# itemis SECURE 24.3

**Release Notes** 

# itemis SECURE

### Overview

With itemis SECURE 24.3, we are delighted to announce the newest release of our TARA tool, bringing a range of enhancements to elevate your experience with itemis SECURE. This update introduces significant improvements designed to streamline workflows, strengthen product security, and align with common threat modeling techniques. By incorporating user feedback and industry best practices, this release delivers powerful new features and enhancements to simplify complex processes and improve overall functionality.

This release introduces a new approach to assessing your Assets and identifying Threat Scenarios through the concept of Trust Boundaries. By leveraging a new Trust Model in the Method Configuration, you can now define Trust Zones for your Component hierarchy and derive criticality ratings for your Data Flows. This enhancement integrates proven processes from the software development industry into itemis SECURE, providing a more robust and structured assessment framework.

In this release, we are rolling out a revamped Function Assignment chunk, designed to enhance user experience, improve visual integration with the tool, and expand its overall functionality. To further support your efforts, we've expanded the use of our Support Ticketing System, allowing you to submit tickets directly and efficiently monitor the status of ongoing support requests. Alongside these updates, we've made numerous other improvements to streamline your TARA workflows.

Our commitment to continuous improvement remains steadfast, and we look forward to delivering more updates in future releases. Thank you for your ongoing support as we strive to make itemis SECURE the ultimate solution for your TARA process needs.



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### **Trust Zones and Trust Boundaries**

In this release, we present Trust Zones and Trust Boundaries. This new feature allows you to leverage distinct Trust Zones in your item definition and evaluate Trust Levels per component. Additionally, it enables the assessment of Data Flow criticality and the identification of new threat scenarios, if necessary. All introduced entities have full XSAM-compatibility as well.

The newly introduced Trust Analysis is based on common threat modeling techniques from software development which are becoming relevant to the automotive industry as the workflows and artifacts of both industries blend in more and more.



Enriched System Diagram of the ISOExample to showcase how Trust Zones and Components build up a common semantic hierarchy (at this point not graphically present in itemis SECURE)

In order to use the Trust Analysis feature you have to configure Trust Levels and Trust Boundary Categories as part of your Method Configuration. We have added a Trust Model for that purpose. It includes two sections:

- Trust Levels
- Trust Boundary Categories

There is also a new chunk within the Item Definition:

• Trust Zones

Components and Data Flows have been expanded to allow them to reference the corresponding Trust Zones.

We will describe those elements in more detail in the following chapters. The Trust Analysis of Assets is an optional feature and process improvement. If you have no need for that feature, you may jump to the next chapters right away.





#### Trust Model

Within the Trust Model—a new member of the Method Configuration—you can define Trust Levels, which can be used to rate Trust Zones. New projects as well as the included examples feature some exemplary definitions to get you started.

A Trust Level includes:

- name
- color code for easy visual distinction
- numerical value to mark significance
- description

Trust Levels		
Internet	=	1
Public	=	1
Public Cloud	=	60
Trusted Partner	=	80
Private Secured	=	100

We follow a fixed approach for which higher trust level ratings indicate a higher trustworthiness.

In addition to the Trust Levels, you can specify Trust Boundary Categories in the Method Configuration. These serve as a way to customize the used colors that are applied to Trust Boundary ratings. These boundaries are essential for identifying and visualizing trust level discrepancies, especially when data is transferred between components with varying trust levels. For example, when data flows from a high-trust component to a lower-trust one, it can introduce potential security risks (e.g. violating confidentiality).

A Trust Boundary Category includes:

- A color for easy visual distinction
- A threshold value to mark significance

Tr	ust	Bounda	ary	С	ategor	ies	5
≤	Θ	(when			rating	=	0)
≤	20	(when	0	<	rating	<=	20 <b>)</b>
≤	40	(when	20	<	rating	<=	40 <b>)</b>
≤	60	(when	40	<	rating	<=	60 <b>)</b>
≤	80	(when	60	<	rating	<=	80 <b>)</b>
≤	100	(when	80	<	rating	<=	100)





#### Trust Zones

Using the previously defined Trust Model with its Trust Levels within your Method Configuration, you can create your own hierarchy of Trust Zones as part of the Item Definition. These represent areas of a certain Trust Level. The Trust Zones hierarchy is managed as a separate element, which can then be assigned to individual components as needed.

