

Fast track to define.xml v2.0 – SDTM and ADaM

PhUSE 2016

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- **Define-XML v2.0**
 - Release March 2013 by CDISC
- **Extension: Analysis Results Metadata**
 - Release January 2015 by CDISC
- **v2.0 preferred version by FDA**
 - Announced March 2016

- tab_14_1_01
- tab_14_1_02
- + Datasets
 - Analysis Dataset Subject Level
 - Analysis Dataset Subject Level
 - Subject Visits (sv)
 - Demographics (dm)
 - Questionnaires (qs)
- + Controlled Terminology
 - + Controlled Terms
 - Age Unit
 - Country
 - SDTM Domain Abbreviation
 - Ethnic Group
 - No Yes Response
 - Race
 - RoleCodeList
 - Sex
 - Unit
- + Methods

Analysis Results Metadata (Summary) for Study Study_ADaM_ind

tab_14_1_01	Summary of Populations Part 1
a	Summary of number of subjects in each analysis population
b	Summary of number of subjects in each analysis population
tab_14_1_02	Summary of Populations Part 2
c	Summary of number of subjects in each analysis population

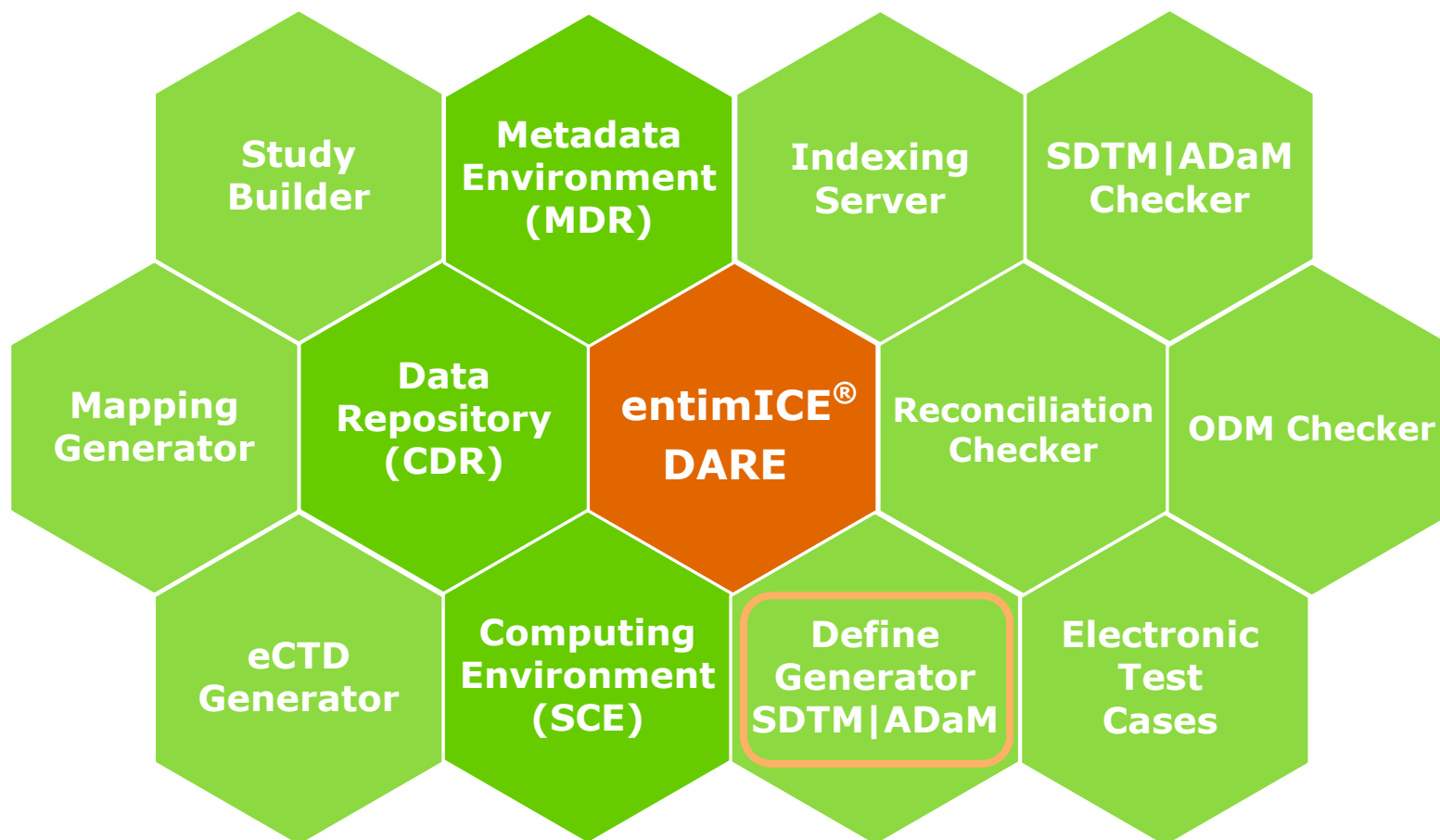
Analysis Results Metadata (Detail) for Study Study_ADaM_ind

