Fraction Groups

Defining **Fraction Groups** is the first step in the PBS Optimization process within Astroid. Most commonly, a fraction group is simply an arrangement of beams that will be used in a typical daily treatment fraction.

About Fraction Groups

In the Fraction Group the user will put in the total target(s) dose, i.e. simultaneous integrated boost (SIB), as well as the total number of fractions. The user will then further break the into Beam Set groups where beams are assigned to a group and a specific number of fractions.

SFO Beams

I think it might be worth mentioning the difference between making an SFO and IMPT beam in the fraction group (e.g., when a beam is in it's own beamset in the FG, it's SFO. When with other beams in the same beamset, all the beams in the beamset are optimized together). -Daniel

IMPT Optimized Beams

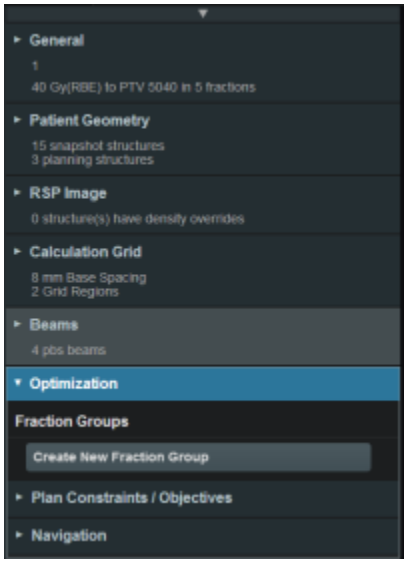
Ssee above -Daniel

Fraction Group Constraints

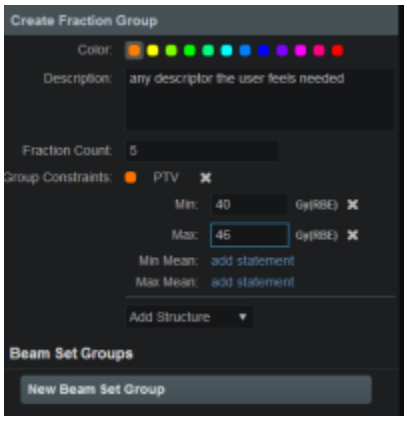
Mention the difference for constraints at the FG level and at the beamset group level. Constraints at the FG level apply to all beams at a whole, where the constraints at the beamset level have their dose values divided by how many beams are in the beam set (Kevin can explain this very well). - Daniel

Working with Fraction Groups

1. Select the Create New Fraction Group button

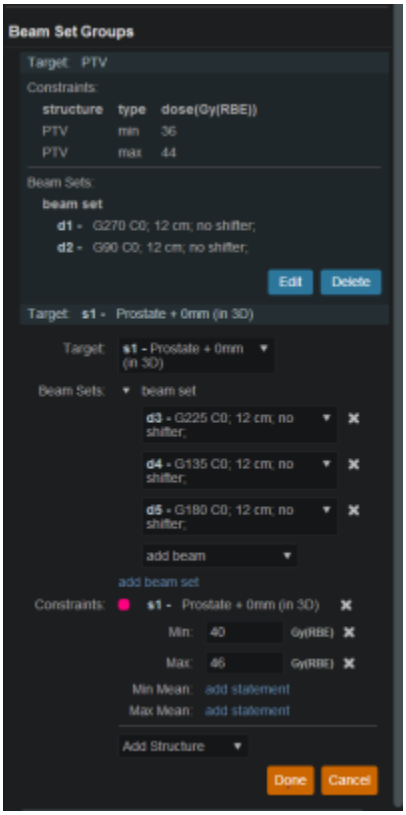


2. In the newly opened block the planner will:
    - choose the color the fraction will be denoted in
    - type in any descriptor that may be needed
    - enter the total number of fractions to be treated
    - enter the group constraints
        - group constraints encompass the whole fraction group



        - there can be more than one target entered at this stage
3. Select New Beam Set Group
    - select the target and create a beam set that will be associated to that that target
    - there may be multiple beam sets associated to a target
    - the constraints chosen at this point will just be associated to the particular beam set

- the user may also have multiple beam set groups associated with multiple targets within a plan



- the user needs to set the constraints for each beam set group. These constraints only apply to the associated beam set group