1 Introduction

This document specifies the system requirements and general information of Sweet Home 3D.

1.1 Purpose

The purpose of the document is to give detailed specification of software requirements for Sweet Home 3D including the relevant test cases. The system should assist users to design a plan for their home. The intended audience for this document is developer, system analyst, system designer, test engineer and project manager. This specification describes the detailed requirements for each main requirements.

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, Communication interface and Functional requirements and the relevant test cases will be presented. In section 2, the general product and its feature will be introduced. In section 3, all detailed requirements will be specified and grouped.

2. GENERAL DESCRIPTION

2.1 Product Perspective

This system allows interior designer to design and arrange the home in intuitive way. The system will display the whole view of home design plan including the 2D, 3D view and it also will help user with not much knowledge of interior design to arrange the interior view of home with wide range of pre-defined design model. The system provides information about the interior design model.

2.2 Product Functions

The system provides the following functions:

Place items in the home and give real-time modelling 2D, 3D view.

Include a storage database for item model.

Export plans to video.

2.3 User Characteristic

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

2.4 General Constraints

This system would need java runtime library 1.6 or above to operate. Online version of this system will support chrome, IE, Firefox, Safari and other IE core browser. This system develops under J2se 1.6 with C/S and B/S architecture for both online and desktop version,

java3d 1.6 and Java Media Framework 2.1.1. Target operating system are Windows and Macosx. All dependent libraries would be installed along with the installation of the system.

3 Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

3.1.1.1 There should be a well-structured window for manipulating different functions.

3.1.1.1.1 Divide the window into four resizable panes, with a tool bar at its top.

3.1.1.1.1.1 The left-top pane is the furniture catalog, which contents should be organized by categories.

3.1.1.1.1.2 The left-bottom pane is the home furniture catalog that lists the furniture contained in a home plan and displays attributes of each furniture.

3.1.1.1.1.3 The right-top pane is the home plan section, which displays the plan content upon a grid and surrounded by rules.

3.1.1.1.1.4 The right-bottom pane is the home 3D view, which should allow users view their home either from the top, or from a virtual visitor point of view.

This requirement define the main window of the software. The layout of the main window is described and UI designer should take this layout as a template to design user interface.

3.2 Functional Requirement

3.2 The furniture should have a build in search engine

3.2.1 A search engine has a search field for searching, and also able to filter the furniture lists by catalog.

3.2.1 Input the search keywords or choose a catalog.

3.2.1 Process the whole in-memory furniture, match the catalog name of furniture if choose a different catalog, else match the keywords with furniture name.

3.2.1 Display the search results in the pane.

This requirement would enhance the user experience. It provides a build-in search filter, gives user a fast way to select the furniture model.