SES REQUIREMENTS Engineering Add-in for MS WORD

THE REUSE COMPANY

A SMARTER AND MORE FLEXIBLE WAY TO MANAGE YOUR REQUIREMENTS WHILE KEEPING CONSISTENCY ALONG THE SYSTEMS ENGINEERING LIFE CYCLE

SES REQUIREMENTS ENGINEERING ADD-IN FOR MS WORD
By The REUSE Company
Requirements
Traces
Changes
Attributes
Full License

ABOUT

The SES Add-in for MS Word represents an extension of **SES ENGINEERING Studio** implementing the Requirements Management capabilities on top of Microsoft Word.

This represents a flexible way of managing Requirements into a well-known and easy- to-use environment like MS Word that has been boosted, by means of the SES Add- in, with the needed Requirements engineering capabilities: identification of individual requirements within the document, professional assignment and management of unique IDs, attribute management, change control and traceability of individual elements, baselining of the document, change control at atomic level (requirement level), shared access...

With the help of this Add-in, your MS Word documents shall be now considered as Synchronized Sources of Truth – SSoT, thus allowing:

- Traceability to other sorts of documents and elements: other Word documents, Excel, requirements in many Requirements Management Tools (DOORS, Polarion, Teamcenter, PTC…), MBSE tools, ALMs, PLMs...
- Binding of pieces of data across the hub to automatize changes
- Generation of models from textual requirements or vice-versa
- Consistency checking between the elements in your documents and any other relevant item in the HUB

INSIGHTFUL

Combining the brilliant capabilities of MS Word (easy to use, accessible, formatting and styling, powerful editing...) together with the Requirements Management capabilities of the Add-in is like getting the best of both worlds.

QUALITY

Through SES ENGINEERING Studio desktop application, by means of its Interoperability HUB, your requirements document will always be connected to the rest of assets along the systems engineering life cycle.

COST SAVING

The off-line way of editing your requirements in MS Word will save thousands of dollars in licenses.

DEMOCRATIZATION OF THE REQUIREMENTS MANAGEMENT PROCESS

Managing requirements, in a professional way, has never been that easy and cheap. Microsoft Word is one of the most widely used tools worldwide. Microsoft Word is clearly not intended to be a requirements management tool, but wisely boosted with a smart add-in like the SES Add-in for Requirements Management will allow any user to perform advanced tasks related to the requirements engineering discipline effortlessly.

AUTOMATIZATION OF THE TECHNICAL MANAGEMENT PROCESSES

Just by connecting your Word documents into the Interoperability HUB, several critical activities are enabled:

- Traceability management: to or from any other asset connected to the HUB
- Quality Management: selection of quality rules like those in the INCOSE GtWR, assessment of your items, writing assistance, quality reports...
- V&V Management: where the requirements in your documents become the source of the verification actions of your System of Interest.

ADVANCED PARSING MECHANISM

Different document structures can be analyzed by the advanced parser of the Add-in allowing the identification, with a click of a button, of the relevant pieces of information included in your MS Word or PDF documents. This parser identifies the content of the document according to different identification strategies, provides a unique ID to each item, and synchronizes the two different views in the document:

- The typical Documental View managed by MS Word
- The Engineering View that enables all the Requirements related activities

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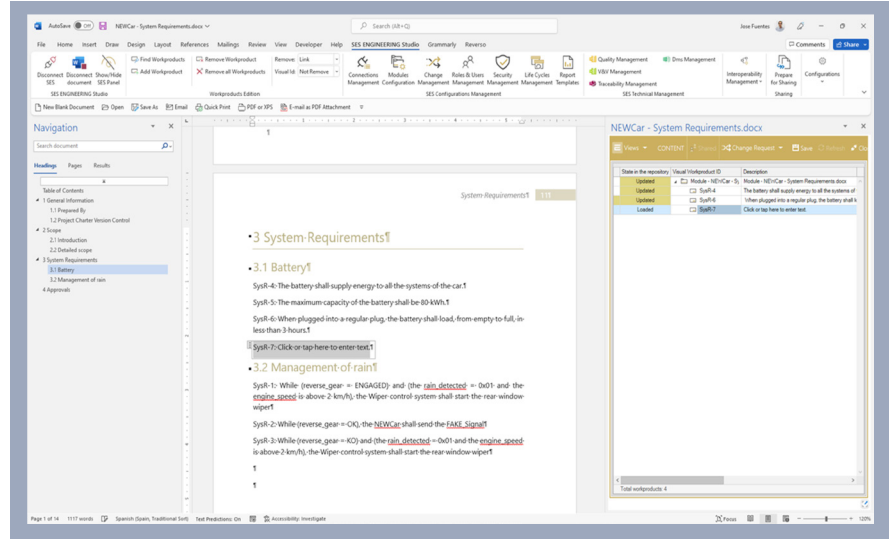## A SMARTER AND MORE FLEXIBLE WAY TO MANAGE YOUR REQUIREMENTS

THE CORE OF THE SES ADD-IN FOR MS WORD: DOCUMENTAL VIEW VS ENGINEERING VIEW

The ribbon implemented by the **SES Add-in for MS Word** allows an easy integration of any of your Word documents into the *Integration HUB* implemented by the **SES Suite**.

