

FAMU/FSU College of Engineering

Department of Electrical and Computer Engineering

Customer Needs

Team 304: FPL ATS Training Application

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Customer Statement

General Statement

Due to the COVID-19 pandemic, Florida Power & Light (FPL) desires an application that will virtually educate and train its employees on how to perform maintenance on an Automatic Transformer Switch (ATS). In order to give employees access to the final product, the application must be compatible with the FPL internal application store.

Q&A With Customer

Q: Will this application be training employees on how to install an ATS or perform maintenance or both?

A: The employees already know how to install an ATS, this application is just for performing maintenance.

Q: Will this application be augmented or virtual reality?

A: Neither; the application will be a simulation, similar to a video game, that will allow the trainee to simulate performing maintenance on an ATS.

Q: Are there any other components to the application besides simulating maintenance?

A: The application is very open-ended, but there will be portions that educate and assess the knowledge of the user.

Q: Is this application specifically designed for iPad?

A: The application should be compatible with the FPL internal application store since a lot of the employees are given iPads.

Q: Are we required to use a certain game engine for production?

A: Any development software that we are comfortable with and want to use is acceptable.

Needs & Requirements

Table 1: Needs

Identifier	Need	Source
N1	Train FPL employees on ATS maintenance procedures	Cust.
N2	Conduct training in a virtual manner	Cust.
N3	User-friendly/intuitive	Cust.
N4	Interactive experience	Cust.
N5	Easily distributed among FPL employees	Cust.

Table 2: Requirements

Identifier	Requirement	Need(s) Met
R1	Educate on ATS components and their functions	N1
R2	Educate on ATS maintenance & troubleshooting procedures	N1
R3	Final design is an iPad application	N2, N3, N5
R4	Simulate ATS maintenance & troubleshooting procedures	N1, N2, N3, N4
R5	Assess the users knowledge & provide feedback	N1, N4
R6	Provide feedback during simulations and assessments	N1, N3, N4
R7	Simulation behaves and appears like real life experience	N1, N3, N4
R8	Allow user to freely interact with ATS	N1, N2, N3, N4
R9	Enable user to request information on ATS components	N1, N2, N3, N4
R10	Demonstrate opening and closing of switch procedures	N1, N2, N3, N4

Explanation of Results

The customer, Florida Power & Light, was an informed customer and was able to quickly and efficiently provide the needs and requirements of the project. Prior to the meeting, the customer provided various documentation for the team to review. This documentation contained pertinent information about the Automatic Transformer Switch. At the beginning of the meeting, the customer provided a detailed statement outlining that due to COVID-19, they are in need of an application that will virtually educate and train its employees on how to perform maintenance on an Automatic Transformer Switch. Furthermore, in order to give employees easy access to the application, the final product needs to be compatible with the internal FPL application store. The customer then showed a video that gave an in depth analysis of the Automatic Transformer Switch. The video explained the use and functions of the Automatic Transformer Switch and demonstrated how to properly perform the necessary maintenance operations. At this point, the customer opened the discussion for questions and further clarification. Using the questions seen in the Customer Statement, it became clear that this application will educate, simulate, and assess employee's knowledge on performing maintenance on the Automatic Transformer Switch. The process in which the application will perform those functions, as well as the manner in which the application is developed, are not restrained besides the final design being compatible with an iPad. Before finalizing all of the needs and requirements, the document was reviewed with the customer to ensure satisfaction.