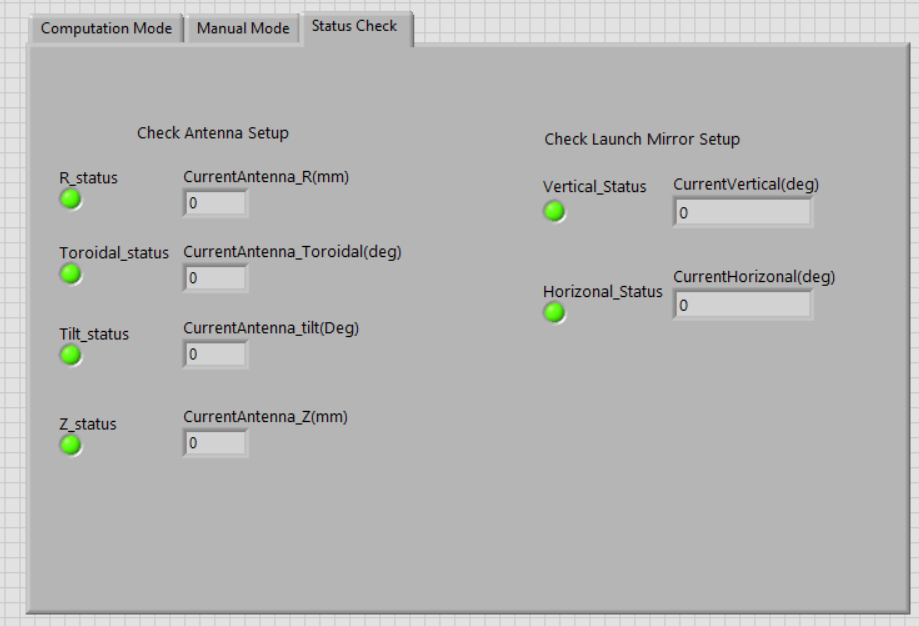
Hi professor

This week I try to add the statue check function into our control program. After talking with Yilun on zoom we both feel it is important to add a checking status page on the side of control program to display all motors current position. However, the progress is not going fluently. After modifying the program, I found that the computer became very sluggish, I will figure out the reason and work with Jon, maybe change the structure of the program or other method.



Besides, I am also going to combine the ray-tracing code with polarization analysis, I will write word about how to achieve that in the next week. and if time allow I will give some real polarization analysis. Yilun give me some example to try, like the polarization of DBS in BEST tokamak , I also going to simulate the one-dimensional full wave analysis using follow equations:

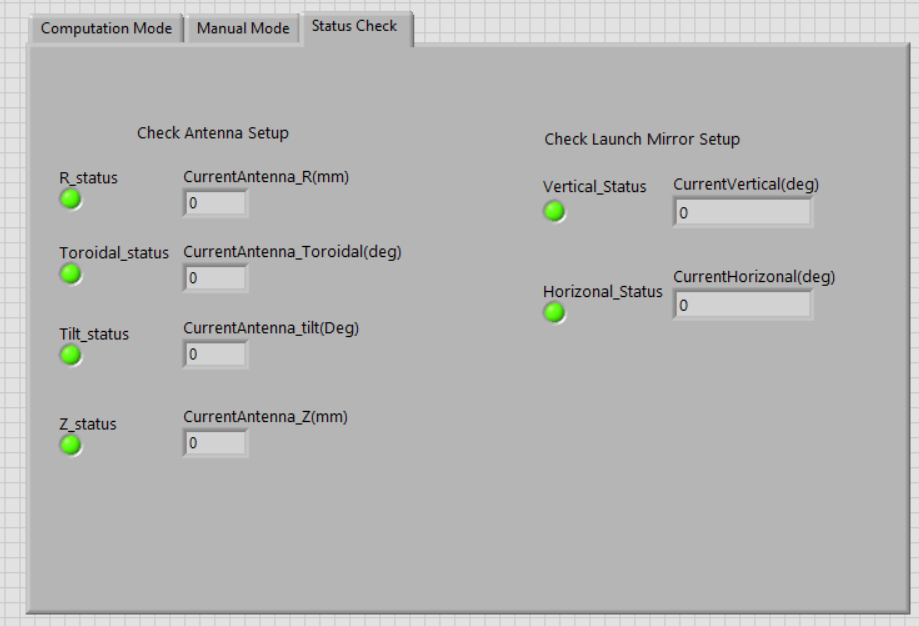
A group of math equations

Description automatically generated

This equation can help us to simulate wave package propagation in the plasma, while cold plasma dielectric tensor only can be used in one frequency wave simulation

GPT

This week, I tried to add the status check function to our control program. After discussing it with Yilun on Zoom, we both agreed that it is important to include a status checking page on the side of the control program to display the current positions of all motors. However, progress has not been smooth. After modifying the program, I noticed that the computer became very sluggish. I will figure out the reason and work with Jon to address this, possibly by changing the program's structure.



Additionally, I am planning to combine the ray-tracing code with polarization analysis. I will give a word about how to achieve that next week, and if everything goes well, I will perform some real polarization analysis. Yilun gave me some examples to try, such as the polarization of DBS in the BEST tokamak. I am also going to simulate the one-dimensional full-wave analysis using the following equations:

A group of math equations

Description automatically generated

This equation can help us simulate wave packet propagation in the plasma, while the cold plasma dielectric tensor can only be used for single-frequency wave simulations.