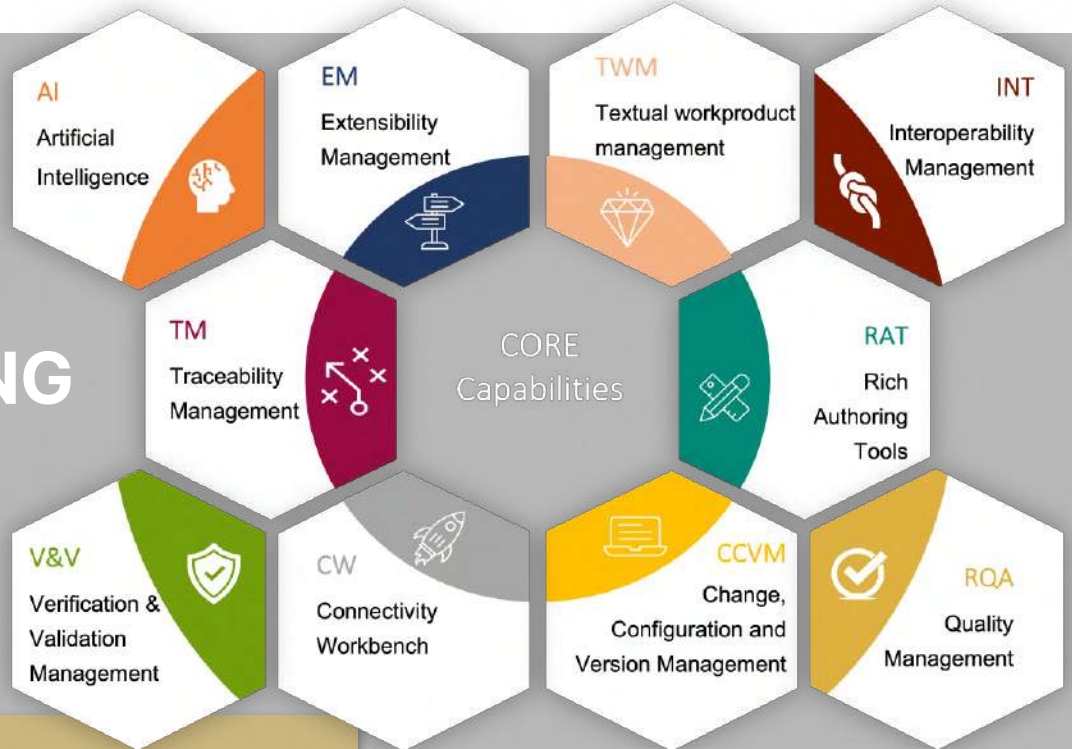




SES ENGINEERING STUDIO



Welcome!

If you are an old friend of ours, you are most likely familiar with RAT, RQA and KM, which have been the core solutions of our toolset for a few years now.

You also probably know that here, at The REUSE Company, we dedicate ourselves passionately to digitalizing the entire scope of ISO 15288 Systems Engineering processes with an approach guided by REUSE, driven by a KNOWLEDGE-CENTRIC and MODEL-BASED approach (supporting the authoritative source of truth concept), while integrating DOCUMENT-CENTRIC views inside MBSE.

It was time to upgrade, and now, we have gone beyond our previous limits and expanded with new capabilities. This brand-new solution is called SES ENGINEERING Studio.

This tool aligns with our dedication to take Systems Engineering to the next level by means of:



Connectivity to integrate with your entire tool ecosystem (+50 Connectors available – Including MBSE, RM, and MS Office tools).



Traceability among multiple sources.



Interoperability among tools through the concept of INTEROPERABILITY Hub by transforming workproducts.



Technical management support for data, information, and knowledge managed all along your lifecycle (e.g. Requirements verification, system verification, validation, etc.).

