IEC/IEEE 60802 JP TSN Industrial Profile

Network Configuration & Stream Configuration

- to be discussed -

Josef Dorr / Günter Steindl
Siemens AG
Interoperability Introduction

Interoperability issues for co-existence and co-operation:
- Application model and configuration
- Network configuration
- Stream configuration and establishment

Application Model and Configuration is essential for co-operation and impacts Network configuration and Stream configuration and establishment and vice versa.

Application Model and Configuration Constraints/Requirements are identical in any location within the production hierarchy (machine, cell, ...).
Network Configuration and Stream Configuration

- A vendor independent solution is required
  - TSN-IA Profile selects the to be supported managed objects
    - IEEE 802.1Q-2018
    - IEEE 802.1AS-rev
    - IEEE 802.1AB
    - YANG models preferred
  - TSN-IA Profile selects the to be supported access protocol for the managed objects
    - If IP based to be supported: IP address assignment modes need to be defined
  - Devices need to be up and running by configuring the above stated managed objects only
    - May require an “TSN-IA Profile Mode” managed object
  - Preconfigured streams shall be supported
    - Are the managed objects already defined?
Network Configuration and Stream Configuration

- Where can the 60802 JP get the list of managed objects from?
  - Is YANG available for all needed managed objects?
  - Is persistence defined for managed objects?

- Where can the 60802 JP get the list of possible access protocols for the managed objects from?

- Where can the 60802 JP get the list of possible IP address assignment protocols from?

- Where can the 60802 JP define additional managed objects if needed?