ska-sdp-tmlite-repository

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CONTENTS:

This project acts as the GitLab storage backend of the SKA SDP TMLite REST server.

CONTENTS:

RATIONALE

This repository is meant to act as a storage backend for the SKA SDP TMLite REST server. As such, it stores Telescope Model data that is served to users of the TMLite REST server. Thanks to the use of GitLab, the management of versioning and authorization comes for free.

As a "lite" approach, the TMLite server currently accesses this repository in a read-only fashion. In other words, any updates to the contents of the repository must be done separately from the use of the TMLite server. As the packages evolve this might not be the case anymore.

This repository partially implements the ideas exposed in ADR-30, with a GitLab repository acting as a backend store for Telescope Model data.

1.1 Repository structure

This repository contains a `tmdata` directory at the top level. This directory forms the root of a hierarchy of directories representing the individual components of the overall Telescope Model.

The individual components of the Telescope Model consist on JSON files with the required data. Each file must contain a single top-level JSON object.

For example, this could be found within the `data` directory:

```
instrument
instrument/ska1_low
instrument/ska1_low/layout
instrument/ska1_low/layout/data.json
```

This structure is then turned into a single JSON object, with a `model` member as its root, whose value will be the serialisation of this directory structure. In this serialisation, files' contents are taken as-is, and therefore represent a single object. Directories are turned into members of the object represented by their parent directory, with the directory name as the member key, and the directory JSON contents as the member value. The value of a directory is either an object with sub-members, if the directory contains other sub-directories, or the value of the `data.json` file living in that directory. Any additional files in a directory are ignored.

In the example above, the resulting single JSON object will be:

```
{
  "model": {
    "instrument": {
      "ska1_low": {
        "layout": {
          // the contents of data.json
```

```
            }
         }
      }
   }
}
```

Note that this structure is very simplistic, and might change in the future as more features are supported.

1.2 Schemas

It is the intention that the individual components making up the Telescope Model follow agreed-on JSON schemas, in particular those living in the SKA Telescope Model.

For the time being there is no schema validation steps in place when files are added to the repository. This might change in the future once schemas are re-considered more in full.

1.3 Access

Access to the data in this repository is public for reading, but writing is limited to certain users. Dynamically updating files in this repository via the TMLite server is currently not implemented or allowed. In other words, any changes performed in the TMLite server are ephemeral to the instance currently running, and are in no way synchronised back to this repository.

INDICES AND TABLES

- genindex
- modindex
- search