Positioning Manipulate Real Property Object On Tourist Attraction Utilize Augmented Reality

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Abstract. The purpose of this riset was made to simplify positioning of real property on tourist attractions. This research adapts the virtual objects are displayed when tracking the location of the tourist spot as a marker. Users can see the components of real property using markerless augmented reality method in the form of virtual objects, where markers used as tracker is a tourist attraction directly. Keyword: real property, tourist attraction, marker less augmentes reality
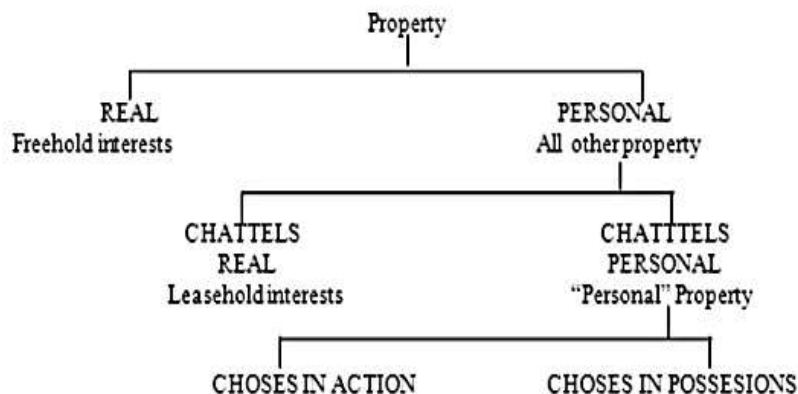
1. Introduction
Augmented reality apps already present in the hundreds of millions of smart phones (by utilizing the built-in camera, accelerometers, microphones, Global Positioning System (GPS), and with the development of augmented reality company big chip like Nvidia and Qualcomm, AR price-point, etc. will develop further augmented reality applications. In conclusion Augmented reality created to support the products and services of the media industry as a technology. (G. Kipper, Rampolla J., 2013: p. 4). Technology image processing and computer vision has evolved to a stage that allows us to create 3D information in the real world. Due to the success of this technology, all areas Augemented Reality-based application appears. Augmented reality as a combination between the real world and the virtual world in 3D with the ability to interact with the real time. One application field of Augmented Reality is to build recognition application objects using a marker. In this application would be useful for users to be able to put the real property at the tourist attraction through the 3 dimensional visual representation involving user interaction.

2. Basic Theory
2.1 Real Property
Real property has been associated with the ownership of land (freehold land). while personal property relating to the lease holder of land (leasehold land) and all the things that move included chattels and choses.Chose in action is a property that is not physically visible and therefore can not be protected from the physical aspect and therefore require a court warrant. While chose in posession is prperti are physically visible and therefore the physical of the property can be owned and protected. In Indonesia, the definition of a guarantee (collateral) is also stipulated in the decree of directors of Bank Indonesia number 23/69 / KE / DIR on February 28, 1991.

Property

REAL
Freehold interests

PERSONAL
All other property

CHATTELS
REAL
Leasehold interests

CHATTELS
PERSONAL
"Personal" Property

CHOSES IN ACTION

CHOSES IN POSSESIONS

2.2Augmented Reality

Augmented Reality (AR) is a variation of a Virtual Environment (VE), or Virtual Reality (VR) as it is more commonly called. Virtual Reality technologies completely immerse a user inside a synthetic environment and while immersed, the user cannot see the real world around him. In contrast, Augmented Reality is taking digital or computer generated information, whether it be images, audio, video, and touch orhaptic sensations and overlaying them over in a real-time environment. Augmented Reality technically can be used to enhance all five senses, but its most common present-day use is visual. Unlike Virtual Reality, Augmented Reality allows the user to see the real world, with virtual objects superimposed upon or composited with the real world. Therefore, AR supplements reality, rather than completely replacing itas depicted in Figure 1Augmented Reality can be thought of as the blend, or the "middle ground," between the completely synthetic and the completely real. (Gregory Kipper dan Joseph Rampolla, 2013 : pp 1)

