

User Manual

Step 1. Getting ready to play Bear Traffic Controller MQV Edition

Download the Game

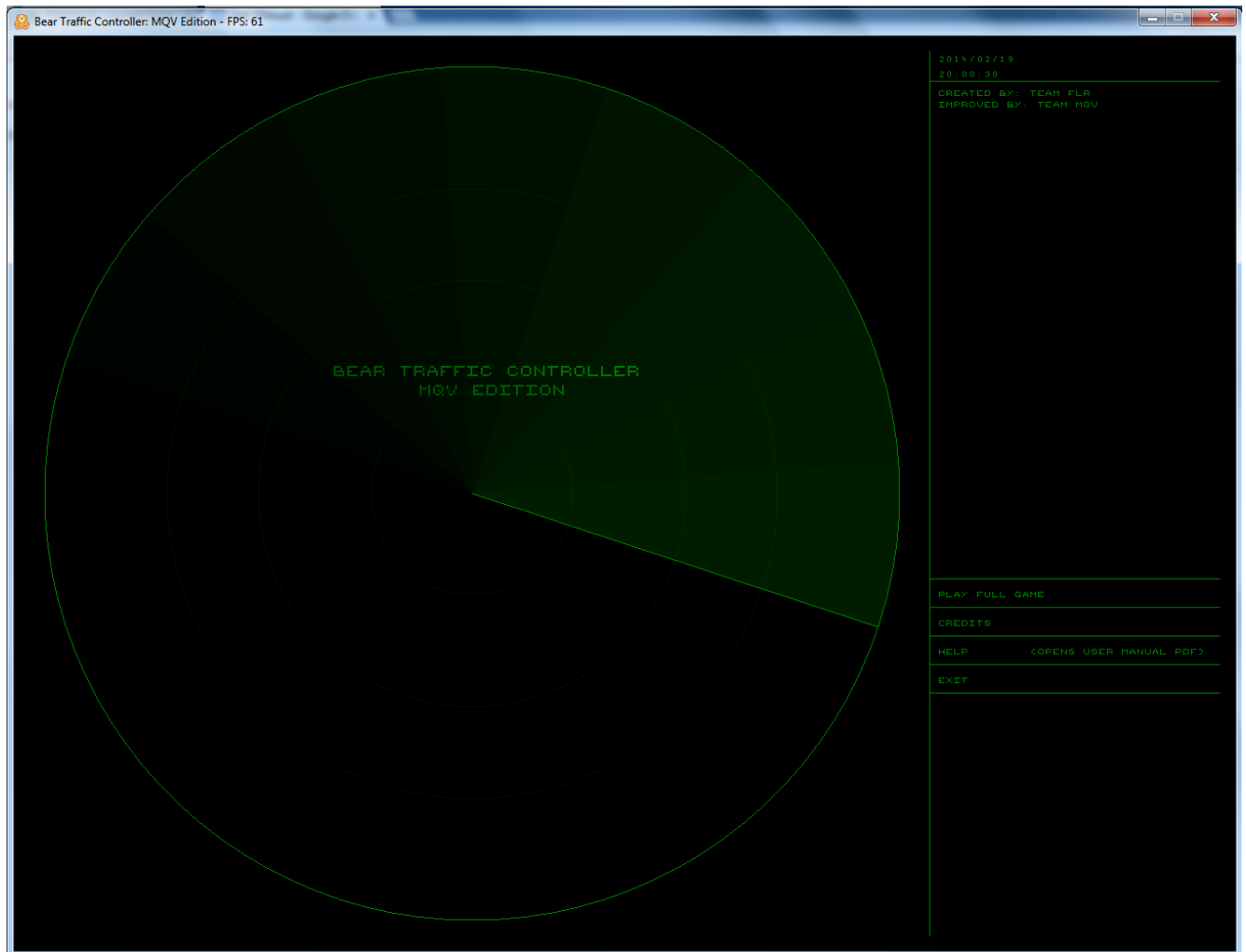
Bear Traffic Controller MQV Edition is provided to you in a simple "no install needed" file. All you have to do is download the correct version for your computer, which you can do by clicking [here](#), if you haven't already.

Launching the Game

To launch Bear Traffic Controller MQV Edition, simply double click on the file that you downloaded in the previous step.

Step 2. Getting ready to play

You're almost there now



The Menu Screen

You should pause here for a few moments and enjoy the spinning radar. Alternatively, you can choose one of the options from the menu in the lower right, the function of each of the options is explained below. Note: Sound is used throughout the game so you may want to turn on your speakers or plug in a set of headphones.



