

Replacing RPS after 20 Years: Introducing New *Chandra* Proposal Software (CPS)

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The Remote Proposal Software (RPS) was state of the art when the CXC started using it...two decades ago. Over the last few proposal cycles, the Director's Office noticed that many Helpdesk tickets from newer users posed the same questions:

- How do I save my proposal?
- How do I fix a mistake in my proposal?
- Why is my proposal assigned a new number each time I submit an updated version?
- Wait...can I check what I actually submitted?

In 2016, a small group of Director's Office staff and software developers initiated a revamp of the proposal submission software that would preserve the functionality and flexibility of RPS while meeting the expectations of the modern community. Early in the design process, the new software was referred to as the *Chandra* Proposal Software (CPS), and that name eventually stuck.

The resulting design allows users to easily save, update and access their proposals at any stage of the submission process. It also allows users to read any proposal that they are linked to as a co-investigator.

The biggest change from RPS was the introduction of user accounts. To minimize the impact of this change, it was decided that only one person per proposal would be required to have an account.

An account is also required for any additional people who want to have read access to a proposal within the CPS system. Those people have to opt-in to having their name and institution visible to other users for this functionality to work. That option is available from the account profiles and users can opt-in or opt-out at any time.

The proposal and target information collected in CPS has not changed significantly from RPS. However, instead of presenting the user with one long web form to complete, related input fields have been collected into separate sections that can be saved independently.

CPS was presented to the *Chandra* Users' Committee (CUC) in the Fall of 2017. Meanwhile, testing by a pool of volunteer scientists with varying levels of RPS experience informed some design changes. After additional iterations of testing and updates, the final product was made available to GTO proposers in 2018 as a small-scale introduction to the community.

Later that year, multiple announcements were made

to the wider community about the new software, and to encourage users to create their accounts. The full system was opened for use in December 2018 when the Cycle 21 Call for Proposals was released.

As incentive for creating accounts ahead of the proposal deadline, the CXC offered to link accounts to existing proposals from the last three cycles. Since CPS also allows users to 'clone' proposals: a user can now easily re-submit a previously-requested program. Nearly 100 users created their accounts after the first announcement in November. And by the end of February, there were hundreds of old proposals that had been linked to new user accounts.

In the end, over 500 proposals were successfully submitted with the new system before the Cycle 21 deadline and the number of proposal-related questions to the CXC Helpdesk was noticeably reduced from last year.

A couple of patches to the software have addressed minor bugs and improved functionality. Soon, CPS will also be in use by DDT proposers, and after that RPS will be completely retired.

Users may send their comments, questions or suggestions for updates to CPS to the CXC Helpdesk (cxchelp@cfa.harvard.edu).