

## ForestSimulator – Access Interface

The Access-Interface for the ForestSimulator is mainly for experimental use. It will only work on Windows operating systems. A SQLite database is in preparation.

This documentation will only give a few hints and is no comprehensive documentation. The best start to the interface is if you create a stand in the ForestSimulator and save it to the database file localdata.mdb. The structure of the database is very close to the one used by the NW-FVA for their experimental plots.

Suppose you created a new stand of **size 0.24 ha** and with the **stand name Test1**. The stand name should not have more than 8 characters. Then open the menu **Stand → open → open Access file**. This opens the dialog to the Access database file. You can change in the top of the dialog the Access database file, but for the beginning use the localdata.mdb. Now we can store our created stand Test1 to the database by clicking the **save stand to DB** button. After that create a new stand and then try to reload the stand Test1 from the database to check if everything works well. Just type Test1 into the second **InputTextField** and click the **suchen** button. In the combobox of the line a **1** should appear, indicating that the first measurement of stand Test1 is found. There off course no others but could be. Now you click the button **Bestand laden**, and the stand should be loaded into the ForestSimulator. If everything works as described, great, otherwise you have a problem.

Now let's have look at the file localdata.mdb so that you can add your own data to it. Table **Auf** holds the information of the date of measurement and the size of the plot. It is important that the field **id** is a combination of the fields **edvid** and **auf** (number of measurement). If **auf** is just one digit you will need to add a blank to that digit, so that **two characters** in total are added to edvid. § digits is not possible. Table **Baum** holds the information of each trees. Just fill in the fields like in the example. Table **Stammv** holds the information of the corner point and the tree coordinates. All trees must be located in the polygon of the corner points. The corner points are marked by the characters **ECK** and the **art = -99**. The corner points need to ordered in a way with show the polygon against the clock.

If you want to simulate stand automatically you can press the button **alle nach Vorschrift rechnen**.

In this case all stands listed in the table **vorschrift** will be processed with the following settings:

Schritte =	number of 5 year growing cycles
Zufall =	random effects on = 1 or off = 0
Einwuchs =	ingrowth on = 1 or off = 0
Durchforstung =	thinning on = 1 or off = 0
Ebaum =	save tree values after each cycle to table ProgBaum on = 1 or off = 0.
Bestand =	save stand values after each cycle to table ProgBestand on = 1 or off = 0.
Baumart =	save species values after each cycle to table ProgArt on = 1 or off = 0.
Wiederholung =	number of repetitions
Szenario =	use Szenario setting of table Szenario

For the automatically simulation you can store different scenarios in the table **Szenario**. The settings you can make are similar to the ones you can do in the simulator. In the last column of this table you can assign special species settings to the scenario. These settings are stored and can be set in table **SzenarioArt**. In this table you can define the height of this thinning, target diameter, number of crop trees, desired mixture and the thinning of the species.

There is no button to delete the automatically created data. So you will delete not needed information by hand.

