Requirements Specifications

Team 2

Purpose

- Purpose of the document:

  The requirements specification of Team 2 will be available for the project group of this course and will act as a guideline for collaborative work that the group members will carry out in this area.

- Purpose of the system:

The main goal of this area is to create a library in addition to the main system which will calculate and mark the pathways on the client's roof according to the local fire code regulations.

High level overview

The goal of this collaboration is to create functionality which will calculate the appropriate fire pathing and ventilation setbacks on the clients' buildings. The functionality of this system will be provided in the form of a high-level overview from this collaboration to other teams:

- The necessary pathing requirements will be taken from local fire protocols – in this scenario from Lithuania's fire code.
- The pathing and setbacks will be automatically calculated with the data received from Team 1. Parts of the roof, where calculations will be made, will be marked as not usable for potential solar panel installation, that will be later calculated by Team 3.
- The generated data will be easily accessible to other teams and will meet their requirements.

Functional requirements

After reviewing the given conditions, we decided to distinguish these essential functionalities:

- The necessary measurements of paths and setbacks will be inserted into the system by the user.
- The system, using the provided data and inputs, will automatically calculate the most optimal fire pathing and ventilations setbacks, on which the solar panels will be forbidden to be placed.
- Calculations and constraints made by the system will be sent to Team 3.

Quality attributes

- **Availability:**
  - The functionality of this area will be available as a library to use in the main system, which will be accessible as a desktop app.
- **Usability:**
  - This functionality will be user-friendly with short text-based guides shown in the form of steps for the user to follow.
  - Besides the necessary measurements that will be inserted by the user, other data will be automatically provided.
- **Compatibility:**
  - Data received from Team 1 will correspond to our requirements and will work with our system.
  - Our calculations will be compatible with Team 3.
- **Reliability:**
  - Incorrect measurements inserted for the paths and setbacks will produce an informative message and won't let use that data on the project.
  - If more than one file comes through from Team 1, it will not break the system.
- **Security:**
  - Only authorized users can access the software.
  - Prevention of data leaks implemented into the software.

Implementation plans