Momoda 3D Visualization Software for Security Surveillance

Viewer User Guide

(Version: V1.0)

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1. Objective

The purpose of this document is to provide general guidance on using and config the Momoda 3D Visualization Software for Security Surveillance.

2. Navigate the Viewer UI

2.1 Browsing and Presentation

2.1.1 Description

In Momoda scene viewer, camera position are automatically highlighted by camera icons. Mouse over the camera will show its name, click on the icon will show the live feed video streaming.

2.1.2 Scene and Live Feed Browsing

Browsing Scene: Upon entering a scene, a user can do 360 degrees rotation. (see Figure 1, Middle mouse button: Click and hold to drag the entire scene; Right Mouse Button, Click and hold to rotate; Left Mouse Button, Click and hold to select multiple cameras), enter a building by double clicking on it.
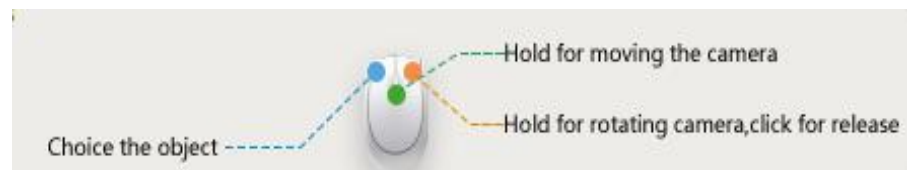

Figure 1. Mouse Actions

Camera Information : Upon entering a scene, system will display locations of all camera in the scene Mouse over the camera will show its name.

Video Browsing: Clicking on any camera will pop-out its live feed, in addition along with its coverage area (Figure 2, The blue frustum is the cameras coverage area).
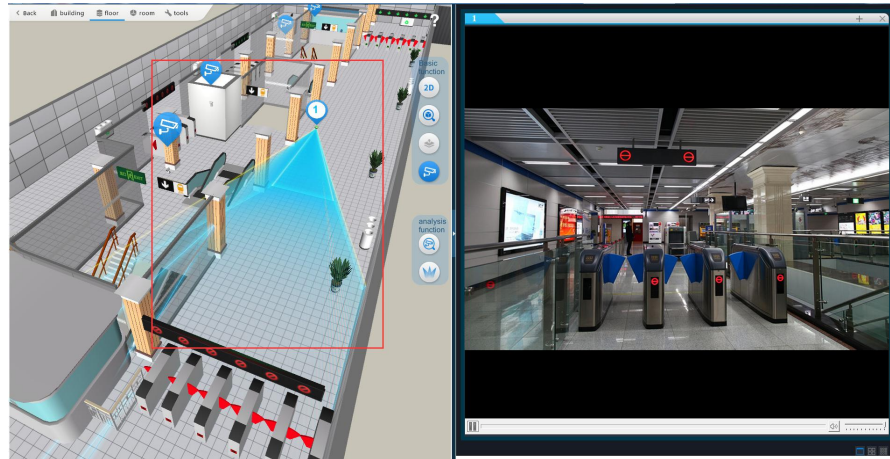
Figure 2. Video Browsing Effect

Split Screen Window: To view multiple video feeds simultaneously, click on the split screen window button which turn on the 'split screen' mode, the maximum number of video feeds that can be viewed simultaneously is 9. In addition, clicking

⊠ button will enable full screen mode, clicking the top left ✚ button will lock

position and clicking on the ✕ located in the right corner will close the camera video feed. (Figure 3. to Figure 6.)

