

Interactive and Innovative Training with Innoslate

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Context

Streamlining Onboarding for New Users

- Problem: Onboarding new tools add to the user's workload and stress
- Digital platforms need to streamline onboarding for new users:
 - **Understanding the Platform**: Familiarize users w/ platform functionality and features
 - **Integrating Legacy Projects**: Educate users how to align & integrate existing projects
 - **Team Collaboration**: Establish processes to collaborate effectively on the platform
- Leverage the resources for easier user consumptions:
 - Platform's Help Center database
 - In-house document files
 - Internet for supplementary guidance
- Need an EASY onboarding process



Enhancing User Experience w/ Innoslate

- Innoslate prioritizes user ease by facilitating the projects w/o adding complexity
- The platform currently has two process to aid users in the software:
 - **Guided Tour**
 - Allow users to select sample projects & access various tutorials
 - Step-by-step walkthrough and provides the project
 - **Help AI Assistance**
 - Utilizes Generative AI to present a user-friendly chatbot
 - Queries Help Center database to fetch relevant answers from user's prompt
- Will be leveraged to be more interactive
 - Utilize existing processes as a foundation
- Help guide users to their projects while adhering to MBSE principles

Innoslate's Guided Tour

Innoslate's Guided Tour

- Innoslate's 'Guided Tour' is available to all users, including free trial users
- The guided tour allows users to choose:
 - Sample Project
 - Tutorial Module(s) (e.g. requirement management, MBSE, Simulation, Project Management, etc.)
- The tour focuses on the project and selected modules
- Guided Tour steps through the process with the user
 - Identifies markers and provides indication of features
 - Brief statements about the features and how its used
 - "Next" step to provide feedback to continue with tutorial
- Facilitates a guided learning process for the user

Innoslate Guided Tour View

1 Select a Sample Project



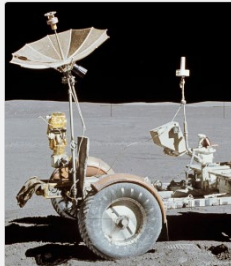
Autonomous Vehicle
This project uses an "Autonomous Vehicle" sample problem. SAE International defines six levels of driving automation, which span from no automation (Level 0) to full automation (Level 5). Level 5 automation is a complex and current problem faced by the entire automotive industry. A full guide on this project is available from Innoslate Help Center.



Musicify Streaming Service
This sample references a hypothetical music streaming service, Musicify. This example includes originating functional and performance requirements, the Musicify physical architecture diagram, development schedule and cost simulations, and applicable test cases. This example is software-centric as a reference for software engineers.



FireSAT Satellite
FireSAT is a national space satellite system that performs early fire detection. The project includes a design reference mission (DRM) requirements document. This sample is from the Applied Systems (AS) operational. FireSAT would be the most complete monitoring system.



SPECTER Lunar Rover
The Lunar Rover Mission Sample Project uses a "Lunar Rover Mission Sample Project" from NASA's Break the Ice Challenge seeks engineers who can excavate and deliver to regions in extreme lunar conditions to develop a Lunar Rover system architecture, concept of operations, and a software-centric as a reference for software engineers.

2 Customize Tour (select at least 2 areas)

Requirements Management
Document, trace, and analyze your requirements collaboratively in real-time.

Model Based Systems Engineering
Design and architect processes and physical architectures, and capture advanced equations.

Test Management
Manage test and verification methods related to your project requirements.

