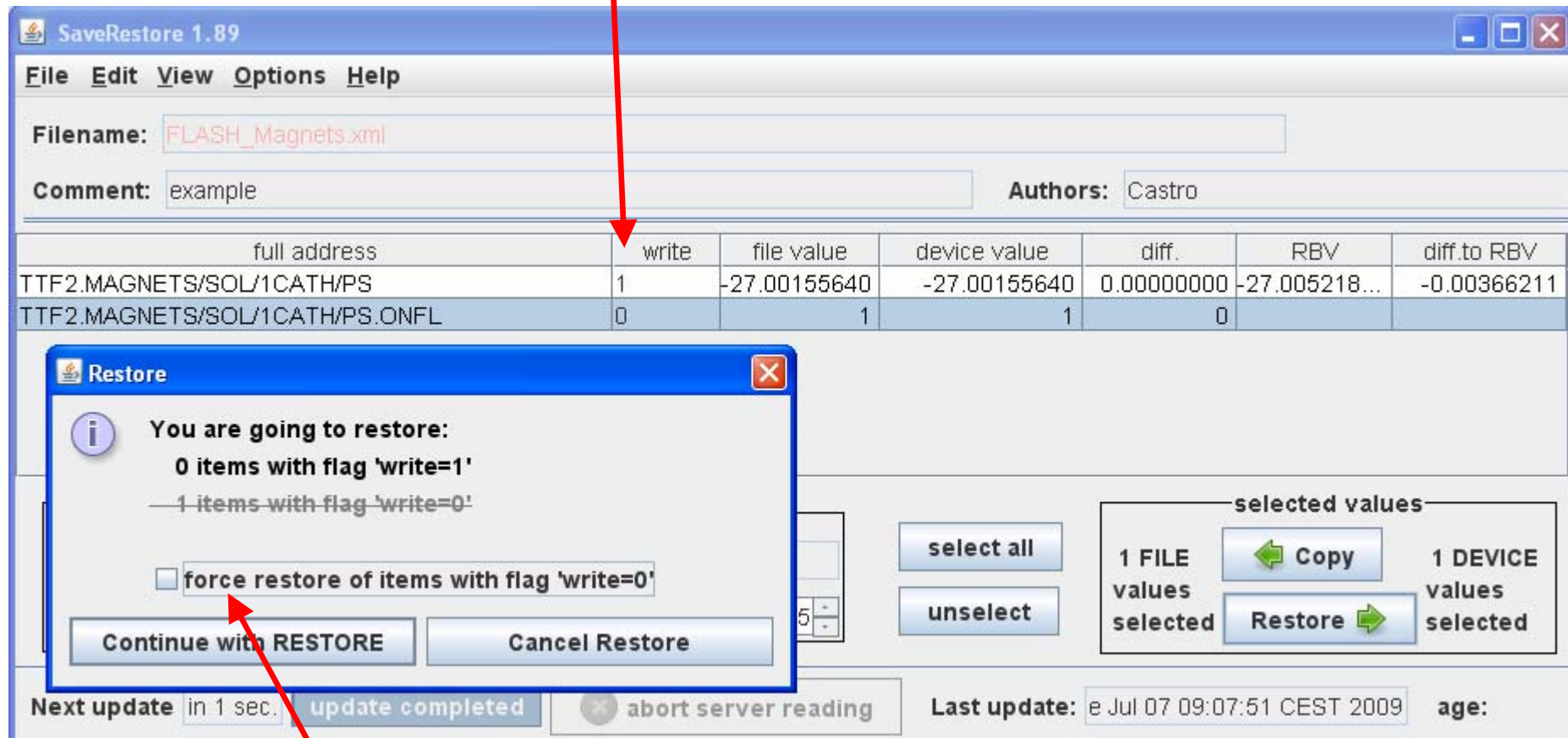
selected values

0 FILE values selected ← Copy → 0 DEVICE values selected

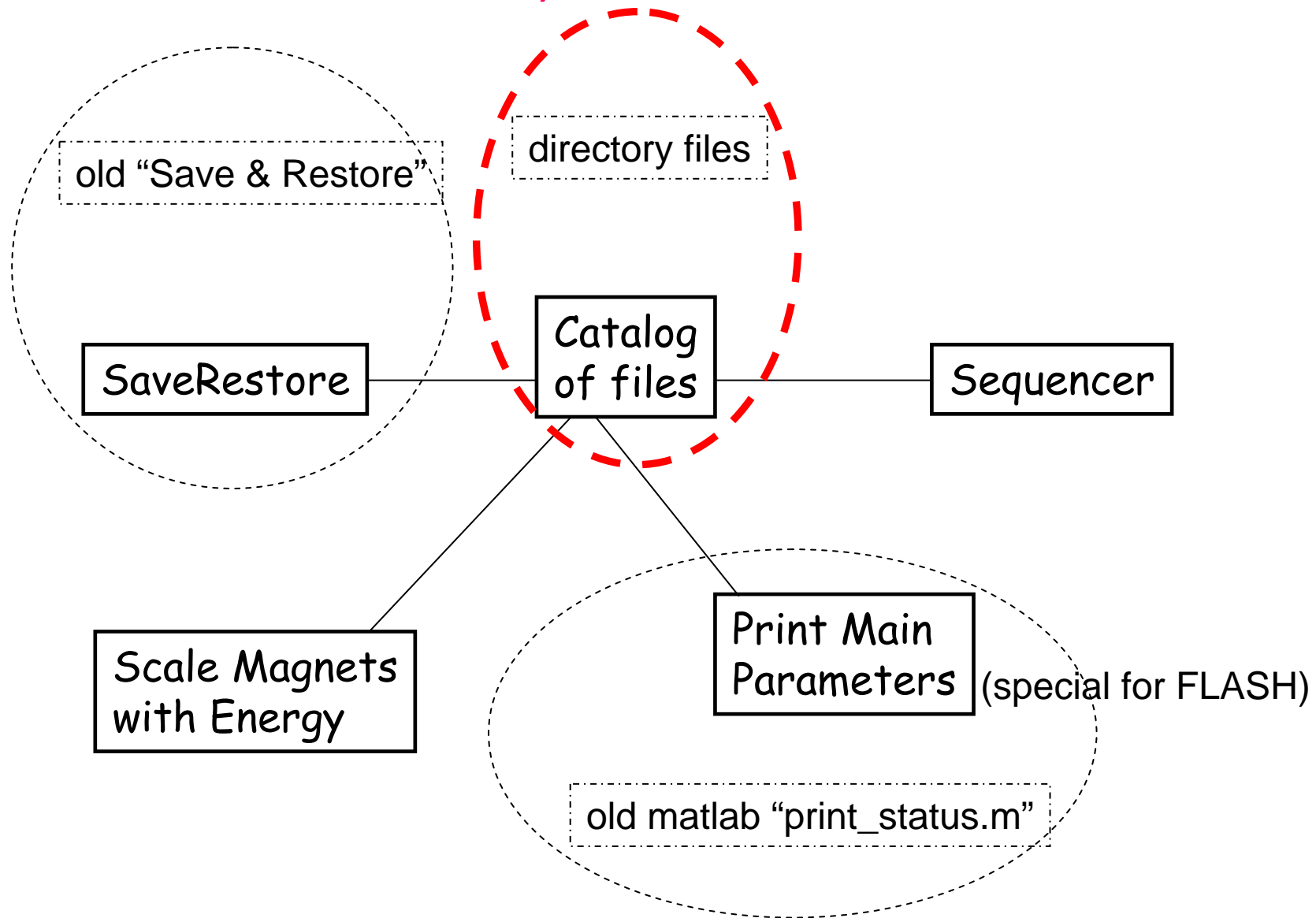
Restore

Next update in 0 sec. updating abort server reading Last update: e Jul 07 08:56:17 CEST 2009 age:

'write' flag



2)



2) list of files:

all_Magnets_20090630T225539.sr
all_Magnets_20090701T070233.sr
all_Magnets_20090701T150617.sr
all_Magnets_20090701T230734.sr
all_Magnets_20090702T070211.sr
all_Magnets_20090702T094950.sr
all_Magnets_20090702T104927.sr
all_Magnets_20090702T150644.sr
all_Magnets_20090702T155050.sr
all_Magnets_20090702T230113.sr
all_Magnets_20090703T071006.sr
all_Magnets_20090703T143030.sr
all_Magnets_20090703T174617.sr
all_Magnets_20090703T230946.sr
all_Magnets_20090704T095502.sr
all_Magnets_20090704T111749.sr
all_Magnets_20090706T011803.sr
all_Magnets_20090706T080403.sr
all_Magnets_20090706T085150.sr
all_Magnets_20090706T113340.sr
all_Magnets_20090706T115920.sr
all_Magnets_20090706T140011.sr
all_Magnets_20090706T143551.sr
all_Magnets_20090706T151837.sr
all_Magnets_20090706T230509.sr
all_Magnets_20090707T070750.sr
all_magnets20080413T0858.sr
all_magnets20090627T1506.sr
all_magnets_20090630T2256
all_magnets_20090630T2256.sr
all_magnets_20090630T2256.sr
all_magnets_20090630T2351

which one is good?

for bypass or for SASE?

which wavelength? how much SASE?

taken with beam?

or

search in e-logbook

(good luck!)

