

SDF: Today

Semantic Definition Format (SDF)
for Data and Interactions of Things
defines

- classes
of
- digital affordances

(assembled into a class of Things, ~ product).

IETF ASDF WG

Original input from OneDM (One Data Model) liaison group

Used that to define [draft-ietf-asdf-sdf](#)

At a stable –12, small issues remain to be done

conversion tools from/to other ecosystems' models

- [draft-kiesewalter-asdf-yang-sdf](#)
- ecosystem converters for OMA, OCF, DTDL, WoT
used, e.g., to populate OneDM's [playground](#)

proposed companion specifications

- `draft-bormann-asdf-sdf-compact`
more human-readable form (JSON → YAML)
- `draft-bormann-asdf-sdf-mapping`
augment an SDF model by additional "qualities"
- `draft-laari-asdf-relations`
link between SDF models at the model level
- `draft-bormann-asdf-sdftype-link`
describe data and interactions based on links

the role of links

- model-level links (draft-laari-asdf-relations)
 - already in use for re-use/composition (`sdfRef`)
 - semantic links: e.g., `unit`
- instance-level links (draft-bormann-asdf-sdftype-link)
described by new data type ("`sdftype`": "`link`")
data model based on RFC 8288 (Web Linking)

Need to be validated by appropriate examples

extension points

SDF defines "qualities" (properties that make up a class)

Extend SDF: add qualities

Some of these are ecosystem specific: Namespacing?

- namespaces provided for model components
- "quality" namespaces are one level more meta
 - possibly use CURIE-like syntax with registered namespace names

extending SDF architecture

easy to add: Further class level information:

- protocol bindings for affordances
- other ecosystem info for affordances

Not so easy to add: class level information...

- for things
- that serves as common parameter for affordances

Other kinds of information

- purpose in life ("role")
 - device needs to know
- deployment information, e.g.:
 - location
 - links to other things/affordances

Needed:

- at the class level (modeling the instances)
- at the instance level