



The Planetary Data System and “PDS Challenge” Activity

PDS Management

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Past NTL interactions

- “PDS Challenge” status as of 2013
 - NASA Tournament Lab(NASA/Harvard/TopCoder) teamed with PSD to implement as NTL action
 - Created series of contests supported by NTL via NASA Advanced Exploration Systems (Jason Crusan)
 - Used a restricted sample of SBN (comet Halley) data on excess server
 - Presented to MC at Aug 2012 meeting
 - Poster/presentation at Oct 2012 DPS
 - Completed SBN site with text/updated API
 - Establish “bug races” to streamline API at SBN site
 - Poster/presentation at Oct 2013 DPS including next step to form Cassini contests – Rings Challenge

PDS Challenge - Rings

Goal – Oct 2013 DPS poster -“Rings Challenge”

NTL Teams to search Cassini data (Rings) for disruptions – citizen science – crowd sourcing.

Access data through Rings enhanced indices and use machine learning to spot anomalies

Install SPICE toolkit and create test scenarios

Proposal and new tech lead (Ashley Thomas) with time line and responsibility matrix accepted

Different levels of contests – start Oct 2013

Rings Challenge Steps

Finished API mod – winner SBN co-pilot (!!)

Series of 9 contest with Rings indices to search Cassini data

First contest is image transformation

Second Install SPICE toolkit and solicit how-to ...

Third Install Python libraries and test scenarios

... INFRASTRUCTURE ...

... Marathon Match with Co-pilot ...

Finish levels of contests – spring 2014

**2013 TopCoder Open:
Innovation Summit
Nov 11-13, 2013
Capital Hilton, DC
sponsored by Apprio**

PDS at Innovation Summit

Goal - broaden awareness of PDS-NTL projects

NASA area at front of Contest area.

Provided 2012 and 2013 DPS posters

Team with JSC robotics group for Challenges

Meet Andy and Ashley - managers from NTL

Introduce to contest scenario - Cyberjag

NASA visitors – Jenn Gustetic OCT at HQ, e.g.,
Grand Challenge – find/plan for asteroid threat

Meet TC and Apprio managers; cloud spokes

PDS Challenge Next Steps

Goal – other nodes with data for Challenges

1. Identify POC and Technical lead;
2. Provide survey to those nodes interested with questions on volume, type of data, database, file system on remote URL, adherence to PDS3;
3. Allow TC to review your feedback and recommend level of support and challenges;
4. Work with TC to develop an NTL cost estimate.

Questions