

Project Status Report

JPL Parallel SPICE Implementation

As of 10/25/2020

Project Status Summary

Percent Complete: 0%

Scope	We finally have a good, team wide understanding of the scope and are on track working towards our end goal.
Schedule	It took longer than expected to understand GRPC Java in a technical sense. Team is working to get back on track.
Quality	There have been no quality issues thus far.
Issues	Hit a brief road block with GRPC Java understanding.

Work Planned For Last Week

- Design a method for the marshaling of grpc calls to spice lib calls
 - Design a potential method, via UML, for passing Spice calls via grpc
 - Get a preliminary prototype of such
- Get a workerPool prototype working
 - There is a workerPool example in the Github repository of a workerPool in C#
 - Porting it to Java would be helpful
- Work on design document
 - Further work on the design document

Work Planned For This Week

- Design a method for the marshaling of grpc calls to spice lib calls
 - Finish preliminary prototype of function call marshaller
- Get a workerPool prototype working
 - There is a workerPool example in the Github repository of a workerPool in C#
 - Porting it to Java would be helpful
- Design useful benchmarks
- Work on design document
 - Further work on the design document

Open Issues

- Team operations have still been smooth

Deliverables and Milestones

Milestone	Planned	Forecasted	Actual	Status
Understand SPICE in a Java Context	10/12/2020	10/19/2020	10/19/2020	100%
Develop a preliminary design for parallelizing SPICE functions in Java	10/12/2020	11/2/2020	-	35%
Understand the scope of the project	10/12/2020	10/19/2020	-	100%
Deliverable	Planned	Forecasted	Actual	Status
Create a requirements document	10/19/2020	10/19/2020	10/19/2020	100%
Create a design document	10/19/2020	11/2/2020	-	25%
Develop a preliminary prototype of ParSPICE	11/02/2020	11/9/2020	-	05%

Open Change Requests

- None thus far

Key Performance Indicators

- **Schedule** - Project is on Schedule
 - Schedule Variance (SV): +/- 7 days