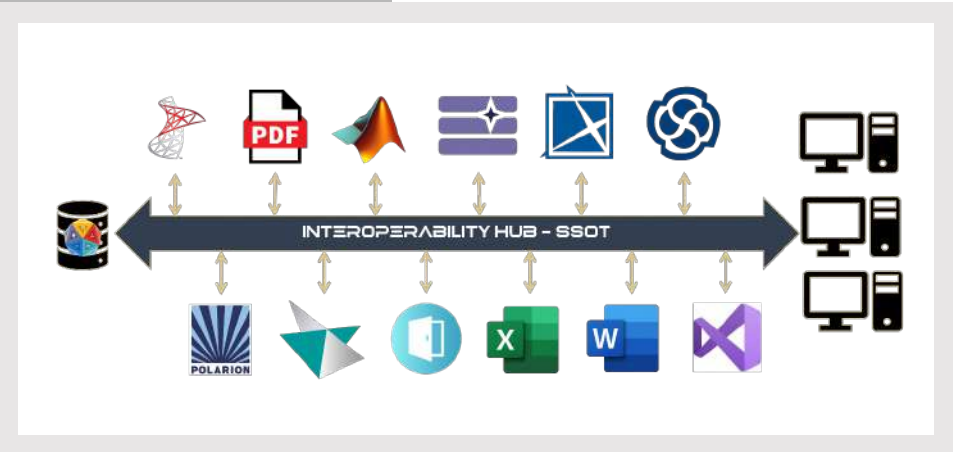


Reuse of any workproducts managed along the lifecycle.

