PhoSim Users Group

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Why do we want a PhoSim Users Group?

- At the DESC meeting in December, there was a PhoSim power users session that was tremendously successful.
- We'd like to continue this contact, and extend to non-DESC groups.

| 15:30 - 17:30 | Computing: PhoSim Power Users | | |
|---------------|-------------------------------|---|--|
| | Location | | |
| | 15:30 | Features of PhoSim You Might Not Know 20' | |
| | | Speaker: Wei Cui | |
| | | Material: Slides | |
| | 15:50 | Validation and Predictions of Chromatic Effects in PhoSim 20' | |
| | | Speaker: Josh Myers | |
| | | Material: Slides 🔁 | |
| | 16:10 | Star/Galaxy Separation and the PhoSim Recipe Book 20' | |
| | | Speaker: Debbie Bard | |
| | | Material: Slides 🔁 | |
| | 16:30 | Atmosphere Model Exploration 20' | |
| | | Speaker: Michael Schneider | |
| | | Material: Slides | |
| | 16:50 | What do we miss when we ray-trace? 20' | |
| | | Speaker: James Jee | |
| | | Material: Slides 🔁 | |
| | 17:10 | Validation of Sensor Fea | |
| | | Speaker: Andrei Nomerots | |
| | | Material: Slides 🔁 | |
| | | | |

What will we do?

- Discuss the science that's being done with PhoSim, and how it was implemented.
- Operating parameters:
 - Open to all PhoSim power users, not just DESC!
 - Meet bimonthly for a telecon.
 - Where opportunity arises, meet in person (eg half-day workshop in the August meeting).
 - Web presence: for slides, code snippets.
 - Perhaps host github repository for PhoSim modifications?



What will we **not** do?

- Not a how-to group, or a problem-solving resource
 - There are other places for that (ie mailing list, forum, jira), and members of the group will be making use of that as well!
- Not provide conduit to PhoSim authors
 - Of course, all are welcome to attend, but we're not about creating extra work for the developers!
- Not replicating detailed technical discussion in John's PhoSim DESC meetings
 - This is intended as a forum for discussion of how PhoSim is used to do science, not identifying bugs or requesting features.



Can this be extended to CatSim?

- Yes, I think easily.
- We'll probably be a joint CatSim/PhoSim group, since the two are so easily linked.
- CatSim is not so widely used, so it will help people understand how we can use the two tools in synergy.



Proposal document...

1 Motivation

The PhoSim power users session at the DESC collaboration meeting in December was a great success. Following this, we feel there is a gap in the market for a similar, on-going discussion within the wider LSST community between PhoSim power users.

2 Concept

The PhoSim Users Group would be a user-driven forum for discussion and sharing ideas. It is intended for those who have some experience using PhoSim and CatSim, and will not replace the PhoSim discussion forum or mailing list. In particular, it will not help people set up or run PhoSim/CatSim and will not be a de-bugging forum - the appropriate places for that kind of discussion will be signposted. Instead, the Group will make connections between the expert users of the code and tools, and be a place for people to learn about the science being done with PhoSim.

3 Practicalities

The PhoSim Users Group would be open to anyone who uses and manipulates PhoSim code. This is expected to encompass members of LSST Science Collaborations, and others (for example, some members of the DESC). For this reason, the Group will be open-access in terms of web presence, i.e. will not require an lsstcorp confluence account or similar, but will have space for uploading proprietary or private data.

The Group would meet bi-monthly in a telecon. The meeting agenda would comprise any (or all) of the following: a short presentation about a specific way PhoSim is being used to do science; a time for sharing ideas; discussion of a cool feature; lightening talks presenting everyone's recent work. When convenient (for example, at the LSST Project Meeting in August) we would hold a half-day workshop for longer-format talks, and discussion with the PhoSim authors.

The PhoSim authors would of course be welcome at all telecons, but the meetings will not be aimed at them and they would not be expected to attend and answer our questions! Rather, meetings will be a discussion between members of the group. If consensus arises within the group about a new desirable PhoSim functionality or if bugs are identified, this will be taken up with the PhoSim authors via JIRA.

The Group will have a web presence in the form of a confluence page (or similar) where we can keep track of our meeting agendas and host slides. Since a large part of the group discussion will be about how PhoSim code has been modified, the meeting website will also host code snippets with instructions on how to insert them into an existing PhoSim installation. This will allow others to try out code and features presented in meetings. We *may* also host a github repository where group members can host their code, if there's demand.

There will be two co-organizers of the group, initially Kirk Gilmore and Debbie Bard. At least one will attend the weekly simulations meeting.



Discussion...

- Some feedback we've had so far:
 - Will you provide PhoSim documentation? \rightarrow No!
 - Do people really want an extra meeting? \rightarrow Fair enough!
 - Can you host my custom PhoSim build? \rightarrow probably.
 - Can you merge my custom PhoSim code into head? → no, but we might be a conduit for this?
- Are you (the users) interested in joining this?
- What would you like to get out of such a group?

