Assignment: Reservation display application

Type: Internship / Graduation Project

Discipline(s): ICT / Software Engineering / Embedded Software

Level: Bachelor

Assignment description

Is this meeting room free? When will a lab table or duration cabinet be available? You will build an application for an HMI that brings reservation information to its screen, combining software integration, embedded development and UI design.

Objective

Develop and demonstrate an application showing availability, current and upcoming reservations, start and end times, and duration. Investigate the HMI platform and reservation interfaces, then choose a suitable technical approach.

Tasks

- Explore: talk to future users, study the HMI and identify usable reservation sources and their conditions.
- UI: design a clear layout showing the current reservation, time remaining and upcoming bookings.
- Connect: retrieve reservation data through the interfaces you identify, including updates and cancellations.
- Build: implement automatic updates and indicate when reservation data is outdated or unavailable.
- Test: verify the data against the source, try cancellations and lost connections, and gather user feedback.
- Hand over: document the work so others can install, configure and maintain the application.

Project resources

- Access to an HMI and its development environment.
- Access to the reservation interfaces, or representative test data.
- Support from software, embedded and IT colleagues and from users.

Key deliverables

- Requirements and feasibility assessment with a justified approach.
- User interface design and a working reservation display.
- Tested display for meeting rooms, lab tables and duration cabinets.
- Test results and user feedback.
- Source code, installation and configuration guidance, maintenance documentation and a final report.