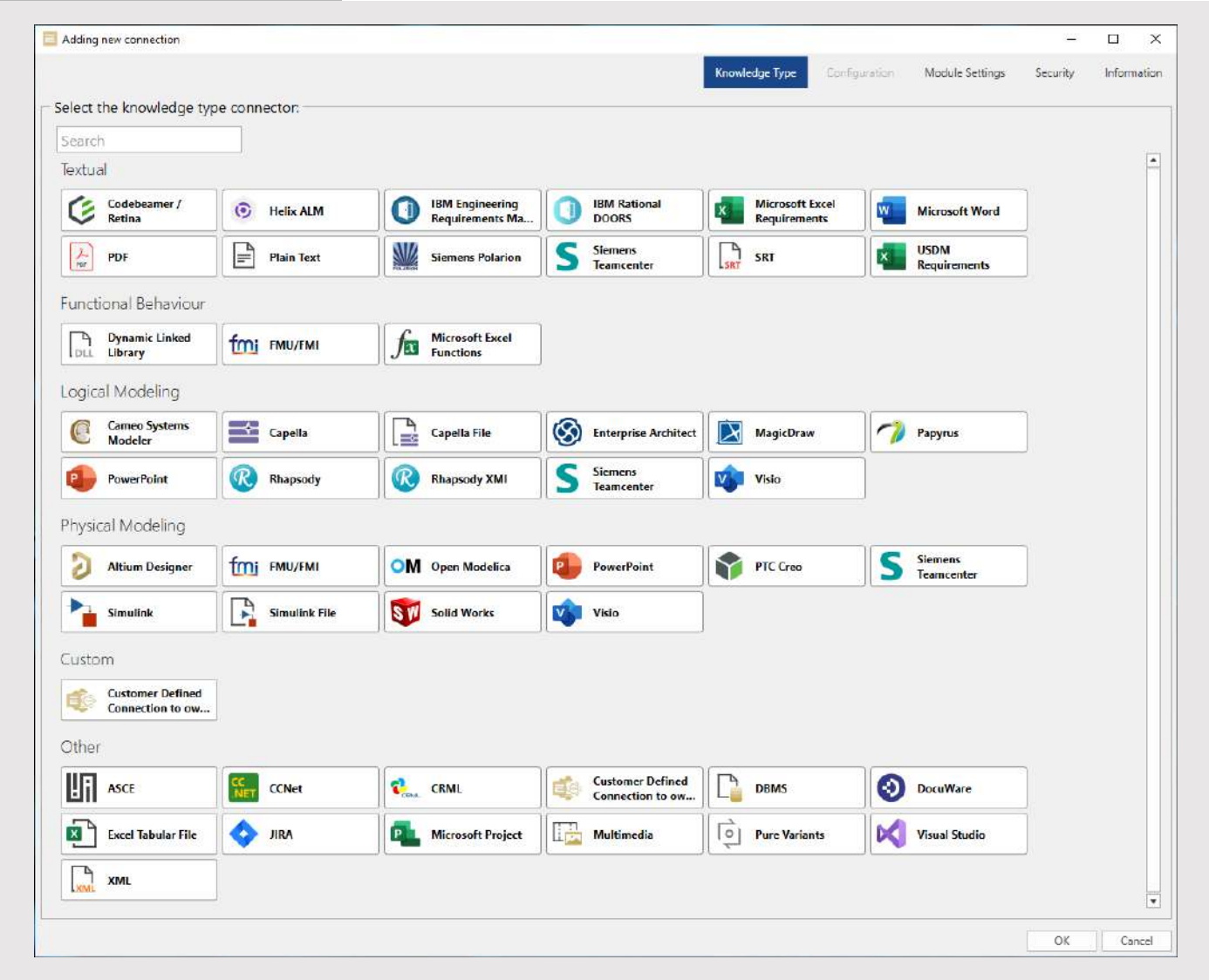


Management of project workflows from a tool-centric viewpoint.

This approach is essential considering the current situation with organizations using hundreds of applications, tools, databases, and models to support the development of systems with ever-growing complexity



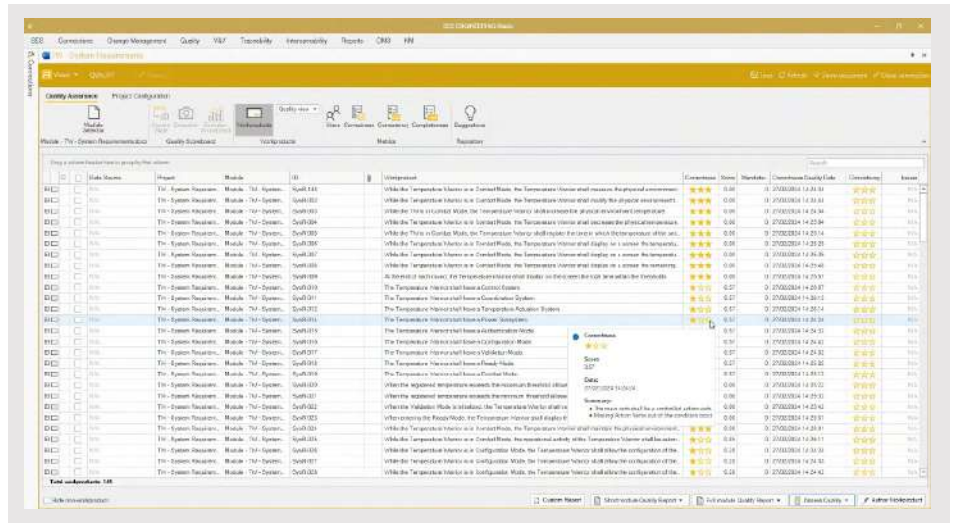
SES ENGINEERING Studio currently connects to **+50 tools** and continually add others. There are of course hundreds of tools in the market (including internally developed tools) for all disciplines in the digital thread: not just RMS and MBSE tools, but 3D CAD, electronics, fabrications, simulation, electromagnetic compatibility, etc.).



So, within this large framework, The REUSE Company's proposal is a set of targeted use cases of common applications within organizations of different industries.

