

Paris Session 2022



Application of efficient engineering tools using standardized IEC 61050 standard files and definition of functional requirements for specification

B5 Protection and Automation

PS3 - Integration of intelligence on substations (Joint PS with B3)

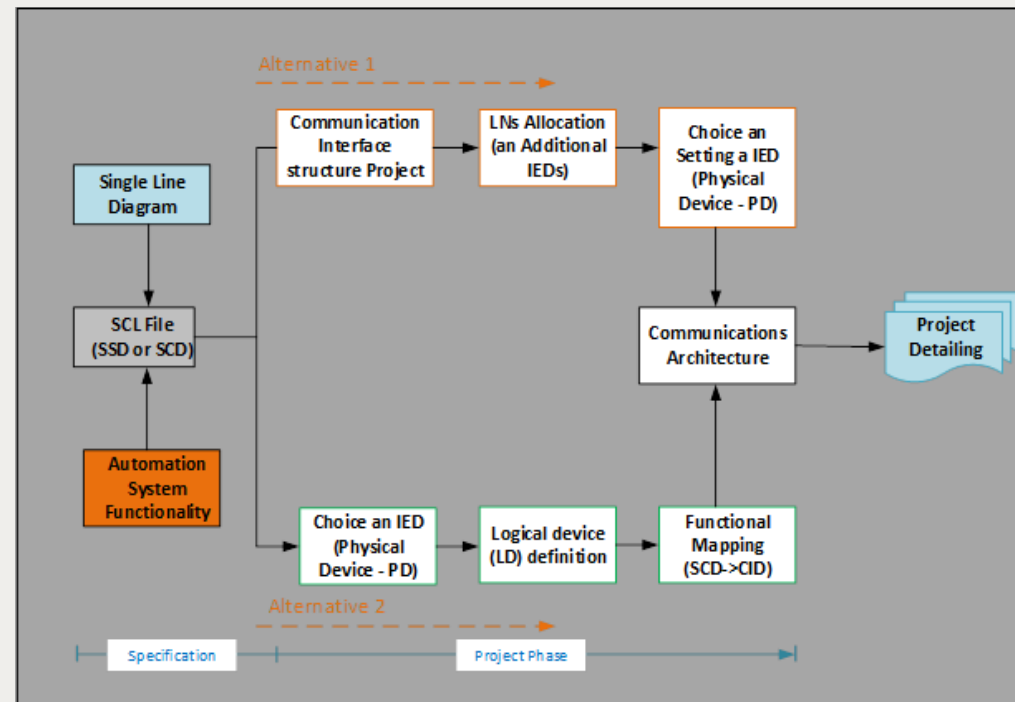
Q3.04 What are other experiences to improve the specification, engineering, testing and maintenance to address the challenges in our industry?

Pablo Humeres Flores / Brazil



Question 3.04 What are other experiences to improve the specification, engineering, testing and maintenance to address the challenges in our industry?

- **Brazilian Utilities focus to apply a correct engineering process in accordance with the IEC 61850 standard**
- **Application of files defined in the standard (SSD, SCD) ensuring compatibility**



Group Discussion Meeting

Question 3.04 What are other experiences to improve the specification, engineering, testing and maintenance to address the challenges in our industry?

- **Some challenges in this process:**

- ✓ Tools for SSD (compatible)
- ✓ SSD file application with vendor configuration tools
- ✓ Application of different editions of the standard in the same installation
- ✓ SCD file complete: architecture of the communication network, topology and single-line of the primary system
- ✓ Training of teams involved in the process: design, operation and maintenance

Question 3.04 What are other experiences to improve the specification, engineering, testing and maintenance to address the challenges in our industry?

- **Documentation of functional requirements:**

- ✓ Definition of the communication network (MMS, GOOSE, SV)
- ✓ Network requirements (PRP, HSR, RSTP)
- ✓ Time Synchronization Solution (IRIG, NTP, PTP)
- ✓ Certification and Homologation Requirements
- ✓ Definition of Cyber Security Solution

- **Well-defined requirements and complete and standardized files:**

- ✓ Efficiently Testing Tools
- ✓ Efficient monitoring of the system
- ✓ Maintenance of PAC System - Effectively and Safely

Group Discussion Meeting