

# Empire Earth DB Editor

## Introduction:

You may know the great tools called EE Unit Editor 1 and EE Unit Editor 2.

These tools allow you to open and edit some dat files of the game, but up to a limited extends.

There were many unknown values in dat files at the times they were created, and there are still many unknown values.

In all these years the community made many progresses and discovered new values in these files, but nobody is updating those tools, which are now obsolete.

So I decided to create this new tool, which will be maintained by the whole community, as it's completely open source!

Source code: <https://github.com/Forlini91/Empire-Earth---DB-Editor>

## Description

EE DB Editor is a tool written in Java which can open and edit a wide range of dat files.

The program use a simple interface where it show the entries of the dat files and the all know or unknow values.

All them can be changed at will, but be careful: we still don't know what the "unknown" values do, so they can potentially break the game or make it crash!

Any change need to be manually saved (save all entries you edit and finally save to file), to prevent unwanted changes. The program also create a backup of the previous/original db file, should anything bad happens.

## Basic usage

### 1) Main menu

The usage is very simple.

The program will initially ask you to choose the game (Vanilla or AOC). This choice can't be changed, unless you close and reopen the program.

Now click on "Load dat files", select the directory where the files are located and the program will go there and search all the supported dat files.

Then it ask you which files to load. Be careful: some files (especially dbobjects.dat and dbtechtree.dat) have links to other files, so you need to load these "requirements" too.

When it finishes loading, it will return to the main menu and will show, on the right side, he list of all loaded data. Select a file to open the editor window for that dat file.

### 2) Editor window

On the left side there are two lists: Groups and Entries:

Groups is (for now) only used by dbtechtree.dat, and they represent the epochs. For all other files this list is not used.

Select an group to see all entries (techs in this case) relative to that group.

Entries are the objects defined in the file. Select an entry to see and edit its values.

On the right side there's a big panel with many fields: these represents the values contained in the file for the selected entry, in integer/float/string readable format. You can change these values at will and confirm the changes by clicking on the button "Save entry" below.

When you're done with changes, click on "Save to file" on the top bar.

The program automatically convert these values from/to the "reverse" bytes format used by all dat files.

Right click on the list of entries to show a menu: you can add a new entry or remove/duplicate the selected entry. In

dbtechtree.dat you can also move an entry in another epoch. The menu only appear if the file support these operations.

Select an entry, hold CTRL then tap/hold the Up or Down arrow keys to move the selected entry up or down. If you also hold SHIFT, the entry will move 10 steps at time.

You can search an entry: type its ID or name (even a part of the name) in the relative search box and use Enter and Shift+Enter to navigate the results.

There are "link" fields, which contains link which point to other entries either in the same file or in another one. These fields appear as a Combo box which contains the list of all currently known values. When you type in these fields the program will automatically try to help you in the search. Be careful: these lists don't refresh automatically when you change the IDs. You need to either close/reopen the window or right click on fields and select "Refresh list".

### 3) Advanced tools and features

- You can open multiple files at the same time. Just go to the main menu and open another file.
- You can open the same file in multiple windows with SHIFT + Click on the button in the main menu.
- You can save to file with the button in the top bar or with ALT+S. It's safe to save even when using multiple windows.
- You can load more files after the first load, by clicking again on "Load dat file" in the Main menu. Still, it's advised you load all needed files at the same time, especially group of files where one require another one in the group. If you load dbobjects.dat, then you may need to load half of the other files.
- When you save, the editor create a backup of the previous version with extension \*.bak. If you want to recover this previous version, just delete the current version and rename the \*.bak to \*.dat.  
The editor also save a second backup with extension \*.orig, but only if this file doesn't already exists. This won't be saved again by the editor until you delete it. You can effectively use it as "checkpoint": at first, it contains the original \*.dat. You made some changes and ensure the game is stable. Now you delete the \*.orig file and let the editor create a new one, with the current version. This way, if you do a bad edit and also corrupt the \*.bak file, you can still recover from the "checkpoint" offered by the \*.orig.
- You can CTRL + Click on the link fields to open the link (even if the destination in another file). If the file is already opened, you can open the link in a new window with SHIFT+CTRL+Click.
- The program automatically hide all undefined entries from the lists (which are entries with negative ID or Sequence Number), but you can force it to show them with a check box (which is always placed near the relative list).
- There are some useful tools you can use: right click on a field to see 3 options with intuitive names:
  - Show all values used for this field
  - Show all fields with the same value
  - Mark all unused/interesting fields (interesting fields: entries only use 1-3 different values for this field)
  - Refresh list (only in link fields: update the list after you added/removed/alterd the linked file)
- If the file support it, you can right click on the Entries list to add/remove/duplicate an entry.  
Adding a new entry will assign it all default values, so you need to manually set them (except for sequence num. and ID).
- dbtechree.dat's and dbevents.dat's entries contains extra fields (every entry have its own number of extra fields), located at the end of the entry. You'll find 2 buttons: "Add field" and "Remove field".  
"Add field" put then new extra field last, while "Remove field" remove the last extra field (if any).

### Credits:

All the EE Heaven community, of course! This program would not exists without all the work done by the community to find what those dat files contains! Thank you all!!