Technical Management Processes

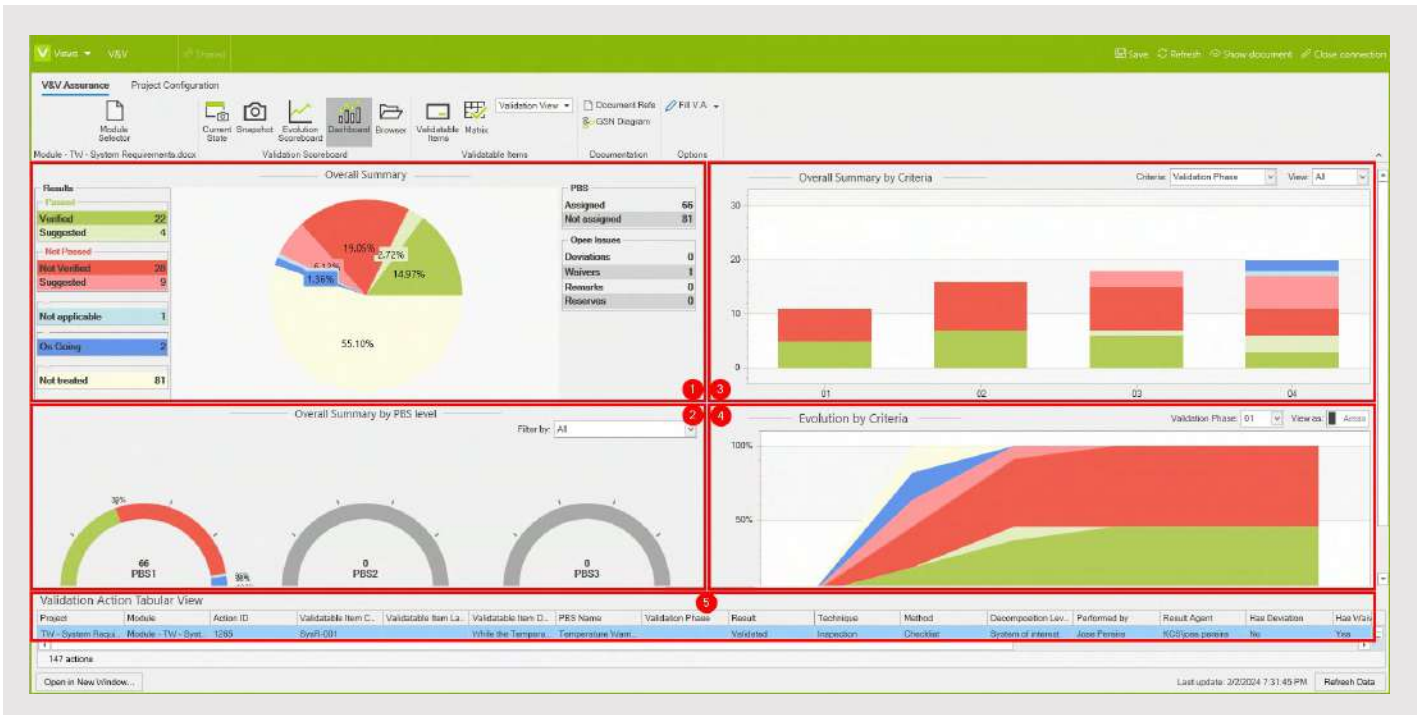
SES ENGINEERING Studio technical management capabilities enable you to generate sets of requirements and system solutions covering the desired functionalities and within the project boundaries, legislative constraints, quality baselines, etc.

