# GBCRYPT USER GUIDE

1. Introduction

GBCrypt is a simple application used to encrypt and decrypt data.

GBCrypt use AES 256-bit encryption combine Blowfish, data after decrypt will be recheck with SHA1 checksum for ensuring integrity.

GBCrypt use RSA 4096-bit algorithm to encrypt key of AES and Blowfish. All of keys AES and Blowsfish will be embed to encrypted file. So, end user only keep RSA private key for decrypting and public key for encrypting.
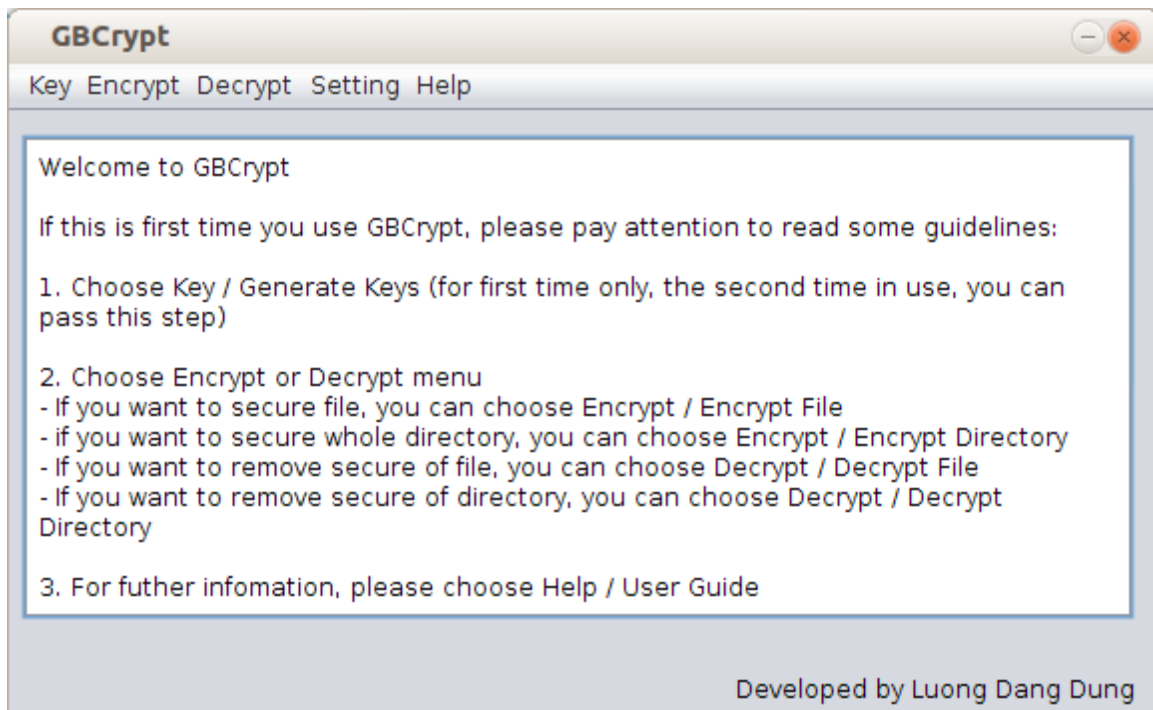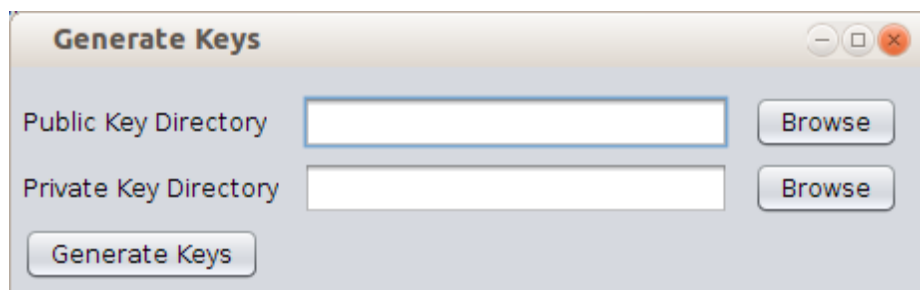

2. Generate Keys

GBCrypt use public key to encrypt data and private key to decrypt data. So if *you do not have those keys*, you need to create by using *Generate Keys* function.

