



PLANMAP

Geologic Mapping of our Solar System

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Executive summary

Planmap-produced code, notebooks, scripts and snippets are provided within the Planmap GitHub organisation in various repositories. Code related to the planmap web app (data fusion portal, file-based access, web mapping components) are also provided on dedicated repositories. Releases are going to be provided as needed as Zenodo/OpenAIRE DOI-citable objects. The organisation and repositories are going to be available indefinitely during and after project end.



List of Acronyms

Acronym	Description
ESA	European Space Agency
ESDC	ESA Science Data Centre
GIS	Geographic Information System
OGC	Open Geospatial Consortium
WCS	Web Coverage Service
WFS	Web Feature Service
WMS	Web Map Service



Introduction

Planmap-related software code is open source and publicly available through Github, the main point of access is the Planmap-EU Github organization.

The repositories published by Planmap are organized after the software components in the project's infrastructure for the sake of simplicity and better access of the interested user, according to the different skills allowed by the project's audience.

Data availability

Data from Planmap ([D7.2-public](#)) are available via the project map portal. Planmap map files are available individually or as compressed packages for download.

The prime points of access for data is on:

- The Planmap data directory - <https://data.planmap.eu/>
- The Planmap data portal - <https://maps.planmap.eu/>

Delivered data (vector maps), basemaps and additional data and metadata are described in [D2.2-public](#).

Code availability

The main point of access for codes is the Planmap GitHub organisation where several repositories are located.

<https://github.com/planmap-eu>

Semi-automated workflows and utilities

This repository contains data and codes relevant to data processing and map generation for the production of PLANMAP products.

Each subdirectory contains tools and code related to a different planmap's activity. Please refer to the specific readme files in each repository and subdirectory.



<https://github.com/planmap-eu/planmap-notebooks-code>

Web/data access client/server code and configuration

Code released and related to [D7.2-public](#) is briefly described below. Please refer to [D7.2-public](#) for more general details and to relevant repositories and links listed below for deeper technical aspects.

Client-side

The Planmap app is a web interface to explore (e.g., morphological) maps of Mercury, Mars and the Moon. The Planmap webapp displays data in an interactive canvas where the user will discover general properties of the datasets and eventually access the complete/science data through either OGC services or directly downloading it.

For information about the backend services, see the [planmap-app-server](#) repository.

The client app uses [OpenLayers](#) to display geologic maps. The code is built using the Meteor/BlazeJS framework and Bootstrap (see repositories linked below for more information).

<https://github.com/planmap-eu/planmap-app-client>

Server-side

GeoServer is responsible for providing the geological maps -- raster and vector data -- live to the app. GeoServer indeed constitutes the service providing access to the data via OGC WMS, WFS protocols. Those are used by the web client to display the maps on-demand and publish multi-resolution data providing mapping styles and custom projections.

Apache File-server provides the "raw" data packages for the users to browse and download. The interface published was customized to provide a better user experience, allowing the users direct access to the data and metadata describing in fine details the packages contents.



Meteor is the javascript framework that handles the deployment of the web app. It runs on top of NodeJS and manages the software dependencies and assembly of HTML and Javascript in a working package.

<https://github.com/planmap-eu/planmap-app-server>

Guides

The Planmap Guides repository contains guides and non-automated workflows for planetary mapping, Automated workflows are included in the repo [notebooks & code](#).

The presented material will be subject of continuous improvements and updates.

<https://github.com/planmap-eu/planmap-guides>

Additional materials

Any other utility or additional material not fitting the repositories described above is included below:

<https://github.com/planmap-eu/awesome-tools-for-planmap>

Additional repositories are envisaged and will be created though the course of the project in order to support both internal and community needs. In particular, WP8 dissemination activities such as those linked to workshops (e.g. VESPA/Planmap Mapping workshop 2019 - <https://epn-vespa.github.io/mapping2019/>) are going to be available, e.g. on Open Source tools for 3D geologic data handling, e.g.

<https://github.com/planmap-eu/3d-data-workshop-open-source-tools>

Licensing

The material available on Planmap GitHub repositories, based on [D7.3-public](#), is provided under open source licenses (e.g. GPL-3, MIT). Documentation and tutorials are intended as CC-BY. Specific licensing information can be included in individual repositories.



References

Brandt, C. H., Rossi, A. P. and the Planmap consortium (2019) D7.2, Planmap Data Fusion Portal, Planmap deliverable, available online at [D7.2-public](#), <https://data.planmap.eu/> - <https://maps.planmap.eu/>

Rossi, A. P., Penasa, L., Pozzobon, R., and the Planmap consortium (2019a) D7.3, Data Management Plan, update 1, Planmap deliverable, available online at [D7.3-public](#).

Rothery, D., and the Planmap consortium (2019) D2.2, Geomorphological Maps, deliverable, available online at [D2.2-public](#)