01 Apr, 2016

Robert Trzeciak

Program Manager

Northrop Grumman IS

468 Viking Drive

Virginia Beach, VA 23452

757-498-5544 work

757-635-2628 mobile

**Progress Report – 1 Mar 2016 – Mar 31 2016**

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. **Off 2.5 days.**
2. **Found and fixed a few bugs in the geometry code. Nothing significant. I know there are a few more because I ran a case and a particle apparently made it through land.**
3. **Most of the month was spent moving my 2.1 code to being backward compatible with 2.03. The “innards” of the planner are now different, but to get them tested and integrated, I needed to convert them back to 2.03 style output. My first set of installers wasn’t delivered until Mar 31. These installers are simplified; the 32bit has only the libraries and the 64bit has both the 64bit SimWebServer and the 32bit libraries. Both sets of libraries have a backward compatible version (named SimLib203) and a “from-now-on” version (named SimLib). After a few rounds that allow Jim to adapt to “SimLib,” I’ll drop the SimLib203 libraries. It would be nice to drop the Sim32 installer entirely, but then Jim would always have to go get the libraries from SIM64. If and when he does that, and we can tolerate the fairly large client install (i.e., the current SIM32 installer), the SIM32 installer can go away.**
4. **Ironed out a few details about exclusion areas with Jack; every SRU will have a “small exclusion polygon and a large one. The large one will be constructed by putting rectangles of width 2\*mhs around each leg and taking the convex hull of these rectangles’ corners. The small one is just the convex hull of the waypoints. Since both are convex, measuring the overlap with the new measurement technique (smallest I have to move one of them to clear the overlap) is not hard. I am insistent that all exclusion areas are convex; my algorithms break down in an unsalvageable way if we allow now-convex exclusion areas.**
5. **The “John Squires” problem disappeared for a few weeks. I did find something wrong with the code, but I cannot determine that fixing it made the problem go away. However, I put considerable effort into SimWebServer’s logging. The “case name” is not human readable; it’s far too many digits to recognize with glances within the log file. SimWebServer now takes each new case (Sim or Plan) and assigns it a unique 3-characeter “short-name.” This short-name’s progress is then traced through the SimWebServer’s log. Moreover, the “GetStatus” calls are also logged, but there are far too many of those to avoid completely polluting the log file, rendering it unusably unreadable. It might be a problem; I’m fielding thousands of GetStatus calls between individual “RunCase” calls and we’ll see if cutting back on those helps. I’ve enclosed a sample logfile that illustrates all of these issues. Notice that it shows when the http request was received (indicated by a § mark), when the case is queued, when it is activated, and when it is completed. Since SWS also processes the GetStatus requests, but there are too many, it simply announces every 500-th of them.**
6. **Along those lines, John asked me to NOT overwrite SimWebServer’s logfiles; create a new one each time.**
7. **If a case crashes (and this is verified with at least one crash within my beta2/tentative installers), the logging is more informative now (Case AAA is smoothly shutting down) and the case is more often smoothly disposed of within SimWebServer. This is in partial response to my own crash and also to last month’s “bad environmental data” crash.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Activity Worked** | **Hours Worked** | **Hourly Cost** | **Total Cost** |
| Kratzke | Coding/Doc/Travel | 142 | 282 | 40044 |
| Vergamini | Coding/Doc/Travel | 0 | 282 |  |
| Stone | Doc | 0 | 223 | 0 |
| L White (Tech Writer) |  | 0 |  | 0 |
|  |  |  |  |  |
| **Totals** |  | 142 |  | 40044 |
|  |  |  |  |  |