PDS4 DATA WITHIN THE PSA – A CROSS-MISSION AND CROSS-DISCIPLINE APPROACH TO A PDS4 ARCHIVE. T. L. Lim[1] , S. Martinez[1], D. Coia[1], I. Barbarisi[1], M. Barthelemy[1], S. Besse[1], D. Fraga Agudo[1], E. Grotheer[1], D. Heather[1], and C. Vallat[1], [1]European Space Astronomy Centre, Camino Bajo del Castillo, s/n., Urb. Villafranca del Castillo, 28692 Villanueva de la Cañada, Madrid, tlim@sciops.esa.int.

Introduction: The European Space Agency Planetary Science Archive (PSA)[1] is a repository for all European Planetary Science Missions. It currently hosts data from all missions since Giotto and continues to be populated currently with Rosetta, Mars Express and ExoMars 2016 data. ExoMars 2016 is the first mission in operations to use the PDS4 standard and the use of PDS4 in the PSA has been primarily a cross-mission development shared between the ExoMars 2016 and Bepi-Columbo mission teams. Ongoing development now also incudes the Exomars Rover Surface Platform (RSP) and JUICE mission teams.

The introduction of PDS4 provided an opportunity to produce a new PSA[2] which features a new user interface and many improvements to the database. To maximise the cross-mission use of data, the efficiency of the PSA design and the user experience, it was agreed to standardise the way that PDS4 missions in the PSA design their data bundles and structures. Additionally PSA schema and schematron have been developed for housing attributes the PSA believe are applicable as cross-mission attributes.

This paper describes the implementation of PDS4 in the PSA both in terms of the data structure rules adopted and the PSA schema along with information on why the choices were made. The implementation for the ExoMars 2016 is described as an example of a remote sensing mission. Since its launch several challenges have been faced in developing the ExoMars 2016 database and these challenges will also be described. During 2017 the development of the Exomars RSP archive data design has commenced and the initial design for the Rover data is also illustrated.

References:

[1] Besse, S., et al. PSS, (2017)

[2] Macfarlane, A. J., et al. PSS, (2017)