- Item Definition
- > 
   Functions
- > Components
- > 🕕 Data
- > 🕕 Channels
- > D System Diagram
- > S Function Assignment
- > 🧐 Sequences
- > 🛈 Trust Zones

Each Trust Zone includes:

- Name
- Title
- Assigned Trust Level
- Sub-Zones

Nested Trust Zones must maintain a hierarchy where a sub-zone has an equal or higher Trust Level than the zone containing it. If a sub-zone has a lower Trust Level than its parent, a warning will appear, as this structure would undermine the integrity of the parent zone's trust level by introducing less trusted elements within a higher-trust area.



```
Trust Zone TZ.1: Internet
<no description> Edit
Trust Level Internet
{
    Trust Zone TZ.2: Public
    <no description> Edit
    Trust Level Public
    {
        Trust Zone TZ.3: Public Cloud
        <no description> Edit
        Trust Level Public Cloud
        {
            Trust Zone TZ.4: Trusted Partner
            <no description> Edit
            Trust Level Trusted Partner
            ł
                Trust Zone TZ.5: Private Secured
                <no description> Edit
                Trust Level Private Secured
                { <0 child trust zones> }
            }
        }
    }
}
```

To simplify the process of building a Trust Zone hierarchy, we provide an "intention" on empty Trust Zone Chunks. Once you've completed your Trust Model, go to the Trust Zone Chunk (or create one if your project doesn't have one), select the chunk title, open the intention menu (<ALT+ENTER>), and choose "Populate Trust Zone Chunk from available Trust Levels." This will automatically create a nested hierarchy based on your Trust Levels.

The generated hierarchy will respect the Trust Level ratings: even if the levels aren't sorted by rating, it will arrange them from the lowest-rated Trust Level as the root Trust Zone, progressing upwards to the highest-rated, "innermost" Trust Zone.

You can adjust the hierarchy afterward if it doesn't align with your vision, but this approach gives you a pre-built structure to refine rather than starting from scratch.

Trust Zone Chunk Trust Zones							
Intentions							
💎 Add External Ids	►						
💎 Obfuscate Data	►						
♥ Populate Trust Zone Chunk from available Trust Levels							



#### Components

Once you've defined Trust Zones, you can link existing Components to the appropriate Trust Zone. To do this, Components now have a new field in the inspector where you can assign a Trust Zone. If a Component doesn't specify its own Trust Zone, it will inherit the Trust Zone and Trust Level from its parent.

In line with the hierarchy of Components and Trust Zones, a sub-component can only reference sub-zones within the Trust Zone of its parent component. If it tries to link to a non-permissible zone, a warning will appear.

```
Inspector

com.moraad.components.structure.TOEComponent

Component GateECU: Gateway ECU

Path: SYS / ItemBoundary

Stored Data

WhtLst: Whitelist of CAN Messages

Technologies

<no technologies>

Assigned Functions

<no assigned functions>

Trust Zone

TZ.8: Private Secured (Private Secured)
```





#### **Data Flows**

When both endpoints of a Data Flow belong to some Trust Zone, the Data Flow will display a "criticality" rating in the inspector. This Trust Boundary Rating is calculated as the difference in Trust Levels between the connected components. A lower Trust Boundary means the connected components have similar Trust Levels, while a higher Trust Boundary shows a significant difference between them. The Trust Levels of each endpoint are also displayed for context.

To help you quickly interpret the Trust Boundary Rating, color coding is applied based on criticality levels. This color information is drawn from the Trust Model's Trust Boundary Categories. If no categories are defined, the calculation works as usual, just without color highlights. Each Data Flow is colored according to the Trust Boundary Category with the highest upper limit that matches its rating.

