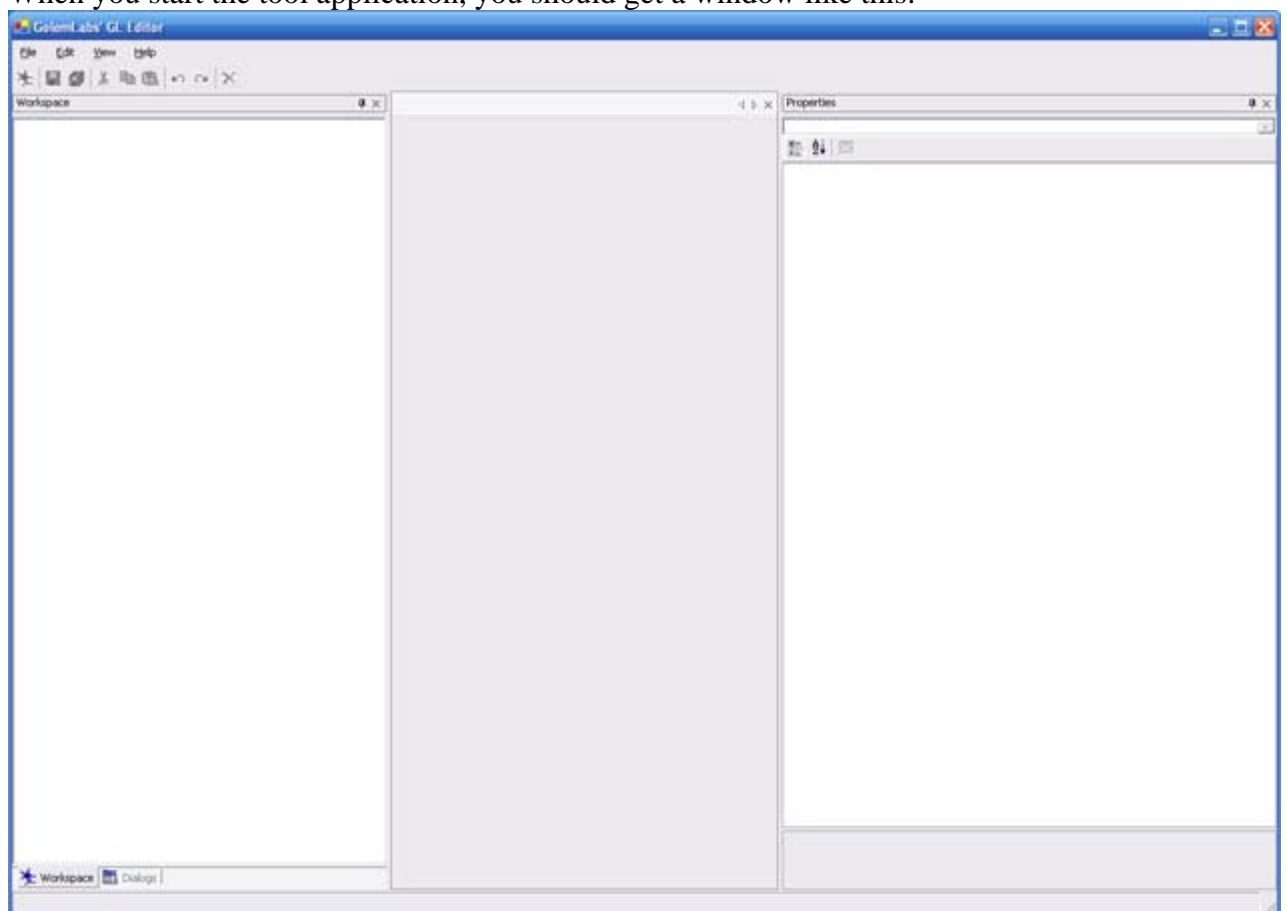


INTRO TO THE TOOL Copyright © 2001-2003 GolemLabs Laboratories Inc. - All rights reserved.

This first tutorial will help you getting started with our development tool kit. You must keep in mind that the tool is in continuous development as the SDK is supporting new features. This means that there will be updates for the tool and those updates will be available for download on golemlabs.net.

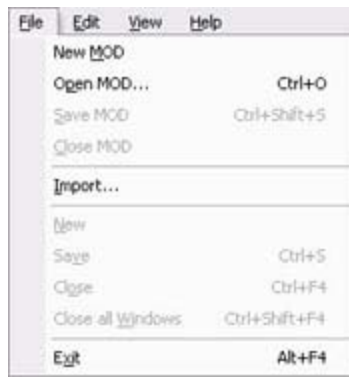
You can download the latest version of the Tool in our Files section under [Development category](#) or there is also a version on SuperPower 2's first cd in the Tools directory. Find your GLEditor_Setup.exe (that is the toolkit installer). Install the toolkit in the folder you want it to be in, then you can access it via your Start menu/Golemlabs/GLEditor/Golemlabs GL Editor. Newer versions of the tool kit will be posted here in our Files section.

When you start the tool application, you should get a window like this:



Let's browse through the different menu options.

File Menu



New MOD: This allows you to create a whole new mod. I will cover a part of it later as I will explain you how to make your first mod.

Open MOD: If you already have a mod started you can load it there.

Save MOD: If you have a currently opened mod and you want to save it, do it here. Clicking this option will save all opened document.

Close MOD: Close the currently opened mod.

Import...: This will not be used for now.

New: When a mod is opened, you have access to 2 options. Dialog Resource and Database Table. As you probably expect, Dialog Resource will create a new base object where you will be able to create your own buttons, windows and other controls. Database Table will create a table where you will be able to enter all the needed data in your mod.

Save: This menu allows you to save your working document.

Close: Close the working document.

Close all windows: Close all opened document.

Exit: Quits the tool.

Edit Menu



Undo: This feature is not implemented yet, so be careful of errors.

Redo: This feature is not implemented yet.

Cut: Allows you to copy objects or text to clipboard then delete the source where you copied it (mostly used to move stuff).

Copy: Allows you to copy objects or text to clipboard.

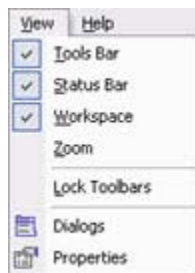
Paste: Places the copied objects or text where you want it.

Clear: Delete the currently selected object.

Select All: Select all objects or text in the working document.

Find & Replace: Brings a window that will allow you to find and, if you want, replace text in the zone where your cursor is located.

View Menu



Tools Bar: This will hide or show the toolbar from where you can access to new resource, cut, copy, paste, delete, etc. functions.

Status Bar: This will hide or show the bar at the bottom of the tool window where.

Workspace: This will hide or show the window where you can open all resources.

Zoom: This will zoom in or out on the part where your mouse is.

Lock Toolbars: This will lock or unlock the position of toolbars so the user will not be able move them.

Dialogs: This will open the dialogs window from where you will access the objects you need to create new dialogs.

Properties: This will open the properties window from where you will be able to set object properties.

Help Menu

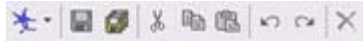


Help Contents and Index: There is no help implemented in the tool and this button will probably be deleted. Your help will come from the "how to" files that we will write for you. These files will be posted here on golemlabs.net.

Using Help: Same as above.

About: Show some information about the tool.

Toolbar



New document: When you have a mod loaded, you can create new dialog resources or database table here.

Save: Save the current document.

Save all: Save all opened document.

Cut: Allows you to copy objects or text to clipboard then delete the source where you copied it from(mostly used to move stuff).

Copy: Allows you to copy objects or text to clipboard.

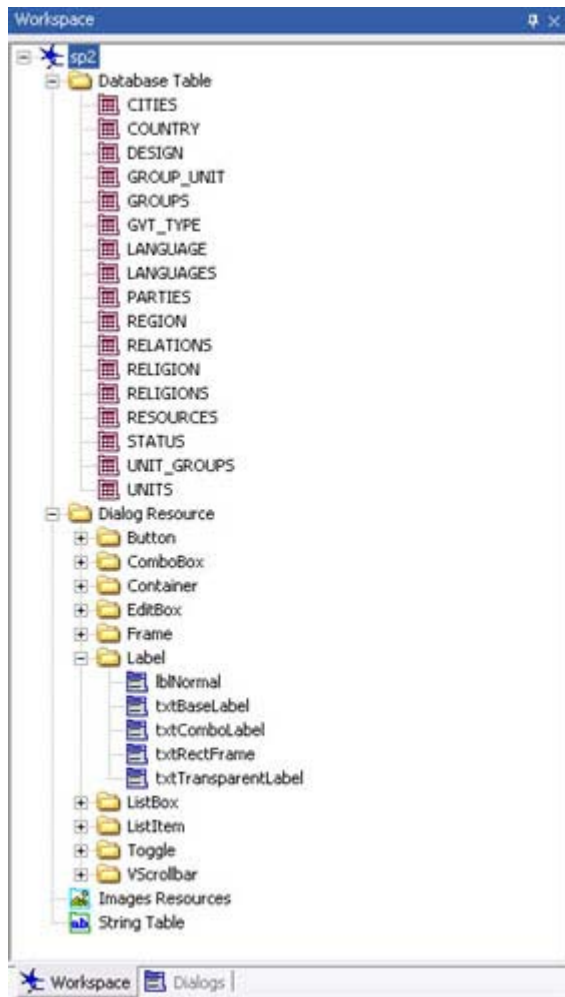
Paste: Places the copied objects or text where you want it.

