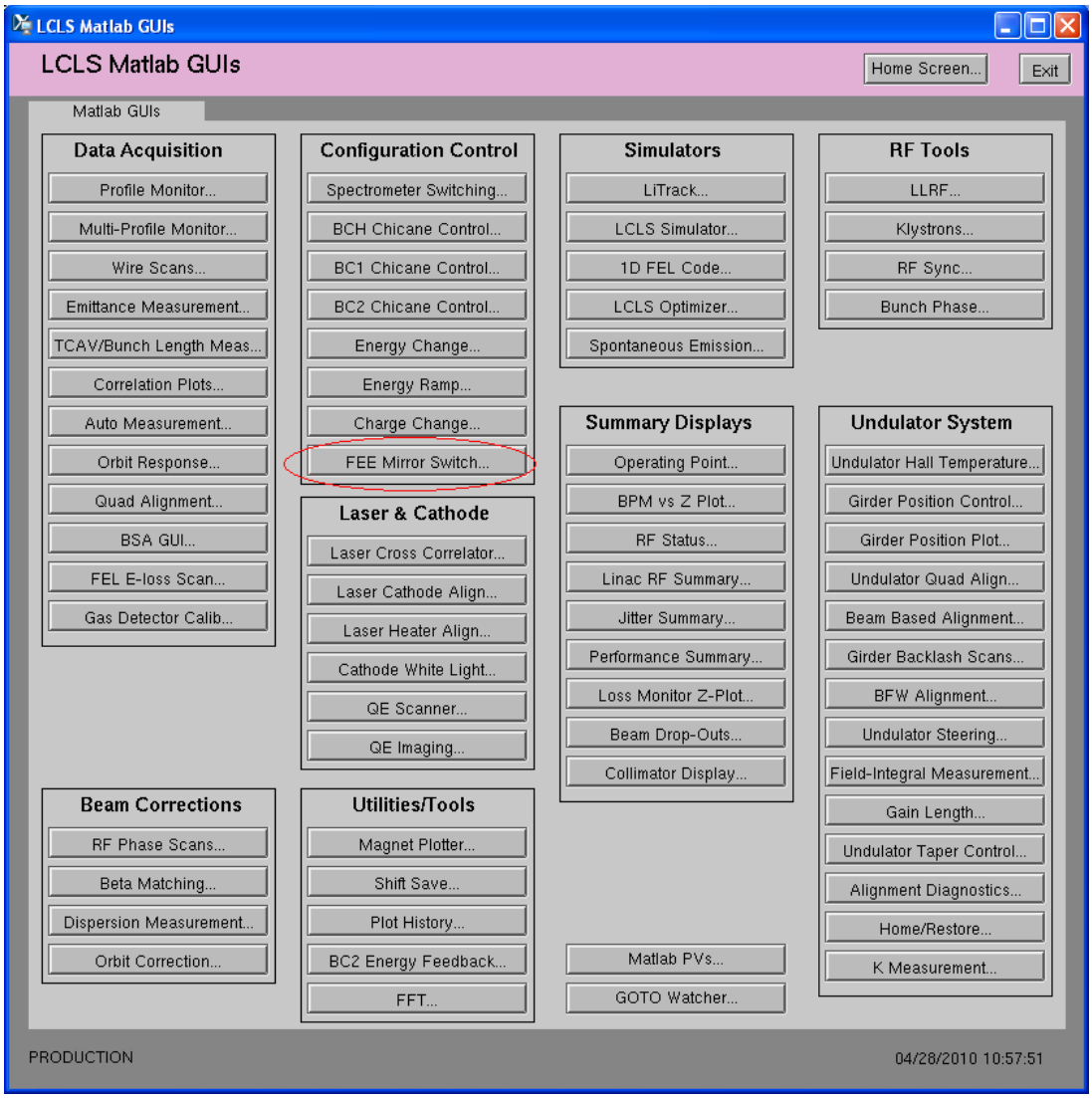
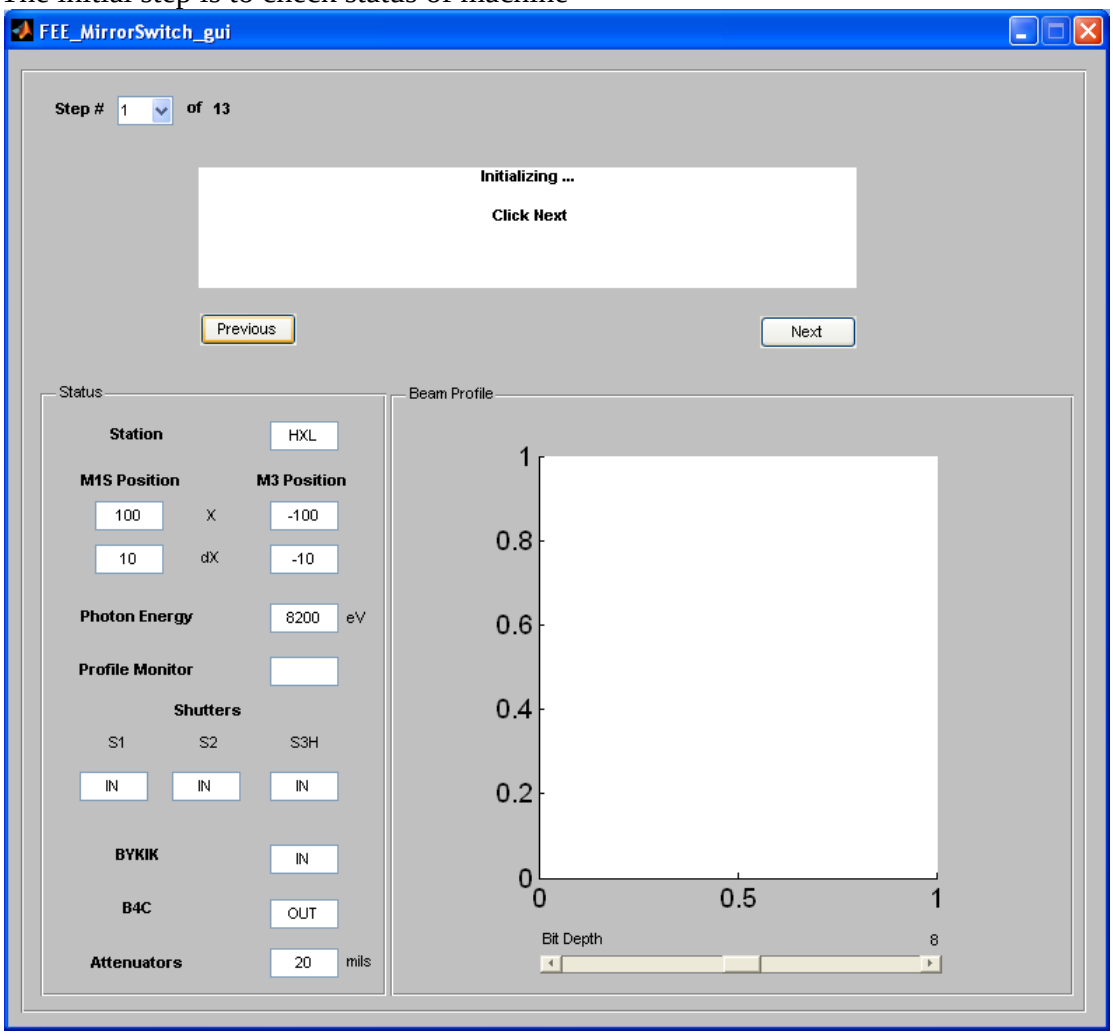
FEE Mirror Switching GUI

