CIAO Documentation Plans

The primary aim of the CIAO documentation team has been to provide the user with analysis threads. These documents provide “recipes” for performing common tasks when analysing Chandra data and span the range from introductory material (e.g. how to use *ds9*) to complex tasks (e.g. using a PSF as a convolution kernel when fitting an image). New threads are added based on queries to the CXC (the helpdesk, chandra_users email list, and questions asked at the CIAO workshops) and from scientific research by CXC staff.

We now have almost 100 threads accessible from

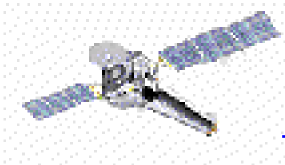
http://cxc.harvard.edu/ciao/documents_threads.html

and the focus now is to make this information easier to use.

1: Background Information

The threads are - in general - purely procedural: they tell a user how to perform a task but not why that task is important. As an example, we have a number of threads that deal with the creation of the aspect histogram, but no information on why it is needed or whether it may affect the scientific conclusions of the analysis.

- Introduce "why" documents linked to from the threads (e.g. "Choosing an Energy Filter")
- Closer links to the explanatory information in the POG
- Provide specialized information on specific topics. Planned are pages on:
  - High-resolution spectroscopy
  - Pile Up



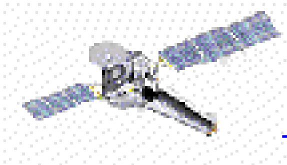
2: Analysis Steps

Given the number of instrument configurations and observing modes, many with different caveats or analysis needs, it can be difficult to find which threads that are relevant to a particular data-analysis pathway. This will be especially true for data that has been corrected for CTI effects.

We aim to:

- Provide guides to common data-reduction scenarios, e.g. "ACIS Data Preparation Analysis Guide"

- Provide scripts that wrap up these data preparation steps in an analogous manner to the way the *psextract* script makes extracting spectra simple for the user. A script to automatically reprocess grating data is under development.



3: Finding Information

The CIAO web site has expanded greatly during the lifetime of Chandra. Although there is a lot of information present, it can sometimes be hard to find.

While work continues to ensure that as much relevant information is linked to from each page, other approaches are also needed:

- The "search" facility will be changed to allow targeted searches of the threads, data caveats, and ahelp documents.

- Links will be provided from the ahelp pages to threads that make significant use of the tool/command.
  (e.g. *dmextract* example)