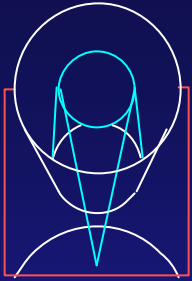


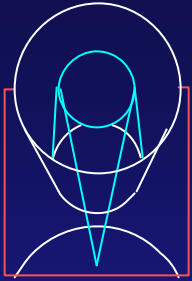
APT ETC Development Plan

4/3/2001



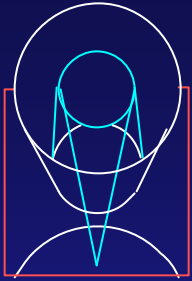
Current Development Plan

TASK	PLAN	STATUS
ACS	June 1, 2001 Phase 1 Cycle 11	On Schedule
NICMOS	August 8, 2001 Phase 1 Cycle 11	Mid-Cycle Release?
STIS	Phase 1 Cycle 11	Phase 2 Cycle 11
COS	Phase 2 Cycle 11	On Schedule
WF3	Phase 1 Cycle 12	On Schedule
WEB-Based Support	No Plan	



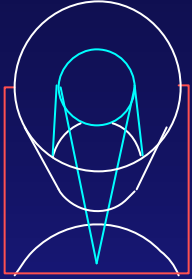
The ETC Development Process

- ✍ Requirements supplied by ETC Instrument Groups through APT ETC user group representative.
- ✍ Development Team scopes work, asks for clarification of requirements, build system.
- ✍ Acceptance testing by Instrument Groups and independent tester
- ✍ Scientific documentation updated by Instrument Group
- ✍ Release Readiness Review with Instrument Group

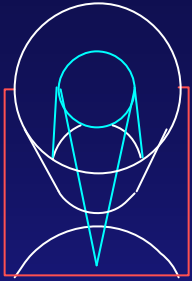


ETC Tool Support

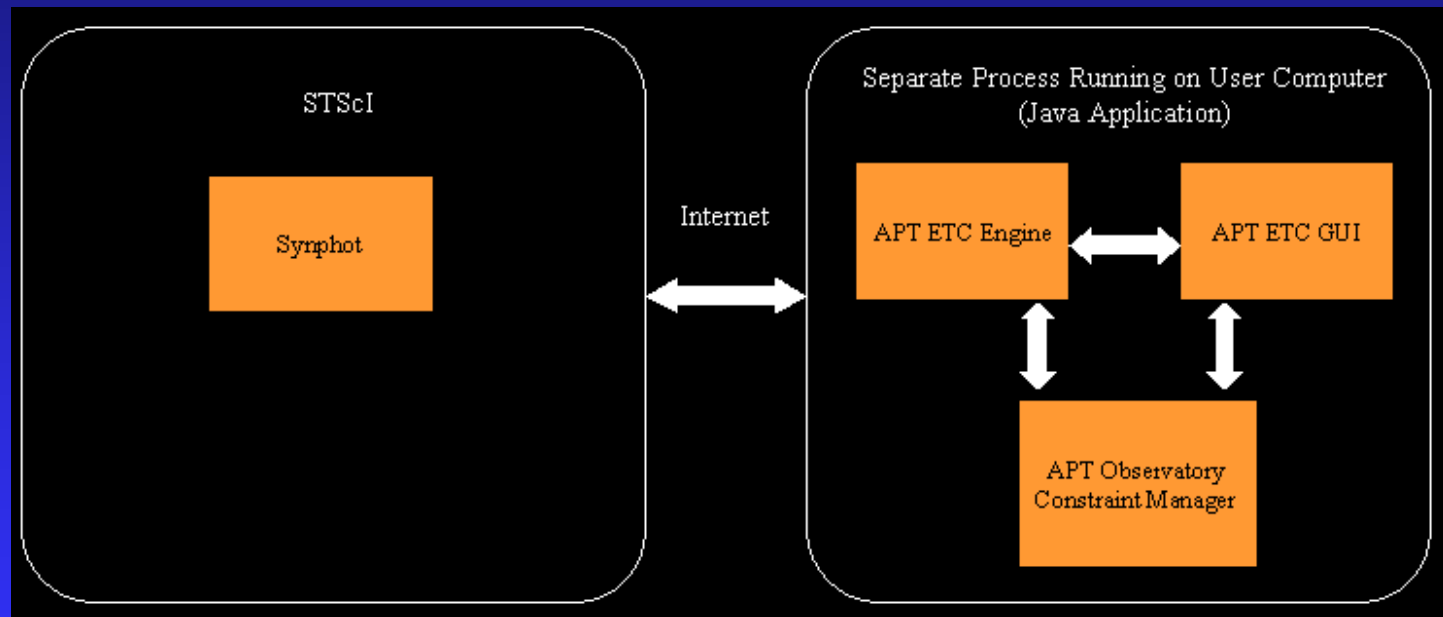
- ✍ The ETC has a Batch Testing Tool
 - ✍ Input is an XML file
 - ✍ Output is test results for review
 - ✍ Can't test GUI, tests calculations
- ✍ Investigating automatic software Update Tool
 - ✍ Install Anywhere tool has automatic update capability
 - ✍ After software initially installed, can update from STScI if new version is available.
 - ✍ Investigating this summer

