

The Planetary Data System and “PDS Challenge” Activity

PDS Management

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Past NTL interactions

- “PDS Challenge” status as of 2014
 - 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/Carol)
 - Used a restricted sample of SBN (comet Halley) data on excess server – start 2012 and presented at Oct 2012 DPS
 - Poster/presentation at Oct 2013 DPS including step to form Cassini-Rings Challenge
 - Poster/workshop at Nov 2014 DPS – next steps

PDS Challenge - Rings

Goal – “Rings Challenge” complete by July 31

NTL Teams to search Cassini ISS data for disruptions – citizen science – crowd sourcing.

Access data through Rings enhanced indices

Set up contests/create test scenarios (> Oct)

Proposal and new PM lead (Ashley Thomas)

TopCoder acquired by Appirio, some changes

Ed and Tom attend TopCoder Summit, Nov 2013

Appirio new PM (Jenn Odess) with Andy Lamora

Rings Challenge Steps

Revised API mod at Rings– winner SBN co-pilot

Original contests with Rings indices to search Cassini ISS data Jan); ends as Marathon Match

Revision to contests (MS white paper) in 2014

New PM Jennifer Odess adds tech Ambi Del Vilar

PM meets with SBN (Anne) and HQ (Bill/Ed)

Re-organize contests – summer 2014 target

Current Rings Challenge

- Restart with 6 contests week of April 07
- Image application and Rings subtraction
- Streamlined processes to use Rings data
- Find the Ring-Dings (Match \$15K)
- ID winner with S/W to find simple features
- Work with winner (telecons) to improve tool
- Internal efforts for feature tracking based on results of the detection algorithm
- Productize includes integrating two tools for web
- Compose DPS2014 abstract with Appirio as lead and propose for workshop before DPS2014

PDS Challenge Initial Steps

Goal – Node input; further access; PDS4 ?

1. Identify ideas and interest (Dec 2013);
2. About 10 ideas (three different nodes);
3. Assembled list sent to Kristen/Carol NTL;
4. Delay planning till after Cassini ISS project ;
5. Previous HQ support to participating Nodes
 - buy low end server or alternative
 - acquire needed storage space
 - node extensions allow planning

PDS Challenge Next steps

- A. NTL completes survey to those nodes interested with requirement questions (on volume, type of data, database, file system on remote URL, adherence to PDS3, POC);
- B. NTL reviews your feedback and work with TC/Appirio to refine challenge; recommends one more Node with cost estimate in CY14
- C. Work with TC/Appirio to develop an NTL cost estimate/node after 2014DPS workshop and poster.