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## **saverestore version 2**

**A multi threaded application to save and restore  
machine quantities**

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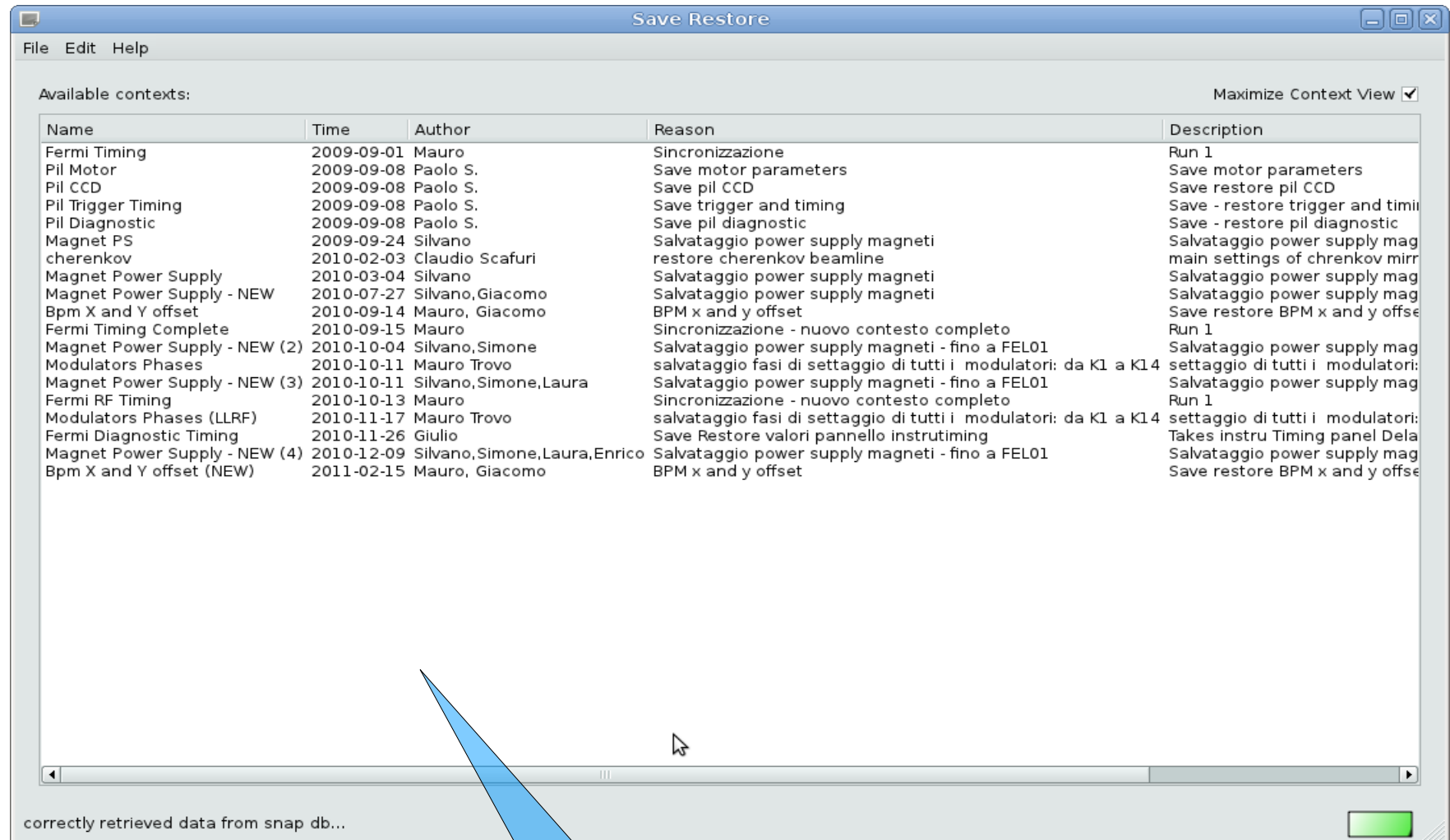
# News for the user

- Simplified interface: only essential information is presented;
- database data fetch and user interface very much faster;
- restore groups of attributes (matrix selection);
- matrix selection by machine sections and device types (information stored into the database);
- GUI designed to prevent user mistakes as much as possible...

# Under the hood

- Views reimplemented using the model/view architecture (faster);
- tango readings and writings performed with **QTango** (multi threaded, faster);
- SQL queries optimized and moved into a separate thread (...);
- error management renewed (only errors are displayed, with their *origin* and *message*).

# Interface - startup



Context view

# Interface – context selected

Context view

Snapshot view

The screenshot displays the 'Save Restore' application window. It features a menu bar (File, Edit, Help) and a title bar (Save Restore). The interface is divided into several sections:

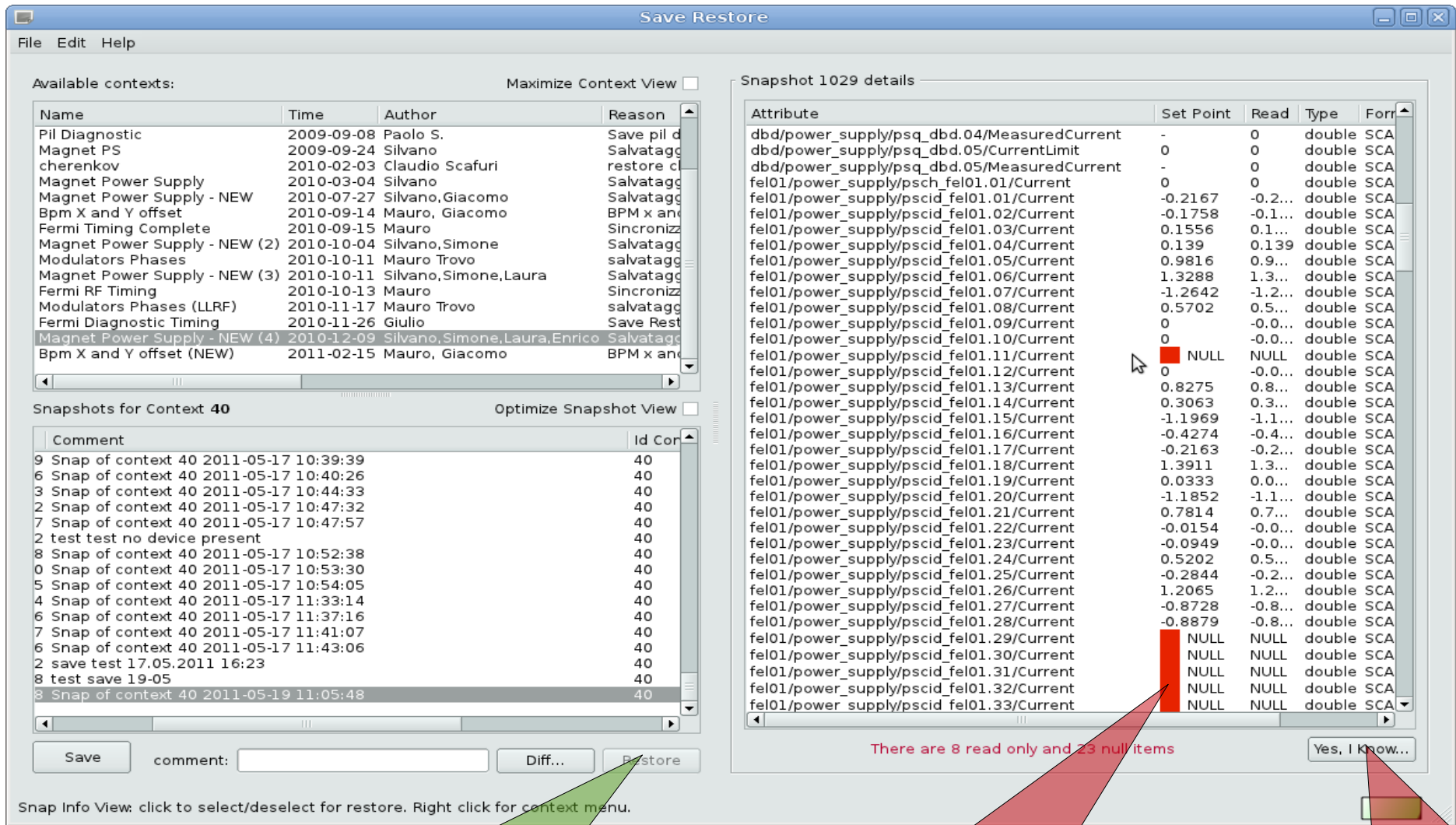
- Available contexts:** A table listing various contexts with columns for Name, Time, Author, and a status indicator. The selected context is 'Magnet Power Supply - NEW (4)'.
- Snapshots for Context 40:** A table showing a list of snapshots with columns for Id, Time, and Comment. The selected snapshot is '1022'.
- Snapshot Details:** A table showing the attributes of the selected snapshot, including Attribute, Set Point, Read, and Type.
- Buttons:** 'Save', 'comment:', 'Diff...', and 'Restore' buttons are located at the bottom.
- Status Message:** A message at the bottom left states: 'Snap Info View: click to select/deselect for restore. Right click for context menu.'

