

Are we on the same page – trial level metadata based upon project metadata

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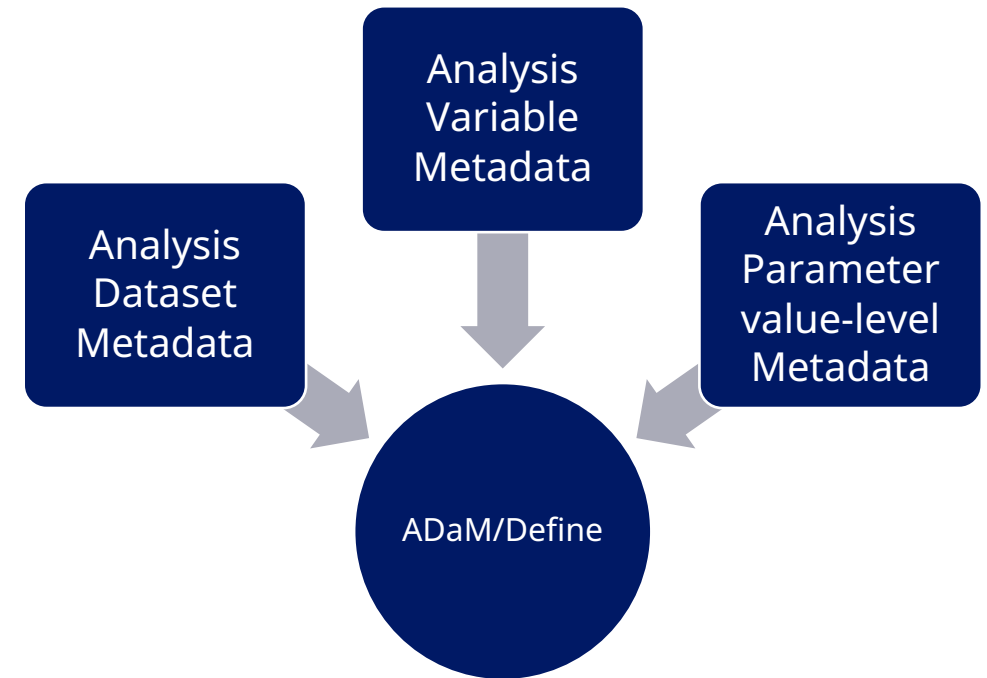
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Agenda

- Background/Motivation
 - What is it all about
 - What was the motivation
- How to handle the challenge
 - Description of the setup
- Conclusion
 - What was the benefits

Background

- Metadata is often used in the generation of ADaM datasets
 - Specification of variables, lengths, formats, labels etc.
- A define.xml document needs to be created describing the ADaM datasets
 - Metadata is likewise used for the define.xml generation in combination with other metadata



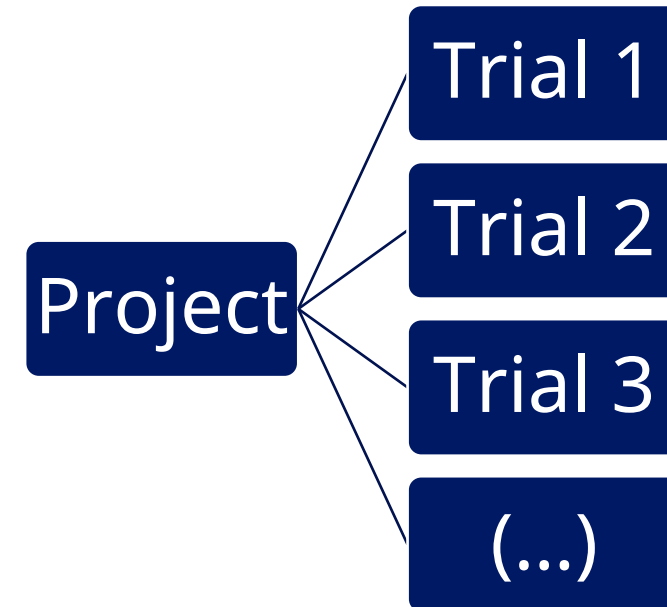
Background

- In Novo Nordisk we use the SAS clinical standards toolkit setup to generate metadata for our ADaM datasets
- ADaM metadata model:
 - Master model
 - Latest standards
 - General description
 - Project model
 - Project specific information
 - Trial model
 - Trial specific information



Background

- Projects consist of multiple trials
 - Trial designs (different treatments, stages etc.)
 - CRF's
- Important to ensure alignment of metadata across trials
 - Clarity
 - Understandability
 - Ease the submission process
 - Ease pooling of data



