# SWA Review Document

## Summary

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| --- | --- |
| **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

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| --- | --- | --- | --- | --- | --- |
| **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 imrpove 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 to 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 Administrate 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

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| --- | --- | --- | --- | --- | --- |
| 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 madurity. |  | 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 |