

# What You Should Know About DMRLs

2022 ATA e-Business Forum and S1000D User Forum

## What Is a DMRL?

Data Management Lists

Data Management Requirement List (Data Module Requirement List)

**CSDB Status List** 

## **DMRL Highlights**

Used to identify the required data modules for a project.

Supports planning, training, production, and configuration control.

Generated in parts or in a complete form.

Created at the start of a project and updated as needed throughout.

Contains all expected DMs and optional PMs and ICNs.

# Why Are DMRLs Important?



#### Define the content scope of the project.

- ✓ Ensure all requirements are addressed.
- ✓ Establish a budget for conversion, development, and sustainment.
- ✓ Guarantee accurate communication of project details between stakeholders.

Verify SNS integrity.

Tech names should have a 1:1 relationship with SNS codes.



#### Reveal opportunities for DM reuse.

The same procedure that is used in two different contexts, i.e., a DMC clash, can be discovered during DMRL development.



Expose inconsistencies in a data plan to avoid sustainment problems.

Help identify references to an apparent single procedure that is actually multiple DMs.

## dml Schema or Excel?

Most projects elect to use Excel over the dml.xsd schema to document DMRLs.

Excel is easier for most project stakeholders to read, coordinate, and edit.

Excel DMRLs can be easily converted to dml schema DMs.

## **DMRL Requirements**

dentExtension dmCode issueinfo ..... dmRef \_\_\_\_\_ language Each DMRL entry dmRefAddressitems 🛱 **~**₽₽₽ must contain, at behavior minimum, a data pmRef 🕂 module code and dmlContent infoEnfityRef a responsible partner company. commentRef 🕂 dmlRe1 🕂 security responsiblePartnerCompany answer 🕀 remarks 🕂

A best practice is to include other optional items, such as:

- ✓ Issue date, issue number, and in-work number
- ✓ Language
- ✓ Security classification

An Excel DMRL has the flexibility to include additional data:

- ✓ DM title (tech name information name)
- ✓ Schema type
- ✓ Applicability information





## **Clashing Nomenclature/SNS**

An SNS should have only one assigned tech name and a tech name should have only one SNS.

Incremented assembly codes are shown here for every DM instead of for each assembly.

Model ID	SDC	System	Sub	SubSub	Assy	DC	DCV	IC/V	ILC	Issue	inWork	XML Schema	techName	infoName
										#	#	Туре		
-	-	-	-	-		-	-	-		-	+	-	-	-
AIRPLANE	Α	25	3	0	0000	00	AA	018A	Α	000	01	descript	Galley	Introduction
AIRPLANE	Α	25	3	1	0001	00	AA	040A	Α	000	01	descript	Coffee maker	Description
AIRPLANE	Α	25	3	1	0001	00	AA	042F	Α	000	01	descript	Coffee maker	Theory of operation
AIRPLANE	Α	25	3	1	0001	00	AA	130A	Α	000	01	crew	Coffee maker	Normal operation
AIRPLANE	Α	25	3	1	0001	00	AA	270A	Α	000	01	proced	Coffee maker	Adjust, align and calibrate
AIRPLANE	Α	25	3	1	0001	00	AA	280A	Α	000	01	proced	Coffee maker	Inspection
AIRPLANE	Α	25	3	1	0001	00	AA	520A	Α	000	01	proced	Coffee maker	Remove procedure
AIRPLANE	Α	25	3	1	0001	00	AA	720A	Α	000	01	proced	Coffee maker	Install procedure
AIRPLANE	Α	25	3	1	0001	01	0	941A	Α	000	01	ipd	Coffee maker	Illustrated parts data

#### **Mixing Tech Names and Info Names**

Tech names should not include content that is part of an information name (i.e., no verbs).

The techName "Coffee maker inspection" will result in a DM titled "Coffee maker inspection – Inspection."

Model ID	SDC	System	Sub	SubSub	Assy	DC	DCV	IC/V	ILC	Issue	inWork	techName	infoName
										#	#		
-	-	-	-	-	-	-	-	-	-	-	-	-	-
AIRPLANE	A	25	3	0	0000	00	AA	018A	Α	000	01	Galley	Introduction
AIRPLANE	Α	25	3	1	0001	00	AA	040A	Α	000	01	Coffee maker	Description
AIRPLANE	Α	25	3	1	0001	00	AA	042F	Α	000	01	Coffee maker	Theory of operation
AIRPLANE	Α	25	3	1	0001	00	AA	130A	Α	000	01	Coffee maker	Normal operation
AIRPLANE	Α	25	3	1	0001	00	AA	270A	Α	000	01	Coffee maker	Adjust, align and calibrate
AIRPLANE	Α	25	3	1	0001	00	AA	280A	Α	000	01	Coffee maker	Inspection
AIRPLANE	Α	25	3	1	0001	00	AA	520A	Α	000	01	Coffee maker	Remove procedure
AIRPLANE	Α	25	3	1	0001	00	AA	720A	Α	000	01	Coffee maker	Install procedure
AIRPLANE	Α	25	3	1	0001	01	0	941A	Α	000	01	Coffee maker	Illustrated parts data

#### Misuse of Disassembly Code

The DC can be used for purposes beyond further disassembly but should not be used where other DMC segments should be (e.g., when the DCV is a better use).

