

Life Database v4.0.0

Bill Lazure, 2016

Disclaimer

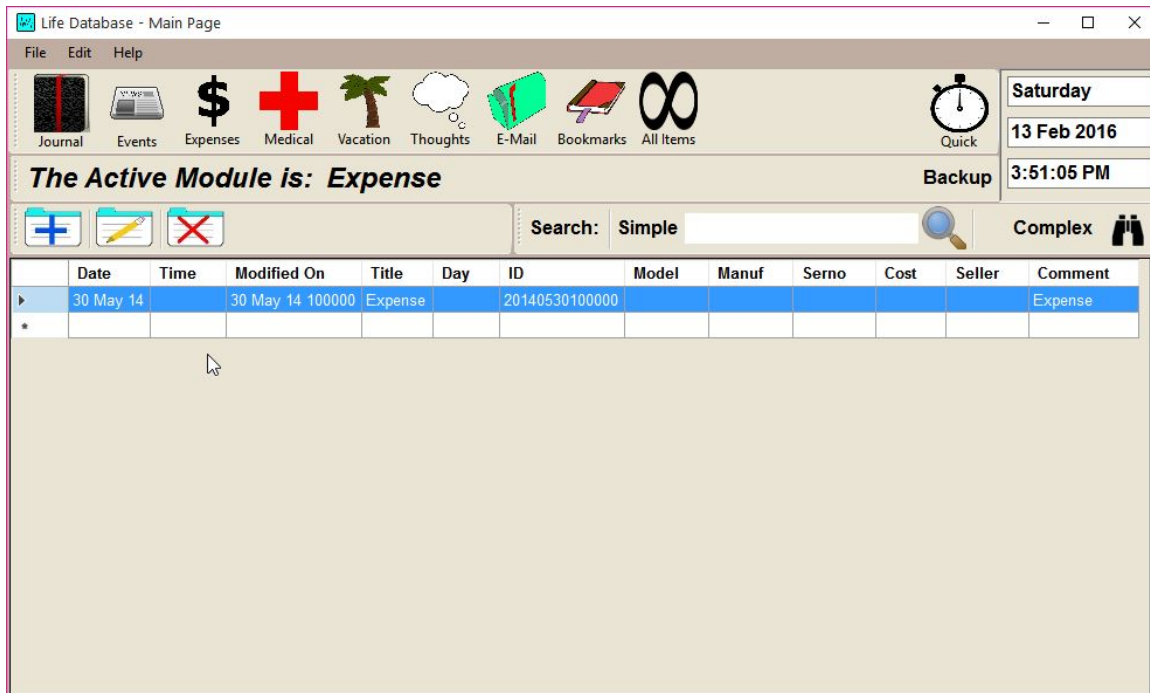
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Life Database will only run on the Windows operating system and has only been tested on Windows 7, and Windows 10. I only have the amount of Disk storage space and RAM that I have, so I can't say what the minimum specifications are for either of these.



Introduction

Life Database is a Windows-based program that stores and retrieves information about your life...information like major events (Births, Career moves, Graduations), Daily Journal Entries with added data (Weight, weather, sleep, medications), Vacation, Expenses, etc.

This information is stored in an XML-format database that allows easy reading and editing by many free text editing programs including Microsoft's Notepad and Wordpad.

Operation

The file comes as a *.zip file and must be extracted prior to use. The Zip contains 4 files: Life Database.exe (the program), Database.ini (Settings and list contents), Life Database Help.pdf (this file), and Life Database.xml (the data file). Extract these files to your drive and run the executable.

The first screen that opens when you start the program is called "Quick Entry". It is designed to allow you to enter data easily with a minimum of mouse-clicks.



To enter a piece of data, you have simply to click on the module you'd like to use. You will then be taken to the Entry form of that module. If you intend to search for or edit an entry, press the Main Form button to open the full program screen.

Data-Entry Form

The Data Entry form is shown below. Some information will be pre-filled for you (Date, Day, Time), some is contained in pre-defined lists (mood, weather, medications), and some is free-form where you can enter anything you wish. The large box in the lower half of the form is a RTF entry area intended to be the place where you enter your journal entry.

The lists can be edited from the "Edit" menu on the main form (shown later), or Database.ini can be manually edited to change the list contents.