Play Game

. Press "Play Full Game" to start playing Bear Traffic Controller: MQV Edition, nice and easy.



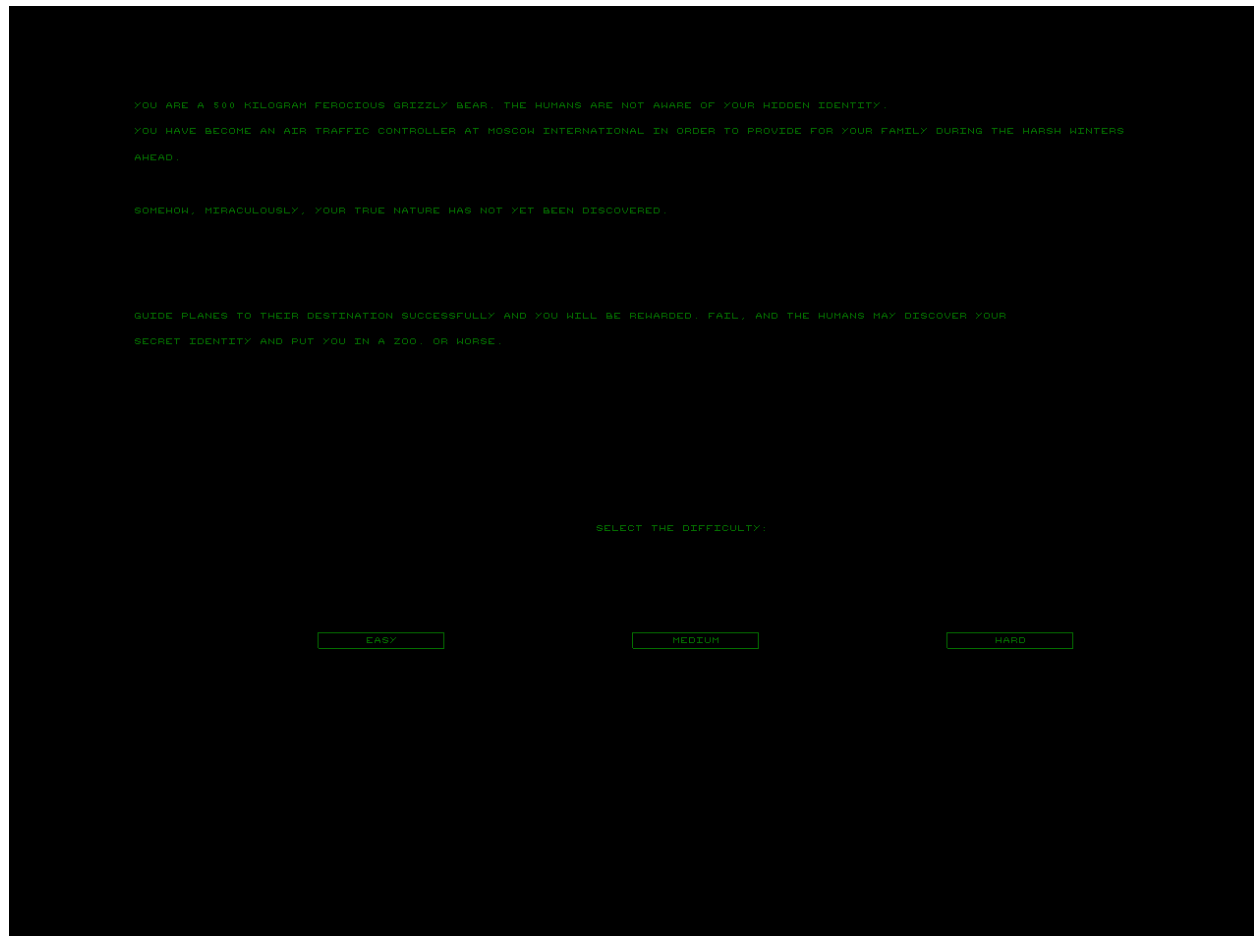
Roll the credits

Press "Credits" to see the names of all the people responsible for Bear Traffic Controller: MQV Edition scroll up your screen.



Exit the game

To exit Bear Traffic Controller, click on the "Exit" button.



Difficulty selection screen

The difficulty selection screen will explain your character's back story, you should read this if you haven't before. It's also on this screen that you can choose the difficulty level you would like to play at. To select one of these simply click on the relevant button.