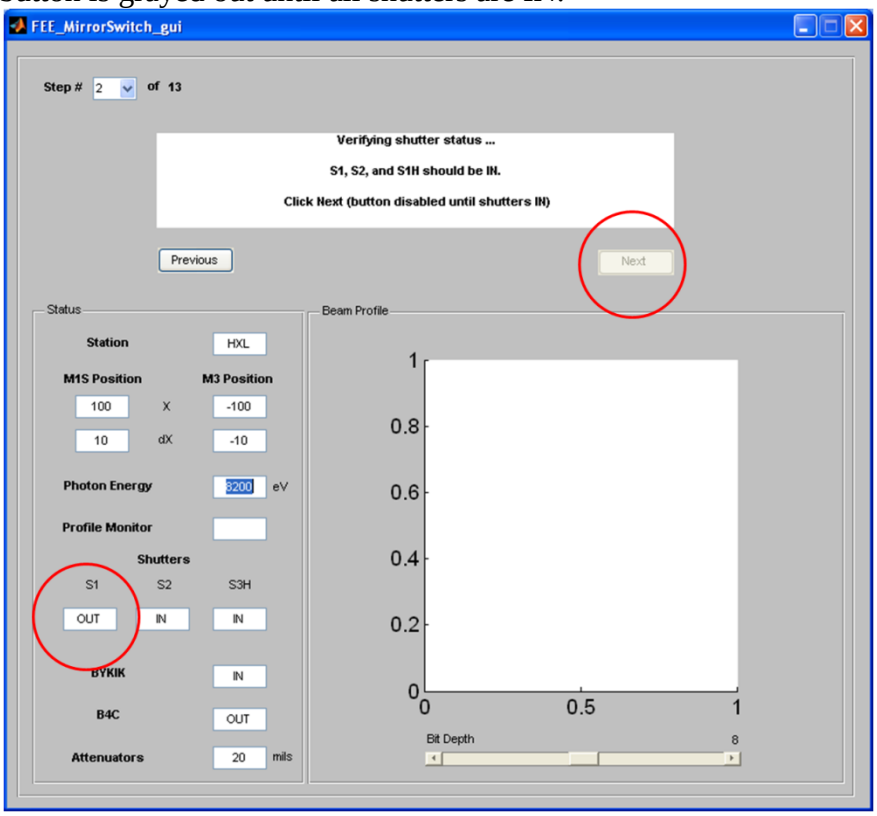
1. After putting shutters S1, S2, and S3H in, launch the GUI from the LCLS Matlab GUIs page:

