Social Tagging of Mission Data

NASA's Jet Propulsion Laboratory, Pasadena, California

Mars missions will generate a large amount of data in various forms, such as daily plans, images, and scientific information. Often, there is a semantic linkage between images that cannot be captured automatically. Software is needed that will provide a method for creating arbitrary tags for this mission data so that items with a similar tag can be related to each other. The tags should be visible and searchable for all users.

A new routine was written to offer a new and more flexible search option over previous applications. This software allows users of the MSLICE program to apply any number of arbitrary tags to a piece of mission data through a MSLICE search interface. The application of tags creates relationships between data that did not previously exist. These tags can be easily removed and changed, and contain enough flexibility to be specifically configured for any mission. This gives users the ability to quickly recall or draw attention to particular pieces of mission data, for example:

- Give a semantic and meaningful description to mission data; for example, tag all images with a rock in them with the tag "rock."
- Rapidly recall specific and useful pieces of data; for example, tag a plan as "driving template."
- Call specific data to a user's attention; for example, tag a plan as "for:User."

This software is part of the MSLICE release, which was written in Java. It will run on any current Windows, Macintosh, or Linux system.

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This software is available for commercial licensing. Please contact Daniel Broderick of the California Institute of Technology at danielb@caltech.edu. Refer to NPO-46827

Integrating Radar Image Data With Google Maps

NASA's Jet Propulsion Laboratory, Pasadena, California

A public Web site has been developed as a method for displaying the multitude of radar imagery collected by NASA's Airborne Synthetic Aperture Radar (AIRSAR) instrument during its 16-year mission. Utilizing NASA's internal AIRSAR site, the new Web site features more sophisticated visualization tools that enable the general public to have access to these images.

The site was originally maintained at NASA on six computers: one that held the Oracle database, two that took care of the software for the interactive map, and three that were for the Web site itself. Several tasks were involved in moving this complicated setup to just one computer.

First, the AIRSAR database was migrated from Oracle to MySQL. Then the back-end of the AIRSAR Web site was updated in order to access the MySQL database. To do this, a few of the scripts needed to be modified; specifically three Perl scripts that query that database. The database connections were then updated from Oracle to MySQL, numerous syntax errors were corrected, and a query was implemented that replaced one of the stored Oracle procedures. Lastly, the interactive map was designed, implemented, and tested so that users could easily browse and access the radar imagery through the Google Maps interface.

This work was done by Bruce D. Chapman of Caltech and Sarah Gibas of the University of California Irvine for NASA's Jet Propulsion Laboratory. For more information, see http://airsar.jpl.nasa.gov.

This software is available for commercial licensing. Please contact Daniel Broderick of the California Institute of Technology at danielb@caltech.edu. Refer to NPO-46492.