If a Data Flow links an assessed component with an unassessed one, the inspector will flag the unassessed endpoint to make it easier to complete the assessment incrementally.

```
Inspector
com.moraad.components.structure.TOEDataFlow
Data Flow DF.8: [No Data]: ExtECU -> GateECU [-]
(Ch.7: ExtECU, GateECU [-])
Transferred Data
<no transferred data>
Technologies
<no technologies>
Assigned Functions
<no assigned functions>
Trust Boundary: 40 (from lower trust level to higher trust level)
Trust Level E_1 (ExtECU: External ECUS): 60 (TZ.3: Public Cloud (Public Cloud))
Trust Level E_2 (GateECU: Gateway ECU) : 100 (TZ.8: Private Secured (Private Secured))
```

#### Reports

To make all Trust-related data easily exportable in a readable format, we've added new report items and expanded existing ones.

- **Trust Levels Table**: A new report item similar to other Levels Tables (IL, AFL, RL) in the Method Configuration. It lists all defined Trust Levels with their values and colors.
- **Trust Zones Table**: Similar to the Components Table, this new item lists all defined Trust Zones, showing details like the associated Trust Level and any sub-zones.
- **Components Table**: This existing item now includes each component's declared or inherited Trust Zone.
- **Data Flows Table**: The existing Data Flows Table now shows the Trust Boundary rating for each Data Flow where it can be calculated, along with the Trust Zones of the endpoints. This makes it easier to verify the displayed Trust Boundary information.



#### **Interaction Assistant and Trust Boundaries**

With the addition of new data points, we've introduced an Interaction Assistant that complements the existing Threat Scenario Identification Assistant. While the existing assistant uses the "STRIDE per element" approach, the new Interaction Assistant follows the "STRIDE per interaction" model. This means you can now assess Threat Scenarios based on interactions like Data Flows, emphasizing Trust Boundary ratings.

The Interaction Assistant works similarly to the original Threat Scenario Identification Assistant, allowing you to create Threat Scenarios for Assets based on Threat Classes, but with a focus on Data Flows. Data Flows are prioritized by Trust Boundary rating (from high to low), and within the same rating, those flowing from low to high Trust Level are listed first. Data Flows without a Trust Boundary rating are shown at the end.

Each Data Flow can be assessed individually, as well as its endpoints. This means the same Component might appear multiple times if it's involved in different Data Flows. When a Threat Scenario is created or rejected for a Component, this decision syncs across all occurrences of that Component in the Assistant, along with any rationale provided.

Interaction Assistant Re	fresh				
What's this?					
Trust Boundary 40 (low to high): DF	.8: [No Data]: Ext	ECU -> GateECU [-]		Apply Remaining	Reject Remaining
What's this?					
Data Flow DF.8: [No Data]: ExtECU -> GateECU	[-] threatened by	TC.1: Spoofing	Forget rejection	nothing to reset	Forget Rejected
		TC.2: Tampering	Forget rejection		
		TC.3: Repudiation	Forget rejection		
		TC.4: Information Disclosu	e Forget rejection		
		TC.5: Denial of Service	Forget rejection		
		TC.6: Elevation of privile	ge Forget rejection		
		L	1		
Component (Source) ExtECU: External ECUs threatened by	TC.2: Tampering		Accept Reject	Apply Remaining	Reject Remaining
	TC.4: Informati	on Disclosure	Accept Reject		
	TC.5: Denial of	Service	Accept Reject		
	TC.6: Elevation	of privilege	Accept Reject		
	l			]	
Component (Target) GateECU: Gateway ECU threatened by	TC.2: Tampering	(TS.2)	Reset	Apply Remaining	Reject Remaining
	TC.4: Informatio	n Disclosure	Accept Reject		
	TC.5: Denial of	Service (TS.3)	Reset		
	TC.6: Elevation	of privilege	Accept		
l			Mejett Nejett	]	

#### Key Difference from the Threat Scenario Identification Assistant

Unlike the original Threat Scenario Identification Assistant, the Interaction Assistant is focused on interaction-based assessment, so Channels and unrelated assets are omitted. Components that do not serve as endpoints in one of the assessed data flows won't show up here.

#### Important Note on Using Multiple Assistants

Since both assistants target similar goals, it's crucial to ensure the assistant you're working with is up-to-date before acting on suggestions. We've implemented some safeguards to reduce potential sync issues between the two assistants, but errors could still occur if both are used simultaneously. To avoid confusion, consider either selecting one Assistant to work with





exclusively or regularly refreshing each Assistant, especially if you switch between them for assessing Assets.



