

obsproc WG update

- ◆ ~ monthly telecon to discuss how we actually observe in queue mode with PFS, not only for SSP but for open-use as well.
- ◆ Outstanding questions (not an exhaustive list)
 - ◆ exact definition of an observing block (OB)
 - ◆ how we prepare a block of OBs (BOB)
 - ◆ where to store OB and BOB information
 - ◆ observing constraints we should ask in phase 2
 - ◆ how to collect filler targets
 - ◆ how/whether to release raw data
 - ◆ need a tool to track progress of each program
 - ◆ how to handle duplicated targets from multiple programs
 - ◆ how to share fibers between programs
 - ◆ how to define pointing centers
 - ◆ how to select spectrophotometric standards

QA metrics to look at

- ◆ Each target has its observing constraints. So, whether a visit is good/bad is declared for each object separately.
- ◆ We will observe lots of targets. QA needs to be nearly fully automated.
- ◆ It would be good if the way we do QA could be handled by the current queue system (perhaps with a bit of modifications).
- ◆ Not much discussion of QA metrics to look at in the WG, but here is my (shallow) thinking. Note that I am not representing the WG here.
- ◆ We are interested in S/N.
- ◆ But, it is often difficult for users to predict an expected signal; very hard to predict, e.g., Lyman alpha flux. Continuum is easier but observers can still be optimistic (and they tend to be).

QA metrics to look at

- ◆ So, I prefer to look at signal from specphot standards (and guide stars) to measure a total throughput, which includes seeing, sky transparency, telescope tracking, cobra positioning accuracy, etc.
- ◆ As for noise, we can measure it from the sky fibers.
- ◆ The idea is to use the combination of throughput and noise as a measure of a quality of an exposure.
- ◆ Should we do QA on individual visit, coadds, or both? In theory, noise on coadds is predictable from the noise in individual visits, except for regions around strong night-sky lines (but we may not want to use such regions to say whether this visit is good/bad). The same applies to the throughput.
- ◆ I think I prefer to do QA on individual visits.

QA metrics to look at

- ◆ To summarize, I think it makes sense to look at (1) throughput with respect to some nominal throughput from specphot stds, and (2) noise in some predefined wavelength windows in BRMI from the sky fibers.
- ◆ Observing constraints will look like, e.g.,

Target	Throughput	noise@4000A	noise@6000A	noise@8000A
A	>0.8	<1e-17cgs	--	<3e-17cgs
B	>0.3	--	<1e-16cgs	--

- ◆ We provide an ETC, so that users can simulate target spectra for a given exposure time, throughput, and background noise. They can then choose exposure time and observing constraints for their goal.
- ◆ This is just my naïve thinking!