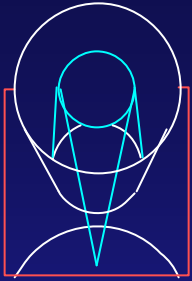


Web Based Approaches

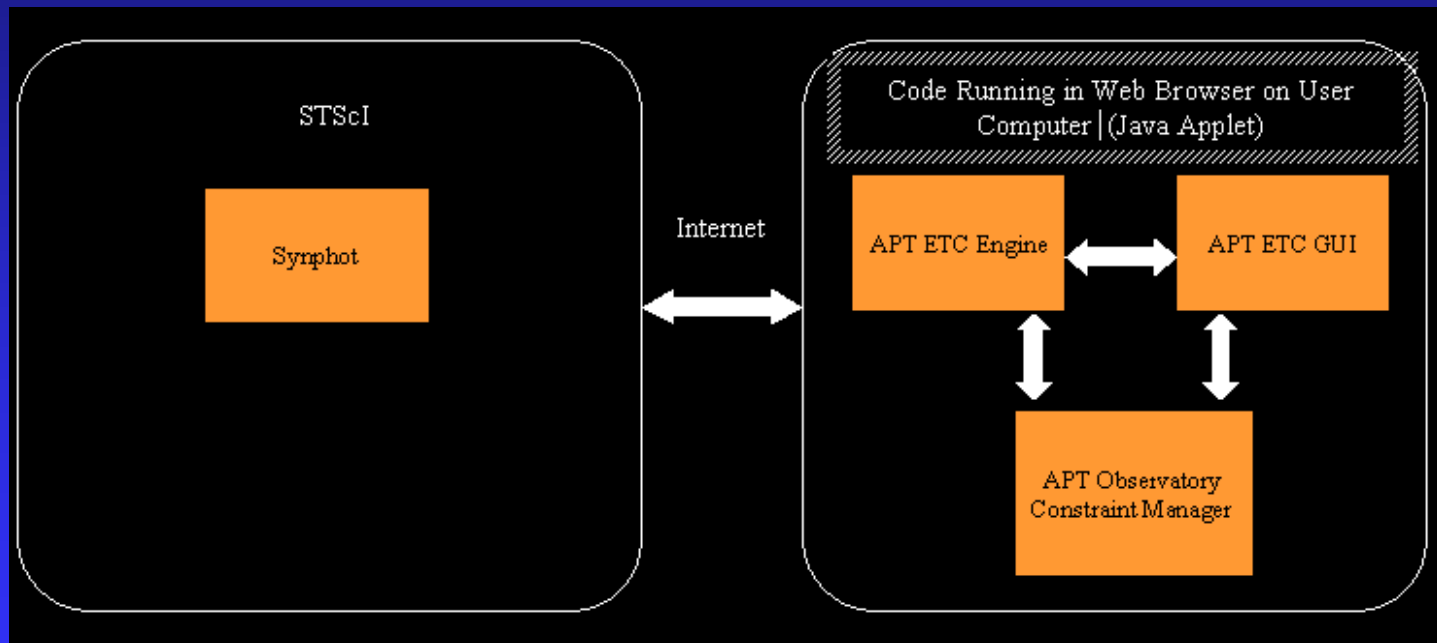


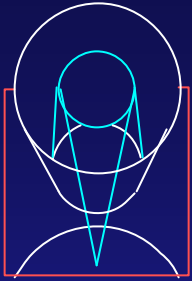
APT Application Architecture





Web Applet Approach






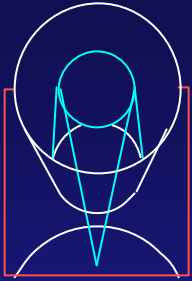
Web Applet Trade-Offs

Pros

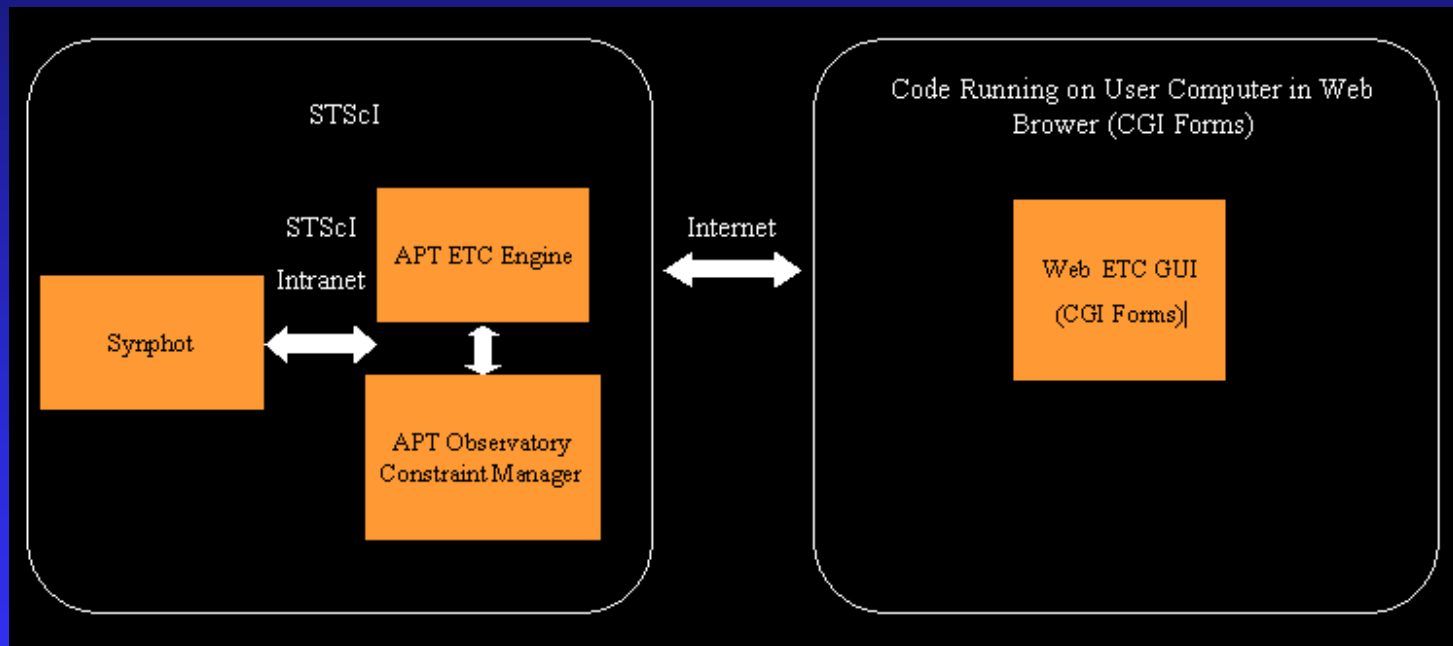
- Code reuse is very large.
- The GUIs will be nearly identical.
- Immediate feedback in GUI for legal/illegal instrument configurations.

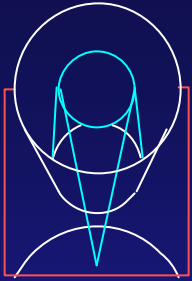
Cons

- High download time since the java code must be downloaded over the web into the browser to run as an applet.
- - Not all web browsers support running Java applets.
-  - Can't read/write files to/from user machine.

