LIS

Laboratoire d'ingé
des systèmes de Vers

PROJET9 - MASTER2 CSER 2015

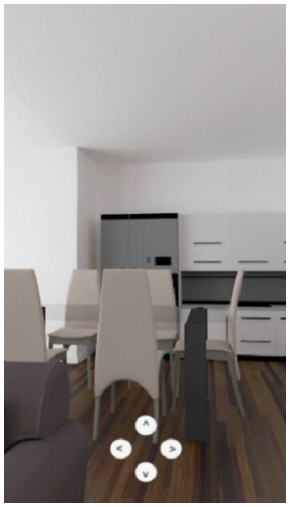
Developing an application combining interaction and photorealism

The objective of my Project was the creation of an application allowing the virtual visit of an apartment with pre-calculated images.
Nowadays the methods used for the design are based on the realization of a numerical mock up which includes all the elements needed for the conception of a building. All the construction trades do not need to see the building in its integrality, but only the part that they are concerned about.
The main idea of my project was to consider the point of view of an architect or a client and develop a complete process allowing them to interact during the pre-designing phase with a pre calculated image. This step will allow them to have a better view of the final project.
At the beginning I designed a mock up of an apartment in 3D. To do so I used a 3D modeling software specialized for architecture. The structure and the plan were realized via the Sketchup software. I used 3ds Max Software to integrate objects and materials in

the scene.

Picture 1 : mock up of an apartment in 3D

Once the mock up done I imported panoramic cameras in the environment. The cameras are used to copy the pre-calculated image of the apartment in 360 degrees.
Using several cameras in the scene, allows the user to navigate through the apartment by making 360 degrees rotation.
To simulate a virtual visit of the apartment, I created an application using the software unity 3D allowing me to move through the apartment by changing camera and by that changing the point of view you have of the apartment.



Picture 2 : Representation of my application

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