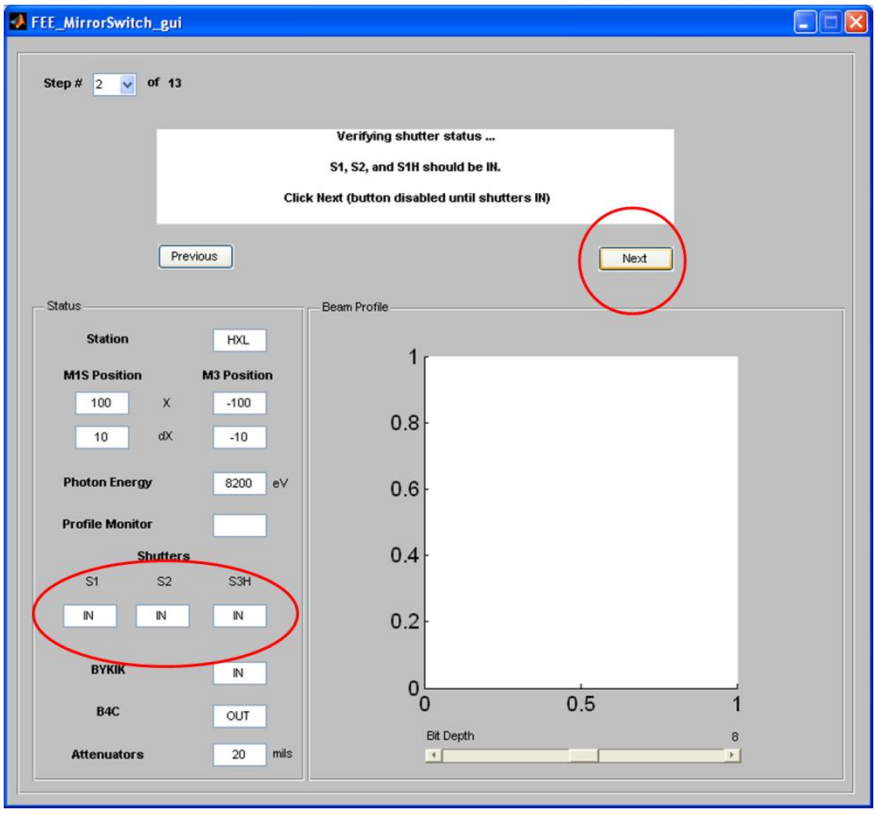


2. The initial step is to check status of machine

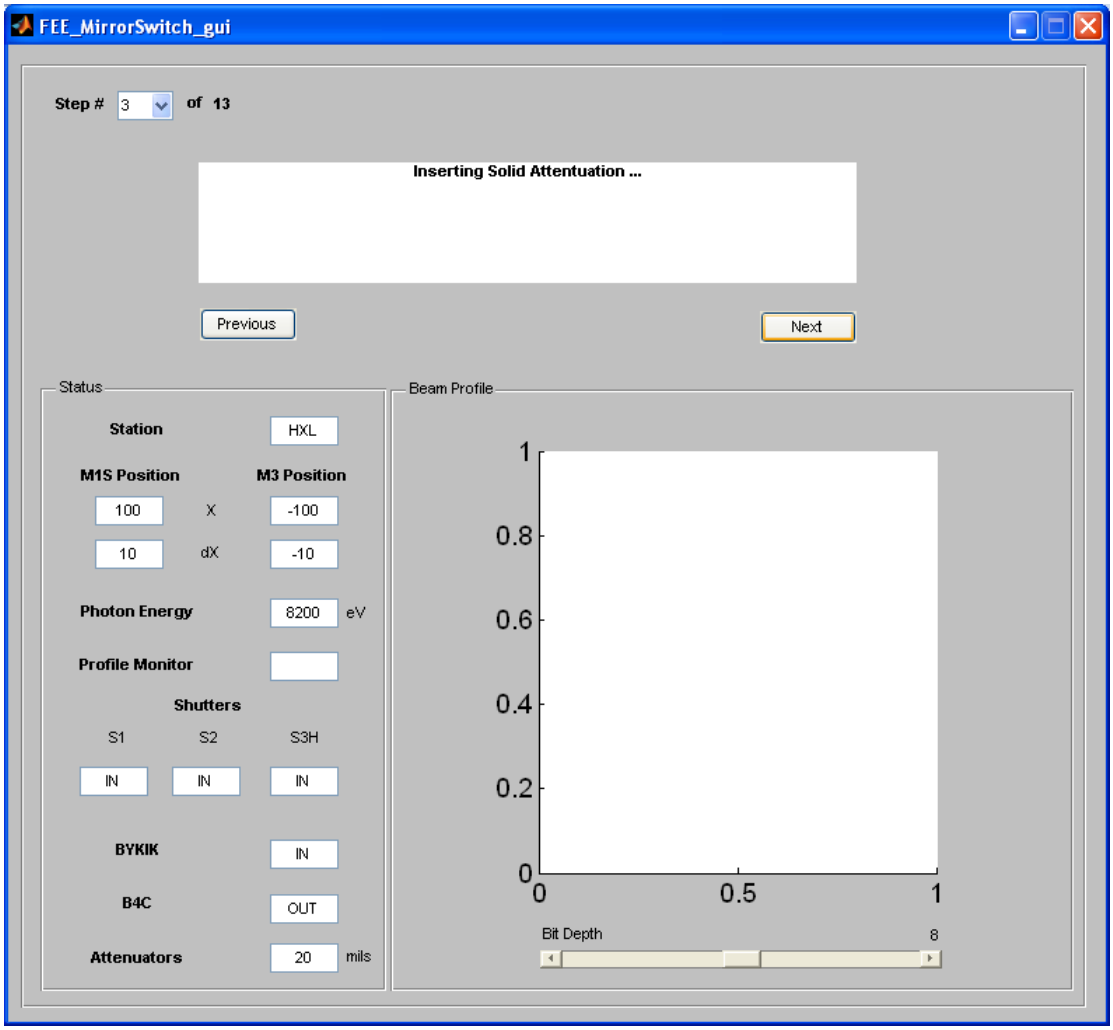


3. GUI then verifies status of shutters. If any of the 3 shutters is OUT, the Next button is grayed out until all shutters are IN.

