

Mapping Data to SDTM

Making Use of CDASH And ODM Metadata

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My Mapping Tool – the Tabulator

Tabulator - AC-058-111/tabulatorAEMHCM.tbt - Eclipse

File Edit Navigate Search Project Run Window Help

Validate on Save Transform

Navigator

AC-060-103.odmxml tabulatorAEMHCM.tbt

Tabulator Overview

File

File OID: AC-058-111.Mapping.AEMHCM
Originator: Kurt Hellstern, Hands-on GmbH

Study

Study OID: AC-058-111
Study Name: AC-058-111
Study Description: Single center, open-label, randomized, two-part, two-way crossover study to i
Protocol Name: AC-058-111

MDV

Meta Data Version (MDV) relating to the tabulator.xml/define.xml file (not to be confused with the M
MDV OID: MDV.SDTM.1
MDV Name: Version at study start
MDV Description: Mapping from AC-058-111 ODM MDV.1 to SDTM
Data Standard name: CDISC SDTM
Data Standard version: 3.1.2

Setup

Overview Domains Mappings Source

CRT Variable

OID	Name	DataTy.
AEACN	AEACN	text
AEBODSYS	AEBODSYS	text
AEDECOD	AEDECOD	text
AEENDTC	AEENDTC	text
AEENDY	AEENDY	float
AEENRF	AEENRF	text
AEHLGT	AEHLGT	text
AEHLGTC	AEHLGTC	text
AEHLT	AEHLT	text
AEHLTCD	AEHLTCD	text
AELLT	AELLT	text
AELLTC	AELLTC	text
AEOUT	AEOUT	text
AEPTCD	AEPTCD	text
AEREL	AEREL	text
AESEQ	AESEQ	integer
AESER	AESER	text
AESEV	AESEV	text
AESOCCD	AESOCCD	text
AESPID	AESPID	text
AESTDC	AESTDC	text
AESTDY	AESTDY	float
AETERM	AETERM	text
CMCAT	CMCAT	text
CMDECOD	CMDECOD	text
CMDOSE	CMDOSE	float
CMDOSFRQ	CMDOSFRQ	text
CMDOSTXT	CMDOSTXT	text
CMDOSU	CMDOSU	text

Tabulating

- **Define tables and variables (target structure)**
- **Map (tabulate) items from the eCRF into the variables in the tables**

Define Tables and Variables

Tabulator - Eclipse

File Edit Navigate Search Project Run Window Help

Validate on Save tabulatorDM.tbt

Domains

Domain: SDTM_DM

Properties

Domain OID: SDTM_DM
Domain Name: DM
Label: Demographics
Class: Special Purpose
Structure: One record per subject
Repeating: No

Domain Columns

Domain columns are references to existing variables.

OID	Mandatory	Role
STUDYID	Yes	Identifier
DOMAIN	Yes	Identifier
USUBJID	Yes	Identifier
SUBJID	Yes	Topic
RFSTDTC	No	Timing
RFENDTC	No	Timing
SITEID	No	Record Qualifier
INVNAM	No	Synonym Qualifier
AGE	No	Result Qualifier
AGEU	No	
SEX	No	
RACE	No	
ARM	No	Synonym Qualifier

Variable Ref

CRT Variables

OID	Name	Data...	Length	Label
AGE	AGE			
AGEU	AGEU			
ARM	ARM			
ARMCD	ARMCD			
COUNTRY	COUNTRY			
DMDTC	DMDTC			
DMDY	DMDY			
DOMAIN	DOMAIN			
INVNAM	INVNAM			
RACE	RACE			
RFENDTC	RFENDTC			
RFSTDTC	RFSTDTC			
SEX	SEX			
SITEID	SITEID			
STUDYID	STUDYID			
SUBJID	SUBJID			
SUPPRACE...	SUPPRACE...			
USUBJID	USUBJID			
ELEMENT	ELEMENT			
EPOCH	EPOCH			
ETCD	ETCD			
INVID	INVID			
TABRANCH	TABRANCH			
TAETORD	TAETORD			
TEENRL	TEENRL			
TESTRL	TESTRL			
TSPARM	TSPARM			
TSPARMCD	TSPARMCD			
TVAL	TVAL			
TVAL1	TVAL1			
TVTRL	TVTRL			
VISIT	VISIT			
VISITNUM	VISITNUM			