Undo: Not implemented yet.

Redo: Not implemented yet.

Clear: Delete the currently selected object.

Workspace



This is an example of what looks like the workspace window when a mod (this one being SP2) is loaded.

Every objects listed there can easily be opened by double clicking on one of these.

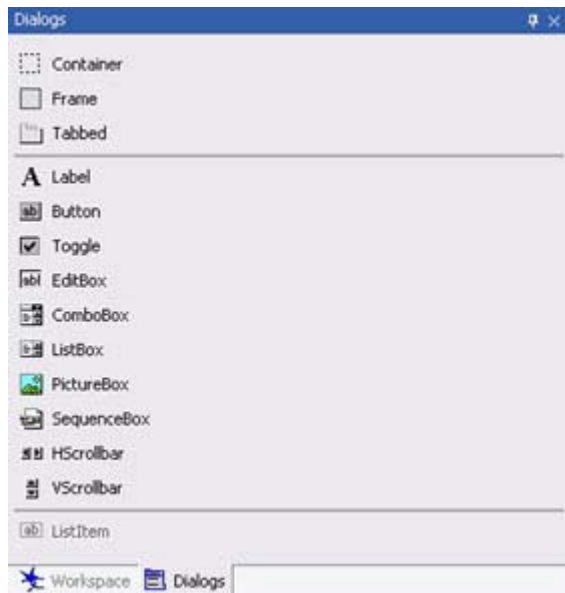
Every created database table are listed under the Database Table category, you can access almost all data from there. We will come back on the database system later in that document.

The Dialog Resource section is where you can access all your designed objects. Everything is regrouped under a category to help the user browse the object collection that can rapidly become overwhelming if it was not regrouped.

Then we can see Images Resources. Once again we will be back on that point later on but to give you a short description, every image in the mod are listed there.

Finally, the String Table section is where every string in dialogs and database are stored.

Dialogs



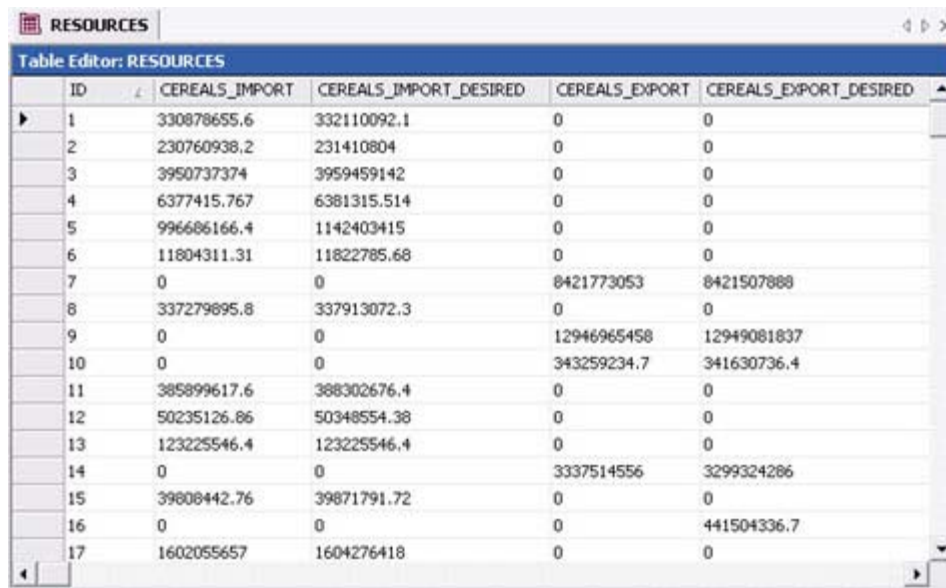
This is the dialogs window. When you have a mod and a Dialog Resource loaded, objects in this window will be enabled. You can see that objects are separated into three categories. The first one being container, the second one being design components and the last category being embedded objects.

There is two way to create an object. You may want to define a new type of base object or you may want to create the specific object in a container. To create a new type of base object create a New Dialog Resource and create the type of object you want. To create a specific object you must create it in an already existant container.

This is what it looks like when you want to create a new object. Simply click on the one to be created.



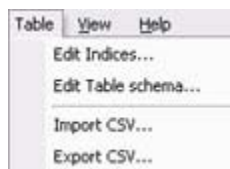
Database Table



ID	CEREALS_IMPORT	CEREALS_IMPORT_DESIRED	CEREALS_EXPORT	CEREALS_EXPORT_DESIRED
1	330878655.6	332110092.1	0	0
2	230760938.2	231410804	0	0
3	3950737374	3959459142	0	0
4	6377415.767	6381315.514	0	0
5	996686166.4	1142403415	0	0
6	11804311.31	11822785.68	0	0
7	0	0	8421773053	8421507888
8	337279895.8	337913072.3	0	0
9	0	0	12946965458	12949081837
10	0	0	343259234.7	341630736.4
11	385899617.6	388302676.4	0	0
12	50235126.86	50348554.38	0	0
13	123225546.4	123225546.4	0	0
14	0	0	3337514556	3299324286
15	39808442.76	39871791.72	0	0
16	0	0	0	441504336.7
17	1602055657	1604276418	0	0

This is the view of a database table (resources one) so basically this looks a little like Access when you edit data. You select the field where you want to input your data accordingly to the column data type. It's very simple and straightforward to use. When you want to add a new record (table entry) to the table you simply go to the last table row and fill in your desired data.

You may also see that a new menu is shown when the active document is a database table



Edit Indices : This allow you to create index, when used with fields frequently requested in search conditions this can give a very significant performance gain on large table. So add them as you need them.

Edit Table schema : With this option you can modify the current table fields (add fields, remove fields) though you can not for now modify an existing table.

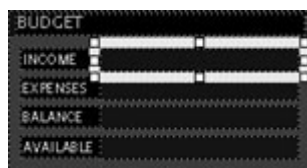
Import CSV : For those that use CSV files (comma separated file) here you can import the csv directly to the table.

Export CSV : CSV can be imported but they can also be exported to the same format.

Dialog resource



This is what it looks like when you edit a dialog (economic window currently shown). Every component in that window is a base component that has been added to the Economic_Window frame. We mostly see labels, buttons, pictures and frames here. When an object is selected its bounding box appears as shown here.



By moving your mouse over the anchor points you will be able to click and resize as you want it to be. You can also move the object selected by dragging it. You can also use keys Ctrl+Left/Up/Down/Right to move the object one pixel at the time.

When right clicking on the bounding box you also get a contextual menu



Bring to Front : This will move the selected object on top of every other object.

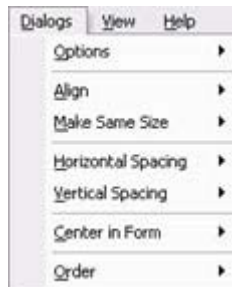
Send to Back : Do the opposite as bring to front it send the object completely behind every objects.

Align to Grid : When you use the design grid this will make the object aligned with the nearest grid point.

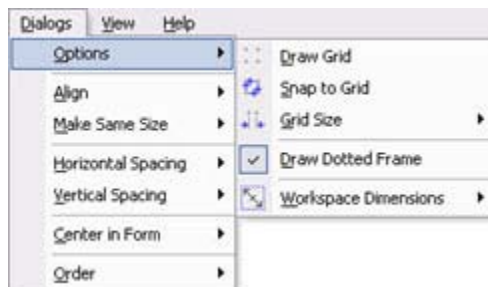
Size to Grid : This function will resize the selected object to their nearest points accordingly to the four corners.

We finally get the same functions as usual (Cut, copy, paste and delete).

You might also see that like when you edit a database table you get a menu related to dialogs



Options : Mostly here are the options that will help you doing your design



Draw Grid : This will display a grid to help you align your objects.

Snap to Grid : Activate this options if you want your objects to snap to the nearest grid point.

Grid Size : Allow you to choose how precise the grid must be.

Draw Dotted Frame : You probably seen that every objects bounds are shown as a dotted frame. You can deactivate this option if you want to see the exact in-game look though this option can be useful to see where are your objects knowing that some can be transparent.

Workspace Dimensions : You set here the resolution you want to work with so the window you design will not be too big for the screen.