### **Updated Function Assignment**

We've revamped the Function Assignment chunk, in an effort to ditch outdated technology and to add new features, improving both usability and layout. The classic layout will still be used by default for now. However, we plan to use the newer layout more prominently in the future and to eventually phase out the legacy version. If you want to give it a try, or switch back in case you encounter bugs with the new design or simply prefer the legacy version, you can use the actions "View -> Enable Classic/Modern Assignment View" in the main menu.

Function Ass	ignmen	t Switch Assignment Mode	Refresh	
What's this?				
Filter listed Fun	ctions:		Apply Reset	
Smart View				
Kind	Name	Title	OffFunc	OnFunc
			Switch Headlamp Off	Switch Headlamp On
Stored Data	WhtLst	Whitelist of CAN Messages		
in	GateECU	Gateway ECU		
Transferred Data	OffMsg	Headlamp Off Message	$\checkmark$	
on	DF.6	OnMsg, OffMsg: BodyECU		
Transferred Data	OffMsg	Headlamp Off Message		
on	DF.7	OnMsg, OffMsg: GateECU		
Transferred Data	OnMsg	Headlamp On Message		$\checkmark$
on	DF.6	OnMsg, OffMsg: BodyECU		
Transferred Data	OnMsg	Headlamp On Message		
on	DF.7	OnMsg, OffMsg: GateECU		

#### **Key Changes and Features**

- **Manual Refresh**: Like our other assistants, the new editor doesn't automatically load new elements; instead, there's a "Refresh" button to update the view after any model changes. This also clears out any lingering references from deleted elements.
- **Improved Layout**: The assignment table has a clearer row and column order, though sorting by columns is no longer available. A new text-based filter helps you manage the display by hiding functions that don't match the filter criteria.
- Updated Views: We've made the following changes based on user feedback:
  - **Smart View** (now the new default view): Emphasizes reasoning at a high level, making it easier and faster to understand assignments. The assignment state color coding has been replaced to capture more assignment states, and we've added clearer visuals for smart assignments that might be "blocked" by locked items. Additionally, actions in the Smart View are now immediately applied to the model, replacing the old "Apply" button.
  - **Detailed View**: Formerly "Simple View," this mode has a reworked UX. You can now toggle assignment states and lock/unlock assignments with dedicated buttons, and there are options to (re)set all buttons for a function.

#### **Additional Notes**

The updated interface also includes a "What's This?" section with detailed guidance on using the new features.

Finally, having multiple Function Assignment chunks in a project no longer causes model errors. Although it's generally best to use only one chunk per TARA model, this flexibility is there for projects involving multiple TARA models.

**Known Issue:** You may experience performance issues when utilizing the updated Function Assignment with larger models, particularly in memory-intensive workflows. Optimization for these scenarios is planned for future updates. For the meantime, try out the function-filtering or toggle to the legacy version.





### **New Support Page**

We've added a direct link to our <u>Secure Support Ticketing System</u>, within the RCP. You can find it under the menu -> Help -> Submit Bug Report or Feature Request.

The System allows you to report bugs or request new features quickly. Once you have created an account, you can submit tickets directly and provide all the necessary information for us to assist you. This helps us ensure we receive all the necessary information from you, enabling us to maintain our proactive problem-solving approach and respond to you with a solution as quickly as possible.

File a support ticket	
First Name *	Last Name *
FirstName	LastName
Email *	
FirstName.LastName@itemis.com	<del>0</del>
Domain *	
Please Select	•
Subject *	
Category	
Product issue / Bug	
Feature request	
How can we reproduce your bug? * Please add all relevant information	
Description *	10
Priority *	10
Please Select	•
File upload Screenshot, log file, etc. Dateien auswählen Keine Datei ausgewählt Submit	





We encourage you to use this streamlined process to manage your tickets and track their status conveniently within your account. You'll benefit from having all your open feature requests and additional questions organized in one convenient overview, where you can also initiate further conversations for each ticket.

Tickets						
Q Search		View	My tickets	•	Status	All
ID	SUBJECT		CREATED	LAST A	CTIVITY	STATUS
#15836318296	Test CSM		29 October 2024	3 we	eks ago	CLOSED
#3178472597	Automatic Ticket Process Test		4 September 2024	1 mo	nth ago	OPEN - MISSING INFO





### Performance

There are ongoing efforts to analyze and enhance the tool's performance. This time we focused on some of our most problematic chunks.

