

The NOAO Web-based Observing Proposal System

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Abstract. A World Wide Web interface to the NOAO observing proposal form is now available. Proposal information is provided by users through a set of HTML forms and submitted to the NOAO server where it is processed by a Perl CGI script. Netscape users may optionally attach locally prepared PostScript figures or ASCII text files for inclusion in their proposals using that browser's file upload feature.

All submitted data is retained on the server so that it may be recovered and modified in later sessions or viewed by collaborators who have shared the proposal password. In addition to the advantages of global availability and interface familiarity, the system provides several other useful options including online verification of L^AT_EX syntax and a spell-checker. Users can retrieve a filled-in copy of the NOAO proposal template by e-mail, or run latex and dvips on the NOAO server, view the output, and submit the proposal online. The NOAO WWW observing proposal pages can be found at "<http://www.noao.edu/naoaprop/>".

1. Introduction

Each semester NOAO receives hundreds of requests for observing time in the form of L^AT_EX documents. An automated system for handling these requests by e-mail has been in use for the past four years (see Bell et al. 1996 for a general description of the original system, which has since been rewritten in Perl). Although the system has always been quite successful, several additional enhancements can be achieved through the use of the World Wide Web, including a friendly and familiar user interface with hypertext help and pull-down menus, online verification and processing, and shared access to proposal information by remote collaborators as the document is being prepared.

By interfacing to the existing form, these new features have been added while retaining the most positive benefits of L^AT_EX – authors may still include special symbols, equations, figures and tables in their documents and information needed for scheduling can still be automatically extracted from the submitted proposals (Bell 1997).

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2. Discussion

The proposal form is divided into six sections, which can be filled out in any order and revisited at any time. Each HTML page contains hidden fields identifying the proposal ID and section in addition to the standard form fields. A single Perl CGI script is called which saves and retrieves form information on the NOAO server and performs all processing requests. The proposal sections are:

- General Info – Proposal title and other general information. See Figure 1.
- Investigators – Names, addresses, phone numbers, etc.
- Observing Runs – Telescopes are first chosen, then instruments from lists customized for each telescope. Required moon phase, filter information, and desired observing dates are also entered here.
- Justification – The main text sections of the proposal. Text may be edited online or uploaded from prepared files.
- Figures – PostScript figures (using file upload) and captions are controlled from here. Figures may be scaled or rotated.
- Tables – Target object information is entered into one or more HTML table forms. \LaTeX tables are built into the proposal document.

The Justification and Figures sections support file upload of ASCII text and PostScript figure files. PostScript bounding boxes are computed for figures and written into the saved files, in addition to optional PostScript commands for rotation.

At any time, the user may choose one of several processing option buttons:

- Run latex – \LaTeX proposal is built and processed. If errors occur, line numbers are translated into corresponding form fields. For security, any \LaTeX commands capable of probing the host system are removed before processing.
- View PS file – Proposal is built and processed. A hypertext link to a PostScript file is provided for viewing by user.
- Email LaTeX file – A filled-in copy of the \LaTeX form is sent to the user.
- Email PS file – A PostScript copy of the proposal is sent to the user.
- Check Proposal – Form data is checked for completeness and basic \LaTeX syntax. A spell-checker is run on essay sections.
- Submit Proposal – Proposal is built, checked, and processed. After final user confirmation, proposal and figures are mailed to the NOAO queue and acknowledged by e-mail.

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There are six sections or pages to the Web proposal form. This page requests that you enter any general information associated with your proposal. Principal- and co-investigator information is entered in another section. Details of the observing run requested, along with dates and instrumentation details, are entered in a third section. Essay-type information such as an abstract of the scientific justification, the scientific justification text, and other background information, is entered on the fourth page. Up to three figures may be included with your proposal and that information can be provided in the fifth section. The last section, for tables, is required for all WFTN proposals but optional for all others. Details about what is needed in each section are provided in the help links at the top of each page. The sections may be completed in any order.

Before starting your proposal please review some general comments about the [Proposal Process](#) as well as the [Colors, High document](#) which provides a field-by-field description of the proposal form. If you are new to LaTeX please review our [LaTeX Policies](#) page, as well.

DEMONSTRATION ONLY -- no information will be saved.

GENERAL PROPOSAL INFORMATION

[Help for this section](#)

Enter the title of the proposal below. Use special symbols as [LaTeX symbols](#) or [math](#).

Characteristics of a Well-Crafted Telescope Proposal

TAC Session (RPMD only):

Is this proposal part of a PhD thesis? Note: If you answer "yes" to this question then you are required to read a letter to the [Dealing Director](#).

If this is a long-term status request please give details on the line below.

8 nights per semester for 2 years

List dates you cannot use for non-astronomical reasons on the line below.

Please avoid Nov. 4 (Election Day)

Use these buttons to modify or save your entries. The "Undo Changes" button will remove any changes since the last "save" action. The "Clear Form" button will clear all fields but nothing is actually deleted until the next "save" action. The "Save and Verify" button will "save" and "verify" the current form entries.

Use these buttons to continue to other sections of the proposal. Other than the figures which are optional and the tables that are only required for WFTN proposals, all of these pages must be completed before the proposal can be submitted. Choosing one of these options will save the current form before going on to the requested page.

At any time you may choose one of these options. The current form will be saved before any action is taken. If you request a file transfer it will be sent to the email address entered on the proposal form home page.

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Questions or problems may be directed to proposal_help@noao.edu.

Figure 1. A sample NOAO proposal Web form

The L^AT_EX proposal built on the Web uses the same template as that used in the traditional download/e-mail approach. Users thus always have the option of mailing the proposal to themselves and finishing it with a text editor and sending it in by e-mail (an “import” from the L^AT_EX form to the Web is planned for the next semester). Proposals completed and submitted by either method are indistinguishable when printed.

3. Conclusion

The NOAO Web-based proposal system went public in August 1997 for the submission period concurrent with this meeting. Initial reviews have been quite favorable and few problems were reported. Currently the only significant limiting aspects of the Web form involve PostScript figures. Although most users had no trouble including figures in their documents, sophisticated customized figure placement is not available. In addition, submitting very large figures becomes inefficient if the user wishes to repeatedly download the PostScript proposal for viewing.

We’ve found that the system scales well with the experience of the user. Those who know nothing about L^AT_EX are largely shielded from it and are more comfortable using the Web than the traditional template form. Meanwhile veteran L^AT_EX users who wish to fill their proposals with special symbols and equations may still do so. Thanks to the online processing and verification, we’ve found that a much smaller percentage of Web-submitted proposals arrive with problems requiring human attention than those submitted by e-mail. This saves considerable time for the NOAO office staff, as most Web proposals can be automatically filtered for import to observatory databases. User feedback indicates that a substantial time savings in proposal preparation has also been achieved.

Proposal materials at various observatories consist of many types, from simple flat-file templates to sophisticated GUI software tools which each user must download and compile. We’ve found that the WWW CGI approach described here strikes a good balance by being complex enough to deliver all needed information to the observatory while remaining easy to use.

References

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