Figure 1 Virtual used smartphone

Information being transmitted all around us right now on some wireless frequency or another, we as people would be totally unaware of it without the mobile phones, tablets, and laptops that allow us to effectively channel the information. Augmented Reality, much like other graphical interfaces, gives us the ability to bring usable information into the visual spectrum in real time wherever we are. Augmented Reality is not just one technology. (Cirulisa A., Brigis K:2013) It is the combination of several technologies that work together to bring digital information into visual perception. AR is a highly compelling, virtually endless, collection of technology-assisted experiences that helps create the real-time Web.Augmented Reality is sometimes confused with "visual searching", particularly in a mobile environment. Visual searching is defined as an active scan of the visual environment for a particular object or feature among other objects or features.There are many different ways that information can be added, changed, or modified in the physical world. If we take that definition at face value, virtually anything can be considered augmented reality.Ronald T. Azuma, in his 1997 paper A

Survey of Augmented Reality (Presence: Teleoperators and Virtual Environments 6(4), pp. 355–385), asserts that there are three characteristics that define augmented reality: (Jorge M., Pena M : 2014)
1. Combines real and virtual
2. Interactive in real time
3. Registered in 3D
Key aspects (ingredients) of augmented reality:
a. The physical world is augmented by digital information superimposed on a view of the physical world.
b. The information is displayed in registration with the physical world.
c. The information displayed is dependent on the location of the real world and the physical perspective of the person in the physical world.
d. The augmented reality experience is interactive, that is, a person can sense the information and make changes to that information if desired. The level of interactivity can range from simply changing the physical perspective (e.g., seeing it from a different point of view) to manipulating and even creating new information. (Craig A. B : 2013)

3. Analysis Techniques

3.1 Hardware In Implementation Minimum:

No	Client	Specification
1	Os. Android	Jelly Bean (4.3)
2	Camera	3 Megapixel
3	RAM	1 GB

3.2 Hardware to making application minimum :

No	Client	Specification
1	Processor	Core i3
2	RAM	4 GB
3	Hard Disk	250 GB
4	VGA	*intel@ HD Graphics* 3000

3.3 Software to making application:

No	Software
1	Unity
2	Vuforia
3	3Dx Max / Blender
4	Adobe Photoshop

This is a technique for analyzing how a system works and interacts with users or other systems. (Jalloul.G:2004)
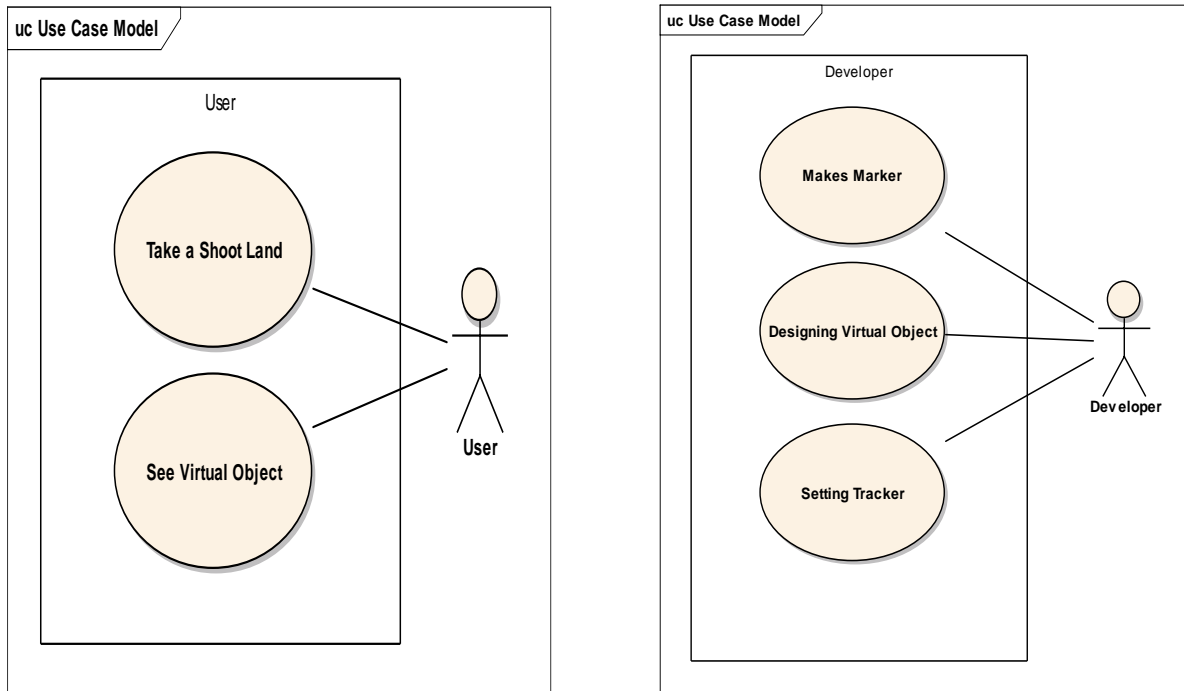
4. Result

