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ISIS Neutron and Muon Source
Welcome

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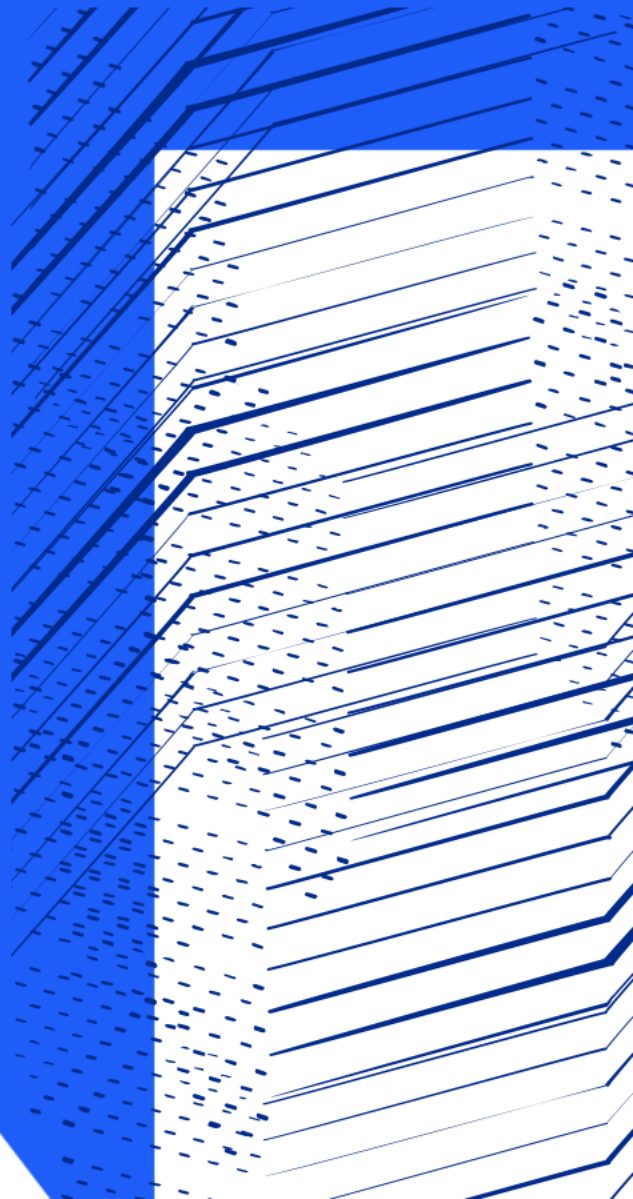
PVEcho:

Using **PvaPy** in the construction of the Vsystem/EPICS Bridge to facilitate the migration of the ISIS Accelerators Control System

EPICS Collaboration Meeting September 2022

Kathryn Baker



EPICS Transition

For a number of reasons, the ISIS Accelerators' control system will be migrated from proprietary Vsystem to EPICS which is open source.

In order to minimize the impact on business-as-usual, the migration will involve a phased porting of control of hardware. This requires bridging software to mimic the old control system in EPICS.

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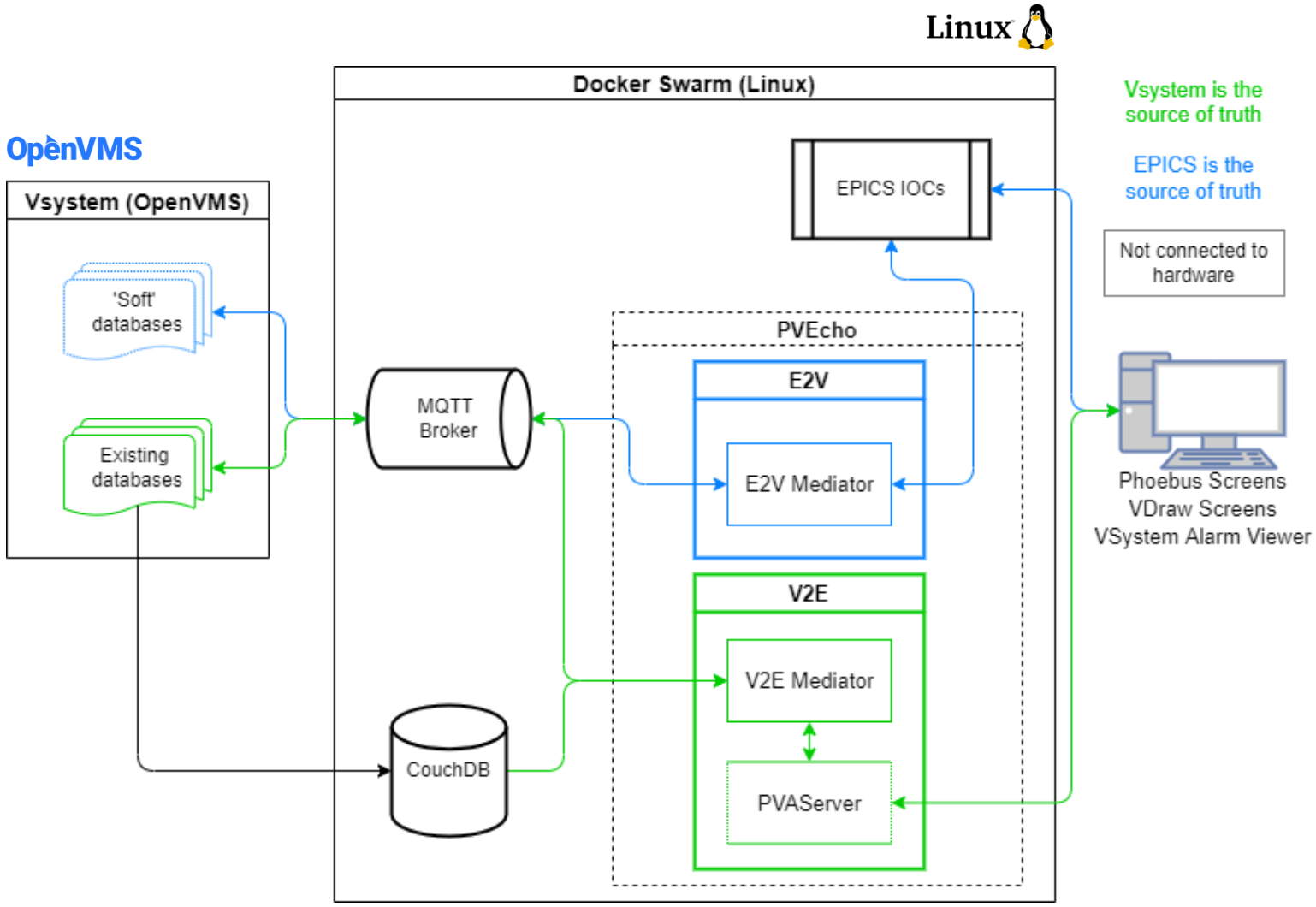
PVEcho