2) catalog of files:

wavelength

beamline

how much SASE

FLASH File Operator 1.89

File Edit Options Tools Help

Machine File Catalog Sequence files

Last file restored (or saved):

FLASH Catalog has 3694 files. With the following filters: 81 files listed in the table below. [show filters](#) ☒ apply filter:

FILTERS

<input checked="" type="checkbox"/> File ID	ID	Timestamp	Wavelength	Beamline	Comment	Error	Wavelength	Restored	File type	Authors	E [J]	SASE [J]	e-log link
<input checked="" type="checkbox"/>	12889	Mon 2009-07-06 2...	13.54	undu...	shift documentation	0	0	0	normal	Brenger	692.8	38.2	http://t...
<input checked="" type="checkbox"/>	12876	Fri 2009-07-03 17...	13.51	undu...	shift documentation	0	0	0	normal	Brenger	694.6	37.9	http://t...
<input type="checkbox"/>	12868	Thu 2009-07-02 0...	20.84	undu...	shift documentation	0	0	0	normal	Brenger	558.6	2.3	http://t...
<input checked="" type="checkbox"/>	12863	Wed 2009-07-01 0...	20.82	undu...	shift documentation	0	0	0	normal	Brenger	558.8	2.6	http://t...
<input type="checkbox"/>	12794	Sun 2009-06-21 1...	13.61	undu...	18µm J (MCP), 30bun...	0	0	0	normal	Faatz, vog...	693.8	3.8	http://t...
<input type="checkbox"/>	12785	Sat 2009-06-20 09...	25.65	undu...	25.5 nm, 10 bunches, 16...	0	0	0	normal	Faatz	505.4	13.7	http://t...
<input checked="" type="checkbox"/>	12775	Fri 2009-06-19 00...	27.02	undu...	shift documentation	0	0	1	normal	Brenger	495.4		http://t...
<input type="checkbox"/>	12774	Thu 2009-06-18 2...	26.95	undu...	shift documentation	0	0	0	normal	Brenger	496.2	23.6	http://t...
<input type="checkbox"/>	12759	Wed 2009-06-17 2...	27.04	undu...	shift documentation	0	0	0	normal	Brenger	495.3	11.0	http://t...
<input checked="" type="checkbox"/>	12757	Wed 2009-06-17 2...	25.83	undu...	25.9nm 20uJ GMD 10/10	0	0	0	refer...	Polzin	506.8	18.5	http://t...
<input checked="" type="checkbox"/>	12755	Wed 2009-06-17 1...	25.97	undu...	26.05nm at PG2 / 10µmJ...	0	0	0	normal	Faatz, vog...	505.4	11.4	http://t...
<input checked="" type="checkbox"/>	12749	Tue 2009-06-16 1...	25.24	undu...	SASE at 26 nm, 14 uJ on...	0	0	0	normal	Brenger, F...	505.3	10.5	http://t...
<input checked="" type="checkbox"/>	12748	Tue 2009-06-16 1...	13.29	undu...	docu	0	0	0	normal	Limberg, ...	696.5	15.5	http://t...
<input type="checkbox"/>	12747	Tue 2009-06-16 1...	13.29	undu...	shift docu	0	0	0	normal	Brenger	696.3	2.5	http://t...
<input type="checkbox"/>	12746	Tue 2009-06-16 1...	13.28	undu...	shift documentation	0	0	0	normal	Brenger	696.6	2.1	

SELECTED FROM TABLE

Selected file: ID= RESTORE using sequencer: Selected File ==> Sequencer

2) catalog of files: how to search:

using the filters

FLASH File Operator 1.89

File Edit Options Tools Help

Machine File Catalog Sequence files

Last file restored (or saved):

FLASH Catalog has 3694 files. With the following filters: 81 files listed in the table below. [hide filters](#) ☒ apply filters

FILTERS

[remove all filters](#)

Files with BEAMLINE: ☒ gun ☒ analysis ☒ bypass ☒ seed ☒ undulator ☐ Show files with energy [MeV]= 700 within +- 10

Show with TYPE: ☐ temp ☒ normal ☒ reference ☐ special ☐ optics ☐ Show files with wavelength [nm]= 10 within +- 2

Show with CLASSIFICATION: ☒ 0 ☒ 1 ☒ 2

Show with: ☒ errors ☒ errors in writables

☒ Show newer than 07.April.2009

Search text (in Comment):

Search text (in Authors):

Search text (in Category):

<input checked="" type="checkbox"/> File ID	ID	Timestamp	λ [nm]	Beamli...	Comment	Err...	Wr.err...	Resto...	File type	Authors	E [MeV]	SASE ...	e-log link
<input checked="" type="checkbox"/>	12889	Mon 2009-07-06 23:0...	13.54	undul...	shift documentation	0	0	0	normal	Brenger	692.8	38.2	http://tfi...
<input checked="" type="checkbox"/>	12876	Fri 2009-07-03 17:46...	13.51	undul...	shift documentation	0	0	0	normal	Brenger	694.6	37.9	http://tfi...
<input type="checkbox"/>	12868	Thu 2009-07-02 07:0...	20.84	undul...	shift documentation	0	0	0	normal	Brenger	558.6	2.3	http://tfi...
<input checked="" type="checkbox"/>	12863	Wed 2009-07-01 07:0...	20.82	undul...	shift documentation	0	0	0	normal	Brenger	558.8	2.6	http://tfi...
<input type="checkbox"/>	12794	Sun 2009-06-21 16:4...	13.61	undul...	18 μ J (MCP), 30bun., 100k...	0	0	0	normal	Faatz, vogtm	693.8	3.8	http://tfi...
<input type="checkbox"/>	12785	Sat 2009-06-20 09:34...	25.65	undul...	25.5 nm, 10 bunches, 16 uJ o...	0	0	0	normal	Faatz	505.4	13.7	http://tfi...
<input type="checkbox"/>	12775	Fri 2009-06-19 00:41...	27.02	undul...	shift documentation	0	0	1	normal	Brenger	495.4		http://tfi...
<input checked="" type="checkbox"/>	12774	Thu 2009-06-18 23:0...	26.95	undul...	shift documentation	0	0	0	normal	Brenger	496.2	23.6	http://tfi...
<input type="checkbox"/>	12759	Wed 2009-06-17 00:0...	27.04	undul...	shift documentation	0	0	0	normal	Brenger	495.8	11.0	http://tfi...

SELECTED FROM TABLE

Selected file: ID= [RESTORE using sequencer: Selected File ==> Sequencer](#)

2) catalog of files:

save a new file + print main parameters

The screenshot shows the 'FLASH File Operator 1.89' application window. The 'File' menu is open, showing options like 'SAVE: Machine FLASH ==> File', 'Reload catalog, seq. and symb files', 'Print Catalog Files Table', and 'Exit Program'. A red arrow points from the text 'save a new file + print main parameters' to the 'File' menu. Another red arrow points from the 'SAVE: Machine FLASH ==> File' option to the 'FLASH File Operator: Save Machine Status' dialog box.