Callouts highlight specific features:

- Context view:** Points to the 'Available contexts' table.
- Snapshot view:** Points to the 'Snapshot Details' table.
- Click to show the error view:** Points to a button in the bottom right corner.
- Save the selected context After typing a comment:** Points to the 'Save' button.
- Status message:** Points to the message at the bottom left.
- Snapshot info view:** Points to the 'Snap Info View' message.
- Status led:** Points to a green indicator light in the bottom right corner.

Status led: red in case of errors of any type (tango, db..)

# Interface – snapshot selected



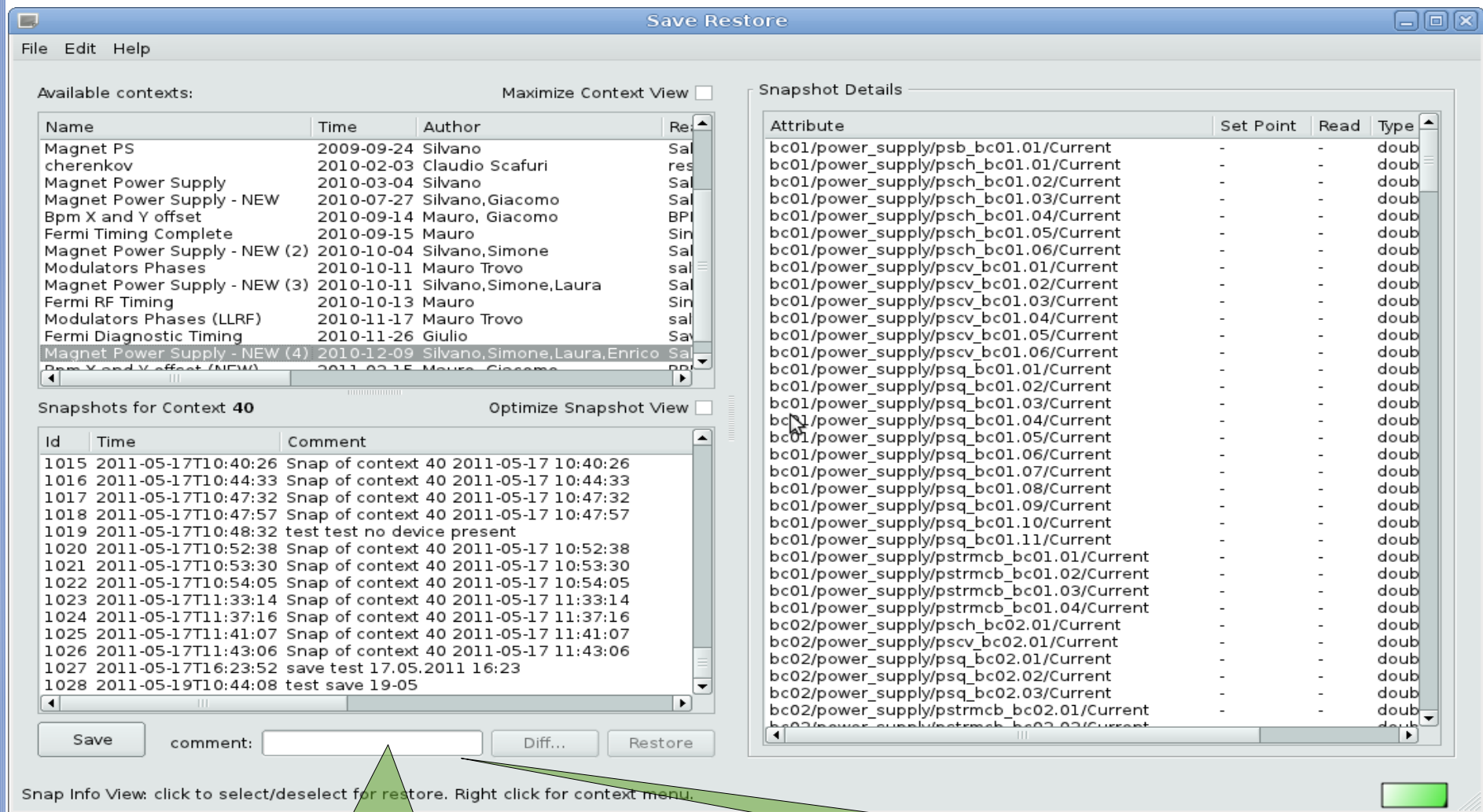
(3) after acknowledging,  
You're able to restore!!

(1) NULL values  
(read error on snapshot)

(2) Must  
Acknowledge  
Before restoring!



# Interface – save



Type a comment before clicking on save!  
(The application does not compel you to do it!)

Otherwise a default comment is provided,  
With date and time...

# Interface – restore

No more selection check boxes  
(makes it easier and faster)

The screenshot shows the 'Save Restore' application window. It has a menu bar with 'File', 'Edit', and 'Help'. The main area is divided into three panes:

- Available contexts:** A table with columns 'Name', 'Time', 'Author', and 'Reason'. It lists various contexts like 'Pil Diagnostic', 'Magnet PS', 'Magnet Power Supply', etc.
- Snapshot 1029 details:** A table with columns 'Attribute', 'Set Point', 'Read', 'Type', and 'For'. It lists attributes like 'dbd/power\_supply/psq\_dbd.04/MeasuredCurrent', 'fel01/power\_supply/pscid\_fel01.01/Current', etc. Some rows are highlighted in green.
- Snapshots for Context 40:** A table with columns 'Name' and 'Comment'. It lists snapshots like '11-05-17T10:39:39 Snap of context 40', '11-05-17T10:40:26 Snap of context 40', etc.

At the bottom, there are buttons for 'Save', 'comment:', 'Diff...', and 'Restore'. A status bar at the very bottom says 'Snap Info View: click to select/deselect for restore. Right click for context menu.'

Annotations:

- A callout points to the 'Snapshot 1029 details' table, stating: 'No more selection check boxes (makes it easier and faster)'.
- A callout points to the 'Snapshots for Context 40' table, stating: 'Item selections are associated to the selected snapshot and remembered'.
- A callout points to the bottom of the interface, stating: 'Select with the mouse, click and drag to multiple select items. Green items are those selected.'

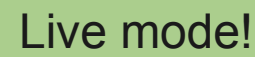
There are 8 read only and 23 null items

Yes, I Know...

Select with the mouse, click and drag  
to multiple select items. Green items are those selected.



