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XHelp: A Help Navigator for the IRAF System

M. Fitzpatrick

IRAF Group[1], NOAO[2], PO Box 26732, Tucson, AZ 85726

Abstract. We present a GUI browser for the IRAF help system containing many of the features present in web browsers. XHelp indexes the IRAF packages and help databases installed at a particular site to create a series of package lists used in browsing. Navigation is similar to the familiar package menus used in the CL when running IRAF. Help pages are formatted and converted automatically to HTML for presentation in the GUI (or on the WWW), or to Postscript for hardcopy output. XHelp features a keyword search and history mechanism, as well as a user interface that will be familiar to anyone who has ever used a web browser.

1. Overview

XHelp is a GUI browser for the IRAF help system which uses existing help facilities in IRAF to locate documents, but provides a familiar web-browser interface. The GUI is written as a Tcl script using the Object Manager system developed for IRAF (Tody 1995), the client is implemented as a standard IRAF task.

Navigating the help system is performed by "loading" packages in the upper list panel (Figure 2) the way one would while using IRAF itself, or by selecting task links in the HTML display when package help is shown. Moving up and down the history list can be done using either menubar buttons or menus within the display window. Help pages may be loaded directly from a text entry widget if the task is known, or the Search menubar button will open a panel used to locate tasks and packages by keyword.

Once a document is loaded, a text search of the contents can be performed using the *Find* menubar button. The *Sections* and *Parameter* menu buttons provide easy access to specific sections of a document or task parameter descriptions. Supplementary documentation (e.g. design documents, package overview papers, etc.) and program sources, if available, are accessed by simply selecting a different help option from the middle GUI menubar.

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[1]Image Reduction and Analysis Facility, distributed by the National Optical Astronomy Observatories.

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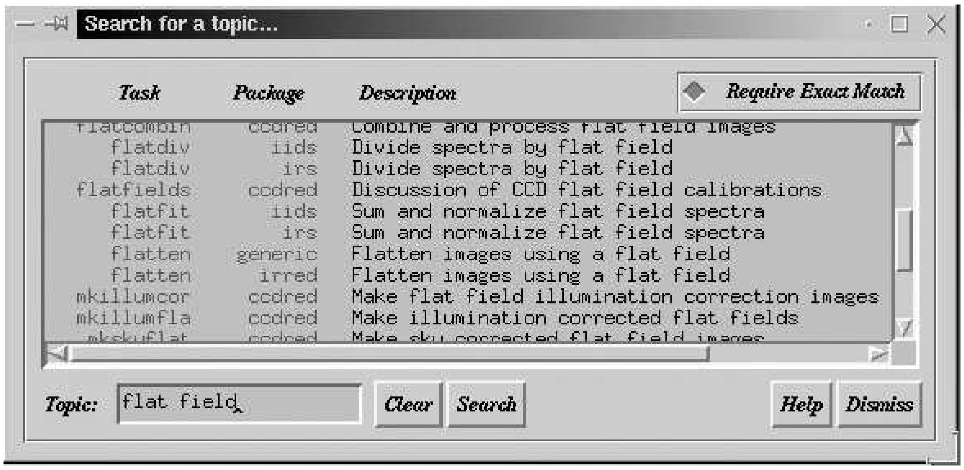

Figure 1. The search panel window showing the results of a query for tasks matching the phrase `"flat field"`. Help pages may be loaded by selecting the task or package name from the links in the two left columns. By disabling the *"Require Exact Match"* toggle the search can be done to return any task matching either word, i.e. a logical OR of the search words.

Help documents are automatically converted to HTML for display in the browser, or fully formatted PostScript or plain-text for output to a printer or disk file. New help pages may be displayed by loading the page through a GUI file browser or on the task command line when invoked. **XHelp** also provides for a user-defined starting page, allowing users to create direct links to their most commonly read help pages or documents. Help for the task is also available on-line.

2. Features

XHelp provides the following features designed to make the GUI, and the help system in general, easy to use:

- Intuitive interface similar to web browsers,
- Automatic conversion of help documents to HTML or PostScript,
- Uses current help engine and local help databases,
- Search the entire help system for topics by keyword, or within document for strings,
- History mechanism for navigating packages,
- Easy access to auxiliary help documents such as package "system documents" and task source code,
- Fully formatted PostScript hardcopy capability,
- Load new help pages via file browser or on the command line,
- Save current document to disk as HTML, plain text, or Postscript,
- Extensions to LROFF to support HTML style document links within IRAF help pages.