Align : Here you can modify how your selected objects are align. Like if you want to align all your components the same way.

Make Same Size : Mostly like the align feature works but this time it is to resize your objects.

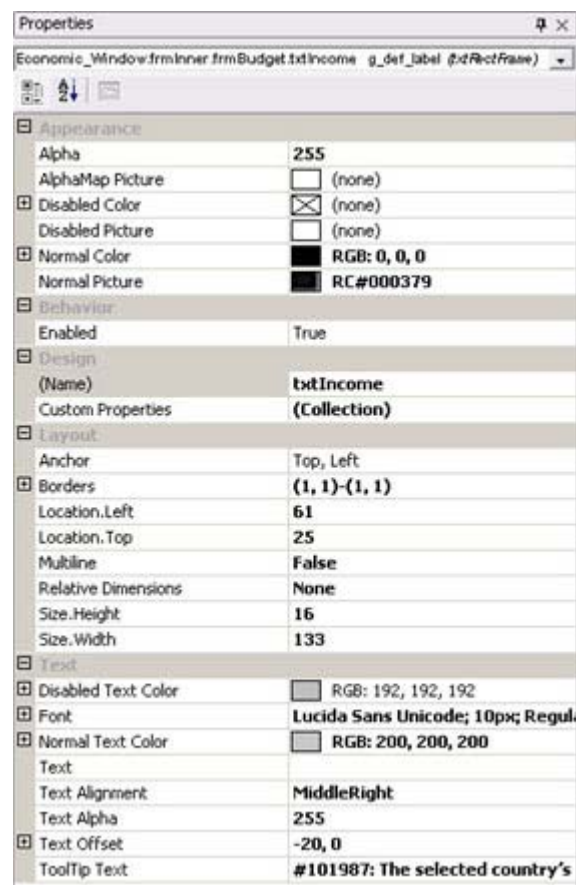
Horizontal Spacing : This will make your component have the same space between each of them horizontally.

Vertical Spacing : As the Horizontal Spacing works but vertically.

Center in Form : Makes the selected objects align correctly in the middle of their parent form.

Order : Allow to bring to front or send to back selected objects.

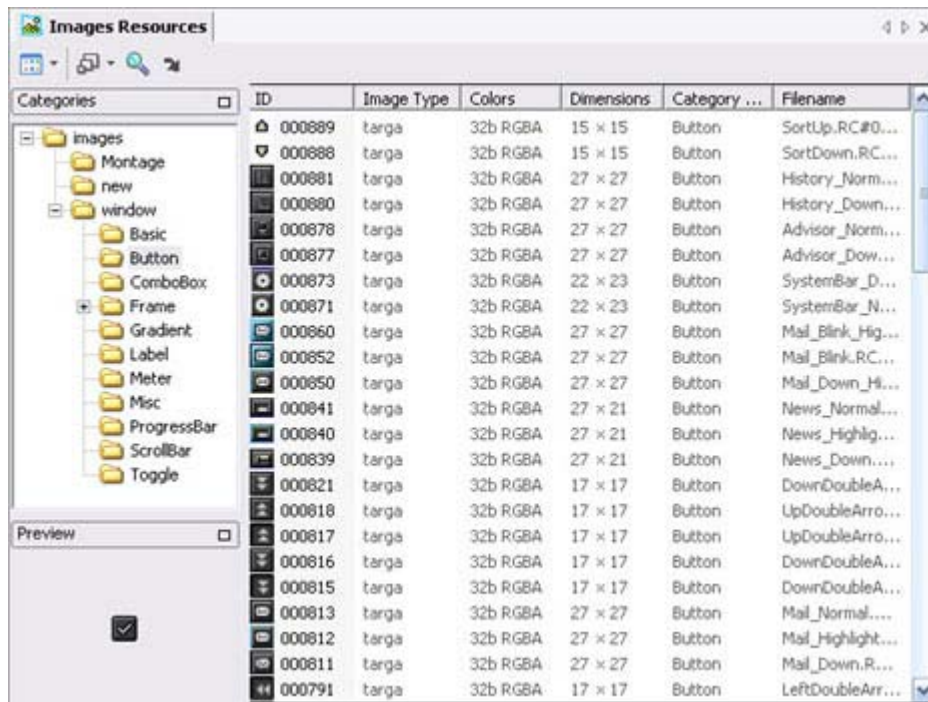
Properties



When an object is selected, you can see all its properties in the properties window. This is where you set the look of the component. All the properties description for each object will be added to this how to when the SDK will be release publicly because people will need to code some C++ to make your window behave correctly.

The top combo box (dropdown list) lists every single object that is in the working dialog resource.

Images Resources



This is the images resources window. The tool parse the image folder when it is opened and associate ids to every pictures and rename the picture with the id at the end of the filename so a file named Button.bmp will be rename to Button.RC#000123.bmp. These ids can be used to select the picture you want in your different dialog components.

On the toolbar you can access some functionality.

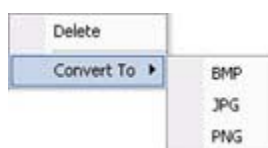
With the first icon you can choose how you want your pictures to be shown (Thumbnails, List or Details). Details are currently shown here.

The second icon is used when you selected Thumbnails listing method. You can choose which size are your thumbnails.

The magnifier icon is used for the preview window. It will magnify the selected picture to full preview window size.

Finally the arrow icon is used for the flat mode. The flat mode will list every picture contained in the selected folder and its subfolders.

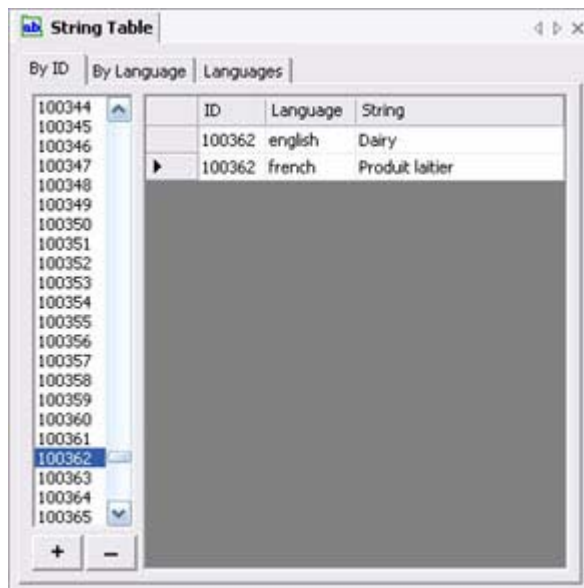
When you right click on a selected image it will bring a contextual menu.



From there you can delete the selected picture but you can also convert them to other format accordingly to which format you use. The currently supported formats are

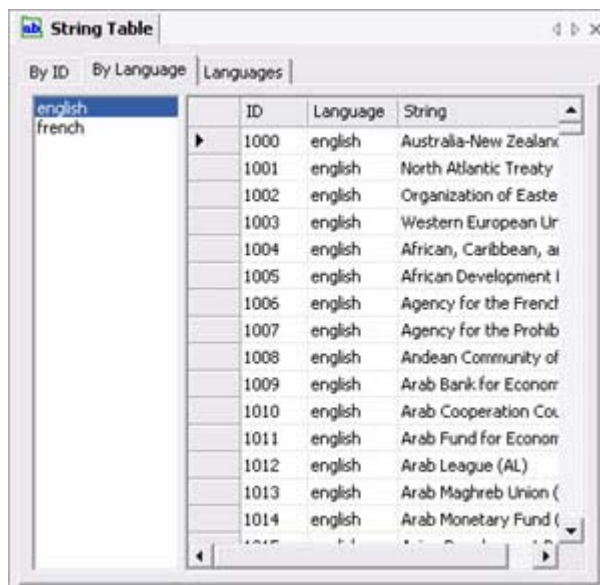
Bitmap, Jpeg and PNG files. More format will maybe supported as the tool and SDK development goes on.

String Table

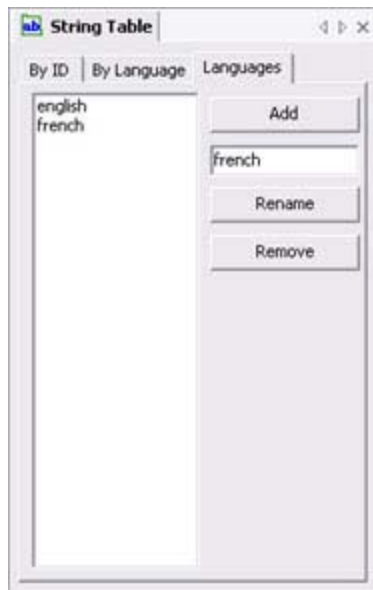


There are three sections that are available in the string table window. Just below is the first section. Strings are listed by ids and you can edit every language at the same time.

