Agenda for February 13, 2013

* pvaSrv. Please see the Requirements doc, and be ready with thoughts on
  the questions asked in it [2].
  (*Ralph*)

* Plan for defining the list of architectures, compilers and optimization
  options supported for EPICS V4
  (*Matej*, *Andrew*)

Minutes

Present: AJ, GW, GS, MK, MS, RL, DH, TK
Scribe: AJ:

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NEW TOPIC: pvaSrv Requirements Review
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RL: Summarizes his document.
GW: Will you move this from pvIOCCPP?
RL: Already done, there's a separate repo with the code in it, but it still exists in pvIOCCPP as of Beta-2. pvIOCCPP will probably disappear completely, moving stuff to pvAccessCPP or pvaSrv. pvaSrv needs a few things that should be moved to pvAccessCPP
GW: v3Channel - keep name?
RL: Yes, it's one of the modules inside pvaSrv that provides access to a single v3 channel. The other provider (multi-value) is now molecule and provides structure access to multiple v3 channels, atomically if they're all in the same lock-set.
GW: Name 'molecule' doesn't match 'v3Channel'.
RL: v3Atom would be the equivalent, but molecule can combine more than just v3 channels.
GW: Use case?
RL: Could use a remote channel via Channel Access.
GW: Please add a description of that to the document.
RL: Design idea says it could work with remote channels, nothing precludes this from working once the molecule crosses a lock-set boundary.
GW: Use case: Send back all data of BPM. Also send model Beta, which would come from another server. Need to make this clear in document whether combination with v4 channels.
RL: Not about combining v3 and v4 channels. pvaSrv is just for v3 CA types as pvAccess structures, running on a v3 IOC.

GS: pvaSrv is analagous to CA server
GW: Wants to include the functionality of Gather into pvaSrv.

RL: Don't want a v4 IOC to have to include the v3 IOC, which pvaSrv will require. Don't put middle-tier functionality into this lower-tier service.
AJ: Gather can't create structures, only collect data into arrays.
RL: Configuration API for molecule would maybe shared with some equivalent v4 product, but can't make it generic yet because we only have one example.

RL: Design of named groups is not complete. Database designer should be able to design named groups, e.g. through info fields in the v3 .db file. Similar remote functionality should be available through an RPC call. Support put, get, monitor; process=true for put & get; aim to support as much of pvAccess as possible.

AJ: In 3.15 putGet will be possible using processNotify.
So pvaccess of putGet would be possible, although may need new v3 record types to be useful.

RL: (Describes document sections 3.3 - 3.6.)
Q: pvaSrv will use the v3 Access Security library so as to not open a security hole in v3 systems. pvaSrv will use the client's host-name plus a configured user-name, but how to tell the pvAccess client when the v3 security rights of the user change? Tear down the connection? Not nice.
GW: Does v3Channel and molecule use CA to access the data? Timeouts when passing both large data and small data items?
RL: v3Channel does not use CA to get the data, except for monitors which use the local CA interface.
MS: To solve Greg's timeout issue use a separate CA connection with a different priority, which uses a separate TCP socket; each separate priority uses its own socket. Same for v4, although it has additional QoS parameters.

GW: Most users will use pre-configured molecules, the RPC interface will be less often used.
RL: Will need something external which creates molecules on-the-fly.

GW: I want to be able to define my own persistent molecules without having to use RPC.
AJ: The XML parser doesn't have to be part of pvaSrv, which provides a local API too.

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NEW TOPIC: List of supported architectures, compilers and optimization options
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MS: Want a short list of architectures known working (with compiler versions) and blacklist of compiler/arch known not to be working. Also list of tool versions needed.
RL: Build system should pick the best optimizations for the platform.
AJ: Feasible is a list of the compilers/archs that we tested on. Caveats for things that we know

are not working for combinations that app developers might be using.
Getting started doc must include hints on what versions for external dependencies, i.e. boost (one with shared pointers), EPICS Base, and GoogleTest to use.
Working on the Jenkins setup. Not being able to verify Dirk's vxWorks builds
MS: We only need shared pointers from Boost
GW: Who is creating that table?
MS: I will. As html.

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AI on MS: Start a doc (including a table) to contain the tested architectures and compilers, with test results.

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NEW TOPIC: html meeting note files created by Andrew

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GW & AJ & RL take this discussion offline