Variable Def

Map eCRF Items into Tables

- **Click, drag and drop**
- **Derive items: transform, concatenate, ...**
- **Map under conditions**
- **Include external data**
- **etc.**

Mapping: the Writers

Tabulator - AC-058-111/tabulatorAEMHCM.tbt - Eclipse

File Edit Navigate Search Project Run Window Help

Validate on Save Transform

Writers:

STUDYID	C	AC-058-111
DOMAIN	C	AE
USUBJID	E	concat ("AC-058-111-", toString (\$randomnr))
AESEQ	S	AE.seq1
AESPID	P	.. /ItemData[@OID="i.ae_aespid"]
AETERM	E	\$contextNode
AELLT	P	.. /ItemData[@OID="i.ae_aellt"]
AELLTCD	P	.. /ItemData[@OID="i.ae_aelltcd"]
AEDECODE	P	.. /ItemData[@OID="i.ae_aedecod"]
AEPTCD	P	.. /ItemData[@OID="i.ae_aeptcd"]
AEHLT	P	.. /ItemData[@OID="i.ae_aehlt"]
AEHLTCD	P	.. /ItemData[@OID="i.ae_aehltcd"]
AEHLGT	P	.. /ItemData[@OID="i.ae_aehlgt"]
AEHLGTC	P	.. /ItemData[@OID="i.ae_aehlgtd"]
AEBODSYS	P	.. /ItemData[@OID="i.ae_aebodsys"]
AESOCCD	P	.. /ItemData[@OID="i.ae_aesoccd"]
AESEV	E	transcode(1, "Mild", 2, "Moderate", 3, "Severe", 4, "not applicable", source := \$aesev)
AESEER	E	transcode(1, "Y", 2, "N", source := \$aeser)
AEACN	E	transcode(1, "None", 2, "Dose reduced", 3, "Dose increased", 4, "Temporary", source := \$aeacn)
AEREL	E	transcode(1, "Y", 2, "N", source := \$aerel)
AEOUT	E	transcode(1, "Resolved without sequelae", 2, "Resolved with sequelae", source := \$aeout)
AESTDT	E	choose (when isValue(\$aesttim) && isValue(\$aestdat) then concat(toString(\$aesttim), toString(\$aestdat)) otherwise responseCodeOf(\$aesttim))
AEENDTC	E	choose (when isValue(\$aeentim) && isValue(\$aeendat) then concat(toString(\$aeentim), toString(\$aeendat)) otherwise responseCodeOf(\$aeentim))
AESTDY	E	choose (when in(1,3,element:= \$strsequence) then round(daysDiff(\$aestdat, \$aesttim)) otherwise 0)

C = constant value
S = SEQ number generator
P = Path (1:1 mapping)
E = Expression (various functions)