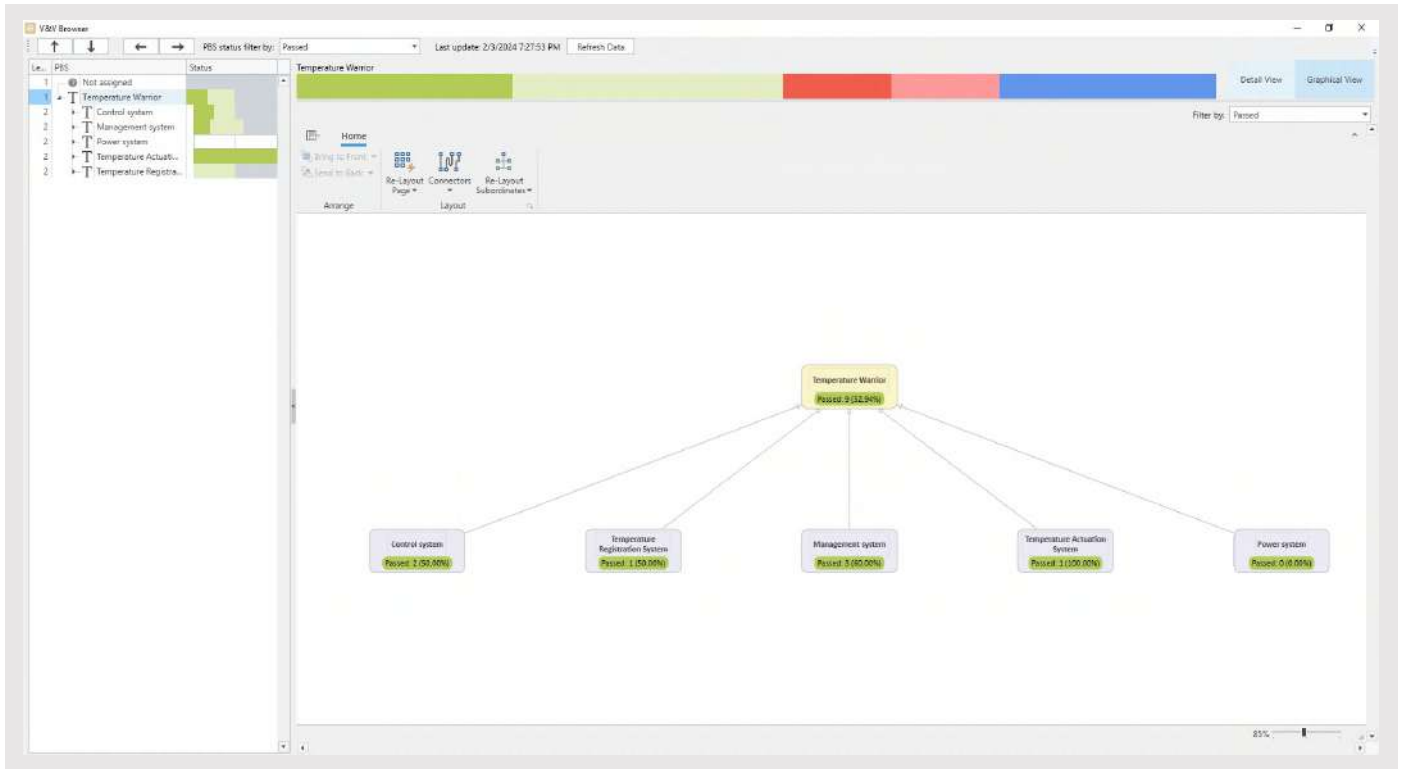


TP - 01
Managing the quality of work-product (requirement, model element, diagram etc., Document, the system, etc.) within any of the 50 tools supported in SES (DOORS, Polarion, Teamcenter, Cameo, etc.).

TP - 02
Implementation and management of Quality Standards such as INCOSE GtWR, NASA, BABoK, etc.

TP - 03
Support for digitalizing and integrating the Verification and/or Validation of the Textual Requirements, Models, etc. (left-side of the V-Model).





TP - 04

Support for digitalizing and integrating the Verification of the System (right-side of the V-Model) against Stakeholder Needs, Textual Requirements, Models, etc. (left-side of the V-Model).

TP - 05

Enabling Baselines and version management to any work-product, with a special focus on those generated and/or managed in tools that do not implement these topics (PDF, Office, Visio...).

TP - 06

Enabling knowledge-centric attributes management to any tool's work product, with special focus on the connected tools which do not offer this capability.

TP - 07

Management of a Knowledge-centric and project-wide attributes management to generate common methodologies and workflows regardless of connected source.

TP - 08

Management of generic report templates and reports production to publish and share Technical Management KPIs based on the internally managed attributes.

