Exporting tag values from the Simatic WinCC to the SQL database

1. Introduction

Currently, the existing Equipment Database (EqDb) has a variety of functionalities already implemented. It allows accessing the information about the equipment, their unique or not unique features, their placements, owners, and many more. However, it is foreseen that EqDb will store the tag values from the SCADA (Supervisory Control And Data Acquisition) system used for the NICA-MPD experiment. This data needs to be stored outside of the control room since the data size is too big to archive the historical values from SCADA on the local computer. The first step to export the values to the EqDb is working with the currently existing fragment of the SCADA system and preparing the correct format, data structure, and principles of exporting tags from Simatic WinCC that can be later extended to work for the whole SCADA system.

2. Description

The student participating in the project will be responsible for:

- Familiarizing with currently existing Simatic WinCC project
- Familiarizing with the EqDb
- Exporting the tag values from the prepared project using Simatic WinCC
- Preparing the data structure that can be acquired by EqDb using Microsoft SQL Server

3. Requirements

- Basic knowledge of automatics software (preferably Simatic WinCC)
- Knowledge of SQL database would be advantageous
- Knowledge of any programming language would be advantageous

4. Supervisor

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