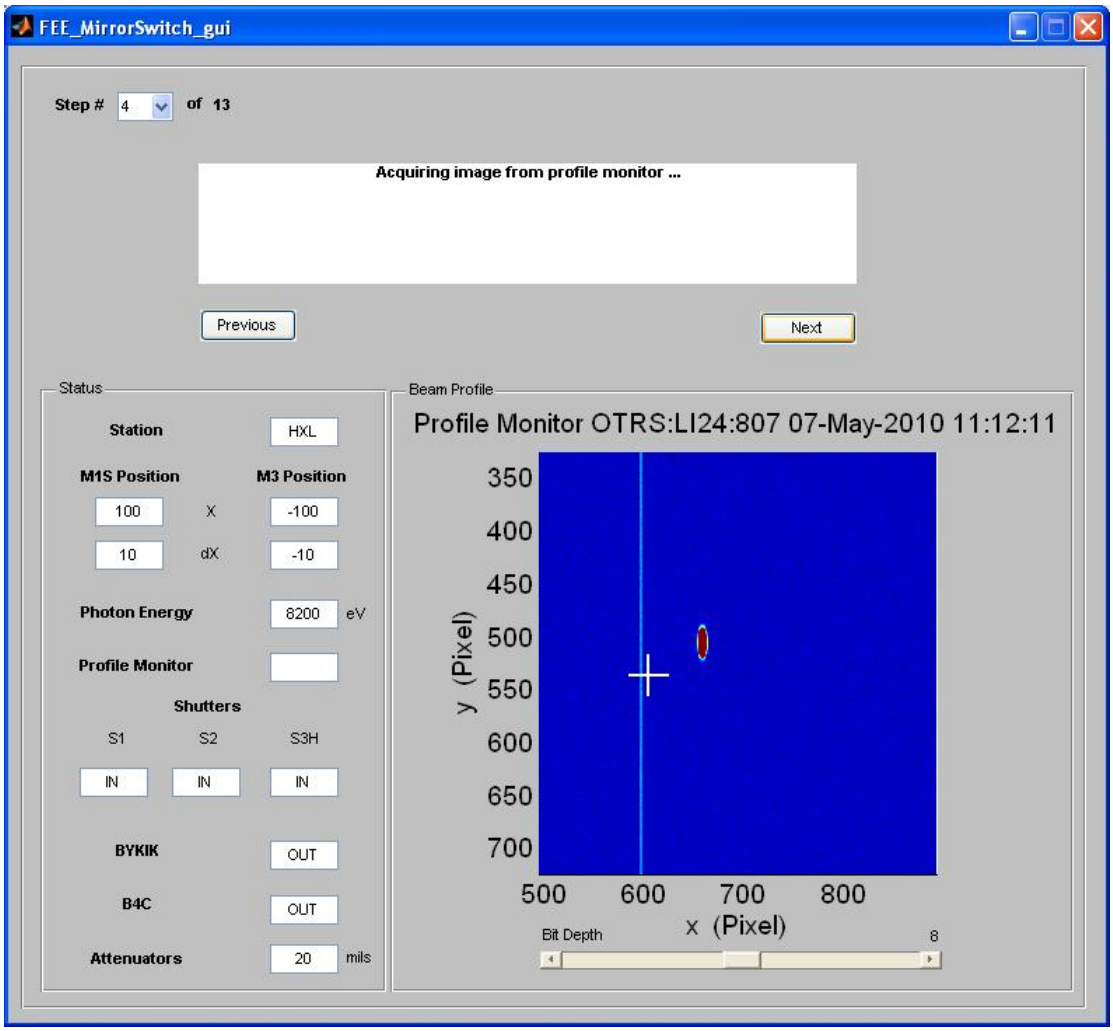




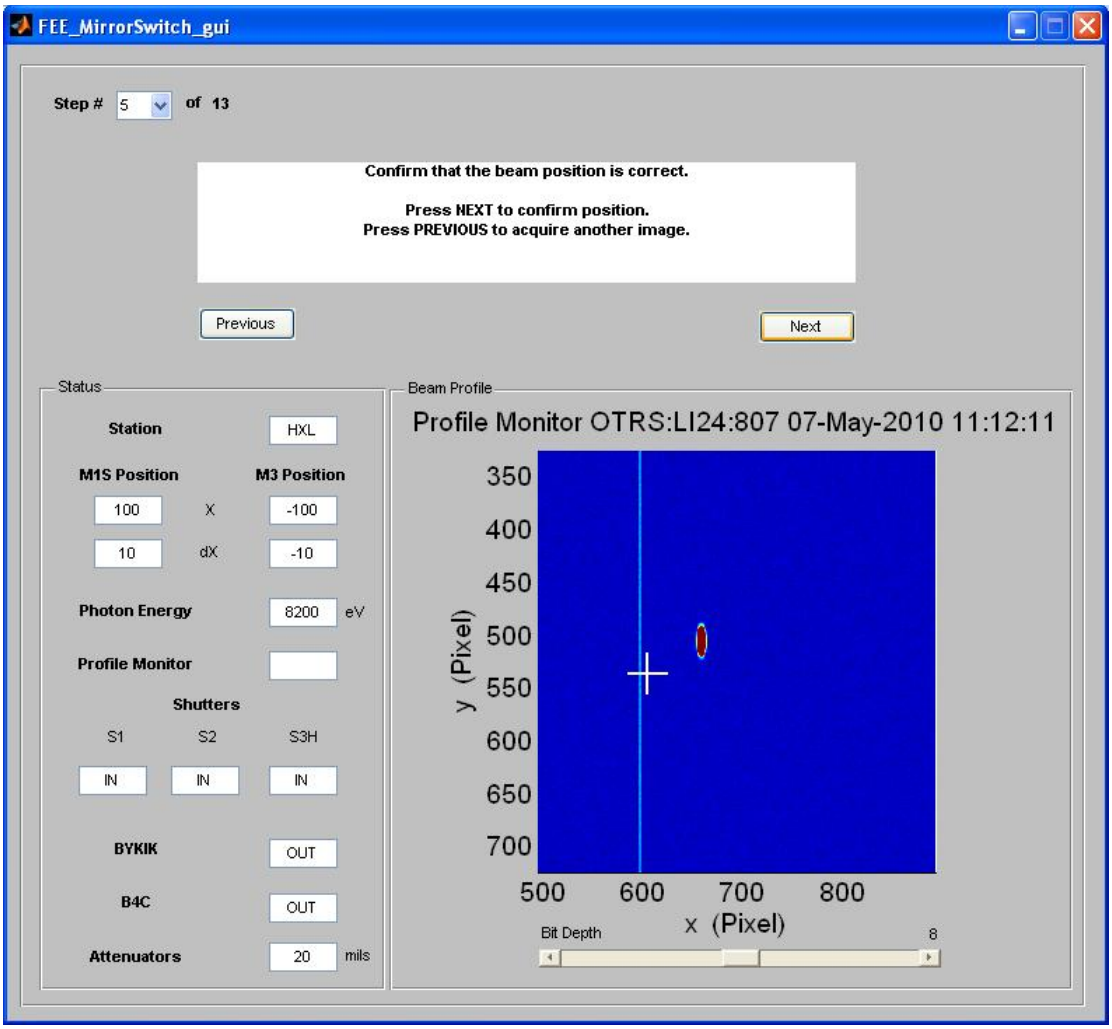
4. Based on the photon energy, the amount of solid attenuation required is calculated and the correct number of solid attenuators inserted.



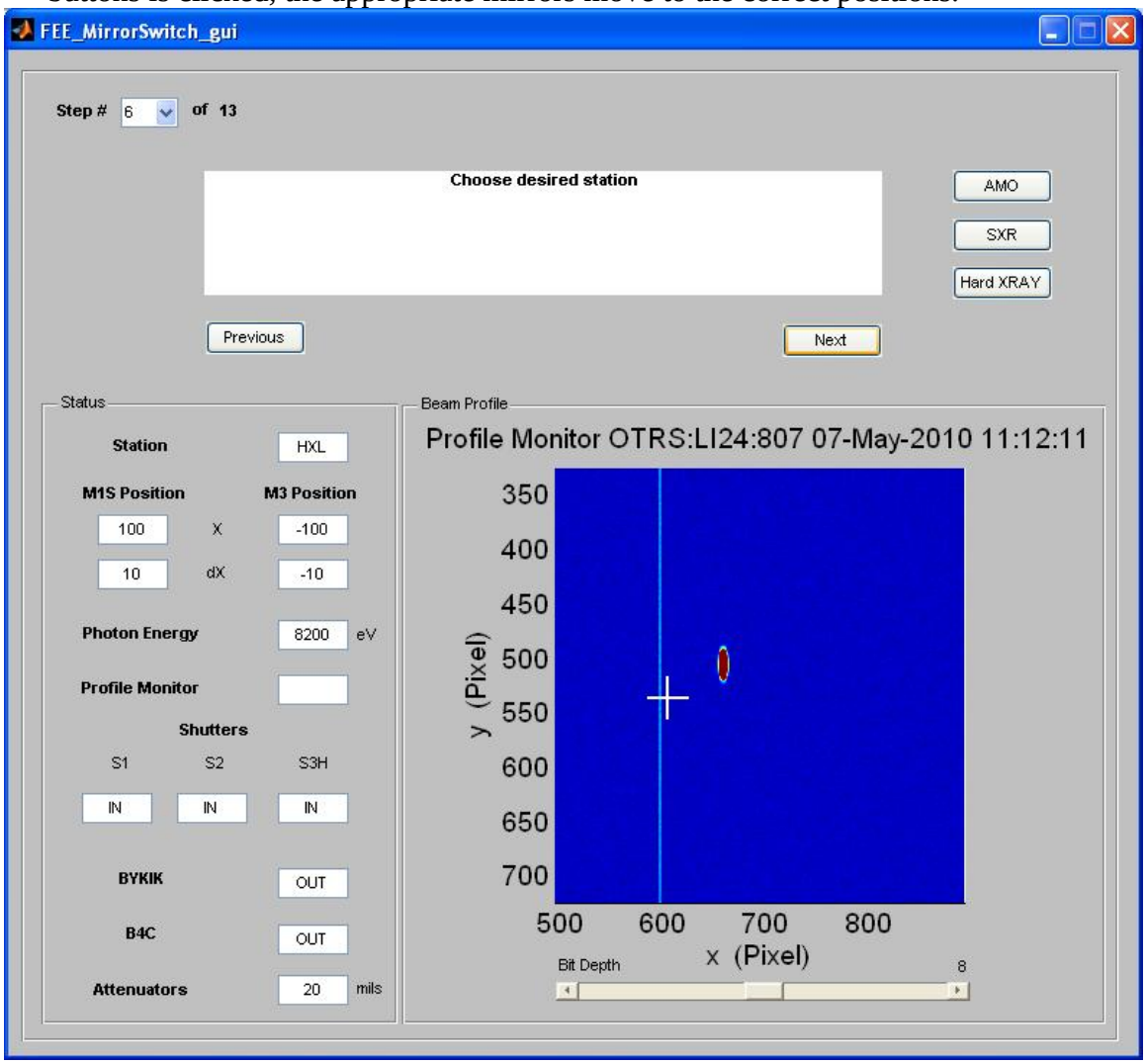
5. The correct profile monitor is inserted, an image is acquired, and displayed in the GUI window along with crosshairs indicating the saved reference position of the beam



