



The WEAVE Observatory Control System



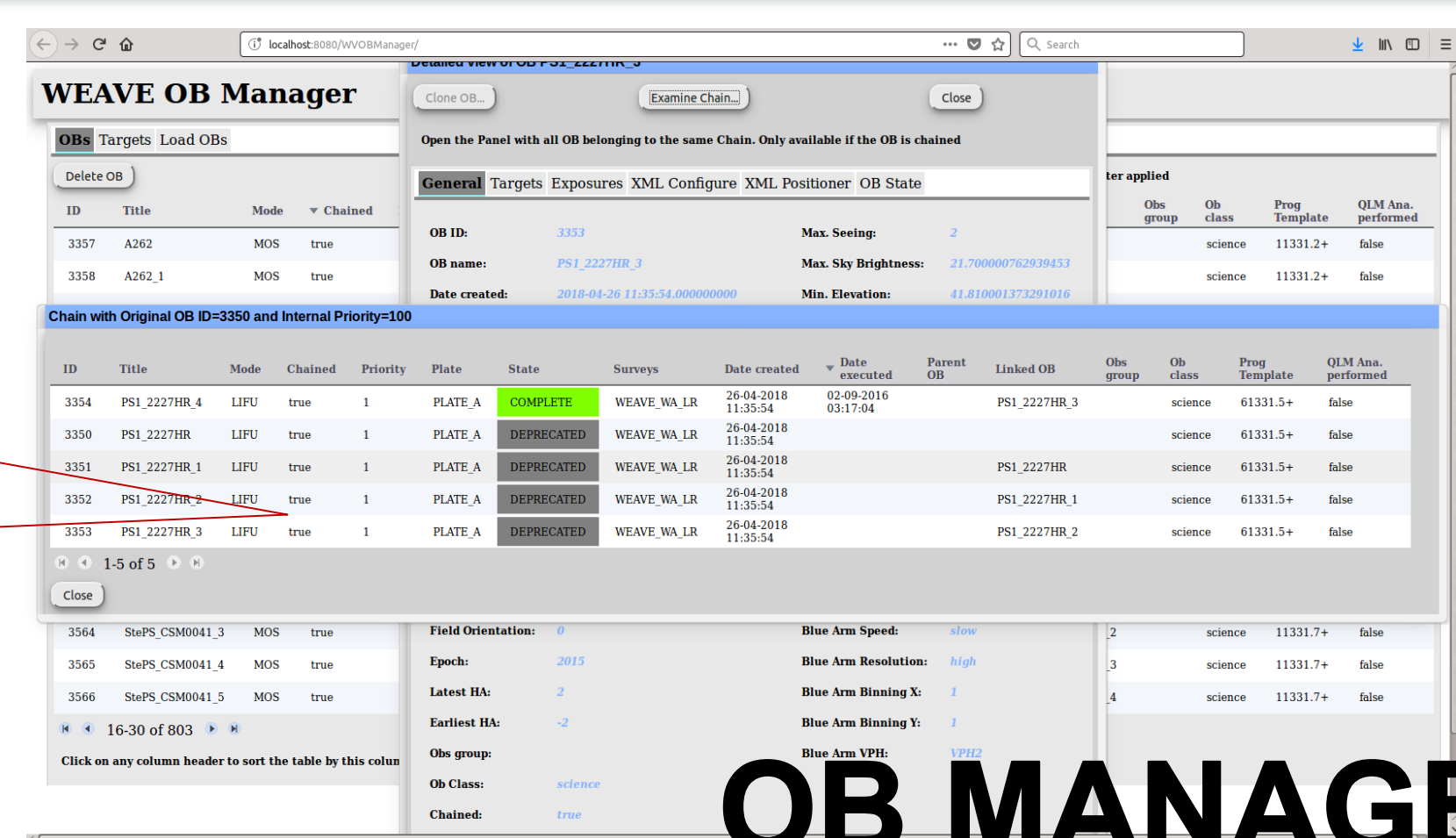
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The Observatory Control System (OCS) is responsible for providing the software control and feedback framework through which WEAVE will be operated. It is built upon the existing software infrastructure in place at the **William Herschel Telescope**, the Instrument Control System (ICS), adding scheduling and sequencing capabilities. All the information related with a WEAVE observation is grouped in an entity denominated **Observing Block (OB)**.