The screenshot shows a window titled "New/Edit Journal" with a standard Windows-style title bar (minimize, maximize, close buttons). The window has two tabs: "New" (selected) and "Edit".

The form contains the following fields and controls:

- Today:** A date field showing "Saturday" and "13 Feb 16", and a time field showing "1553".
- Pain Level:** A single-line text input field.
- Pain Location:** Two checkboxes labeled "Lower_Back" and "Headache".
- Sleep:** A single-line text input field.
- Weight:** A single-line text input field.
- Sugar:** A single-line text input field.
- Temp:** A single-line text input field.
- Weather:** Three checkboxes labeled "Raining", "Snowing", and "Sunny".
- Mood:** Two checkboxes labeled "Bad" and "Good".
- Meds:** Two checkboxes labeled "Aspirin" and "Ibuprofen".
- Title:** A single-line text input field.
- Font and Color:** Two buttons labeled "Font" and "Color" located below the title field.

At the bottom of the window are two buttons: "OK" and "CLOSE".

When you have entered the data you desire, press "OK" and it will be saved in the database, and the program will close. Otherwise, press "Close" and the program will close without saving anything.

Main Form

The main form is designed to allow you to view the data of each module individually, or selections of data from the entire database; depending on which button you press.

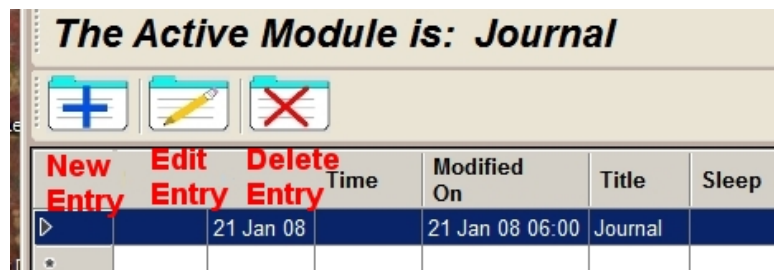


When you choose a module by pressing its button (see above), all of the entries of that module are shown on the grid.

Should you desire to delete an entry, select it on the grid, and press the Delete Entry button shown below.

Similarly, to make a new entry, choose a module, and press the New Entry button shown below. It will open a "New Entry" screen like that described above.

To edit an entry, you first choose a module, highlight the entry on the grid, then either double-click the entry, or press the "Edit" button above the grid.



That will open the "Edit" screen which looks very similar to the data entry screen.

New/Edit Journal

New Edit

Today 21 Jan 08

Pain Level

Pain Location

Sleep

Weight

Sugar

Temp

Weather

Mood

Meds

Title Journal

Font Color

OK CLOSE

From the edit page, you can change any entry; nothing is pre-filled. Be sure to enter dates using the format dd MMM yy (01 Jan 16 or, 22 Aug 08, for example) or the program will error. The two arrows near the bottom allow you to read prior or successive entries. For example, if you wish to review the goings on for an entire week, simply edit a day in that week, and press either arrow to see the entries immediately before or after that one.

Search

Life Database can search for your information based on dates or content. This is accomplished two different ways:

Simple search

Simple search will search for a word or phrase only. To simple-search, simply put your search term in the box shown and push the magnifying glass button. Your search results will populate the grid.