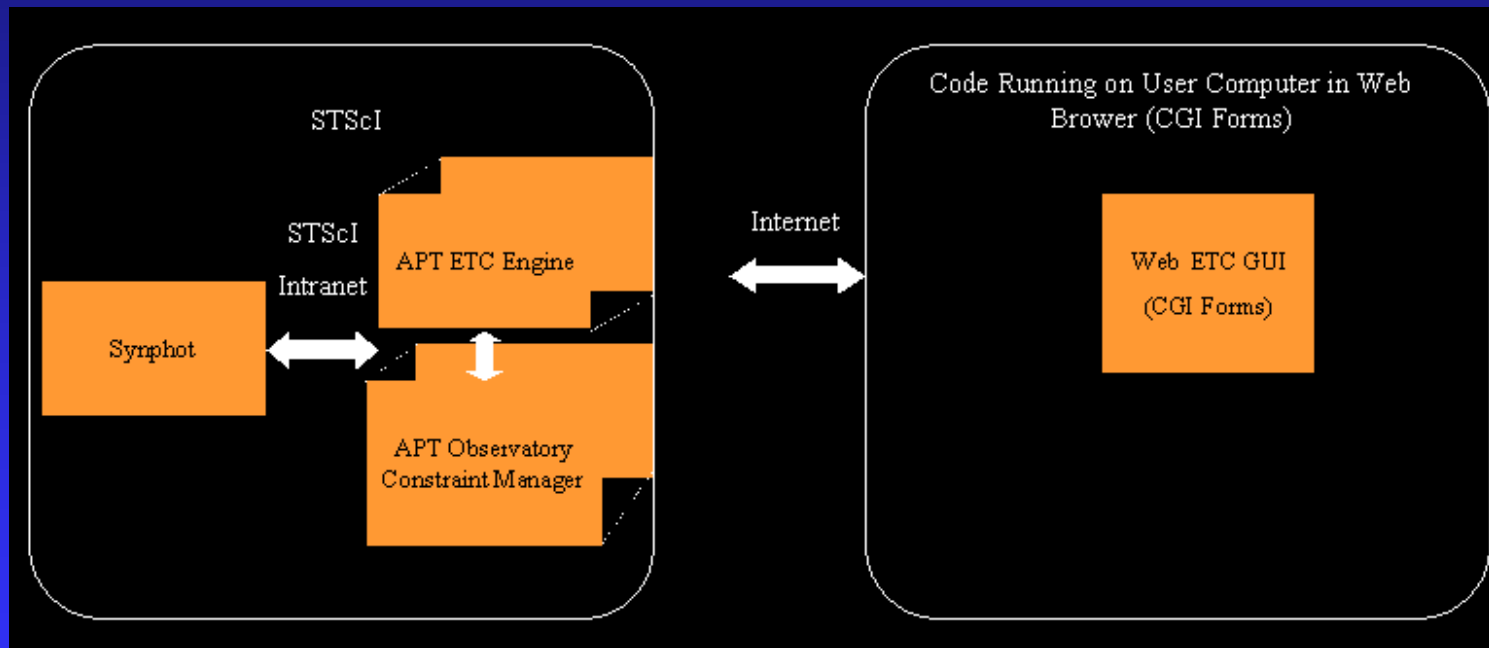


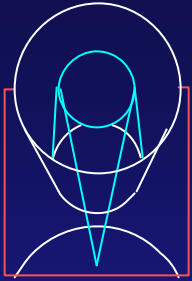
Web Servlet Approach





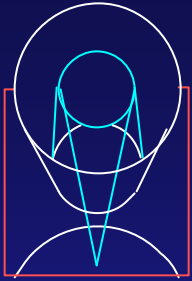
Web Multi-Process Approach





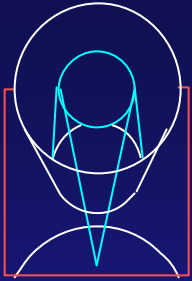
STScI Server Tradeoffs

Criteria	Servlets Static GUI	Servlets Dynamic GUI	Multi-Process
Server Running at STScI	Yes	Yes	Yes
Same Web ETC GUI	Yes	Yes	Yes
APT Engine Changes	Yes	Yes	No
Same Model of Processing as today	Yes	No, Immediate error checking	Yes
Maintain multiple versions of Code	Yes, two GUIs	Yes, two GUIs	Yes, two GUIs
Can Scale with User Load	Yes	Yes	Not that well



FTE Development Costs

Approach	Cost to Develop	Cost to Maintain
Applets	4 FTE Months	.25 FTE per/yr
Server is Java Servlet with Static Web GUI pages (Recommended Approach)	3 FTE Months	.15 FTE per/yr
Server is Java Servlet with Dynamic Web GUI pages	7 FTE months	.25 FTE per/yr
Server is multi-process with Static GUI Pages	2 FTE months	.15 FTE per/yr



Some Questions

- ✍ Do we want to release NICMOS for Cycle 11 Phase 1 use during mid Phase 1?
 - ✍ Without Coronagraph/Spectroscopic?
 - ✍ Using APT tester for bulk of testing?
- ✍ Are we going to support a Web-Based ETC and what slips on the current schedule?