Figure 3. Before Split Screen Window
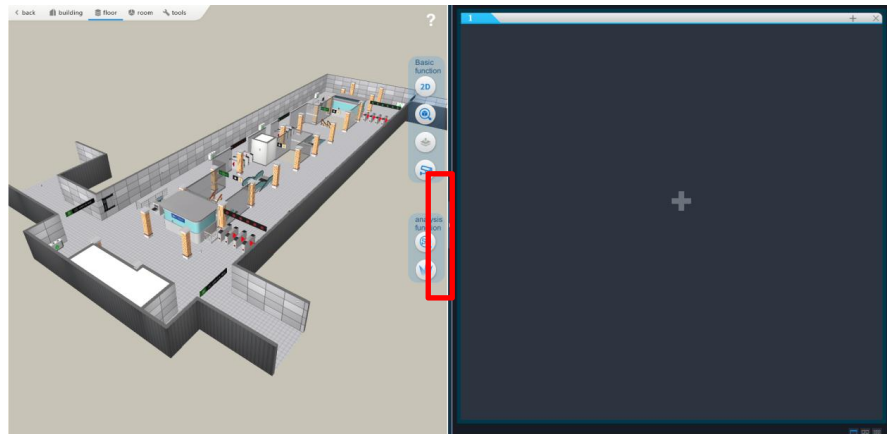(Area bounded by red line shows button to open)

Figure 4. Split Screen Window Mode

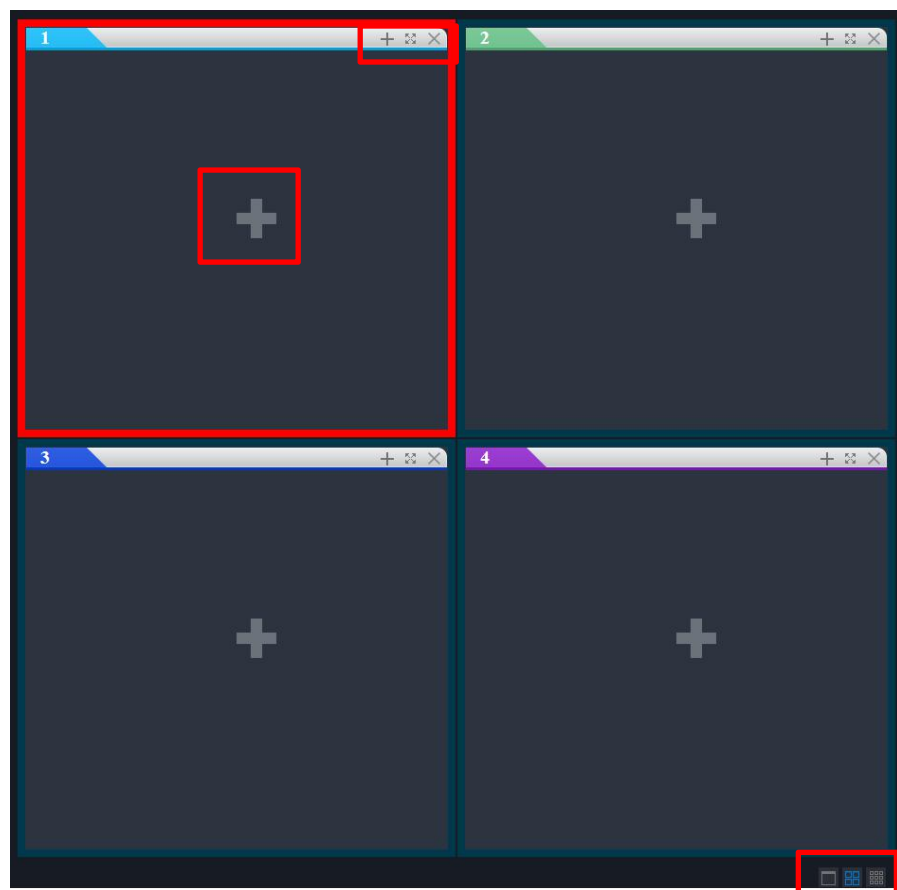(Area bounded by red line shows button to close this function)

Figure 5. Basic Functions of Split Screen Window

Figure 6. Split Screen Mode With Video Feed

(Different colors different cameras)

Turn Off All Cameras: Clicking on an empty area will close all previously opened cameras.

