

HST INS Work Item Data Sheet

1. SI/Title: Tweakshift/Robust Shift Determination
2. INS Lead: Anton Koekemoer
3. Description of Work:

Tweakshift is the code that determines the shifts each of the images in a set needs to incorporate in order to be aligned with either the first image in the set or with a user-specified catalog's WCS. The general Tweakshift code is currently in a beta release as a stand-alone STSDAS package, and community feedback is being sought. Develop a new, more robust method of determining the necessary shifts to achieve more accurate image alignments. Once the improvements are identified through the community feedback process, they will be implemented and tested in the software. Data Handbook updates will be required to document the modified functionality.
4. Schedule Constraints and Dependencies:

User feedback should continue for a few more months, correcting problems that are reported. The next release of the software should be next spring (2006).

The Hubble Legacy Archive requires these capabilities.
5. Risks and Open Issues:

Risk – User feedback could identify problems requiring unexpectedly high resources.
6. Priority: High
7. Priority Justification:

These work items will enable more science due to better-aligned exposures.
8. Resources (including estimated calendar duration for each portion):
 - a. Requirements
Instrument Scientists
STSDAS Developer
 - b. Development
STSDAS Developer
 - c. Testing
Instrument Scientists
Data Analysts
STSDAS Test Engineer
9. Documentation and Deliverables:

STSDAS Code Deliveries
Data Handbook Updates