Navigator

tabulatorAEMHCM.tbt

CRT V

Input ODM

STUDYID C AC-058-111
 DOMAIN C AE
 USUBJID E concat ("AC-058-111-", toString (\$randomnr))
 AESEQ S AE.seq1
 AESPID P .. /ItemData[@OID="i.ae_aespid"]
 AETERM E \$contextNode
 AELLT P .. /ItemData[@OID="i.ae_aellt"]
 AELLTCD P .. /ItemData[@OID="i.ae_aelltcd"]
 AEDECODE P .. /ItemData[@OID="i.ae_aedecod"]
 AEPTCD P .. /ItemData[@OID="i.ae_aeptcd"]
 AEHLT P .. /ItemData[@OID="i.ae_aehlt"]
 AEHLTCD P .. /ItemData[@OID="i.ae_aehltcd"]
 AEHLGT P .. /ItemData[@OID="i.ae_aehlgt"]
 AEHLGTC P .. /ItemData[@OID="i.ae_aehlgtd"]
 AEACN P .. /ItemData[@OID="i.ae_aebodsys"]
 AESOCCD P .. /ItemData[@OID="i.ae_aesoccd"]
 AESEV E transcode(1, "Mild", 2, "Moderate", 3, "Severe", 4, "not applicable", source := \$aesev)
 AESEER E transcode(1, "Y", 2, "N", source := \$aeser)
 AEACN E transcode(1, "None", 2, "Dose reduced", 3, "Dose increased", 4, "Temporary", source := \$aeacn)
 AEREL E transcode(1, "Y", 2, "N", source := \$aerel)
 AEOUT E transcode(1, "Resolved without sequelae", 2, "Resolved with sequelae", source := \$aeout)
 AESTDT E choose (when isValue(\$aesttim) && isValue(\$aestdat) then concat(toString(\$aesttim), toString(\$aestdat)) otherwise responseCodeOf(\$aesttim))
 AEENDTC E choose (when isValue(\$aeentim) && isValue(\$aeendat) then concat(toString(\$aeentim), toString(\$aeendat)) otherwise responseCodeOf(\$aeentim))
 AESTDY E choose (when in(1,3,element:= \$strsequence) then round(daysDiff(\$aestdat, \$aesttim)) otherwise 0)

Overview Domains Mappings Source

OID Name

AEACN AEACN
 AEBODSYS AEBODSYS
 AEDECOD AEDECOD
 AEENDTC AEENDTC
 AEENDY AEENDY
 AEENRF AEENRF

AEREL AEEREL
 AESEQ AESEQ
 AESEER AESEER
 AESEV AESEV
 AESOCCD AESOCCD
 AESPID AESPID
 AESTDT AESTDT
 AESTDY AESTDY
 AETERM AETERM
 CMCAT CMCAT
 CMDECODE CMDECODE
 CMDOSE CMDOSE
 CMDOSFRQ CMDOSFRQ
 CMDOSTXT CMDOSTXT
 CMDOSU CMDOSU
 CMENDTC CMENDTC
 CMENRF CMENRF
 CMINDC CMINDC
 CMROUTE CMROUTE
 CMSEO CMSEO

CDASH for Mappings into Finding Domains

Marvin - AC-057-115 Demo Stud - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

xclinical.net https://actelion.xclinical.net/marvin/studydata/action.do?requestId=4&requestId=X Google

Meistbesuchte Seiten Spotfire maps Google Actelion Cor-03 Cor-03T Lhon Lhon-T Falken WM wetter cecina

Marvin - AC-057-115 Dem...

Nummer: 30 -- Alter: 26 -- Datum Tag 1: 17.11.2008

Screening (Tag -21 bis Tag -3) 11.11.2008 Studientag 1 17.11.2008 Studientag 2 18.11.2008 Studientag 3 19.11.2008 Studientag 4 20.11.2008 S 21

VSDDAT

Please add item groups for the timepoints: 90 min / 4 h / 12 h

Vital Signs

Row number	Geplanter Zeitpunkt	Zeit	Systolic Blood Pressure	Diastolic Blood Pressure	Heart rate
1	90 min	08:49	111 mmHg	74 mmHg	57 Schläge pro Minute
2	4 h	103 mmHg	66 mmHg	59 Schläge pro Minute	
3	12 h	19:18	115 mmHg	71 mmHg	57 Schläge pro Minute

Weiter Verlassen SDV speichern Formular löschen Event löschen

VSDTIM

VSDTC 2008-11-17T08:49 **VSTESTCD** SYSBP **VSORRES** 111
2008-11-17T08:49 **DIABP** 74
2008-11-17T08:49 HR 57

Info / Hilfe

Patienten

- Queries/Memos
- Berichte
- Nachrichten
- Benutzer
- Zentren
- Materialien
- System

Beenden

Test Datamanager

Actelion Pharmaceuticals Ltd

TEST INSTANCE

MARVIN

Fertig

Detailed description: The image shows a screenshot of the Marvin software interface for a clinical study. The main window displays a 'Study Data' entry for patient number 30, born on 11.11.2008. The 'Vital Signs' section is highlighted with a blue box labeled 'VSDDAT'. A red box highlights the 'Diastolic Blood Pressure' column in the data table. A green box labeled 'VSDDAT' points to a summary table at the bottom showing findings like VSDTC, VSTESTCD, VSORRES, DIABP, etc. Red arrows map specific data from the CDASH table to the corresponding fields in the finding domain table.

