IPB SW Project Handbook

# Abstract

The signatures are on the original document of the related department.

Die Unterschriften befinden sich auf dem Original der oben genannten Fachabteilung.

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Rev. | Release Date | Prepared by | Change Description |
| 00 | 26.02.2021 | Saiprasad Shetty | Init version |
| 01 | 24.08.2021 | Artur Kalteis | Update documents |
| 02 | 10.01.2023 | Artur Kalteis | Update documents |
| 03 | 26.10.2023 | Sebastian Lohkemper | Update documents |

|  |  |
| --- | --- |
| **Responsible Head of Department:** |  |

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# Project Management and organization

## Organization Project Managers:

Zoltan Marosi-Banyai

Andreas Ens

## CM Item List

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/12_Configuration_Management/IPB_11kW_CM_Item_List.xlsx>

## Project handbook

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/11_Project_Management/1104_Project_Manual/IPB_Project_Manual.docx>

## IPB-Masterplant [https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/10\_Management/11\_Project\_Management/1102\_Schedule/Masterplan Porsche IPB 11kW.pptx](https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/11_Project_Management/1102_Schedule/Masterplan%20Porsche%20IPB%2011kW.pptx)

## Problem Resolution

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/ProjectHandbook/IPB_Problem_Resolution_Management_Plan.docx>

## Master Testplan

<https://desoeap16.delta.corp/svn/IPB_22kW_auto_pag/trunk/30_Testing/31_QTS/3101_Testplan/310103_Soest/TP_SW_SYS_MasterTestPlan.docx>

## Organization Porsche:



<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/11_Project_Management/1112_Team_Chart/Projektorganisation_PAG_Delta_Counterparts.pptx>

## Request access to project

Access to Door, Svn, Jira is done via this page.

<http://webserver/RnD/main/index.php>

Doors: IPB

SVN intern: <https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/>

SVN extern: <https://DESOEAP16.delta.corp/svn/External_IPB_auto_pag/>

Jira: Porsche IPB

## Doors Data Base

doors://EUSOEAP12:36677/?version=2&prodID=0&urn=urn:telelogic::1-4b95f3c816ae15ba-M-00004146

## Unit / Board planning for development

Units and boards must be requested from the Project Managers.

PMs put it in this plan for tracking:

[https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/10\_Management/11\_Project\_Management/1113\_Samples/ISO\_IPB\_Sample planning.xlsx](https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/11_Project_Management/1113_Samples/ISO_IPB_Sample%20planning.xlsx)

## Confluence Webpage

<https://confluence.deltaww.com/display/PAGIPB/PAG+Integrated+Power+Box+%28IPB%29+Home>

## Delta Sharepoint for file exchange

External to PAG

Shared Link: <https://globalftphk.deltaww.com/File/SharedVerify?id=tHwWAVYDyq19UZIjrp76hzmhuJ56Zs>

Shared Password: rQny2zi04cVs

# Software project management and organization

## SW Project Managers:

Artur Kalteis

Sebastian Lohkemper

## Scope of Work

[https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2310\_HowTo/Scope of Work.pptx](https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo/Scope%20of%20Work.pptx)

## General project related Issues

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/IPB_11KW_Teamcall_Issuelist.xlsx>

## Jira Project for all SW variants

<https://jiraext.deltaww.com/projects/PIPB/summary>

## Organization Diagram

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Organization/SW_Team_Orga.xlsx>



## Project related Meetings

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Organization/IPB11_MeetingWeek.xlsx>



## Vacation Overview and planing

https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2300\_Management/Organization/IPB11KW\_Vacation\_Plan.xlsx

## Feature List and Responsible overview for Doors

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Requirements/IPB_11kW_SPS_FeatureView.xlsx>

|  |  |
| --- | --- |
| **SPS Feature** | **Responsible** |
| **5.2.2 HVDC Monitoring** | **Manuel K.** |
| **5.2.3 HVDC Operation Mode** | **Manuel K.** |
| **5.2.4 LVDC Monitoring** | **Manuel K.** |
| **5.2.5 AC Monitoring** | **Xiaoqiang D.** |
| **5.2.6. Terminal 30c** | **Rafael Stasch** |
| **5.2.7 Terminal 30** | **Rafael Stasch** |
| **5.2.8 Reprogramming** | **Rafael Stasch** |
| **5.2.9 Support Functions** | **Rafael Stasch** |
| **5.2.10 Diagnostic** | **Ashok Abburi** |
| **5.2.11 OBD||** | **Maximilian S.** |
| **5.2.12 Operation System** | **Rafael Stasch** |
| **5.2.13 Board net current consumption** | **Rafael Stasch** |
| **5.2.14 CAN** | **Sharmada S.** |
| **5.2.15 Temperature Monintoring** | **Michael M.** |
| **5.2.16 Supervision** | **Michael M.** |
| **5.2.17 Data Storage** | **Ashok Aburi** |
| **5.2.18 Variants** | **Rafael Stasch** |
| **5.2.19 Security and Protection** | **Daniel.E** |
| **5.2.20 Heater** | **Manuel K.** |
| **5.2.21 Heater Operation Mode** | **Manuel K.** |
| **5.2.22 Discharge** | **Michael M.** |
| **5.2.23 HVAC Charging** | **Xiaoqiang, Manuel K.** |
| **5.2.24 HVAC Operation Mode** | **Xiaoqiang, Manuel K.** |
| **5.2.25 HVLV Charging** | **Michael, Richie Bao** |
| **5.2.26 HVLV Operation Mode** | **Michael, Richie Bao** |