TP - 09

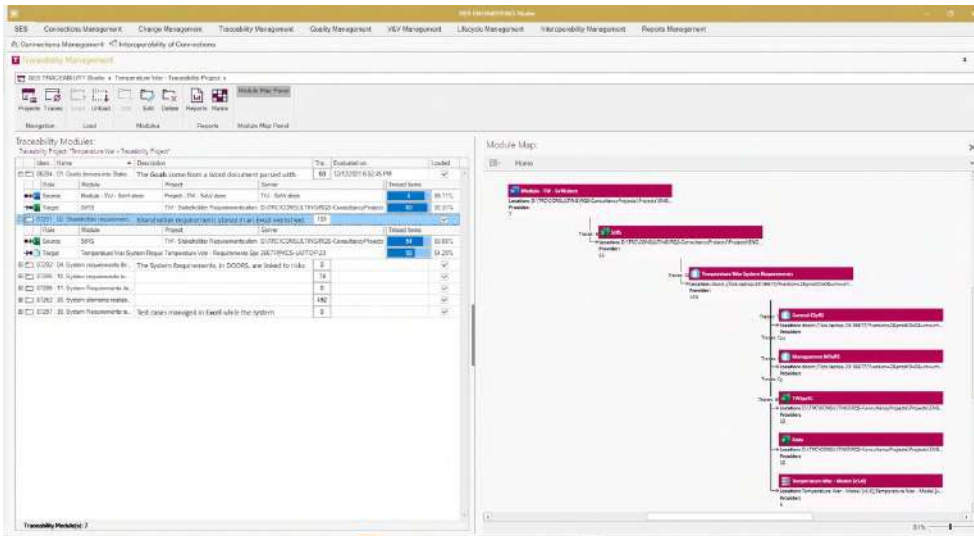
Configuration management orchestration (including Change Management) across all the tools in the digital ecosystem.

TP - 10

Enabling source vs. central repository content comparison using the concept of Synchronized Source of Truth (SSoT).

TP - 11

Universal Traceability management along among the connected tools of the ecosystem (for all the connections), through the Interoperability Hub, and not through point-to-point connections.



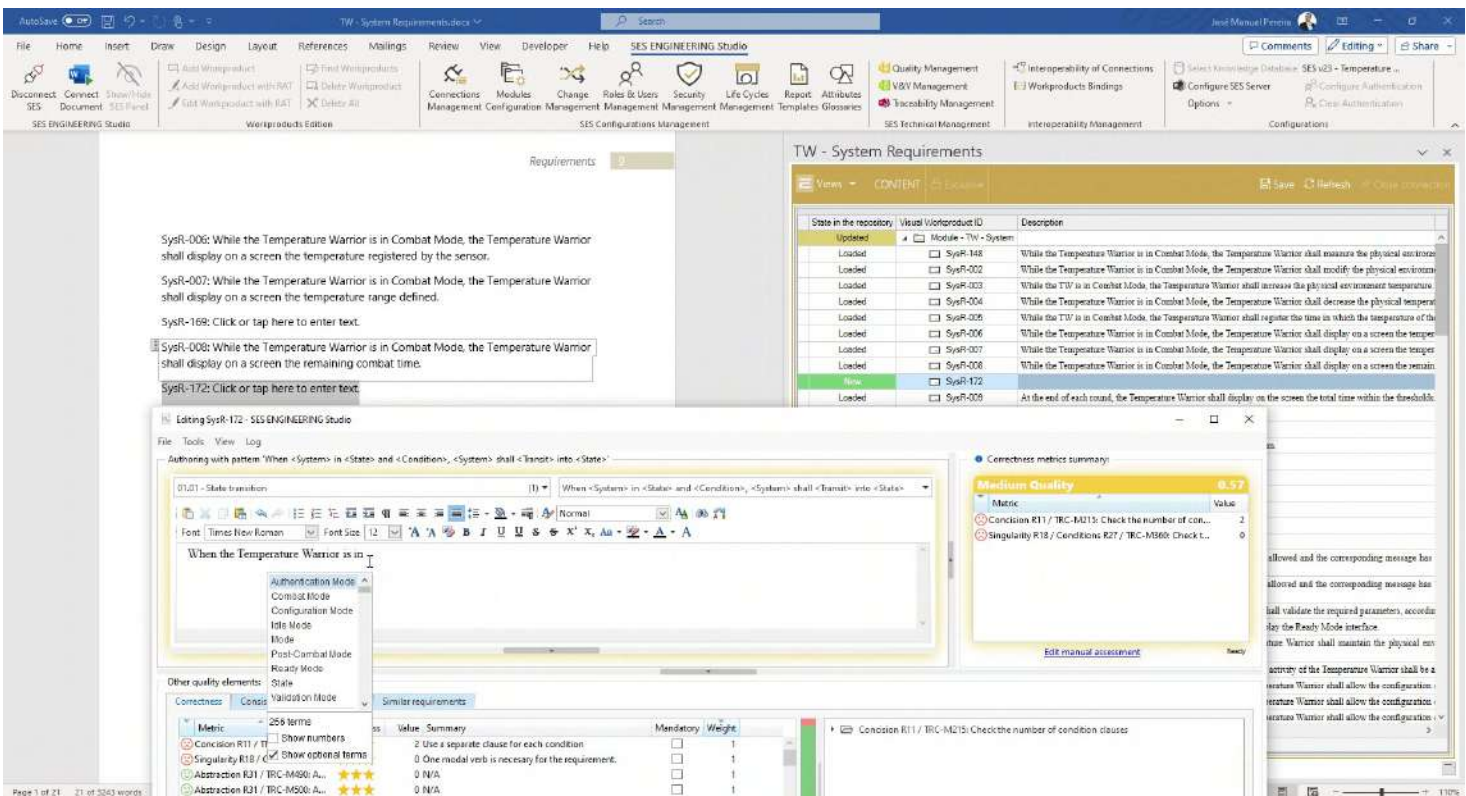
TP - 12
Semantic-based traceability discovery (AI -NLP algorithms).