CDASH plus: Use of Metadata

The screenshot shows the Eclipse IDE interface with the following details:

- Title Bar:** Study - AC-058-111/AC-058-111.odmxml - Eclipse
- Menu Bar:** File, Edit, Navigate, Search, Project, Run, Study, Window, Help
- Toolbar:** Includes icons for New, Open, Save, Print, Cut, Copy, Paste, Find, Replace, Validate on Save, and Transform.
- Navigator View:** Shows project files including .project, ~\$rin user.doc, AC-058-111 previous.odmxml, AC-058-111_final CRF_1.0_20110216.pdf, AC-058-111_SDTM review_20110705.doc, AC-058-111.odmxml, and AC-058-115-V0.2.permissions.xml.
- ODM Tree View:** Displays the ODM structure with nodes like f.ccbbbadmin, f.ecgrep, f.vitalsignsrep, ig.vitalsignsrep, i.vs_vsspid, i.vs_vstpt, i.vs_vsdat, i.vs_vstim, i.vs_temp, i.vs_svshn, i.vs_diabp, mu.mmmhg, i.vs_pulse, i.vs_height, i.vs_pulse, i.vs_sysbp, i.vs_temp, i.vs_vsdat, e.a1b1_day2, e.a1b1_day3, e.a1b1_day4, and e.a1b1_day5. The node **i.vs_diabp** is highlighted with a red box.
- Data Definition View (Main Area):** Shows the definition for the element **i.vs_diabp**. The properties are:
 - OID:** i.vs_diabp
 - Name:** Diastolic blood pressure
 - Binary:** No
 - DataType:** integer
 - Length:** 3
 - SASFieldName:** DIABP
 - SDSVarName:** DIABP
- Questions Section:** Shows the question "Diastolic blood pressure" with its language code "en".
- Element Paths:** A section showing the path for the element.
- Bottom Navigation:** Overview, Data Definitions, Codelists, Alternate Respons..., Measurement Units, Actions.

A large red box highlights the **i.vs_diabp** entry in the ODM Tree and the entire **i.vs_diabp** row in the Data Definition view. Another red box highlights the text "Controlled terminology in ODM elements" at the bottom of the Data Definition view.

Use of Metadata from Item i.vs_diapp

W Writers:

STUDYID	C	AC-058-111
DOMAIN	C	VS
USUBJID	E	concat ("AC-058-111-", \$randomnr)
VSSEQ	S	VS.Seq1
VSSPID	N	[null]
VTESTCD	E	sdsVarNameOF(\$contextNode)
VTEST	E	nameOF(\$contextNode)
VSPOS	C	Supine
VSORRES	E	withDefault (\$contextNode, default:= null)
VSORRESU	E	measurementUnitValueOF(\$contextNode)
VSORNRLO	C	lowerRangeValueOF(\$contextNode)
VSORNRHI	C	upperRangeValueOF(\$contextNode)
VSSTRESC	E	withDefault (\$contextNode, default:= null)
VSSTRESN	E	withDefault (\$contextNode, default:= null)
VSSTRESU	C	measurementUnitValueOF(\$contextNode)
VSSTNRLO	E	lowerRangeValueOF(\$contextNode)
VSSTNRHI	E	upperRangeValueOF(\$contextNode)

aaa = tabulator functions

bbb = Kurt's wish for enhancements

Push your providers to

- **Develop mapping tools**
- **To increase the tool's features**