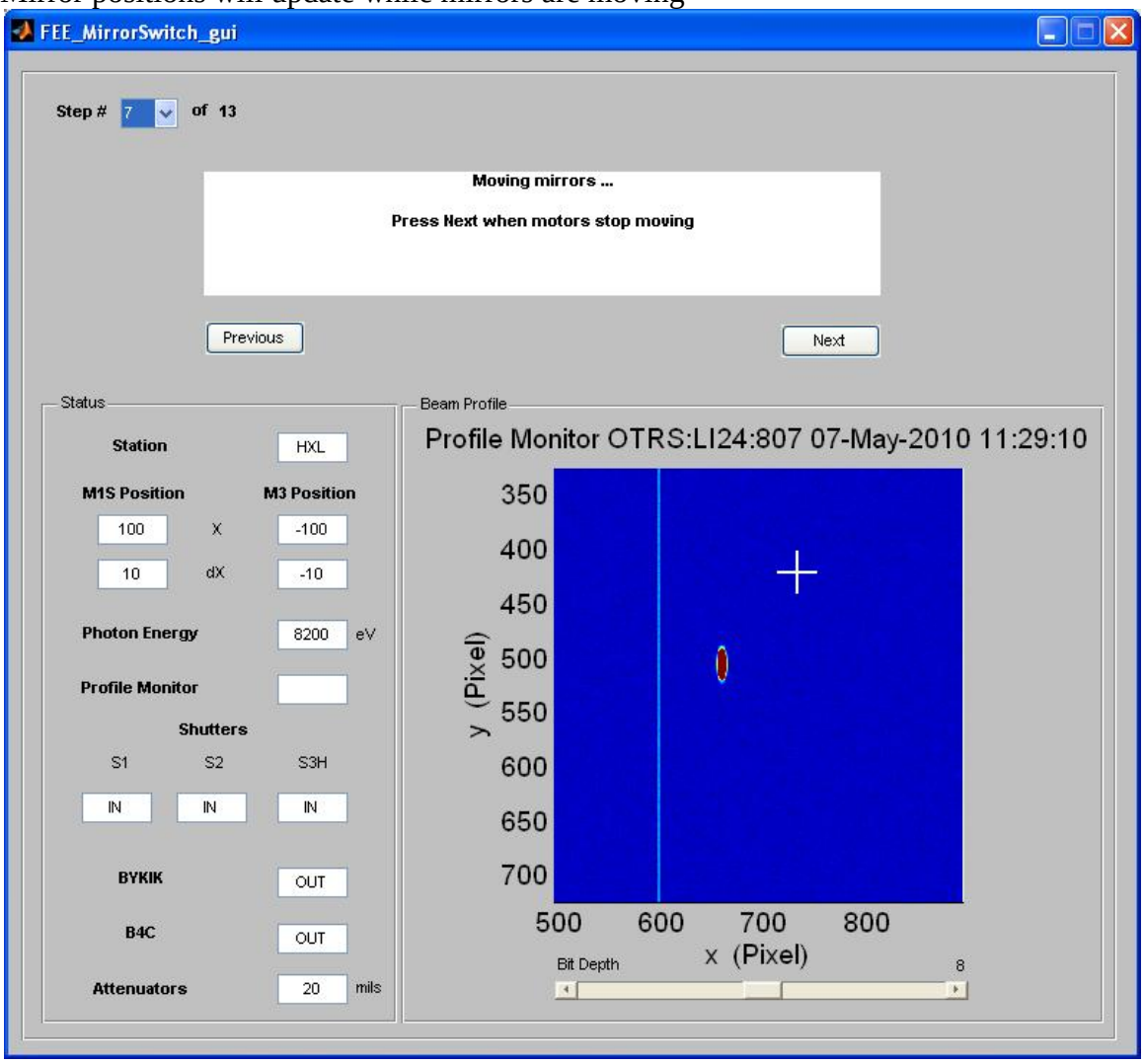
6. The operator is prompted to confirm that the beam position is correct. If it is not, they must determine the cause of the error and correct it. Once corrected, they can click Previous to acquire an updated image. When the beam position is confirmed, click Next to save the image in the LCLS log.