4.1 Researchers took a marker by taking pictures in the tourist attraction, later entered into a database Vuforia Developer. (Rizki, H: 2012)
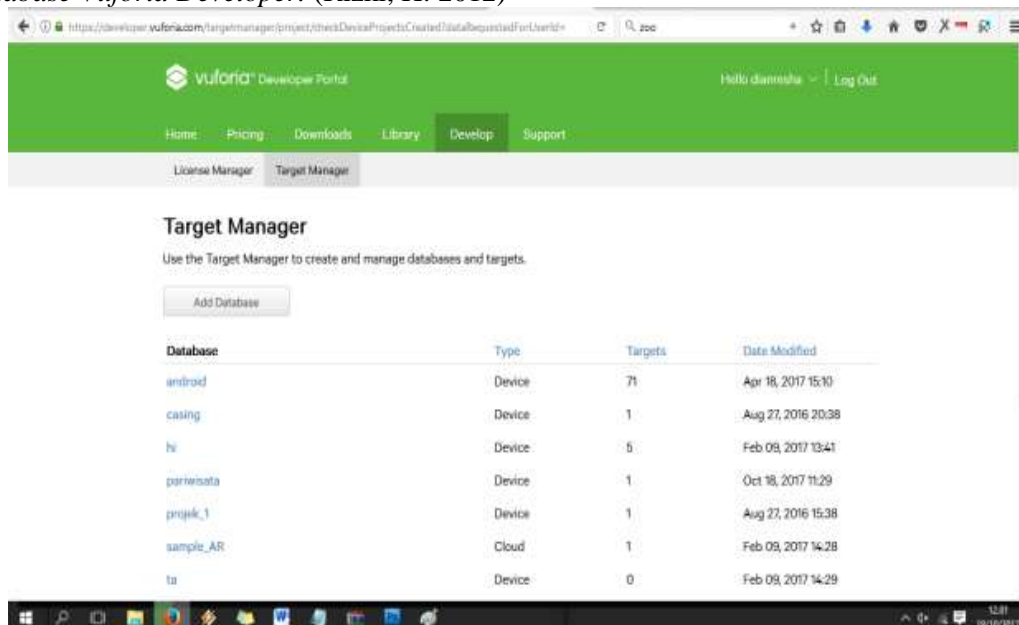

Figure 2. Vuforia Developer.

4.2 Results of the camera tracker committed by the user, will display virtual objects of real property to be built in the tourist attraction land as shown below :

Figure 3. Virtual real property lodging

Figure 4. Virtual real propertyguest house

Figure 5. Virtual real property slide

5. Conclusion

For the conclusions of this study are as follows:

1. Augmented reality can be applied to help in the design development of real property on the land tourist attraction.
2. Property which will be placed in the specified area will make it easier to position the project directly.
3. Record the project can be considered well what the appropriate properties on the land.

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