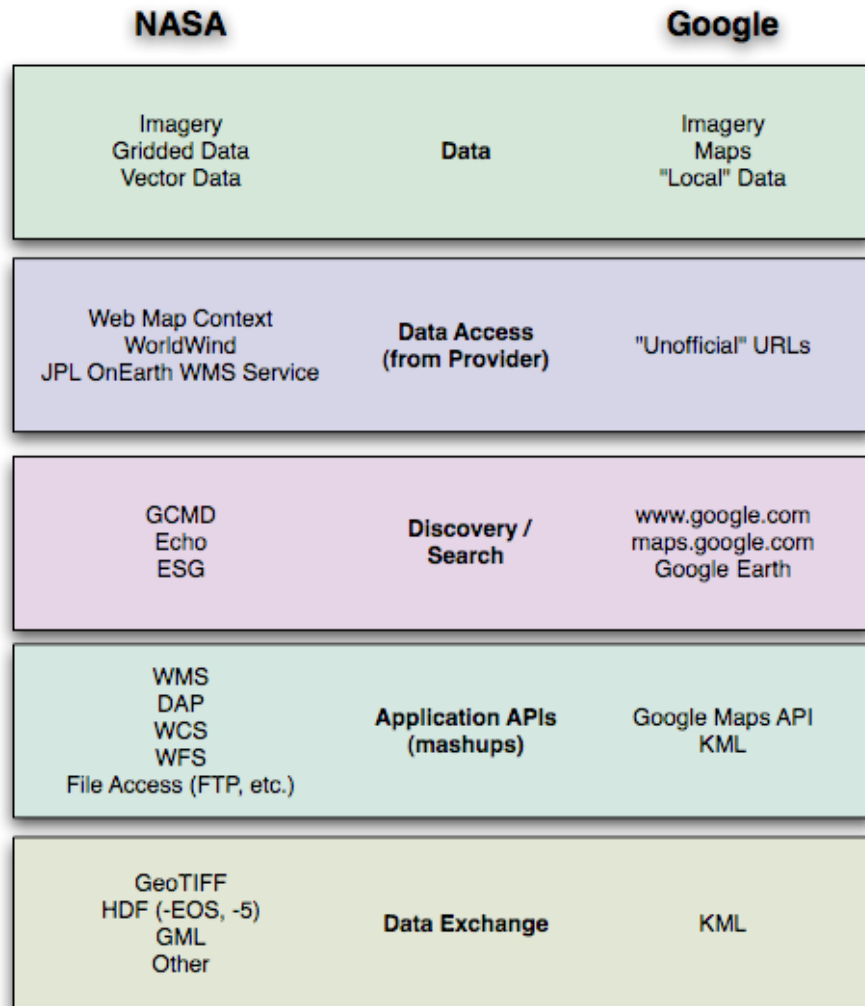


NASA ESDSWG Standard Processing Group (SPG)

Discussion Topic: **Potential Standards to bridge NASA Earth Science Data Systems with Google Earth and Google Map applications.**

The goal of SPG: The Standards Process Group (SPG) solicits suggestions for identifying relevant Earth Science data systems components (e.g., interfaces, file formats, metadata content, data discovery and access protocols, science content, and naming conventions) where standardization could be beneficial. The SPG is interested in learning more about potential interactions between NASA and Google from the point of view of how interface points between the two will be defined.

The figure below shows a very high-level, notional view of what each organization might bring to the relationship. This figure is meant to be the beginning of a conversation and does not document the result of any previous conversations.



