

Asset Administration Shell Frequently Asked Questions

The Frequently Asked Questions List is maintained by a task force of “ZVEI SG Modelle und Standards”. The questions are answered by several Asset Administration Shell (AAS) modeling experts and validated with working groups of ZVEI and Plattform Industrie 4.0.

Some questions and answers are provided below, please find a complete list of questions using the QR code.

Find all Questions and Answers and ask your own questions on the page <https://github.com/admin-shell-io/questions-and-answers/> or using the QR code below.



(1) Where are examples of AAS available?

Examples of several suppliers are found at: <http://admin-shell-io.com/samples/>.

(2) How to treat values of properties with values in multiple languages?

Details of the Asset Administration Shell Part 1 provides the *MultiLanguageProperty* entity for this case since AAS metamodel version 2.0.

(3) Where shall images (products or icons) of an asset be stored, e.g., for the use in dashboards?

With V3.0RC01 of Part 1 an optional attribute "assetInformation/defaultThumbnail" was introduced. The type of this attribute is "File".

The standardized submodel template "Generic Frame for Technical Data for Industrial Equipment in Manufacturing" (Version 1.1) allows to add as many product images as needed (<https://admin-shell.io/ZVEI/TechnicalData/Productimage/1/1>). Again, the type of these images is "File".

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(4) How should submodel templates and submodel instances be linked together?

The submodel template with *kind=Template* and the submodel instance with *kind=Instance* should have the same semantic ID to indicate the applicability of the template on the instance.

(5) If the same properties are used in several submodels, shall they also be entered several times, or shall they be referenced?

Submodels shall be as independent as possible so that they can be changed and developed separately. Consequently, the same properties shall be copied to another submodel and references shall not be used in such case. The concept description referenced in semantic ID, however, should be the same.

(6) How shall a link to a website be entered in an AAS?

Links to websites shall be entered as *File* object (physical reference). *ReferenceElement* objects represent logical references. A typical usage for logical references is in the description of a topology of the asset or „consist of“ hierarchies.

(7) Are there any best practices how to choose the *idShort* of an element within AAS?

For choosing an *idShort* value, there are the following recommendations (rules and order can be used for automatically creation of an *idShort*):

- If a *shortName* attribute is available in the related concept description, the English *shortName* can be used as *idShort*.
- If there is an English *preferredName* attribute available in the related concept description, this name can be converted to *idShort*, e.g. the *preferredName* “Maximum rotation speed” can be converted to “maximumRotationSpeed”.
- In case a submodel template specification is used as a base, the *idShort* defined in this submodel template shall be used.

Note: the *idShort* does not carry any semantic meaning. For speaking names, the *displayName* shall be used.