

Digital Systems Engineering Process Model User Manual

Timestamp

Created on: **05.04.2023**Last Review: **05.04.2023**

Created by: <u>Alexander.Efremoff@gmail.com</u> CSEP

Product Summary

The Digital Systems Engineering Process Model has two purposes:

- to make the access to system life cycle processes, their definitions, their inputs and outputs and their definitions easier.
- to enable system life cycle processes tailoring in a model-based fashion.

The product consists of two parts. First part – the interactive process model – covers the first purpose. The second part – editable machine-readable process model – covers the second purpose.

First part | Interactive process model

The interactive process model is a user-friendly list of system life cycle processes, their inputs and outputs, relations between them and their definitions, accessible via any browser.

A user can read definitions of processes, inputs and outputs by clicking on them. Navigation between an overview of the whole process model and of a specific process is provided by references between views (blue boxes) or by Model Tree view.

The first part of our product is an HTML export created in the Archi tool (www.archimatetool.com).

Please refer to the following short video introduction on how to use the interactive process model.

Second part | Editable machine-readable process model

The editable machine-readable process model is a template users can import and edit in an architecture modelling tool they prefer.

We provide the editable machine-readable process model in three formats:

- *.archimate file to open with Archi tool (www.archimatetool.com)
- *.xml file in the Open Exchange Format to open in any tool which supports it
- *.csv files exported by Archi to open in any tool

The source file is the *.archimate file. We created it using the Archi tool.

The Archimate® architecture description language is the native language for Archi tool. Hence – we described our model using this language.

Please refer to the following short video introduction on how to use the interactive process model.



Supplementary Script

As a supplement to our product, we provide a script which switches display languages in the model: English and German.

This script works only with an extension of Archi called jArchi (https://www.archimatetool.com/plugins/#jArchi)

File name is Switch_Languages.ajs

Sources, Copyright Notes for the Product

Different parts of this product have different copyright owners. Use of this product, is expressly subject to prior consent from the following parties: INCOSE, ISO or a national representative body, Wiley and the German Chapter of INCOSE GfSE e.V. (the "Consenting Parties")

INCOSE grants permission, subject to consent from the additional Consenting Parties, on the following terms and conditions:

Author Use. Authors have full unfettered rights to use their contributions, with credit and attribution to the INCOSE Technical source, except with regard to abstraction, which requires additional credit to the source.

INCOSE Internal Use. Members of INCOSE are hereby permitted to reproduce and use this document, or parts thereof, including permission to prepare derivative works from this document for INCOSE's internal use, with credit and attribution to INCOSE so long as this copyright notice is included with all reproductions and derivative works.

INCOSE External Use. Sharing and reproduction of this document to non-affiliate third parties outside of INCOSE is permitted only when shared or reproduced in whole and not altered in any way. Any preparation of derivative works for external and/or commercial use is expressly prohibited unless otherwise granted in a separate written agreement between the end-user and INCOSE. Any external use not expressly permitted under this section shall be prior approved by INCOSE upon receipt of written request for the same sent to: INCOSE Central Office, 7670 Opportunity Road, Suite 220, San Diego, CA 92111-2222.

INCOSE Corporate Advisory Board Use. Member companies of the INCOSE Corporate Advisory Board are permitted to post and use this document internally, subject to the INCOSE External Use restrictions set forth above.

This product contains quotations from ISO/IEC/IEEE 15288:2015. © ISO. These quotations are reproduced with permission of the American National Standards Institute (ANSI) on behalf of the International Organization for Standardization. These quotations are explicitly marked with a copyright note. All rights reserved.

This product contains quotations from the Book "INCOSE Systems Engineering Handbook: A Guide for System Life Cycle Processes and Activities, 4th Edition", ISBN: 978-1-118-99940-0, published by John Wiley & Sons, Inc., authored by David D. Walden, ESEP, Garry J. Roedler, ESEP, Kevin J. Forsberg, ESEP, R. Douglas Hamelin, Thomas M. Shortell, CSEP. Permission is granted by John Wiley & Sons, Inc. All rights reserved.

This product contains quotations from the German translation of the aforementioned Handbook: "INCOSE Systems Engineering Handbuch: Ein Leitfaden für Systemlebenszyklus-Prozesse und -Aktivitäten", ISBN: 978-3-9818805-0-2, published by John Wiley & Sons, Inc., Authors of the translation: Dr. David Endler, CSEP, SE-Zert® Level A Martin Geisreiter, ESEP. SE-Zert® Level A Rüdiger Kaffenberger, SE-Zert® Level A Jürgen Rambo. © Gesellschaft für Systems Engineering e.V.

This product was created using the Archi modelling tool (www.archimatetool.com), distributed under an MIT type license. All rights reserved.