1 Introduction

This document specifies the system requirements and general information of Sweet Home 3D Plugin: Advanced home plan editing.

1.1 Purpose

The purpose of the document is to give detailed specification of software requirements for this Plugin. The plugin should assist users resize selected objects in the plan, edit room points in a dialog and join two walls in the home. The intended audience for this document is developer, system designer, test engineer and project manager. This specification describes the detailed requirements for each functions of the plugin.

1.2 Scope

This document applies only to the relevant people in this project.

This specification is not concerned with any actual system design and implementation issues.

1.3 Definition, Acronyms, and Abbreviations

SRS - Software Requirements Specifications

IEEE - Institute of Electrical and Electronic Engineering

C/S - Client / Server

B/S - Browser / Server

1.4 Reference

[1] IEEE 830-1993: IEEE Recommended Practice for Software Requirements Specifications "IEEE Standards Collection, IEEE 1997"

1.5 Overview

In the following sections of this specification, User interface and Functional requirements and the relevant test cases will be presented. In section 2, the general features will be introduced. In section 3, all detailed requirements will be specified and grouped.

2. GENERAL DESCRIPTION

2.1 Product Perspective

This plugin allows interior designer to resize selected objects in the plan, edit room points in a dialog and join two walls in the home. The plugin will add Rotate, Move, Flip, Resize action button inside the Edit tab.

2.2 Product Functions

The plugin provides the following functions:

1. "Flip" is implemented to apply a flip (mirroring) transformation to selected objects.
2. "Resize" is implemented to apply change of size for selected objects with an aspect ratio, in order to enlarge and reduce objects.
3. "Resize" is implemented to apply movement of selected objects with 2d coordination (horizontal and vertical distance in the 2d region of a home).
4. "Rotate" is implemented to apply rotation of selected objects with specific degree.

2.3 User Characteristic

User's computer Knowledge is not required, but at least could handle a mouse to manipulate the on-screen item.

2.4 General Constraints

This plugin develops under J2se 1.6, and a dependency class file ‘SweetHome3D-4.6’ which could be downloaded from “http://sourceforge.net/projects/sweethome3d/files/SweetHome3D/SweetHome3D-4.6/SweetHome3D-4.6.jar/download”. Target platform is SweetHome3D 4.6. No dependent libraries would be required for this plugin, since it directly integrates into the system.

3 Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

3.1.1.1 There should be a “Rotate” button under the Edit tab

3.1.1.2 There should be a “Move” button under the Edit tab

3.1.1.3 There should be a “Flip” button under the Edit tab

3.1.1.4 There should be a “Resize” button under the Edit tab

This requirement modifies layout of the Edit tab.

3.2 Functional Requirement

3.2.1 The “Rotate” action should have a field for inputting a degree of angle

3.2.2 The “Move” action should have two fields for inputting horizontal and vertical moving distance

3.2.3 The “Flip” action should have two checkbox for flip horizontal of vertical

3.2.4 The “Resize” action should have two fields for inputting width and height, measurement field in “cm” and “%”, and aspect ratio field.