Master Thesis

Variant Management in Enterprise Build-Management at Volkswagen Infotainment

Fachhochschule

Motivation:

Volkswagen Infotainment is developing the platform for digital and IoT services within the Volkswagen group. Thereby several ECUs as well as variants for different brands with their cars need to be considered.

Volkswagen Infotainment is interested in new technologies to optimize their development approach. In this case they aim on setting up a new GitHub Enterprise Server to manage their build pipeline for the whole platform and the corresponding variants. In this thesis a concept should be developed to setup this GitHub Enterprise Server with special regards to variant handling for the platform.

Several general conditions need to be taken into account by this concept, which lead to the following tasks:

Tasks:

- Definition of a concept and therein the structure of a GitHub Enterprise Server with GitHub Actions
- Definition of a concept for setting up docker container in this structure
- Integration of variant handling (e. g. by C++ preprocessing) into the pipeline

Requirements:

- Master Thesis for students of Digital Technologies or Systems Engineering & Engineering Management
- Knowledge on embedded Software Development (with C++ and/or Rust) is beneficial
- Knowledge on GitHub (Enterprise) as well as Continuous Integration approaches is beneficial

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VOLKSWAGEN
INFOTAINMENT

Wir geben Impulse

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