Model ID	SDC	System	Sub	SubSub	Assy	DC	DCV	IC/V	ILC	Issue	inWork	techName		infoName	
										#	#				
-	-	-	-	-	-	-		-	-	-	-		-		
AIRPLANE	Α	25	3	0	0000	00	AA	018A	Α	000	01	Galley		Introduction	
AIRPLANE	А	25	3	1	0001	00	AA	040A	Α	000	01	Coffee maker		Description	
AIRPLANE	Α	25	3	1	0001	00	AA	042F	Α	000	01	Coffee maker		Theory of operation	
AIRPLANE	Α	25	3	1	0001	00	AA	130A	Α	000	01	Coffee maker		Normal operation	
AIRPLANE	Α	25	3	1	0001	00	AA 🔰	270A	Α	000	01	Coffee maker		Adjust, align and calibrate	
AIRPLANE	Α	25	3	1	0001	00	AB	280A	Α	000	01	Coffee maker, power of	ff	Inspection	
AIRPLANE	Α	25	3	1	0001	00	AC	280A	Α	000	01	Coffee maker, power or	n	Inspection	
AIRPLANE	Α	25	3	1	0001	00	AA	520A	Α	000	01	Coffee maker		Remove procedure	
AIRPLANE	Α	25	3	1	0001	00	AA	720A	Α	000	01	Coffee maker		Install procedure	
AIRPLANE	Α	25	3	1	0001	01	0	941A	Α	000	01	Coffee maker		ustrated parts data	

## **Poor Granularity**

A single data module should contain one procedure or one topic.

TO: - Pneudraulics - Series - Aircraft	Model	Conf	Sys Su	bSys L	Jnit D	isassemby	Info	Loc
Description and Leading Particulars of the Hydraulic Power Generation System Fuselage Components	nin N	- M -	E 29-	10-	4 5 D A -	2 3 0 3 6	7 6 2	A - A
					HYDRAULIC POWER DESCRIPTION AND LEADIN SELAGE COMPONENTS. 1 General Description and Le	CHAPTER 2 GENERATION SYSTEM NG PARTICULARS OF THE HYDE eading Particulars of Airplane Hydra	I FUSELAGE C AULIC POWER GEN aulic Power Generating	OMPONEN ERATION SYST 3 Systems. The h

### **Reference Resolution**

Conversion projects have unique issues because source data was not written with the DM concept in mind. Grouped content (e.g., multiple bleed air procedures) may have been referenceable in the source data format but is not directly referenceable in a DM environment.

A solution may be to plan a data module with the sole function of grouping multiple DMs via references.

		?	?							1-1. 1. 2. 3. 4.	COMPON Apply coo Apply elec Apply blee Connect g	Ing air (05-12-02) etrical power (05- ed air (21-00-03).	UT 2). 12-01). unications (05-13-01).
Model ID 🗠	SDC -	SYS -	Sup -	SubSub -	Assv -	DC -	DCV -	IC/V -	ILC -	Issue # 😁	inWork # 👻	techName ~	infoName/pub title
AIRPLANE	A	21	0	0	0003	00	A	923A	A	000	01	Bleed Air	Change - Disconnect and
AIRPLANE	A	21	0	0	0003	00	В	730A	A	000	01	APU Bleed Air	Connect procedure
AIRPLANE	A	21	0	Ó	0003	00	В	510A	A	000	01	APU Bleed Air	Disconnect procedure
AIRPLANE	A	21	0	Ó	0003	00	С	730A	А	000	01	Engine Bleed Air	Connect procedure
AIRPLANE	A	21	0	Ó	0003	00	С	510A	A	000	01	Engine Bleed Air	Disconnect procedure
AIRPLANE	Α	21	0	Ó	0003	00	D	730A	Α	000	01	External Bleed Air	Connect procedure
AIRPLANE	Α	21	0	Ó	0003	00	D	510A	Α	000	01	External Bleed Air	Disconnect procedure



#### **Excel Column Use**

Excel columns should not be more granular than the DMC segments they contain.

This DMRL used a separate column for every DMC character, which is unnecessary and makes sorting and filtering difficult.

Series Marcraft	Model	SDC	Sys		Sub	SubSub	Unit	DC	DCV	ICV		ILC
TABLE OF CONTENTS	12	- M	- E00	-	0	0	- 0000	- 23	000	- 009A	-	Α
LIST OF ILLUSTRATIONS	100	- M	- E00	-	0	0	- 0000	- 23	001	- 00AA	-	Α
LIST OF TABLES	100	- M	- E00	-	0	0	- 0000	- 23	002	- 00ZA	-	Α
NTRODUCTION	100	- M	- E00	-	0	0	- 0000	- 23	003	- 018A	-	Α
SAFETY SUMMA	100	- M	- E00	-	0	0	- 0000	- 23	003	- 012A	-	А



#### **DMCs Are Codes, Not Numbers**

Excel columns must be formatted as text, not numbers.

Model ID	SDC	System Sub Si		SubSub	As y		0	DCV	IC/V	ILC	Issue #	inWork #	techName	infoName		
			T				1		L							
-				-	-	-		-		· 🔽	-	+	-	•	-	
AIRPLANE	Α		06		1	0	0000		00	AA	040A	Α	000	01	Principal dimensions	Description
AIRPLANE	Α		06		1	1	0000		00	AA	040A	Α	000	01	Fuselage dimensions	Description
AIRPLANE	Α		06		1	2	0001		00	AA	040A	Α	000	01	Nacelles dimensions	Description
AIRPLANE	Α		06		1	2	0002		00	AA	040A	Α	000	01	Pylons dimensions	Description
AIRPLANE	Α		06		1	3	0000		00	AA	040A	Α	000	01	Wings dimensions	Description



One row for each required data module

3

A column for every required data point

**Best Practices** 

A high quality DMRL spreadsheet should include... 5 be

A 1:1 relationship between tech names and SNS

6

Code columns formatted as text and not numbers

Zero clashing DMCs



#### Helpful optional columns for

- ✓ Tech name
- ✓ Info name
- ✓ Issue information
- ✓ Schema type



## Consistently formatted cells



# Q uestions?

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