

ALMA-OT Phase 2 Basics

Satoko Takahashi

P2G member and Contact Scientist (CS)

- P2G member [Work on scheduling block preparation]
 - Yu-Nung Su (P2G coordinator in Taiwan)
 - Alfonso Trejo
 - Satoko Takahashi
- CS [Contact scientist]
 - Yu-Nung Su
 - Satoko Takahashi
 - Alfonso Trejo
 - Shigehisa Takakuwa
 - Edwige Chapillon
 - Ronny Zhao
 - Chin-Fei Lee

Work Flow of Phase 2 Generation (P2G)

1. Project is assigned to a P2G member
2. P2G contacts CS once SBs are generated
3. CS explains to PI (through Helpdesk ticket)
4. If Minor Changes CS contacts P2G
5. Once the PI has approved the project. Observations will be carried out (dynamic scheduling strategy).

(If Major Changes PI contacts CS/P2G via ALMA Helpdesk, and goes to 'Change Request' committee)

Time Line

Batch	# projects	priority*	LST range	assigned to P2G by	prepared by	PI approved by	To be executed starting session
1	~25**	High	22-13	Dec 1	Jan 18	(Mar 6)	1
2	~60**	High	0-15	Jan 18	Feb 6 -> 13	Mar 6	3
3	~60	High/Filler	3-18	Mar 6	Mar 20	Apr 20	7
4***	~60	High/Filler	6-21	Apr 20	May 10	Jun 10	10
5***	~50	High/Filler	9-0	Jun 1	Jun 15	July 15	13
6***	~50	High/Filler	all	July 15	July 31	Aug 31	16
total	305****						

* ~800hrs Highest Priority projects; initially ~100hrs Filler

** Band9 SBs will not be created in Batches 1 or 2

*** Exact date depends on Cycle 2 Call for Proposal

**** Number of proposal is subject to change. In particular, more fillers will be prepared if gaps appear in observing schedule

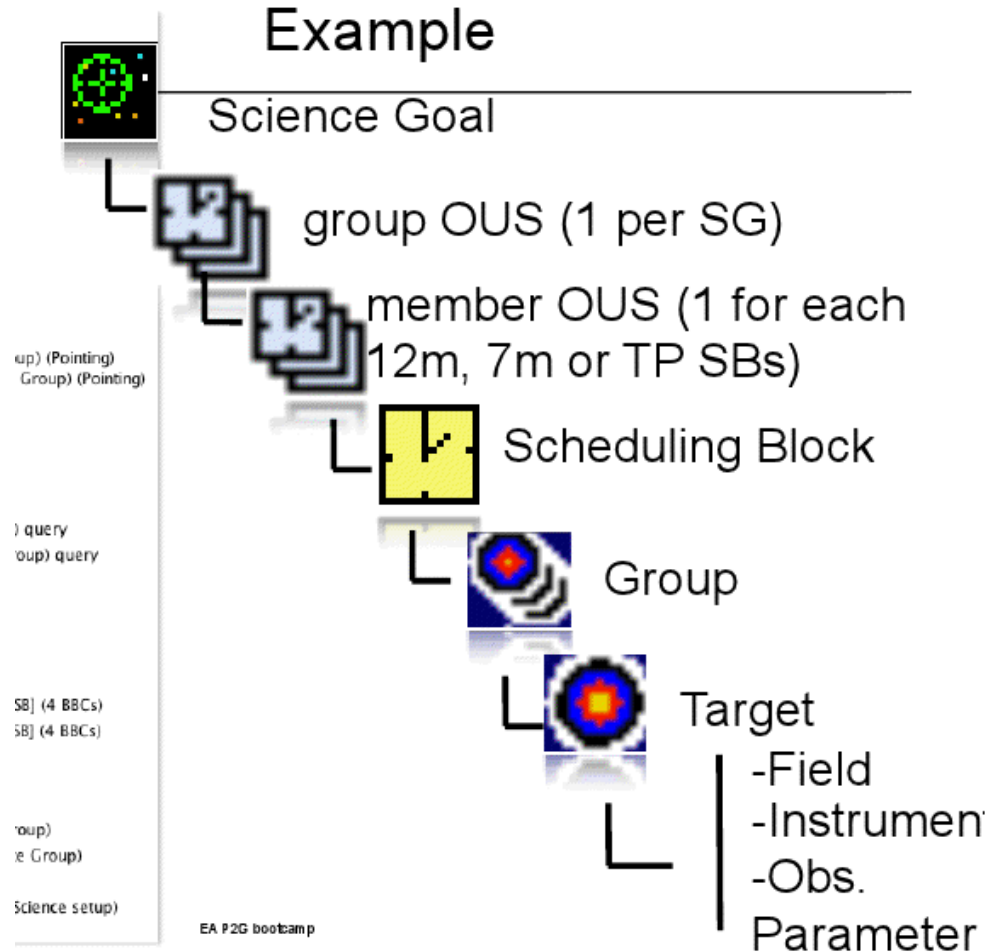
- Batch 1 projects are ready (i.e., Kazushi & Yuji)
- Batch 2 projects will be ready by this weekend (i.e., Yu-Nung and Chin-Fei)
- No assignment after batch 3 at this moment

