Max-Planck-Institut für ethnologische Forschung

Dacryptero Handbook

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1 Installation Guide

You have to fulfill the requirements and the setup to get a complete installation of the current version of Dacryptero.

1.1 Requirements

The requirements differ between the different operation systems a bit. Just look in the corresponding sections.

These requirements are for the release version of Dacryptero. If you want to build your own version you have to look in the developer manual.

1.1.1 Windows

1. **Windows 10** or newer is required.
2. **.NET Runtime 6.0** or newer (Downloads here) required
3. **Firefox 97.0** or newer, or **Chromium 98** (this includes Google Chrome) or newer
4. at least **50 MB** free storage for the application and **2 GB** for the database
5. at least **2 GB** free RAM

1.1.2 Linux

1. Your system should be up to date with the newest releases. How to do this look at the introduction for your distro.
2. **.NET Runtime 6.0** or newer (Downloads here) required
3. **Firefox 97.0** or newer, or **Chromium 98** (this includes Google Chrome) or newer
4. at least **50 MB** free storage for the application and **2 GB** for the database
5. at least **2 GB** free RAM

1.1.3 Mac OSX

Untested!

The support for this operating system is not tested. For the specification try to orientate at the Linux spec-sheet.

1.2 Installation

This topic is in subject to change in the future.

1.2.1 Windows

1. Create a folder in `C:\Programs\Dacryptero`
2. Copy the Dacryptero files in it.
3. Setup the configuration
4. Create the shortcut for the executable `C:\Programs\Dacryptero\Dacryptero.exe` and the browser `http://localhost:8015/`.

1.2.2 Linux

1. Create the program folder

   ```
   sudo mkdir /usr/lib/Dacryptero
   ```

2. Copy the Dacryptero files in it.
3. Change the permissions.

```
cd /usr/lib/Dacryptero
sudo chown -R root:root .
sudo chmod -R +r .
sudo chmod +x Dacrytero
```

4. Create the link to include executable in the path

```
sudo ln -s /usr/lib/Dacryptero/Dacryptero /usr/bin/Dacryptero
```

1.2.3 Mac OSX

The installation steps are unknown.

1.3 Configuration

In the program directory exists a single `config.ini` file. These holds the configuration for Dacryptero. To change this open it in your text editor and restart Dacryptero after saving your changes.

If a configuration key can hold a file path then these are allowed to use environment variables. The environment variables are enclosed in percent signs `%`. For example

```
path="%APPDATA%\\Dacryptero\\db"
```

will point to `C:\Users\user\AppData\Dacryptero\db` if the current username is `user`.

> Microsoft has a list of common environment variables for specific folder paths here.

If a configuration key can accept text and the text contains back slashes `\\`, then these have to be escaped. Escaping works if you add another back slash in front of it. This is the case if you want to use file paths on windows systems. (See example above).

1.3.1 Config Path

A single configuration can point to another directory which can hold multiple other configurations. There settings will be read afterwards and overwrite the current settings. In the other directory online the direct files will be read and sub-directories ignored. Also recursive reading of same configuration files are ignored.

```
config.include.dir="%APPDATA%\\Dacryptero\\configs"
```

1.3.2 Database Path

> If you install Dacryptero using this guide you have to change the database path!

The database path holds all databases that you will create or use in the future. It is required to set this to a path where the current user can read and write to. It is recommended to do not place this on a network share because this can slow down the process.

```
db.baseDir="%CSIDL_MYDOCUMENTS%\\Dacryptero\\db"
```

1.3.3 Schema Path

The schema files are files that describe how the data in a database should be structured and what is allowed and what not. A schema file is a single file that can be in any subdirectory of the schema directory. These files are only read at the start of the application.

```
db.baseDir="%APPDATA%\\Dacryptero\\configs"
```

1.3.4 Server configuration

The server holds some configurations that define how the server will contact the user interface in the browser and vice versa. You should not change these settings normally except you have to prepare a special setup. What these parameters do is described in the provided configuration file.

1.3.5 Other configurations

It is advised to do not change any of the other settings except you know what you do. These can break the security setup or make it difficult to let the support know what your issues are.

1.4 Run

This topic is in subject to change in the future.

To open Dacryptero you need to start the background server. This will open the server window and display some debug output.

After that you need to open `http://localhost:8015/` in your browser (Firefox or Chromium). This will automatically connect to your server and you can use Dacryptero.

If you close the background server all connections will be cut and the data is stored. Closing the browser window will not close Dacryptero!

1.4.1 Session

Dacryptero is session based. Each browser tab or window holds its own session and need to login separately. **Dacryptero does not use any Cookies!** and therefore cannot transmit a session from one tab to another. If you refresh or reload a tab the old session will be closed and a new one starts.

2 Database

Dacryptero can hold more than one database. Each of these has there own schema, which describes the format of the data, and access management.

As long as a database is unlocked to a session you can search for something in any database or inspect their content. Every database is split in two parts: normal database and confidential database. The later one is for specific data that you can remove from the system at any time.

2.1 Creating a Database

Creating a database is straight forward:

1. Open the **Home** page of Dacryptero.
2. Click on the **Create Database** button in the first section.
3. In the new menu enter a new database new. You can only insert a name
   - if it is not used before and
   - if it consists of small letters, numbers, underscores and dashes.

   If you insert invalid letters they will automatically converted for you. Keep in remind: It is not that easy to change the name later!
4. Select a schema from the list. This will define the data format for the new database. Keep in remind: It is impossible to change this afterwards!
5. Click on **Create Database**.
6. Click on **Show Master Key**. This will open a new tab and show the master key. Save this securely!

   > It is recommended to print and store this in a safe place. Also download it and safe it securely! It is impossible to retrieve this Master Key afterwards. No Backup - No Mercy!

   This master key is used to retrieve lost access to the database. Confirm after saving the master key securely with **I have save the Master Key securely**.
7. Click on **Add new User**. Insert any username and password. It is allowed to use them twice. Afterwards you are required to insert the FIDO USB Key and confirm the registration.
8. After adding a new user you can add a second or third one. Just repeat step 7.
9. Click on **Create**.
10. Your database is added to the list. You can now use it.

3 Literatur