

D5.3 ProGIS Visualisation Interface

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Work package 5 – PRoGIS Task 5.5 - Visualisation and Rendering

Lead contractor for this deliverable AU

Dissemination level: Restricted to other programme participants (including the Commission Services)

EXECUTIVE SUMMARY

This document describes the PRoVisG Visualisation and Rendering Pipeline (VRP) interface that can generate synthetic camera image data. Data inputs into the VRP include rover CAD models, terrain DEM data generated using PRoViP (with images selected using PRoGIS), surface reflectance model data, and information regarding the rover's planetocentric latitude and longitude, the local true solar time (LTST), and date. The rover's pan & tilt unit (PTU) which is pointing the rover cameras in a given direction can be modified and camera details such as field of view (FOV), detector width and pixel dimensions can be modified. Using the user defined input parameters VRP generates a synthetic camera image. The pipe-line is also capable of generating virtual stereo camera pairs for VR display technology such as stereo workstations, and GeoWall[®] technology. Rendering is based upon the Mental Ray[®] software, which has been implemented within the COTS 3ds Max[®] software environment.

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