tab_14_1_01

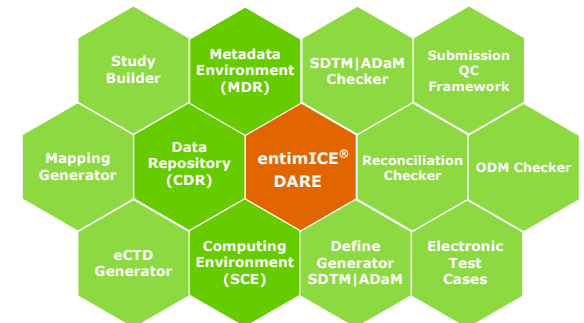
Display	tab_14_1_01 Summary of Populations Part 1
Analysis Result	a Summary of number of subjects in each analysis population
Analysis Parameter(s)	
Analysis Variable(s)	ARM (Description of Planned Arm) ARM (Description of Planned Arm)
Analysis Reason	a pre-specified in SAP

- **Structure Metadata**
 - SDTM, ADaM
- **Controlled Terminology**
 - NCI, MedDRA, WHODrug, etc
- **Value Level Metadata**
- **Computational Algorithms**
- **Analysis Metadata Tables**
- **Supplementing Documents**
 - aCRF, Reviewers Guide, Comments, Tables

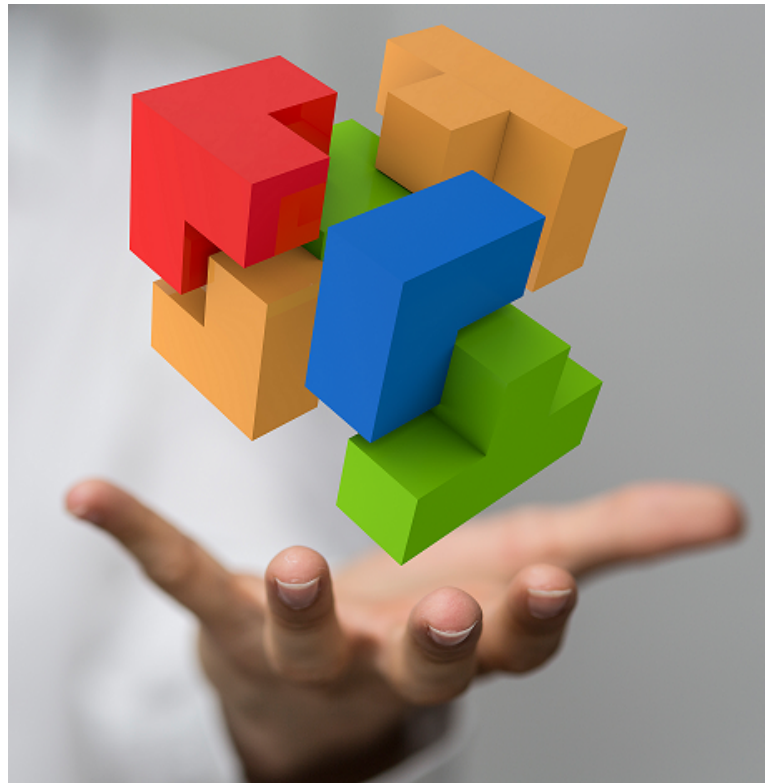
All components can be stored in entimICE Repository!