Once the document is connected, the typical content of a MS Word document is now extended with the *Engineering View*. This view will show all the content that has been parsed, or a series of requirements that the user can create just by interacting with the buttons of the SES ribbon.

Both, the *documental view* and the *engineering view* will remain **always synchronized**. Select an element in the *engineering view* and the *documental view* will scroll to show the items in the document, surrounded by a border to explicit the limits of your item. Edit the element in the document and the change will be automatically replicated in the *engineering view*. Add a new element in the *engineering view* and a new block will be created in your document, with exactly the same ID and content given in the *engineering view*. Remove an item from any of the views, and the element will be instantaneously marked as removed also in the other view.

And, what is more, the Add-in prevents the IDs from being modified. Once an ID is assigned, this ID is fixed, not modifiable, and unique all along the document.

OPERATIONS IN THE ENGINEERING VIEW

Most of the advanced requirements management capabilities take place in the *Engineering View*. This includes operations such as **attribute management, change management, baselining, traceability management, quality analysis**, link to **verification and validation** activities, **report** generation...

The aspect of the *Engineering View* is **highly customizable**. The user can select which attributes shall be displayed as **columns** in the view. Columns allow for sorting and filtering. Operations such as adding, editing, removing are shown with different colors in the corresponding column for the items involved. Furthermore, the default engineering view can be transformed into a series of subsidiary views: **quality view, traceability view, V&V view,** or **documental view**.

The SES Add-in for MS Word makes all these operations possible. Just by saving your changes, either with the default Save button of MS Word, or with the **Save option** on top of the *Engineering View*, all these changes, attributes, traces... shall be stored within the repository of the SES Suite. From this moment on, the engineering content of the document can be accessed either from within MS Word, or at the SES ENGINEERING Studio desktop application.

TRACEABILITY MANAGEMENT

As soon as a document is connected to the *Interoperability HUB* it is now considered as one of the potential sources for a traceability module in **SES ENGINEERING Studio**. The MS Word Add-in includes the possibility to create traceability modules between your current document and any other content of the HUB (other requirements documents, requirements modules in an external Requirements Management tool, model elements into a MBSE tool, items in an Excel worksheet...)

From the connectors view implemented by the Add-in, you can open, within MS Word, the *Engineering View* of any other connected source (requirements, models...). Now the *Traceability View* is all you need to establish new traces, remove traces, check for orphan elements, display an impact analysis. No need to open the other involved tool, no need of copying IDs here and there...

CHANGE MANAGEMENT

This is another mandatory capability in any Requirements Management Tool. Once the individual items have been identified, the change control is now done at individual elements, even within a MS Word document.
Every time you save a document, a new version will be created for every element with pending modifications. Users can also force new versions whenever they want. The change track can show you the content of any of those old versions, comparison with the current version, revert to a previous one...

A **baseline** of the full document can also be generated on demand. This baseline can be seen as a kind of snapshot, including all the elements identified in the moment of the baseline, their current version, current values of attributes... Document baselines can also be displayed with the baseline browser which highlights the differences between the current baseline and a previous one, and permits the revert operation.

ATTRIBUTE MANAGEMENT

A default requirements document created with the SES Add-in comes with the most typical attributes for a requirement. However, other additional attributes can be easily created with the help of the attribute wizard.

Once your attribute schema has been defined for a given document, you can choose which of those attributes are to be shown in the different views that you can create for your document.

ACCESS CONTROL

A requirements document managed with the SES Add-in can be stored either locally, or **virtually in the repository**.

Storing documents virtually in the repository enables the access control operations that every professional requirements management tool shall implement. Which users can access to the document, read-only versus full access, prevent certain operations to be executed by specific users or roles...

REQUIREMENTS QUALITY

Writing high-quality requirements has never been this easy. As a core element of the Systems Engineering Suite, checking whether your requirements follow the rules assigned to your document through **SES ENGINEERING Studio** is as easy as swapping to the **Quality View**.

Having a similar analysis in real-time, and having the writing assistance based on **textual patterns** is also included in the Authoring Tool implemented within the SES Add-in for MS Word.

CONTACT