QtSpock

Spock in a Qt widget

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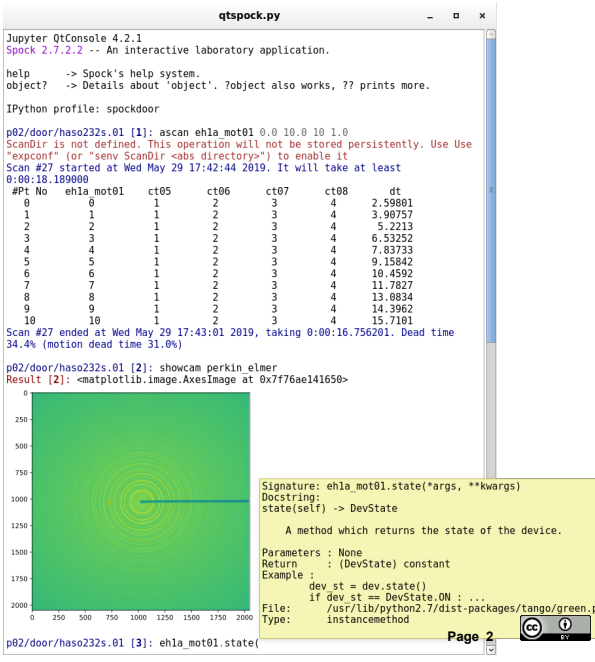
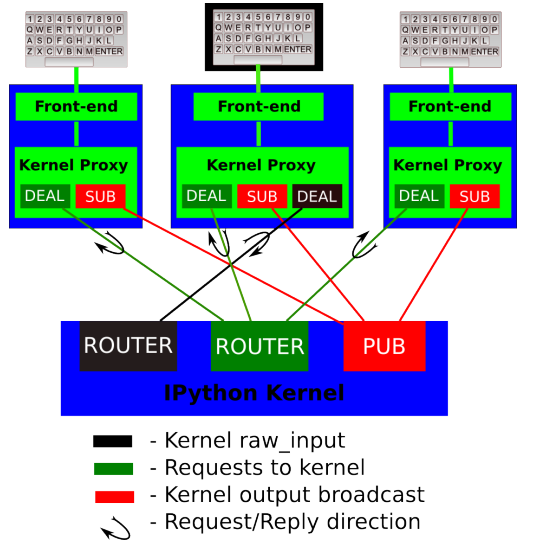
Overview

- Spock in a Jupyter QtConsole widget
- Most of Spock functionality supported
- Executing commands does not block the Qt application
- QtConsole features include
  - Proper multi-line editing
  - Inline figures
  - Graphical calltips



Implementation Details

- Jupyter server-client architecture
- Kernel subprocess started on frontend initialization
- IPython kernel loads Spock profile and extensions
- Communication via ZeroMQ
- No shared namespace
- Kernel can be (auto)restarted
- Door name obtained from kernel on every restart
- `shutdown_kernel` must be called on exit



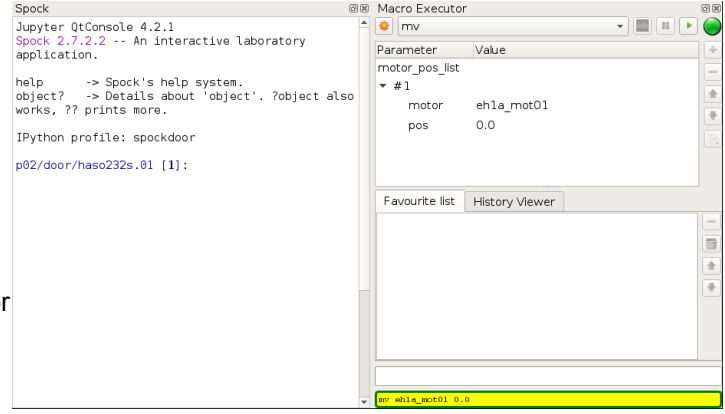
https://jupyter-client.readthedocs.io/en/latest/messaging.html#messaging

Open Questions and Missing Features

- Creating/updating Spock profile
- `edmac` not working, other macros need testing
- Input dialogs (`SPOCK_INPUT_HANDLER == "Qt"`) crash application
- Integration with Taurus/Sardana
- Setting macroserver/door name on frontend side
- ?

Integration with Taurus Macro Executor

- GUI support for
  - Users unfamiliar with CLI
  - Complex macros with repeat parameters
  - Favorite macros
- TODO:
  - Show output in QtSpock
  - Enable Pause/Resume/Stop for macros in QtSpock
  - Synchronize history



Thank you!

Contact

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