

PVA Py Status Update

Siniša Veseli, Andrew Johnson
APS

EPICS Collaboration Meeting
October 2017

About PVA Py

- Python API for PV Access
 - Builds against any recent version of the V4 C++ modules
 - Uses boost.python to wrap v4 C++ libraries
- Functionality provided:
 - Client support for get, put, getPut, putGet, monitor and channelRPC
 - Server support (see next slide)
- Provides access to all pvData types from Python
 - Optional use of numpy for array data (read-only)
 - Helper for creating ntTables
- Source code: <https://github.com/epics-base/pvaPy>
- Reference manual: <http://epics-pvdata.sourceforge.net/docbuild/pvaPy/tip/>



Recent Developments (Releases 0.7-0.9)

- Implemented PVA Server Functionality
 - ✓ Channels exposed by PVA Server instance can be retrieved and manipulated using standard PVA command line tools and APIs
 - ✓ Support for multiple channels
 - ✓ Dynamic channel addition and removal
- Enhanced Boost/NumPy build support
 - ✓ Eliminates need for additional external package dependency for Boost releases 1.63.0 and later
 - ✓ Maintains existing support for older Boost releases
- Channel monitor enhancements
 - ✓ Faster initial monitor connections result in faster application startup and dynamic addition of new channels
 - ✓ Monitors connect automatically when channels come online
 - ✓ Significant improvements in scalability and robustness: PvaPy can now monitor up to 80000 1Hz channels in a single Python application



Future Work

- Build system updates required for EPICS 7 release
- Update NT object support
- Complete Test Suite
- Any Feature Requests?

