

TEC-SW/ED Final Presentation Day(s) June 4th, 2024

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Pres. Title: DESI-CC: Adaptation of a SCOE Controller for EGSCC

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Abstract:

The EGSE Common Core (EGS-CC) is a new software framework developed for Spacecraft Assembly, Integration, Testing (AIT), and Operations. Currently in development, this framework is a collaborative effort led by ESA. The primary aim is to create a standardized platform for Electrical Ground Support Equipment (EGSE).

Complementing this, Rovsing EGSE Controller is a software framework integral to developing systems for specific applications, managing various hardware units efficiently. It can oversee subsystems like Battery Simulators, Solar Array Simulators, or Load Simulators, ensuring cohesive management of spacecraft components during testing and operations.

In a Subsystem Controller application, all necessary software components for hardware control are integrated into a single system, including:

- Man-Machine Interface (MMI): Provides a user-friendly interaction platform.
- CCS Interface: Central Checkout Systems.
- Logger and Archive Modules: Systematically records and stores data.
- Hardware Adaptors: Facilitates communication between software and hardware units.
- Script Engine: Automates tasks and procedures.

Within this in mind the project aims to create a initial framework for the EGS-CC and Rovsing EGSE Controller which could potentially standardize and streamline AIT and operations, enhancing efficiency, reliability, and interoperability across the industry.