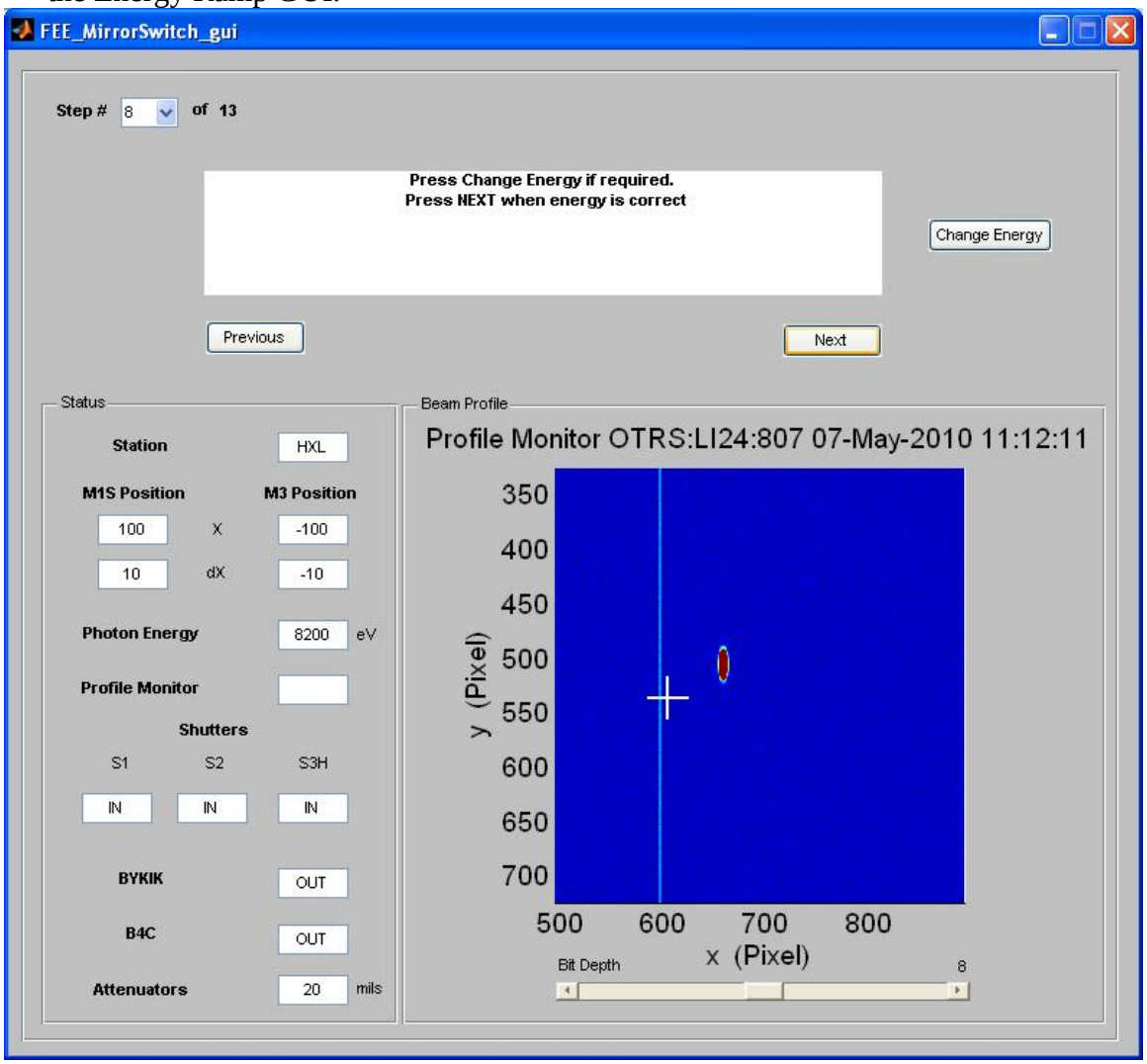
7. Operator is prompted to select one of three possible stations. Once one of the buttons is clicked, the appropriate mirrors move to the correct positions.



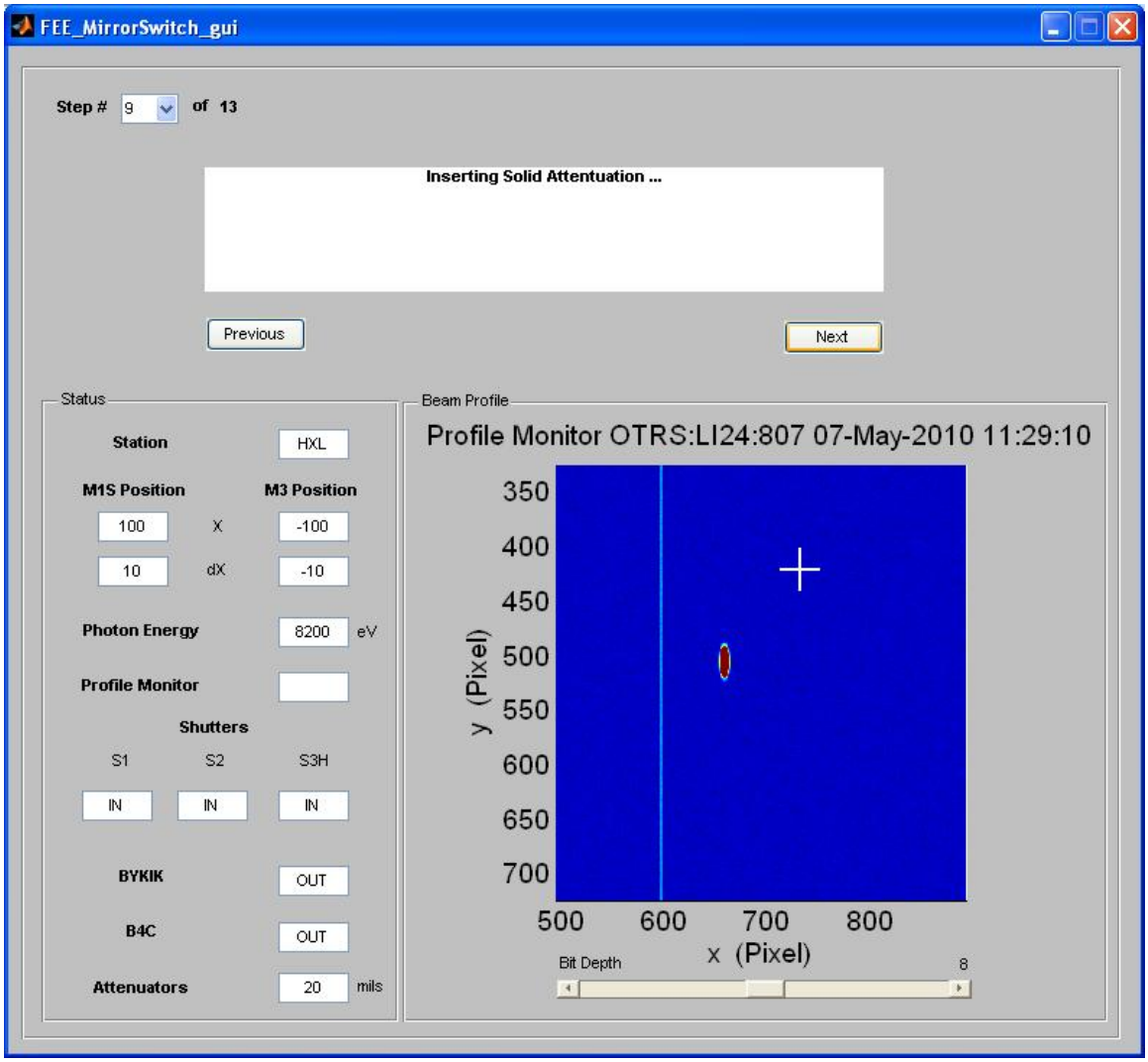
8. Mirror positions will update while mirrors are moving



