WE1S Manifest Schema

The WE1S manifest schema is a set of recommendations, examples, and validation tools for the construction of manifest documents for the WE1S project. The project uses the manifest schema to define metadata for individual documents, collections, sources, and corpora, as well as topic modeling projects. (See definition of manifest in a computing sense.)

WE1S manifests are <u>JSON</u> documents that describe resources. They can be used as data storage and configuration files for a variety of scripted processes and tools that read the JSON format. Manifests may include metadata describing a publication, a process, a set of data, or an output of some procedure. Manifests can also describe software tools, processes, and workflows, as well outputs such as result data, information visualizations, and interactive interfaces. Their primary intent is to help humans document and keep track of their workflow.

The WE1S schema builds on the Frictionless Data notion of a data package. A data package is a special type of manifest (called datapackage.json) used to containerize data and associated resources. When data is exported from the WE1S database it will be ideally exported in the form of a data package with content in subfolders corresponding to database-like categories.

Manifests in the WE1S Technical

Ecosystem: The WE1S ecosystem consists of an integrated framework of data, tools, and resources, with manifests used to control and describe workflow. Manifests

may be stored in a standard operating system's hierarchical file storage system. However, WE1S employs the MongoDB database to manage and search the large number of files generated by the project. Because MongoDB stores its records in a JSON-like format, it is an ideal medium for working with WE1S manifests. MongoDB also allows the project to implement a materialized path data model, which mirrors the characteristics of hierarchical file storage. Each manifest is given a "materialized path" property called a metapath that is logically similar to an operating system's file path. The similarity to an actual file path is deliberate; it allows human readers to see directly from the manifest where the file lives within the project ecosystem. The metapath is a useful property for importing manifests to and exporting them from the database in an intuitive manner.

WE1S Schemas are available for the following kind of resources:

Collection, Data, Metadata, Outputs,
Processed Data, Processes, Projects,
RawData, Related, Scripts, Sources, Step.

Further Information:

- * WE1S Manifest Schema documentation
- * Glossary of terms related to the WE1S technical ecosystem; cards explaining the WE1S computing environment and workspace.

Code source: <u>GitHub</u>

Open license: <u>MIT License</u>