

HST INS Work Item Data Sheet

1. SI/Title: COS/ Exposure Time Calculator
2. INS Lead: S. Friedman
3. Description of Work:

Determine and document the requirements for the ETC (spectroscopic requirements are already done), then design the code and implement it within the APT framework. Conduct requirements, design, code and test readiness reviews (ETC is a Health & Safety-related functionality). Perform full-path testing (ETC is a Health & Safety-related functionality) of the code to verify its adherence to the requirements. Validate the code to confirm that the as-built ETC performs the required actions and correctly detects count rate violations.
4. Schedule Constraints and Dependencies:

Do the spectroscopic ETC before the Target Acquisition ETC.

T. Krueger has a schedule for this work.
5. Risks and Open Issues:

Open Issue – Target Acquisition requirements need to be established.
6. Priority: High
7. Priority Justification:

Needed for bright object screening (ETC provides count rates which relate to the detector bright object constraints).
8. Resources (including estimated calendar duration for each portion): Expect to work Jan – Oct '06
 - a. Requirements
COS Instrument Scientist(s)
APT Developer(?)
 - b. Development
APT Developer
 - c. Testing
COS Instrument Scientist(s)
APT Tester
9. Documentation and Deliverables:

Spectroscopic Requirements TIR (completed; COS TIR 2002-02 (v3), Sembach & Keyes)
Target Acquisition and Imaging Requirements TIR
ETC Code Delivery
Synphot Update
Test Scenarios
Test Report