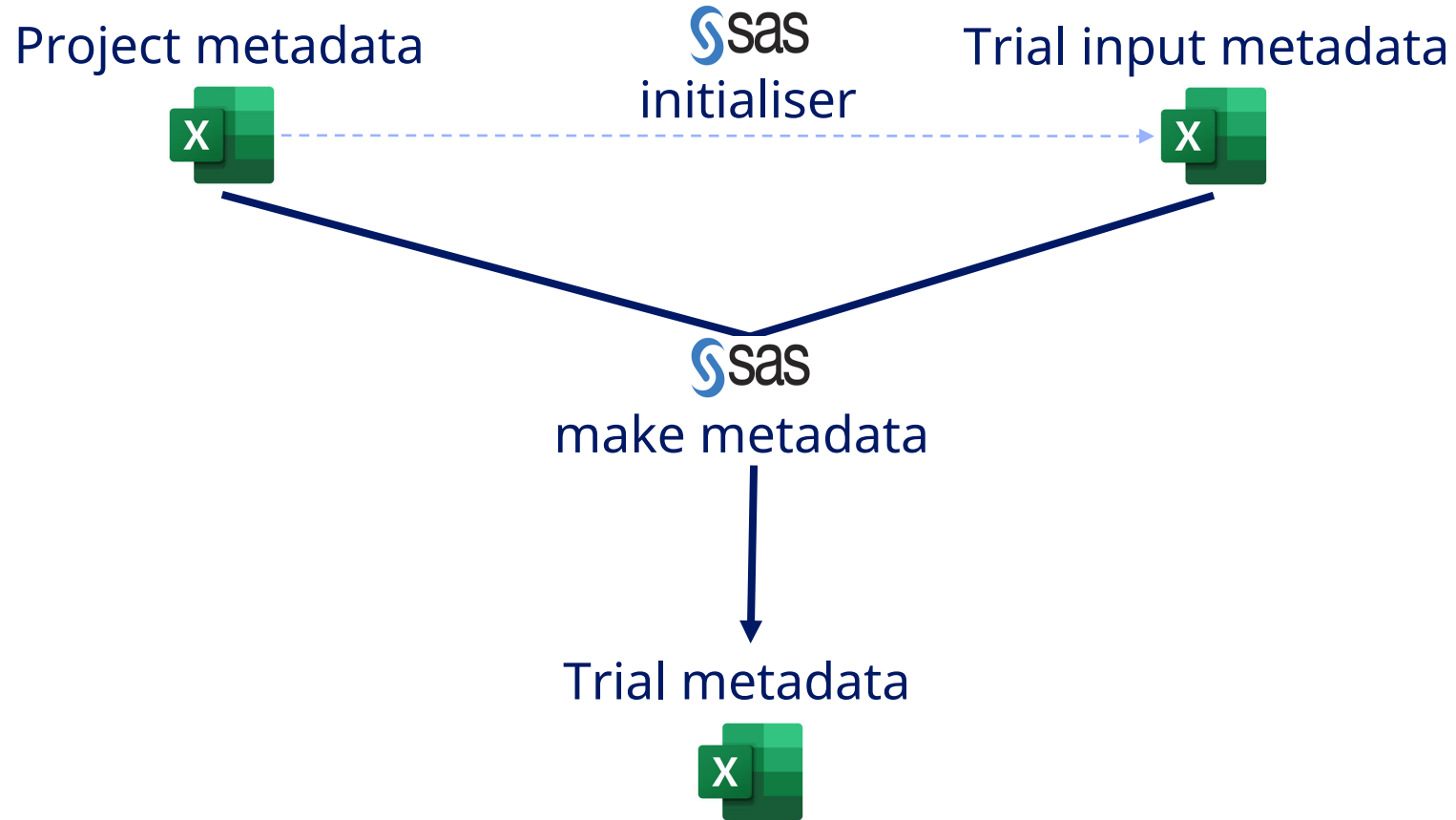
Motivation

- How to ensure alignment across trials within a project?
- How to ensure consistency across trials when submitting?
- How to get an overview of derivation differences when pooling trials?
- How to avoid redundant manual updates across trials?
- How to ensure project related changes are easily inherited downstream?

What did we do?

- We developed an ADaM metadata work flow
- Joined effort across many project teams
 - Conceptualising the idea, based upon previous learnings – what worked and what did not
 - Beta version from one project group was send along to the next.
- Build a strong project model or multiple project models
 - Either up front or at the start of your individual trials
 - Project setup (phase 1, Phase 3, Legacy)
 - Trial designs
 - CRF designs