TP - 13
Global impact analysis based on end-to-end traceability throughout the complete tool ecosystem.

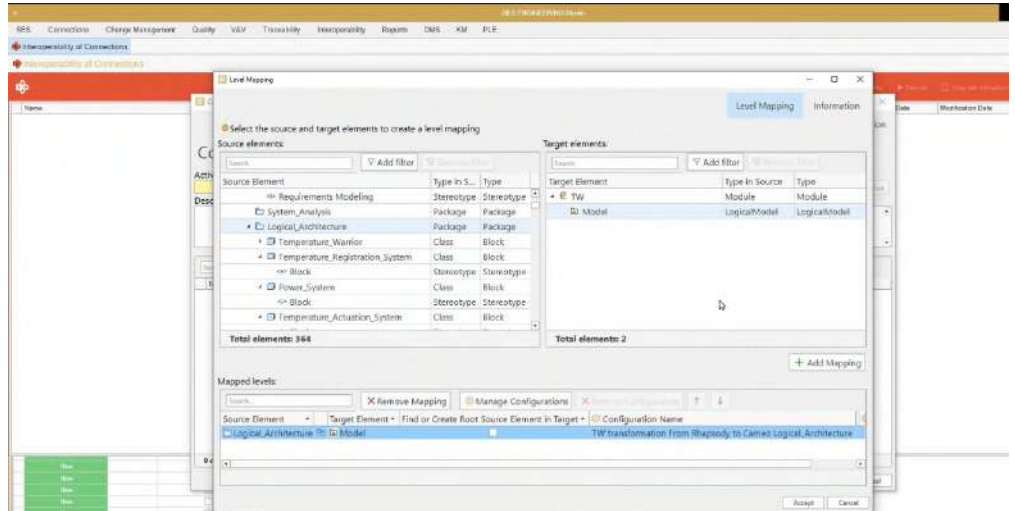
TP - 14
Automated technical management calculations and assessment (quality, V&V, Traceability, interoperability, etc..) by scheduled periodic tasks (batch process).

TP - 15
Universal Rich Authoring Tool (RAT): A web-based authoring extension providing authoring assistance based on semantic patterns and real-time verification of any work product generated along the left-hand side of the "V-Model".

TP - 16
Complete Requirements engineering support within Microsoft Office tools (MS Word) for small to medium projects (including connectivity with the rest of the tool ecosystem).



