

# Digital Station Description for IEC/IEEE 60802

## Data Set Format and File Format

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### 5.5.5 Common Requirements for Digital Station Description

Bridge and end station implementations of any conformance class for which a claim of conformance to the TSN-IA Profile is made shall:

- a) support the delivery of YANG instance data of all YANG modules that are present in the local database in the form of an XML file
- b) support the format of the data set as defined in the RFC „Internet-Draft (I-D)“ YANG Instance Data File Format (draft-ietf-netmod-yang-instance-file-format-21)

### 6.7.9.2 Digital Station Description

Both engineering models, offline via an engineering tool and online with plug & produce by the CNC, require information about the capabilities of an IA station.

This information is described as a YANG module and provided in the local database of the IA-station.

To provide the identical information, the YANG module is also available in the form of a Digital Station Description (data sheet of an IA-station).

From the point of view of the hardware of an IA station, the Digital Station Description of an IA station is the description of the IA-station portion of a product.

However, as soon as the application of this product is configured, there may be restrictions on the IA-station portion that result in a Digital Station Description for this instance of the product.

The digital data sheet of the IA-Station shall provide a collection of instantiated data nodes of all YANG modules that are present in the local database of the IA-Station. This includes all YANG modules required by this profile, as well as all additional modules that have been added by the vendor. The data sheet must contain a single instance data set and no additional data. It must carry complete configuration and state data of each YANG module that is present in the local database of the IA station. The identity of the datastore with which the instance data set is associated must be reported. The format of the instance data set is defined by the "ietf-yang-instance-data" YANG module. The file format is based on the XML encoding. It is created by applying the respective XML encoding rules for the YANG structure of the YANG module mentioned above.

Identified gap: The YANG module that models the device capabilities and quantities (e.g. forwarding delays or the number of supported sync trees) is missing.