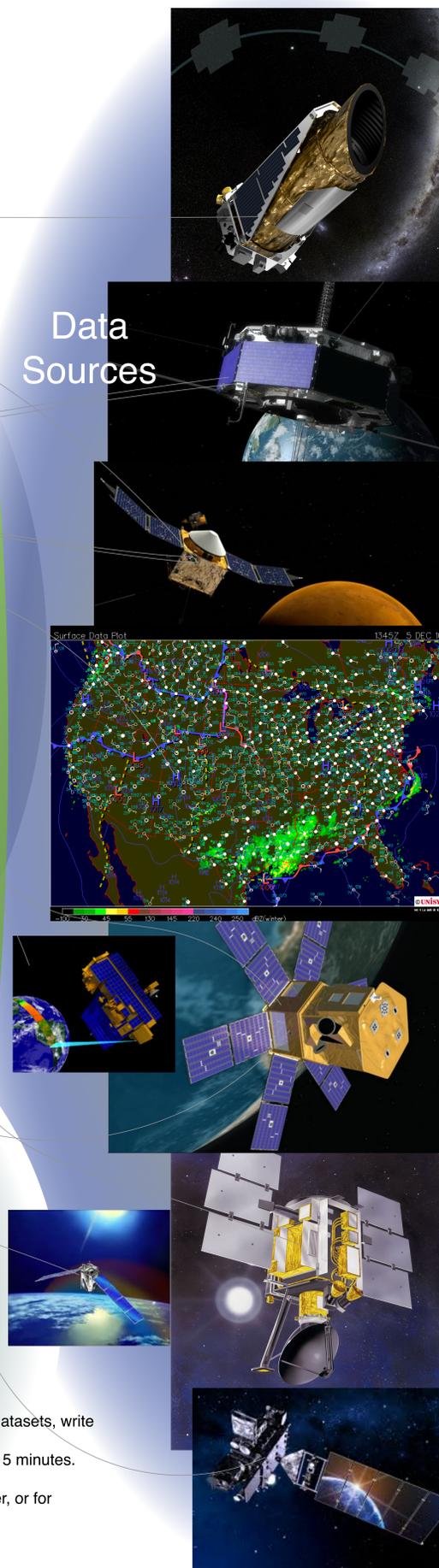
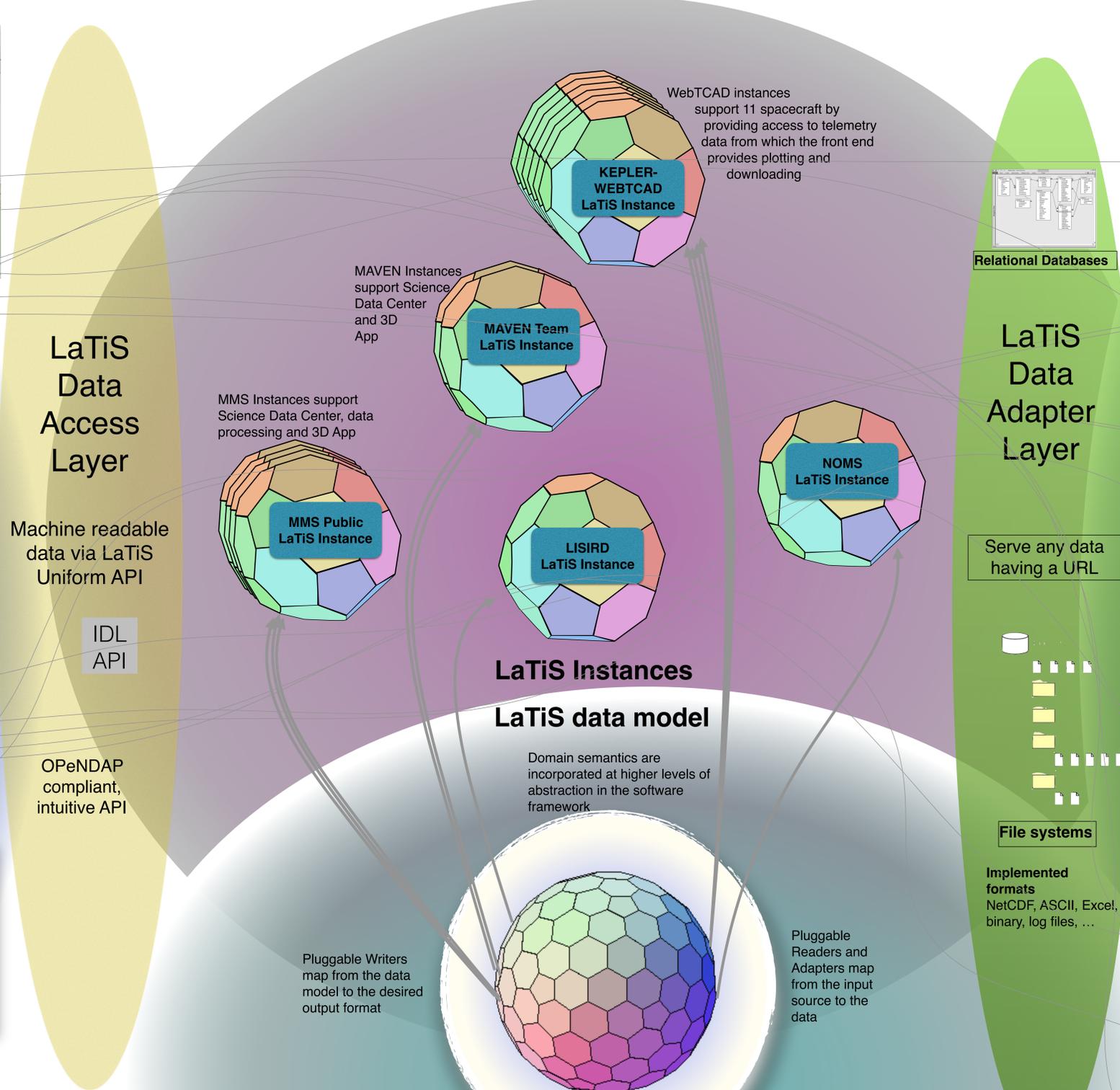


A Functional Data Model Realized: LaTiS Instances

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Applications

Kepler
 MAVEN Science Data Center
 LISIRD
 MMS



For many years, members of the University of Colorado Laboratory for Atmospheric and Space Physics (LASP) Web Team have been working on a functional data model and the software framework called LaTiS, that implements it. This poster describes the evolution of LaTiS through the presentation of several instances of LaTiS in operation today that demonstrate its various capabilities. With LaTiS, serving a new dataset can be as simple as adding a small descriptor file to an existing instance. From providing access to spacecraft telemetry data in a variety of forms for missions operation, to providing access to scientific data for the MMS and MAVEN science teams, to server-side functionality such as fusing satellite visible and infrared data along with forecast model data into a Geotiff image for situational awareness purposes, to providing dynamic access to LASP and other organization's Solar Irradiance data via a web app and via an IDL API, LaTiS has demonstrated itself as a highly flexible, standards-based framework that provides easy data access, dynamic reformatting, and customizable server side functionality.

- Extensibility**
- To integrate a new dataset*
- 1) Write a TSML descriptor to describe the new dataset
 - 2) Reuse an existing Reader or Adapter, or for custom datasets, write a new adapter
- E.g., generally a columnar ASCII dataset can be added in 5 minutes.
- To provide a new output format*, reuse an existing writer, or for custom outputs, write a new Writer for that format.

On demand, server side functionality: reformatting, subsetting, aggregation, application of filters to transform and analyze, time reformatting