| Entry | Rationale | Quality Score | Document Navigation |
|--|-----------|---------------|-------------------------|
| MN 1 Provide Timely Detection Provide timely detection and notification of potentially dangerous wildfires. | | 85% | Performance Requirement |
| MN 1.1 Detect in Less Than a Day Detect a potentially dangerous wildfire in less than 1 day (threshold: 12 hours objective) | | 85% | Performance Requirement |
| MN 1.2 Provide Notification Within 1 Hour The FireSAT system shall provide notification to USFS within 1 hour of detection (threshold: 30 minutes objective) | | 100% | Performance Requirement |
| MN 2 Provide Continuous Monitoring Provide continuous monitoring of dangerous and potentially dangerous wildfires. | | 44% | Performance Requirement |
| MN 2.1 Provide 24/7 Monitoring Provide 24/7 monitoring of high priority dangerous and potentially dangerous wildfires. | | 22% | Performance Requirement |
| MN 2.1.1 Satellite Up-Time | | 0% | Not likely to display |
| MN 2.1.2 Ground Control System Up-Time | | 0% | Not likely to display |
| MN 3 Reduce the Economic Impact Reduce the economic impact of wildfires. | | 22% | Performance Requirement |
| MN 3.1 Reduce Cost The FireSAT system shall reduce the average annual cost of fighting wildfires by 25% from 2008 average baseline. | | 44% | Performance Requirement |
| MN 3.2 Reduce Property Loss The FireSAT system shall reduce the annual property losses due to wildfires by 25% from 2008 baseline. | | 44% | Performance Requirement |
| MN 4 Reduce the Risk Reduce the risk to high-priority personnel. | | 22% | Performance Requirement |
| MN 4.1 Reduce Fire Size at First Contact The FireSAT system shall reduce the average size of the air fire contact by firefighters by 25% from 2008 average baseline. | | 44% | Performance Requirement |
| MN 4.2 90% User Satisfaction The FireSAT system shall develop a wildfire notification systems with greater than 90% user satisfaction rating. | | 44% | Performance Requirement |
| MN 5 Collect Statistical Data The FireSAT system shall collect statistical data on the outbreak, spread, speed, and duration of wildfires. | | 22% | Performance Requirement |
| MN 6 Other Countries The FireSAT system shall detect and monitor wildfires in other countries. | | 33% | Performance Requirement |
| MN 7 Collect other Forest Management Data The FireSAT system shall collect other forest management data. | | 44% | Performance Requirement |

Document Navigation
Quality engineer the document with the right-clicked item. This hierarchy outline is automatically generated in the site panel.

- FireSAT System Mission Needs, Goals, and Objectives Document
 - MN 1 Provide Timely Detection
 - MN 1.1 Detect in Less Than a Day
 - MN 1.2 Provide Notification Within 1 Hour
 - MN 2 Provide Continuous Monitoring
 - MN 2.1 Provide 24/7 Monitoring
 - MN 2.1.1 Satellite Up-Time
 - MN 2.1.2 Ground Control System Up-Time
 - MN 3 Reduce the Economic Impact
 - MN 3.1 Reduce Cost
 - MN 3.2 Reduce Property Loss
 - MN 4 Reduce the Risk
 - MN 4.1 Reduce Fire Size at First Contact
 - MN 4.2 90% User Satisfaction
 - MN 5 Collect Statistical Data
 - MN 6 Other Countries
 - MN 7 Collect other Forest Management Data
 - MN 8 Demonstrate to the Public

Optimizing User Experience through the 'Guided Tour'

- The user's feedback is the 'Guided Tour' provides valuable information and assistance
- 'Guided Tour' layout offers a comfortable format, aiding user retention and adaptability to platform
- The 'Guided Tour' layout serves as an ideal starting point for interactive user experience
- Interactive experience emphasizes hands-on approach while effectively utilizing:
 - Feature location indicators
 - Contextual information
 - Guidance for next steps

Innoslate's AI Assistance

Innoslate's Help Assistance AI

- Innoslate has a extensive knowledge repository:
 - Guides
 - Video tutorials
- AI provide efficient access to platform information
- Generative AI integration streamline user interactions
 - Prompt-based information retrieval
- Enhances accessibility and speed
- Benefits the user:
 - Instantaneous information retrieval
 - Intuitive & comprehensive platform understanding

