



2021
Annual **INCOSE**
international workshop
Virtual Event
January 29 - 31, 2021

MBSE Initiative Workshop

Systems Engineering Tools Database Update



SETDB Working Group

**SETDB WG Public
Web Page**

[SE Tools Database \(incose.org\)](https://connect.incose.org/WorkingGroups/ToolsDatabase/Pages/Home.aspx)

**SETDB WG
CONNECT URL**

<https://connect.incose.org/WorkingGroups/ToolsDatabase/Pages/Home.aspx>

**Working Group
Members**

14 SETDB Dev Team Members
44 General Members

**NEW SETDB
Website !!**

www.systemsengineeringtools.com



SETDB: The People and Groups

- **Systems Engineering Tools Database Team**
 - **Project Leaders:**
 - Robert Halligan (PPI) and John Nallon (INCOSE) are the Project Technical Directors
 - Stephane Lacrampe is the INCOSE Project Leader
 - Rene King is the PPI Project Leader
 - **Team Members:**
 - Wesley Hewitt (Cornell Univ) : System Models, Use Cases and OCD diagrams
 - David Sellnow (LGC Group) : Jira administration and V&V
 - Lamont Mcaliley (Veracity Engineering) : UIF Mockups, V&V, tool vendor liaison
 - Donna Long (Vitech Corp) : Requirements Analysis, Taxonomy, tool vendor SME
 - Nicolas Castan (NC Lab) : Lead Website and Database Designer
- **Collaborating with: Requirements WG, CM WG, Risk WG, Architecture WG, and the MBSE Initiative**
- **Vital Support of: INCOSE Technical Operations, INCOSE Central, the INCOSE CIO and IT, MARCOM, PPI Management, PPI Marketing, and PPI IT**



Project Team

- The **Development Team** is located in:
 - 5 states in the USA
 - Vancouver, Canada
 - Victoria, Australia
 - Knysna, South Africa
 - Toulouse, France
- We have been **operating virtually since the beginning**:
 - Zoom for weekly meetings
 - Zoom and Skype for instant meetings
 - Added **JIRA** for collaboration, tasking, V&V and Issue Management
 - Artifact management (CONNECT), and
 - Communication tools
 - E-mail,
 - WhatsApp,
 - Skype,
 - Google Docs



Project Life Cycle

- Time Line:
 - The SETDB Project was initiated at IS 2018 and became official at IW 2019
 - A **SETDB Working Prototype** was released at IW 2020
 - The **First Release** was scheduled for IS 2020 in Cape Town, SA (did not happen)
 - A **Beta version** was released in September 2020 (v0.6) – (User views)
 - An **Early Adapter version** was released in late November 2020 (v0.8) – (User and Vendor views)
 - Then.....



January 28th, 2021

**The Systems Engineering Tools Database (v0.9)
Is Back !!**



WWW.SYSTEMSENGINEERINGTOOLS.COM



SETDB Home Page



System Engineering Tools Database

Welcome from the International Council of Systems Engineering (INCOSE) and Project Performance International (PPI) to the Systems Engineering Tools Database (SETDB). We hope that the SETDB helps you to find appropriate software tools and cloud services that support your engineering activities. In order to access the SETDB, you need to be an INCOSE member logged in to the INCOSE website, or a PPI alumnus, alumna or guest logged in to PPI's Systems Engineering Goldmine website, from which you can navigate to a SETDB landing page without further login. This home page is for the benefit of members of the engineering community who are not already members of INCOSE or account holders with PPI. You can explore example content of the SETDB from this page. This page also provides access for SETDB administration.

Login

Via the INCOSE account Via the PPI SEG account With your Vendor account With your Admin account

Join

Not a member yet? SE tools database access is reserved for INCOSE members and PPI alumni and guests. Join today!

Become an INCOSE Member Engage with PPI Register as Tool Vendor

RISK MANAGEMENT	REQUIREMENTS	HUMAN FACTORS	SOFTWARE
SYSTEMS ENGINEERING			
PROJECT LEADERSHIP	INTEGRATION	VERIFICATION & VALIDATION	HARDWARE

syseng-graphical-representation-website

About Systems Engineering

Systems Engineering is a transdisciplinary and integrative approach to successful realization and evolution of engineered systems based on systems principles and concepts, together with technological and management methods, enabling beneficial use of the system and subsequent retirement. The approach aims to capture stakeholder needs and objectives and to transform these into a holistic, life-cycle balanced system solution that both satisfies stakeholder thresholds of acceptability, and maximizes overall system effectiveness in accordance with the values of the stakeholders.

The approach is proven to reduce costs, reduce development times and increase stakeholder satisfaction, regardless of the specific problem or opportunity being addressed, and regardless of the technologies of solution. As would be expected, the more complex the problem or solution, the more valuable systems engineering is. Systems engineering is widely embraced by leading technology-based organizations worldwide, is widely taught at Master's level, and is increasingly appearing in undergraduate engineering degree programs worldwide.



SETDB Explore Page



System Engineering Tools Database

Developed to help you find the right tools to support your System Engineering activities.



EXPLORE TOOLS



EXPLORE TOOL VENDORS



EXPLORE TOOL CATEGORIES

Quick Links

[INCOSE - International Council on Systems Engineering](#)
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SETDB Explore Tools



SETDB Explore Tools

66 result(s)

Refine your search

Latest version only

by Capability Question ?

available later

by Category ?

Select your category

by Keyword ?

[Start Typing and press enter for each value]

by PPI Process Element ?

Select your PPI Process Elements

by SEH Process ?

Select your SEH Process

by Tool Name ?

[Start Typing and press enter for each value]

by Vendor ?

