

**Vision:**

The vision, or problem to be solved remains the same - my goal is to create a type system which forces correct transformations between 3D spaces (Such as World, Object, Model). Previously I described the idea of using a Tag and Function system. I've transitioned to a more tag focused approach. For now I will focus only on getting tags to work properly, without transformation between tags. For example a vector tagged as "space, world" and "system, cartesian" can only be added with another vector with the same tags.

**Summary of progress:**

I've worked out the functionality of the tag system and how to implement it. I repurposed the homework 6 type system, and have it running, however I have yet to finish rewriting the AST, check, and eval files to support tags and vectors.

**Activity breakdown:**

I am working alone for this assignment.

**Productivity analysis:**

I accomplished enough in terms of redesigning the system, which was a goal for Alpha. However I would have liked to get more of the AST and type checker base code done. I do think the start was difficult, and with setup out of the way the rest should go more smoothly.

**Grade:**

I would rate myself as Satisfactory or Good. I think there was more that I could have accomplished in this time frame. However I am satisfied with the amount of baseline work, especially on the theory and system design side that I did, and I think this has set me up well to be on target for Beta.

**Goals for next phase:** Set three goals for the Beta phase, corresponding to what you believe would constitute Satisfactory, Good, and Excellent scope for that sprint. (You may omit this section in your final report.)

Satisfactory: Implement vectors & tag systems. Have one or two examples.

Good: Implement the vector & tag systems. Implement type checking.

Excellent: Implement the vector & tag systems. Implement type checking with expressive results (information on each type error). Start implementing tag transformation functions and their type checker.