

Group number: 01

Visualization of Earth Modeling System (Project 1)

Prof. Johnny Wong (Advisor) & Prof. Chaoqun Lu (Client)

Team Members/Role:

Kellen Johnson – Team Communication Leader

Anish Kunduru – Team Leader

Julio Salinas – Team Concept Holder

Eli Devine – Team Webmaster

○ **Weekly Summary**

Had a meeting with client and advisor. Team members met several times for paired programming. Core automation functionality is working and is currently being integrated with the daemon. Everyone should have a working environment to integrate and push to VCS the code we've been independently testing.

○ **Past week accomplishments**

- Kellen Johnson: Got a majority of the Automation process knocked out. Originally swapping dataSource as a GDB led to issues due to acrpy function call (unknown error). After extensive research, we found out that creating a feature layer and then transforming that feature layer into the GDB will allow us for a DataSource swap which leads to a functional map service backed by a gdb (optimal for load-times). Also incorporated a create gdb python functional call into the Daemon with significant help from Anish.

- Anish Kunduru: Worked with Kellen to get automation working. Additions and bugfixes to daemon and GUI.
- Eli Devine: Originally worked with Kellen in swapping out dataSource and ways of changing the referenceScale, switched to working on the REST URL of the services in order to create required functionality of the product design.
- Julio Salinas: Started working with Eli on the REST URL of the services in order to create required functionality of the product design.

○ **Pending issues**

- Kellen Johnson: As it's currently set, Map Services are published with default values, I am going to look into changing this (should be a trivial change). These cannot be default or else our Server will not be able to handle the strain which is placed on our Resources by User-Interaction. Two major issues we are having, however: 1) the stopping of existing services (receiving non-JSON feedback from ArcServer Tokenization and 2) certificate warning popup when publishing maps or doing any trivial connection with the server from python scripts. These are significant in being able to automatically stop services (for editing or other desired purposes) and for allowing the full automated process to be run through the Daemon. Problem 2 needs to be fixed ASAP but both will need fixed eventually. We've attempted storing the incoming certificate in all possible locations but were not able to find a fix.

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Kellen Johnson	Successful DataSource swapping. Attempts at automatically stopping services.	25	137
Anish Kunduru	Additions and bugfixes to daemon and GUI.	15	154
Eli Devine	Research dataSource, reference scale, then javascript for html and xml pages for updating fields.	12	69

Julio Salinas	Research javascript for html and xml pages for updating fields	12	77
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○ **Comments and extended discussion**

- Kellen Johnson: None at this time.
- Anish Kunduru: Everything is falling into place. Here's what we have left to do:
 - ❖ JS for dynamic changing of maps and legend headers.
 - ❖ Complete JavaFX GUI for uploading datasets.
 - ❖ Integrate remaining Python scripts into daemon.
 - ❖ Additional automation features (possibility of writing symbology in ArcPy instead of utilizing template maps).

○ **Plan for coming week**

- Kellen Johnson: Resolve default publishing issues (additional parameters), continue to work with Certificate Warning, and figure why we're getting weird non-JSON decodable objects from the ArcServer Token Generator.
- Anish Kunduru: Finish client-side GUI.
- Eli Devine: Create scripts for updating URL and Title field of services as well as conditional dropdowns for selecting a specific service to load.
- Julio Salinas: JS for dynamic changing of maps and legend headers.

○ **Summary of weekly advisor meeting**

Got feedback from Dr. Lu as to what she would like to see. We told her we would be in contact once automation is fully integrated. Dr. Wong would like us to come up with a concrete timeline by the next meeting.