You can do it as below:
- Open menu Key / Generate Keys

- Click Browse button for each location which you need to save appropriate keys.
- By default, the public key will be named **gb_lock_publickey** and private key is **gb_unlock_privatekey**

- Click button **Generate Keys** to complete.
- When you click button **Generate Keys**, if success, the keys which have generated will be applied to encrypt and decrypt immediately. The path of those keys will be updated to gbcrypt.properties file automatically.

3. Import Keys

If you had public key and private key before, you can import it to perform encrypting or decrypting data.

You can do it as below:
- Open menu Keys / Import Keys
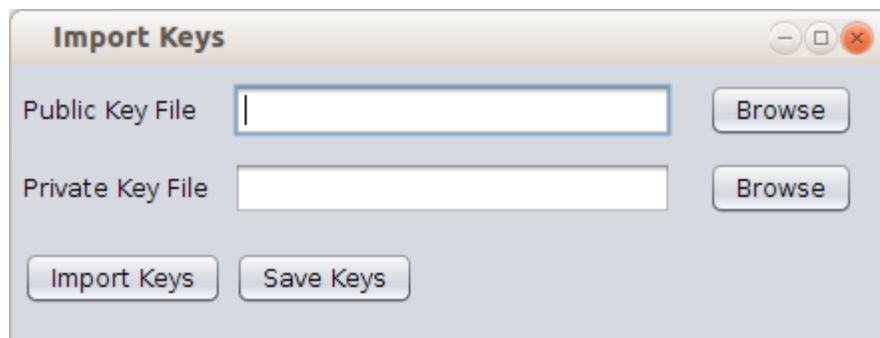
- Click on Browse button to identify each key location.
- Click **Import Keys** button to affect (this function affect on session you run application and will end at the time you exit application)
- If you want to store the keys path for later, you can click on **Save Keys** button to affect.
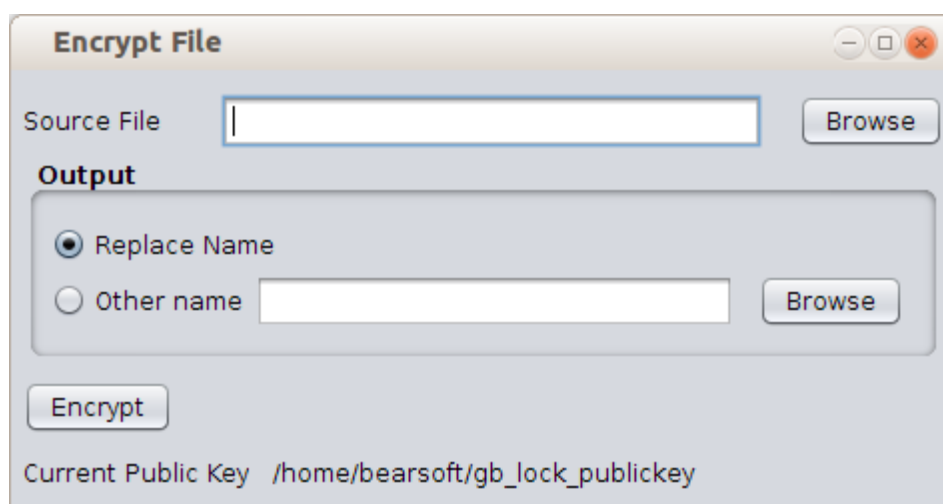
4. Encrypting

GBCrypt supports encrypting file or directory

4.1. Encrypt file

To encrypt file, you can do as below:
- Open menu Encrypt / Encrypt File

- Click **Browse** button to identify source file path. Source file means the file which you want to encrypt.
- If you want to encrypted file (output file) has the same name as original file, you can tick on **Replace Name** option.
- If you want to encrypted file (output file) has different name with original file, you can tick on **Other name**, and specify new name for it.
- The **Current Public Key** at bottom form show the public key in use to encrypt data.

