Creating a PBS Beam

Defining treatment beams will be one of the most important tasks within the Astroid planning system. Defining appropriate beams will require users to use their knowledge and experience to properly select many of the parameters that define a treatment beam. These parameters include the target, geometry (isocenter, gantry and couch angles), beamline devices, air gap, and spot placement options. The Beam task utilizes a series of blocks to organize the beam creation process into a common step-by-step sequence. Several blocks are optional as not all beams will use all features. Additionally, it is important to point out that the treatment room & default spot placement parameters are set outside of the individual beam creation tasks as these apply to all beams (however, spot placement parameters can be overridden within each beam if desired). An example of constructing a lateral beam, with the isocenter at the centroid of the PTV is given below to illustrate the features available when defining a beam.

Fix Me! : below here needs updating to match the description given above.

- 1. From within the *Plan Overview* select the *Beams* block
- 2. Select the treatment room from the drop down then click the blue OK button

Spot Placement Parameters using user values 3. Next select the Spot Placement Parameters. You may either choose to go with the default

Gantry MEV

Cancel

parameters or enter your own parameters

Spot Placement Parameters:				
Lateral Margin:	15	mm		
Distal Margin:	10	mm		
Spot Spacing:	1	Sigma	•	
Layer Spacing:	0.7	Distal W80	•	
			ОК	Cancel

4. Once your Spot Placement Parameters are set the Create New PBS Beam button will become active

▼ Beams	
Treatment Room	Gantry 2 Small Spots
Spot Placement Parameters	using user values
PBS Beams	
Create New PBS B	eam





- 1. Select the intended target
- 2. Select the Isocenter
- 3. Set the gantry angle
- 4. Set the couch angle
- 5. If desired, add an aperture
- 6. Refer to Creating a New Aperture for detailed instruction
- 6. Select the snout size
- 7. If desired, select the range shifter to use based on the ones available for the selected snout
- 8. Set the air gap distance

Create PBS Beam				
 General 				
Color:				
Label:				
	× automatically generate label			
Target:	•			
Description:				
► Approach none				
► Snout	none			
► Aperture	none			
► Shifter	none			
► Air Gap	30 mm			
 Spot Place 	cement using plan settings			
Proton D	RR Options			

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