Spock Logging

Teresa Núñez
DESY Photon Science

- Motivation for an additional implementation
- Default Spock loggings
- Additional implementation

Sardana Workshop
ELI Beamlines, 05-06-18

Motivation

Store in a file the spock session as seen in the screen

- Default loggings are not well suited

- Basic requirements:
    - macros like typed in spock session
    - output and return macro values
    - info/debug/error statements
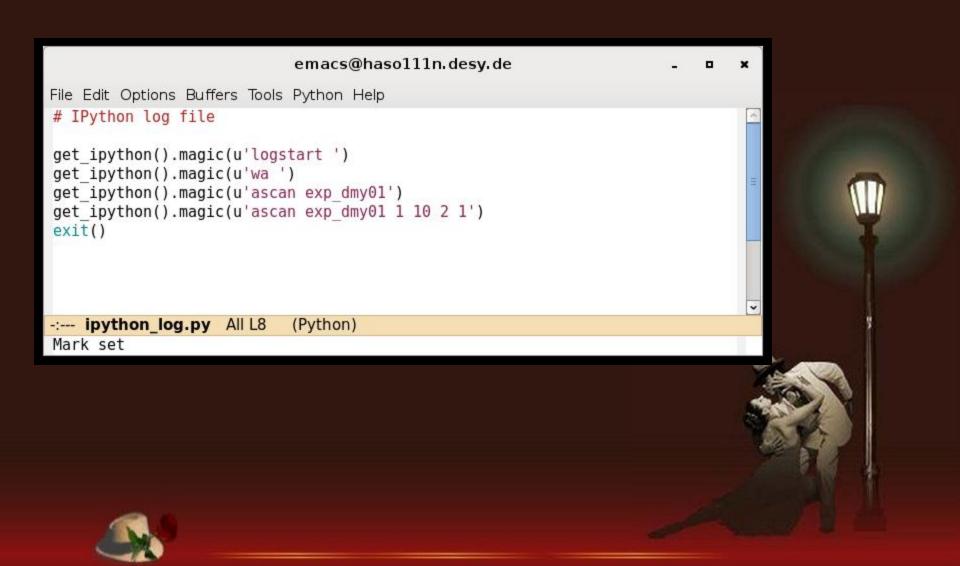
- Easily controlled

Default spock loggings

- **ipython:**
  - always active
  - saved in ipthong profile directory (history.sqlite), sqlite format exportable to plain-text with:
    %history –g –f filename
  - only spock commands

- **ipython logging:**
  - activated with:
    %logstart
  - saved in spock running directory (ipython_log.py), python file
  - only spock commands. Timestamping and macro output (NOT spock output, BUT macro return value) added with:
    %logstart –t -o

Default spock loggings (ctd.)

emacs@haso111n.desy.de

File Edit Options Buffers Tools Python Help

```python
# IPython log file

get_ipython().magic(u'logstart ')
get_ipython().magic(u'wa ')
get_ipython().magic(u'ascan exp_dmy01')
get_ipython().magic(u'ascan exp_dmy01 1 10 2 1')
exit()
```

-:--- **ipython_log.py** All L8   (Python)

Mark set

Additional implementation

Based on RotatingFileHandler (standard python file handler)

Implemented in msmacromanager.py:
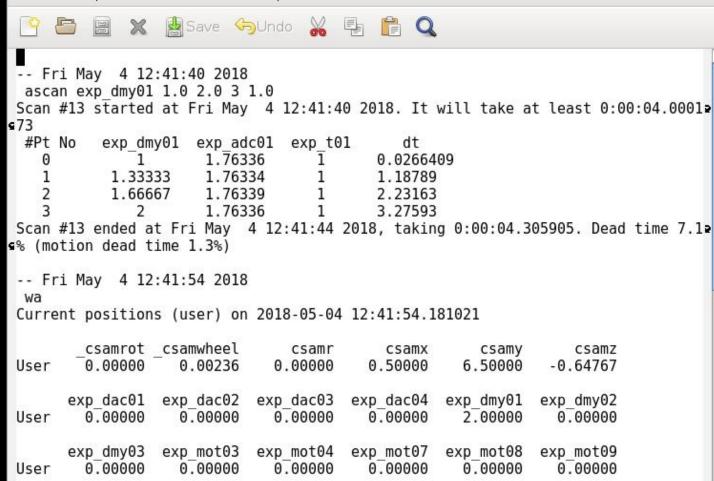
- added in new class LogMacroManager

- instantiated in MacroExecutor.runMacro

- controlled via Environment variables:
  LogMacro (activate/deactivate)
  LogMacroMode (one file/splitted files)
  LogMacroDir (default os.sep-tmp)
  LogMacroFormat (default %(message)s)

- File name: session_[door_mame].log

- applied customized FileHandlerFilter:
  set the output following the user requests

File Edit Options Buffers Tools Help

```
-- Fri May  4 12:41:40 2018
 ascan exp_dmy01 1.0 2.0 3 1.0
Scan #13 started at Fri May  4 12:41:40 2018. It will take at least 0:00:04.0001⮁
⮂73
 #Pt No    exp_dmy01   exp_adc01   exp_t01       dt
    0          1       1.76336       1       0.0266409
    1       1.33333    1.76334       1       1.18789
    2       1.66667    1.76339       1       2.23163
    3          2       1.76336       1       3.27593
Scan #13 ended at Fri May  4 12:41:44 2018, taking 0:00:04.305905. Dead time 7.1⮁
⮂% (motion dead time 1.3%)

-- Fri May  4 12:41:54 2018
 wa
Current positions (user) on 2018-05-04 12:41:54.181021

       _csamrot  _csamwheel      csamr       csamx       csamy       csamz
User    0.00000    0.00236     0.00000     0.50000     6.50000    -0.64767


       exp_dac01  exp_dac02  exp_dac03  exp_dac04  exp_dmy01  exp_dmy02
User    0.00000    0.00000    0.00000    0.00000    2.00000    0.00000


       exp_dmy03  exp_mot03  exp_mot04  exp_mot07  exp_mot08  exp_mot09
User    0.00000    0.00000    0.00000    0.00000    0.00000    0.00000


       exp_mot11  exp_mot12  exp_mot13  exp_mot14  exp_mot15  exp_mot16
User    0.00000    0.00000    0.00000    0.00000    0.00000    0.00000
```

-:---   **session_p06_door_hasp029rack.01.log**   All L1   (Fundamental)
For information about GNU Emacs and the GNU system, type C-h C-a.