Scene Settings: Select the 🔧 tools located on the top left corner and select 'Scene settings'. it will a pop-out scene setting interface, where you can turn on and off certain effects such as shadowing, covering and sunlight. (Figure 7.)
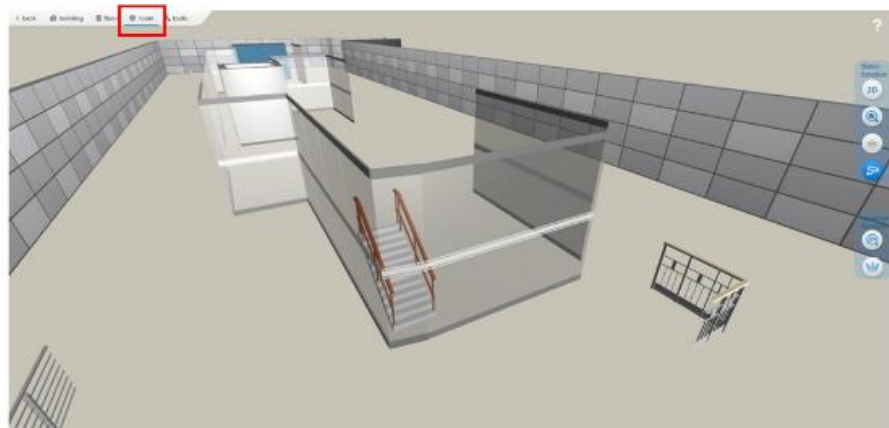

Figure 7. Scene Settings

Drop-down View Of Functions: On the function panel located on the top left corner, select any of the following 🏠 building 🏢 floor 🚪 room icons to navigate between different structure level of a scene.(Figure 8.-9.)

Figure 8. Structure level picture

Figure 9. Floor level picture

Picture 10. Room level picture

Return: Click on the `< back` button to go back to the previous view.

2.2 Basic Functions

2.2.1 Description

In addition to browse camera live feed, Momoda viewer also provides some useful utilities as following.

2.2.2 Utilities

2D , 3D Modes: click on ⨀ button to enter 2D mode (Figure 11.), clicking on the button again will go back to 3D mode.(Figure 12.)
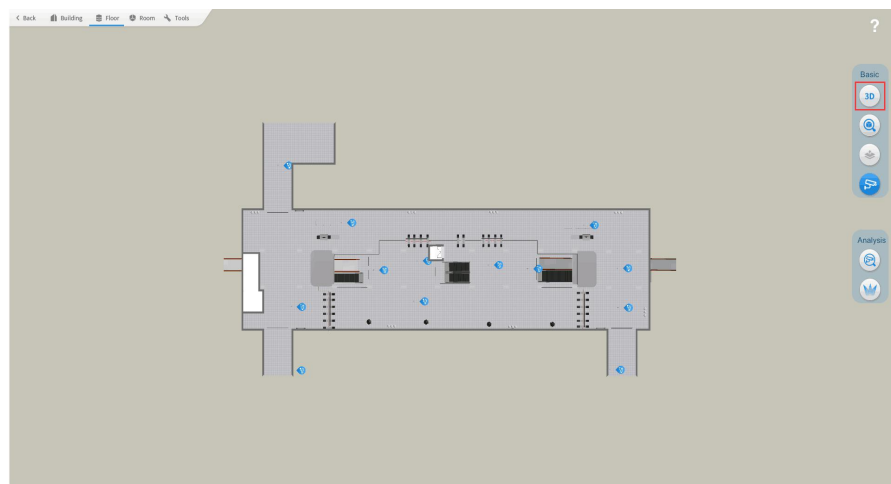

Figure 11. 2D Mode

Figure 12. 3D Mode

Focus On Object: Click the 'focus on object' button ⨀ to switch to a focus view

of an object depending on its current state. (Figure 13)

