

SWA Review Document

Summary

Date	September 26 2021
Effort	1 hour
Room/Location	Virtual
Review Status	Open
Review name	SWA_Act3.2_GonzalezPadilla_Ariel.doc
Method	WT
Release	1.0.0
Responsible	Marco Antonio Mares Mejia
Project	Door Control module
Reason of Review	First Revision

Comment List

No.	Reference	Comments / Actions	Classification (E)rror/Risk / (R)emark	Responsible person/Planned date for completion	Completion(Name/Date)
1	Abbreviations section	This section gives the reader a quick glance of technical abbreviations and terms that are specific to this project. No abbreviations are included in SWA document.	Risk	Ariel Gonzalez / 02/08/2021	
2	Diagram Description	A diagram is a graphic way to describe a system composition and behavior, but diagrams are complement to word descriptions. No written descriptions are included for none of the diagrams shown.	Error	Ariel Gonzalez / 02/02/2021	
3	Redundant Functionalities	Several functionalities are redundant. These can be determined as the functionalities that only have one entry connection and one out connection. This kind of functionalities are implicit to neighbor functions. E. g. IdentifyDoorLockingRequest, IdentifyWindowLockingRequest.	Risk	Ariel Gonzalez / 02/02/2021	
4	SW Functional Diagram Connections	It's recommended to name the data flows to improve readability and linking.	Risk	Ariel Gonzalez / 02/02/2021	
5	Functional Interface Diagram	It's necessary to show data types, function returns and inherited functions for each block. This is necessary to complement interface information	Error	Ariel Gonzalez / 02/02/2021	
6	Functional Interaction Diagrams	It's an excellent idea to split this diagrams into a Door Diagram and a Window Diagram. But these diagrams are too confusing to understand. Both have several event errors and graphical misuse of SysML elements.	Error	Ariel Gonzalez / 02/02/2021	

7	Physical Decomposition Diagnosis Components	Physical Decomposition for Diagnosis components should be rearranged in a different manner. Besides usage of MCU's Diagnosis Module, there should be a handler for errors and diagnosis on upper layers.	Remark	Ariel Gonzalez / 02/02/2021	
8	Physical Interfaces Diagram	No Physical Interfaces Diagram was included in SWA document. If the Diagram is still in an immature status, it should be included anyway in order to receive feedback to have into account for further revisions.	Risk	Ariel Gonzalez / 02/02/2021	
9	Button Manager OS Task	The SWA document doesn't mention a task to check DCU's Buttons and Switches. This is important to have control of the listening of press events. If this functionality is included in Administrative Button Debounce Task, it shall be mentioned and taken into account.	Remark	Ariel Gonzalez / 02/02/2021	
10	SW Requirements Allocation	Functionality for LIN bus format is not described in the System Requirements document. The allocation mentions a SW Component, but it is not and shall not be defined in SW Physical Architecture. Some functionalities have missing allocation components.	Risk	Ariel Gonzalez / 02/02/2021	
11	SW Integration Plan	The plan described is too general. Splitting the steps is recommended to have a better description of what the plan shall implement.	Risk	Ariel Gonzalez / 02/02/2021	

Check List

No	Description	OK / NOK / NR	Comment	Responsible person / Planned date for completion	Status
1	Does the design comply to the SW Requirements?	OK	Enough System Requirements are included in SWA.	Ariel Gonzalez / 02/02/2021	Open
2	Are all requirements allocated to Architectural elements?	NOK	There are missing components for functionalities and some wrong alloations.	Ariel Gonzalez / 02/02/2021	Open
3	Is the system context (environment) of the software architecture described?	OK			Close
4	Is a global overview of all SW function blocks (Functional Architecture) and SW components (Physical Architecture) provided, giving the reader a good understanding of the overall dependencies?	NOK	A global overview is provided, but a description for each architecture and diagram is essential.	Ariel Gonzalez / 02/02/2021	Open
5	Are the functions identified from SW requirements and reviewed there are no missing functions?	OK			Close
6	Are the functional interfaces documented?	OK			Close
7	Is each SW function mapped to one or more SW components? I.e. is there a mapping from functional to physical software architecture?	OK			Close
8	Do SW components' interfaces export only the needed data and functions (encapsulation principle)? If not, are the reasons given?	OK			Close
9	Are diagrams (e.g. use case charts, sequence charts...) used were appropriate?	NOK	There are missing diagrams and the ones included are close to maturity.		Open

10	Are the SW components identified?	OK			Close
11	Are the Physical Interfaces identified with a clear usage description?	NOK	No description for Physical Interfaces is provided.	Ariel Gonzalez / 02/02/2021	Open
12	Are the OS task properly defined and documented?	OK			Open
13	Are the Interrupt usage described?	OK			Close
14	Are there Power Modes identified and documented?	OK			Close
15	Is the integration Plan properly described with the corresponding order for the software construction order?	NOK	Division of each OS Task is recommended to better description of the Integration Plan.	Ariel Gonzalez / 02/02/2021	Open
16	Is the functional safety information properly described on the SWA document?	NR	This information shall be completed until Module 4		Open