The 'FLASH File Operator: Save Machine Status' dialog box contains the following fields and buttons:

- User input:**
 - Enter FILE TYPE: (to evaluate the quality of your file)
 - Enter COMMENT: (useful to search keywords in catalog)
 - Enter YOUR NAME(S): (useful to find your files in catalog)
 - Enter OPERATOR name(s):
- Category: Sequencer**
- Buttons:**
 - Save Status Now and Print Main Param.
 - CANCEL save procedure
- Progress Bar:**

Task	Progress
Averaging over 20 pulses:	0%
Saving orbit files:	0%
Saving Save&Restore file:	0%
Printing Main Param.:	0%
Searching link to logbook:	0%
Changing param. in File System:	0%

2) catalog of files:

print main parameters
only for FLASH

saves magnets
in Save&Restore files

saves orbit for
Orbit Display program

```
08.03.2007 22:51 ttflinac Main linac parameters

Laser
Number of bunches ..... 15
Bunch frequency ..... 100 kHz
Macropulse rep'rate .... 5 Hz
Flashlamp current ..... 2
Flashlamp start time ... 2.16 ms
Attenuator SP ..... 5488
Iris diameter ..... 1.95 mm
Piezo Voltage ..... 4.944 V

ACC1
Feedforward/Feedback ... on/on
Pfwf SP ..... 15.21
Phase SP ..... 176.9183
Pfwf C1.ACC1 ..... 54.1813 kW
Pfwf C5.ACC1 ..... 251.9692 kW
Flat top ..... 100 us
Beam loading comp. (BLC) off
BLC current/duration ... 0.8 mA/70 us
Dipole BC2 ..... 61.5994 A
Pyro 9DBC2 ..... -0.060908 V
Radiator 9DBC2 ..... open

ACC4/5
DSP trigger rate ..... 5 Hz
Feedforward/Feedback ... on/on
Pfwf SP ..... 18.06
Phase SP ..... 178.7218
Pfwf C1.ACC4 ..... 0.05278 kW
Pfwf C2.ACC5 ..... 0.000939 kW
Flat top ..... 185 us
Beam loading comp. (BLC) off
BLC current/duration ... 0.8 mA/660 us

Bypass
Dipole D1BYP ..... 0 A
Energy bypass ..... 2.6006 MeV

Feedbacks
Charge feedback ..... off
Charge feedback SP ..... 0.2 nC
PTO feedback ..... on

Magnets saved to:
/home/ttflinac/save_restore/Magnets/autosaved/all_Magnets_20070308T225118.sr
uMovers saved to:
/home/ttflinac/save_restore/Micromovers/autosaved/uMovers_20070308T225122.sr
Orbit reference saved in
/home/ttflinac/bin/matlab/orbit_stability/2007-03-08T225123-orbit-stability

Gun
Feedforward/Feedback ... on/on
Pfwf SP ..... 3.25
Phase SP ..... -112.68 deg
Pfwf (peak) ..... 3.509 MW
Prefl (peak) ..... 1.711 MW
Pfwf (sample point 700) 3.6264 MW
Prefl (sample point 700) 0.053319 MW
Flat top ..... 200 us
Water temperature SP ... 60.31 deg C
Main solenoid ..... 294.6953 A
Bucking coil ..... 26.0018 A
Gun dipole ..... 0 A
Charge 3GUN(T1) ..... 0.91614 nC

ACC2/3
DSP trigger rate ..... 5 Hz
Feedforward/Feedback ... on/on
Pfwf SP ..... 21.9
Phase SP ..... 88.7419
Pfwf C5.ACC2 ..... 0.1567 kW
Pfwf C1.ACC3 ..... 0.09197 kW
Flat top ..... 188 us
Beam loading comp. (BLC) off
BLC current/duration ... 0.8 mA/600 us
Dipole BC3 ..... 40.694 A
Pyro 14BC3 ..... -0.097174 V
Pyro 4DBC3 ..... -0.065883 V
Radiator 4DBC3 ..... open

Collimator
Dipole D1ECOL ..... 122.4912 A
Energy dogleg ..... 691.8683 MeV

Dump
Dipole D1DUMP ..... 133.5912 A
Dipole D6DUMP ..... 147.0176 A
Radiation level (wall) . 163 counts/ms
```


2) catalog of files:

click on right mouse button

FLASH File Operator 1.89

File Edit Options Tools Help

Machine File Catalog Sequence files

Last file restored (or saved):

FLASH Catalog has 3694 files. With the following filters: 81 files listed in the table below. [show filters](#) ☒ apply filter:

FILTERS

<input checked="" type="checkbox"/> File ID	ID	Timestamp	λ [nm]	Beamline	Comment	Err...	Wr.er...	Rest...	File t...	Authors	E [keV]	SASE...	e-log link
<input checked="" type="checkbox"/> Timestamp	12889	Mon 2009-07-06 2...	13.54	undu...	shift documentation	0	0	0	normal	Brenger	692.8	38.2	http://t...
<input type="checkbox"/> Age	12876	Fri 2009-07-03 17:...	13.51	undu...	shift documentation	0	0	0	normal	Brenger	694.6	37.9	http://t...
<input checked="" type="checkbox"/> Restored cou	12868	Thu 2009-07-02 0...	20.84	undu...	shift documentation	0	0	0	normal	Brenger	558.6	2.3	http://t...
<input type="checkbox"/> Restored dat	12863	Wed 2009-07-01 0...	20.82	undu...	shift documentation	0	0	0	normal	Brenger	558.8	2.6	http://t...
<input checked="" type="checkbox"/> File type	12794	Sun 2009-06-21 1...	13.61	undu...	18\mu J (M...	0	0	0	normal	Faatz, vog...	693.8	3.8	http://t...
<input type="checkbox"/> Classification	12785	Sat 2009-06-20 09...	25.65	undu...	25.5 nm, 10					Faatz	505.4	13.7	http://t...
<input checked="" type="checkbox"/> Beamline	12775	Fri 2009-06-19 00:...	27.02	undu...	shift					Brenger	495.4		http://t...
<input checked="" type="checkbox"/> Comment	12774	Thu 2009-06-18 2...	26.95	undu...	shift					Brenger	496.2	23.6	http://t...
<input checked="" type="checkbox"/> Authors	12759	Wed 2009-06-17 2...	27.04	undu...	shift					Brenger	495.3	11.0	http://t...
<input type="checkbox"/> Operators	12757	Wed 2009-06-17 2...	25.83	undu...	25.9nm 20					Polzin	506.8	18.5	http://t...
	12755	Wed 2009-06-17 1...	25.97	undu...	26.05nm at					tz, vog...	505.4	11.4	http://t...
	12749	Tue 2009-06-16 1...	25.24	undu...	SASE at 26 nm, 14 uJ on...	0	0	0	normal	Brenger, F...	505.3	10.5	http://t...
	12748	Tue 2009-06-16 1...	13.29	undu...	docu	0	0	0	normal	Limberg, ...	696.5	15.5	http://t...
	12747	Tue 2009-06-16 1...	13.29	undu...	shift docu	0	0	0	normal	Brenger	696.3	2.5	http://t...
	12746	Tue 2009-06-16 1...	13.28	undu...	shift documentation	0	0	0	normal	Brenger	696.6	2.1	http://t...

