4 Jun, 2018

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**Progress Report – 1 May 2018 – 31 May 2018**

Contract Number: HSHQDC-06-D-00022

Contract Number 7500097279

Order Number: HSCG23-07-J-TED150

Task Order – Performance Work Statement (PWS) 1.12

Attachments: (1) SAROPS subcontractor financial reports.

1. **Lots of Sprints and Points meetings.**
2. **Looked into ArcMap crash problem. This is entirely non-repeatable, and it is not clear that it is crashing inside of my code. However, I am looking into how to put exception catching into the JNI code.**
3. **Looked into rivers code, and set up some rivers cases. Apparently, my code was working fine, but I had to investigate.**
4. **Another rivers problem *was* my issue, and it has been there since we implemented rivers cases. Constant currents in a river cause a crash. I fixed it and got my test case to run. I have not heard of additional problems.**
5. **Moved to Netcdf4. This required some code change, but the real challenge was to update the code to get rid of deprecation errors, and bundle a new library in the installer. I also cleared out reliance on the logback java library within my own code, so that netcdf’s logging backend framework would be the only one, thereby resolving conflicts with log4j. This was kind of a messy uplift.**
6. **Worked with Art Allen on some sailboat parameters.**
7. **My sailboat voyage was accepted. I have doubts about the parameters that I’m using, but have heard no further discussion**
8. **Worked more on comparing planner cases. I wrote the code to support a scheme I came up with to compare planner runs, and communicated it to Melody. It’s not correct since there is no optimization score in 2.1.1, so I may need to have the result files as well, so I can compare those. Basically, the compare routine compares planner runs, not planner cases. To compare a 2.1.1 planner run with a corresponding 2.2 planner run, we need the same plan.xml running off the same particles.nc file (which is necessarily 2.1.1) and we will compare the dashboard tables file that I produce. 2.2 has the optimization score in the planner dashboard tables whereas 2.1.1 does not. Hence the need for the result file.**
9. **Found and fixed two bugs in BuildSimLand. I’m completely converted to kml for the inputs. Furthermore, I am starting to write comparison kml files out based on the lat/lngs of the files; this should make catches by Fred’s program less common and speed up the process. The process should be:**
   1. **Request is made**
   2. **I click in a proposed solution using Google Earth**
   3. **Solution is accepted**
   4. **I run and check the results**
   5. **I ship the results off**
   6. **Fred checks them**

**Step b takes about ½ hour, depending on the complexity of the request. Step d takes over an hour. Steps c and f are out of my control, but shouldn’t take as long as (eg) setting up and running a single planner case. I’ve used Google Earth for the Florida corrections and the Potomac extension. Next up is Rose Island.**

1. **Jack found a bug that I’ve started to look into; when I am comparing the “original solution” to “planner’s solution,” I should be using the PosFunction that uses the lateral range curves that Planner uses during the optimization instead of the PosFunction that is used for the reports. I am looking into fixing that.**
2. **Long vacation**

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| --- | --- | --- | --- | --- |
| **Name** | **Activity Worked** | **Hours Worked** | **Hourly Cost** | **Total Cost** |
| Kratzke | Coding/Doc/Travel | 140.94 | -- | -- |
|  |  |  |  |  |
| **Totals** |  | 140.94 |  |  |
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