

Addressing the Roadmap findings: Immediate Actions

**PDS3 to
PDS4
Translation
of
legacy
data:
Highest
Priority
Missions**

Mission	Delta (2018)	Breakdown by node
Grand Total	\$1135.2k	
Cassini	\$652.7k	<ul style="list-style-type: none"> • Planetary Plasma Interactions • Atmospheres • Cartography & Imaging Sciences • Ring-Moon Systems
MESSENGER	\$307.5k	<ul style="list-style-type: none"> • Planetary Plasma Interactions • Cartography & Imaging Sciences • Geosciences
Dawn	\$100.0k	<ul style="list-style-type: none"> • Small Bodies: Planetary Science Institute
Rosetta (US-team Instruments)	\$75k	<ul style="list-style-type: none"> • Small Bodies: University of Maryland

Remaining High Priority Legacy Data Sets Identified for translation to PDS4 through 2021:

Additional estimated funds needed for Effort: **\$1,327.0k**

- New Horizons (Pluto and Jupiter only)
- Voyager 1 and 2 (Jupiter, Saturn, Uranus, Neptune)
- Clementine LIDAR, Lunar Topo, LWIR, Gravity
- GRAIL Cal/Resampled Science, Derived Gravity Science Data Products
- Magellan
- Mars Global Surveyor MOLA, TES
- Phoenix MECA, TGA
- Viking Lander 1 & 2 LCS, Labelled Release, Seismology.
- Huygens ACP, DISR, DWE, GCMS, HASI, SSP
- MSL REMS
- Juno
- Galileo

Approach for Active Missions: Considerations for scoping the conversion effort for a given instrument team

- What data should be converted?
 - All PDS3 data sets for the instrument?
 - Ancillary data: browse, calibration, extras, etc.
- For each of the above, is it A, B, or C and what work is involved?
 - A = PDS-compliant data, PDS3 keywords easily mapped into a PDS4 label.
 - B = PDS-compliant data, some dictionary work needed to make a PDS4 label.
 - C = Data are not PDS-compliant.
- What software will need to be acquired, revised, or created?
 - Tools to design and mass-produce PDS4 labels
 - Revisions to existing software that reads PDS3
- What documentation will need to be revised or created?
- Who is best positioned to do the work?
 - Instrument team
 - PDS node
 - Third party such as MIPL/OPGS

Geosciences Node efforts in helping active missions make their conversion plans

OD Y	MER	MRO	MSL	LRO	Planning steps
✓	✓	✓	✓	✓	Geo opens conversation with mission and offers to help make plan
	✓		✓	✓	Geo creates preliminary assessment of level of effort for each data set, with input from the other nodes archiving for the mission
			✓	✓	Geo and mission hold initial DAWG meeting so all teams and nodes are informed
			In progress	In progress	Nodes and individual teams meet to scope the work for each data set
					Nodes and teams break down conversion work into steps and assign each step to team, PDS, or others (e.g. OPGS/MIPL)
					Responsible parties estimate the costs of each step
					Mission compiles the results in a report to deliver with extension proposal in April 2018