Besides connecting to a catalogue of tools and file types, SES ENGINEERING Studio enables performing many operations and transformations between those endpoints. This provided ready-to-use tools to reuse and carry information throughout a project between different platforms and languages, while ensuring the overall consistency.



IR - 01
Tool interoperability for content exchange (Add, Copy, Merge, and synchronize/roundtrip between same or different tools).

IR - 02
Individual property Binding between 2 (or many) different tools (Example: value in a requirement automatically changed when a corresponding value in a model is changed by an engineer).

IR - 03
Coordinated design within the Supply chain (sharing and evolving content between the OEM and tiers even with different toolsets).

IR - 04
LOTAR Standard support for all the connected work-products.

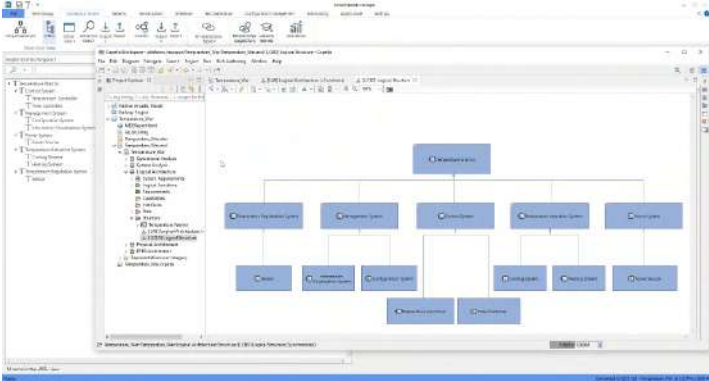
IR - 05
MOSSEC Standard support for all the connected work-products.

IR - 06
Automatic generation of models in Logical MBSE tools from requirements in requirements management, ALM or PLM platforms (for example, SysML model generation from System requirements).

IR - 07
Automatic generation of requirements in RMS tools from MBSE models (for example, requirements generation from SysML models).

IR - 08
Automatic generation of physical models (skeletons) from the elements in a conceptual model.

IR - 09
Enabling knowledge extensibility by connecting to Logical MBSE models and other sources to enhance the project ontology and ensure semantic consistency between the work-products of the different sources.



IR - 10
Automatic generation of the foundation Software program classes within Visual Studio Code based upon models or textual requirements.



With your environment tools and files fully integrated, SES ENGINEERING Studio will enable the possibility to define, evolve, end execute plans, assessing the progression and controlling the fulfilment of each activity with the support of AI and NLP among other technologies.

PW - 01

Digitalizing and formalizing a complex project as a tool chain workflow and work-products data flows.

PW - 02

Providing MOEs, MOPs, and TPMs for the complete project based on the execution of the different activities within the different tools used in the project.

PW - 03

Providing a global configuration management approach for all the content from the tools included in the project (RMS, MBSE etc.).

Definition of the configurations is done by aggregating the baselines of all the work-products of all the tools involved in one snapshot.

PW - 04

Providing a complete Artificial Intelligence development environment for integrating all AI algorithms inside pure engineering data (connected from the real sources).

PW - 05

Providing workflow design by executing functions and artificial intelligence algorithms to create complex processes simply with an emphasis on (re)usability.

PW - 06

Including the dynamic execution of functions contained in external libraries in workflows.

PW - 07

Automating the execution of workflows by scheduling periodic tasks (batch process).

PW - 08

Enabling project automation by defining interoperability projects within the tool's workflow.

Define variable workflows based on pre-defined acceptance criteria.

Calculate the quality of the requirements. If the quality of the requirements is over 95% then generate SysML models from the RMS project in tool X. Calculate the quality of the model.

If the quality of the model is > 99% transform the model to Tool Z and make it available to TIER 2 by connectivity (the Tier could connect to the new created connection through a gateway)

...And much more!



THE
REUSE
COMPANY



Contact Us



@ReuseCompany

Address

Calle Margarita Salas, 16
Parque Tecnológico LEGATEC
28919 Leganés - Madrid, Spain

Contact

+34 912 17 2596
contact@reusecompany.com

Website

www.reusecompany.com