The OB Manager is responsible for building and managing the OBs (The OBs are created from the field definitions provided by the Survey working Group)



OB MANAGER

Create/Consult OBs

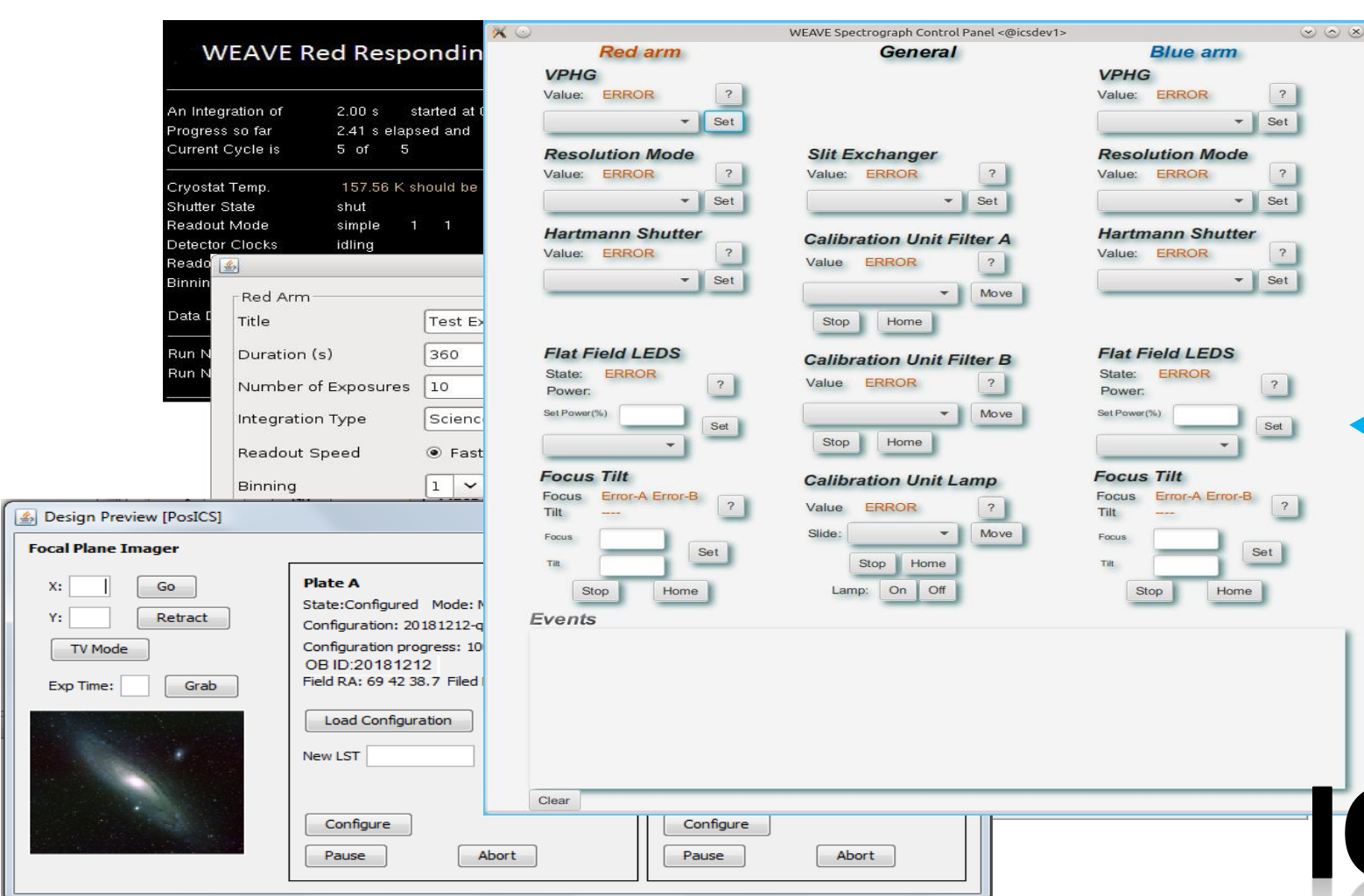
The Observation Queue Scheduler embodies a decision management system which accepts various input constraints and produces a ranked list of candidate OBs to be observed



SCHEDULER

OB to be Executed/Configured

The ICS ensures consistency and robustness in requests, providing an accurate image of the state of the instrument.



ICS

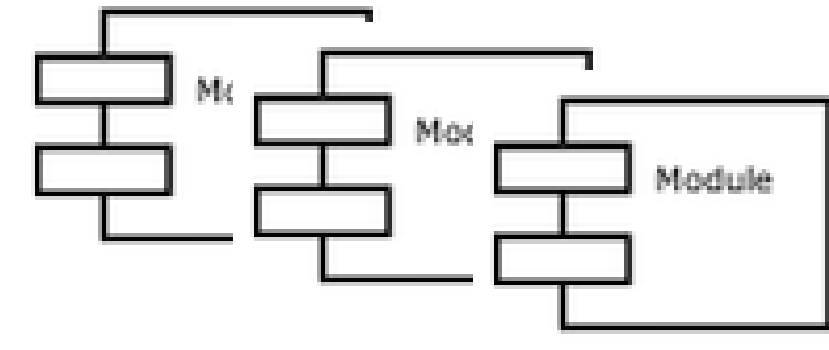
Update status

The OB Database stores all the relevant information related to the definition and execution of the OBs