The second section is listing by language. You can edit every string in the same language quite straightforwardly.



The last section is used to define which languages are available for edition.



This concludes the first how to. It gives you a quick glance at the capabilities of the toolkit. Keep in mind that this tool is maintained and new versions will be available as they are released in our files section. Any bug found can be reported to techsupport@golemlabs.com.

ADDING A COUNTRY

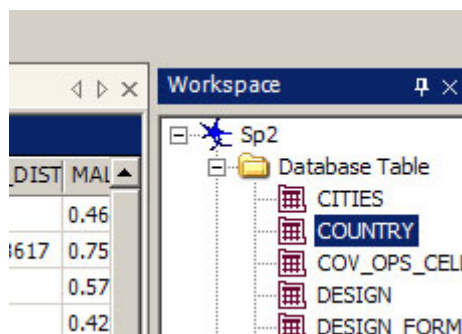
This guide will explain in details how to add a country, using only the tools. No coding required. In this tutorial, we will add the country of Québec.

STEP #1 - DATABASE

- Open the database with the GLEditor. There's a guide here that explains the basis of the tool:

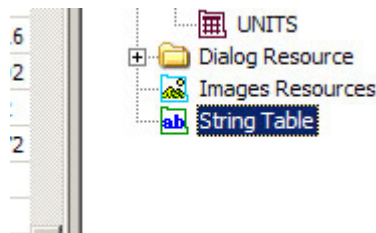
[Intro to the tool](#)

- Open the database, and then open the country table.



- Go to the bottom of the table, and insert a new country. The next ID you should write, if you have not done any editing before, is 194.

- In NAME_STID you must write the string id linked to your country name. To do so, you can open the string table, located at the right of the tool.



- Go to the bottom of the id's, and add another one, by clicking on the + button. Where the cursor is, you must write you country's name. The id beside the country's name you just wrote is the id you must remember and write inside the NAME_STID field in the database. Once you wrote the name, go back to the database.

	ID	Language	String
▶	102295	english	Québec

- Next field to edit is CODE. It is the three-letter abbreviation of your country. We'll write QUE for Québec.

- Next is the filename for the flags. Write QUE.tga for now, we'll add the flags later on.

- The CAPITAL_ID field is the city id of your capital. In our case, it is Quebec City. To find the id of Québec City, look through the City List, found on the golemlabs.net. Québec City has the id 2723.

- The GROUPS field contains the group id for the country. Compare with existing countries what group you'd like set. In our case, we'll use the same group as Canada and the United States, which is 1.

- The ACTIVATED field tells whether the country is active or not. It'll be active in our case, so we write T.

193	2328	ZWE	ZWE.tga	371	11	T	T	0.53
194	102295	QUE	QUE.tga	2723	1	T	T	0.8

For the following fields, you can read the SP2 Database guide found here to help you:

[SP2 Database guide](#)

- For the POLITICAL_PARTY field, you'll need to write the political party id of your choice. To do so, we'll create new political parties:

- Open the PARTIES table
- Go to the last row. We'll need to insert 6 new political parties, two for the democracies, one for monarchy, one for communism, one for theocracy, and one for military dictatorship.
- Look at that screenshot below. This is what you must add at the end of the parties table. The party 2143 and 2148 are the two political parties. 2143 is in power, as it has .6 (60 %) of the votes, hence it has a T in the IN_POWER field.
- You'll need to add 6 new entries in the string table, for the 6 political parties' names.

2143	194	102296	1	0.6	0.2	9	T
2144	194	102297	1	1	0.4	6	T
2145	194	102298	1	1	0.4	7	T
2146	194	102299	1	1	0.8	4	T
2147	194	102300	1	1	0.9	5	T
2148	194	102301	1	0.4	0.45	9	F

- Once the parties are added, write 2143 in the POLITICAL_PARTY field in the COUNTRY table.

- The next table we must edit is the REGION table. We must change the control of the region of Québec from Canada to Québec.

- To find what REGION_ID Québec is, check the Region List on Golemlabs.net. It is 330. Find the row with the REGION_ID at 330 (not ID, but REGION_ID).

- Edit the COUNTRY_ID and MILITARY_OWNER field to 194, the country id that we just added.

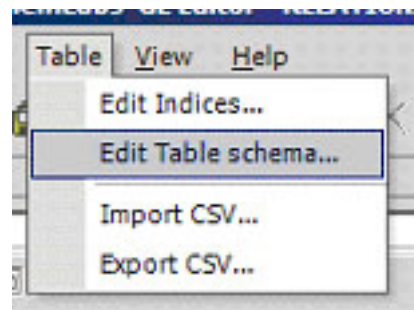
328	329	3428	32	32	13
329	330	3429	194	194	13
330	331	3430	32	32	13
331	332	3431	32	32	13

- Now we must edit the relations for the new country. Relations are stored in a two-dimension array. There are 193 rows, and 193 columns. To add a new country, you must add a new row, but also a new column.

- To fill a new row, it is very easy. Go to the bottom of the table, insert 194 as the next ID, and insert 0's everywhere.

193	3	0	1	3	4	1	4	3	3	4
194	0	0	0	0	0	0	0	0	0	0

- To add a new column, click on Table at the top of the screen, and click on Edit table schema.



- Then, click on the Add button, and fill the values as shown in the image below. Click Ok.

Table "RELATIONS" schema editor

Members :

183	COUNTRY_183 (Single)
184	COUNTRY_184 (Single)
185	COUNTRY_185 (Single)
186	COUNTRY_186 (Single)
187	COUNTRY_187 (Single)
188	COUNTRY_188 (Single)
189	COUNTRY_189 (Single)
190	COUNTRY_190 (Single)
191	COUNTRY_191 (Single)
192	COUNTRY_192 (Single)
193	COUNTRY_193 (Single)
194	COUNTRY_194 (Single)

↑
↓

COUNTRY_194 (Single) Properties :

AllowNull	True
ColumnName	COUNTRY_194
DataType	Floating-point
Length	-1
New	True

Add Remove

Ok Cancel

- We now have a new column, at the extreme right of the table. You'll see (nothing) written everywhere, replace them by 0's (0 means neutral), except the last one at the bottom (The bottom-right field).

- This is what the end of the table will look like:

2	0	0
0	0	0
2	0	0
2	4	0
(nothing)	3	0
3	(nothing)	0
0	0	(nothing)

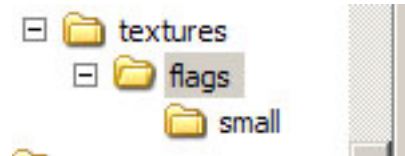
- If you want to change relations between 2 countries, you must write the new value twice, once for each side of the array (Country 32 vs Country 184, and Country 184 vs Country 32)

- The next table to modify is the RESEARCH table. It's very simple. Just add another row, with ID 194, and put 0 in every field.

- If you want to give a bonus to the research level, you can do so by writing integers between 0 and 10 in the MAX_LVL_* fields.

193	67179549	71280093	0	0	F	T	F	6.5
194	0	0	0	0	F	T	F	0

- The last table to modify is the RESOURCES table.
- Insert a new row with 194 as ID. The values here can be mostly 0's, since they will change automatically once the game has begun. You can edit the tax values though.
- There are fields where you must write T or F, read the SP2 Database guide to know more.



- Once the RESOURCE table is done, there's nothing left to edit in the database. Only 2 more things need to be done, the flags, and the EHE.

STEP #2 – FLAGS

- You must create two flags, a large and a small one. You can use any image editing software, but you must save your flags as tga files. The name should be the same as we entered in the database, in our case QUE.tga. The two flag images will have the same name.
- Their size must be: Large - 47 x 28 pixels; Small - 22 x 13 pixels
- In the mod directory of your choice, open the /data folder and create a new directory called textures. Inside /textures create another directory called flags. Inside /flags, you can copy the large flag file. Then, still inside /flags, create a directory called small. Inside /small you'll copy the small flag file.

```

<PRIORITY OBJECTIVE = "22">0.645</PRIORITY>
<PRIORITY OBJECTIVE = "23">0.645</PRIORITY>
<PRIORITY OBJECTIVE = "24">0.645</PRIORITY>
<PRIORITY OBJECTIVE = "25">0.645</PRIORITY>
<PRIORITY OBJECTIVE = "26">0.645</PRIORITY>
<PRIORITY OBJECTIVE = "27">0.5</PRIORITY>
</PRIORITY_LIST>
</ENTITY>
<ENTITY ID = "194" NAME = "Quebec">
  <PRIORITY_LIST>
  </PRIORITY_LIST>
</ENTITY>
</ENTITY_LIST>

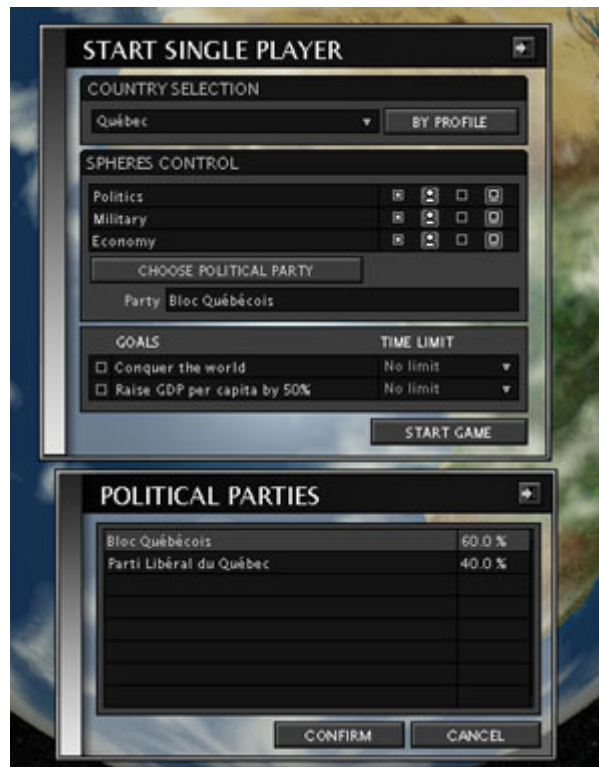
```

