

FSX AI Parking FAQ

Q-1 – Why bother with a parking matrix, why can't we just use the default settings?

A-1 – You can use default sized parking spots for all our parking but there are some negative consequences.

Some AI aircraft will be very small for the parking spot. Jetways will disconnect from the terminal building as they try to attach to AI aircraft.

Fuel trucks park, turn and drive between aircraft based on the parking spot size. Small aircraft in large parking spots will not be close enough to the fuel truck and will time out and disappear, or block a gate until the FS session is over because the fuel truck cannot reach them. This can also cause all aircraft needing pre-flight support to get hung and no departures to occur.

Q-2 – My model radiuses are all set correctly, why do I need to change something again?

A-2 – FSX uses an entry from the aircraft.cfg file to determine the size of the parking spot needed. In the [Airplane_geometry] section the wing_span= value determines how large the minimum parking spot for the aircraft must be.

The wing_span= value must be in feet, with decimal places for inches. One-half this value, converted to meters and rounded UP to the next whole meter determines the minimum parking size for a user or AI aircraft.

Most FS2004 aircraft and AI aircraft had this value set to help maximize the aircraft flight dynamics. In some cases it is as small as ½ the size of the visual model when created in Flight Simulator.

Q-3 – Will changing the wing_span= value impact the way the aircraft flies?

A-3 – There may be a very slight change, but this setting has very little impact, practically unnoticeable, on the aircraft flight. But don't change any other settings in that section.

Q-4 – How do I know the correct value to use?

A-4 – The real world aircraft wing span setting is a very good guide, within the limits of Flight Simulator.

First the value must match the model you see in FS. Some are a bit under sized and some are a bit oversized.

Secondly, rounding errors can cause unpredictable, uncontrollable aircraft parking assignments.

A table of aircraft wing_span values, converted to feet/decimal for use in FSX is maintained at - <http://www.flightsim2004-fanatics.com/FlightSim/FSXWingSpanValues.htm>

If you find an error or new models which need to be included – please send an e-mail to reggie.fields@flightsim2004-fanatics.com

Q-5 – The table has gaps in the values. Why and what do I do if the aircraft value falls into one of the gaps?

A-5 – This was purposely done to help avoid rounding errors and erratic aircraft parking behavior.

Setting a wing_span= value between 97.50 and 99.00 feet puts the aircraft too close to the threshold values. One increment in a 16th decimal place value can cause an aircraft to require a 1M large parking spot.

If your aircraft falls into one of the gaps, look at the aircraft role and the size. You can adjust a wing_span= value down a little. But be careful to not cause a wing overlap. You can always adjust the value up to make an aircraft use a large parking spot.

Just try to keep aircraft in spots no more than 5M larger than the aircraft size.

Q-6 – Why do you have the ATP and HS748 turboprops parking with the small jets? It belongs on the ramp with the other turbo props.

A-6 – This setting is strictly based on the aircraft size. The BAe ATP has a wingspan (100 ft 6 in) larger than a Boeing B717-200 (93.25 ft), larger than a Boeing B737-200/300/400/500 model aircraft (94.75 ft).

You can try to size it down into a smaller spot if you wish – just check the wing overlap.

On the other hand, many people may want aircraft such as the Fokker F-100 or the Embraer ERJ-195 to not park with regional jets, but to park with regular main line aircraft. Raising a wing span value above the threshold – 99.00 ft – will only provide the aircraft a little extra room at the parking spot and is acceptable.

Q-7 – I thought default gate sizes were even meters. Why are you recommending values of .1 meters?

A-7 – Based on our experience with rounding errors in FS2004, we adopted a practice of adding one tenth of a meter to parking spots to ensure that values do not creep down. The continual recalculation to decompile an airport for editing and recompile the airport for testing creates many errors in FS2004. We have seen these type errors in FSX when people do not maintain the source XML code and make their changes only to the code. Decompiling an existing airport almost always introduces errors.

Q-8 – Meters and feet, I don't want to deal with both meters and feet. Can't I just do everything in feet, or meters?

A-8 – You can, but FS is going to use both measuring systems.

If you put meters in the wing_span value – the aircraft is going to park in spots 1/3 smaller than the aircraft displays in FSX with huge wing overlaps.

If you size your parking spots in feet – your are going to end up with some spots which appear to be a certain size, but are really too small. The planned aircraft will not park there and the troubleshooting will be long and frustrating. The actually parking assignments in FSX will be done based on meters.

Q-9 – I didn't worry about parking spot sizes in FS2004. Why can't I just use a bunch of spots close together of the size for the largest aircraft on the airport? FS2004 kept them from getting too bunched up.

A-9 – Yes, FS2004 did prevent some parking spots which were overlapped from being used some of the time. But crowded airports were always problems.

Overlapping parking will cause crashes for the user aircraft in FS2004, and FSX. These is much more common in FSX because of the living world vehicles – the fuel trucks and push back trucks, the baggage carts and baggage loaders.

If any on them comes within the radius bubble of the user aircraft, while servicing an aircraft parked next to you – it can crash FS.

Q-10 – But I don't fly with crash detection on, it won't bother me?

A-10 – Aside from the visual of vehicles driving through AI aircraft and your aircraft it may not bother you. Though please remember that many people will use crash detection if you share your airport layout with them, either individually or posting it on a web site.