SELECTED FROM TABLE

Selected file: ID= RESTORE using sequencer: Selected File ==> Sequencer

Context menu for file ID 12794:

- OPEN this file (ID= 12794)
- compare with ... (please, select file)
- EDIT this file (ID= 12794)
- SCALE this file (ID= 12794) with energy
- DELETE this file (ID= 12794)

2) catalog of files:

click on right mouse button

FLASH File Operator 1.89

File Edit Options Tools Help

Machine File Catalog Sequence files

Last file restored (or saved):

FLASH Catalog has 3694 files. With the following filters: 81 files listed in the table below. [show filters](#) ☒ apply filter:

FILTERS

<input checked="" type="checkbox"/> File ID	ID	Timestamp	λ [nm]	Beamline	Comment	Err...	Wr.er...	Rest...	File t...	Authors	E [keV]	SASE...	e-log link
<input checked="" type="checkbox"/> Timestamp	12889	Mon 2009-07-06 2...	13.54	undu...	shift documentation	0	0	0	normal	Brenger	692.8	38.2	http://t...
<input type="checkbox"/> Age	12876	Fri 2009-07-03 17:...	13.51	undu...	shift documentation	0	0	0	normal	Brenger	694.6	37.9	http://t...
<input checked="" type="checkbox"/> Restored only	12868	Thu 2009-07-02 0...	20.84	undu...	shift documentation	0	0	0	normal	Brenger	558.6	2.3	http://t...
<input type="checkbox"/> Restored data	12863	Wed 2009-07-01 0...	20.82	undu...	shift documentation	0	0	0	normal	Brenger	558.8	2.6	http://t...
<input checked="" type="checkbox"/> File type	12794	Sun 2009-06-21 1...	13.61	undu...	18\mu J (M...	0	0	0	normal	Faatz, vog...	693.8	3.8	http://t...
<input type="checkbox"/> Classification	12785	Sat 2009-06-20 09...	25.65	undu...	25.5 nm, 10	0	0	0	normal	Faatz	505.4	13.7	http://t...
<input checked="" type="checkbox"/> Beamline	12775	Fri 2009-06-19 00:...	27.02	undu...	shift	0	0	0	normal	Brenger	495.4	13.7	http://t...
<input checked="" type="checkbox"/> Comment	12774	Thu 2009-06-18 2...	26.95	undu...	shift	0	0	0	normal	Brenger	496.2	23.6	http://t...
<input type="checkbox"/> Authors	12759	Wed 2009-06-17 2...	27.04	undu...	shift	0	0	0	normal	Brenger	495.3	11.0	http://t...
<input type="checkbox"/> Operators	12757	Wed 2009-06-17 2...	25.83	undu...	25.9nm 20	0	0	0	normal	Polzin	506.8	18.5	http://t...
	12755	Wed 2009-06-17 1...	25.97	undu...	26.05nm at	0	0	0	normal	tz, vog...	505.4	11.4	http://t...
	12749	Tue 2009-06-16 1...	25.24	undu...	SASE at 26 nm, 14 uJ on...	0	0	0	normal	Brenger, F...	505.3	10.5	http://t...
	12748	Tue 2009-06-16 1...	13.29	undu...	docu	0	0	0	normal	Limberg, ...	696.5	15.5	http://t...
	12747	Tue 2009-06-16 1...	13.29	undu...	shift docu	0	0	0	normal	Brenger	696.3	2.5	http://t...
	12746	Tue 2009-06-16 1...	13.28	undu...	shift documentation	0	0	0	normal	Brenger	696.6	2.1	http://t...

SELECTED FROM TABLE

Selected file: ID= RESTORE using sequencer: Selected File ==> Sequencer

Context menu for file ID 12794:

- OPEN this file (ID= 12794)
- compare with ... (please, select file)
- EDIT this file (ID= 12794)
- SCALE this file (ID= 12794) with energy
- DELETE this file (ID= 12794)

2) catalog of files:

view file in SaveRestore

systems

'show' level

FLASH File Operator 1.89

File Edit View Options Help

ID= 12794 Timestamp: 2009-06-21T16:45:11+02 Age: 15.7 days

Comment: 18vmu J (MCP), 30bun., 100kHz, noLosses@undu, 95%transm, otpics close Authors: Faatz, vogtm

File type: normal Beamline: modulator Beam Energy 693.79150390625

SYSTEM-SET: ☒ ALL (423) ☐ Diag (22) ☐ Feedbacks (7) ☐ Laser (8) ☐ MagnetMovers (40) ☐ Magnets (240) ☐ MPS (15) ☐ RF (51) ☐ StretchedWire (40)

All selected with 423 'data-rows'. With the 'show-level' = 0 423 'data-rows' listed in the table below.

facility	device	location	dev. property	description	file value	device value	diff.	RBV	diff.to RBV
TTF2.DIAG	TOROID	3GUN	CH00.DIFF	Charge 3GUN(T...	0.87469482	1.17859125	0.30389643		
TTF2.DIAG	TOROID	16BYP	CH00.DIFF	Charge 16BYP [...	0.00504923	0.00361443	-0.00143480		
TTF2.DIAG	TOROID	7MATCH	CH00.DIFF	Charge 7MATCH...	0.89390945	1.14852667	0.25461721		
TTF2.DIAG	TOROID	9DUMP	CH00.DIFF	Charge 9DUMP ...	0.83125162	1.08638668	0.25513506		
TTF2.DIAG	BCM	9DBC2.1	CH00	Pyro 9DBC2 [V]	-0.11760759	-0.04242241	0.07518518		
TTF2.DIAG	SCREEN	9DBC2	POSREACH	Radiator 9DBC2	5	5	0		
TTF2.DIAG	BCM	4DBC3.1	CH00	Pyro 14BC3 [V]	-0.05852997	-0.04786503	0.01066494		
TTF2.DIAG	BCM	4DBC3.3	CH00	Pyro 4DBC3 [V]	-0.08894992	-0.09103000	-0.00208008		
TTF2.DIAG	SCREEN	4DBC3	POSREACH	Radiator 4DBC3	5	5	0		
TTF2.DAQ	ENERGY.BYP...	E_INTRA_ME...	VAL	Energy bypass [...	286.76998901	286.76998901	0.00000000		
TTF2.DAQ	ENERGY.DO...	E_INTRA_ME...	VAL	Energy dogleg [...	693.64599609	558.93505859	-134.71093750		
TTF2.DAQ	ENERGY.DO...	LAMBDA ME...	VAL	Wavelength [nm]	13.61778069	20.81161308	7.19383240		

all listed values SP-RBV deviation selected values

423 FILE values 218 diffs. 423 DEVICE values 101 out of 240 select all 0 FILE values selected Copy 0 DEVICE values selected

0 errors tolerance [bits] = 5 unselect Restore

Next update 30 sec. update completed abort server reading Last update: e Jul 07 09:54:27 CEST 2009 age: 0 sec. update NOW

'write' flag

2) catalog of files:

view file in SaveRestore

'write' flag

FLASH File Operator 1.89

File Edit View Options Help

ID= 12794 Timestamp: 2009-06-21T16:45:11+02 Age: 15.8 days

Comment: 18\mu J (MCP), 30bun., 100kHz, noLosses@undu, 95%transm, otpics close Authors: Faatz, vogtm

File type: normal Beamline: undulator Beam Energy 693.79150390625

SYSTEM-SET: ☒ ALL (423) ☐ Diag (22) ☐ Feedbacks (7) ☐ Laser (8) ☐ MagnetMovers (40) ☐ Magnets (240) ☐ MPS (15) ☐ RF (51) ☐ Stretcher

All selected with 423 'data-rows'. With the 'show-level' = 0 423 'data-rows' listed in the table below.

facility	device	location	dev. property	description	write	file value	device value	diff.	RBV	diff.to RBV
TTF2.DIAG	TOROID	3GUN	CH00.DIFF	Charge 3GUN...	0	0.87469482	1.19415903	0.31946421		
TTF2.DIAG	TOROID	16BYP	CH00.DIFF	Charge 16BY...	0	0.00504923	-0.00511265	-0.01016188		
TTF2.DIAG	TOROID	7MATCH	CH00.DIFF	Charge 16BYP [nC]	0	0.89390945	1.17125368	0.27734423		
TTF2.DIAG	TOROID	9DUMP	CH00.DIFF	Charge 9DUM...	0	0.83125162	1.10586262	0.27461100		
TTF2.DIAG	BCM	9DBC2.1	CH00	Pyro 9DBC2 [V]	0	-0.11760759	-0.04203081	0.07557678		
TTF2.DIAG	SCREEN	9DBC2	POSREACH	Radiator 9DB...	0	5	5	0		
TTF2.DIAG	BCM	4DBC3.1	CH00	Pyro 14BC3 [V]	0	-0.05852997	-0.03976500	0.01876497		
TTF2.DIAG	BCM	4DBC3.3	CH00	Pyro 4DBC3 [V]	0	-0.08894992	-0.09701002	-0.00806010		
TTF2.DIAG	SCREEN	4DBC3	POSREACH	Radiator 4DB...	0	5	5	0		
TTF2.DAQ	ENERGY.B...	E_INTRA_...	VAL	Energy bypas...	0	286.76998...	286.76998901	0.00000000		
TTF2.DAQ	ENERGY.D...	E_INTRA_...	VAL	Energy dogle...	0	693.64599...	559.82977295	-133.81622...		
TTF2.DAQ	ENERGY.D...	LAMBDA_...	VAL	Wavelength [...]	0	13.617780...	20.82555199	7.20777130		

all listed values

423 FILE values → 220 diffs. ← 423 DEVICE values

0 errors → 1

SP-RBV deviation

101 out of 240

tolerance [bits] = 5

select all

unselect

selected values

0 FILE values selected ← Copy

Restore → 0 DEVICE values selected

Next update 15 sec. update completed abort server reading

Last update: e Jul 07 12:30:07 CEST 2009 age: 15 sec.