OB DB

Get OB list

Mechanisms High level servers



Set up Instrument (Spectrograph, Fibre positioner)

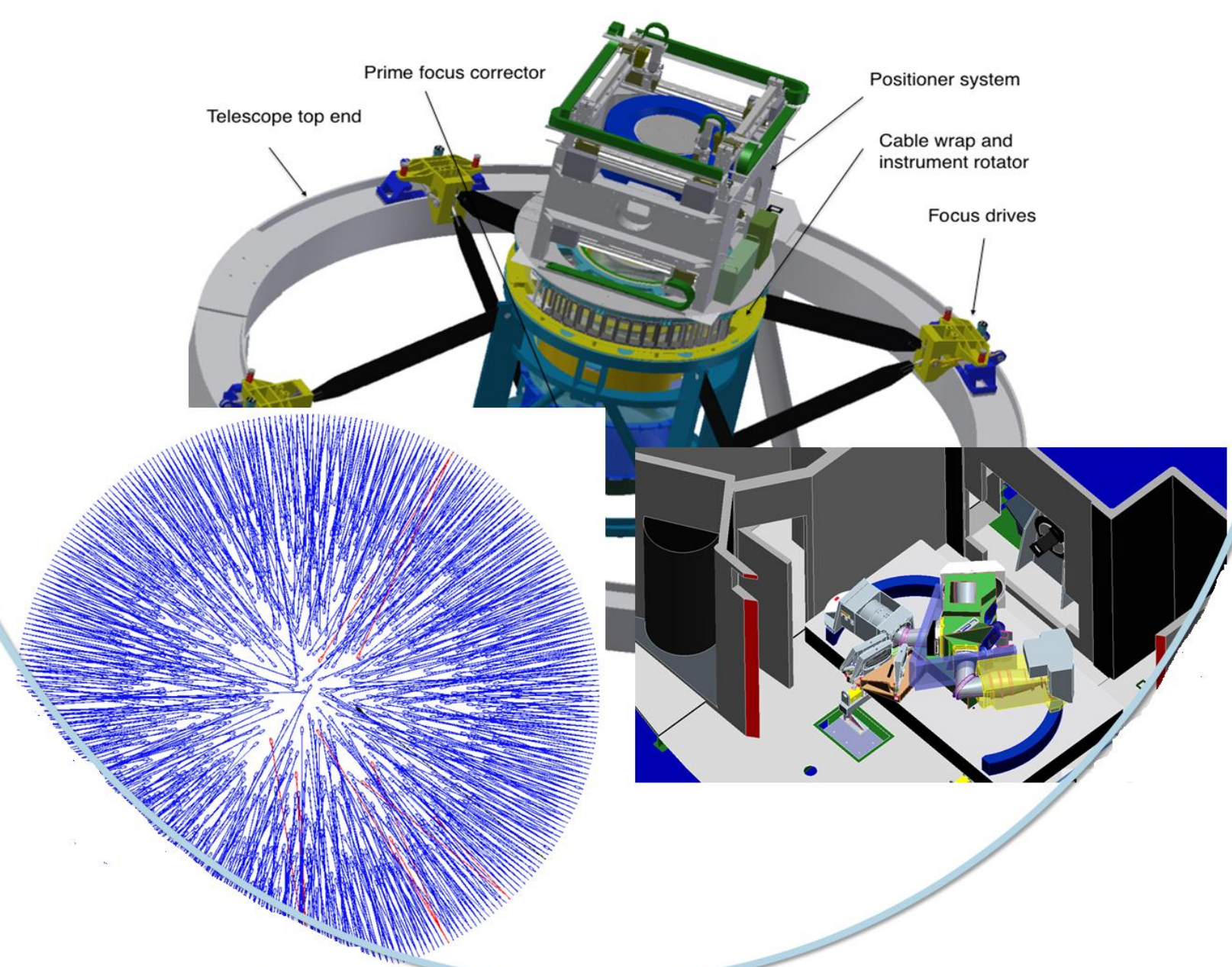
The Sequencer uses the configuration described in the OBs to physically set up the WEAVE instrument and execute the calibration and science integration frames as described within them.

SEQUENCER

Take Exposures

The WEAVE Project

WEAVE is the next-generation spectroscopic facility for the **William Herschel Telescope (WHT)**. WEAVE offers multi-object (1000 fibres) and integral-field spectroscopy at two resolutions ($R \sim 5000, 20000$) over a 2-deg field of view at prime focus.

