

The Mandala Project



The Mandala Project is one of the world's richest and most diverse digital collections of Tibetan and Himalayan culture, with resources for the public, literary scholars, anthropologists, archeologists, and other researchers and educators. Over the last three decades, under the leadership of Professor David Germano at the University of Virginia, Mandala has been documenting this culture with textual editions, translations, dictionaries, and encyclopedias, as well as audio-video recordings of oral traditions, music, histories, philosophies, environmental knowledge, and more.

Mandala stores thousands of photographic images of cultural activities, architecture, art, and the physical environment, as well as extensive data on geographical features. Mandala's sophisticated and rich descriptive ontologies of various cultural subjects, called "Knowledge Maps" (or Mandala KMaps), were first developed in the early 2000s by Professor Germano and his colleague in the Tibet Center, Andres Montano.



Mandala 1.0 is composed of **Knowledge Maps** and **Mandala Drupal**

Knowledge Maps (KMaps) is a Rails application which manages three related taxonomies (Subjects, Places and Terms) using an SQL RDBMS to model domain entities with rich properties and relationships between those entities. Its schema and corpus of data have been developed over nearly two decades by Dr. Germano, Andres Montano, and co-researchers. Kmaps includes geodata, administrative and cultural relationships, demographic data, term definitions and pronunciations and much more.

Mandala Drupal is a set of Drupal-based digital asset management applications which manage and display collections of audio-video, images, texts, sources and visualizations, with features such as multi-lingual transcript editing. It utilizes Knowledge Maps as an organizing principle and tagging system. **KMaps** help tie the scholarly **Mandala Drupal** collections together under shared taxonomies.

RDF and CIDOC-CRM

What is the CIDOC CRM?

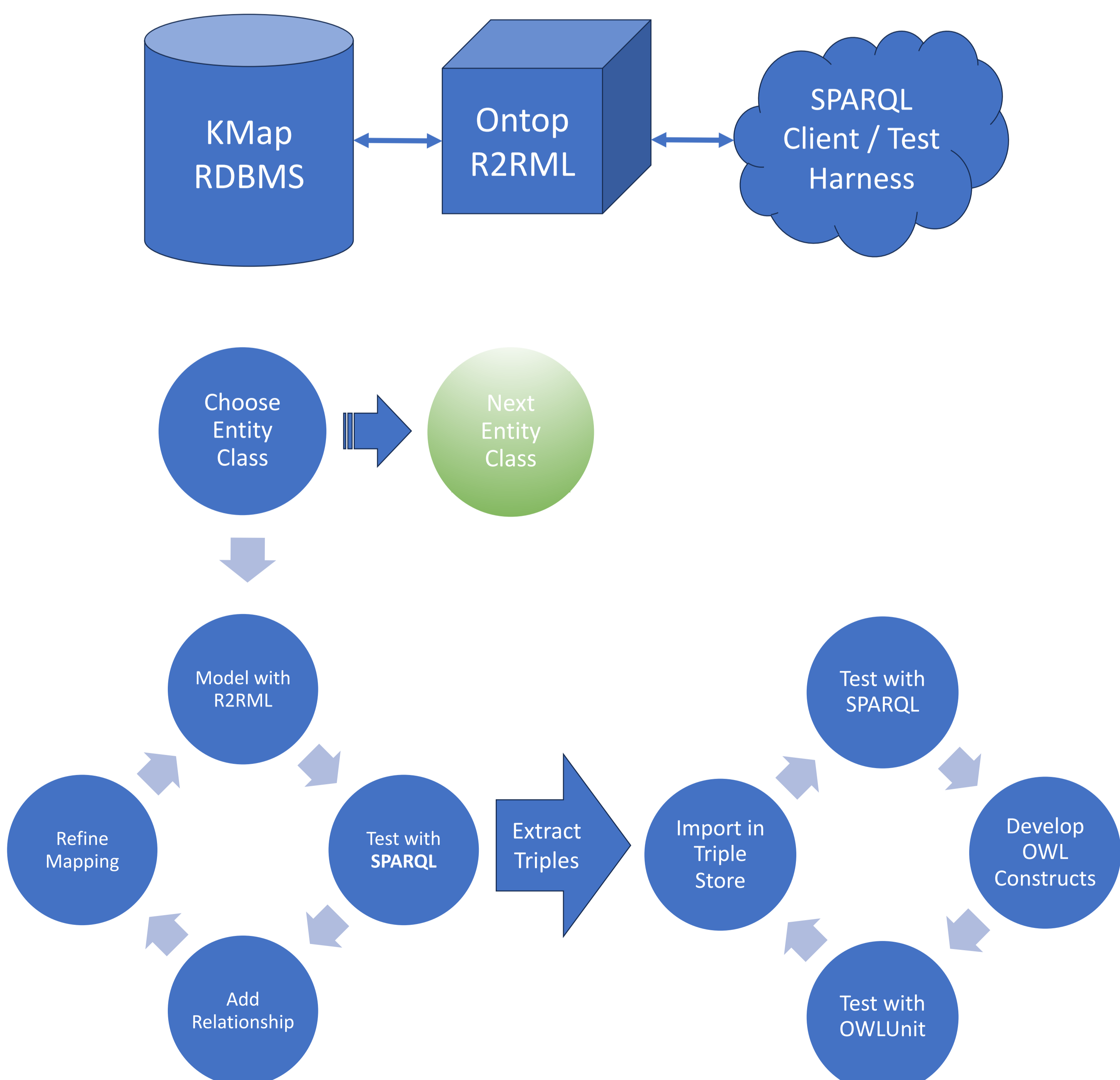
The CIDOC Conceptual Reference Model (CRM) is a theoretical and practical tool for information integration in the field of **cultural heritage**. It can help researchers, administrators and the public explore complex questions with regards to our past across diverse and dispersed datasets. The CIDOC CRM achieves this by providing definitions and a formal structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation and of general interest for the querying and exploration of such data. Such models are also known as formal ontologies. These formal descriptions allow the integration of data from multiple sources in a software and schema agnostic fashion.