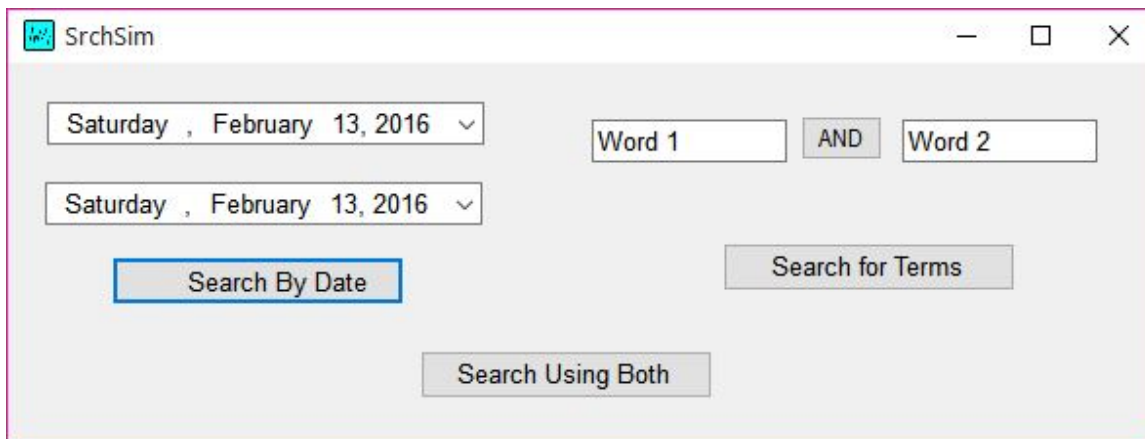


The screenshot shows a web interface with a top navigation bar. On the right, there is a 'Backup' button and a clock showing '3:56:26 PM'. Below the navigation bar, there is a search section. It includes a label 'Search:' followed by a dropdown menu currently set to 'Simple'. To the right of the dropdown is a magnifying glass icon. Further right is a 'Complex' button with a binoculars icon. Below the search section is a table with the following columns: ID, Sleep, Mood, Pain, Weight, and Meds. The first row of the table has the ID '20080121060000' and is highlighted in blue. The other cells in the first row are empty.

ID	Sleep	Mood	Pain	Weight	Meds
20080121060000					

Complex search

Complex search allows you to search phrases, date-ranges or both. To start complex search, press the binoculars next to simple search and you'll be taken to the search page.



The screenshot shows a window titled 'SrchSim'. It contains two date selection dropdowns, both showing 'Saturday , February 13, 2016'. To the right of the date dropdowns are two text input fields labeled 'Word 1' and 'Word 2', separated by an 'AND' button. Below the date dropdowns is a 'Search By Date' button. Below the word input fields is a 'Search for Terms' button. At the bottom center is a 'Search Using Both' button.

Either choose a date to search back to, or add your search terms and press the appropriate search button. The “And” button between the two words can be changed to “Or” by pressing it. This allows you to choose which Boolean operation you desire for multiple search words.

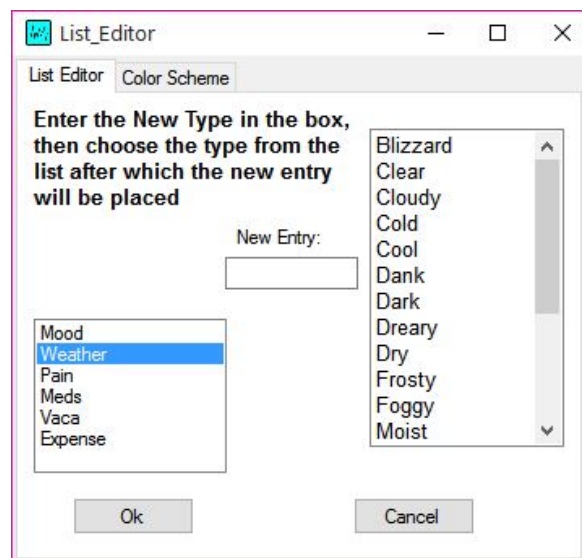
Just like simple search, the search results will populate the grid on the main page.

User-selectable settings

As you receive it, the data file is stored in the same folder as the program. If you want to change it, press **File: Set Datafile Location**. It will open a dialog where you can choose your new location.

I designed this program to allow me to chart the data taken on the "Journal" module. Many popular spreadsheets don't like the RTF formatting of the Entry block, so the button **File: Export** exports either the Journal module, Expense module, or both without the Entry block so the numeric data can be charted.

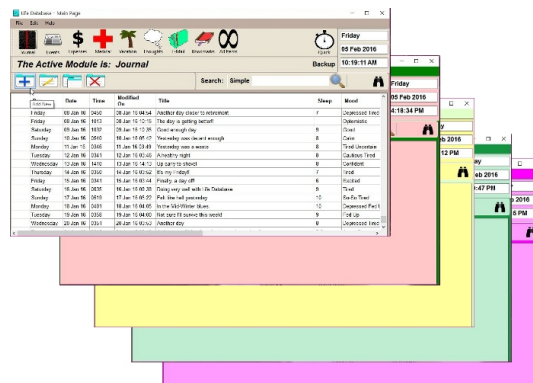
You can edit any of the numerous lists by pressing **Edit:Options**. The initial screen that opens is the list editor. You select the list to edit, then select the point where you would like to insert a new word. Press OK, and the word is saved.



