Software Requirements

Specification

DEM Management & Analyst Tool

3.2 Functional requirements

This section includes the requirements that specify all the fundamental actions of the software system.

3.2.1 User Class 1 - The User

3.2.1.1 Functional requirement 1.1

ID: FR1

TITLE: Download application

DESC: A user should be able to download the application through our website. The application should be free to download.

RAT: In order for a user to download the application.

DEP: None

3.2.1.2 Functional requirement 1.2

ID: FR2

TITLE: Install application

DESC: Given that a user has downloaded the application, then the user should be able to install this application. The user must provide direction to install by using dialog. After install, the application must notification if install success or not.

RAT: In order for a user to install application.

DEP: FR1

3.2.1.3 Functional requirement 1.3

ID: FR3

TITLE: Select DEM file to open

DESC: Given that a user has installed the application, then the user should be able to open this application and open dialog to select which file will be open. There should also be a free-open DEM file option. The application must show 3D image of given file if given file format is acceptable or notification user that this file format is incorrect.

RAT: In order for a user to open DEM file.

DEP: FR2

3.2.1.4 Functional requirement 1.4

ID: FR4

TITLE: Rotate 3D Image

DESC: Given that a user has open the application, then the user should be able to rotate a 3D image is being presentation by using mouse movement action. The rotate include move up, down, left, right or any angles

RAT: In order for a user to rotate 3D image.

DEP: FR3

3.2.1.5 Functional requirement 1.5

ID: FR5

TITLE: Zoom 3D Image

DESC: Given that a user has open the application, then the user should be able to zoom a 3D image is being presentation by double click mouse. The mouse clicked point must be in range of 3D image. The user also able to minimize 3D image by hold CRTL key while click.

RAT: In order for a user to zoom 3D image.

DEP: FR3

3.2.1.6 Functional requirement 1.6

ID: FR6

TITLE: Select an area in 3D Image

DESC: Given that a user has open the application, then the user should be able to select an area in 3D Image by using mouse to draw a box on the 3D Image

RAT: In order for a user to select an area in 3D image.

DEP: FR3

3.2.1.7 Functional requirement 1.7

ID: FR7

TITLE: Resize a boundary box on 3D Image

DESC: Given that a user has selected an area on 3D Image, then the user should be able to resize this area by click right mouse and select resize. A dialog must show in order to select how many percent will be resized.

RAT: In order for a user to select an area in 3D image.

DEP: FR6

3.2.1.8 Functional requirement 1.8

ID: FR8

TITLE: Crop a boundary box on 3D Image

DESC: Given that a user has selected an area on 3D Image, then the user should be able to crop this area by click right mouse and select crop. After cropped, the user should be able to move this area by holding left mouse and move.

RAT: In order for a user to crop an area in 3D image.

DEP: FR6