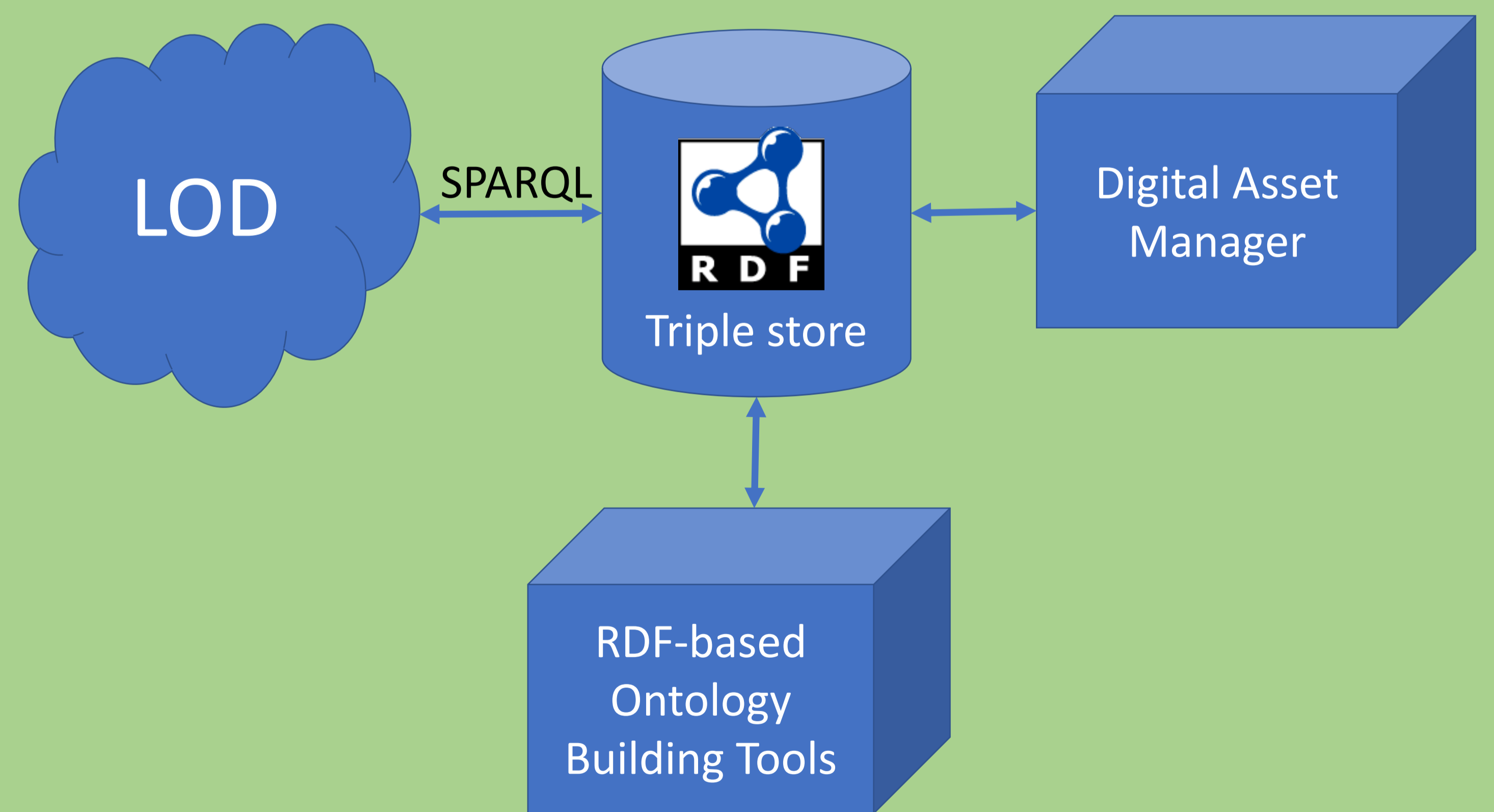
<https://www.cidoc-crm.org/>

Transition

Mandala RDBMS to RDF Triple Store



Mandala 2.0



Mandala 2.0

The goal of **Mandala 2.0** is to re-imagine the Mandala corpus and framework as Linked Open Data, making the rich information and relationships captured in **KMaps** and the culturally significant digital artifacts in **Mandala Drupal** available and searchable using RDF and LOD principles[1]. **Mandala 2.0** will transform Mandala from a set of taxonomies built on a closed world assumption to a rich open world ontology, mutually benefitting Mandala and digital cultural heritage projects across the globe.

1. Linked Open Data Principles of Tim Berners-Lee:
<https://www.w3.org/DesignIssues/LinkedData.html>