STEP #3 – EHE

- If you want an AI entity for your country, and you must certainly do, you must edit and save the ehe_entities.xml file inside your mod directory.

- You must add a country at the end of the file. To do so, insert those lines after the last tag (after Zimbabwe). 194 is the country id, and Quebec is the string used by the logger, it'll not be seen in the game, so it could be anything.

```
<ENTITY ID = "194" NAME = "Quebec">
    <PRIORITY_LIST>
    </PRIORITY_LIST>
</ENTITY>
```



See the results by yourselves!



INTRO TO DATABASE MODDING

SuperPower 2™ uses Firebird. Firebird is an open source relational database system. You can find additional information on <http://firebird.sourceforge.net>. I found an interesting definition on <http://searchdatabase.techtarget.com> that described well what a relational database is.

"A relational database is a collection of data items organized as a set of formally-described tables from which data can be accessed or reassembled in many different ways without having to reorganize the database tables. The relational database was invented by E. F. Codd at IBM in 1970.

The standard user and application program interface (API) to a relational database is the structured query language (SQL). SQL statements are used both for interactive queries for information from a relational database and for gathering data for reports.

In addition to being relatively easy to create and access, a relational database has the important advantage of being easy to extend. After the original database creation, a new data category can be added without requiring that all existing applications be modified.

A relational database is a set of tables containing data fitted into predefined categories. Each table (which is sometimes called a relation) contains one or more data categories in columns. Each row contains a unique instance of data for the categories defined by the columns. For example, a typical business order entry database would include a table that described a customer with columns for name, address, phone number, and so forth. Another table would describe an order: product, customer, date, sales price, and so forth. A user of the database could obtain a view of the database that fitted the user's needs. For example, a branch office manager might like a view or report on all customers that had bought products after a certain date. A financial services manager in the same company could, from the same tables, obtain a report on accounts that needed to be paid.

When creating a relational database, you can define the domain of possible values in a data column and further constraints that may apply to that data value. For example, a domain of possible customers could allow up to ten possible customer names but be constrained in one table to allowing only three of these customer names to be specifiable."

Naturally, a game does not need all functionality a database system can offer (I am mostly thinking about user access, macros ...). But we certainly need to organize data and make it easily and quickly accessible and Firebird gave us what we needed.

Firebird can use SQL. SQL is an acronym of Structured Query Language. This language allows you to perform queries to the database. There are a lot of available tutorials about SQL on the internet if you want additional information. When the SDK will be released more details will be available on this method and you will have the ability to use this language to get and set database properties and data. The other way to mod the database is to use our database editor contained in the GolemLabs Editor available on <http://www.golemlabs.net> or on your SuperPower 2™ cd.

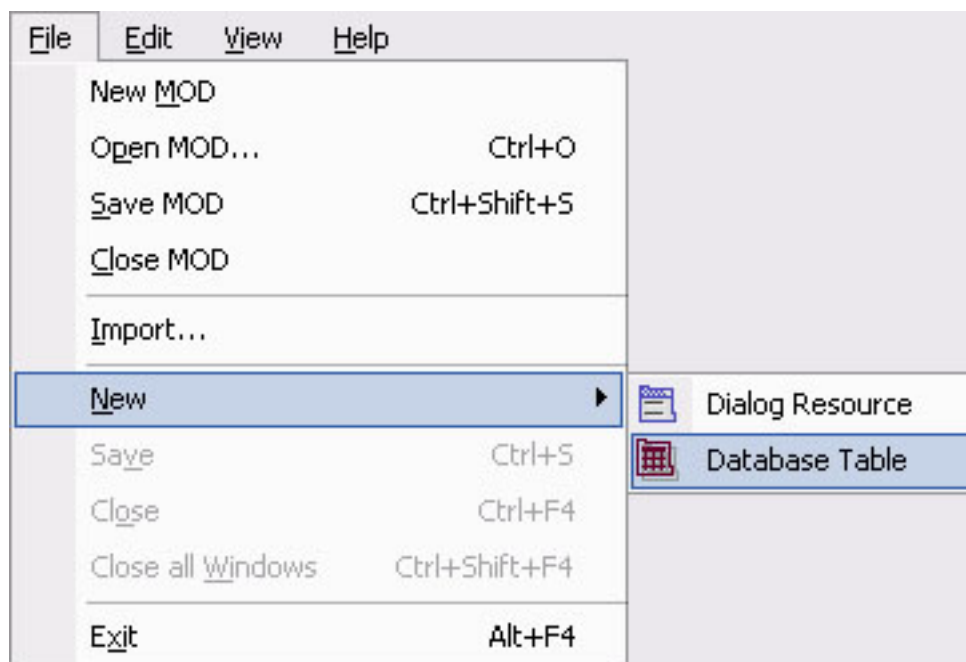
The tool uses a restricted set of functionality. What has been embedded is

- Database creation
- Table creation
- Table schema modification
- Table indexes
- Data edition
- Nine types of data
 - Fixed strings (char())
 - Variable strings (varchar())
 - Short integer (short)
 - Integer (int)
 - String table ID (represented by an int and referencing an entry in the string table)
 - Floating-point (float)
 - Double precision (double)
 - Date & Time (timestamp)
 - Currency (float)

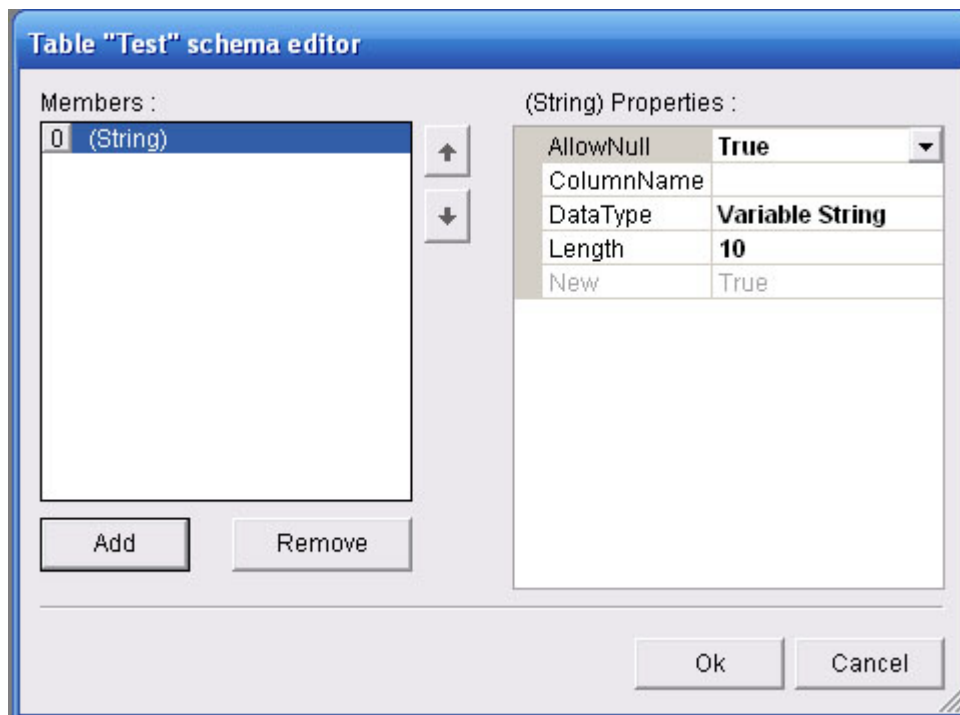
Let me explain each functionality.

