Use of E-Plan

In-kind project NIK5.3#5
Test Package for Linear Motion Technology

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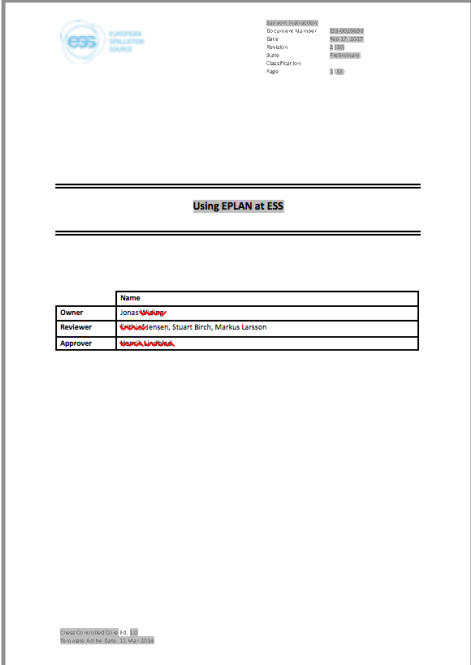Project Kick-Off Meeting, FZ Juelich,
21st November 2017

ePLAN @ ESS – An Overview

- E-plan is the tool for design and documentation of electrical circuits on ESS instruments
- For in-kind partners access via remote-desktop to ESS server possible
- Currently available licenses:
  - Version: ePLAN P8 Ver. 2.5
  - Add-on: Pro-Panel (3D)
- General guidelines:
  - Use of a common library (data base) for ESS standard components
  - Use of ESS naming convention for components, cables etc.
  - More info in document ESS-0028698 v2!
- Templates for ESS instruments projects will be developed in an in-kind project with FZ Jülich (available 2018)

General guidelines for use in ESS projects

- More details in the document
  ESS-0028698 *E-Plan at ESS* v2

  1. Abbreviations
  2. Introduction
  3. Information structure for ePLAN
  4. Using parts and parts database in e-PLAN
  5. Working with projects in E-Plan
  6. User rights in E-Plan
  7. General Principles
  8. Naming of files and documents
  9. Support
  10. References

Instruments template

- The ePLAN set of drawings shall represent all electrical installations on an ESS instrument.
- Interfaces to ESS infrastructure are the power + grounding cables and the optical fibers for detector data, ICS/DMSC and PSS.
- The structure of the ePLAN project shall be uniform for all ESS instruments.
- The ePLAN project shall consist of a framework of overview pages, several modules according to the different technologies and a consolidated cables and components list.
- Naming of cables and components shall be consistent througout the whole ePLAN instruments project.
- Some modules may be included in ePLAN as "black boxes" with well defined interfaces.
- The documentation of these boxes may be done outside ePLAN (other E-CAD systems, pdfs etc.).

Instruments template – Tentative structure

- Proposal for a structure of an ePLAN project for ESS instruments:
  - Overview: Block scheme, int. connections, ext. interfaces   (Instruments team)
  - Power distribution I: Switchboard, mains analysis   (NSS-ESS)
  - Power distribution II: Light, sockets, HVAC? in SE + control hutch (NSS-ESS)
  - ELV: Fire alarm, intercom, access control etc.   ???
  - Grounding   (NSS-ESS)
  - PLC System: Vacuum, Cooling   (ICS-ESS)
  - Motion control   (Instrument team)
  - Sample environment (SE)   (Instrument team)
  - Chopper   (Instrument team)
  - Detector   (Instrument team)
  - Instrument protection system (local machine protection)   (Instrument team)
  - Personal Safety System (PSS)   (PSS-ESS)
  - IT instruments infrastructure   (ICS-ESS)
  - Cables list, material list, connection list etc.   (Instruments team)

- The instruments team needs to nominate the main responsible for ePLAN and coordinate the consolidation of the drawings for the different modules in one ePLAN project (drawing package).