PVEcho is the ‘bridge’ between our existing control system (Vsystem) and EPICS.

It will allow us to have hardware operating with both systems, as well as the option to interact with the hardware through Vsystem **or** EPICS control screens.

It is built entirely in Python to be deployed in Docker containers.



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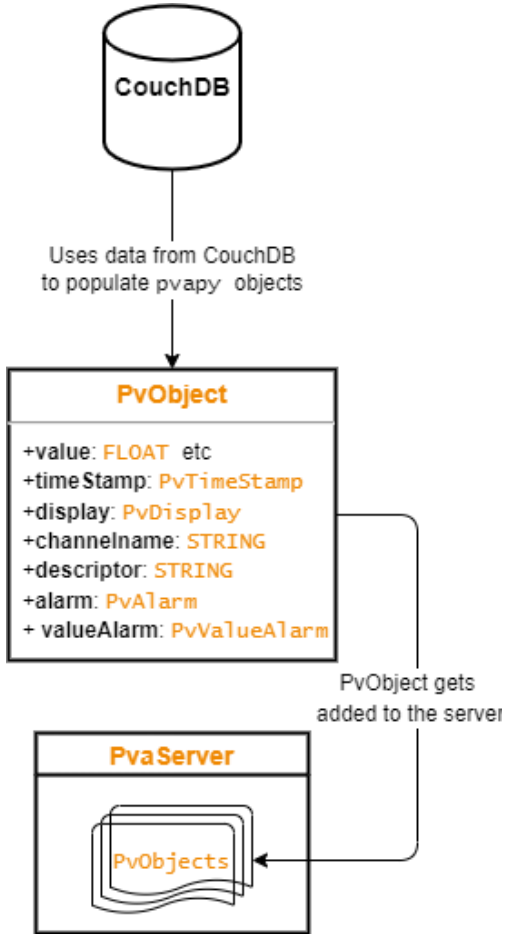
Why PvaPy?

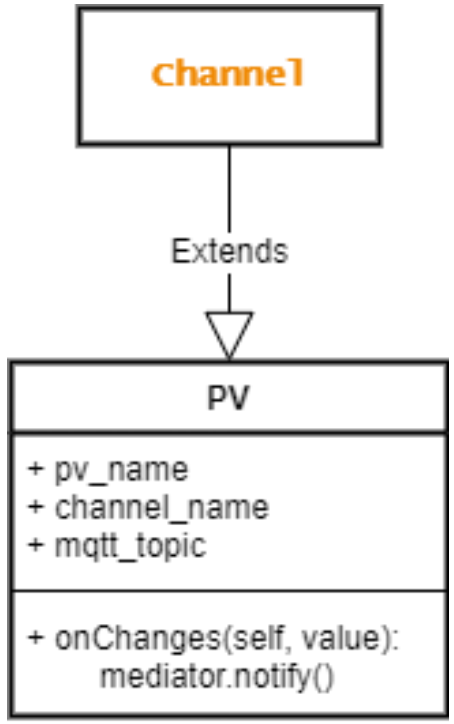
- PVAccess for created PVs but PVA **or** CA for Channels
- PvaServer and creation of custom PvObjects
- Addition and removal of PVs from the server ‘on the fly’
- Actively being developed
- Responsive, helpful developers
- Extensive documentation

PvaPy in PVEcho

VISTA to EPICS (V2E)



EPICS to VISTA (E2V)



Error Handling

FieldNotFound

InvalidDataType

PvaException - Timeout

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Thank you

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