Figure 13. Focus on object

Expand / Restore Floor Plan: Click on 'Expand floor plan' button to expand floor plan (Figure 14.). Clicking on it again will restore floor plan. (Figure 15)
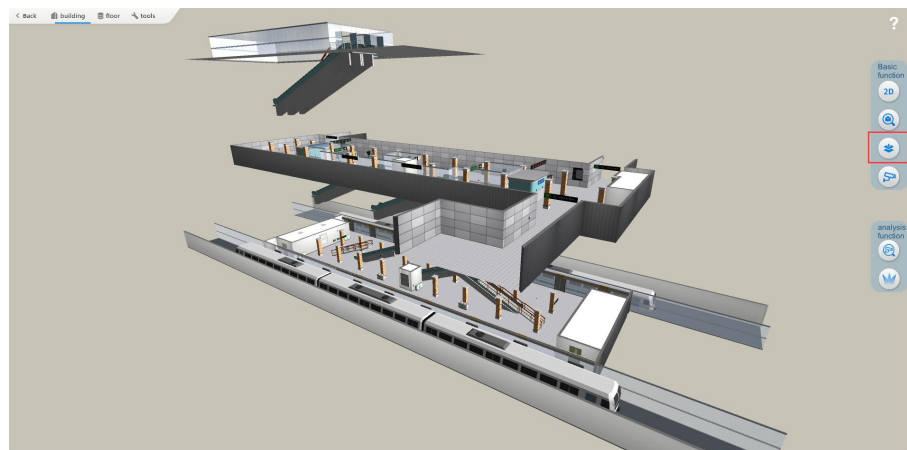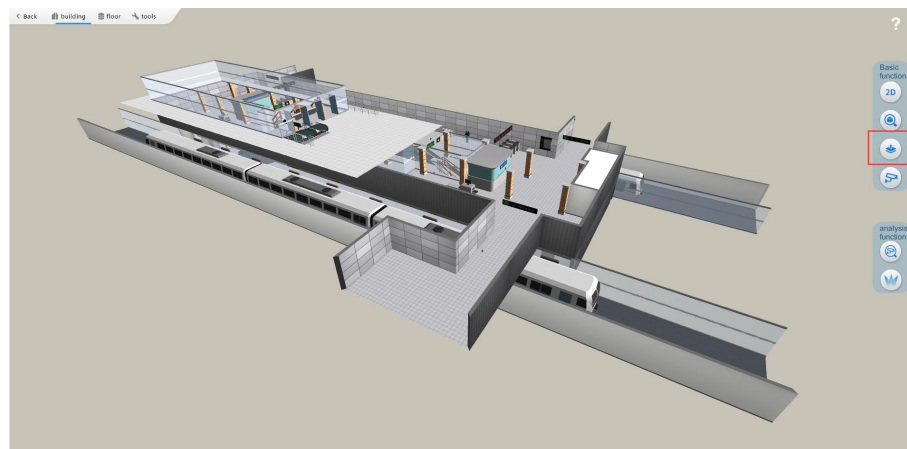

Figure 14. Expand Floor Plan

Figure 15. Restore Floor Plan

Turn On/Off Camera Icons: Click on 🔁 button to all camera icons (Figure 16). Clicking on it again will show camera icons again (Figure 17). The default setting is 'on'.
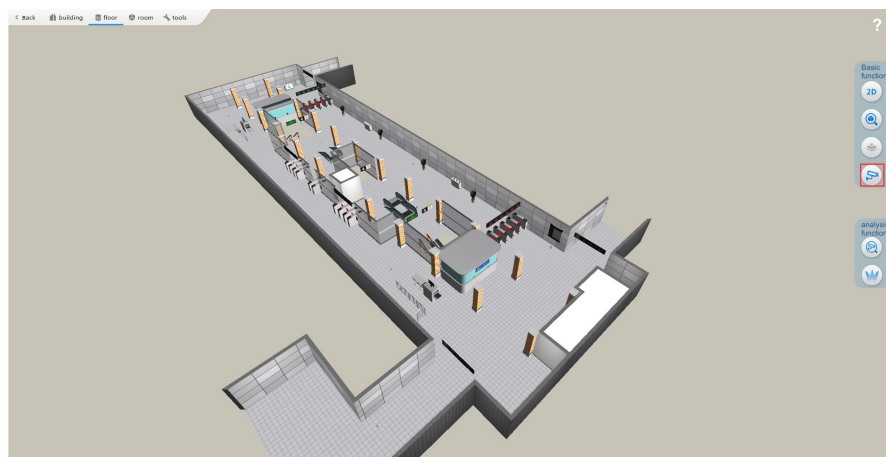

Figure 16. Camera Icons Set To 'Off'

Figure 17. Camera Icons Set To 'On'

2.3 Analysis Function

2.3.1 Function Description

Focal Analysis: Put a personnel in scene, system will shows the live feed of the cameras if the personnel   is within the camera coverage.
Blind Spots Analysis: View coverage of all cameras in a scene by one click.

