SunPath Camera

Add-in for Autodesk Revit for creating wide-angle images with solar maps

Purpose of the add-in

Add-in SunPath Camera make sun path stereographic maps for selected points of Revit model 3D view for selected geographical locations and for up to 5 dates of the year. Copy maps images to Revit project drawing sheets, export images to raster and vector files - JPG, SVG, PDF.

Working with the add-in

The add-in panel looks like this:

| Camera SunPath 1.0.20721 | File | Architecture | Structure | Steel | Systems | Insert | Annotate | Analyze | Massing & Site | Collaborate | View | Manage | Add-Ins | BIMsys |
|-----------------------------|------|-------------------------|-----------|-------|---------|--------|----------|---------|----------------|-------------|------|--------|---------|--------|
| | SunP | Camera ath 1.0.20721 | | | | | | | | | | | | |

The "Camera" button opens/closes the add-in control panel.

The Solar map panel

This panel is used to set the geographical coordinates of the object and the estimated dates for building a solar map.

| Solar map | |
|-----------------|--------------|
| Output | From project |
| Latitude | 51.5 |
| Longitude | -0.1166 |
| Solar time type | True |
| Path 1 | 6/21/2022 |
| Path 2 | 3/21/2022 |
| Path 3 | 4/22/2022 |
| Path 4 | 10/22/2022 |
| Path 5 | 12/22/2022 |

The "Output" field is the geographical location of the object. It can take values:

From project - from the project.

Custom – set.

The Latitude field is the geographic latitude.

The "Longitude" field is the geographical longitude.

Solar time type – the time for which the solar map will be built. It can take values:

True - true solar time.

Average - the average solar time.

The fields "Path1", "Path2", "Path3", "Path4", "Path5" are fields with calculated dates for which the trajectories of the Sun from sunrise to sunset are plotted.

The Camera panel

This panel is used to set the camera direction and output file format.

| Camera | \$ |
|--------|-----------------------|
| PDF | < |
| PNG | ✓ |
| SVG | ✓ |
| Output | C:\Users\test\Desktop |
| | Browse |

The image can be output in one or more formats by checking the box next to the desired output file format:

```
SVG
JPG
```

The "Output" field – in this field, the image output folder is specified. If the field is empty, then the folder where the Revit project file is located is used.

The "Shot points" panel

Shooting points are set using this panel.



One Point button

To set one shooting point, click on the "One point" button and left-click to add a shooting point to the view.

The set shooting point:



Important! When using the "One point" button, all previously set shooting points are deleted.

The "Multiple points" button

To set multiple shooting points, click on the "Multiple points" button and left-click to add shooting points to the view.

To exit the mode of setting the pickup point, right-click on the view and select the "Cancel" context menu item.

The "Shotpoints visibility" check mark enables/disables the visibility of the shooting points.

If the "Shotpoints visibility" checkbox is unchecked during the installation of shooting points with the "Multiple points" button, shooting points are displayed. This is done so that you can see where to add new points.

The "Clear all" button

The "Shot" panel

| Shot | * |
|--------------------------------|---|
| Status: Shot 1 of 2 processing | |
| | |
| | |

The "Status" field is an information field that displays information about the stages of image processing.

Progress bar - the progress bar for creating the current snapshot.

The "Last picture" button i - takes a picture from the last added camera.

The "All pictures" button 📃 - Opens the Camera Selection window, in which all shooting points are selected.

The "Camera Selection" window looks like this:

| 🖳 BIMsys FishEye Car | nera v1.0 - Cameras selection | | - | | × |
|--|-------------------------------|-------|---|--------|---|
| Active view cameras | | | | | _ |
| Camera 1 Camera 2 Camera 3 Camera 4 | | | | | |
| | | | | | |
| | | | | | |
| Select all | Clear selection Make | shots | | Cancel | |

The "Select All" button selects all cameras in the list.

The "Clear selection" button removes the check marks from all cameras.

You can also manually select/deselect cameras by checking/unchecking the appropriate box next to it.

The "Take pictures" button takes pictures from the selected cameras.

The "Cancel" button closes the "Camera Selection" window.

The "New pictures" button 🔄 - Opens the Camera Selection window, which selects the points for which there are no pictures.

The "View" button opens a window with images of snapshots:



Each image has buttons "PDF", "JPG", "SVG" that define the file format.

For further work, you need to select a command in the "Action" field and select the appropriate button on the image.

There are three actions available in the "Action" field:

Open - opens the file by calling the viewer associated with the corresponding file format.

Copy to clipboard – saves images in JPG and SVG format to the clipboard for pasting into other programs.

Save as - saves a PDF, JPG and SVG file with a new name.

The "Refresh" button updates the snapshots in the "Shots Browsers" window, for example, if new snapshots were added to the folder during viewing.

The "Validation" button - available only in the FishEye Camera Mini add-in version. Checks the limit on the number of objects in the free version.

An example of how the add-in works:



Installing the add-in

Run the distribution's exe file SunPath-Camera-XXXXX.exe , where XXX corresponds to the build number of the program.

Launch the Autodesk Revit program. When you first start the program with the add-in, a window will appear in which you need to click the "Always download" button.

To use the "SunPath Camera" add-in, you must activate it by following the instructions in the activation window.

After installing and activating the add-in, the "Natomas" tab will appear in the Autodesk Revit program, with the "SunPath Camera" panel.

Removing the add-in

To remove the "SunPath Camera" add-in, you need to go to the "Control Panel"/"Uninstall or change programs" application. Find the "SunPath Camera" add-in in the list, right-click on it and select the "Delete" context menu item.