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# Interface – snap info view right click menu

Selection matrix

Save Restore

File Edit Help

Maximize Context View ☐

Available contexts:

Name	Time	Author	Reason
Fermi Timing	2009-09-01	Mauro	Sincronizzazione
Pil Motor	2009-09-08	Paolo S.	Save motor para
Pil CCD	2009-09-08	Paolo S.	Save pil CCD
Pil Trigger Timing	2009-09-08	Paolo S.	Save trigger and
Pil Diagnostic	2009-09-08	Paolo S.	Save pil diagnos
Magnet PS	2009-09-24	Silvano	Salvataggio pow
cherenkov	2010-02-03	Claudio Scafuri	restore cherenk
Magnet Power Supply	2010-03-04	Silvano	Salvataggio pow
Magnet Power Supply - NEW	2010-07-27	Silvano, Giacomo	Salvataggio pow
Bpm X and Y offset	2010-09-14	Mauro, Giacomo	BPM x and y offs
Fermi Timing Complete	2010-09-15	Mauro	Sincronizzazione
Magnet Power Supply - NEW (2)	2010-10-04	Silvano, Simone	Salvataggio pow
Modulators Phases	2010-10-11	Mauro Trovo	salvataggio fasi
Magnet Power Supply - NEW (3)	2010-10-11	Silvano, Simone, Laura	Salvataggio pow
Fermi RF Timing	2010-10-13	Mauro	Sincronizzazione
Modulators Phases (LLRF)	2010-11-17	Mauro Trovo	salvataggio fasi
Fermi Diagnostic Timing	2010-11-26	Giulio	Save Restore va
Magnet Power Supply - NEW (4)	2010-12-09	Silvano, Simone, Laura, Enrico	Salvataggio pow
Bpm X and Y offset (NEW)	2011-02-15	Mauro, Giacomo	BPM x and y offs

Snapshots for Context 40

Optimize Snapshot View ☐

Id	Time	Comment
1007	2011-05-16T15:02:56	Snap of context 40 2011-05-16 15:02:56
1008	2011-05-16T15:02:57	Snap of context 40 2011-05-16 15:02:57
1009	2011-05-16T15:02:57	Snap of context 40 2011-05-16 15:02:57
1010	2011-05-16T15:02:59	Snap of context 40 2011-05-16 15:02:59
1011	2011-05-16T15:05:28	Snap of context 40 2011-05-16 15:05:28
1012	2011-05-17T10:34:51	Snap of context 40 2011-05-17 10:34:51
1013	2011-05-17T10:38:48	Snap of context 40 2011-05-17 10:38:48
1014	2011-05-17T10:39:39	Snap of context 40 2011-05-17 10:39:39
1015	2011-05-17T10:40:26	Snap of context 40 2011-05-17 10:40:26
1016	2011-05-17T10:44:33	Snap of context 40 2011-05-17 10:44:33
1017	2011-05-17T10:47:32	Snap of context 40 2011-05-17 10:47:32
1018	2011-05-17T10:47:57	Snap of context 40 2011-05-17 10:47:57
1019	2011-05-17T10:48:32	test test no device present
1020	2011-05-17T10:52:38	Snap of context 40 2011-05-17 10:52:38
1021	2011-05-17T10:53:30	Snap of context 40 2011-05-17 10:53:30
1022	2011-05-17T10:54:05	Snap of context 40 2011-05-17 10:54:05
1023	2011-05-17T11:33:14	Snap of context 40 2011-05-17 11:33:14
1024	2011-05-17T11:37:16	Snap of context 40 2011-05-17 11:37:16
1025	2011-05-17T11:41:07	Snap of context 40 2011-05-17 11:41:07
1026	2011-05-17T11:43:06	Snap of context 40 2011-05-17 11:43:06
1027	2011-05-17T16:23:52	save test 17.05.2011 16:23
1028	2011-05-19T10:44:08	test save 19-05
1029	2011-05-19T11:05:48	Snap of context 40 2011-05-19 11:05:48

Save Restore

comment:

Diff... Restore

Snapshot 1029 details

Attribute	Set Point	Read	Type	Format
bc01/power_supply/psb_bc01.01/Current	0	0.7	double	SCALAR
bc01/power_supply/psch_bc01.01/Current	-0.5674	-0.5...	double	SCALAR
bc01/power_supply/psch_bc01.02/Current	2.4324	2.4...	double	SCALAR
bc01/power_supply/psch_bc01.03/Current	-2	-1.9...	double	SCALAR
bc01/power_supply/psch_bc01.04/Current	0	0.0...	double	SCALAR
bc01/power_supply/psch_bc01.05/Current	2	1.9...	double	SCALAR
bc01/power_supply/pscv_bc01.06/Current	4.9999	4.9...	double	SCALAR
bc01/power_supply/pscv_bc01.01/Current	1.0855	1.0...	double	SCALAR
bc01/power_supply/pscv_bc01.02/Current	0.0574	0.0...	double	SCALAR
bc01/power_supply/pscv_bc01.03/Current	0	0	double	SCALAR
bc01/power_supply/pscv_bc01.04/Current	0	0	double	SCALAR
bc01/power_supply/pscv_bc01.05/Current	2	1.9...	double	SCALAR
bc01/power_supply/pscv_bc01.06/Current	-1.0162	-1.0...	double	SCALAR
bc01/power_supply/psq_bc01.01/Current	0	0.0...	double	SCALAR
bc01/power_supply/psq_bc01.02/Current	0	0	double	SCALAR
bc01/power_supply/psq_bc01.03/Current	-2.4856	-2.4...	double	SCALAR
bc01/power_supply/psq_bc01.04/Current	-8.6794	-8.6...	double	SCALAR
bc01/power_supply/psq_bc01.05/Current	14.1838	14...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	4.0438	4.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	-6.8006	-6.8	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	0	0.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	0	0.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	0	0.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	-16.2884	-16...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	0	0.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	0.002	0.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	-0.0012	-0.0...	double	SCALAR
bc01/power_supply/psq_bc01.06/Current	-0.0033	-0.0...	double	SCALAR
bc02/power_supply/psch_bc02.01/Current	8.2222	8.2...	double	SCALAR
bc02/power_supply/pscv_bc02.01/Current	0.9839	0.9...	double	SCALAR
bc02/power_supply/psq_bc02.01/Current	0	0.0...	double	SCALAR
bc02/power_supply/psq_bc02.02/Current	0	0	double	SCALAR
bc02/power_supply/psq_bc02.03/Current	5.962	5.9...	double	SCALAR
bc02/power_supply/psq_bc02.03/Current	0	0.0...	double	SCALAR
bc02/power_supply/psq_bc02.03/Current	0	0.0...	double	SCALAR
bc02/power_supply/psq_bc02.03/Current	0	0.0...	double	SCALAR
bc02/power_supply/psq_bc02.04/Current	0	-0.0...	double	SCALAR
dbd/power_supply/psb_dbd.01/Current	480.8	480.7	double	SCALAR
dbd/power_supply/psch_dbd.01/Current	0	-0.0...	double	SCALAR
dbd/power_supply/pscv_dbd.01/Current	0	-0.0...	double	SCALAR
dbd/power_supply/psq_dbd.01/CurrentLimit	0	0	double	SCALAR
dbd/power_supply/psq_dbd.01/MeasuredCurrent	0	0	double	SCALAR
dbd/power_supply/psq_dbd.02/CurrentLimit	0	0	double	SCALAR
dbd/power_supply/psq_dbd.02/MeasuredCurrent	0	0	double	SCALAR
dbd/power_supply/psq_dbd.03/CurrentLimit	0	0	double	SCALAR
dbd/power_supply/psq_dbd.03/MeasuredCurrent	0	0	double	SCALAR
dbd/power_supply/psq_dbd.04/CurrentLimit	0	0	double	SCALAR
dbd/power_supply/psq_dbd.04/MeasuredCurrent	0	0	double	SCALAR
dbd/power_supply/psq_dbd.05/CurrentLimit	0	0	double	SCALAR
dbd/power_supply/psq_dbd.05/MeasuredCurrent	0	0	double	SCALAR

Selection...

Select All

Select None

Helper Application

Filter view...

Helper application!

Filter out the items on the snapshot info view

There are 8 read only attributes that won't be restored.

Yes, I Know...