OT and SSR

- **OT: Observing Tool (Phase 2 Cycle 1 version)**
 - Tool to produce scheduling block
 - Version could change during cycle 1
 - The Scheduling Blocks generated by the Observing Tool (OT) provide the appropriate inputs for the script.
- **SSR (science software requirements code):** interfaces between Scheduling Blocks and the ALMA Control Software.
- P2G and SC will track your observing status using the **Project Tracker (PT)**

Basic structure of Scheduling blocks

Simple Structural Example



- **Project:** whole things (.aot)
- **SG:** Science goal
- **OUS:** ObsUnitSetContainer, structure within project. Used to group SBs together
- **SB:** Scheduling block, 12m, 7m, TP obs. will be in separated SBs
- **Group:** Allow targets to be grouped together within a project in necessary ways (e.g. calibrators, science)
- **Target:** Not an astronomical object! Contain field source, Instrument Setup (Spectral Spec), Observing Parameters (others)

Dynamic queries is now available!

- **Amplitude Calibration:** over 40 degree of elevation for a given SB
- **Bandpass Calibration:** over a radius of 45 degree by default
- **Phase calibration:** over a radius of 15 degree by default
- **AtmCalTargets, SBRatioCalTargets, and Pointing CalTargets** are associated based on infoamraiotn provided from the SB and SSR
- If the procedure fail or other candidates, P2G, CS, PI can suggest other possibilities

Simulation Results

```
SimulationResults.txt
Execution Complete: Elapsed Time 40:23
State: SUCCESS
Message: Successful Completion
Total of: 23 Scans (107 Subscans)

16 Scan Sequences:
Sequence 1 Scans [1]
Sequence 2 Scans [2, 3, 4]
Sequence 3 Scans [5]
Sequence 4 Scans [6, 7]
Sequence 5 Scans [8]
Sequence 6 Scans [9]
Sequence 7 Scans [10, 11]
Sequence 8 Scans [12, 13]
Sequence 9 Scans [14]
Sequence 10 Scans [15]
Sequence 11 Scans [16]
Sequence 12 Scans [17, 18]
Sequence 13 Scans [19, 20]
Sequence 14 Scans [21]
Sequence 15 Scans [22]
Sequence 16 Scans [23]

Scan Summary:
1 0:00 CALIBRATE_POINTING J1625-2527 B6 Pointing Setup 5 Subscans
CALIBRATE_WVR
2 0:50 CALIBRATE_SIDEHAND_RATIO J1625-2527 Thu Feb 21 09:45:00 2013 1361439900.991861 2 Subscans
CALIBRATE_WVR
3 1:50 CALIBRATE_ATMOSPHERE J1625-2527 Thu Feb 21 09:45:00 2013 1361439900.991861 3 Subscans
CALIBRATE_WVR
4 1:56 CALIBRATE_BANDPASS J1625-2527 RestCont(345.0 GHz) Science setup 10 Subscans
CALIBRATE_WVR
5 6:59 CALIBRATE_POINTING J2337-0230 B6 Pointing Setup 5 Subscans
CALIBRATE_WVR
6 7:49 CALIBRATE_ATMOSPHERE Pallas Thu Feb 21 09:45:00 2013 1361439900.991861 3 Subscans
CALIBRATE_WVR
7 7:55 CALIBRATE_AMPLI Pallas RestCont(345.0 GHz) Science setup 5 Subscans
CALIBRATE_WVR
8 10:26 CALIBRATE_POINTING J1625-2527 B6 Pointing Setup 5 Subscans
CALIBRATE_WVR
9 11:16 CALIBRATE_PHASE J1625-2527 RestCont(345.0 GHz) Science setup 3 Subscans
CALIBRATE_WVR
10 12:47 CALIBRATE_ATMOSPHERE J1625-2527 Thu Feb 21 09:45:00 2013 1361439900.991861 3 Subscans
CALIBRATE_WVR
11 12:53 CALIBRATE_DELAY J1625-2527 RestCont(345.0 GHz) Science setup 3 Subscans
CALIBRATE_WVR
12 14:24 CALIBRATE_ATMOSPHERE ISO-0ph_102 Thu Feb 21 09:45:00 2013 1361439900.991861 3 Subscans
CALIBRATE_WVR
13 14:29 OBSERVE_TARGET ISO-0ph_102 RestCont(345.0 GHz) Science setup 11 Subscans
14 20:02 CALIBRATE_PHASE J1625-2527 RestCont(345.0 GHz) Science setup 3 Subscans
CALIBRATE_WVR
15 21:33 OBSERVE_TARGET ISO-0ph_102 RestCont(345.0 GHz) Science setup 13 Subscans
16 28:06 CALIBRATE_PHASE J1625-2527 RestCont(345.0 GHz) Science setup 3 Subscans
CALIBRATE_WVR
```

- PI will receive this simulation results (detailes will be in next talks)
- If there are changes PI can contact to CS → P2G