# Software planning and reporting documents

Location for all reporting documents

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Reporting>

## Prio-Tasks daily tracking

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Reporting/Release_prioritization_and_Blocker.xlsx>

## High Level Software Release Plan

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Time_Schedule/IPB_Delta_SW-Releases.xlsx>

## Configuration Management Plan

Overview from which Line which is release planned

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2307_Release/Porsche_IPB_CM_Plan.pptx>

## Management engineering status over all software components and features

Tracking List for all safety and non safety related features

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Reporting/Porsche_IPB11_Mgmt_EngProcessStatus_V2.xlsx>

# Release process and documentation

## Template for Release creation

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2307_Release/Release_Template>

## Needed Release Notes for each VR-Release

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo/Release_Notes.pptx>

## Bootloader Revision Matrix

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2307_Release/Revision/FBL_Revison_matrix.xlsx>

## Software Revision Matrix

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2307_Release/Revision/Porsche_Revision_matrix.xlsx>

# Guidlines and Howtos

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo>

## How to Create a Software component design description

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo/Process/HOWTO_SCDD_Creation.pptx>

## Jira Ticket Handling

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo/Process/JIRA_Porsche_model.pptx>

## Software Integration (How To)

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo/Process/Software_Integration_Process.pptx>

## Software integration Plan

[https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2312\_SoftwareIntegration/TP\_SwIT\_02\_SW\_Integration\_Plan.docx](%20https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2312_SoftwareIntegration/TP_SwIT_02_SW_Integration_Plan.docx)

## 3rd Party Deliveries:

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/Deliverables>

## Design Reviews

https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2309\_Design\_Review

## Software Release location

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2307_Release>

## How to make a SW with the CI-Server

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2310_HowTo/IPB_CI_CD_Plan.pptx>

# System & Software Engineering

## General Doors RE Structure

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/ProjectHandbook/Delta_SYS_SW_ReqEng_at_Delta.pptx>

## Architecture database

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2303_Software_Architecture_Design/10_IPB_SW_Arch_DataBase>

## Change Requests

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/15_ChangeManagement>

## Introduction

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/21_EE_Hardware_Design/2101_Concept/Isolated_IPB/October_2020/ISO_IPB_11kW_Microcontroller_and_Communication_Concept.pptx>

## System Design

System Overview:

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/20_System_Design/IPB_Overview.pdf>

## Engineering Guidline

<https://desoeap16.delta.corp/svn/IPB_22kW_auto_pag/trunk/60_Requirements_Engineering/62_SPS/Soest_AD_Requirements_Engineering_Guideline.docx>

## Doors Data Base:

* CIS (Calibration Interface Specification)
* SPS (System Performance Specification)
* SPSFM (System Performance Specification Fault Management)
* SYSARCH (System Architecture)

## Hardware Engineering

* Hardware Release / Change Matrix

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/10_Management/11_Project_Management/1102_Schedule/VR_Terminplan/IPB_Delta_SW_HW-Releases.xlsx>

## Hardware Software interfaces and changes between samples

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/20_System_Design/2020_System_Archicture/50_HSI>

## Software Engineering

### Software Guidelines

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/ProjectHandbook>

* 23E2029W\_03 Software Coding Guideline.pdf
* readme\_CodingGuidelines.txt
* 23E2064W\_XX CDBU Software Architecture Guideline for Firmware.pdf
* BMW\_CCU\_SYS\_SW\_AdditionalAutosarArchitecturalRules.xlsx

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/ProjectHandbook/Delta_SW_Design_Process>

## Software Tools

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2300_Management/ProjectHandbook/PAG_IPB_SYS_SW_Tools.xlsx>

## Software Architecture

DOC:

[https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2303\_Software\_Architecture\_Design/00\_IPB\_Software\_Architecture\_Documentation/IPB Software Architecture documentation.docx](https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2303_Software_Architecture_Design/00_IPB_Software_Architecture_Documentation/IPB%20Software%20Architecture%20documentation.docx)

PDF:

[https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2303\_Software\_Architecture\_Design/00\_IPB\_Software\_Architecture\_Documentation/IPB Software Architecture documentation.pdf](https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2303_Software_Architecture_Design/00_IPB_Software_Architecture_Documentation/IPB%20Software%20Architecture%20documentation.pdf)

## Matlab Models of Digitial Control (LVDC & HVDC)

https://desoeap16.delta.corp/svn/IPB\_PPE\_auto\_porsche/trunk/20\_Design/23\_Software/2301\_Model\_Based\_Development/230101\_MathWorks

## Software Architecture Design Process

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/20_Design/23_Software/2303_Software_Architecture_Design>

## Software Testing SDVT & Quality

<https://desoeap16.delta.corp/svn/IPB_PPE_auto_porsche/trunk/30_Testing/31_QTS>