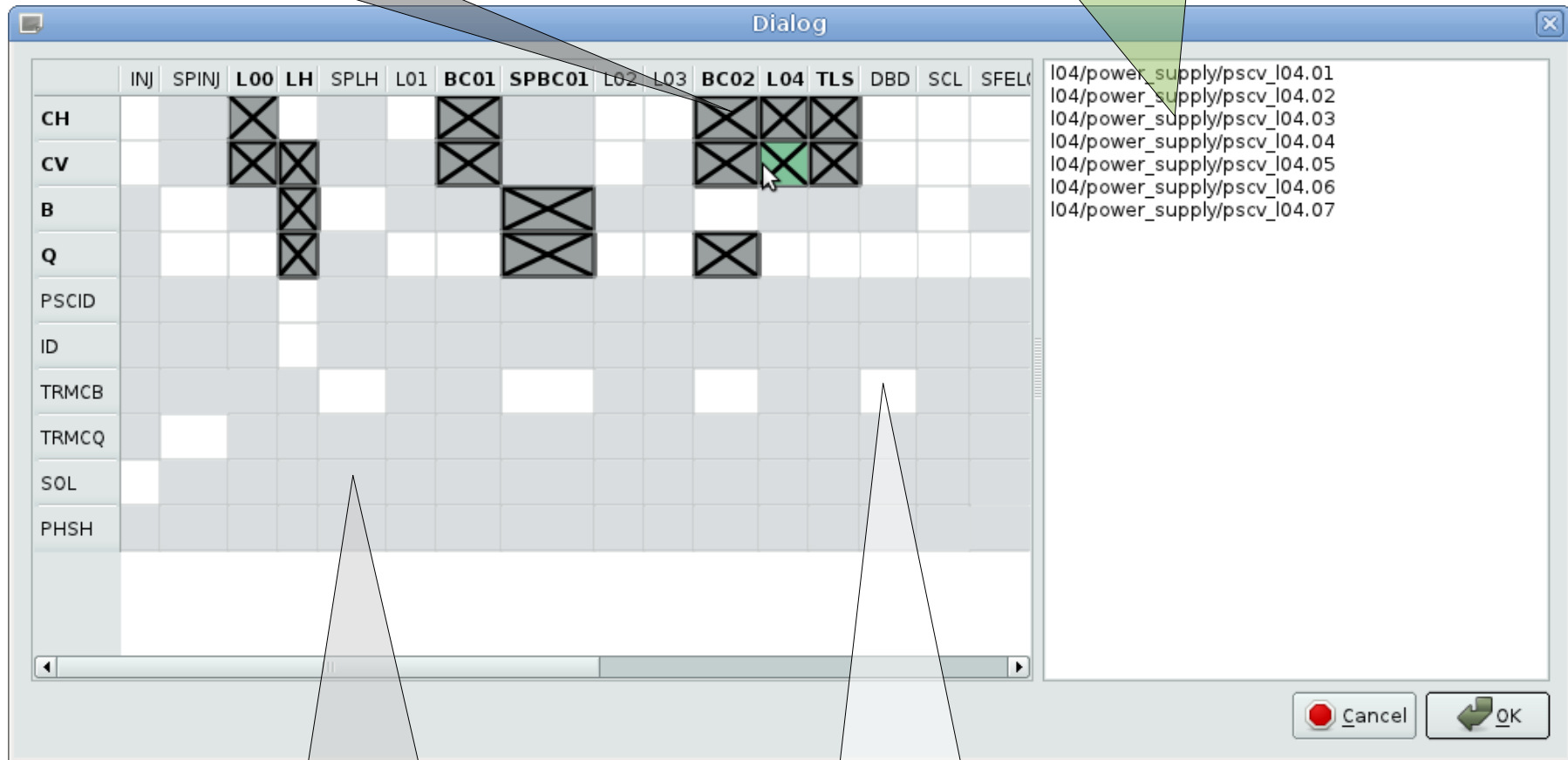
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Save Restore – snapshotting and restoring Tango attributes

# Interface – restore item selection

Type/section is selected

Mouse-over selection



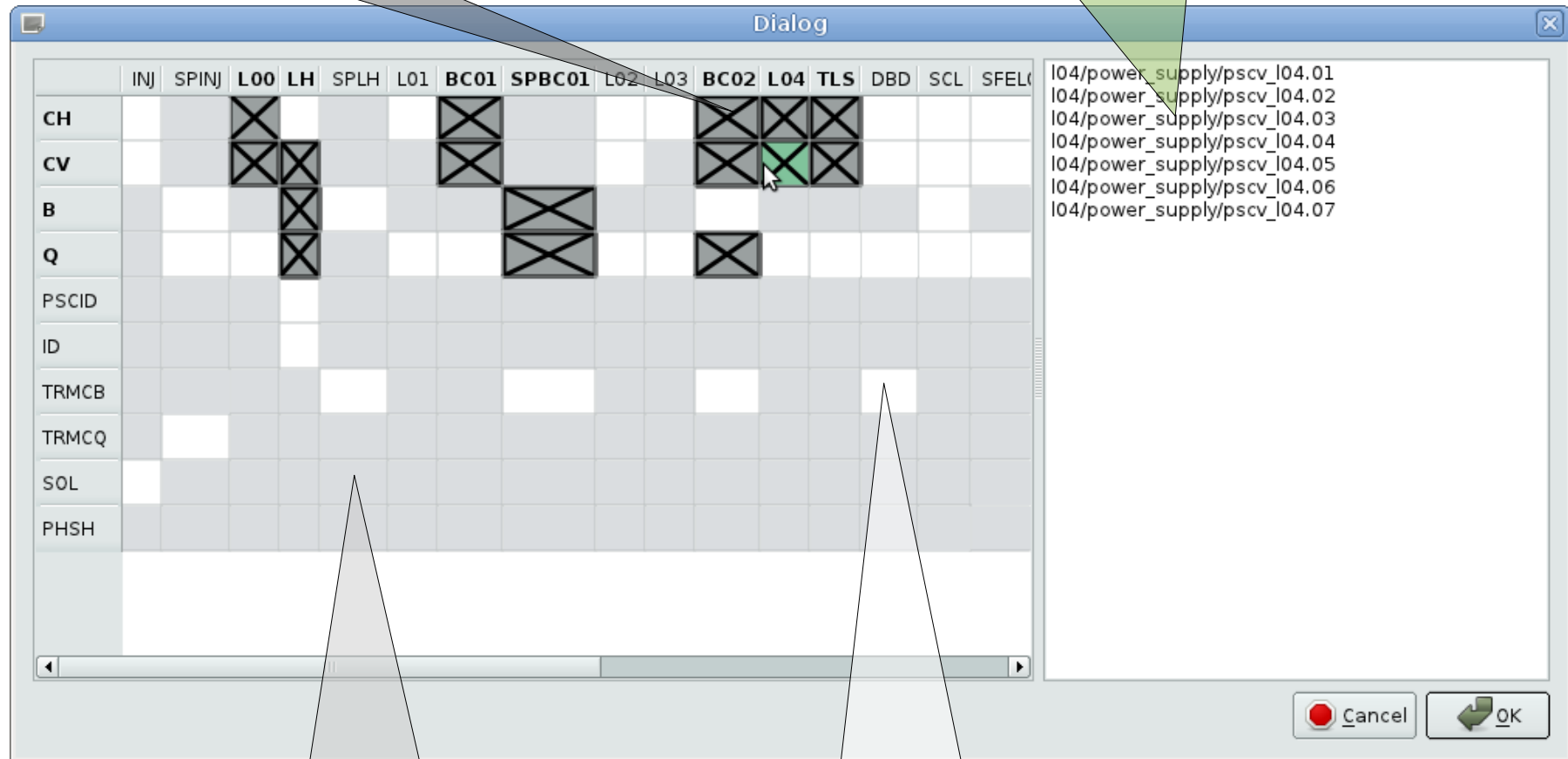
Type/section is empty

Type/section is deselected

# Interface – restore item selection

Type/section is selected

Mouse-over selection



Type/section is empty

Type/section is deselected



# Interface – restore item selection (II)

The screenshot shows the 'Save Restore' application window. It features a 'Dialog' window with a grid of context attributes (L00, LH, SPLH, L01, BC01, SPBC01, L02, L03, BC02, L04, TLS) and a 'Snapshot 1029 details' table. The table lists attributes, their set points, read values, types, and formats. A green arrow points from the 'Dialog' grid to the 'Snapshot 1029 details' table, indicating that selection/deselection in the grid updates the table's state.

