

*An Introduction to the
Civil Aviation Business
Rules for Component
Maintenance
Publications*



Presented By:

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On behalf of the Component Maintenance
Manual SubTeam

Business Rules for CMMs

❖ Developed by the Component Maintenance Manual SubTeam (CMMST)

- A Technical Data Working Group (TDWG)/Civil Aviation Working Group (CAWG) subteam

❖ Over five years in the making



Agenda

- Who are we?
- Why did we do this?
- What can you do to help?

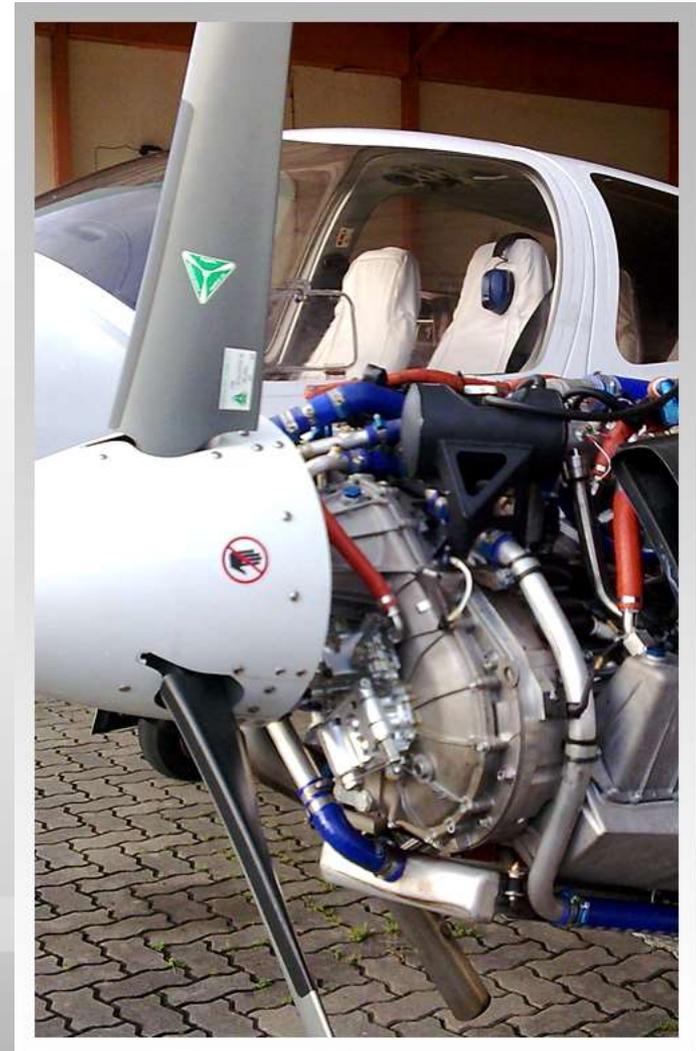


*Get ready for 30 minutes
of business rule fun!*



What is CMMST?

- ❖ Existed in some form or another for over 15 years.
- ❖ Responsible for defining common requirements at an industry level for civil aviation.
- ❖ The team responsible for authoring Chapters 5.2.1.9 and 5.3.1.4 for S1000D v.4.1.
- ❖ Made up of members from all across the aerospace industry.



CMMST Business Rule Team

Aircraft Manufacturers

Equipment Manufacturers

Service Providers

Honeywell



AIRBUS



THALES

Meetings, Meetings, Meetings.

- ❖ These business rules are a product of lots of work:
 - Weekly conference calls
 - Two face-to-face meetings a year
- ❖ The goal is to provide a common path forward that still satisfies everyone's requirements.



Democracy In Action

- ❖ All decisions were made democratically with input from all members.
- ❖ Rules have been revisited two or three times as new use cases are brought forward and analyzed.
- ❖ Decisions have been made with the interests of the entire industry in mind.



