FSCamera 1.3 (25.12.2003)

1. Preliminary note

Many users of the Microsoft Flight simulator surely know the additional program "Active Camera". It was freeware till now, what has changed with the version 2004. I have enjoyed using it also very much, it otherwise changes this one anyway for almost useless control tower view in magnificent camera prospects. Since I deal with smaller program projects now and then in my leisure time, I simply have tried out once to move the control tower view with a Visual-BASIC program. I have used the interface FSUIPC.dll of Pete Dowson for this to which I would like to express my gratitude here. Although his program is Payware now, too, he allows the free use with freeware.

Since the first attempts were quite promising, I have carried on and developed the program published here. I think that it hasn't become a simple copy the "Active Camera". Although the basic idea surely is derived, I have changed something anyway.

This one is an essential difference that one cannot provide any particular time interval for converting the camera. Converting is carried out, i.e. the camera is placed with an adjustable distance and an angle to the aircraft "distance steered". The location is changed first if the distance is worth aircraft camera more greatly than this value. Through this it is possible to fly a turn around the camera without which this hers changes location (in a corresponding distance choice). Originally I also wanted to include the height difference in the distance calculation, however, have remarked at the tests that this isn't absolutely necessary at all. With corresponding setting values one can watch a complete loop-the-loop over or under the camera. It is also possible put the camera point of view in the center of the loop-the-loop (by suitable flight movements).

Furthermore I have planned more parameters for the free adjusting. The effect of the single values can by try out find out best. I will give a fundamental explanation below.

2. Installation

The file FSCamera.exe is copied into the installation directory of the FS2004. The fs9.exe also is in this. The icon FSCamera.ico can be used to the facilities of a symbol.

The program requires the file FSUIPC.dll (Version 3.xxx) of Pete Dowson in the directory "modules" of the FS2004 . She must be copied if there she isn't there yet.

After this FSCamera can be started. It is no matter when it is started. If it is started in front of the flight simulator, this can be started from the program surface. If the simulator already runs, he is taken to the foreground from there. The program registers itself automatically at the first start if required.

FS Camera permanently runs in the background. Since the program, however, exclusively works with timer objects it hardly influences the performance of the simulator (I hope after my test experiences that this is confirmed by other). As long as the program runs, the control tower view is changed according to the adjustings (also in the immediately repetition). I recommend a zooming factor of 1-1,5 for this view (adjusting is carried out under view/view options or with+/-). The key <backspace> put the zooming factor on the value 1.0.

To change adjustings, FSCamera can be fetched with ALT +TAB to the foreground. With a click on the button "Flight simulator" it goes back into the simulator again.

FSCamera ends himself with the flight simulator automatically.

3. Setting values

The range of values of the individual fields is shown if one is over these with the mouse. If faulty values are entered, they are corrected when leaving the field. One should take into account that some fields can get also negative values. Following a short description of the scheduled entry fields.

Airport view

[maximum camera distance]

distance between camera and aircraft on the airfield and on the runway

[start angle of the camera to the airplane]

angle between camera and aircraft at the beginning of the sequence. An angle of 0 degrees meant, that the camera is directly on the direction of flight axis (approaching at least: it can give deviations at some places of the world, at certain flight speeds and course directions. The exact correction for all flight configurations was the greatest problem at the development of the program. Due to the ball form of the earth several correction functions which is superimposed are required). Positive values mean camera view of the front on the left, negative of the front on the right.

[height of the camera over ground]

height of the camera over the airport area

[height for the start of the fly-by view]

when exceeding this height mode changed view in the Fly- by automatically

Fly-by view

[maximum camera distance]

distance between camera and aircraft without consideration of the height difference

[start angle of the camera to the airplane]

see above

[height of the camera to the airplane]

height difference of the camera to the aircraft. Positive and negative values are permitted here

[reaction to banking of the airplane]

can hereby be influenced the behavior of the camera at the turn flight. A value of 0% changes nothing. 100% mean, that is added to the initial angle of the camera position of the angles of the banking (example: initial angles of the camera 30 degree, banking of the aircraft 10 degrees yield an initial adjusting of the camera of 20 degrees) to the left. Since there also are aerial maneuvers which a banking of the aircraft doesn't mean any turn or a certain banking at every flight speed yields another turn radius, this value lets himself adjust in whole percentage points arbitrarily.

Approach view

[height for the start the approach view]

height for the automatic switch over on the approach view

[camera distance to the runway]

distance of the camera to the valued touchdown point to the runway measured in the right angle. A positive value means distance to the right, a negative to the left in direction of flight seen. The camera is set on the center line at the value 0 to the runway.

[height of The camera over ground]

see above

[Longitudinal offset to the touchdown point]

The camera is moved around this value in the direction of the runway. A positive value means in direction of flight, a negative contrary to the direction of flight.

[camera fixed after touchdown]

the period of time which passes after touching down up to changing into the airfield mode describes. The time of the touchdown only has to be roughly found out (particularly if the aircraft jumps) since this status only all 0.5 s is checked. One finds the adjusting out by try out best.

The touchdown point is found out by the evaluation of the approach mathematically. Of the last sequence before switching over to the approach view the beginning and end-point gets connected to an imaginary line whose intersection point determines the touchdown point with the runway surface. Short-wave vibrations around the ideal approach course get relatively standardized by this procedure well and the touchdown point is correct rather exactly.

An ILS approach with autopilot is the ideal case one gets it at corresponding setting values to that the aircraft touches down exactly at the camera point of view, a magnificent play.

4. Liability exclusion

The program is freeware and may be used absolutely. The use particularly is carried out at its own risk. Who doesn't accept this mustn't use the program.

5. Fault notes, reviews and suggestions

I publish the program in the form being here. Please, all indications of faults, reviews and suggestions sends directly to me:

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I wish all a lot of fun with the use of FSCamera.