**Snapshot 1029 details**

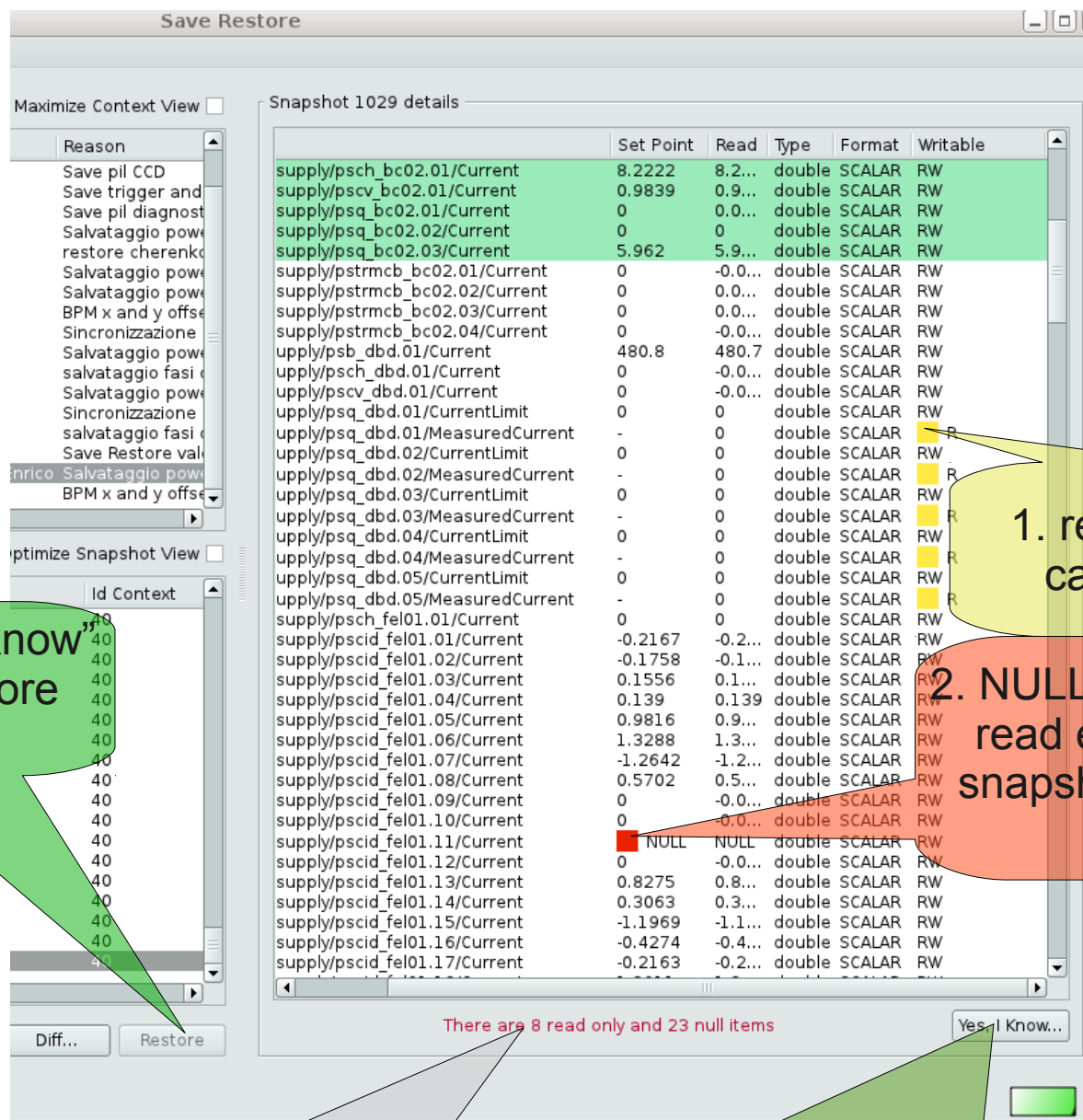
Attribute	Set Point	Read	Type	Format	Unit
I03/power_supply/psch_I03.01/Current	1.3382	1.3...	double	SCALAR	R
I03/power_supply/psch_I03.02/Current	-9.602	-9.6...	double	SCALAR	R
I03/power_supply/pscv_I03.01/Current	-0.6401	-0.6...	double	SCALAR	R
I03/power_supply/pscv_I03.02/Current	4.1536	4.1...	double	SCALAR	R
I03/power_supply/psq_I03.01/Current	8.1693	8.169	double	SCALAR	R
I03/power_supply/psq_I03.02/Current	-6.581	-6.5...	double	SCALAR	R
I04/power_supply/psch_I04.01/Current	5.2404	5.2...	double	SCALAR	R
I04/power_supply/psch_I04.02/Current	3.0798	3.0...	double	SCALAR	R
I04/power_supply/psch_I04.03/Current	13.3534	13...	double	SCALAR	R
I04/power_supply/psch_I04.04/Current	-4.5302	-4.5...	double	SCALAR	R
I04/power_supply/psch_I04.05/Current	0.8791	0.8...	double	SCALAR	R
I04/power_supply/psch_I04.06/Current	1.0362	1.036	double	SCALAR	R
I04/power_supply/psch_I04.07/Current	1.3654	1.3...	double	SCALAR	R
I04/power_supply/pscv_I04.01/Current	-1.1884	-1.1...	double	SCALAR	R
I04/power_supply/pscv_I04.02/Current	11.3707	11...	double	SCALAR	R
I04/power_supply/pscv_I04.03/Current	-8.9675	-8.9...	double	SCALAR	R
I04/power_supply/pscv_I04.04/Current	-1.9684	-1.9...	double	SCALAR	R
I04/power_supply/pscv_I04.05/Current	0	0.0...	double	SCALAR	R
I04/power_supply/pscv_I04.06/Current	4.4894	4.4...	double	SCALAR	R
I04/power_supply/pscv_I04.07/Current	-3.0604	-3.0...	double	SCALAR	R
I04/power_supply/psq_I04.01/Current	-7.5253	-7.5...	double	SCALAR	R
I04/power_supply/psq_I04.02/Current	8.2113	8.2...	double	SCALAR	R
I04/power_supply/psq_I04.03/Current	-4.3671	-4.3...	double	SCALAR	R
I04/power_supply/psq_I04.04/Current	3.84	3.84	double	SCALAR	R
I04/power_supply/psq_I04.05/Current	-1.6037	-1.6...	double	SCALAR	R
I04/power_supply/psq_I04.06/Current	-2.3066	-2.3...	double	SCALAR	R
I04/power_supply/psq_I04.07/Current	-2.654	-2.6...	double	SCALAR	R
Ih/power_supply/psb_Ih.01/Current	0	-0.0...	double	SCALAR	R
Ih/power_supply/psch_Ih.01/Current	0.993	0.9...	double	SCALAR	R
Ih/power_supply/psch_Ih.02/Current	0.2485	0.2...	double	SCALAR	R
Ih/power_supply/psch_Ih.03/Current	-0.4919	-0.4...	double	SCALAR	R
Ih/power_supply/psch_Ih.04/Current	-0.2128	-0.2...	double	SCALAR	R
Ih/power_supply/pscid_Ih.01/Current	-	-	double	SCALAR	R
Ih/power_supply/pscid_Ih.02/Current	-	-	double	SCALAR	R
Ih/power_supply/pscid_Ih.03/Current	-	-	double	SCALAR	R
Ih/power_supply/pscid_Ih.04/Current	-	-	double	SCALAR	R
Ih/power_supply/pscv_Ih.01/Current	-0.293	-0.2...	double	SCALAR	R
Ih/power_supply/pscv_Ih.02/Current	1.1763	1.1...	double	SCALAR	R
Ih/power_supply/pscv_Ih.03/Current	-0.3504	-0.3...	double	SCALAR	R
Ih/power_supply/pscv_Ih.04/Current	0.7642	0.7...	double	SCALAR	R
Ih/power_supply/psq_Ih.01/Current	2.5902	2.59	double	SCALAR	R
Ih/power_supply/psq_Ih.02/Current	-1.3438	-1.3...	double	SCALAR	R
Ih/power_supply/psq_Ih.03/Current	-3.6389	-3.6...	double	SCALAR	R
Ih/power_supply/psq_Ih.04/Current	3.9724	3.9...	double	SCALAR	R
Ih/power_supply/psq_Ih.05/Current	-2.4841	-2.4...	double	SCALAR	R
Ih/power_supply/psq_Ih.06/Current	-2.1235	-2.1...	double	SCALAR	R
Ih/power_supply/psq_Ih.07/Current	2.7359	2.736	double	SCALAR	R
mbd fel01/power_supply/psb_mbd fel01.01/Current	-0.01	-0.01	double	SCALAR	R
mbd fel01/power_supply/psch_mbd fel01.01/Current	0	-0.0...	double	SCALAR	R
mbd fel01/power_supply/psch_mbd fel01.02/Current	0	0.0...	double	SCALAR	R

There are 8 read only attributes that won't be restored. Yes, I Know...