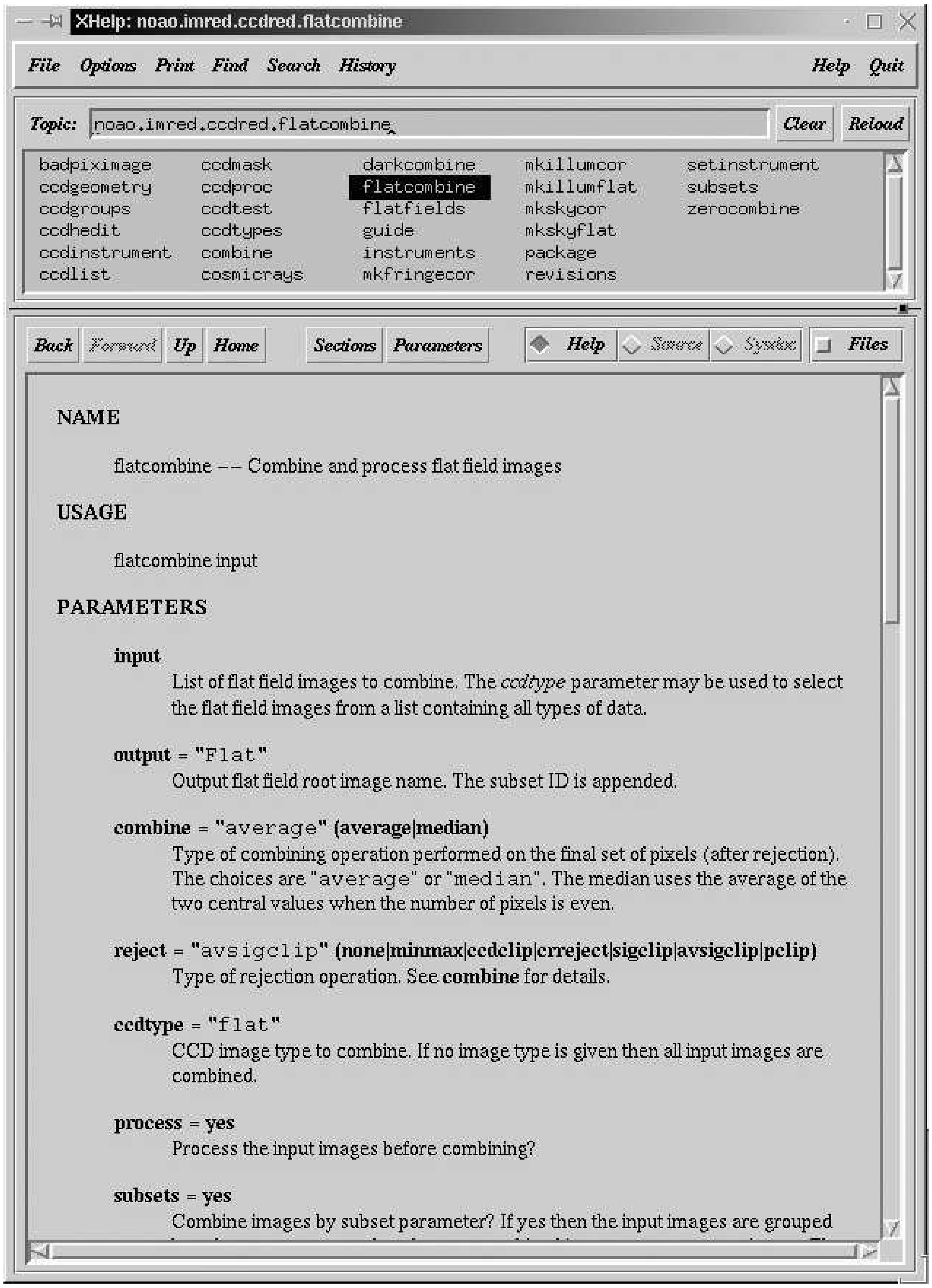

Figure 2. The main XHelp display window showing the **FLATCOMBINE** task help page. The parent **CCDRED** package contents are shown in the top list panel, new help pages are loaded by selecting a task from this list or by navigating through the history list using the buttons on the middle menubar. Users can jump to a particular part of the help page using the *Sections* or *Parameters* menu buttons rather than scrolling through the entire document.

3. Current Status and Future Plans

The **XHelp** task is currently in testing and will be released with the rest of the IRAF Science GUIs before the end of the year.

A release of the **XHelp** task and other new GUIs will be available by the time of publication. The LROFF[3] conversion code used to automatically generate HTML and PostScript will be installed in a future release of IRAF to add this functionality to the existing non-GUI help formatter, making it easier to interface the HELP task to a web-based IRAF help system. Support for non-LROFF help document sources (e.g. HTML or LaTex) is also being considered as part of the OpenIRAF initiative.

Interested users should check the IRAF Web site at **http://iraf.noao.edu/** and the ADASS newsgroups for status updates, questions may be sent to the author at **iraf@noao.edu**.

References

Tody, D. 1995, in ASP Conf. Ser., Vol. 77, Astronomical Data Analysis Software and Systems IV, ed. R. A. Shaw, H. E. Payne, & J. J. E. Hayes (San Francisco: ASP), 89

[3]LROFF is a text formatting language similar to troff/nroff used by IRAF help system.