2.3.2 Instructions

Focal Analysis: Click on "focal analysis button   🔍", then click anywhere in the scene to place an personnel at that location. live feed will shows automatically in

split screen if the personnel is within camera(s) coverage.

Figure 18. Focal Analysis

Turn Of Focal Analysis: Click the focal analysis again to turn it off.

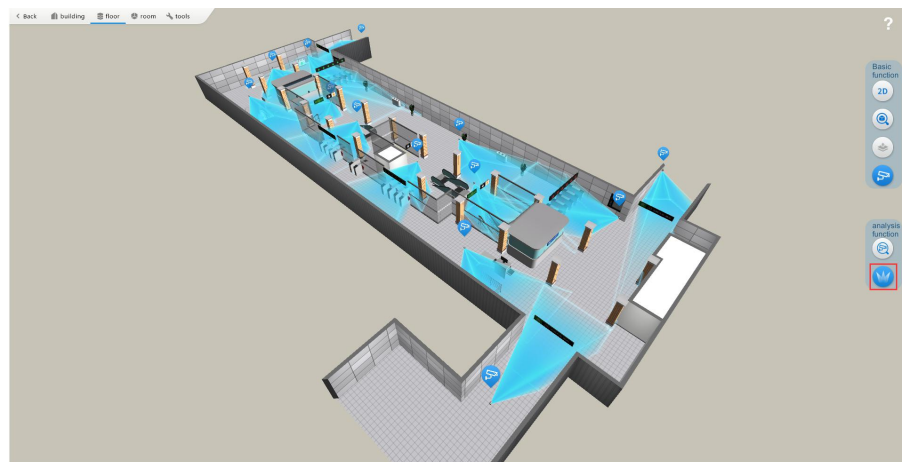**Turn On Blind Spot Analysis:** Clicking on [icon] to show coverage of all cameras in a scene.

Figure 19. Blind Spot Analysis

Turn Off Blind Spot Analysis: Clicking on [icon] again to turn it off.

2.4 Virtual Patrol

2.4.1 Function Description

User can define a virtual patrol route by set virtuous of viewpoints, Momoda viewer will make a animation out of viewports, as well as show camera live seed along the virtual route.

2.4.2 Instructions and Effects

Define Viewpoint: Select the ⚒ tools located on the function panel, followed by selecting the 'Viewpoint edit' button to pop-out the viewpoint interface. Adjust to a desired viewpoint and click on ⊞ to save its current state (includes whether cameras have been clicked to show live feed). (Figure 20.)
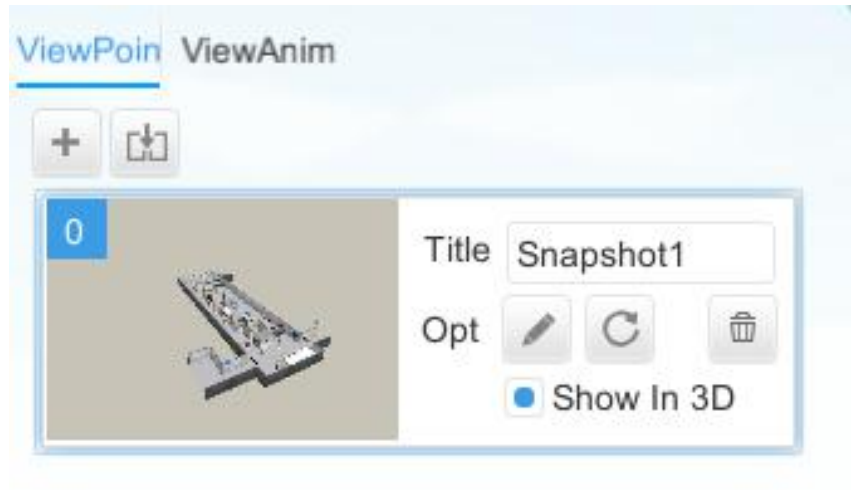