Selection/deselection immediately updates the Snapshot info view selection state



# Interface – restore



1. read only attributes cannot be restored

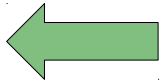
2. NULL values originate in read errors during the snapshot and cannot be restored...

3. It's compulsory to acknowledge the error prone situation before restoring the snapshot

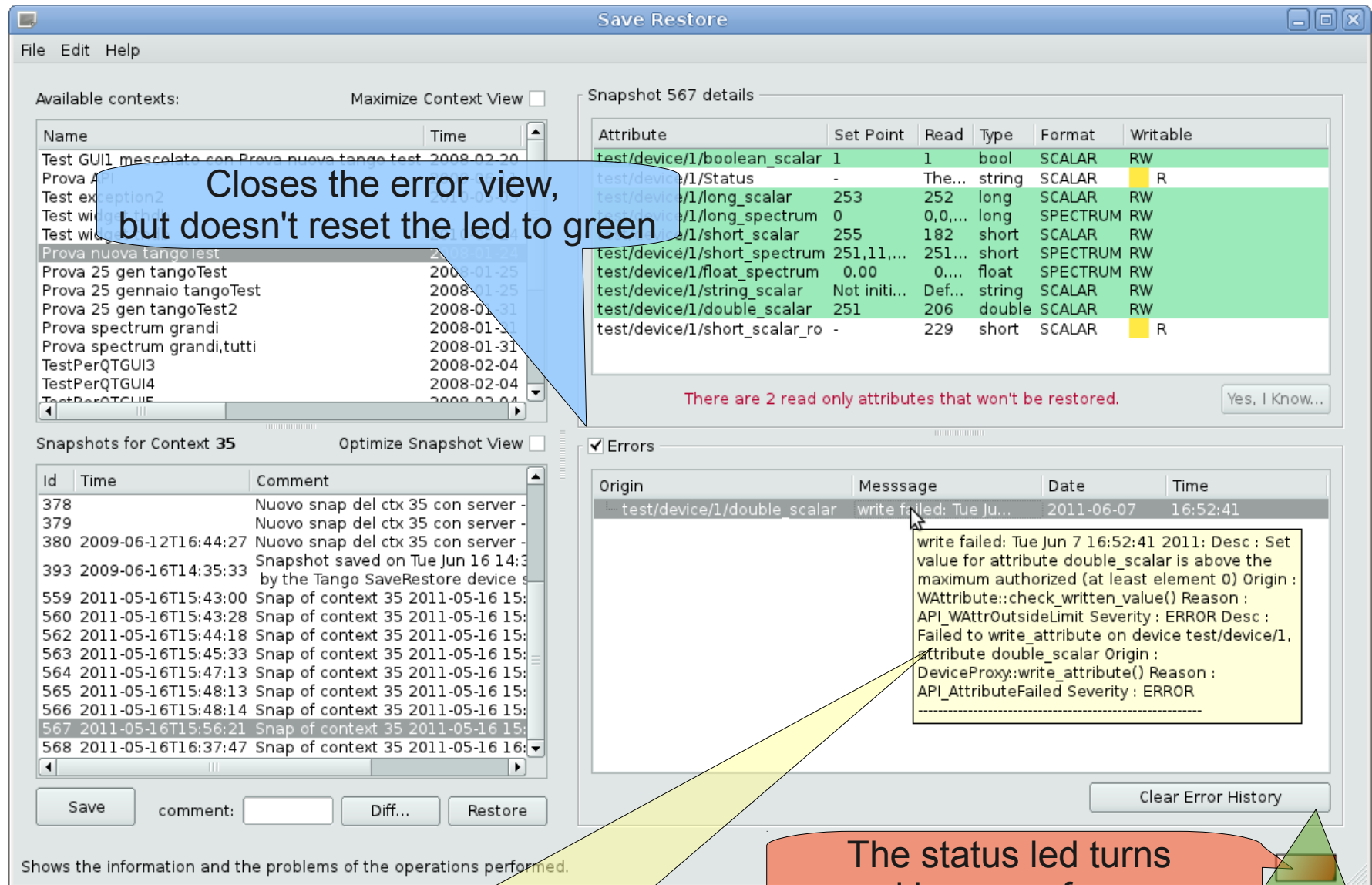
Restore is forbidden at the beginning...

4. clicking on "Yes, I know" will enable the Restore button again...

# Interface – restore with NULL or read only values

- When **NULL** *set point* values or read-only attributes are present in a *snapshot*, the **“Restore” button is disabled**, to avoid unwitting and incomplete restores;
- it is compulsory to click on the *“Yes, I know”* button, even if read-only or NULL attributes aren't selected for restore;
- it is then possible to restore again, but, beware:
  - × selected read-only or NULL attributes are not restored, so;
  - × please deselect each attribute marked as read-only (yellow item decorator) or NULL (red decorator) to avoid error messages;
  - × clicking on *“Yes, I know”* automatically deselects read-only and NULL items! 

# Interface – restore with errors



Closes the error view,  
but doesn't reset the led to green

There are 2 read only attributes that won't be restored.

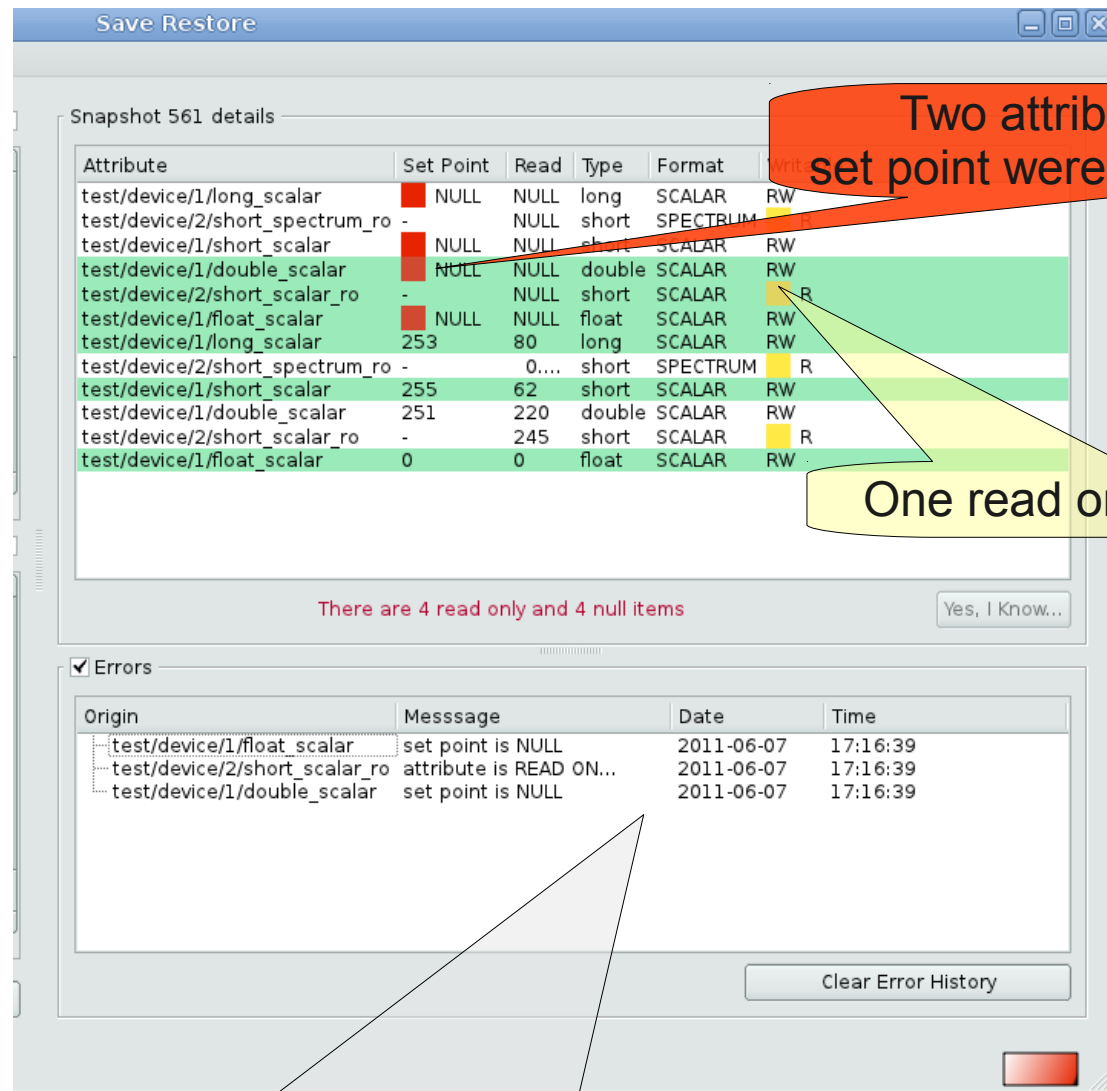
Yes, I Know...