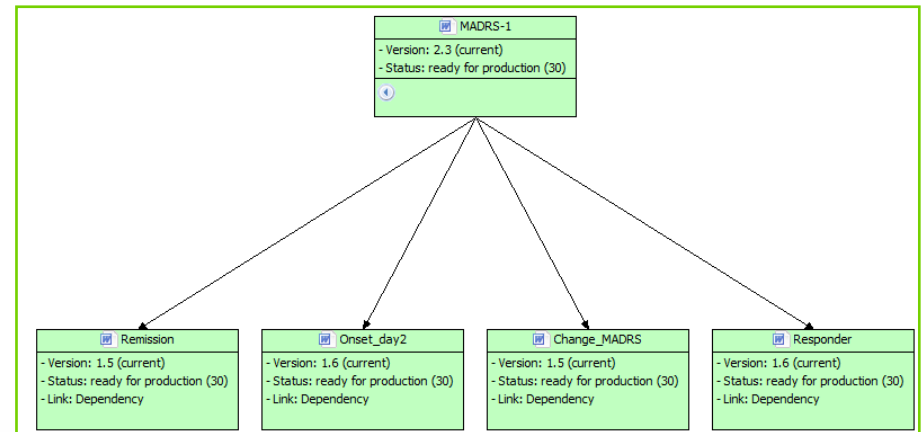
- **Model agnostic**
 - CDISC models (CDASH, SDTM, ADaM), sponsor models, future models, structured and unstructured metadata
- **Configurable**
 - Content hierarchies, semantics, workflows, lifecycles, access rights, use of actions/functions
- **Governance tools and workflows**
 - Change Request, comparisons, impact analysis, linking, notifications, attachments, reporting
- **Lifecycle management, versioning, auditing**
 - Applicable for every content
- **Permission management**
 - Role /group based, status depending
- **Automation**
 - Job streams, scripting, triggering
- **Open connectivity**
 - Web services, DB access, staging, (s)FTP



- **Various information and file formats**
- **In different parts and directories of the repository**



- **The answer: Generic Linking Mechanism**
- **All objects stored in the entimICE repository can be linked**
- **Graphic or tabular representation possible**



- **No Datasets or Transport Files required**
 - SDTM, ADaM structure metadata are the origin
- **Creation of an “empty” define.xml is possible**
 - Communication Tool for internal or external collaboration
- **Expected Transport Files as planned objects**

1. Create SDTM and ADaM domain metadata for study needs
2. (Check data vs domain metadata)
3. Create topics/VLM, algorithms and terminology
4. Link all required elements
5. Extract pages from aCRF
6. Create Define.xml

- Attribute Level=Structure metadata

name	label	c...	cdisc_role	cdisc_class	cdi...	cdisc_origin	cdisc_comment
STUDYID	Study Identifier	Char	Identifier	Special Purpose	Req	CRF	Unique identifier for a...
DOMAIN	Domain Abbreviation	Char	Identifier	Special Purpose	Req	Derived	Two-character abbrev...
USUBJID	Unique Subject Identi...	Char	Identifier	Special Purpose	Req	Sponsor Defined	Unique subject identifi...

