EULYNX Baseline Set 4
Release 3

EULYNX SysML Model Export
Explanatory Note

Revision History

Revision #	Revision Date	Description of Change	Author
1A	20220530	Creation of the Document	Felix Auris, Ibtihel Cherif
1B	20230629	Update for BL4 Release 2	Nico Huurman
1C	20240621	Update for BL4 Release 3	Nico Huurman

1 Purpose of the Document

For all model-based deliverables published as part of EULYNX Baseline Set 4, one of the supporting artefacts for model-based deliverables is a tool export of the EULYNX SysML model. This document aims at giving an overview over the SysML model export, its relation to the specification and some remarks regarding its usage.

2 Primary status of the PDF specification

The EULYNX specification consists of the PDF documents created by the EULYNX initiative. The formal specifications are represented in the official published PDF documents.

The additional artefact in the form of the SysML model export aims to provide further explanation, and is not intended to be used on its own. It is meant only to support working with the EULYNX specifications by helping with visualisation and allow further use in the model-based environment. EULYNX specifications are created by a synchronisation of the model with the PDF specifications, and the specifications are then reviewed for quality assurance. Because of this process, in the case of inconsistencies between the PDF specifications and the model export, the PDF specifications are considered as leading.

Certain aspects of the model might not have been shown in the PDF specifications, either because they were considered not necessary for the behaviour specification (e.g. for simulation and validation of the model), or aspects of the model might contain modelling (tool-related) artefacts from previous EULYNX releases.

The export does not claim to represent the formal specification, it is to be viewed as an aid for better understanding of the EULYNX specifications.

3 Versions

The exported model is available in the form of a Windchill modeler export file which can be imported into a modelling tool that supports the respective data format. However, a satisfying tool for an independent exchange (e.g. via XMI) is not yet available.

The exported models are uploaded as a zip folder which can be imported in PTC Windchill Modeler. EULYNX has used PTC Windchill Modeler version 10.0.

The published BL4 Release 3 specification documents include the model version 28.
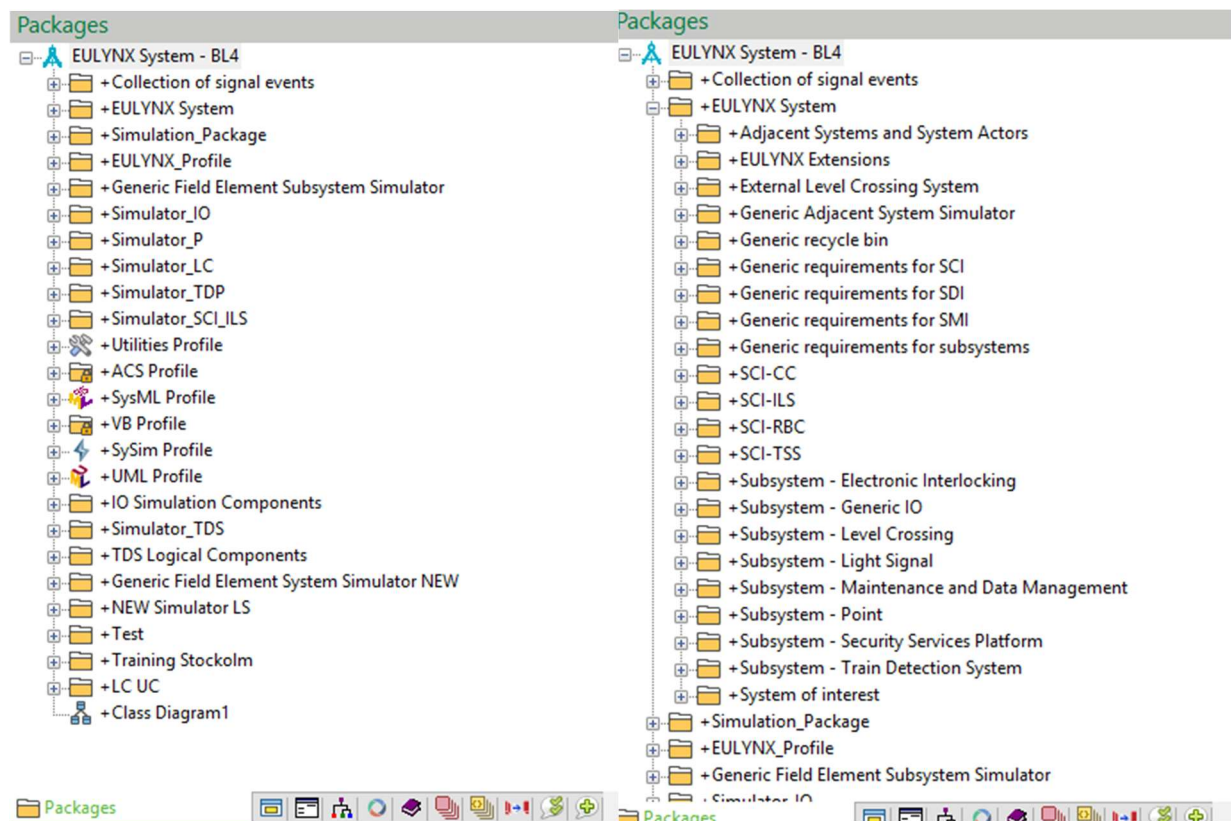
4 Contents of the exchange

The delivered zip folder of the model export contains:

- All specific subsystems and adjacent systems
- All generic parts, no model split anymore between specific and generic, all combined in one model

The following section gives a brief overview about the structure of packages in the export:

The picture on the left side presents an overview of the package content of the export in Windchill Modeler. The export contains all the system specifications. Also, it contains some packages which are used for simulation or validation purposes (e.g. SySim Profile). The picture on the right focuses on the EULYNX system specifications which will be shown in detail in the next pictures.

The picture on the left shows an example of the package structure of a EULYNX Interface (SCI) and the picture on the right shows an example of a EULYNX subsystem, here the Subsystem Generic-IO. Both contain the respective model elements and diagrams for that interface/subsystem in the underlying packages according to the EULYNX methodology of behaviour description. A detailed description of the modelling methodology, the package structure and further EULYNX specific reductions/ restrictions to SYSML are explained in the EULYNX Modelling Standard (Eu.Doc.30).