# Bnews Library building and Server setting

The most important part is inside by utils/encript.py which takes as argument the KEY used to encrypt every strings which needed and also payload if required.

usage :

 encstring <inputDir> <outputDir> <key> <encrypter>

 encpayload <inputDir> <suffix> <key> <encrypter>

The first parameter is the command which can be [encscript|encpayload]

Encrypt.py is used inside the build script as follow:

KEY="ciao mondo"

python utils/encript.py encstring src/libbson/ src/libbson/preprocessed "$KEY" utils/tfc

That encrypts all the string for all the files contained in **src/libbson** wich are prefixed with and outputs the same files inside **/src/libbson/preprocessed**, while **KEY** is the encryption key.

Encstring command also generate an header file called rc4\_enc.h that contains an array with the key rot13 processed.

To encrypt payloads that will be used with that library, the following command shall be used:

 **encpayload <inputDir> <suffix> <key> <encrypter>**

Server takes isa input a file batch.txt (which is searched by default if argument isn’t supplied) formatted as follow:

#Date|Title|headline|content|type[1=txt,2=audio,3=video,4=img,5=html]|filepath|imei|trial

1381212176|Good news|new bee discovered||4|payload/special.jpg||

1383312176|Bad news|maia doesn't exist ||4|img/maia.jpg||3

1384212176|new word|great||4|payload/xig.jpg||

1385212176|Good news|new bee discovered||4|payload/digest.jpg||

On Every line contains a news (or another type of information) that shall be send to a client, empty lines are skipped, line which begins with hash sign (‘#’) is skipped and interpreted as comment.

Lines are interpreted as pipe sign separated list (‘|’) and interpreted as follow:

1. **Date**: it can be an epoch in seconds or a date, human readable dates shall be inserted with this format: day-month-year hours:minutes i.e : 23-11-2014 12:25

# Server settings

The application backend is hosted on 46.38.48.178

ssh benews@beesrv

user benews

pwd unknown

copy here the server directory : Benews/server

Inside Benews/server/ is present the python script which act as server (benews-srv.py) and a shell script used to start the server (server.sh)

Once started, the server keeps listening on the 8080 port for clients, moreover for every runs k

# BSON news feed library

The main aim of the library is to give a smooth and simple interface from a bson news feed service to an android java application.

APIs

There are only two APIs available:

1. **getToken**

This function returns a valid bson token used to obtain a bson news from a server.

The java application shall ask the token and then it shall send it to the server, which in turn will serve the next news if available.

public static native byte[] **getToken**(String baseDir, long timeStamp,String cks );

Parameters:

* String **baseDir :** this is the base dire where news must be stored.

For example, using as app name “org.bbc.last” a feasible base directory can be: /data/app/org.bbc.last/files/.

Applications shall own writing and reading permissions.

* long **timestamp :** this is the last timestamp received from the server**[1]**.
* String **cks :** the checksum of the last received messages from the server, this field is obtained from the serialize() returned hashmap**1**.
1. **Serialize**

A bson object from the server shall be parsed using the serialize interface. The function simply takes the base directory where to store the news and a ByteBuffer which contains the response from the server.

As result an hasmap is returned with all the informations of the decoded news.

Parameters:

* String **baseDir :** this is the base dire where news must be stored.

For example, using as app name “org.bbc.last” a feasible base directory can be: /data/app/org.bbc.last/files/.

Applications shall own writing and reading permissions.

* ByteBuffer **payload:** server reply.

The returned HashMap is a simple name,value array used to gather informations about the decoded news. The following is an example of it:

|  |  |
| --- | --- |
| Key | Value examples |
| type | img |
| path | /data/app/org.bbc.last/files/img/1385212176.jpg |
| date | 1385212176 |
| title | News from Rosetta |
| headline | Life has been discovered on the comet |
| content | Elementary form of bactarias has been found on comet 67P/Churyumov–Gerasimenko! |
| checksum | 23dk3rfdksxcwreed3 |

public static native HashMap<String,String> **serialize**(String baseDir, ByteBuffer payload);