Database creation: This one is quite simple as you only need to create a new mod to get a new database. The file will be named DATABASE.GDB by default. It also has a default user and password that are simply golem and golem. So if you ever need to connect to the database with another program like IBSQL for instance use that username and password.

Table creation: Before creating any table, I strongly suggest you to make a schema of what your database should look like. Each table can be created with the File menu under the New submenu.

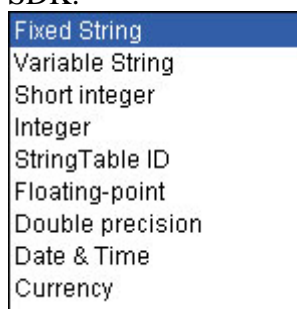


First of all the table name will be prompted, then you will be asked which column (field) the table will contain. Note that you can alter the table once it is created. You should be able to add, remove or modify column if the format is still compatible with the desired one.



This is what the table schema editor looks like when one member has been added. For now, four options are available to you:

- **AllowNull:** Allow NULL value in the field. With this option enabled, you are not required to input a specific value to the field when a record (row) is edited or created.
- **ColumnName:** Self explanatory this is the name of the field created. It will be used to access your data in SQL statements.
- **DataType:** As described before, nine data types are currently supported by the SDK.



- **Fixed String:** Called CHAR in SQL language, this string type should be used if your string will always need the same amount of space. For example it has been used for country code in SuperPower 2.
- **Variable String:** Called VARCHAR in SQL language, this string type should be used when you are not sure about the final length of your string. The length will be used as a maximum size your string can be.

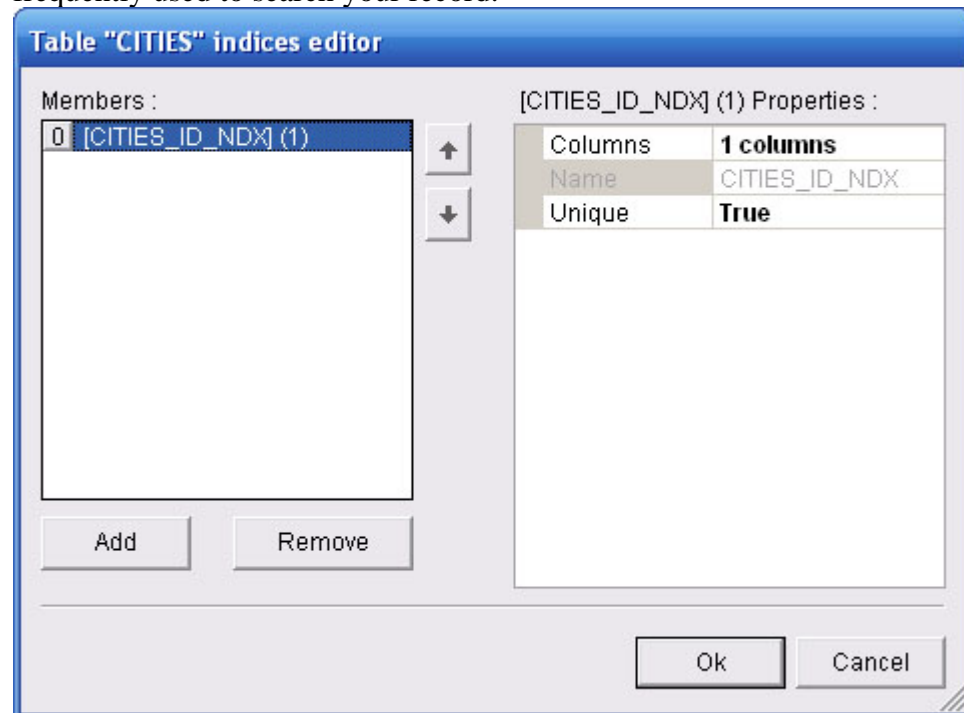
The maximum size available for the field accordingly to the firebird documentation is 32Ko. However, if your strings need to be translated you should use StringType ID format over Fixed String and Variable String.

- Short integer: Called SMALLINT in SQL language, this type should be used when the number entered in the field is between -32 768 and 32 767. As you see, 2 bytes are reserved to save the short integer.
- Integer: Called INT or INTEGER in SQL language, this type should be used when the number entered in the field is between -2 147 483 648 and 2 147 483 647. Four bytes are reserved to save the number. As you maybe seen, integers are always signed.
- StringType ID: This type has been made by GolemLabs. In the database it will be represented as a 4 bytes integer that will hold the ID of the string saved in the string table. You must enter a string in this field and when it will be saved, the string will be added or modified in the string table and the ID will be saved in the database.
- Floating-Point: Called FLOAT in SQL language, this number holds decimal $3.4E \pm 38$ (7 digits). It is stored in 4 bytes.
- Double precision: Called DOUBLE or DOUBLE PRECISION in SQL language, this number is twice the size of a float and can hold number up to $1.7E \pm 308$ (15 digits).
- Date & Time: Called TIMESTAMP in SQL language, the database will reserve 8 bytes of data and will save it as a serialized date.
- Currency: Called NUMERIC or DECIMAL in firebird, this type is different from float as the value is stored in a 32 bits integer with a scale. This will allow you to store a bigger number without having to use a 64 bits double precision.
- Length: When the length of a value is variable, you will need to set the maximum length of the variable. When the length is -1 it is because the variable do not need a length. Ex.: Integers and floats do not need length but string does.

This concludes how to create a table. To edit afterward, open your table and from your Table menu use Edit Table Schema.

Table Indexes: Indexes are used to find records faster as Firebird will index every record with the fields you asked to index. This can give a significant performance increase to your application if they are used properly. You should index fields that are

frequently used to search your record.



This is the window where you create your indexes (indices). You can access the window in your Table menu. When you add an index, you will access its properties.

- Column: That property opens a dropdown list where you can choose which field you want to include in your index. You can use the same field in many indexes but you never should have two identical indexes.
- Name: The name of your index. In older database system you had to specify which index to use. Somehow this is not needed anymore as the database will automatically verify if it needs to use an index or not.
- Unique: Unique index are a little bit faster than non unique ones as there is only one record per index entry. It will be easier for the database to find the wanted entry but you cannot always use unique index depending on your needs.

Additional information can be found on the internet on how to accelerate your query processing.

This concludes how the database basically works. Now that your tables and indexes have been created we can now proceed to table edition.

Table Editor: Test				
	Name	Created	Quantity	Price
▶	Potato	12/3/2004 12:00 PM	(nothing)	1.95
*				

This window is where you edit your data. The black arrow in the first column indicates which record you are currently editing. The asterisk marks where you can

create a new record. To edit, you simply need to edit the worksheet as if you were in Excel or Access. Validation is done as you input your data. Note that you can sort each column ascending or descending. Leave a null field when you do not want to put any value.

With all this, you should be able to do what is currently possible to do with the engine.

SP2 Database Guide

This guide will explain the meaning of every table and columns of the database.

Most tables will have a primary key (Id) as their first field. It's the row key. If you want to add a new row inside a table having this field, set your new row primary key value to the greatest id of the table + 1.

Also, you'll often see String Id's throughout the guide. They are linked to the String Table file. If you want to add something in the Database that needs a string id, you'll have to edit the string table.

CITIES

The cities table contains the list of cities in the game.

Id:	City's id
Name	
Stid:	City's name string id
Pop:	The population of the city
Longitude:	Longitude of the location of the city
Latitude:	Latitude of the location of the city
Region ID:	The Region ID where that city is located. Check the REGION table to know more about regions

COUNTRY

The country table contains the list of countries information. It's one of the most important tables.