2) catalog of files:

compare two files

1. select a file

The screenshot shows the FLASH File Operator 1.89 window. The 'Machine File Catalog' tab is active. It displays a table of files with columns: ID, Timestamp, λ [...], Bea..., Comment, Err..., Wr.e..., Rest..., File t..., Authors, E [...], SAS..., and e-log link. A red arrow points from the text '1. select a file' to the row with ID 12794. Another red arrow points from the text '2. click on right mouse button' to the row with ID 12757. A context menu is open over the row with ID 12757, with a red arrow pointing from the text '3. click 'compare'' to the 'compare this file (ID= 12757) with selected file (ID= 12794)' option. The 'Selected file' field at the bottom shows '2009-06-21T16:45:11+02' and 'ID= 12794'.

FLASH File Operator 1.89

File Edit Options Tools Help

Machine File Catalog Sequence files

Last file restored (or saved):

SH Catalog has 3696 files. With the following filters: 81 files listed in the table below. show filters apply filter

FILTERS

File ID	Timestamp	λ [...]	Bea...	Comment	Err...	Wr.e...	Rest...	File t...	Authors	E [...]	SAS...	e-log link
12889	Mon 2009-07-06 ...	13.54	undu...	shift documentation	0	0	0	normal	Brenger	692.8	38.2	http://t...
12876	Fri 2009-07-03 17...	13.51	undu...	shift documentation	0	0	0	normal	Brenger	694.6	37.9	http://t...
12868	Thu 2009-07-02 0...	20.84	undu...	shift documentation	0	0	0	normal	Brenger	558.6	2.3	http://t...
12863	Wed 2009-07-01 ...	20.82	undu...	shift documentation	0	0	0	normal	Brenger	558.8	2.6	http://t...
12794	Sun 2009-06-21 1...	13.61	undu...	18\mu J (MCP), 30bun., ...	0	0	0	normal	Faatz, vo...	693.8	3.8	http://t...
12785	Sat 2009-06-20 0...	25.65	undu...	25.5 nm, 10 bunches, 1...	0	0	0	normal	Faatz	505.4	13.7	http://t...
12775	Fri 2009-06-19 00...	27.02	undu...	shift documentation	0	0	1	normal	Brenger	495.4		http://t...
12774	Thu 2009-06-18 2...	26.95	undu...	shift documentation	0	0	0	normal	Brenger	496.2	23.6	http://t...
12759	Wed 2009-06-17 ...	27.04	undu...	shift documentation	0	0	0	normal	Brenger	495.3	11.0	http://t...
12757	Wed 2009-06-17 ...	25.83	undu...	25.9nm 20uJ GMD	0	0	0	normal				
12755	Wed 2009-06-17 ...	25.97	undu...	26.05nm at P32 / 10	0	0	0	normal				

SELECTED FROM TABLE

Selected file: 2009-06-21T16:45:11+02 ID= 12794 RESTO

OPEN this file (ID= 12757)
compare this file (ID= 12757) with selected file (ID= 12794)
EDIT this file (ID= 12757)
SCALE this file (ID= 12757) with energy
DELETE this file (ID= 12757)

2. click on right mouse button

3. click 'compare'

2) catalog of files: compare two files

value from file 1

value from file 2

FLASH File Operator: Compare files

View Help

File 1: ID= 12794 Timestamp: 2009-06-21T16:45:11+02 Comment: 18\mu J (MCP), 30bun., 100kHz, noLosses@undu, 95%transm, otpics

File 2: ID= 12757 Timestamp: 2009-06-17T21:55:55+02 Comment: 25.9nm 20uJ GMD 10/10

SYSTEM-SET: ☒ ALL ☐ Diag (22) ☐ Feedbacks (7) ☐ Laser (8) ☐ MagnetMovers (40) ☐ Magnets (240) ☐ MPS (15) ☐ RF (51) ☐ StretchedWire (40)

All selected with 423 'data-rows'. With the 'show-level' = 0 423 'data-rows' listed in the table below.

facility	device	location	dev. property	file1 value	file2 value	diff.
TTF2.DIAG	TOROID	3GUN	CH00.DIFF	0.87469482	0.78873634	-0.08595848
TTF2.DIAG	TOROID	16BYP	CH00.DIFF	0.00504923	0.00303268	-0.00201654
TTF2.DIAG	TOROID	7MATCH	CH00.DIFF	0.89390945	0.76493835	-0.12897110
TTF2.DIAG	TOROID	9DUMP	CH00.DIFF	0.83125162	0.71699286	-0.11425877
TTF2.DIAG	BCM	9DBC2.1	CH00	-0.11760759	-0.08393085	0.03367674
TTF2.DIAG	SCREEN	9DBC2	POSREACH	5	5	0
TTF2.DIAG	BCM	4DBC3.1	CH00	-0.05852997	-0.08053493	-0.02200496
TTF2.DIAG	BCM	4DBC3.3	CH00	-0.08894992	-0.14666998	-0.05772007
TTF2.DIAG	SCREEN	4DBC3	POSREACH	5	5	0
TTF2.DAQ	ENERGY.BYPASS	E_INTRA_MEAN	VAL	286.76998901	286.76998901	0.00000000
TTF2.DAQ	ENERGY.DOGLEG	E_INTRA_MEAN	VAL	693.64599609	506.81216431	-186.83383179
TTF2.DAQ	ENERGY.DOGLEG	LAMBDA_MEAN	VAL	13.61778069	25.82754135	12.20976067
TTF2.DAQ	ENERGY.DOGLEG	FUDGE_OFFSET	VAL	0.52572155	1.29930568	0.77358413
TTF2.DAQ	RADIATION	DUMP4	CH VALUE	888	888	0

all listed values

423 FILE 1 values 422 FILE 2 values

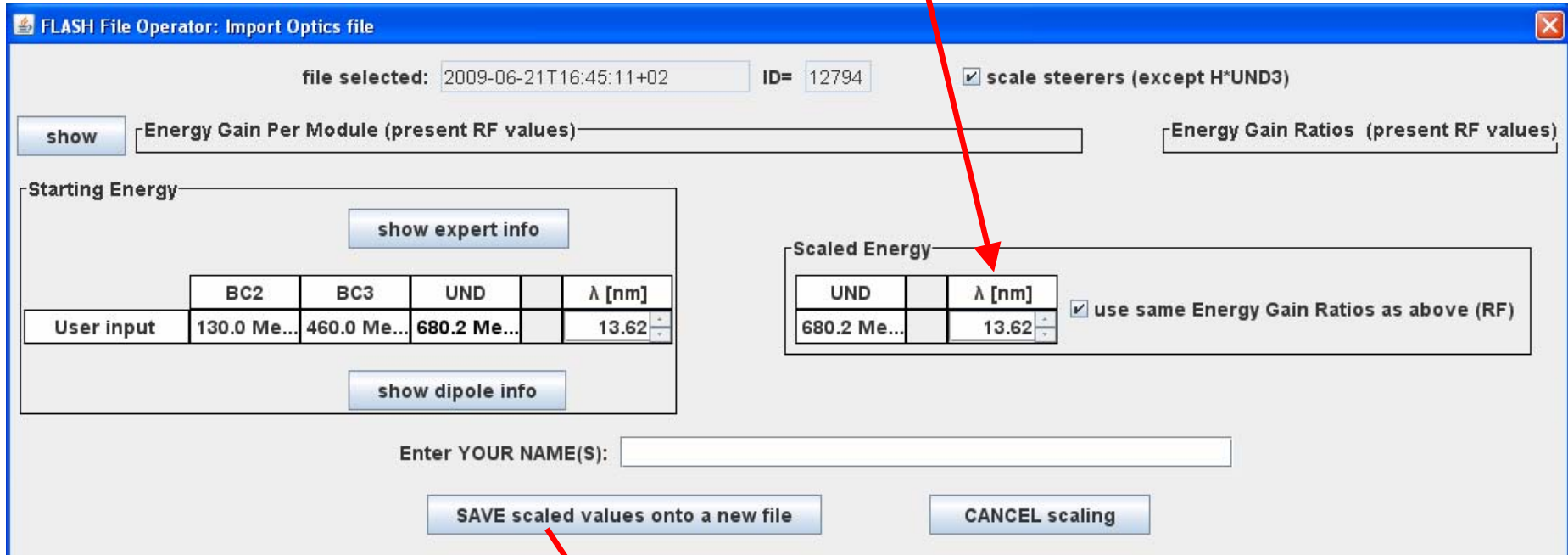
diffs. 206

errors 0

Close this Window

2) catalog of files: scale magnets with energy:

enter new wavelength



The dialog box is titled "FLASH File Operator: Import Optics file". It contains the following elements:

