

<b>Test Category:</b> ROS Topic Monitor		<b>Description:</b> This test will verify that the system allow subscribers to choose the ROS Topics they would like to monitor		
<b>Test Case:</b> 1		<b>Case Name:</b> Choose ROS Topics to subscribe to	<b>Version:</b> 1.0	<b>Written By:</b> Dominik Soós
<b>Requirements Fulfilled:</b> 3.1.1.4 3.1.1.4.1		<b>Purpose:</b> To ensure that a user can choose the ROS Topic they would like to monitor		
<b>Setup Conditions:</b> <ul style="list-style-type: none"><li>1. VSCode, ROS, R-IDE installed.</li><li>2. Open Linux environment (WSL, Ubuntu 20.04)</li><li>3. Open ROS Workspace and R-IDE</li></ul>				
<b>Test Case Activity</b>		<b>Pass/Fail</b>	<b>Comments</b>	<b>Expected Result</b>
1	Click on ROS Topic Monitor tab	Pass		Open web view window with three columns
2	Handle when ROS is not connected.	Pass		Pop up with error message and button to start ROS Bridge
3	Once ROS is connected, click on the refresh button.	Pass		Status should say connected now.
4	Click on the boxes to listen to ROS Topics currently running.	Pass		In the Messages window, the boxes that are clicked should be displayed
5	Click on the arrow to open the ROS Topic	Pass		Display the correct file format for each subscribed topic and display the values coming through

<b>Test Category:</b> ROS Topic Monitor		<b>Description:</b> This test will verify that the system provides the functionality to listen to messages through ROS Topics that are being listened to from the ROS Bag.		
<b>Test Case: 2</b>		<b>Case Name:</b> Listen to messages from ROS Topics	<b>Version:</b> 1.0	<b>Written By:</b> Dominik Soós
<b>Requirements Fulfilled:</b> 3.1.1.4 3.1.1.4.2 3.1.1.4.3		<b>Purpose:</b> To ensure that a user can choose the ROS Topic they would like to monitor		
<b>Setup Conditions:</b> 1. VSCode, ROS, R-IDE installed. 2. Open Linux environment (WSL, Ubuntu 20.04) 3. Open ROS Workspace and R-IDE				
<b>Test Case Activity</b>		<b>Pass/Fail</b>	<b>Comments</b>	<b>Expected Result</b>
1	Click on ROS Topic Monitor tab	Pass		Open web view window with three columns
2	Handle when ROS is not connected.	Pass		Pop up with error message and button to start ROS Bridge
3	Once ROS is connected, click on the refresh button.	Pass		Status should say connected now.
4	In ROS Bag Manager, click on the Manage Bags tab.	Pass		Option to select a ROS bag should become available if ROS is connected
5	Click on the refresh button	Pass		New ROS Topics should be available
6	Click on the boxes to listen to ROS Topics currently running.	Pass		Display the correct file format for each subscribed topic and display the values coming through

<b>Test Category:</b> ROS Topic Publisher		<b>Description:</b> This test will verify that the system provides the interface and functionality to allow subscribers to choose the ROS Topics they would like to publish messages to.		
<b>Test Case: 3</b>		<b>Case Name:</b> Correctly publish to ROS Topics	<b>Version:</b> 1.0	<b>Written By:</b> Dominik Soós
<b>Requirements Fulfilled:</b> 3.1.1.5 3.1.1.5.1 3.1.1.5.2		<b>Purpose:</b> To ensure that a user can choose the ROS Topic they would like to subscribe to and publish messages in real-time that are displayed in the ROS Topic Monitor.		
<b>Setup Conditions:</b> <ul style="list-style-type: none"><li>1. VSCode, ROS, R-IDE installed.</li><li>2. Open Linux environment (WSL, Ubuntu 20.04)</li><li>3. Open ROS Workspace and R-IDE</li></ul>				
<b>Test Case Activity</b>		<b>Pass/Fail</b>	<b>Comments</b>	<b>Expected Result</b>
1	Click on ROS Topic Monitor tab	Pass		Open web view window with three columns
2	Handle when ROS is not connected.	Pass		Pop up with error message and button to start ROS Bridge
3	Click on the refresh button	Pass		New ROS Topics should be displayed
4	Click on the pen to publish to ROS Topics that are currently running.	Pass		Message Publisher should populate the field with correct format based on the selected ROS Topic.
5	Insert the messages in the Message Publisher and set the frequency	Pass		Message Publisher should publish the correct messages to the selected ROS Topics.

6	Select another ROS Topic to check if the Topic Publisher supports multiple message types	Pass		Display the correct format for each ROS Topic based on which one was selected, supporting multiple message types
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