Id:	Country's id
Name Stid:	Country's name string id
Code:	Three-letter abbreviation of that country
Flag:	The flag filename. If you want to modify that country's flag, this is the filename you must use
Capitall Id:	The City's id of the capital of the country
Groups:	Geopolitical groups of the country. SP2 uses 12 different groups.
Activated:	T if the country is still alive. F if the country has been annexed.
Accept Foreign Order:	T if the country accepts foreign unit production order. F otherwise
Indiv Collec:	Number closer to 1 means the country's population is individualist. Number closer to 0 means the country's population is collectivist.
Hier Distance:	Number closer to 1 means there is a huge distance between the leader of the country and the population. Number closer to 0 means the populations feels very close to the politicians.
Male Female:	Using psychological terms, we ranked how Male or Female the population of a country is. An example of a "female" population is

	Sweden (has 0), a "male" population would be Japan (has 0.87).
Climate:	Country's climate's description string id
Natural Hazards:	Country's natural hazards' description string id
Terrain:	Country's terrain's description string id
Pop 15 65 Unemployed:	% of unemployed population at the beginning of the game
Pop In Poverty:	% of population in poverty at the beginning of the game
Pop Economic Model:	Describes how far left or right the population of that country is economically. 1 is Free Market, while 0 is communism.
Pop Political Ideology:	Describes how far left or right the population of that country is politically. 1 if Extreme Right, while 0 is extreme left.
Birth Rate:	The current birth rate, in %, of the country
Death Rate:	The current death rate, in %, of the country
Birth Rate Expected:	The birth rate expected for that country. The current birth rate will move towards that value. It'll change once the game begins though.
Death Rate Expected:	The death rate expected for that country. The current death rate will move towards that value. It'll change once the game begins though.
Human Development:	The human development level of the country at the beginning of the game.
Suffrage:	Not used anymore
Global Tax Mod:	Global tax mod mod of that country
Personal Income Tax:	Personal Income Tax for that country
Available Money:	Available Money of that country at the beginning of the game. Negative amount mean having debts.
Economic Activity:	Negative amount means the country is importing. Positive amount means the country is exporting. This value will change at the beginning of every game, so changing it has almost no effects.
Economic Health:	Economic Health of that country at the beginning of the game.
Budget Expense *:	The initial value of all expenses. It'll be recalculated at the beginning.
Budget Expense Ratio *:	The location of each of the 10 budget sliders. 1 means the slider is to the right, 0 to the left, and 0.5 in the middle.
Budget Revenue *:	The initial value of all revenues. It'll be recalculated at the beginning of the game.
Propaganda Level:	Not used anymore
Mili Manpower Avai:	Number of manpower available at the beginning of the game.
Inflation Level Expected:	The expected value of the inflation.
Inflation Level:	The current value of the inflation.
Interest Level:	The interest level for that country
Minimum Wage:	Not used anymore
GDP Growth:	Not used anymore

Political Party:	Political party id in power at the beginning of the game. It must be a political party with the same country id.
National Holiday:	Not used anymore
Gvt Type:	The government type id, referred from the GVT TYPE table. 9 is multi-party democracy, 8 is single party-democracy, etc...
Gvt Stability:	The current government stability for that country
Gvt Stability Ex:	The expected government stability for that country
Gvt Approval:	The current government approval for that country
Gvt Approval Ex:	The expected government approval for that country
Emigration Level:	The current emigration level for that country
Emigration Level Ex:	The expected emigration level for that country
Emigration Closed:	F if the emigration borders are opened, T otherwise
Immigration Level:	The current immigration level for that country
Immigration Level Ex:	The expected immigration level for that country
Immigration Closed:	F if the immigration borders are opened, T otherwise
Next Election:	The date of the next election for that country
Corruption Level:	The current corruption level for that country
Corruption Level Ex:	The expected corruption level for that country
Martial Law:	T if the Martial Law is declared, F otherwise
Telecom Level Ex:	The expected telecom level of that country
Infrastructure Level Ex:	The expected infrastructure level of that country
Law *:	The status of every law. T means it's legal. In the case of the number of children by family, T means unlimited, while F means limited number of children.
Nat Security Level:	The security level offered by the covert actions cells at the beginning of the game.
AMDS Level:	The status of the AMDS construction. 0 means it has not started yet. If the number is 1, it is completed.
Nuclear Ready:	The status of the nuclear research. -1 means a country hasn't started its nuclear research. Once it has, the value move from 0 to 1, 1 meaning the research is completed.
Last iteration:	Must always be 0.

COV OPS CELL

The covert ops cells table contains the list of all covert actions cells in the game.

ID:	Primary key. Not used. No ids can be the same.
Cell ID:	Covert Action cell id
Name:	Covert Action cell's name string id
Owner ID:	The country id that owns that cell

Specific Target:	Must be 0
Target Sector:	Must be 0
Training:	Training level of that cell. 0 means the cell is a recruit. Over 10000 means the cell is elite.
Country Frame:	Must be 0
Assigned Country:	Country id where the cell is located at the beginning of the game.
Mission Type:	Must be 0
Mission Complexity:	Must be 0
Actual Status:	Status of the covert action cell. 4 is active, 2 is dormant.

DESIGN

The design table contains the list of all unit designs

ID:	Primary key. Not used. No ids can be the same.
Design ID:	Specific id of that unit design
Country Designer:	Country id that can build that design
Type ID:	Unit Design type ID: 1 - Infantry 2 - Infantry Vehicle 3 - Air Defense 4 - Mobile Launcher 5 - Tank 6 - Artillery Gun 7 - Attack Helicopter 8 - Transport Helicopter 9 - ASW Helicopter 10 - Fighter Aircraft 11 - Attack Aircraft 12 - Bomber 13 - Patrol Craft 14 - Corvette 15 - Frigate 16 - Destroyer 17 - Attack Submarine 18 - Ballistic Missile Submarine 19 - Aircraft Carrier 20 - Ballistic Missile
Name:	Unit Design's name string id
Speed – Armor:	The strength in that category, between 0 and 10.
Piece 1, 2, and 3:	Visual aspect of the Unit Design. Valid ID depends on the current design type & the content of the unit_design.xml file.
Texture:	Color of the Unit Design, from 0 to 7

DESIGN FORMAT

We will not explain this table in this guide. It's used to randomly create unit design names when the EHE does so.

GROUP UNIT

The list of every unit in the world, and their respective group id. Every unit inserted into the UNITS table must be added here also, and be given a group id.

ID: Primary key. Not used.

Group ID: Unit Group id.

Unit ID: The unit id.

GVT TYPE

The government types in the game. Do not modify this table.

LANGUAGE

The language table contains every language in the game.

ID: The language id

Language Name: Language's name string id

LANGUAGES

The languages table contains the repartition of the languages throughout the regions. The sum of the population here for every region must equal the population found inside the REGION table, and also inside the RELIGIONS table.

ID: Primary Key. Not used.

Region ID: The region where that language is spoken.

Language ID: The language id spoken. The language id is linked to the LANGUAGE table

Population: Number of people speaking that language inside that region.

LANGUAGES STATUS

The language status table contains the status of languages inside countries. By default, a language will be legal (1). 2 is illegal. 3 is official.

ID: Primary Key. Not used.

Country ID: The country where this language has a special status

Language ID: The language id that has a special status

Status: The status id, as told in the table description

MISSILE

The missile table contains the list of all nuclear missiles in the game.

ID: Primary Key. Not used.

Missile ID: The missile id

Country ID: The owner of that nuclear missile.

Design ID: The Unit Design id for that nuclear missile, from the DESIGN table

Quantity: The number of nuclear missiles

Longitude: The longitude of the location of the nuke if it's not inside a submarine. It must be inside one of the country's regions.

Latitude: The latitude of the location of the nuke if it's not inside a submarine. It must be inside one of the country's regions.

From Sub: 1 if the missile is inside a submarine, 0 otherwise.

Sub ID: If the From Sub column is set to 1, the sub id must contain the sub unit id. 0 if the missile is land-based.

PARTIES

The parties table contains all the political parties in the game

ID: The political party id

Country ID: The political party's country

Name Stid: The political party's name string id

Status: 1 is legal, 2 is illegal

Perc: Percentage received for that party. The sum of % must be 1 for every type of political parties, for every countries

Ideology: Political ideology of that political party. 1 is extreme right, 0 is extreme left.

Gvt Type: The government type of that political party. There is no single-party democracy party, every democratic party have the type 9.

In Power: T if the party is in power, F otherwise. There must be exactly one party in power for every gvt type.

REGION

The region table contains the regions information

ID: Primary Key. Not used.

Region ID: The region id

Region Name: The region's name string id

Country ID: The country id of the political owner of the region

Military Owner ID: The country id of the military owner of the region

Geo Group: The Geopolitical id of the region

Continent: The continent id of the region

History: The historical claim on that region. Used by the EHE to conquer long lost regions.

Population 15, 15-65, 65: The sum of the population must be equal to the sum of languages for that region, and the sum of religions for that region (LANGUAGES and RELIGIONS table)

Infrastructure:	Infrastructure level for that region
Telecom Level:	Telecom level for that region
Tourism Income:	Tourism income generated yearly by that region
Area Water:	Kilometers square of water inside that region
* Land:	Kilometers square of every type of land inside that region
* Points & Coastlines:	Not used anymore
* Production:	Total of production for that resource
Random *:	Chance in % of that event to happen inside that region every year.

RELATIONS

The relations table contains the relations between every country in the game.
Relations differ between -100 and 100.

RELIGION / RELIGIONS / RELIGION STATUS

Same structure than languages.

RESEARCH

The research table contains the value given to every unit research category. Changing values here has almost no effects, since it is calculated at almost every iteration, based on the research budget slider.

RESOURCES

The resources table contains the resource management for every country.

* Import:	The initial import value for that resource
* Import Desired:	The initial desired import for that resource
* Export:	The initial export value for that resource
* Export Desired:	The initial desired export for that resource
* Gvt Ctrl:	F if the resource is public, T if the resource is private
* Legal:	T if the resource is legal, F if it is illegal
* Meet:	T if the country imports/exports the desired amount of resources automatically
* Taxes:	The tax amount on that resource
* GDP:	The gdp share of that resource inside that country. It's calculated every iteration, so you do not need to modify this.