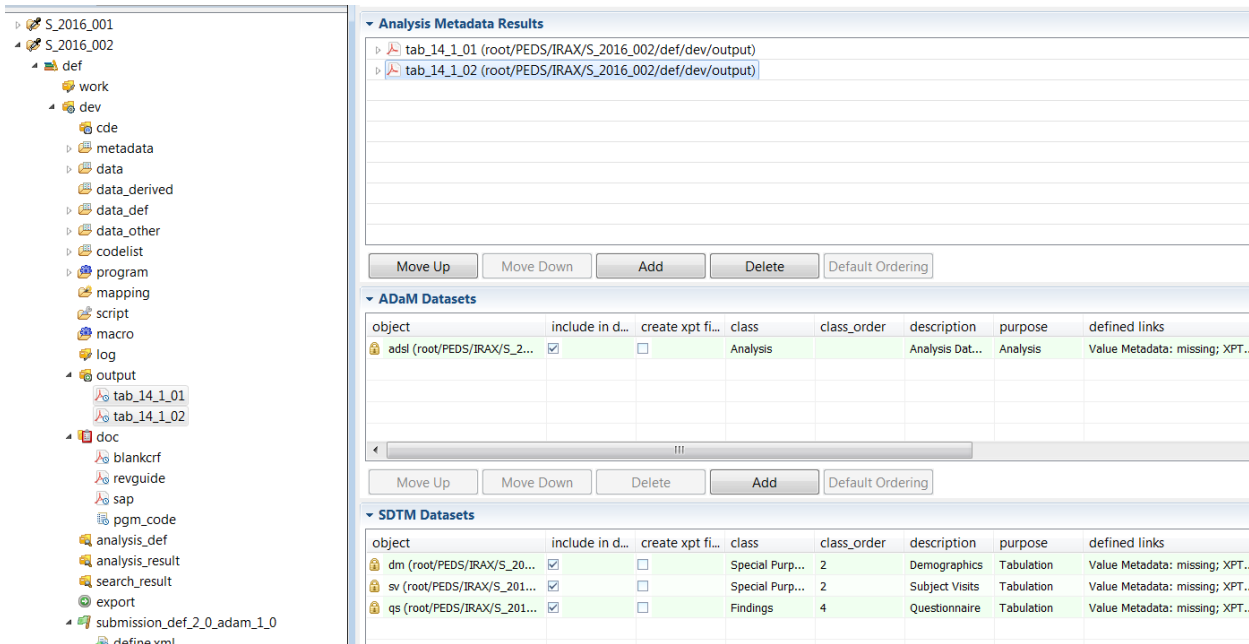
Demographics (dm) [Location:]

Variable	Label	Key	Type	Length	Controlled Terms or Format	Origin	Derivation/Comment
STUDYID	Study Identifier	1	text	100		CRF Page 3	Unique identifier for a study.
DOMAIN	Domain Abbreviation	2	text	2	DOMAIN	Derived	Two-character abbreviation for the domain.

- Ways to include algorithms:
 - Comments in SDTM metadata
 - Dataset(s) with algorithms linked to and referenced in SDTM metadata (as plain ID or *method()* syntax)

	name	cdisc_crf_pages	cdisc_role	cdisc_role (form...	cdisc_comment
27	LBSPEC		Record Qualifier	additional observ...	Defines the type of specimen used for a measurement. Examples: SERUM, PLASMA, URINE.
28	LBSPCCND		Record Qualifier	additional observ...	Free or standardized text describing the condition of the specimen e.g. HEMOLYZED, ICTERIC, LIPEMIC etc.
29	LBMETHOD		Record Qualifier	additional observ...	Method of the test or examination. Examples EIA (Enzyme Immunoassay), ELECTROPHORESIS, DIPSTICK
30	LBBLFL		Record Qualifier	additional observ...	COMPMETHOD.LBBLFL
31	LBDRVFL		Record Qualifier	additional observ...	Used to indicate a derived record. The value should be Y or null. Records which represent the average of other re
32	LBFAST		Record Qualifier	additional observ...	Indicator used to identify fasting status such as Y, N, U, or null if not relevant.
33	LBTOX		Variable Qualifier	to further modify ...	Description of toxicity quantified by LBTOXGR. Sponsor should specify which scale and version is used in sponsor
34	LBTOXGR		Variable Qualifier	to further modify ...	Records toxicity grade value using a standard toxicity scale (such as the NCI CTCAE). Value should contain valid
35	VISIT	1 2 3 7 8 9 10 11 1...	Timing	describe timing of...	1. Protocol-defined description of clinical encounter 2. May be used in addition to VISITNUM and/or VISITDY
36	VISITNUM	1 2 3 7 8 9 10 11 1...	Timing	describe timing of...	1. Clinical encounter number. 2. Numeric version of VISIT, used for sorting.