- file selected:** 2009-06-21T16:45:11+02
- ID=** 12794
- ☒ **scale steerers (except H*UND3)**
- show** button
- Energy Gain Per Module (present RF values)** (disabled)
- Energy Gain Ratios (present RF values)** (disabled)
- Starting Energy** section:
 - show expert info** button
 - Table:

	BC2	BC3	UND		λ [nm]
User input	130.0 Me...	460.0 Me...	680.2 Me...		13.62
 - show dipole info** button
- Scaled Energy** section:
 - Table:

UND		λ [nm]
680.2 Me...		13.62
 - ☒ **use same Energy Gain Ratios as above (RF)**
- Enter YOUR NAME(S):** (text input field)
- SAVE scaled values onto a new file** button
- CANCEL scaling** button

it creates a new file:
ONLY with magnets

2) catalog of files: scale magnets with energy: present RF values

FLASH File Operator: Import Optics file

file selected: 2009-06-21T16:45:11+02 ID= 12794 ☒ scale steerers (except H*UND3)

hide

Energy Gain Per Module (present RF values)

	Gun	ACC1	ACC2	ACC3	ACC4	ACC5	ACC6
from Vector S...	5.0 MeV	132.0 MeV	165.3 MeV	174.1 MeV	32.3 MeV	30.3 MeV	42.0 MeV
User input	5.0 MeV	125.0 MeV	165.0 MeV	165.0 MeV	68.8 MeV	64.0 MeV	87.4 MeV

Energy Gain Ratios (present RF values)

	ACC5/ACC4	ACC6/ACC4
from Vector S...	0.94	1.30
User input	0.93	1.27

Starting Energy

hide expert info

	BC2	BC3	UND	λ [nm]
from Vector Su...	107.0 MeV	476.3 MeV	581.0 MeV	18.67 nm

	E (UND)	λ	λ + fudge f.	beam?
from Energy se...	693.6 MeV	13.09 nm	13.62 nm	yes

	BC2	BC3	UND	λ [nm]
User input	730.0 MeV	460.0 MeV	680.2 MeV	13.62

hide dipole info

	current	energy	λ
dipole D1ECOL	123.61 A	706.9 MeV	12.6 MeV

Scaled Energy

	UND	λ [nm]
	680.2 MeV	13.62

☒ use same Energy Gain Ratios as above (RF)

Enter YOUR NAME(S):

SAVE scaled values onto a new file CANCEL scaling

file values

your input values

2) catalog of files: edit catalog entry:

FLASH File Operator: Edit file properties

ID= 12794 Timestamp: 2009-06-21T16:45:11+02

editable fields:

Comment: 18\mu J (MCP), 30bun., 100kHz, noLosses@undu, 95%transm, otpics closer to design

Authors: Faatz, vogtm

Operators:

File type: normal ▼

Energy [MeV]: temp 0390625

Wavelength [nm]: normal 4281566631146

Category: reference special optics ▼

Classification: 1 ▼

SAVE changes **CANCEL editing**

File type

temp file: for temporary data or scratch data or data was edited/changed
(beam is off or some systems are off)

normal file: there is beam (good transmission)

reference file: official file for routine operation
(a coordinator recommends the use of this file)

special file: special settings for machine studies, tests, etc.

optics file: values calculated from optics programs

2) catalog of files: remove/recover

to see deleted files

FLASH File Operator 1.89

File Edit Options Tools Help

☐ show DELETED files

Last file restored (or saved):

FLASH Catalog has 3694 files. With the following filters: 81 files listed in the table below.

FILTERS

<input checked="" type="checkbox"/> File ID	ID	Timestamp	λ [...]	Beam...	Comment	Err...	Wr.er...	Rest...	File t...
<input checked="" type="checkbox"/> Timestamp	12889	Mon 2009-07-06 2...	13.54	undu...	shift documentation	0	0	0	normal
<input type="checkbox"/> Age	12876	Fri 2009-07-03 17:...	13.51	undu...	shift documentation	0	0	0	normal
<input checked="" type="checkbox"/> Restored cou	12868	Thu 2009-07-02 0...	20.84	undu...	shift documentation	0	0	0	normal
<input type="checkbox"/> Restored dat	12863	Wed 2009-07-01 0...	20.82	undu...	shift documentation	0	0	0	normal
<input checked="" type="checkbox"/> File type	12794	Sun 2009-06-21 1...	13.61	undu...	18\mu J (MCP), 30bun., ...	0	0	0	normal
<input type="checkbox"/> Classification	12785	Sat 2009-06-20 09...	25.65	undu...	25.5 nm, 10 bunches, 16...	0	0	0	normal
<input checked="" type="checkbox"/> Beamline	12775	Fri 2009-06-19 00:...	27.02	undu...	shift documentation	0	0	1	normal
	12774	Thu 2009-06-18 2...	26.95	undu...	shift documentation	0	0	0	normal
	12759	Wed 2009-06-17 2...	27.04	undu...	shift documentation	0	0	0	normal
	12757	Wed 2009-06-17 2...	25.83	undu...	25.9nm 20uJ GMD 10/10	0	0	0	refer...

2) catalog of files: remove/recover

to recover this file

The screenshot shows the FLASH File Operator 1.89 interface. The 'Machine File Catalog' tab is active, displaying a table of files. A red arrow points from the text 'to recover this file' to the 'DELETED' checkbox in the 'Edit file properties' dialog.

FLASH Catalog has 56 DELETED files. Without filters: 56 files listed in the table below. [show filters](#)

FILTERS

- ☒ File ID
- ☒ Timestamp
- ☐ Age
- ☒ Restored color
- ☐ Restored data
- ☒ File type
- ☐ Classification
- ☒ Beamline
- ☒ Comment
- ☒ Authors
- ☐ Operators

ID	Timestamp	λ [nm]	Beamline	Comment	Err...	Wr.er...	Rest...	File t...	Authors	E [MeV]	SASE
12865	Wed 2009-07-01 11:20:59+02	20.83	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12855	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12853	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12852	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12851	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12850	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12849	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12847	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12846	Mon 2009-06-29 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12771	Thu 2009-06-25 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12770	Thu 2009-06-25 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12769	Thu 2009-06-25 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12768	Thu 2009-06-25 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12767	Thu 2009-06-25 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2
12766	Thu 2009-06-25 14:58:00+02	15.88	undul...	TEST !	0	0	0	temp	Kay Rehlich	558.7	2

