Customizing Papyrus-RT to Facilitate Model-Driven Development of Rover Software

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Rover !!
Rover !!

Rover A
Rover!!

Rover B

Rover A
Rover !!

Rover B  Rover A  Rover C
Rover B  
Rover A  
Rover C
Common Factor ??
Common Factor - Papyrus-RT
Modelling Using Papyrus-RT
Modelling Using Papyrus-RT
Problem Statement
Problem Statement

How to change the design configuration without having to modify the Rover Library?
• Embedding a specific configuration page with the loaded library
• Providing a unique user experience when designing the Rover Model
Current Implementation

UML-RT Package loaded in the model

Allow for editing the design configuration (i.e., the GPIO mapping)

Configuration Page

Platform Overview
The Change!!

Before
The Change!!

Before

After
Future Work

• Analysing hardware specification of various Rovers to further enhance the overall user experience in the context of MDD of Rover Software
• Dynamically creating & disposing new tabs within the configuration page depending on the loaded package
• Defining a software product line for Rovers
Thank You !!