[Start Typing and press enter for each value]

Filter

Product Name ▲▼	Vendor ▲▼	Version	Tool Categories	Created ▲▼	Modified ▲▼	
Another Req Tool	Tool Vendor Deleted	0.05alpha	SE Tool Integration Software Decision Support - Other Product Costing and more	2020-03-16	2020-07-14	🔍
Cameo Business Modeler	CATIA No Magic	1	Modeling & Simulation (excluding CAD, Math & Value Modeling)	2020-07-14	2020-09-25	🔍
Cameo Collaborator for Alfresco	CATIA No Magic	?	Modeling & Simulation (excluding CAD, Math & Value Modeling)	2020-07-14	2020-07-14	🔍
Cameo Collaborator for Teamwork Cloud	CATIA No Magic	?	Modeling & Simulation (excluding CAD, Math & Value Modeling)	2020-07-14	2020-07-14	🔍
Cameo DataHub	CATIA No Magic	?	SE Tool Integration Software	2020-07-14	2020-07-14	🔍
Cameo E2E Bridge	CATIA No Magic	?	Modeling & Simulation (excluding CAD, Math & Value Modeling)	2020-07-14	2020-07-14	🔍
Cameo E2E Builder	CATIA No Magic	?	Modeling & Simulation (excluding CAD, Math & Value Modeling)	2020-07-14	2020-07-14	🔍
Cameo Enterprise Architecture	CATIA No Magic	?	Modeling & Simulation (excluding CAD, Math & Value Modeling)	2020-07-14	2020-07-14	🔍
Cameo Inter-Op	CATIA No Magic	?	SE Tool Integration Software	2020-07-14	2020-07-14	🔍
Cameo RiskManager	CATIA No Magic	?	Risk Management	2020-07-14	2020-07-14	🔍



Explore Tool Vendors



SETDB Explore Vendors

24 result(s)

Refine your search

by Category ?

Select your category

by Keyword ?

[Start Typing and press enter for each value]

by PPI Process Element ?

Select your PPI Process Elements

by SEH Process ?

Select your SEH Process

Filter

Vendor ▲▼	Last update ▲▼	Nb tools	Categories	
ACME LLC1	0000-00-00	2		🔍
NC Lab	2020-04-21	0		🔍
MBSE4All	2020-12-03	1	Data Visualization	🔍
JFN Enterprises LLC	2020-11-30	5	Documentation Management Product Lifecycle Management (PLM) Verification & Validation Management and more	🔍
ToolVendorCreation Test 15b	2020-06-16	0		🔍
The Software Company	2020-07-14	0	Brainstorming CAD	🔍
The REUSE Company	0000-00-00	6	Safety Engineering	🔍
Vitech Corporation	0000-00-00	3	Conjoint Analysis	🔍
IBM	0000-00-00	1	Safety Engineering	🔍
ATLASSIAN	0000-00-00	1	Lifecycle Management	🔍

1 to 10 of 24 rows

Row per page 10

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SETDB Exploring the Categories

Tools listed in the SETDB are linked to specific tool categories. These categories are linked to Systems Engineering processes as defined in the INCOSE Systems Engineering Handbook 4th Edition and to PPI's Process Elements, to help you find the right tool depending on your need and activity.

Categories INCOSE Processes PPI process elements

- Decision Support
 - Analytic Network Process (ANP)
 - Analytical Hierarchy Process (AHP)
 - Conjoint Analysis
 - Decision and Event Trees
 - Decision Support - Other
 - Multi-Attribute Utility Theory (MAUT)
 - Quality Function Deployment (QFD)
- + Domain-Specific Engineering
- + Engineering Management
- + Lifecycle Management
 - Mathematical Analysis & Modeling
 - Meta-Modeling (Modeling Language Workbenches)
 - Model Based Systems Engineering**
 - Modeling & Simulation (excluding CAD, Math & Value Modeling)
- + Physical Design
 - Product Line Engineering & Management (PLE)
 - Prototyping
 - Quality Management
 - Requirements Engineering
 - Risk Management
 - SE Tool Integration Software
 - SE Training Software
- + Specialty Engineering
 - Systems Thinking
 - Systems Thinking
 - Tailoring
 - Testing (see Verification)
- + Verification and Validation (V&V)
- + Visualization

Model Based Systems Engineering

Description: MBSE is a digital artifact approach to Systems Engineering where the system information is captured in a system model or sets of models.

Keywords:

INCOSE processes:

- SEH v4: 4.2 Stakeholder Needs and Requirements Definition Process
- SEH v4: 4.3 System Requirements Definition Process
- SEH v4: 4.4 Architecture Definition Process
- SEH v4: 4.5 Design Definition Process
- SEH v4: 4.6 System Analysis Process
- SEH v4: 4.9 Verification Process
- SEH v4: 4.11 Validation Process
- SEH v4: 9.1 Modeling & Simulation
- SEH v4: 9.2 Model Based Systems Engineering

PPI processes:

- Requirements Analysis
- Effectiveness Evaluation and Decision
- Specification of System Elements
- System Integration
- Verification
- Validation

No tools for this category No vendors for this category



Any Questions?

The Systems Engineering Tools Database (SETDB)



WWW.SYSTEMSENGINEERINGTOOLS.COM



- **SETDB WG Activities at IW 2021:**

- **Monday January 25th** : CCB Issue Review and Release Analysis
- **Tuesday and Weds:** Operational Procedure Development
- **Thursday: 1st SETDB** : Overview and Demonstration, SETDB Release to INCOSE
- **Saturday: 2nd SETDB** : Overview and Demonstration, MBSE SETDB Update
- **Sunday:** Deep Dive on the SETDB Tool Categories and Process Mapping
- **Monday:** Tool Vendor Introduction: Requesting an Account, Entering POC information, loading single tools and families of tools.





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