1. Select required domains
2. Select action "CDISCDefine/Generate ADaM"
3. Configuration dialog appears



The screenshot displays the configuration dialog for the CDISCDefine/Generate ADaM action. The left pane shows a tree view of the project structure, with the 'def' folder expanded. The right pane shows the configuration details for the 'def' folder, including the 'Analysis Metadata Results' section, which lists the 'tab_14_1_01' and 'tab_14_1_02' datasets. Below this, the 'ADaM Datasets' section shows a table of datasets, and the 'SDTM Datasets' section shows a table of datasets.

object	include in d...	create xpt fi...	class	class_order	description	purpose	defined links
adsl (root/PEDS/IRAX/S_2...	☒	☐	Analysis		Analysis Det...	Analysis	Value Metadata: missing; XPT...

object	include in d...	create xpt fi...	class	class_order	description	purpose	defined links
dm (root/PEDS/IRAX/S_20...	☒	☐	Special Purp...	2	Demographics	Tabulation	Value Metadata: missing; XPT...
sv (root/PEDS/IRAX/S_201...	☒	☐	Special Purp...	2	Subject Visits	Tabulation	Value Metadata: missing; XPT...
qs (root/PEDS/IRAX/S_201...	☒	☐	Findings	4	Questionnaire	Tabulation	Value Metadata: missing; XPT...

1. XML and Cascading Style Sheet and Blank CRF are set based on pre-defined links (values can be changed at run time)
2. Set output path for define
3. Select Generate corresponding report to create define.pdf

General Settings

Study	def	FileOID	Study_def
Study Name	def	Protocol Name	def
Study Description	Data Definition def		
Metadata Version OID		Metadata Version Name	Study def, Data Definitions
Metadata Version Description	Study def, Data Definitions		
Metadata Standard Name	CDISC SDTM	Metadata Standard Version	3.1.0
Domain Format		Controlled Terminology Format	

Output Settings

Object	include in d	create xst fi	class	class order	description	purpose	defined links
Move Up	Move Down	Delete	Add	Default Ordering			
XML Style Sheet (xsl)					root/PEDS/IRAX/S_2016_002/def/dev/submission_def_2_0_adam_1_0/define2-0-0.xsl		Browse ...
Cascading Style Sheet (css)					root/PEDS/IRAX/S_2016_002/def/dev/submission_def_2_0_adam_1_0/define.css		Browse ...
BlankCRF (pdf)					root/PEDS/IRAX/S_2016_002/def/dev/doc/blankcrf.pdf		Browse ...
Define.xml output path							Browse ...
Reviewer's Guide					root/PEDS/IRAX/S_2016_002/def/dev/doc/revguide.pdf		Browse ...

CDISC ADaM 1.0

- + Annotated Case Report Form (blz)
- + Reviewer's Guide (revguide.pdf)
- + Analysis Results Metadata
 - tab_14_1_01
 - tab_14_1_02
- + Datasets
 - Analysis Dataset Subject Level
 - Analysis Dataset Subject Level
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- + Controlled Terminology
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 - Age Unit
 - Country
 - SDTM Domain Abbreviation
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 - No Yes Response
 - Race
 - RoleCodeList
 - Sex
 - Unit
- + Methods
 - Visit 10 based
 - Visit 12 based
 - Visit 8 based
 - Visit 3 and SAFETY based
 - ARMCD based

Date of document generation: 2016-07-18T09:47:11+02:00

Stylesheet version: 2014-09-03

It is expected that all ItemGroups have Purpose='Tabulation' or all ItemGroups have Purpose='Analysis'.

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Analysis Results Metadata (Detail) for Study Study_ADaM_ind

tab_14_1_01

Display	tab_14_1_01 Summary of Populations Part 1
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Analysis Parameter(s)	
Analysis Variable(s)	ARM (Description of Planned Arm) ARM (Description of Planned Arm)
Analysis Reason	a pre-specified in SAP
Analysis Purpose	a primary outcome
Data References (incl. Selection Criteria)	adsl [SAFETY = "YES" and ITT = "YES"] adsl_pl [SAFETY = "YES" and ITT = "YES" and EFFICACY = "YES"] Join by USUBJID

Questions and Answers

