

Introduction to discussion of the LSICS specification. The past

Mar. 2 Framework concept presented by Tom and Hugh at the GSICS Annual meeting

[several iterations with Tom and 11 members of the LSICS development group of the Vis/NIR subgroup]

Nov 2, Draft Spec distributed by Dave via the GSICS distribution email list.

Nov 9, Brief discussion at the Vis/NIR subgroup web meeting.

Everyone encouraged to review the Spec, especially the tables, send comments to Hugh

Revised version was distributed by Seb before this meeting. And now:

What was left out?

Concentrate on the file Tables; essential for design and coding.

Terminology for the difference levels of Lunar irradiance, chart 4

This week

- Today's **Host** moderates the discussion
- The goal is to reach agreement on as much as possible today
- Any (hopefully few) unresolved issues will be defined and enumerated
- These open items will each have a **leader** assigned. Comments can be communicated to the item **leader** during this week.
- Open items: Describe on one page:
 - Who concerned: Where in Spec: (Section, paragraph, line, etc)
 - Concern and suggested change: Leader for resolution:
- Some of my SLIM perspective remains, based on dealing with dozens of instruments simultaneously.

3 month Process starting next week

- The **Host** submits each unresolved items as an action item within VIS/NIR data working group (or something less formal but at least as effective).
- **Leader** responsible for getting the item closed early enough to enable the next step .
- The Spec will be revised by the **Host** (or Hugh) incorporating all the above results and released (distributed) by the 2024 GSICS annual meeting.
- LSICS codeing begins !

Terminology for different versions of irradiance

- 1) **Image** : The irradiance derived from an image, using the steradians per pixel for nominal science imaging.
- 2) **Observed** : Image irradiance corrected for all 'observer' effects. Any oversample factor has been applied.
This is what Teams submit to LSICS
- 3) **Reported** : Observed irradiance corrected to the GSICS consensus standard conditions, which would include adjustments for DistanceFactor and SolarVariation . Computed within LSICS
- 4) **Model** : Model-computed irradiance for GSICS consensus standard conditions. e.g., at standard distances and the reference Solar spectral irradiance. Computed within LSICS
- 5) **Predicted** : Model irradiance adjusted to the observations conditions.
I.e., $\text{Model} * (\text{distance factor} * \text{solar variation})$

The **calibration ratio** is $2/5 == \text{observed/predicted}$ [or $3/4 == \text{Reported/Model}$]

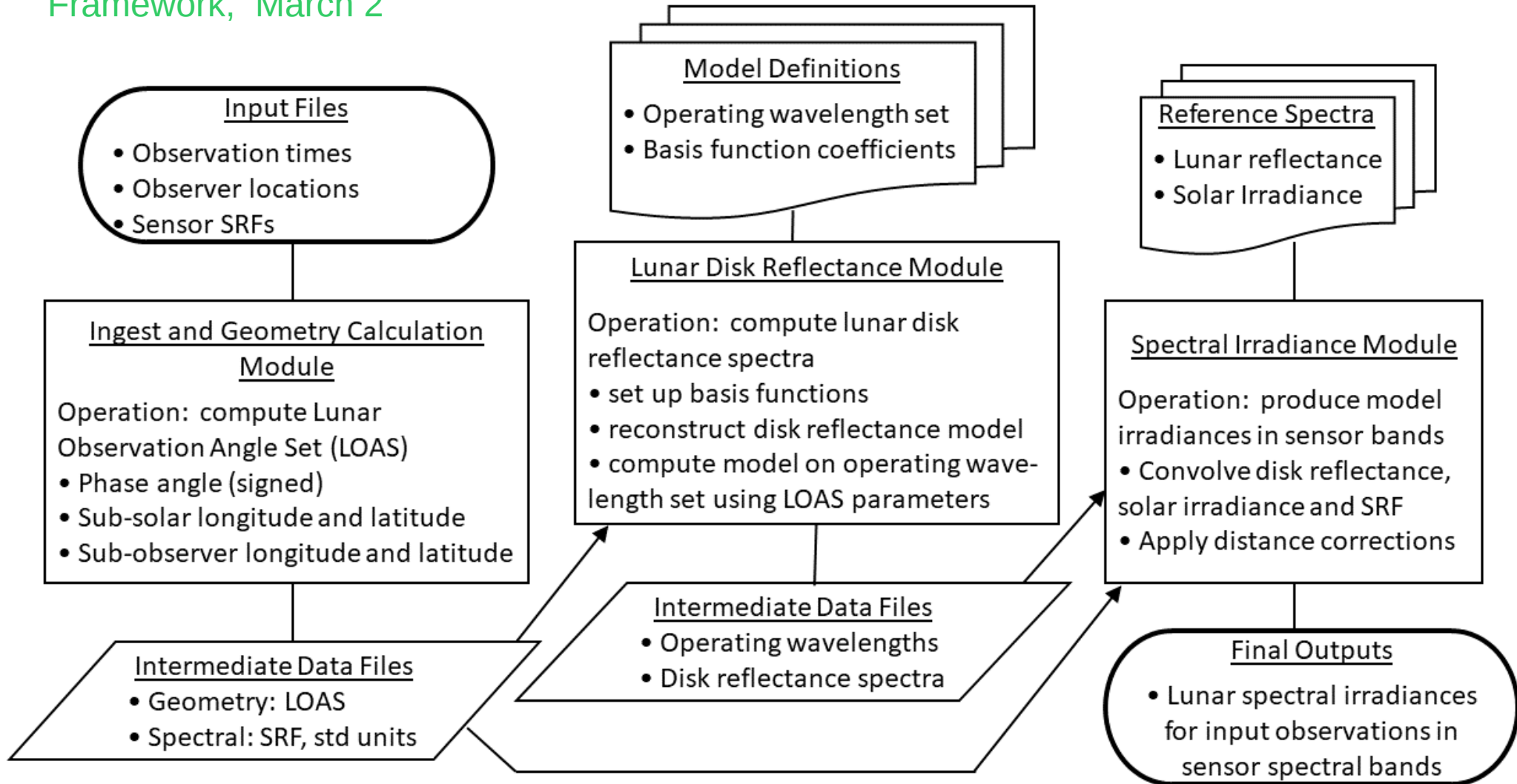
Everyone must have the same interpretation of this term.