Figure 20. Viewpoint Interface

Defined Animation: Select the ⚒ tools located on the function panel, followed by selecting the 'Viewpoint edit' button, then clicking ⊞ to create a new viewpoint animation. Clicking on the ✎ button will allow users to edit the viewpoint animation.Adjust to a desired viewpoint and click on ⊞ to record its current state (includes whether cameras have been clicked to show live feed). On the time field, the user can set flying time and stopping time. (Figures 21. & 22.)
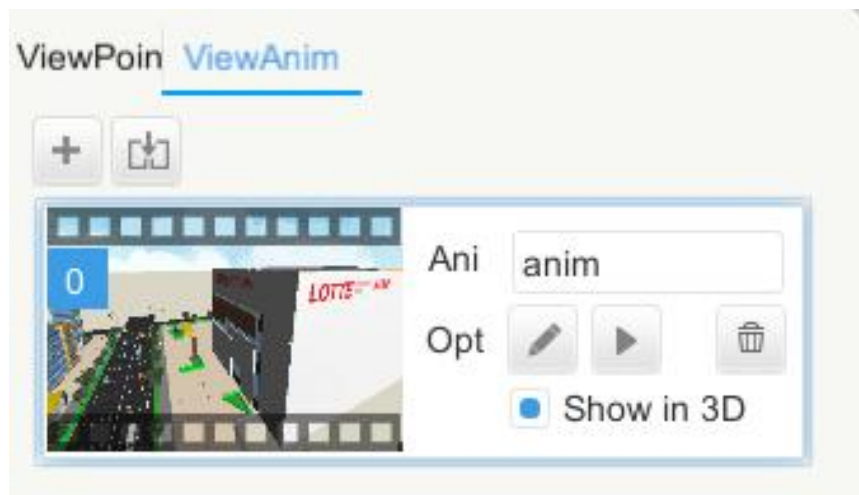

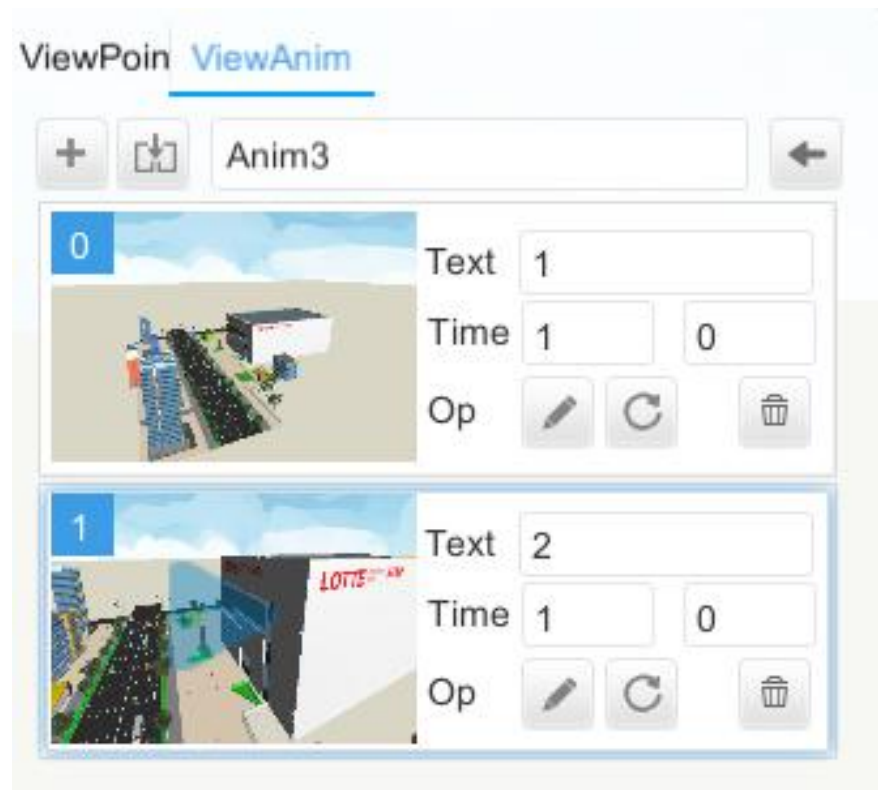*Figure 21.* Viewpoint Animation Interface