Innoslate's Help Assistance AI View

| Entity | Rationale | Quality Score | Labels |
|--|--|--|-------------------|
| 1 Licensing | N/A | N/A | High Priority |
| 1.1 Processor Id for License The license for Innoslate shall be based on the computer's Processor ID. | | 0% <div style="width: 0%;"></div> | No labels to disp |
| 1.2 Global License Key The Processor ID shall be used in salting the Global License Key. | | 0% <div style="width: 0%;"></div> | No labels to disp |
| 1.3 Installation Setup License On the setup configuration of installation, the load global license key step shall display the Processor ID. | | 0% <div style="width: 0%;"></div> | No labels to disp |
| 1.4 Existing License For existing licenses, there shall be a URL to navigate to the Processor ID display page. | | 0% <div style="width: 0%;"></div> | No labels to disp |
| 1.5 Display Page The Processor ID page shall display the Processor ID to the user. | | 0% <div style="width: 0%;"></div> | No labels to disp |
| 2 Database View | N/A | N/A | High Priority |
| 2.1 Saved Queries | N/A | N/A | No labels to disp |
| 2.1.1 Edit Saved Queries Name The name of each saved query shall be editable. | | 75% <div style="width: 75%;"></div> | No labels to disp |
| 2.1.2 Custom Order for Saved Queries The order of saved queries shall be customizable. | Resolves issues: https://cloud.innoslate.com/spec/pi/1368/database/entity/477324 https://cloud.innoslate.com/spec/pi/1368/database/entity/477168 | 75% <div style="width: 75%;"></div> | No labels to disp |
| 2.2 Advanced Search Editor | N/A | N/A | No labels to disp |
| 2.2.1 ASE Attribute Options Advanced Search Editor shall allow the addition of one or more Attribute Options. | This can be done on the sidebar but only one can be added in the Advanced Search Editor. | 75% <div style="width: 75%;"></div> | No labels to disp |
| 2.2.2 Filter Tab on Sidebar | | 0% <div style="width: 0%;"></div> | No labels to disp |

Innoslate Help

How do I trace my requirements from this document to diagram in this project?

To trace your requirements from the document to a diagram in the project, you can follow these steps:

1. Open the Requirements Document: "SAE Level-5 Automation Requirements" from the 'Documents View'.
2. Click on the 'Open' drop-down menu.
3. Select 'Traceability Matrix' under 'Matrices'.
4. In the Traceability Matrix, ensure that the 'Top (X Axis)' is labeled as 'Hierarchy' in the left sidebar.
5. Under 'Root Entity', select the name of your requirements document's root Artifact entity: "SAE-Label-5-Automation-Requirements.csv".
6. Under 'Relationship Type', select the name of the relation to compare. In this case, select "verifies".
7. The matrix will display the traceability relationships between the requirements and the diagram entities.

I hope this helps! Let me know if you have any further questions.

Can I do same to verify my requirements?

Yes, you can use the "Quality Check" feature in Innoslate to verify your requirements. This feature assesses the clarity, completeness, consistency, design implications, traceability, and verifiability of your requirements. You can also use the "Traceability Matrix" to maintain traceability between your test cases and design requirements. Additionally, you can download a VCRM report to ensure that each requirement has a verification method label.

Send a message



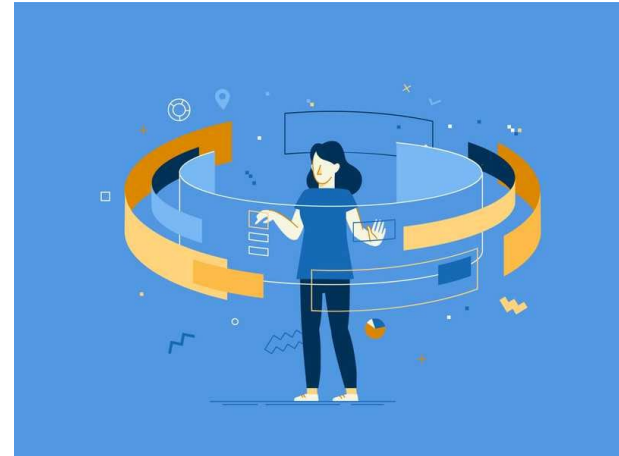
Leveraging Generative AI for Enhance User Experience

- The Help Assistance AI allows access to utilizing generative AI
- Generative AI enhances user support
- Enabling users to seamlessly access additional context during interactions
- Augments contextual information, enriching the user's understanding and engagement

