

User's Meeting 2005-12

Observation Control System Hardware / Software

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New Hardware

- Summit computing platform lease ends 2008/02 .
These machines are the platforms for the summit Observation Control System (OCS)
- Current systems are slower/older generation machines and should be replaced.

New Software

- Current software is Generation-1 OCS. Gen1 succeeded in bringing Subaru Observatory from construction phase into operation phase, however:
- A Second Generation OCS is needed to meet the requirements of a mature observatory.
- Present SOSS codebase is not suitable for a Second Generation system.

Some Gen2 Improvements

- Higher Reliability; Faster Upgrades & Fixes
- High level Observing Tool
- Observation Plan editor well integrated to
 - o Data pipeline
 - o Service Observing
 - o Q'd observing?
- Improved Quicklook analysis tool
- Improved Status & Telemetry

Gen2 Internal Improvements

- Greatly improved maintainability, greatly simplified, much smaller codebase
- Proper software maintenance tools: built in testing, regression tests, source-code control, regular builds
- Easier modification, faster upgrades, fast prototyping
- Better monitoring, trend analysis and failover.
- = more reliable software that is more responsive to User's needs.

Design Process

- Spiral Model development & rapid prototyping
-NOT Big-Design-Upfront Waterfall.
- Subaru Scientists determine broad Gen2 requirements and have continuous input over the development cycle
- Continuous design & evaluation

Hardware/Software Strategies

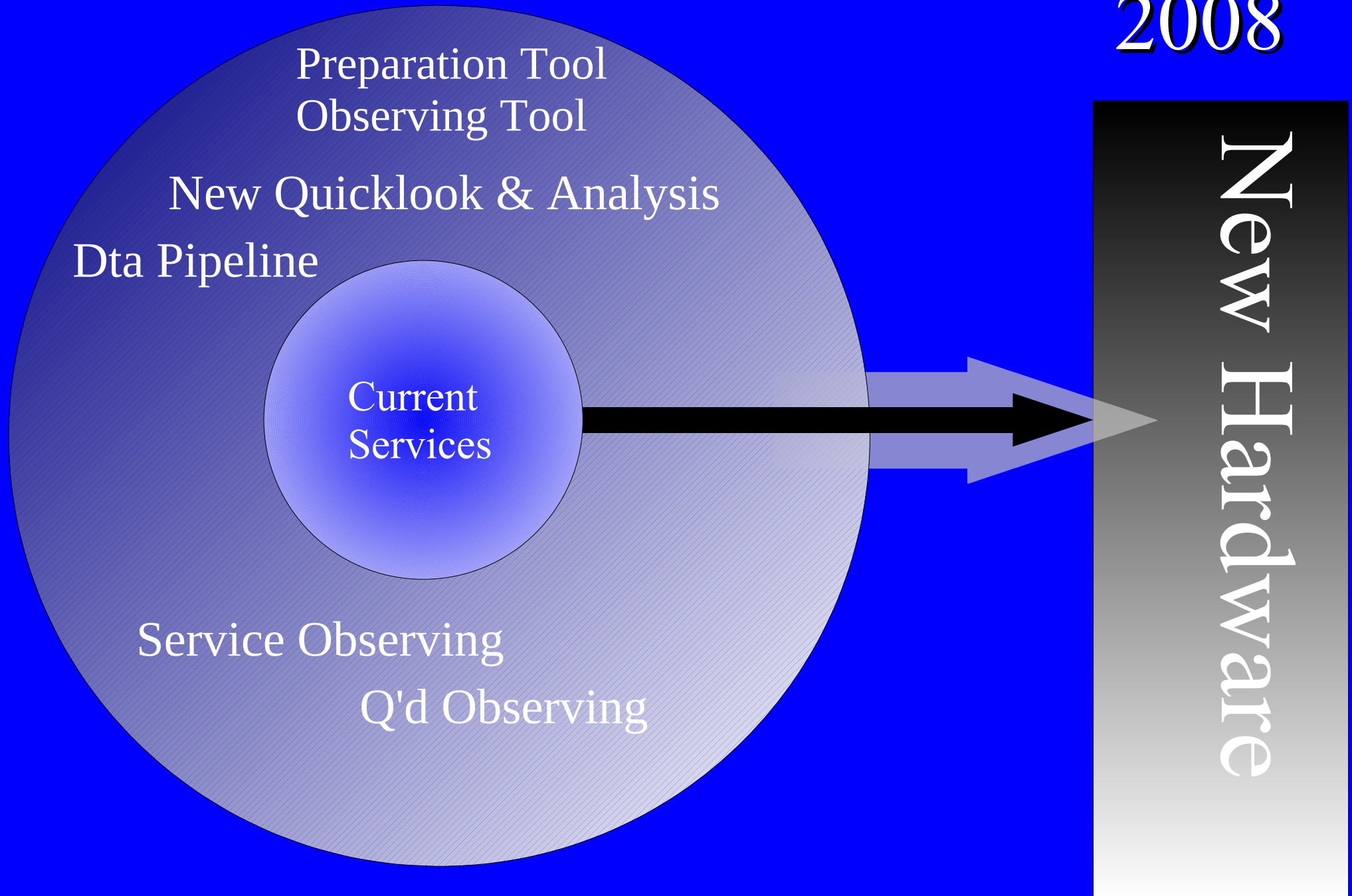
- How best to manage 2008 OCS hardware challenge AND need for Gen2 software?
- Continuity of operations must be guaranteed.
- The time to 2008 is short.
- Choice of Gen2 hardware should not be constrained by present systems.

One Possible Target

- One possible solution to Hardware/Software challenges: Deliver core services to new platforms by 2008 deadline
- Milestones:
 - 2006/2 External interfaces complete
 - 2006/8 “Star to STARS”
 - 2007/2 Alpha test core system
 - 2007/8 Beta test
 - 2007/11 Gold. Final testing

Possible OCS Software Target

2008



Suggested Hardware/Software Strategy

- DECOUPLE Hardware/Software Deadlines
- Retain an ambitious Gen2 Software delivery date
BUT:
- Negotiate retention of present OCS hardware through 2008 (via purchase or donation -present systems have very little value)
- Maintain hardware with in-house sys-admin group. (not difficult)

Questions ?