FLASH File Operator: Edit file properties

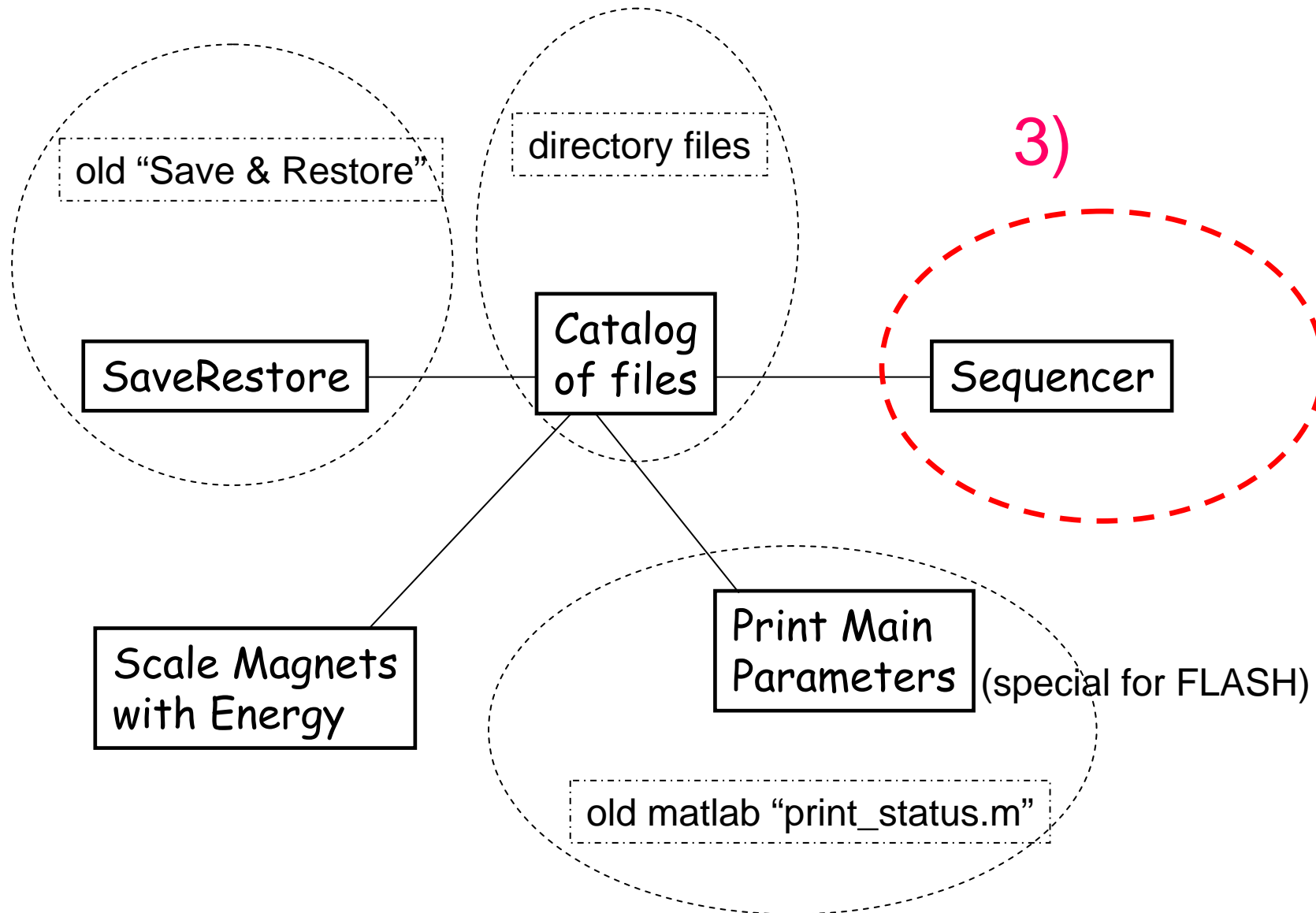
ID= 12865 Timestamp: 2009-07-01T11:20:59+02

editable fields:

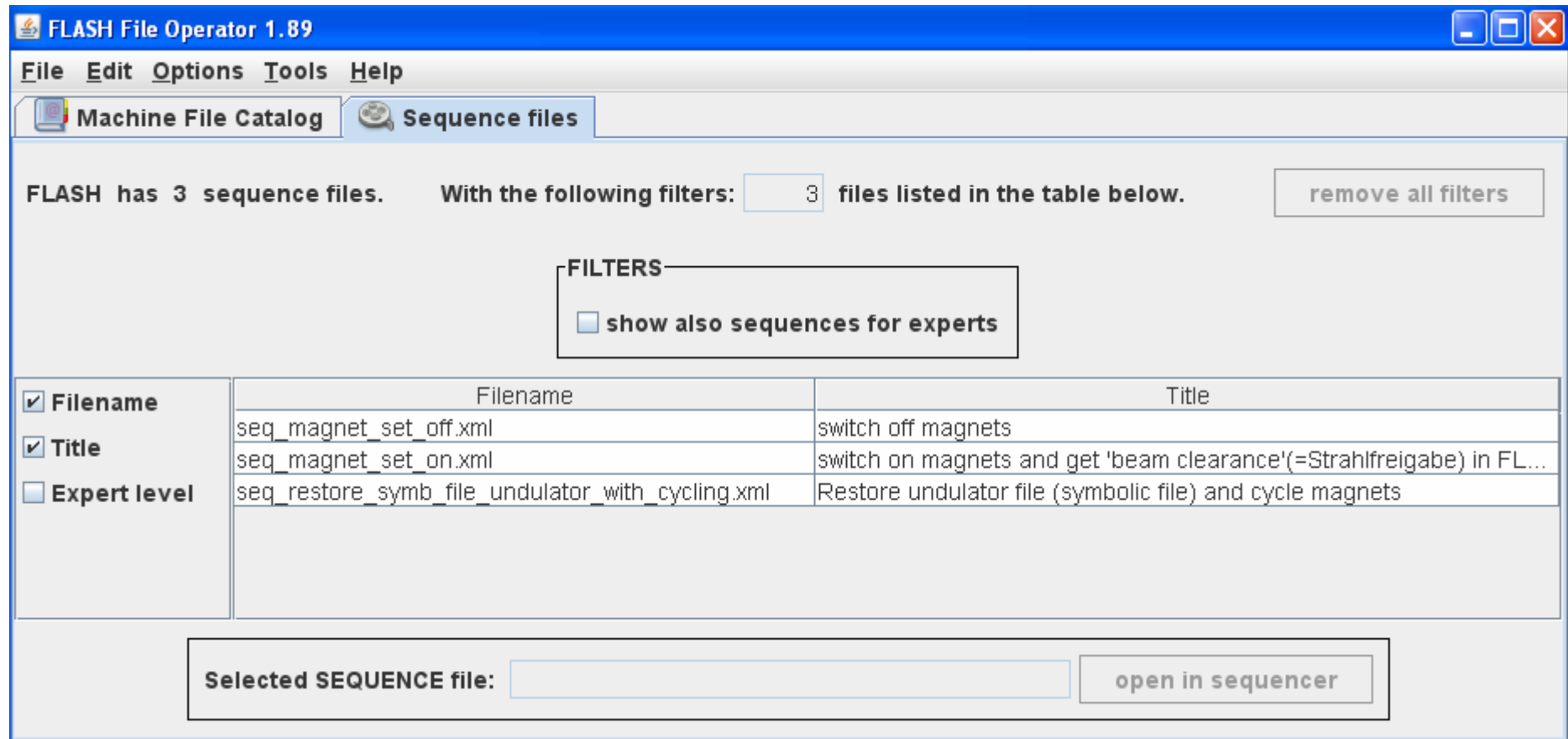
- ☒ DELETED
- Comment: TEST !
- Authors: Kay Rehlich
- Operators:
- File type: temp
- Energy [MeV]: 558.7001342773438
- Wavelength [nm]: 20.82890472782008
- Category: Sequence

SELECTED FROM TABLE

Selected file:



3) sequencer: list of sequences:



3) sequencer

control buttons: start/pause/stop

The screenshot shows the FLASH File Operator 1.89 interface. The title bar is blue with the text 'FLASH File Operator 1.89'. Below it is a menu bar with 'File', 'Edit', 'View', and 'Options'. The main area has a header 'SEQUENCE: switch off magnets' and 'Filename: seq_magnet_set_off.xml'. Below this is the 'Sequencer Control' panel, which contains a 'START sequence' button (with a play icon), a 'STOP sequence' button (with a square icon), a 'STATUS: idle' label, and a 'CLOSE window' button (with a close icon). A red arrow points from the text 'control buttons: start/pause/stop' to the 'START sequence' button. Below the control panel is a table with 7 columns: 'enabled', 'description', 'status', 'remarks', 'restore', 'check', and 'user actions'. The table contains 6 rows of sequence steps. Red arrows point from the 'restore' and 'check' columns of the table to the text 'each step:' below.