The higher the difficulty level you select, the faster the planes will move through your airspace and the less time you will have to respond. The tolerances for separation violations will also reduce as you increase the difficulty. However, it's not all bad. Playing at a higher difficulty will allow you to achieve a much higher score!

Step 3. Play the game

Told you it wouldn't take long



Game Play Screen

The goal of Bear Traffic Controller: MQV Edition is to make sure that every plane makes it safely from its origin to its destination while passing through various waypoints along the way. When planes enter your airspace, they are following a pre-planned route that will take them to their selected destination through a series of pre-selected waypoints. However, from time to time, these flight paths will cause planes to fly very close to each other, or worse, to crash. Your job is to make sure that the planes stay far enough away from each other that they can make it safely to their destination by rerouting them to different waypoints or by taking manual control. The controls that you will require to

do this are explained below. Further down the manual you will find useful descriptions of each of the key elements on the game play screen.



Displaying a plane's route

If you want to see the route that a plane's flight plan specifies, you can just click on the plane, or you can hold the mouse over it. The route will be displayed in blue and will pass through various waypoints to route the plane to it's destination. You can even select one aircraft by clicking it and hover over another to compare the flight paths to see if they are in danger of colliding

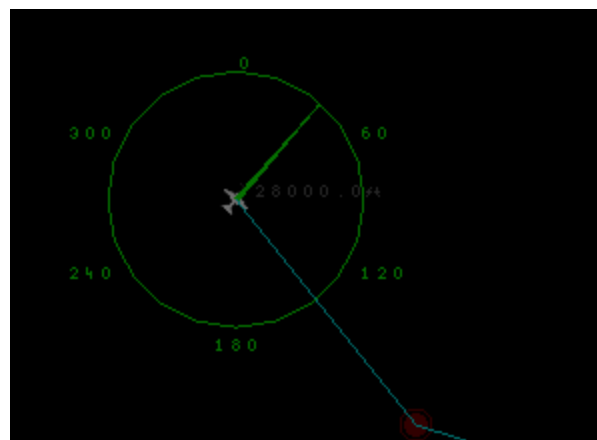
Changing a plane's route

There are two options you have for changing a plane's route. You can either alter its flight plan or take manual control.



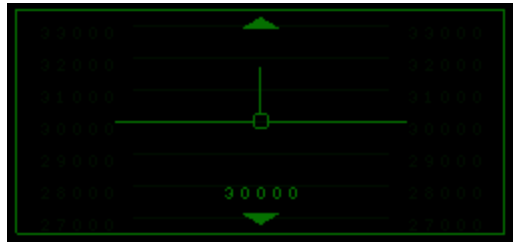
Changing the flight plan

To change the flight plan of a plane, first click on it to select it. Then, all you have to do is drag the route from one waypoint to another waypoint. This will substitute the new waypoint for the old. As you drag the route, the new route will be shown in a darker blue.



Manual Control

To take manual control of a plane, first click on it. You can now control the plane using the left/right arrow keys or by dragging the compass pointer to a new heading using right click. To return heading control to the pilot and make the plane follow it's flight plan simply deselect the plane by right clicking off of the plane.



Changing a plane's altitude

There are two altitude layers in the game - 28,000ft and 30,000ft. Changing a plane's altitude will move it to the other altitude layer over a few seconds. This can be useful to prevent crashes or separation violations.

To change the altitude, simply click on the plane and then press the up and down arrows to move it in the respective direction. You can also press the up or down key on your keyboard to instruct the plane to increase or decrease its altitude.

Game Over

If two planes breach their minimum separation distance then you will end up at the Game Over screen. It's here that you will be told about the scale and consequences of your mistake. If for some reason you don't want to read this, then you can press space at any time to skip it and return to the main menu.

Key elements explained



Entry Points

Each plane will enter your airspace from one of the 5 entry points (including the airport). Just before it enters the airspace you will see a notification in the radio console telling you the planes flight number and its entry point.



Waypoints

These are points in your airspace that planes must pass through. A plane can pass through these while following its flight plan or when in manual control mode and at any altitude.



Exit Points

Once a plane reaches its exit point you are no longer responsible for it and it will dissapear from your screen. Just make sure that each plane gets to the correct exit point and you'll be fine.