Process flow



Process flow

table	column	label	type	length	Core	Origin	xmlcodelist	origindescription	algorithm	comment	Orderblock	Sortorder
ADLB	ACTARM	Description of Actual Arm	C	40	Perm	Predecessor		ADSL.ACTARM			810_adsl_arm	3
ADLB	ACTARMCD	Actual Arm Code	C	40	Perm	Predecessor		ADSL.ACTARMCD			810_adsl_arm	4
ADLB	ANL04FL	Analysis Flag 04	C	1	Cond	Derived	Y		Y for records that occur after date of first trial product and before (date of last visit or 14 days after last drug administration) whichever comes first; else blank.		410_nadsl_anfl	9
ADLB	ANL04REA	Analysis Flag 04 Reason	C	200	Perm	Assigned				Missing when ANL04FL eq Y; else "observed value is outside the on-treatment period"	410_nadsl_anfl	10



make metadata



Trial metadata



- Based on:
 - Master model
 - Project specific information
 - Trial designs
 - CRF's

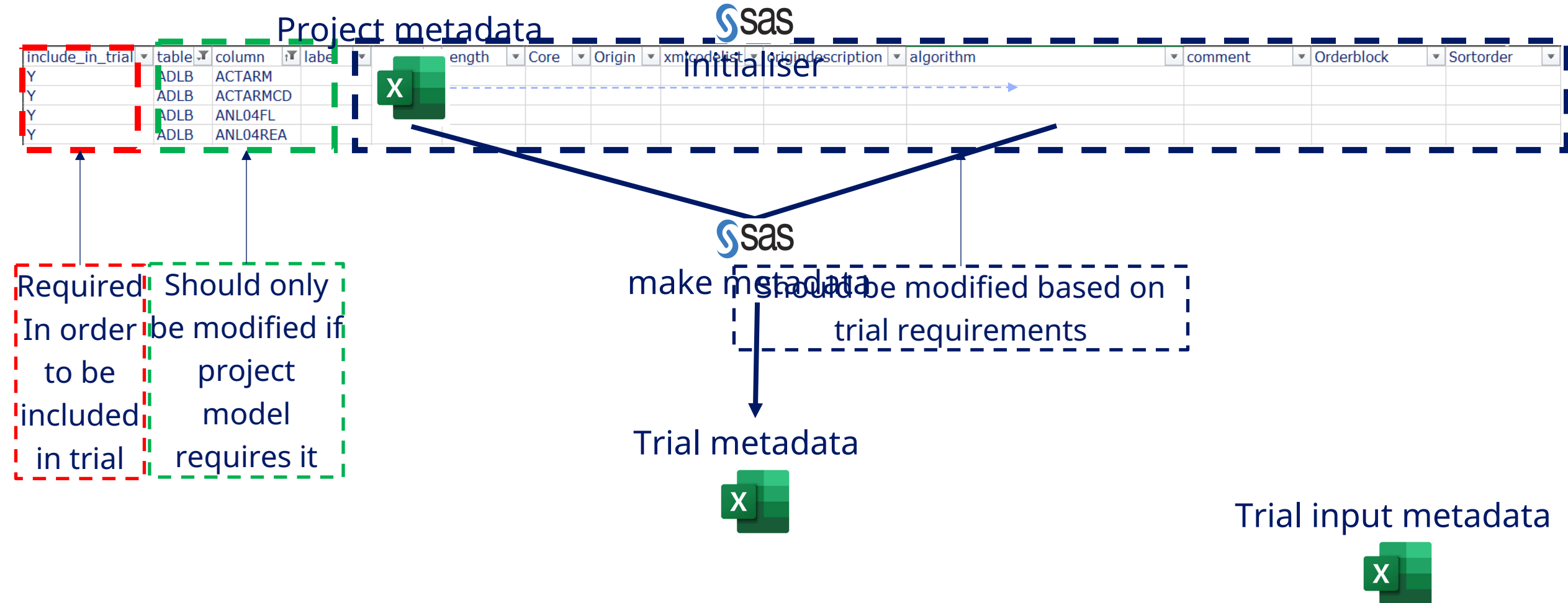
include in trial	table	column	label	type	length	Core	Origin	xmlcode
	ADLB	ACTARM	Description of Actual Arm	C	40	Perm	Predecessor	
Y	ADLB	ACTARMCD	Actual Arm Code	C	40	Perm	Predecessor	
Y	ADLB	ANL04FL	Analysis Flag 04	C	1	Cond	Derived	Y

source_tables source_columns source_codelists source_documents

Project metadata



Process flow



Process flow

Project

table	column	label	type	length	Core	Origin	xmlcodelist	origindescription	algorithm	comment	Orderblock	Sortorder
ADLB	ACTARM	Description of Actual Arm	C	40	Perm	Predecessor		ADSL.ACTARM			810_adsl_arm	3
ADLB	ACTARMCD	Actual Arm Code	C	40	Perm	Predecessor		ADSL.ACTARMCD			810_adsl_arm	4
ADLB	ANL04FL	Analysis Flag 04	C	1	Cond	Derived	Y		Y for records that occur after date of first trial product and before (date of last visit or 14 days after last drug administration) whichever comes first; else blank.		410_nadsl_anfl	9
ADLB	ANL04REA	Analysis Flag 04 Reason	C	200	Perm	Assigned				Missing when ANL04FL eq Y; else "observed value is outside the on-treatment period"	410_nadsl_anfl	10