#### **Attack Feasibility Location**

We've made changes to improve performance in areas that previously caused slowdowns, especially for Attack Steps, Controls, Threat Classes, and Control Classes. A key improvement is an option to move resource-heavy tables out of the main editor, which reduces system load for larger models. You may toggle it via "View -> Toggle AFL Table Location".

While this means you won't be able to view multiple Attack Steps at once, the performance boost makes working with larger models much smoother. This option can be easily toggled on or off as needed.

If you're still experiencing performance issues, we'd love to hear your feedback. Feel free to reach out so we can work together on further improvements.







#### **Preserve Calculation Results when Changing Settings**

We've improved how calculation results are handled after making changes in the "itemis SECURE General" settings. Previously, any change would invalidate all cached results, forcing a full recalculation—even if most results stayed the same.

Now, the system uses smarter logic to decide when recalculations are actually needed. While this may not drastically improve overall performance, it can reduce delays and improve responsiveness.





### **Report Improvements**

We've made several improvements to reporting for better clarity, usability, and customization. These changes aim to make reports more user-friendly and informative for all stakeholders.

#### **Rationales in Attack Step and Control Tables**

Previously, only local rationales (added directly to Attack Steps or Controls) appeared in result reports. Now, if you enable "export rationale" in the inspector of these two report items, the reports will also include rationales inherited from catalog classes. This ensures all relevant motivations are visible, whether locally configured or inherited.

#### Attack Steps Tables (Local)

Tables	Legend											
Black	rating means locally	ating means locally overridden.										
Gray	rating means derived	ating means derived from catalog class or attack tree children.										
Name	Title	Description	ET	SE	KolC	WoO	Eq	AFL				
AS.1	Spoofing - CAN Bus		ETO	SEO	KolC1	WoO0	Eq0	High				
AS.2	Send HeadlampOff		ETO	SE0	KolC2	WoO0	Eq0	High				
	CAN message from		rationale	rationale	rationale	rationale	rationale					
	compromised		from TC.2	from AS.2	from AS.2	from TC.2	from TC.2					
	Navigation System											
AS.3	Compromise Nay, via		ET1	SE2	KolC2	WoO0	Eq0	Medium				
	Cellular Interface					rationale	rationale					
						from TC.2	from TC.2					
AS.4	Compromise Nay, via		ET1	SE2	KolC2	WoO2	Eq1	Low				
	Bluetooth Interface											
AS.5	Tampering_Gateway		ETO	SE1	KoIC0	WoO0	Eq0					
	ECU		rationale	rationale	rationale	rationale	rationale					
			from TC.2									
AS.6	Flooding_Gateway		ETO	SEO	KoIC0	WoO0	Eq0					
	ECU											



#### Stakeholders in Damage Scenario Tables

We've reintroduced stakeholder information to Damage Scenario overview tables. Both the name and title of Impact Options are now displayed, providing clearer semantic links. While this takes up more space, it eliminates ambiguity and ensures all critical information is available. Additionally, we streamlined the rationale export: instead of repeating the "rationale" keyword for every entry, it now appears once for all listed rationales in a block.

		Damage Scenarios			Impact
Name	Title	Description	Concerns	IS	IL
DS.1	Headlamp turns off	Unexpected loss of your lamps during adverse	I: OffFunc	-	
	unexpectedly	conditions during driving may cause a crash,			
		severe safety impact and degradation of			
		functionality, but survival likely.			
		Rationale:			
		RU.S3: Life-threatening injuries: Safety			Severe
		rationale			
		RU.F0: Negligible losses: Financial rationale			
		RU.O2: Important function impaired:			
		Operational rationale			
		RU.PO: No or negligible consequences: Privacy			
		rationale			
DS.2	Headlamps turns on	Mainly operational impact as the lamp won't	I: OnFunc	-	Major
	unexpectedly	disturb much during daylight			iviajor
DS.3	Headlamp cannot be turned	Serious impact to functionality as you can't	A: OffFunc	-	Major
	off	turn the lamps but impact safety.			IVIAJOI
DS.4	Headlamp cannot be turned	This is not sudden. It's expected that you're in	A: OnFunc	-	
	on	park or are driving and it's getting dark, but			Major
		not as severe driving night a turning of lamps.			wiajoi
		of is			

#### Damage Scenarios Overview

#### **Meaningful Report Names**

Reports now have default names that include basic details to help identify the model or report. While they're still stored in a temporary location, this change makes it easier to recognize reports at a glance. Remember to save reports to a permanent location if you want to keep them.

