| [2025-02-16] |  | Project Status Report |
| --- | --- | --- |
|  |  |  |

# Snapshot of Project Activities

| Activity | % Complete | Issues |
| --- | --- | --- |
| C++ Shader Management Subsystem | 100 | None |
| C++ Math Library | 55 | On track to finish Quaternion rotation and composed rotations early next week, concerned that algorithms to align to an arbitrary point may prove more challenging than expected |
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# Status Summary

| Hot reloading of shaders via user-input was implemented early this week, wrapping up development on the Shader Management Subsystem. Progress on the math library is steady, and linear algebra research has been proceeding at the rate necessary to stay on schedule so far. |
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# Risks Identified / Plan to Mitigate

| I’m a bit concerned about my research on algorithms to align an object to an arbitrary, yet valid, set of angles on the unit circle. It’s obviously possible, but on a cursory search it seems likely that math will be harder to digest while simultaneously implementing code. Worst case, I can compress development of my mid-state Shaders, or possibly even remove them from the plan entirely - as I learn more about the problem space, it seems less likely that I will need a full, scheduled step between the debug shaders and my final shader implementation. |
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# Weekly Timesheet

| **Activity** | **Actual Hours Worked** | | | | | | | | **Estimated** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Mon** | **Tues** | **Wed** | **Thu** | **Fri** | **Sat** | **Sun** | **TOTAL** | **Hours** | **Date** |
| **Remaining** | **Complete** |
| C++ Shader Management Subsystem |  |  | 1.3 |  |  |  |  | 1.3 | 0 | 2/14 |
| C++ Math Library |  |  |  |  | 1.1 | 3.5 | 4.1 | 8.7 | 12 | - |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
|  |  |  |  |  |  |  |  | 0.00 |  |  |
| **Totals:** | **0.00** | **0.00** | **1.3** | **0.00** | **1.1** | **3.5** | **4.1** | **10.00** |  |  |