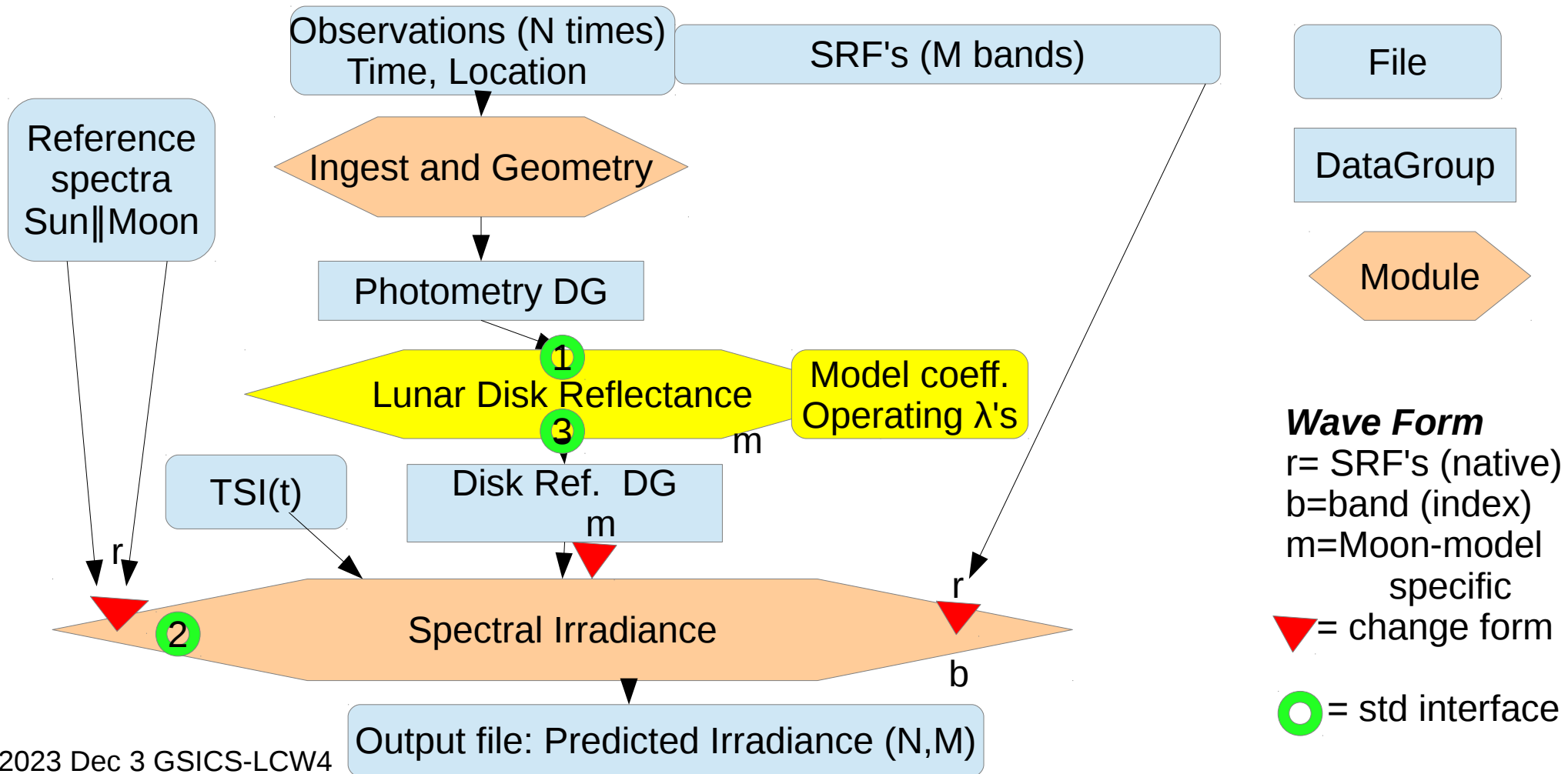
Two wavelength concepts, and two interface styles

- Two distinct ways to handle wavelengths:
 - Models based on a set of bands: GIRO, LIME: Spec. Fig. 2
 - Follows the March Framework *Chart 8 here has tiny rewording*
 - Models with continuous wavelength: SLIM: Spec. Fig. 3
 - Uses Standard Wavelength Set (SWS) and effective wavelengths
 - All spectral manipulation done once per SRF set. *Chart 9 here has tiny rewording*
- Two styles of interface to the Disk Reflectance Module:
 - Sequential; Spec. Fig. 2 *and chart 8 here*
 - Shell; Spec. Fig. 3 *and chart 9 here*

BACKUP slides

Framework, March 2





Standard Wavelength Set

“Shell” Framework Flow chart

