MBSE Patterns

www.incose.org/IW2021

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INCOSE WEB PAGE
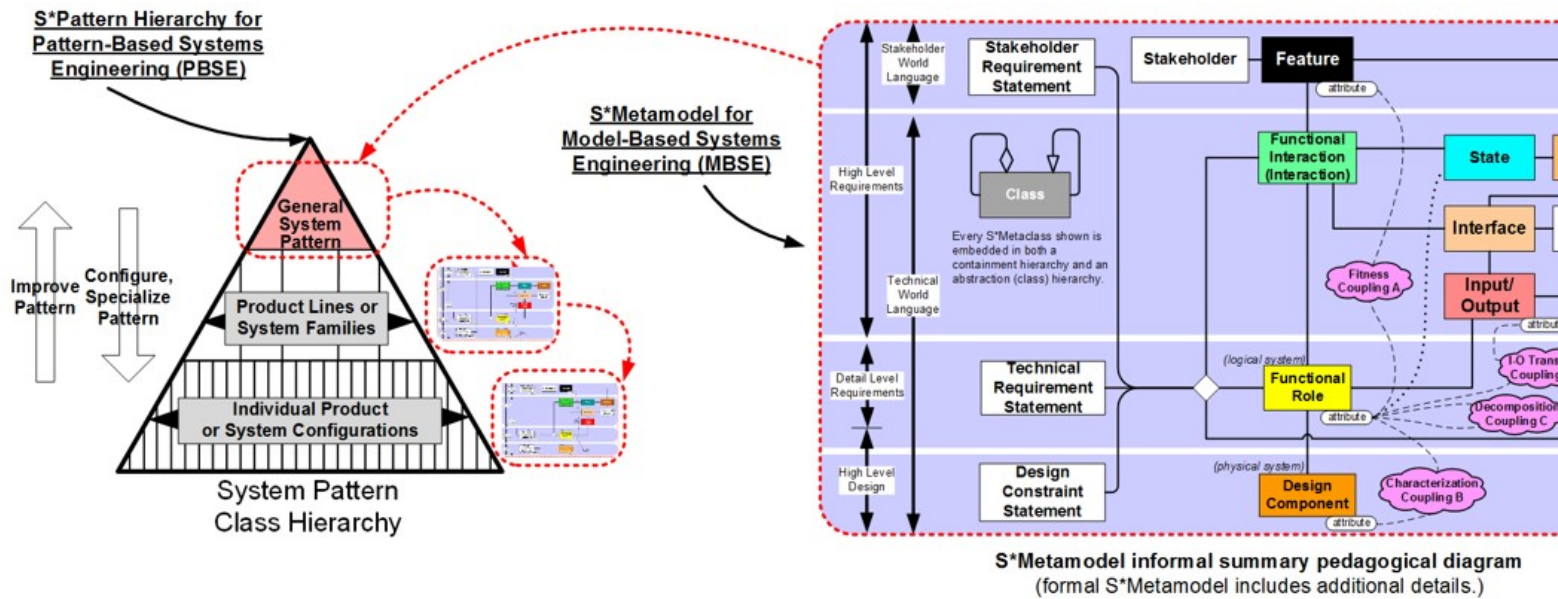
INCOSE CONNECT ADDRESS

https://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns

25 Active + 50 in WG Community

Charter Summary

WG PURPOSE/MISSION

Impactful MBSE Patterns resources and practice--also called Pattern-Based Systems Engineering (PBSE):

S*Metamodel informal summary pedagogical diagram
(formal S*Metamodel includes additional details.)

Charter Summary

WG GOAL(S)

- Lower model-origination, refinement time, effort, skill load, risk, using configured System Patterns.
- Extend impact of skilled modelers across projects and systems, reduce repeated mistakes, learning
- Improve the ROI demonstrated by MBSE methods and tools.
- Strengthened theoretical foundations for Systems Engineering

Charter Summary

WG SCOPE

- System Patterns = configurable, re-usable System Models.
- Not limited to, but including, OMG SysML models.
- System Patterns become points of accumulation of organizational learning and expertise.

OUTCOMES (PRODUCTS/SERVICES)

Outreach for seven Patterns WG activities and projects in 2021:
1. _INCOSE SE Handbook_, 5th Edition Project--New MBSE Patterns Section
2. _INCOSE Vision 2035_, SE Theoretical Foundations Project--Phenomena and Roadmap sections
3. Adaptive Learning Ecosystem Pattern?the ASELCM Reference Framework
4. Universal Model Metadata Wrapper: Model Characterization Pattern (MCP)
5. INCOSE MBSE Patterns Primer
6. Minimal S*Models?A Primer
7. Semantic Technologies for Systems Engineering (ST4SE) Project

For descriptions and references, see:
https://www.omgwiki.org/MBSE/lib/exe/fetch.php?media=mbse:patterns:iw21_mbse_workshop--mbse_patterns_wg_v1.2.1.pdf

IW Outcomes

IW OUTCOMES

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PLANNED ACTIVITIES AFTER IW

Support generation and review of MBSE Patterns section of SE Handbook 5th Edition.

Support generation and review of SE Theoretical Foundations and related Roadmap sections of INCOSE Vision 2035.

IW Outcomes

PLANNED WORK PRODUCTS AFTER IW

A. Adaptive Learning Ecosystem Pattern?the ASELCM Reference Framework as configurable S*Pattern in SysML and other forms

B. Universal Model Metadata Wrapper: Model Characterization Pattern (MCP)--as configurable S*Pattern in SysML and other forms

C. INCOSE MBSE Patterns Primer

D. Minimal S*Models?A Primer

E. Interface Pattern download portion of Semantic Technologies for Systems Engineering (ST4SE) Project