

Software Architecture

Case Study Assignment 1



I. Description

The associated document “Koziolk et al. - 2021 - Dynamic Updates of Virtual PLCs Deployed as Kubern.pdf” describes a software architecture for programmable logic controllers. This is probably not an area any of you are familiar with. The point will be to not become experts in the field but to do enough research to a). understand the problem domain and b). provide an evaluation of the solution shown in the case study.

II. Assignment

Read and do whatever research is necessary to gain a basic understanding of the problem domain. Then produce a document containing the following:

1. A one paragraph description, in your own words, of the problem that the architecture addresses
2. A discussion of the requirements for the architecture including, but not limited to, constraints such as performance, security, and scalability
3. A set of Architectural Decision Records (ADRs) documenting the major decisions made in the design
4. Your opinion on whether the architecture meets the customer needs and why you believe it does or does not

We will be discussing the aspects of this in class in particular the use of ADRs.

III. Submission

By 11:59PM on Thursday, September 14th submit a single PDF file into Oaks