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S5000F New Developments

Extending the in-service feedback scope

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Introduction

- S5000F, international specification for in-service data feedback, was initially published in 2016. Issue 2.0 is currently under review.
- It covers all kinds of data feedback, both for integrated product support optimization purposes, but also for management, manufacturing and engineering purposes.
- It is bi-directional, ie, it allows for an in-service dialogue and to use it in different contracts, where the activities might be performed by different actors and the data flows might even reversed.
- It provides different use cases, so as to exchange only the information that is required for a specific activity.
- Contrary to other specifications, it does not provide a detailed process.
- There is **no** need for a full implementation – it can be implemented step-wise as required. Obviously, it is also tailorable.
- It is fully interoperable with the S-Series Common Data Model SX002D.

Highlights of changes in Issue 2.0

- New Software (and data) Support chapter
- Extension of number of use cases (from 68 to 89)
- Introduction of new concepts, such as (Mission) Data Sets, Damage, Environment, Capability or Infrastructure (ie, a cloud infrastructure, a MRO network or a transport network)
- Extended data model, covering new areas such as Transport, Equipment Calibration or Export Control
- Grouping of units of functionality into domains and functional groups, for easier identification of data for a particular purpose
- Harmonization with SX002D Issue 2.0, to ensure interoperability with evolution of other S-Series specifications
- Simplification of project-specific attributes and exchange of non-standard data (digital files).
- Practical example of specification tailoring


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S5000F

International specification for in-service data feedback

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S5000F

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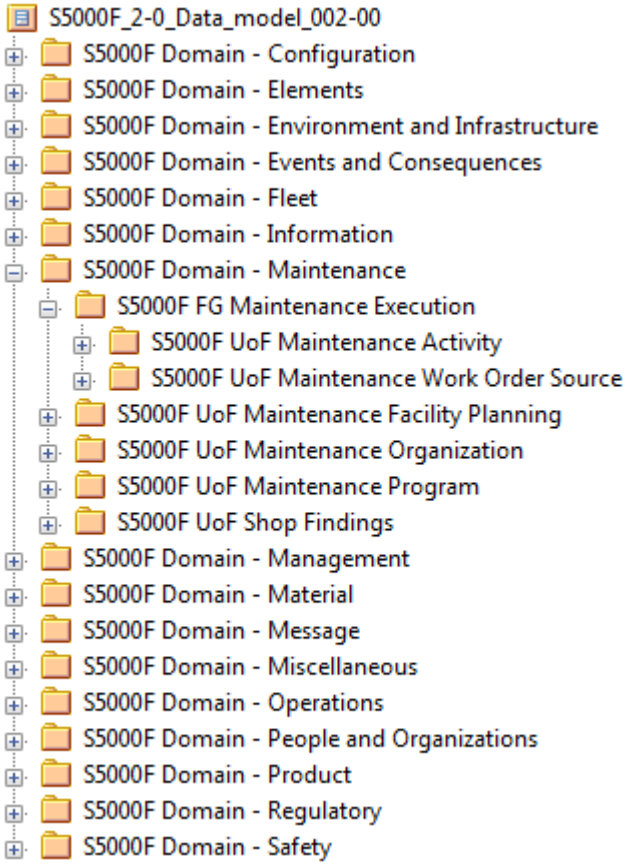
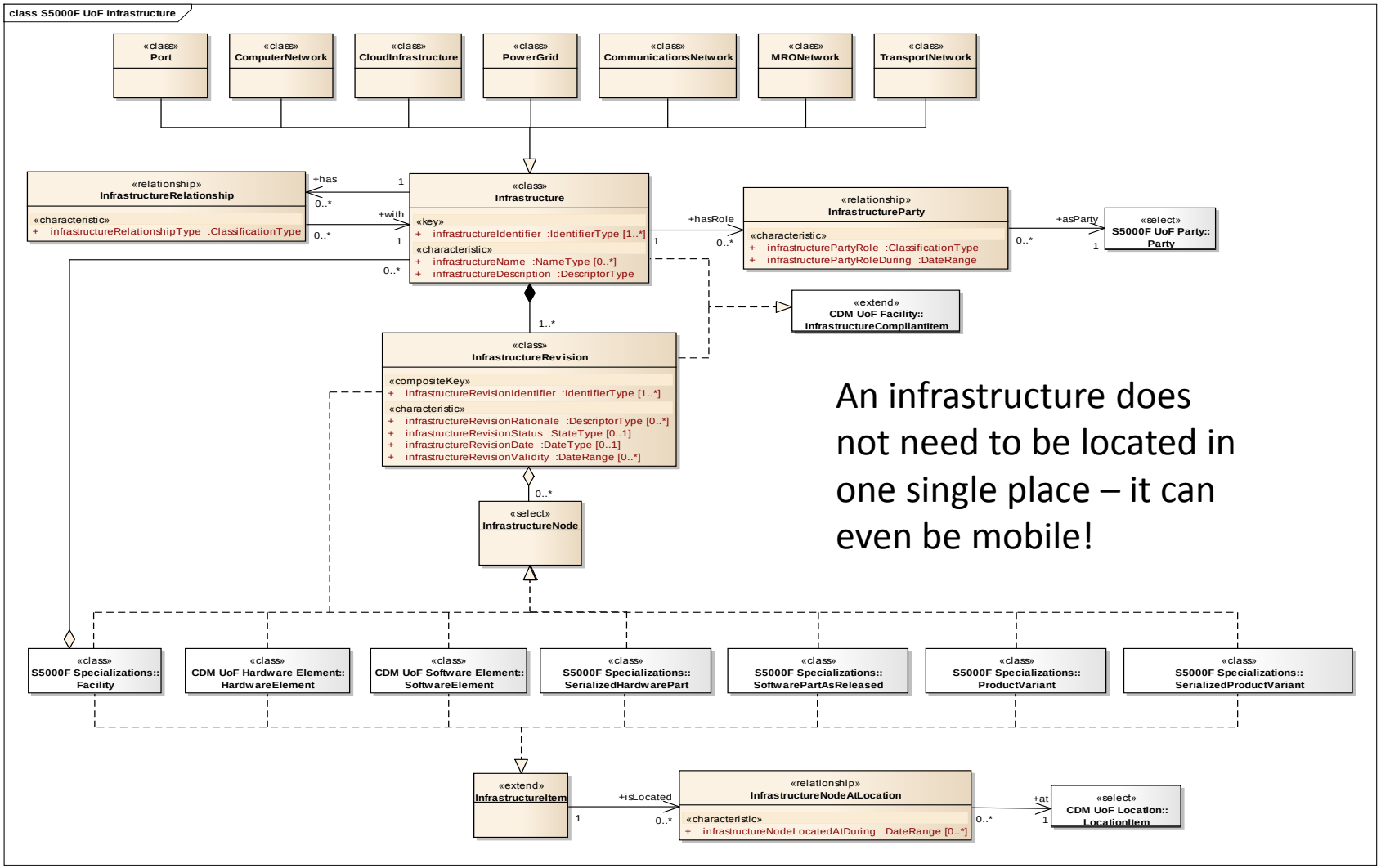
Domains