4.2. Encrypt directory

To encrypt directory, you can do as below:
- Open menu **Encrypt / Encrypt Directory**
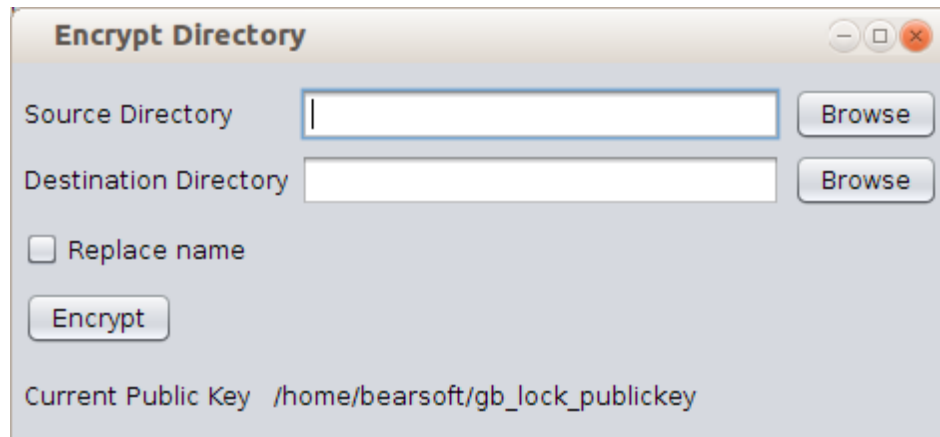
- Click **Browse** button to identify Source Directory path. Source Directory means the folder contains data which you want to encrypt.
- Click **Browse** button to identify Destination Directory path. Destination Directory mean the folder contains encrypted data (output data) which you want to save.
- If you want new encrypted data have the same name as original one, you can tick **Replace name** checkbox.
- The **Current Public Key** at bottom form show the public key in use to encrypt data.
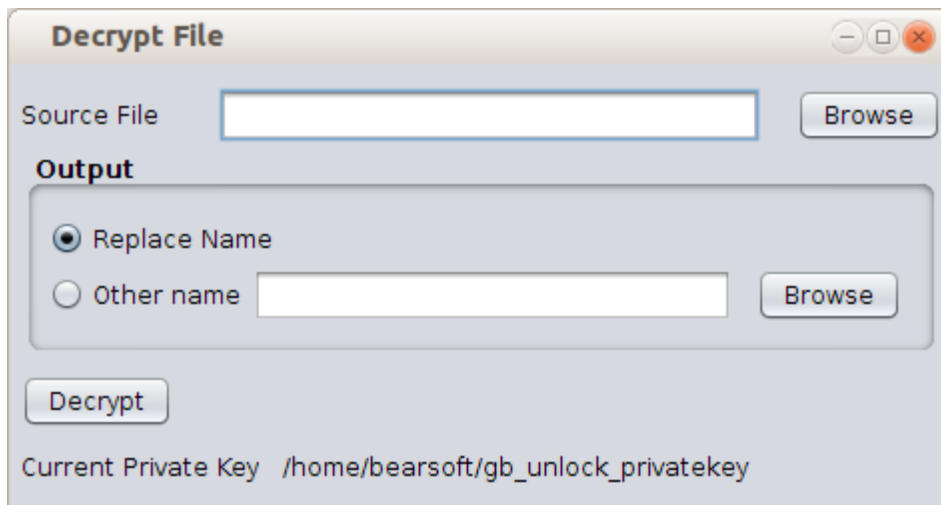
5. Decrypting

GBCrypt supports decrypting file or directory.

5.1. Decrypt File

To decrypt file, you can do as below:
- Open menu **Decrypt / Decrypt File**

- Click **Browse** button to identify source file path. Source file means the file which you want to decrypt.
- If you want to decrypted file (output file) has the same name as original file, you can tick on **Replace Name** option.
- If you want to decrypted file (output file) has different name with original file, you can tick on **Other name**, and specify new name for it.
- The **Current Private Key** at bottom form show the public key in use to decrypt data.