enabled	description	status	remarks	restore	check	user actions
<input checked="" type="checkbox"/>	Check beam clearance	-			1 data	
<input checked="" type="checkbox"/>	Set all dipoles to zero	-		5 data	5 data	
<input checked="" type="checkbox"/>	Set all magnets to zero	-		ID=1007 (240 ite...	ID=1007 (240 ite...	
<input checked="" type="checkbox"/>	Switch off magnet power supplies	-		ID=1008 (240 ite...	ID=1008 (240 ite...	
<input checked="" type="checkbox"/>	Switch off diodes PS	-		ID=1009 (6 items)	ID=1009 (6 items)	
<input checked="" type="checkbox"/>	Check for magnet ground	-			1 data	

each step:

- will restore 'something'
- will check 'something' → if ok, go to next step

3) sequencer: how to see what it does:

expert buttons: "list to restore", "list to check"

The screenshot displays the FLASH File Operator 1.89 interface. The main window has a menu bar (File, Edit, View, Options) and a status bar. The Sequencer Control section includes buttons for "START sequence", "STOP sequence", and "CLOSE window", along with a "STATUS: idle" indicator. Below this is a table with columns: enabled, description, status, remarks, restore, check, and user actions. The table lists several tasks, including "Check beam clearance", "Set all dipoles to zero", and "Set all magnets". A red arrow points from the text "expert buttons: 'list to restore', 'list to check'" to the "list to check" button in the "Set all magnets" row. Another red arrow points from the same text to the "list to restore" button in the same row. A third red arrow points from the text to the "list to check" button in the "Check beam clearance" row. A fourth red arrow points from the text to the "list to restore" button in the "Set all magnets" row. A fifth red arrow points from the text to the "list to check" button in the "Set all magnets" row.

enabled	description	status	remarks	restore	check	user actions
<input checked="" type="checkbox"/>	Check beam clearance	-			1 data	<input type="button" value="list to check'..."/>
<input checked="" type="checkbox"/>	Set all dipoles to zero	-		5 data	5 data	<input type="button" value="list to restore'..."/> <input type="button" value="list to check'..."/>
<input checked="" type="checkbox"/>	Set all magnets					
<input checked="" type="checkbox"/>	Switch off magnets					
<input checked="" type="checkbox"/>	Switch off dipoles					
<input checked="" type="checkbox"/>	Check for magnets					

FLASH File Operator 1.89

File Edit View Options Help

Filename:

Comment: Authors:

facility	device	location	dev. property	description	file value	device value	diff.	RBV	diff. to RBV
TTF2.MAGNETS	DIPOLE	D1IDUMP	PS	PS	0.00000000	0.00000000	0.00000000		
TTF2.MAGNETS	DIPOLE	D1BYP	PS	PS	0.00000000	0.00000000	0.00000000		
TTF2.MAGNETS	DIPOLE	D1ECOL	PS	PS	0.00000000	99.16960144	99.169601...		
TTF2.MAGNETS	DIPOLE	D14SEED	PS	PS	0.00000000	0.00000000	0.00000000		
TTF2.MAGNETS	DIPOLE	D6DUMP	PS	PS	0.00000000	120.42755890	120.42755...		

all listed values

5 FILE values 5 DEVICE values

0 errors

SP-RBV deviation

0 out of 0

tolerance [bits] = 5

select all

unselect

selected values

0 FILE values selected 0 DEVICE values selected

Next update 122 sec. Last update: e Jul 07 11:08:39 CEST 2009 age: 9 sec.

3) sequencer: how to restore a file

1. select a file

FLASH File Operator 1.89

File Edit Options Tools Help

Machine File Catalog Sequence files

Last file restored (or saved):

SH Catalog has 3696 files. With the following filters: 81 files listed in the table below. [show filters](#) ☒ apply filters

FILTERS

<input checked="" type="checkbox"/> File ID	ID	Timestamp	λ [...]	Bea...	Comment	Err...	Wr.e...	Rest...	File t...	Authors	E [...]	SAS...	e-log link
<input checked="" type="checkbox"/> Timestamp	12889	Mon 2009-07-06 ...	13.54	undu...	shift documentation	0	0	0	normal	Brenger	692.8	38.2	http://t...
<input type="checkbox"/> Age	12876	Fri 2009-07-03 17...	13.51	undu...	shift documentation	0	0	0	normal	Brenger	694.6	37.9	http://t...
<input checked="" type="checkbox"/> Restored co	12868	Thu 2009-07-02 0...	20.84	undu...	shift documentation	0	0	0	normal	Brenger	558.6	2.3	http://t...
<input type="checkbox"/> Restored dat	12794	Sun 2009-06-21 1...	13.61	undu...	18\mu J (MCP), 30bun...	0	0	0	normal	Faatz, vo...	693.8	3.8	http://t...
<input checked="" type="checkbox"/> File type	12785	Sat 2009-06-20 0...	25.65	undu...	25.5 nm, 10 bunches, 1...	0	0	0	normal	Faatz	505.4	13.7	http://t...
<input type="checkbox"/> Classification	12775	Fri 2009-06-19 00...	27.02	undu...	shift documentation	0	0	1	normal	Brenger	495.4		http://t...
<input checked="" type="checkbox"/> Beamline	12774	Thu 2009-06-18 2...	26.95	undu...	shift documentation	0	0	0	normal	Brenger	496.2	23.6	http://t...
	12759	Wed 2009-06-17 ...	27.04	undu...	shift documentation	0	0	0	normal	Brenger	495.3	11.0	http://t...
	12757	Wed 2009-06-17 ...	25.83	undu...	25.9nm 20uJ GMD 10/10	0	0	0	refer...	Polzin	506.8	18.5	http://t...
	12755	Wed 2009-06-17 ...	25.97	undu...	26.05nm at PG2 / 10\mu...	0	0	0	normal	Faatz, vo...	505.4	11.4	http://t...

SELECTED FROM TABLE

Selected file: 2009-06-21T16:45:11+02 ID= 12794 [RESTORE using sequencer: Selected File ==> Sequencer](#)

2. push button 'restore'

3) sequencer: how to restore a file

3. push button 'start'




sequence: restore + cycling









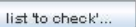













FLASH File Operator 1.89

File Edit View Options

SEQUENCE: Restore undulator file (symbolic file) and cycle magnets
Filename: seq_restore_symb_file_undulator_with_cycling.xml

Sequencer Control

 **START sequence**  **STOP sequence** **STATUS: idle**  **CLOSE window**

enabled	description	status	remarks	restore	check	user actions
<input checked="" type="checkbox"/>	Check for magnet current interlock	-			1 data	
<input checked="" type="checkbox"/>	Check for magnet ground removed	-			1 data	
<input checked="" type="checkbox"/>	Reset PSC of diodes PS	-		ID=1001 (12 ite...	ID=1001 (12 ite...	
<input checked="" type="checkbox"/>	Switch on diodes PS	-		ID=1002 (6 items)	ID=1002 (6 items)	 
<input checked="" type="checkbox"/>	Switch on power supplies	-		ID=1003 (197 ite...	ID=1003 (197 ite...	 
<input checked="" type="checkbox"/>	Set current to dipole D1BYP	-		1 data	1 data	 
<input checked="" type="checkbox"/>	Check Magnet-Bypass interlock	-			1 data	
<input checked="" type="checkbox"/>	Restore magnet currents from symb. file	-		undulator_file(l...		 
<input checked="" type="checkbox"/>	Check Magnet-FEL interlock	-			1 data	
<input checked="" type="checkbox"/>	10 seconds wait	-		1 data	1 data	 
<input checked="" type="checkbox"/>	Start cycle magnets (except D1BYP)	-		ID=1005 (134 ite...		
<input checked="" type="checkbox"/>	Check cycle D1ECOL and D6DUMP	-			2 data	
<input checked="" type="checkbox"/>	Check Magnet-FEL interlock	-			1 data	
<input checked="" type="checkbox"/>	Cycle D1BYP to zero field	-		1 data	1 data	 
<input checked="" type="checkbox"/>	Check cycle magnets (except D1BYP)	-			2 data	
<input checked="" type="checkbox"/>	Check current RBV	-			undulator_file(l...	

Thank you for your attention

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