General discussion points:

1. We would like Google to share with us a big picture view of its Geographic/Imagery vision. Google has Google Earth, Google Earth Enterprise Server, Google Maps, KML, and is working on tools such as the "regionator"¹. Most people don't have a complete understanding of the potential of these tools.
2. We would also like to understand Google's vision of how they want to present NASA data in their client applications. And as a related question, how do they envision providing tools so NASA itself can post/publish information without having to go through Google directly. For instance JAXA and the UN each have Google Earth enterprise servers and are working on setting up access to data via those servers. Would it be feasible for each DAAC to set up something similar? What are the implications of that?
3. In light of NASA's preferences for (a) open, published standards (i.e. required by OMB mandates) (b) open, published APIs (e.g. DAP, WorldWind) and (c) open, published formats (e.g. GeoTIFF, HDF), how does Google anticipate helping NASA to fit Google's APIs and formats into its systems?
4. Getting back to the context of the SPG, we are essentially charged with the task of selecting/endorsing specifications that allow easier construction of future data systems with less duplication of effort than has been the rule in the past. Would Google be amenable to submitting any of their specifications into the SPG process?

¹ <http://code.google.com/p/regionator/>

NASA ESDSWG Standard Processing Group (SPG)

Discussion Topic: **Standards Process Revision/Clarification**

3 Types of Candidate Standards:

The proposed candidate standard can be one of 3 types:

1. NASA community developed standard used within at least one self defined community where the proposed standard has not been approved or adopted by an external standards organization AND where new implementations are expected to be developed from scratch, using the proposed standard RFC as the implementation specification.
2. A NASA community developed standard used within at least one self defined community where the proposed standard has not been approved or adopted by an external standards organization AND where new implementations are not expected to be developed from scratch but use existing software libraries or code.
3. A standard already approved by an external standards organization but is being proposed for use for the NASA Earth science community.

There are 3 types of reviews that are potentially needed to evaluate a proposed standard:

1. A detailed technical specification review that determines the quality, accuracy, and clarity of the proposed specification. The detailed technical review ensures that implementers can use the proposed standard as an implementation specification for any future implementations with confidence.
 2. A “usefulness” user review that determines if the proposed standard is useful or helpful or necessary to the user to carry out his work.
 3. An operational review that determines if the proposed standard works in an operational setting in a NASA environment with NASA data.
- A proposed standard where implementations are expected from scratch using the proposed standard needs to have all 3 types of reviews.
 - A proposed standard where implementations are expected using existing software libraries or code needs to have a “usefulness” user review and an operational review. The technical spec review is optional.
 - A proposed standard where the standard is already approved by an external standards organization needs to have a “usefulness” review and an operational review. A technical spec review will not be done. □
 - The Importance of Evidence of Implementation Document: □ The “Evidence of Implementation” document will define the NASA community where the proposed standard is used. For that reason, the “Evidence of Implementation” document should be as comprehensive as possible, containing an exhaustive list of implementations as known. The contacts listed in this document will be used as the starting point by the SPG to solicit reviews of the proposed standard. Having an incomplete list of implementations or a very short list of implementations will imply that the community is very small or the proposed standard is not widely used.

- □To evaluate each proposed standard, the SPG will identify the “community”. The initial set of stakeholders in the community is the contacts list from the “Evidence of Implementation” document. The SPG can also identify other stakeholders to add to the list of community by any other means. The SPG will contact the community for each review phase. The SPG will also send a broad request for review through its public announcement list, soliciting reviews from the general NASA Earth science community and its partners.

Recommended and Required vs Community and Core:

A proposed candidate standard can be “Recommended” or “Required”. This is a change from “Community” or “Core”. If a standard is “Recommended”, then NASA Earth science data systems are strongly encouraged to implement or use the standard but compliance is not mandatory. If a standard is “Required”, then all NASA Earth science data systems must implement or use the standard if applicable.

FGDC Standards Review vs SPG Review

The NASA review for draft FGDC standards should be conducted by the appropriate NASA point of contacts and their established processes. If a draft FGDC standard is input into the SPG process, then it can be input as a Technical Note RFC. The SPG will send out an announcement to the spg-announce email list to publicize the Technical Note. However, SPG will not conduct formal NASA reviews of the draft FGDC standards. HQ has designated others with that responsibility.