

Scope of Work: CAD Viewer and Image Screenshot Tool

The descriptions below pertain to the scope of work for the Image Annotation Tool for Quarter20.

Motivation

Quarter20 is a SaaS platform that is modernizing work instructions for the assembly of complex electronics. At a typical consumer electronics company, computer-aided design (CAD) platforms such as Solidworks or AutoCAD are used to generate the design of a product. These designs are then screenshotted to visualize the assembly of the product, one part at a time. These images are saved to an external platform (typically Microsoft Word or Microsoft PowerPoint) and annotated using the word-processing tools. We are changing the process of image capture in the CAD environment, and the specific scope of this project is to take those images and annotate them in a web environment.

The expected deliverable from this project is to ability to 1) upload an image to the Quarter20 web platform, 2) add metadata and annotations to the image in a word processor-like environment, 3) save the images to the cloud with the metadata attached and 4) load previously saved images.

High-Level Work Phases

The work required for this project can be broken down into 4 stages at a high-level:

- 1) Requirements and Design
- 2) Implementation
- 3) Test
- 4) Deployment

Requirements and Design

During this phase, the implementing team will work with Quarter20's engineer and product team to 1) understand the requirements and existing design and 2) create a wireframe and product flow for the tool. The deliverable consists of a product requirements document (PRD) that consists of

- A proposal for the product flow for the tool (i.e. a wireframe)
- A description of the libraries and platforms that will be used to annotate a variety of image types
- A definition of data storage structures that would be necessary to build the platform.
 - e.g. postgres database and AWS S3

Estimated time: 1 week

Implementation

During this phase, the implementing team will use the PRD to guide the actual implementation of the proposal. Each week will be broken out into a sprint, where the implementing team will work closely with the Quarter20 product team to track progress and debug issues as they arise. The final deliverable will be a fully functional image annotation tool as agreed upon.

Estimated time: 5 weeks (in concurrence with Testing phase)

Test

During this phase, the implementing team will be responsible for creating a mechanism to test the tool. The product team at Quarter20 will provide several different images files to ensure that these files can be properly read and modified to test full product functionality. There is no formal deliverable for this particular phase.

Estimated time: 1 week (in concurrence with Implementation and Deployment phase)

Deployment

During this phase, the implementing team will launch the platform into a test environment such that the Quarter20 team can perform more concentrated testing of the platform. There is no formal deliverable for this phase.

Estimated time: 1 week (in concurrence with Testing phase)

Notes

- The Quarter20 team will be available for weekly meetings with the implementing team to discuss progress and roadblocks.
- The Quarter20 team will be available for support to provide any necessary infrastructure, including website hosting and file storage locations.