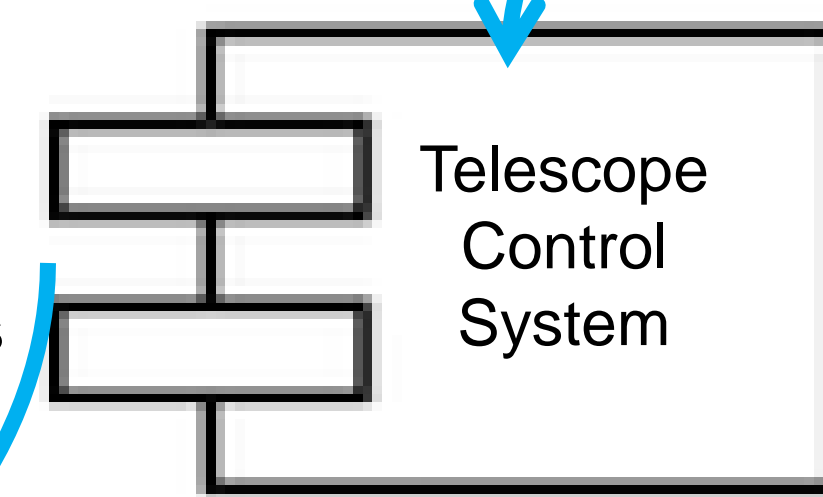


Low level Software controllers



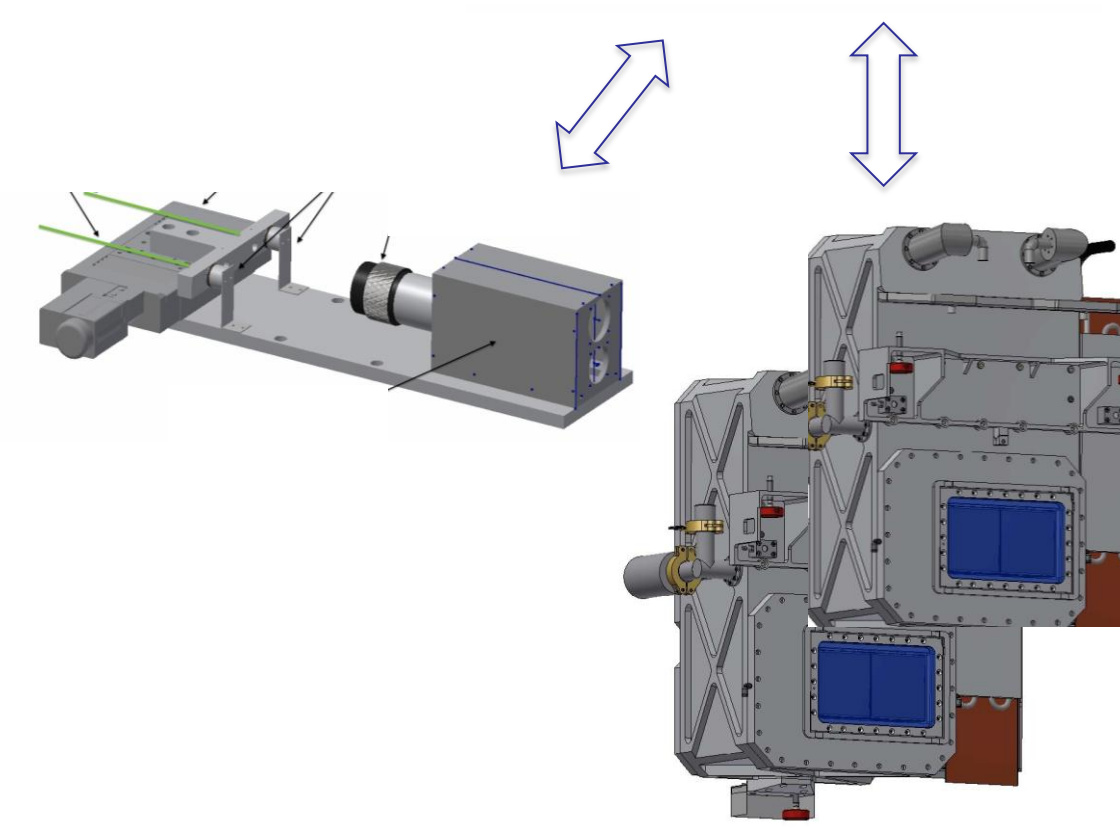
Set up Prime Focus Corrector

Set Pointing/Tracking



Guide

Data acquisition and Auto-Guider systems



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4,2m TELESCOPE



First light: WHT, La Palma. 2019