Trial input

include_in_trial	table	column	label	type	length	Core	Origin	xmlcodelist	origindescription	algorithm	comment	Orderblock	Sortorder
Y	ADLB	ACTARM											
Y	ADLB	ACTARMCD											
Y	ADLB	ANL04FL											
Y	ADLB	ANL04REA											

Trial

include_in_trial	Table	column	label	type	length	core	origin	xmlcodelist	origindescription	algorithm	comment	orderblock	sortorder
Y	ADLB	ACTARM	Description of Actual Arm	C	40	Perm	Predecessor		ADSL.ACTARM			810_adsl_arm	3
Y	ADLB	ACTARMCD	Actual Arm Code	C	40	Perm	Predecessor		ADSL.ACTARMCD			810_adsl_arm	4
Y	ADLB	ANL04FL	Analysis Flag 04	C	1	Cond	Derived	Y		Y for records that occur after date of first trial product and before (date of last visit or 14 days after last drug administration) whichever comes first; else blank.		410_nadsl_anfl	9
Y	ADLB	ANL04REA	Analysis Flag 04 Reason	C	200	Perm	Assigned				Missing when ANL04FL eq Y; else "observed value is outside the on-treatment period"	410_nadsl_anfl	10

Trial metadata



Project model

	Y for records that occur after date of first trial product and before (date of last visit or 14 days after last drug administration) whichever comes first; else blank.	missing when
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"Y" for records that occur after date of first trial product and before (date of visit 7 or 14 days after last drug administration) whichever comes first; else blank.

Process flow (example 1)

- Trial metadata

include_in_trial	Table	column	label	type	length	constraints	origin	xmlcode	originaldescription	algorithm	comment	orderblock	sortorder
Y	ADLB	ACTARM	Description of Actual Arm	C	40	Perm	Predecessor		ADSL.ACTARM			810_adsl_arm	3
Y	ADLB	ACTARMCD	Actual Arm Code	C	40	Perm	Predecessor		ADSL.ACTARMCD			810_adsl_arm	4
Y	ADLB	ANL04FL	Analysis Flag 04	C	1	Cond	Derived	Y		"Y" for records that occur after date of first trial product and before (date of visit 7 or 14 days after last drug administration) whichever comes first; else blank.		410_nadsl_anfl	9
Y	ADLB	ANL04REA	Analysis Flag 04 Reason	C	200	Perm	Assigned				Missing when ANL04FL eq Y; else "observed value is outside the on-treatment period"	410_nadsl_anfl	10

- Combining project and trial information
- Colour highlighting trial specific changes

- Adding new variables
 - Populate to project model

- Add to trial input file

[illegible]

Process flow (example 2)

- Trial metadata

include_in_trial	Table	column	label	type	length	cor	origin	xmlcode	origindescription	algorithm	comment	orderblock	sortorder
Y	ADLB	ACTARM	Description of Actual Arm	C	40	Perm	Predecessor		ADSL.ACTARM			810_adsl_arm	3
Y	ADLB	ACTARMCD	Actual Arm Code	C	40	Perm	Predecessor		ADSL.ACTARMCD			810_adsl_arm	4
Y	ADLB	ANL04FL	Analysis Flag 04	C	1	Cond	Derived	Y		"Y" for records that occur after date of first trial product and before (date of visit 7 or 14 days after last drug administration) whichever comes first; else blank.		410_nadsl_anfl	9
Y	ADLB	ANL04REA	Analysis Flag 04 Reason	C	200	Perm	Assigned				Missing when ANL04FL eq Y; else "observed value is outside the on-treatment period"	410_nadsl_anfl	10
Y	ADLB	CLFL	Clinically Significant	C	1	Perm	Predecessor	Y	SUPPLB.QVAL where QNAM=CLSIG			200_bds_aval	10

Rules and conventions

- Possible to include rules and conventions for the setup
- Predecessors from SDTM are not possible to modify, they will be taken from SDTM metadata
- Traceability stamps, where does the trial level metadata origin from, project, trial or SDTM
- Core variables are only included once
 - Core variable flag (ADSL variables)
- Colour coding in trial level metadata to help get a quick overview of which variables are trial specific or are core variables

Conclusion

- Facilitates alignment of trials within a project
 - Ease cascading of new definitions across a project
- Giving a nice overview of trial metadata and origin
- Eases the review process
- Makes it easier to transfer people from another project
- Ease the workload of the trial programmer