Interactive UI Process

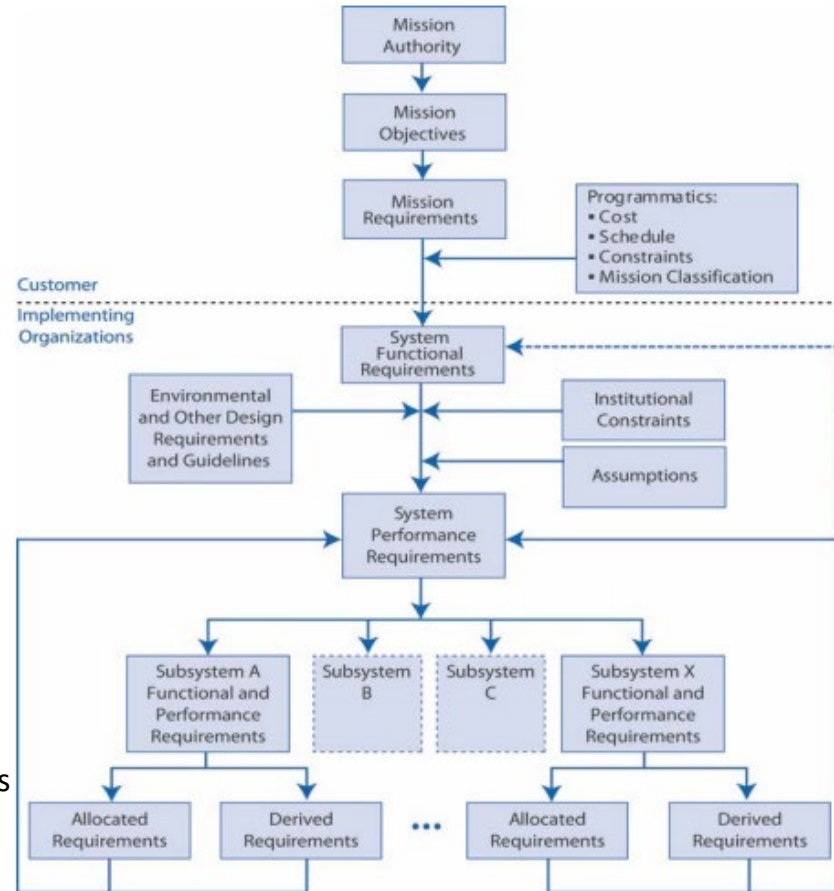
Innoslate's Interactive Approach

- Optimize system engineering understanding and proficiency through interactive features
- Design an intuitive approach, user-friendly interface to engage users
 - Users learn by actively engaging system engineering principles
 - Showcase hands-on demonstrations to reinforce understanding of key concepts
 - Confidence building for users in the tool & following the processes
 - Allows users to set the pace
- The principles that will be heavily focused are:
 - Requirement Documentation
 - Modeling Existing Systems
 - Mission Modeling
 - Project Planning
 - Building Test Cases



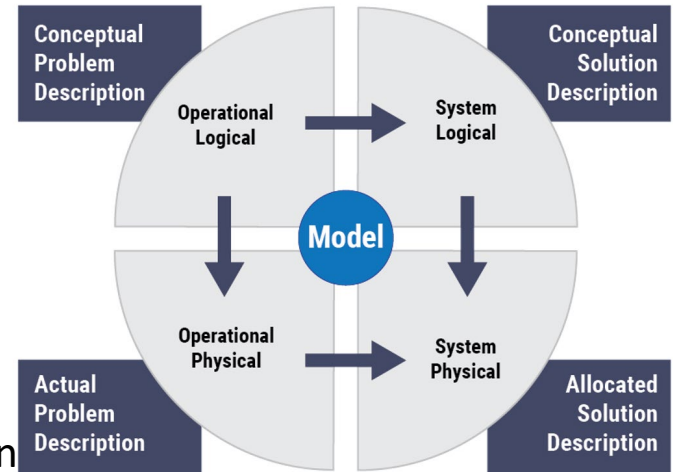
Requirement Process Breakdown

- The requirement process is broken down into:
 - Importing existing requirement documentation
 - Utilize platform features to analyze requirements
 - Performing Requirement Analysis
- Utilize the Import Analyzer to import legacy requirement
- Provide oversight on requirement features to aid users
 - Quality Checker Feature
 - Use NLP to score requirements based on good requirement attributes
 - Baseline Feature
- Performing requirement analysis
 - Determine requirements constraints and goals
 - Determine acceptable requirement characteristics
 - Ensure traceability for verifying and validating requirements