Business Rule Evolution

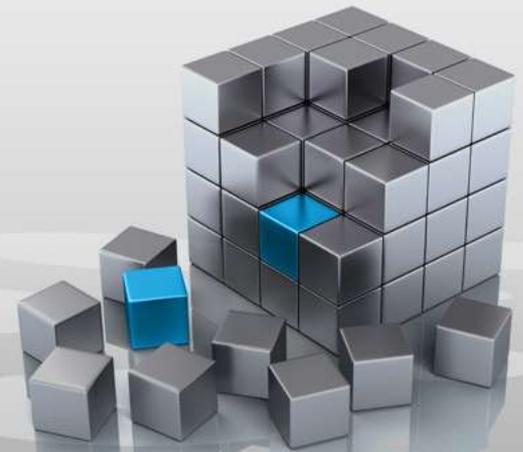
- ❖ These business rules are a living document that will continue to evolve as more input is received.
- ❖ **YOU** have the power to change these business rules but a strong use case must be presented to do so.
- ❖ “That’s not the way I do it.” is NOT a strong use case.

Why Did We Do This?

- ❖ Everyone interprets the specifications differently. Currently there are dozens of different ways to create the same data.
- ❖ This then has to reconcile with competing requirements from their customers.
- ❖ Why rework data that doesn't change due to format requirements based on a different interpretation of the same specification?

S1000D and Competing Requirements

- ❖ Modular data and re-use of data modules makes competing requirements even more problematic.
- ❖ Re-authoring of data that never changes will become more and more common unless common requirements are developed.
- ❖ Increases the chances of incorrect data being provided.



Common Requirements Are A Good Thing

❖ Finding common ground will accomplish three things:

- Provider can re-use already authored data as is
- Receiver will know exactly what they will be getting and can be ready for it
- Saves money for all involved

❖ Also provides a roadmap for equipment manufacturers that are new to S1000D.

Get To the Business Rules

- ❖ The TDWG developed the first layer of business rules.
- ❖ CMMST refined those rules specifically for CMPs to create a second layer.
- ❖ All decisions can be found on the ATA e-Business website in document [Spec1000BR_2017.1](#)
- ❖ These decision are for 4.1 to be released in June. Decisions for 4.2 are to come later this year.



Decisions, Decisions

- ❖ The CMMST tried to rule on every decision pertaining to CMPs.
- ❖ Tried to avoid “No Business Rule” as that would leave a decision open for projects which defeats the purpose of common business rules.
- ❖ Developed for exchange only (with guidance for page-oriented presentation).



Optional Elements and Attributes

- ❁ A lot of time was spent addressing BRDP-S1-00007
- ❁ Schemas addressed so far:
 - Descriptive
 - Procedural
 - IPD
 - Publication Module
- ❁ A BREX will be developed and available with the Spec 1000BR download package

- The following business rules are basic rules which must be agreed before any detailed rules can be taken on detailed level:
 - Business rule decision point BRDP-S1-00001 – Issue of S10000 to be used:
 - Decide which issue or issues of S10000 to be used
 - Business rule decision point BRDP-S1-00004 – Information sets to be used:
 - Decide which information sets, given in S10000 and/or project specific, to be used
 - Business rule decision point BRDP-S1-00005 – Publications to be produced:
 - Decide which publications to be produced
 - Business rule decision point BRDP-S1-00006 – Schemas to be used:
 - Decide which schemas to be used and in which information set they are to be used
 - **Business rule decision point BRDP-S1-00007 - Use of optional elements and attributes:**
 - Decide whether and how to use each optional element and attribute in its structural context
 - Business rule decision point BRDP-S1-00008 – Possible deliverables:
 - Decide on the possible deliverables, such as:
 - S10000 objects (eg data modules, publication modules, navigation sheets) and
 - multimedia objects, data management tools using the latest trends
 - Page-oriented publications and/or interactive electronic technical publications

Objection!

❖ How to reconcile conflicts between internal rules and these rules:

- Petition the CMMST to re-evaluate the decision based on use cases provided with a Change Request
- Determine the feasibility/logic of changing your data internally, or
- Develop an automated delivery process



Page-Oriented Presentation

- ❁ CMMST has developed guidance on how CMPs should look in a page-oriented format (can be found in [Spec1000BR_2017.1](#)).
- ❁ Rules are designed with usability of a rendered manual in mind.



Where Do We Go From Here?

- ❁ Get involved!
- ❁ CMMST is always looking for more members and more input.
- ❁ The goal of the CMMST is to make the exchange of CMPs as easy as possible across many projects and make sure that CMP data is as accurate and useable as possible.



QUESTIONS

