Sweet Home 3D - Project description

## Functionality:

The Sweet Home 3D open-source java project is an interior design application to draw houses and arrange furniture. This software is designed to help the users visualize their furniture in 3D format based off a house 2D plan.

## Target Users:

There are three distinct groups of target users which can be categorized as follows:

1. General Populace - These are regular people who may be moving or who just want to redesign/remodel their existing home.
2. Interior Designers - These are individuals who are hired to offices, houses, and other interior spaces, providing this service for a charge.
3. Information Technology developers - These people contribute by inspecting the source code and generating enhanced plugins for the open-source project.

## Installation Procedure:

In order to install the Sweet Home 3D tool, follow these steps:

* Windows installer:

1. Download the executable installation file from the following URL: <http://sweethome3d.com/download.jsp>
2. Click on the button labelled "Download at SourceForge.net", this will start the download of the executable file.
3. Double click the downloaded file setup file which should be labelled "SweetHome3D-X.X-windows.exe", where "X.X" denotes the downloaded version.
4. Choose the desired interface language.
5. Navigate through the "Welcome to setup" page and accept check the License agreement.
6. Choose the destination folder to save the software.
7. Navigate until the end of the install wizard, allowing the tool to unpack and install itself.
8. The program is now ready to use, and can be launched at the end of the install wizard.

* Mac OS X installer:

1. Double-click on the downloaded file and run Sweet Home 3D application found in the opened folder.
2. If the system refuses to launch Sweet Home 3D for security reasons, click on its application icon while maintaining the ctrl key pressed, and choose Open in the contextual menu that will appear.
3. Under Mac OS X 10.7 to 10.10, you may have to install Java upon system request.
4. To install Sweet Home 3D, drag and drop the application in the folder of your choice.

* Linux 32-64 bit installer:

1. Uncompressing the downloaded file and run SweetHome3D application found in the uncompressed directory.
2. To install Sweet Home 3D, move the uncompressed directory in the one of your choice

## Upgrade Procedure:

The upgrade process of this software is automatically enabled by default. Users could disable or re-enable this function by following these steps:

1. Open the "File" drop down menu on the top toolbar
2. Select "Preferences" at the bottom of this drop down menu
3. Uncheck/Check the box beside "Check updates at program launch"

As this procedure is self-contained, no input is required by the user.

There is also the option to explicitly check for new updates next to the box to automatically check for updates. This box is labelled "Check now".

Since the program automatically updates provided the user does not explicitly uncheck “Check updates at program launch”, users will receive the new version at next program start-up. Therefore as soon as the new version is available online, it should reach the majority users, particularly those who use the tool frequently.

From the point of view of Quality Assurance, this upgrade process is highly effective. By default it requires no user input and the new versions will be available on the following startup of the program following the release.

Improvements:

Despite the interior design application being quite robust, there are a number of improvements which could be made to enhance quality and thereby overall user experience. Some of these possible improvements are:

1. The tool has a relatively unfriendly interface, for example it is difficult to know where to begin.

2. The project also requires significant system training, and this could be improved by making the interface and commands more intuitive.

3. There are too many redundant models, such as a battery, stapler, text marker or pen, which are very small and insignificant to interior designing.

4. The 2D and 3D view windows are far too small to be easily usable. One of these could be split to a separated window by default.

5. There are many tools in the quick bar which are very similar, notably four buttons which are all slight variations of the letter A.

6. The number of available models is very limited without the additional installation of plugins which are not included in the initial installation. The addition of more models would be a vast improvement on the project.

7. The camera to view the 3D rendering of the building is very clumsy, particularly in relocating the camera. It is fairly easy to zoom in or out, and rotate the view around a certain point of view, but relocating this point of view is incredibly challenging. This could be improved by using the arrows keys in combination with a “shift” or “alt” command to easily move the point of view.

8. Unless a floor plan already exists, it is challenging to create the layout, specifically the walls and windows, of the building. This process should be improved.

9. The import process of an existing floor plan is fairly clumsy. The importation algorithms should be improved to aid the user.

10. There is no inbuilt tutorial or walkthrough feature; this must be done via the project website. Making this available in the project would be beneficial.

11. Overall most of the buttons, menus and items in the user interface are too small and should be increased in size.

12. The lock feature is so insignificant it is easily overlooked. This feature should be given a more prominent position, or sized up as it is important to avoid undesired changes when viewing a completed model.