Modeling Existing Systems Process

- The modeling existing system process is broken down into:
 - Importing existing legacy systems
 - Selecting best diagram in modeling their systems
- Import data and information from legacy systems
 - Preserve valuable historical data
 - Reduce manual data entry
 - Ensure data is accurately inputted
- Provide diagram options for visualizing and modeling systems
 - Enhance system understanding and communication
 - Tailor models to enhance visualization to specific user preferences



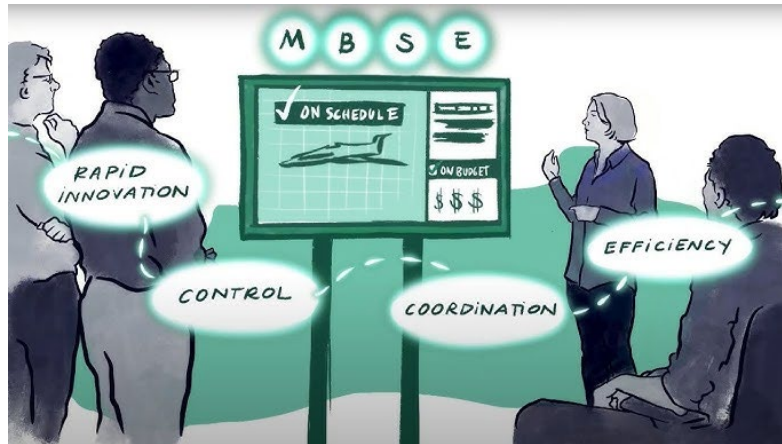
Mission Modeling Process

- The mission modeling process is broken down into:
 - Selecting best diagram for mission modeling
 - Establish foundational framework and arrangement for mission system
 - Integrate the behavioral aspects of the system into the model
- Tailor diagram(s) to effectively convey the mission
- Provide brief overview of model constructs
 - Showcase behaviors and interactions within the system



Project Planning w/ Interactive UI

- The modeling existing system process is broken down into:
 - Present users with options for project planning
 - **Timeline Diagram:** Visual representation of the project plan over time
 - **Kanban Board:** Efficient task management and progress tracking
 - **Gantt Chart:** Display project tasks, timeline, and dependencies
 - Guide users through implementation of selected project planning options



Building Test Cases w/ Interactive UI

- The building test cases process is broken down into:
 - Utilize the platform to efficiently generate test cases
 - Provide traceability for test Cases to corresponding requirements
- Emphasize user knowledge for effective traceability in the Verification & Validation (V&V) process



Understanding the Interactive UI Process

- The Interactive UI Process is seamlessly integrated and accessible within the platform
- Users have ability to toggle the interactive UI process on and off
- Guide users through a step-by-step walkthrough
 - Providing feedback based on inputs their inputs
- Process utilizes user input to enhance the interactive experience
- Interactive process shall be focused on user's input
 - 'Next Steps' are presented in a sequence of binary response format
 - Pre-set conditions evaluate if the user follows process correctly – ensuring a structure user experience
- Prompt the user to indicate their position within process before initiating the interface

Benefits and Outcomes

- Provides hand-on demonstration for comprehensive understanding of the tool and systems engineering (SE) principles
- Build confidence in using the tool
- Engage in self-paced learning environment
- Interactive approach is unique and needed approach
 - Require to gather and utilize user feedback to enhance interface and content
- Provide groundwork for continuous learning, development, and innovations

Conclusion

- This method focuses on interactive and self-paced learning
- Meshing together the user's understanding of the tool & SE principles
 - It's a concept discussed but needs to be implemented moving forward
- Provide a hand-on approach for enabling users to deliver better-quality products and services
- New approach will be continuously tested

Q & A