Altitude Levels

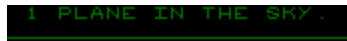
There are two altitude levels that planes can fly at in your airspace; 28,000 feet and 30,000 feet. You can switch between these using the scroll wheel on your mouse. The highlighted altitude is

displayed at the top of the screen, towards the middle. This will allow you to observe which aircraft can collide.



Planes

Planes that are shown in white are on the altitude level that you are currently on, this is displayed next to the plane. Those that are grey are on a different altitude level.



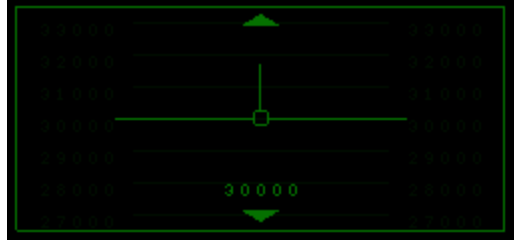
Plane Counter

The number of planes that are in your airspace at any one time is displayed at the top of your screen, below the current altitude level.



Flight Details Box

If you click on a plane you will see all of the details about that particular flight displayed in the "Flight Details Box" in the lower left of the game screen. This includes useful information such as the destination (exit point) of the plane.



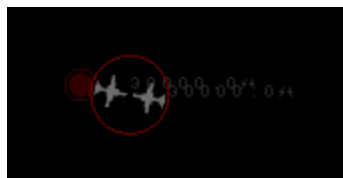
Turn Coordinator

Clicking on a plane will also enable the turn coordinator display for that plane. This shows the angle of bank that each plane is at and works in both pre-planned flight and manual control mode.

Radio Console



It's here that warning of incoming flights are displayed and messages to and from the planes.



Separation violation

When planes fly too close to each other a separation violation occurs (Note: this doesn't always end up in a crash). This is displayed by a red circle around the two planes involved in the violation.

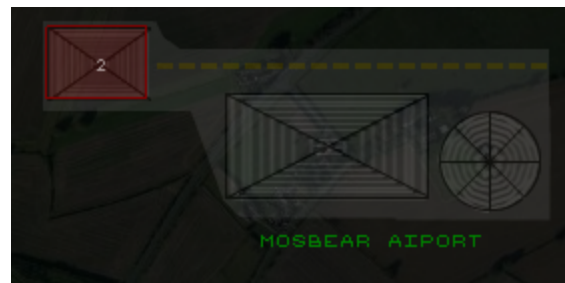
This will cause your multiplier to drain, meaning it will be harder for you to get a high score.

The Airport

The airport is shown on the screen, this is where planes land and take off, it's very exciting.



When a plane is ready to take off it will show in the aircraft take off menu. In order to get the plane to depart simply click on the hangar which is shown in red below. The hangar will change colour from green to red to indicate that the aircraft has been in the hangar for too long. You can also press the take off button at the bottom of the screen where it shows you how long you have to let the plane take off before the pilot gets angry and your score multiplier starts to drain. After the plane takes off it will then begin its flight plan, however be careful that it doesn't take off into another plane that's waiting to land.



When a plane is coming in to land, it shall approach the airport and start to circle. The hangar will turn yellow and display the number of planes waiting to land (show below). Simply select the waiting plane and left click on the hangar in order to issue the command to land.



Scoring



Every time you successfully get a plane to the exit point, you gain a fixed amount of points which are added to the score. Additionally for every successful plane it will add to the multiplier bar, which multiplies how much each plane is worth. However if you breach the separation distance between planes then your multiplier shall be reduced. Also to make matters worse, if you leave a plane waiting to take off for too long it will reduce your score multiplier. You have been warned.

The higher your multiplier level, the higher faster the rate at which aircraft will enter your airspace. This will allow you to achieve a score faster, but will be much more challenging as you may have to manage 10 aircraft at once!

Crash



Yeah, this is bad. Hundreds of people are now dead because of you (no pressure) . When this happens the game will end, and worse, you will be fired!

Appendix for changes to the user manual

Scoring

We added the entire section for scoring to explain what we implemented and how it works so the user understands the scoring system.

The Airport

We added the entire section for the airport, which includes landing and taking off.

Controls

We changed a lot of controls, these include displaying a planes route, altitude controls and manual controls. We did this to simplify the controls and improve user interaction.

Play Game

Changed from play demo to play full game.

Images

We changed the majority of images to show our new GUI and to ensure that the images are clear as to what they show the users.

When game ends

We changed the paragraph describing the conditions necessary for when the game ends as they were not clear.

Crash

We changed the crash description slightly to add some more humour.