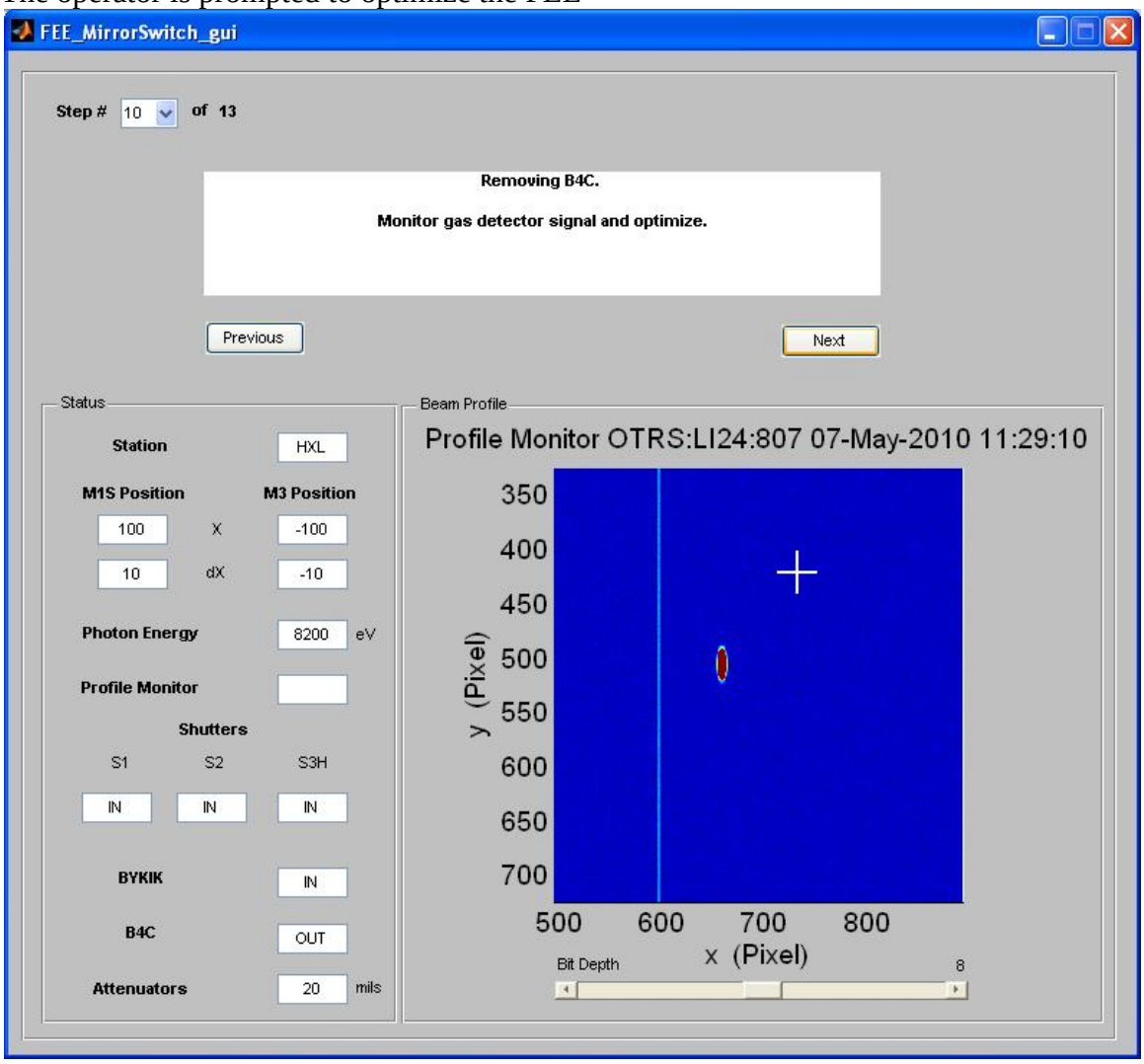
9. If an energy change is required, click on the Change Energy button will launch the Energy Ramp GUI.