#### **Report Template Default Language**

Reports were previously set to German as the default document language, which wasn't ideal for many users. The default language is now English. If you're working in another language, you may still need to adjust the language in the generated report for full compatibility with Office tools.



### Import/Export Improvements

We continued our efforts to better integrate SECURE into existing tool chains by improving the import and export functionality.

#### **New Catalog Import/Export Actions**

We've introduced replacement actions for the previously deprecated catalog import/export features. The new process uses the itemis Converter Service to handle Excel data through XSAM formatting. This streamlines maintenance and ensures consistency.

New actions:

- "Import Catalog Sheets of itemis Excel Template into Current Model"
- "Export Catalog Model to itemis Excel Template"

Renamed action:

• "Import itemis Excel Template into Current Model" now is called "Import TARA Sheets of itemis Excel Template into Current Model"

0	<u>F</u> ile	<u>E</u> di	t <u>V</u> iew	Imp	ort/Export	<u>N</u> avigate	<u>M</u> igration	Git	<u>W</u> indow	<u>H</u> elp	ISO21434
	a	R		<u> </u>	Import Solu	ition					
ct		urity	/ Analysis	<u> </u>	<u>E</u> xport Solu	tion					
roje		ung		X	Import XSA	M File (Upd	lates Nodes)	)			
	× 🔲	ISC	)21434	X	Import XSA	M File into	Current Mod	del (U	pdates No	des)	
	~	S	ISOCom	×∄	Import TAR	A Sheets of	f itemis Exce	l Tem	plate into	Current N	1odel
ests		>	M Catal	×∎	Import Cata	log Sheets	of itemis Ex	cel Te	emplate int	o Current	Model
requ		>	Meth	Y	Export Mod	lel to XSAM	1				
ull R	~	S	ISOExam				l La 141- E	LT.			
  ¶		>	Chec		Export Cata	log woder	to itemis exc	erre	mpiate		
		>	Item	X	Export All N	lodels to X	SAM				
		>	Secur	ity Ar	nalysis						
		>	Secur	ity Co	oncept						
		>	librar	ies							
		>	Resul	t Rep	ort (Word)						
		>	R All in	one F	Report						
		>	Proje	ct Info	o: ISOExam	ple [ISOExa	mple]				

#### **Improved Chunk Management**

Issues with chunk IDs during imports have been addressed. Now, imported data will update existing chunks rather than duplicating them, provided the chunks are properly matched.

**Tip:** Remove pre-existing chunks before importing to avoid duplicates if you want to use a new catalog and not update the existing one. Updates from external sources will then seamlessly sync with your current project.



#### **Bug Fixes for XSAM Serialization**

We've resolved several serialization issues:

- Feasibility Model references (e.g., Controls and Attack Steps) are now serialized correctly.
- Duplicate descriptions in Sequences chunks are no longer a problem.

#### Version Tracking for Tools and Language

To help link older projects with the tool version used to create them, we added version details in both the RCP and exported XSAM files:

- Exported XSAM files now include coreVersion (core language version) and toolVersion (RCP version). For example, this release will show "coreVersion: 93" and "toolVersion: 24.3."
- The core-language version is also discoverable in the RCP under Settings -> Plugins -> Installed -> Other Tools -> com.moraad. Searching for "com.moraad" provides a quick way to find it.