I wanted to make deletion of list items hard to accomplish. Thus, to delete a word, you must manually open the Database.ini file and delete the line containing the word. See below:

```
<File>Life_Database.xml</File>
<Lists>
  <Mood>Bad</Mood>
  <Mood>Good</Mood>
  <Weather>Raining</Weather>
  <Weather>Snowing</Weather>
  <Weather>Sunny</Weather>
  <Pain>Lower_Back</Pain>
  <Pain>Headache</Pain>
  <Meds>Aspirin</Meds>
  <Meds>Ibuprofen</Meds>
  <Vaca>Beach</Vaca>
```


Finally, the program contains several color-schemes. To change the color, choose the color tab of **Edit:Options**. Choose the scheme you want and press "OK".



The data file is stored in “XML” format. I chose this format because it is text-based and easy to read and edit without using proprietary software: any text-editor will do!

The top-level node is simply "Data". Immediately under that are that modules: Journal, Events, Expenses, Medical, Vacation, Thoughts, E-Mail, and Bookmarks. Each of these Module-Level nodes contains the actual entry nodes:

JnlEntry for Journal

Eventry for Events

Expentry for Expenses

Medentry for Medical

Vacentry for Vacation

Thgtentry for thoughts

Mailentry for E-Mail

Bkmkentry for Bookmarks

Under each of these nodes are the data for each. I won't go into detail on all of the different entries, but I would like to point out some unique aspects.

ID- Each entry, regardless of type needs to have a unique identifier. The best way I found is to capture the precise moment that entry is made; no two entries are created at the exact same time! Thus, ID is a 14 digit number representing the date and time the entry was created.

Modified (date) and Date- I wanted to track both modified date and the date of the entry. Both of these entries follow the same format as the ID number; a 14-digit representation of date & time. Often, Date, Modified, and ID will be the same number.

"Why make ID and Date separate?"...because I had past entries to add to the database. Regardless of when I created those entries, the Date field would be from the original date of the entry...possible years before. ID would not need to match the old date of the entry, it serves its purpose by simply recording the precise moment I created the entry.

The date-based fields are formatted as they are to simplify searching. Using totally numeric dates, searching for date before and after a certain date becomes a simple matter of comparison: is number A smaller or larger than number B?

I used **Rich-text** on some of the entries to allow for better emphasis of the text being entered. The RTF formatting makes the raw text look messy, but the contained text is there and can still be read with a simple text-editor (although not as easy).

Appendix A: XML

Should you wish to read or edit your data manually in a text editor, this is very brief introduction to what you will encounter:

The data in the Life Database.XML file is structured like this:

```
<Data>
  <Journal>
    <JnlEntry ID="?????????????????">
      <...journal data...></...journal data...>
    </JnlEntry>
  </Journal>
  <Medical>
    <Medentry ID="?????????????????">
      <...medical data...></...medical data...>
    </Medentry>
  </Medical>
  <Vaca>
    <Vacentry ID="?????????????????">
      <...vacation data...></...vacation data...>
    </Vacentry>
  </Vaca>
  ...

```

A XML file is comprised of a series of "Nodes". Each node can contain data or other nodes. Each node begins with a word contained in <> brackets, and ends with the same word in brackets with a slash </>.

In the example above, the node DATA is the root node. It is the top-level node that contains all of the other nodes. Below it are the nodes Journal, Medical and VACA. They are its children nodes and they are all siblings of each other. They each contain one or more nodes which ultimately contain the data being stored. They also contain an Attribute called "ID" that is stored within the nodes brackets.

Each node in the file can contain any number of other nodes. This allows us to add entries at will. The prime determinant that a XML data file is too big is when it gets too slow to load, save, or edit. That is based heavily on the hardware running it.

To make text-based reading easier, node names often describe what they contain. In this case, the level immediately below "Data" is the modules. The node names are the same as the modules they store data for (Journal, Vaca, Medical). Using the same logic, the individual entries are a combination of the module that contains them, and the word "entry" (JnlEntry, Medentry, Eventry).

Finally the actual data is contained in descriptive nodes (Date, Modified, Entry, Time, etc).