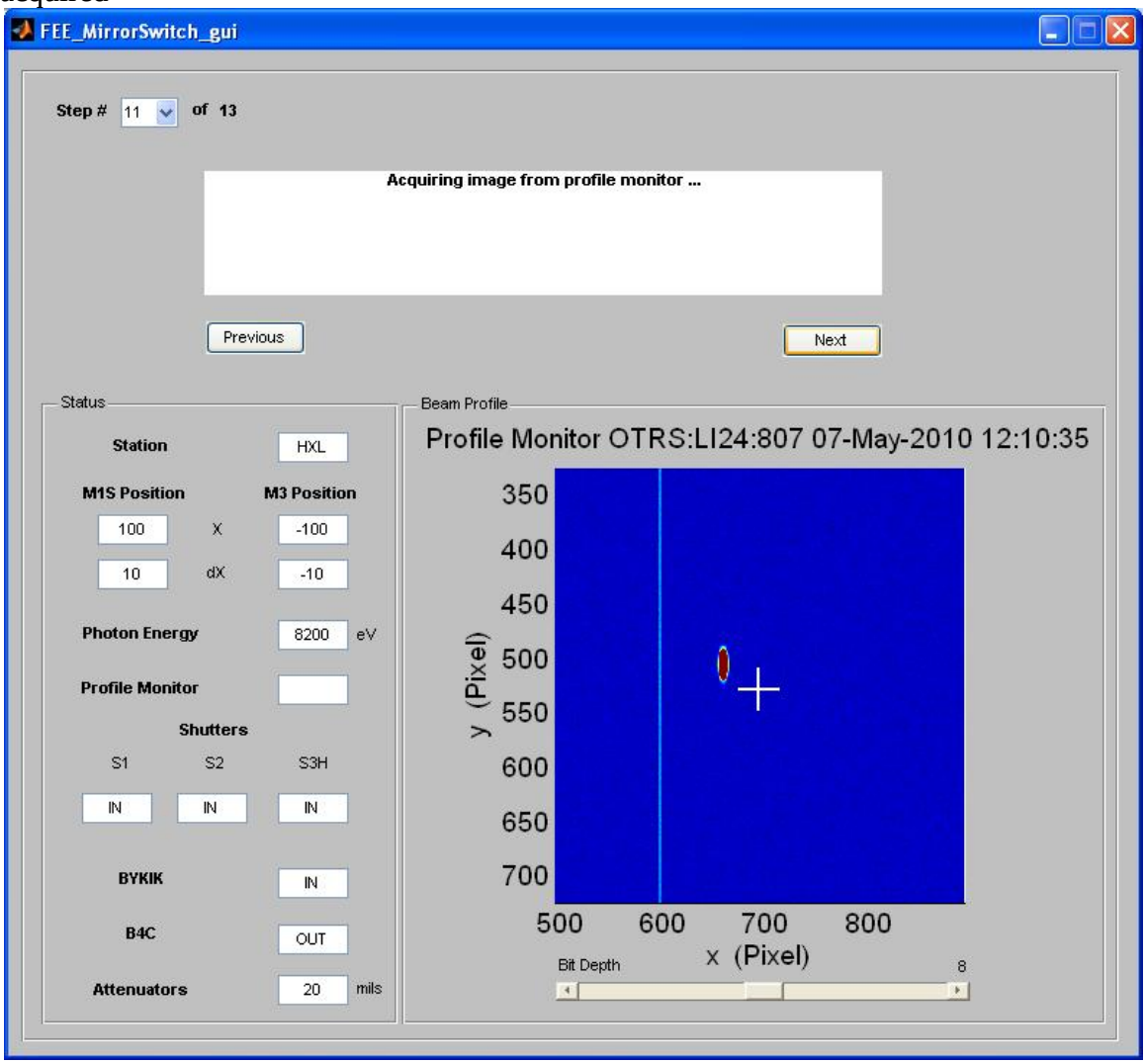
10. Based on the new energy, the correct amount of solid attenuation is calculated and inserted



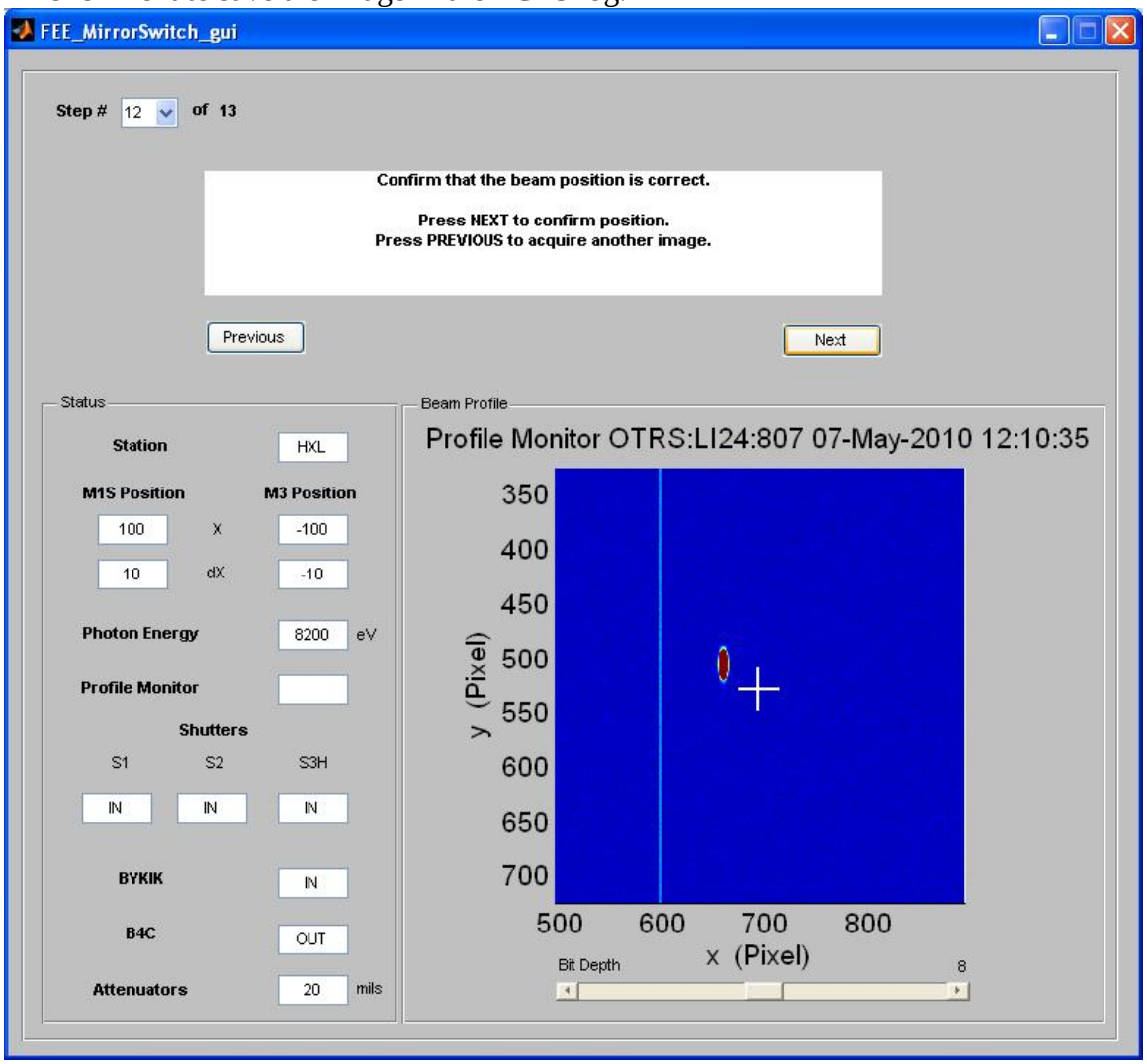
11. The operator is prompted to optimize the FEL



12. The correct profile monitor is inserted for the new station and an image is acquired



13. The operator is prompted to confirm that the beam position is correct. If it is not, they must determine the cause of the error and correct it. Once corrected, they can click Previous to acquire an updated image. When the beam position is confirmed, click Next to save the image in the LCLS log.



14. The procedure is complete