5.2. Decrypt Directory

To decrypt directory, you can do as below:
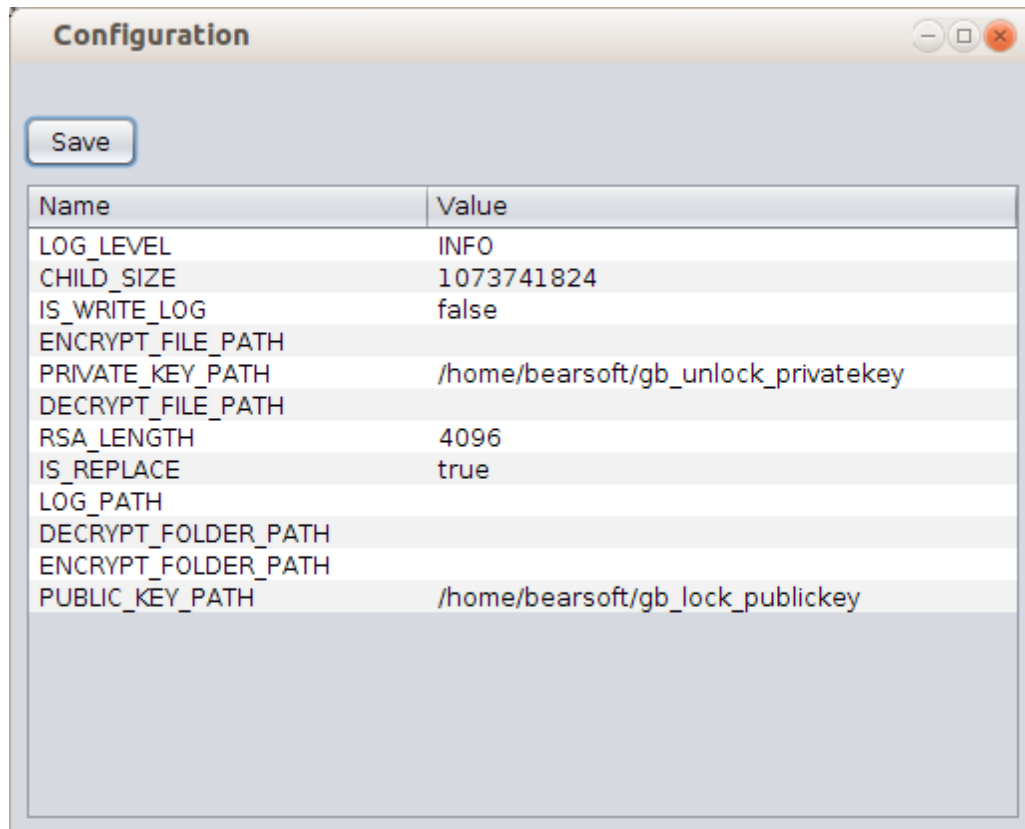- Open menu **Decrypt / Decrypt Directory**
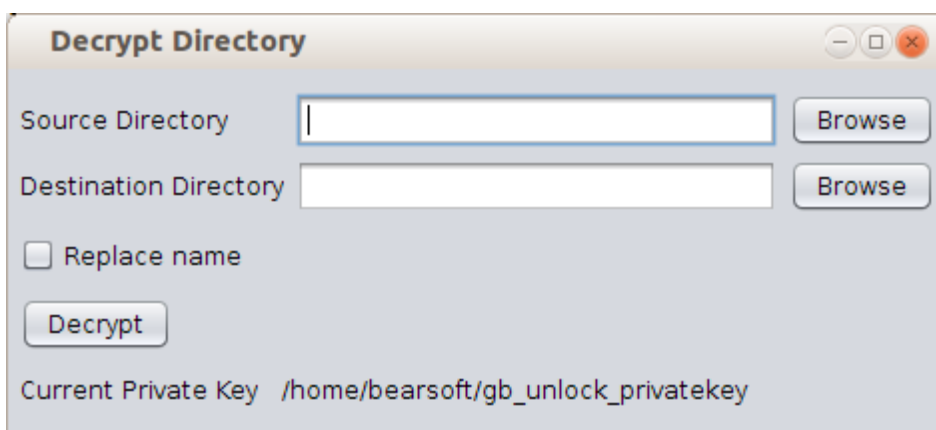
- Click **Browse** button to identify Source Directory path. Source Directory means the folder contains data which you want to decrypt.
- Click **Browse** button to identify Destination Directory path. Destination Directory mean the folder contains decrypted data (output data) which you want to save.
- If you want new decrypted data have the same name as original one, you can tick **Replace name** checkbox.
- The **Current Private Key** at bottom form show the public key in use to decrypt data.

6. Configuration

Configuration show system parameters used to run application. Be careful if you want to change it.

To change configs, you can do as below:

- Open menu **Setting / Configuration**
- Double click on row at column contains the value you need to change, and change it to appropriate value.
- Click on **Save** button to complete.