# " mps:coreVersion="93" mps:modelRef="r:bc4781e2-88eb-4f1d-89e2-15d6c432f6b2(ISOExample)" mps:toolVersion="24.3"> ge="Security Concept">

O Settings				×
Q	Plugins	Marketplace Installed	\$	
> Appearance & Behavior	Q <b>▼</b> Type / to see options	:	com.moraad	\$
Keymap > Editor Plugins @	com.mbeddr.mpsutil.userstyles		bundled 93.0 Enabled	
Version Control     Build, Execution, Deployment     Languages & Frameworks	com.mbeddr.mpsutil.varscope			
> Tools Project Settings @	com.mbeddr.mpsutil.vcs			
	com.mbeddr.platform			
	com.moraad bundled			
	com.moraad.composition.public			
	com.moraad.errorsubmitter			
	Copyright bundled			
	de.itemis.mps.blutil bundled			
?			OK Cancel App	bly



### Assistant Improvements

We took steps to further improve the assistants' workflows.

#### Improved Assistance for Damage Scenarios

When using the Asset Identification Assistant to create new Damage Scenarios, the process is more streamlined now.

Previously, each newly created Damage Scenario started empty, requiring you to manually configure the applicable Impact Categories. With the update, the assistant will now auto-fill the Impact Categories based on the used Impact Model.

This saves time by pre-populating the Categories, so you only need to specify the relevant Impact Options. If any auto-filled Categories aren't needed, you can easily remove them or leave them empty—this won't affect the Damage Scenario's Impact Level. This enhancement aims to reduce manual effort and make configuring new Damage Scenarios quicker and more intuitive.

```
Damage Scenario DS.5: <no title>
<no description> Edit
                                                                                ΤL
                                                                                      none
Ł
  Concerns
             I: Integrity of WhtLst: Whitelist of CAN Messages
  Impact Scale <no impact scale>
  Impact
   S: Safety
                   << ... >>
   F: Financial << ... >>
   0: Operational << ... >>
    P: Privacy
                   << ... >>
  Threat Scenarios +
}
```

#### Fixed assistant deleting too many elements

A rare issue in the Threat Scenario Identification Assistant has been resolved. Previously, if a Threat Class no longer listed an asset's type as valid, all Threat Scenarios for that asset were flagged for deletion, even when other Threat Classes still supported the asset type. After user confirmation, these scenarios were unnecessarily removed, causing potential data loss.

With this release, the assistant now properly verifies each Threat Scenario's Threat Class before marking it for deletion, ensuring no unrelated scenarios are affected. This fix prevents accidental deletions and improves the assistant's reliability.



### Custom Checklist Creation and Export Enhancements

The RCP now allows you to create and use custom checklists, addressing a long-standing limitation. Previously, only the pre-defined "UN R155 Threats" Checklist was available for assessing modeling progress. With this release, you can define your own checklists, enabling a tailored approach to your projects. While creating custom checklists may require some initial effort, the benefits of personalized assessments make it worthwhile.

Key Updates:

- Checklist Templates:
  - Create custom templates via the "New Roots" context menu under Utilities.
  - Use these templates across models (e.g., in TARA models) by importing the configuration where the template was created.
  - Templates are now clearly marked with "[Template]" in the Project View for easy identification.
- Report Enhancements:
  - The checklist report item now allows selection of specific checklists for export, supporting projects with multiple checklists.
  - This update makes checklists more flexible and integrates seamlessly into your workflows.



Generate report for Checklist (Chunk: Checklist, Part: ISO/SAE 21434)





### Miscellaneous

Last but not least we improved the workflows in various aspects of the tool to better assist you with performing your TARAs.

#### **Rename functionality for Hierarchical Types**

The management of hierarchical types such as Components, Functions, and Trust Zones has been simplified with the introduction of a rename feature. This allows you to align the names of parent and child elements based on a common scheme. The naming convention propagates automatically throughout the hierarchy when triggered (via Alt+Enter) and can be customized using separators defined in the Terminology Profile. New sub-elements will still be auto-named using the global naming-pattern of the respective type by default but can be re-aligned later.