Figure 22. Viewpoint Animation Editing Interface

Reset Viewpoint: Click on the 'Reset viewpoint' button ⟲ located in the viewpoint animation interface to reset viewpoint.

Play Viewpoint Animation: Click on the 'Use' ▶ button under viewpoint to play video.

Insert Viewpoint, Viewpoint Animation: Click the 'insert' 🔲 button located in the viewpoint interface to add a viewpoint or viewpoint animation to an existing viewpoint or viewpoint animation.

Delete Viewpoint, Viewpoint Animation: Click on the 'Delete' 🗑 button to delete a viewpoint or viewpoint animation.

Viewpoint Shortcut: Select the 'shortcut' button under 🔧 tools , this will show viewpoint thumbnails in the right corner, clicking on any of the thumbnails will play a viewpoint. (Figure 23. and Figure 24.)
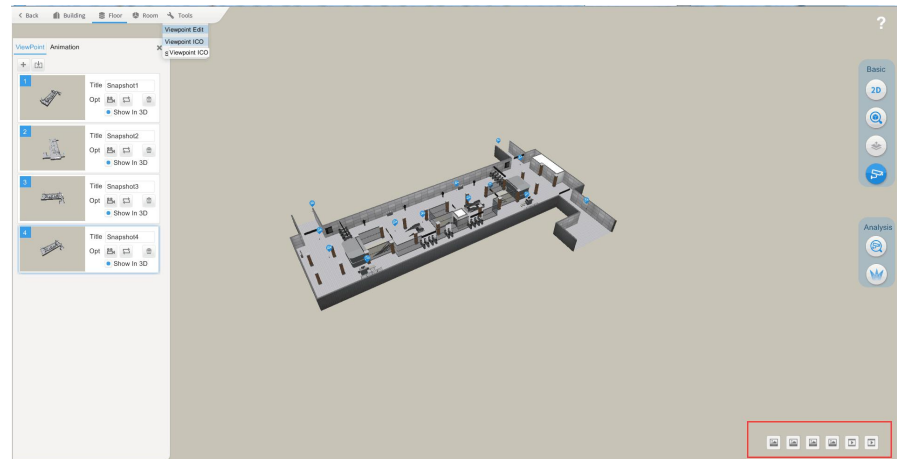
Figure 23. Viewpoint Shortcut

Figure 24. Virtual Patrol (Viewpoint Animation)

3. Momoda Data Interface

3.1 Connect Camera to the Live Feed

- The users camera must be support the RTSP protocol.
- Momoda can only play live feed video from IP based camera or VMS which. supports RTSP protocol.
- The RTSP Protocol requires users to provide the following information:
a) Name of user
b) Password
c) Device IP and port number
d) Video encoding format (h264 or mpeg4)

e) Channel number (Camera serial number)

f) Code stream type

● To connect camera to live seed, user need to provide the URL for its live feed, for instance：http://IP:Port number/video1.html?wd="1".

3.2 Push Alarm

● Requires users to support webService interface

● Web service URL: http://ip:port/appname/data/putdata

● Method: HTTP POST

● Data sample [in JSON format]

```
[
    {
        "sceneid":"20151110538739",
        "objectid":"001",//When placing camera's objectId
        "type":"MONITOR",
        "data":[
            {
                "item":"Alarm",
                "value":"True"
            }
        ]
    }
]
```