

> Is the duplication of models at ESA and in ADS a constraint or a positive decision?

A clear separation of the models in term of responsibility is desired as changes should only be made by the responsible entity/engineer/modeller. This duplication however does come with issues of traceability and combability as well as a need of version control each time the model is exchanged.

> An example of a review artifact would help understand the concept.

Indeed, we will provide more direct insights in these artefacts in the future.

> How do you ensure a good navigability in the exported "review model" in Excel? By default in Excel it might be difficult to huge navigate tree structures in Excel.

The excel goes hand in hand with the html export which is the format that will show the actual model. The excel only contains a list of raised issues with a reference to model element. Additionally, excel templates could be created to make navigability easier.

> What was the reason to not use the CAMEO Collaboration features as part of the Review process?

At the time of this talk, CAMEO collaborator is not deployed within ESA.

> Is it possible in Cameo to see/navigate the list of all reviews without exporting to Excel?

Yes, this is the main way the model-based review was set-up. The Excel interface was only created for users which do not have access to Cameo.

> I understand the model is a parallel specification and there is also a document or requirement-based one. Did the model review help to identify issues with the system requirements as well?

Yes, the model is a parallel specification. Issues were mainly identified during the modelling process itself as representing information in CAMEO forces a new perspective. The mapping between the functional and logical architecture also allowed to identify missing specifications.

> Establishing common constructs for 'review artefacts' and associated review workflow could be of benefit for multiple projects. Can the utilised excel format and review artefact metadata be made available? How does RID processing and management compare to the workflow of the commonly used (document-based) Eclipse tool from Sapienza today?

1: The excel format and cameo artefact was specifically developed for this use case (MSR-ERO). As of yet, there are no plans to extend the development to a more general use case.

2: This question would require more in-depth study as for now, only a single review was done in this format. However, already from this first experiment a number of benefits are identified. Since these digital RIDs are directly associated in the model, context on the issue is easier to grasp. Additionally, issues related to consistency in the documentation would usually result in a significant amount of RIDs each raised multiple times by different users. These can be directly addressed in the model once.

> Follow-up question: model elements can have the same names. How do you deal with this? Are the unique identifiers used or do you impose a uniqueness constraint on the names of model elements?

Unique identifier can be used to correctly map model element and review element. If the modelling methodology imposes uniqueness in name, this name of the model element can be used.

> Were SysML's viewpoints and views leveraged for the generation of review artifacts? If not, what difficulties did you find on using them to automate queries related to the review process?

No, SysML viewpoints were not used. Specific stereotype was initially planned to be used instead to filter out model elements for specific disciplines. However, manual mapping of the review team was done. This will be part of future advancement.