The status led turns  
red in case of errors

Position the mouse over the error message  
summary to read the full error message

To reset the led to a "good" green  
state, you must click on this button

# Interface – restore with errors (II)



Two attributes with a NULL set point were erroneously selected

One read only item is selected

The process cannot restore either read-only or NULL attributes, and displays an error message for each one of them



# Interface – filter view (normal mode)

Available contexts:

Name	Time	Author
Pil Trigger Timing	2009-09-08	Paolo S.
Pil Diagnostic	2009-09-08	Paolo S.
Magnet PS	2009-09-24	Silvano
cherenkov	2010-02-03	Claudio Scar
Magnet Power Supply	2010-03-04	Silvano
Magnet Power Supply - NEW	2010-07-27	Silvano, Giac
Bpm X and Y offset	2010-09-14	Mauro, Giac
Fermi Timing Complete	2010-09-15	Mauro
Magnet Power Supply - NEW (2)	2010-10-04	Silvano, Simo
Modulators Phases	2010-10-11	Mauro Trovo
Magnet Power Supply - NEW (3)	2010-10-11	Silvano, Simo
Fermi RF Timing	2010-10-13	Mauro
Modulators Phases (LLRF)	2010-11-17	Mauro Trovo
Fermi Diagnostic Timing	2010-11-26	Giulio
Magnet Power Supply - NEW (4)	2010-12-09	Silvano, Simo
Bpm X and Y offset (NEW)	2011-02-15	Mauro, Giac

Snapshots for Context 40

Comment
8 Snap of context 40 2011-05-17 10:38:48
9 Snap of context 40 2011-05-17 10:39:39
6 Snap of context 40 2011-05-17 10:40:26
3 Snap of context 40 2011-05-17 10:44:33
2 Snap of context 40 2011-05-17 10:47:32
7 Snap of context 40 2011-05-17 10:47:57
2 test test no device present
8 Snap of context 40 2011-05-17 10:52:38
0 Snap of context 40 2011-05-17 10:53:30
5 Snap of context 40 2011-05-17 10:54:05
4 Snap of context 40 2011-05-17 10:54:41
6 Snap of context 40 2011-05-17 10:54:46
7 Snap of context 40 2011-05-17 11:41:01
2 save test 1 7/25/2013 16:23
1 Snap of context 40 2011-09-16 11:49:46
9 Snap of context 40 2011-05-19 11:05:45

Snapshot 1029 details

Attribute	Set Point	Read	Type	Format	Writable
bc01/power_supply/psb_bc01.01/Current	0	0.7	double	SCALAR	RW
bc01/power_supply/psch_bc01.01/Current	-0.5674	-0.5...	double	SCALAR	RW
bc01/power_supply/psch_bc01.02/Current	2.4324	2.4...	double	SCALAR	RW
bc01/power_supply/psch_bc01.03/Current	-2	-1.9...	double	SCALAR	RW
bc01/power_supply/psch_bc01.04/Current	0	0.0...	double	SCALAR	RW
bc01/power_supply/psch_bc01.05/Current	2	1.9...	double	SCALAR	RW
bc01/power_supply/psch_bc01.06/Current	4.9999	4.9...	double	SCALAR	RW
bc01/power_supply/pscv_bc01.01/Current	1.0855	1.0...	double	SCALAR	RW
bc01/power_supply/pscv_bc01.02/Current	0.0574	0.0...	double	SCALAR	RW
bc01/power_supply/pscv_bc01.03/Current	0	0	double	SCALAR	RW
bc01/power_supply/pscv_bc01.04/Current	0	0	double	SCALAR	RW
bc01/power_supply/pscv_bc01.05/Current	2	1.9...	double	SCALAR	RW
bc01/power_supply/pscv_bc01.06/Current	-1.0162	-1.0...	double	SCALAR	RW
bc01/power_supply/psq_bc01.01/Current	0	0.0...	double	SCALAR	RW
bc01/power_supply/psq_bc01.02/Current	0	0	double	SCALAR	RW
bc01/power_supply/psq_bc01.03/Current	-2.4856	-2.4...	double	SCALAR	RW
bc01/power_supply/psq_bc01.04/Current	-8.6794	-8.6...	double	SCALAR	RW
bc01/power_supply/psq_bc01.05/Current	14.1838	14...	double	SCALAR	RW
bc01/power_supply/psq_bc01.06/Current	4.0438	4.0...	double	SCALAR	RW
bc01/power_supply/psq_bc01.07/Current	-6.8006	-6.8	double	SCALAR	RW
bc01/power_supply/psq_bc01.08/Current	0	0.0...	double	SCALAR	RW
bc01/power_supply/psq_bc01.09/Current	0	0.0...	double	SCALAR	RW
bc01/power_supply/psq_bc01.10/Current	0	-0.0...	double	SCALAR	RW
bc01/power_supply/psq_bc01.11/Current	-16.2884	-16...	double	SCALAR	RW
bc01/power_supply/pstrmcb_bc01.01/Current	0	0.0...	double	SCALAR	RW
bc01/power_supply/pstrmcb_bc01.02/Current	0.002	0.0...	double	SCALAR	RW
bc01/power_supply/pstrmcb_bc01.03/Current	-0.0012	-0.0...	double	SCALAR	RW
bc01/power_supply/pstrmcb_bc01.04/Current	-0.0033	-0.0...	double	SCALAR	RW
spbc01/power_supply/psb_spbc01.01/Current	304.85	0.6	double	SCALAR	RW
spbc01/power_supply/psq_spbc01.01/Current	51.38	51.38	double	SCALAR	RW
spbc01/power_supply/psq_spbc01.02/Current	18.31	18.3	double	SCALAR	RW
spbc01/power_supply/pstrmcb_spbc01.01/Current	-2	-2	double	SCALAR	RW

Filter Mode: normal, simple string matching. Will show all items containing "bc01" substring

normal bc01

There are 8 read only and 23 null items

Restore is forbidden while filter View is active on the snapshot

Filter out the items on the snapshot info view while typing

Either clear the filter or hide the filter box to be able to restore again



# Interface – filter view (regexp mode)

Snapshot 1029 details

Attribute	Set Point	Read	Type	Format	Writable
bc01/power_supply/psch_bc01.01/Current	-0.5674	-0.5...	double	SCALAR	RW
bc01/power_supply/psch_bc01.02/Current	2.4324	2.4...	double	SCALAR	RW
bc01/power_supply/psch_bc01.03/Current	-2	-1.9...	double	SCALAR	RW
bc01/power_supply/psch_bc01.06/Current	4.9999	4.9...	double	SCALAR	RW
bc02/power_supply/psch_bc02.01/Current	8.2222	8.2...	double	SCALAR	RW

