

PDS4 BUNDLE CREATION GOVERNANCE USING BPMN. C. Radulescu¹, S. R. Levoe², S. S. Algermissen³, E. D. Rye⁴, S. H. Hardman⁵, ¹Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Dr, Pasadena, CA 91109, Costin.Radulescu@jpl.nasa.gov, ²same, Steven.R.Levoe@jpl.nasa.gov, ³same, Stirling.S.Algermissen@jpl.nasa.gov, ⁴same, Elizabeth.D.Rye@jpl.nasa.gov, ⁵same, Sean.H.Hardman@jpl.nasa.gov.

Introduction: PDS4 [1] archives (a.k.a. “bundles”) are collections of data, documents, and other supplementary information created by a data provider. Typical archives may include thousands of files, and therefore a certain organization is required to ensure proper long-term storage and retrieval. The AMMOS-PDS Pipeline Service (APPS) [2][3] provides a Bundle Builder tool, which governs the process of creating, and ultimately generates, PDS4 bundles incrementally, as science products are being generated. The process of generating bundles is formally defined using the Business Process Model and Notation (BPMN) 2.0 Standard [4], and executed on a business process engine pipeline.

The poster will show in more detail the BPMN flows used to describe the bundle creation processes, and how they are expected to generate an actual PDS4 bundle.

References:

[1]<http://pds.jpl.nasa.gov/pds4>

[2]<https://ammos.jpl.nasa.gov/toolsandservices/download/instrumentdataprocessing/appsammospdspipelin service/>

[3] Radulescu, C., Spohn, S., et al “ AMMOS-PDS Pipeline Service (APPS)”, NASA-Planetary Data System Management Council Meeting, Berkeley, CA 2014(http://mgmt.pds.nasa.gov/meetings/2014/Nov/presentations/NASA-PDS_Management_Council-APPS_Pres.pdf).

[4] Object Management Group (OMG) Business Process Model and Notation (BPMN) <http://www.bpmn.org/>