RESOURCE NAME

The resource name table contains every resource name in the game.

ID:	The resource id
Name Std:	Resource's name string id

SELLING UNITS

The selling units table contains the list of units for sale at the beginning of the game.

ID: Primary Key. Not used.

Unit ID: The id of the unit for sale.

STATUS

The status table contains the string ids of the different statuses in SuperPower2. Do not modify.

TREATY

The treaty table contains every treaty in the game

ID: Primary Key. Not used.

Treaty ID: The treaty id

Name: Treaty's name string id

Type Treaty: The id of they type of treaty:
0 - Alliance
1 - War
2 - Military Access
6 - Economic Partnership
7 - Common Market
8 - Economic Aid
9 - Assume Foreign Debt
10 - Economic Embargo
11 - Weapon Trade
12 - Weapon Trade Embargo
13 - Human Development Collaboration
14 - Cultural Exchanges
15 - Research Partnership
16 - Request Military Presence Removal
17 - Noble Cause
18 - Annexation
19 - Free Region

Private: T if the treaty is private, F if the treaty is opened to new members

Activated: T if the treaty is active, F if it is pending

TREATY CONDITION

The treaty condition table contains the conditions for treaties. If a treaty has 3 conditions, 3 rows will be inserted in the treaty condition table.

ID: Primary Key. Not used.

Treaty Id: The treaty id

Condition Id: The condition ID, as shown below:
0 - Geographic Proximity
1 - Military Strength Similitude

- 2 - Economic Strength Similitude
- 3 - Political Similitude
- 4 - Research Level Similitude
- 5 - Relations Not At War

Condition Status: The specific status for that condition:

Geographic Proximity:

- 0 - No Limit
- 1 - America
- 2 - Europe
- 3 - Asia
- 4 - Oceania
- 5 - Africa
- 6 - Western Europe
- 7 - Central America
- 8 - Southern America
- 9 - Eastern Europe
- 10 - Eastern Asia
- 11 - Far East
- 12 - Middle East
- 13 - Northern Africa
- 14 - Western Africa
- 15 - Eastern Africa
- 16 - Southern Africa
- 17 - Pacific Islands
- 18 - Northern America
- 19 - Southern Oceania

Military/ Economic Strength Similitude:

- 0 - No Limit
- 1 - Top 10
- 2 - Top 25
- 3 - Top 50
- 4 - Top 100

Political Similitude:

- 0 - No Limit
- 1 - All Democracies
- 2 - Communism
- 3 - Military Dictatorship
- 4 - Monarchy
- 5 - Multi Party
- 6 - Single Party
- 7 - Theocracy

Research Level Similitude:

- 0 - No Limit
- 1 - Low
- 2 - Average
- 3 - High

Relations:

- 0 - No Limit
- 1 - Not at War

TREATY MEMBER

The treaty member table contains the list of members for every treaty.

ID: Primary Key. Not used.
Treaty ID: The treaty id, as found in the TREATY table
Country ID: The country id. A member of that treaty
Side: 1 – Side A
2 – Side B
3 – Pressure
Activated: T if the country has accepted the treaty, F otherwise.
Original: T if the country is an original member, F otherwise
Suspended: T if the country is suspended, F otherwise

UNITS

The units table contains the description of every unit in the game

ID: Primary Key. Not used.
Unit ID: The unit id. Very important that no id's are the same.
Country ID: The owner of that unit
Design ID: The design id of that unit, as found in the DESIGN table
Amount: Size of that unit
Training: Training level of that unit:
0 – Recruit
1 – Regular
2 – Veteran
3 – Elite

UNIT GROUPS

The unit groups table contains the list of units groups in the game. Unit Groups are the tank icon you see in the game. They contain units.

ID: Primary Key. Not used.
Group ID: The unit group id. Very important that no id's are the same.
Longitude: The location's longitude of the unit group.
Latitude: The location's latitude of the unit group.
Status: The unit group status:
0 – Parked
1 – Ready
2 – Fortified

EHE

This guide explains the details of the EHE_ENTITIES.XML file. Prior knowledge of XML is not required, but is a plus.

The EHE in SuperPower 2 uses a system of Objectives and Actions. Every country must fulfill its objectives. Every objective has a priority level which will differ for each country.

To reach those objectives, an EHE entity (a country) will execute actions. Every action has an experience level attached to it. An action has an experience for every objective. This experience explains how well, or bad, this action affects that objective.

For example, the action Raise Taxes will have a positive experience level with the Have Money objective, but a negative experience level with the Government Approval objective.

The EHE_ENTITIES.XML file contains the objectives priority for every country. It also contains their list of actions and their experience levels.

* Important * If no priorities are written for a country, it will always use the default value, written at the beginning of the EHE_ENTITIES.XML file.

TO MODIFY THE PRIORITY OF OBJECTIVE

To modify how important an objective is for a country, the value between the tags of that country must be changed. The objective is a number between 0 and 1, 1 being extremely important, while a country will never care of objectives for which the value is set to 0.

Here's the list of objective IDs:

- 1 - Population support
- 2 - Have space
- 3 - Government stability
- 4 - Economy too low
- 5 - Economy too high
- 6 - Have positive budget
- 7 - Meet resource demand
- 8 - Have AMDS
- 9 - Have military allies
- 10 - Low corruption level
- 11 - Enemies have low stability
- 12 - Enemies have no money
- 13 - Enemies have no military forces
- 14 - High self relations
- 15 - High national security
- 16 - High human development
- 17 - High telecom level
- 18 - High infrastructure

- 19 - High economic health
- 20 - Have no debt
- 21 - Strong ground forces
- 22 - Strong infantry forces
- 23 - Strong air forces
- 24 - Strong naval forces
- 25 - Strong nuclear forces
- 26 - Good research level
- 27 - Military access

TO MODIFY THE ACTIONS EXPERIENCE LEVEL

To change a country's experience with an action, the value between the EXPERIENCE tags must be changed.

Example: <EXPERIENCE ACTION = "1" OBJECTIVE = "1">-0.05</EXPERIENCE>

The action 1 (Raise tax) has an experience level of -0.05 with the objective 1 (Population Support). The experience level goes between -1 and 1, 1 being excellent, -1 being the worse.

There's a list below that explains what the actions are.

- 1 - Raise taxes
- 2 - Lower taxes
- 3 - Declare martial law
- 4 - Change to democracy
- 5 - Change to monarchy
- 6 - Change to communism
- 7 - Change to theocracy
- 8 - Change to dictatorship
- 9 - Give better status religions or languages
- 10 - Give worse status religions or languages
- 11 - Raise interest level
- 12 - Lower interest level
- 13 - Legal freedom speech
- 14 - Illegal freedom speech
- 15 - Legal freedom demonstration
- 16 - Illegal freedom demonstration
- 17 - Unlimited number children
- 18 - Limited number children
- 19 - Increase production
- 20 - Legal abortion
- 21 - Illegal abortion
- 22 - Legal contraception
- 23 - Illegal contraception
- 24 - Assassination
- 25 - Train Covert Ops cells
- 26 - Disband Covert Ops cells
- 27 - Disband nuke

- 28 - Launch nuke
- 29 - Develop the country's nuclear force
- 30 - Create Covert Ops cells
- 31 - War declaration
- 32 - Alliance
- 33 - Military trespassing right
- 34 - Annexation
- 35 - Raise resource taxes
- 36 - Lower resource taxes
- 37 - Free region
- 38 - Cultural exchanges
- 39 - Noble cause
- 40 - Research partnership
- 41 - Human development collaboration
- 42 - Economic partnership
- 43 - Common market
- 44 - Economic aid (give)
- 45 - Economic aid (receive)
- 46 - Assume foreign debt (give)
- 47 - Assume foreign debt (receive)
- 48 - Economic embargo
- 49 - Weapon trade
- 50 - Weapon trade embargo
- 51 - Research AMDS
- 52 - Train infantry
- 53 - Enrol infantry
- 54 - Disband infantry
- 55 - Train ground units
- 56 - Build ground units
- 57 - Disband ground units
- 58 - Train air units
- 59 - Build air units
- 60 - Disband air units
- 61 - Train naval units
- 62 - Build naval units
- 63 - Disband naval units
- 64 - Private control resource
- 65 - Public control resource
- 66 - Espionage (civilian)
- 67 - Espionage (military)
- 68 - Terrorism
- 69 - Coup d'état
- 70 - Sabotage civilian
- 71 - Sabotage military
- 72 - Close emigration
- 73 - Close immigration
- 74 - Open emigration
- 75 - Open immigration
- 76 - Trade in region
- 77 - Trade in research