- Though the different chapters remain basically the same (except for a new chapter on feedback for software support), it was evident that the data itself overlapped in multiple occasions, so the data model has been structured around 16 domains.



Example of new concepts



An infrastructure does not need to be located in one single place – it can even be mobile!

S5000F in numbers

- S5000F might impress people somewhat: As it covers all in-service, it **looks** huge*:
  - 805 pages
  - 16 Domains
  - 15 Functional Groups
  - 114 Units of Functionality (UoFs)
  - 89 Use Cases
  - 529 classes
  - 1239 data elements

- BUT:
  - Nobody will ever implement it in full!
  - The implementation of 1 single use case is already S5000F-compliant!
  - The example shown in Chap 19 shows that S5000F can be implemented with…

    Just 10 data elements!
  - Project-specific use cases might require even less data elements!
  - Further uses cases can be later added without affecting the existing implementation – the specification was designed for incremental deployment!

- **So do not worry about S5000F complexity and size!**

But that is not the end of it…

- Issue 2.0 will be published any moment now, but the S5000F Steering Committee is already working on the next issue. Things that are contemplated for inclusion as new chapters:
  - Data example (based on Bike Working Group work)
  - Transport
  - Investigations
  - Disposal
  - Life extension
  - Mission preparation
  - Deployment
  - Environment and infrastructure
  - Manufacturing
  - Integration with REACH (protection of humans and environment w.r.t chemicals)
  - Data management to address tagging of data and blockchain

And if you have other suggestions, they will be most welcome!

Thank you

for your attention!

Questions?

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