Comp	onent	HLsys <mark>:</mark>	Headlamp	System		
<no< th=""><th>descri</th><th></th><th>Inte</th><th>ntions</th><th></th></no<>	descri		Inte	ntions		
Stored Dat 💎			🏹 Add External Ids		►	
Tech	nologi	🌮 Add Sibling Component			►	
{		🎔 Rename Child-Elements Hierarchically			lly 🕨	
	ComponTODOs		DOs			
	<no add="" de="" th="" todo<="" 🏹=""><th>l Todo</th><th></th><th>►</th></no>		l Todo		►	
	Stored  Show Todos			►		



```
Component HLsys: Headlamp System
<no description> Edit
Stored Data <no stored data>
Technologies <no technologies>
ł
    Component HLsys.1: Headlamp switch
    <no description> Edit
    Stored Data <no stored data>
    Technologies <no technologies>
    { <0 child components> }
    Component HLsys.2: Body Control Unit
    <no description> Edit
    Stored Data <no stored data>
    Technologies <no technologies>
    { <0 child components> }
    Component HLsys.3: Headlamp Actuator
    <no description> Edit
    Stored Data <no stored data>
    Technologies <no technologies>
    { <0 child components> }
 Add Sibling Component Add Child Component What's this?
}
```

#### Multiple Risks per Goal/Claim

Goals and Claims can now link to multiple Risks, which reduces redundancy and simplifies model structures. While the Assistants will still guide you to create one Goal or Claim per Risk for clarity, this change provides the flexibility to consolidate related Risks into a single element, if needed.

```
Goal G.1: Reduction of R.2 and R.3
```

```
<no description> Edit
{
   Risks   R.2: Spoofing on CAN Bus
        R.3: Tampering on Gateway ECU, Whitelist of CAN Messages
   Requirements REQ.2: Implement C.2: Whitelisting CAN Messages
}
```





#### **Unique Naming Enforcement**

To enhance usability and prepare for web-based implementations, unique naming for all elements is now enforced. This resolves any confusion caused by duplicated names, which, while technically acceptable in the RCP, often led to ambiguities. With this adjustment, workflows are more intuitive, and the system is better aligned with web functionalities.

#### **Risk Discoverability**

Risk discoverability has also been improved. The Inspector for Attack Steps and Threat Scenarios now lists Risks directly caused by the selected element. While this view does not include transitive relationships, it makes immediate causal links more accessible, simplifying navigation and analysis.

```
Inspector

com.moraad.core.structure.ThreatScenario

Threat Scenario TS.2: Tampering on Gateway ECU, Whitelist of CAN Messages

Damage Scenarios

<no damage scenarios>

Cybersecurity Assurance Level

<no cal>

CustomImpact Combinator <no custom impact combinator>

CustomFeasibility Combinator <no custom feasibility combinator>

Involved in Risks

R.3: Tampering on Gateway ECU, Whitelist of CAN Messages
```

#### Improved Multi-Model Deletion

For models that appear collapsed in the project view we offered an action to delete the model from the project. You can now delete multiple models of that kind from your project in one go. Previously, even if you selected several models, you could only delete them one at a time. With this update, we've removed this limitation, making it easier and faster to clean up your project when working with these standalone models. Just select all the standalone models you want to remove, and the action will now handle them all at once.

#### **Streamlined Context Menu in Project Tree**

The 'New Roots' menu has been updated. Redundant entries that created duplicate or broken chunks have been removed. Additionally, in accordance with the introduction of the Concept Phase, the Risk Treatment Chunk has been moved from "Security Analysis" to "Security Concept" to better reflect its purpose.





#### **Streamlined License Import**

Importing a new license has also been streamlined. After a license is imported, the RCP now offers to restart automatically so that the new license can take effect immediately. Just ensure that all edits and processes are completed before accepting the restart prompt.



#### **Other Usability Improvements**

Finally, several bug fixes and usability improvements round out this release. Links that were previously locked, such as the several maximum levels of Assumptions, can now be deleted again. Additionally, usability for Risk Treatments has been enhanced with clickable "treat via" decisions, making the system easier to navigate without relying on keyboard shortcuts.

These updates aim to improve efficiency, usability, and alignment with modern workflows while preparing for a seamless web integration in the future.



# **Version Mapping**

The following table can be used to determine the itemis SECURE version based on the internal plugin version "com.moraad.core" stored in the .msd file of every solution:

<language slang="l:2bca1aa3-c113-4542-8ac2-2a6a30636981:</li>

com.moraad.core" version="<com-moraad-core-version>" />

com.moraad.core version	itemis SECURE version
93	24.3
92	24.2, 24.2.1
91	24.1
90	23.3
89	23.2, 23.2.1
88	23.1.1
87	23.1
86	22.4
81	22.3
80	22.2
78	22.1
74	21.3