Filter Mode: regexp: regular Expression matching

There are 8 read only and 23 null items

regex

Clear Hide

starting with bc

0 + any integer

/

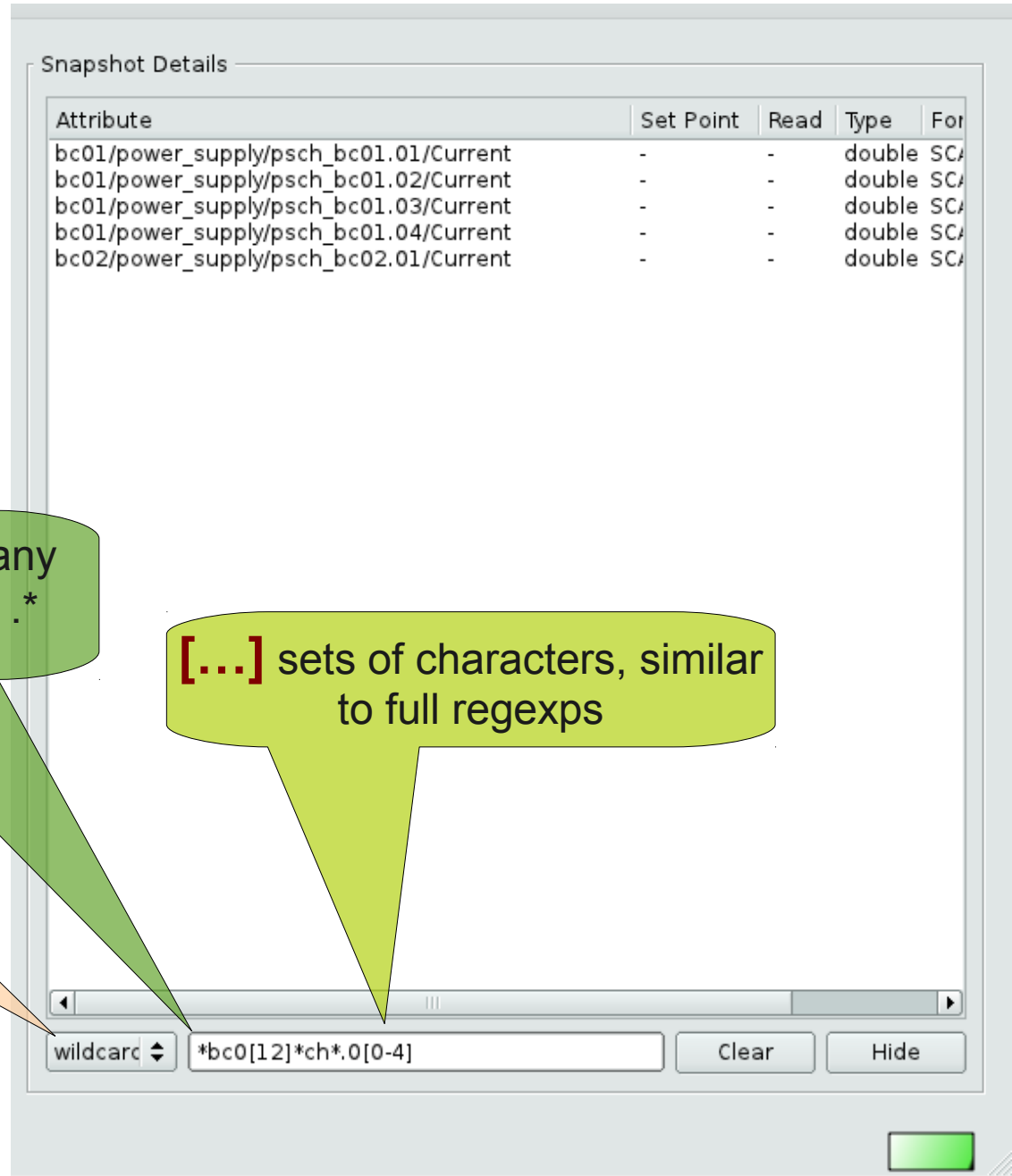
Set of chars in "power\_supply"

Any char until "ch\_bc0"

Any integer followed by "."

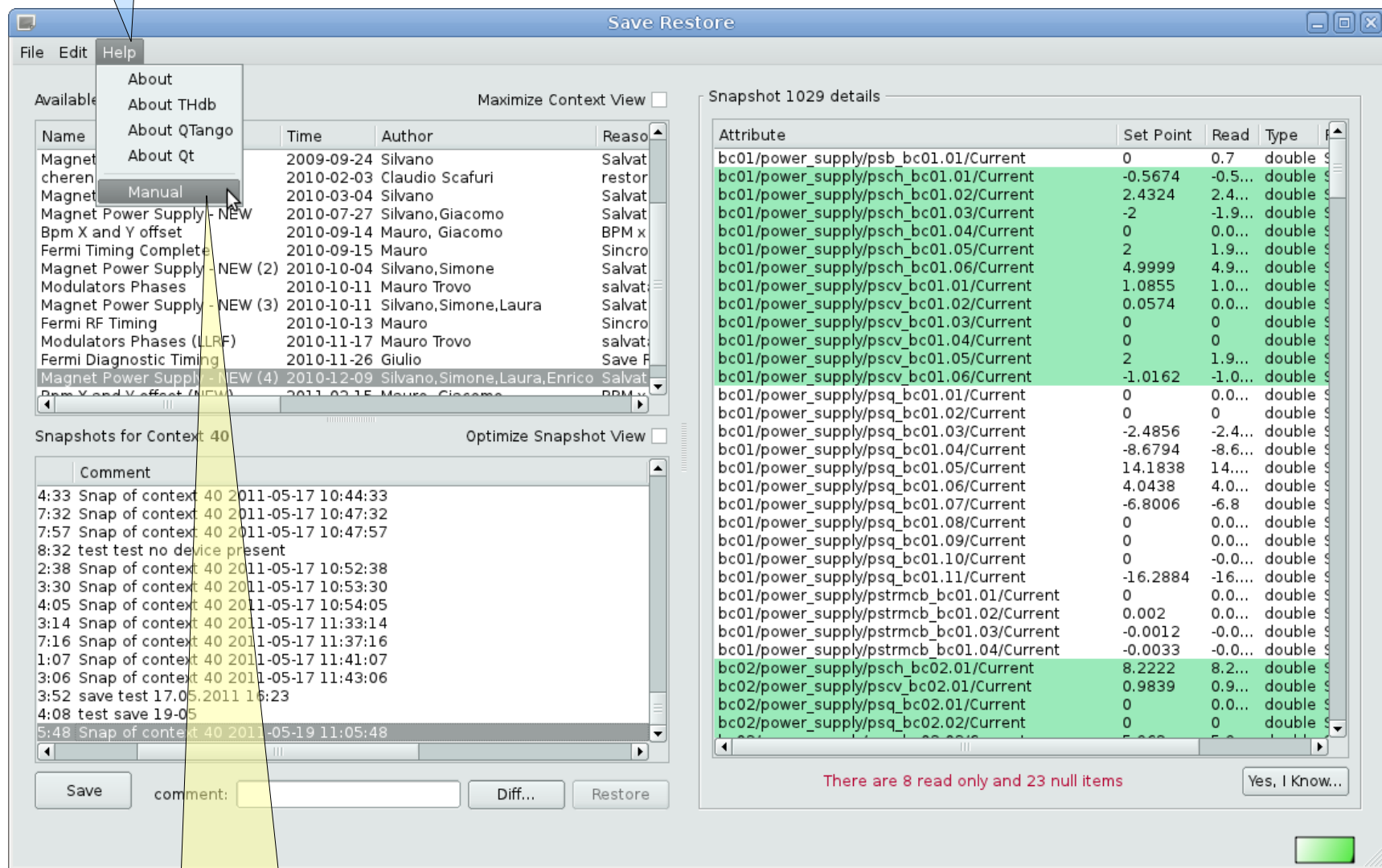
0 + any char outside The range 4-5

# Interface – filter view (wildcard mode)



Help menu

# This document...



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