

Cipher text, first word length, and key length are inputted through #defines at the top of the code. This code runs one cipher text at a time as defined at the top of the file. It must be recompiled for each string you wish to decrypt.

For the code to run correctly, the key length must be less than or equal to the first word length. If the key length is equal to the first word length the runtime increases greatly, it decreases as the first word is comparatively longer than the key length.

Dictionary upload is the time it takes for the file to upload the dictionary from the file.

Key generation is the time it takes to crack the cipher. This generates all keys that produce a real first word. This is the last step that's actually necessary for any of the given ciphers.

Sentence check verifies that the sentence is composed only of words that exist in the dictionary. This is just a double check in case there is more than one key that could produce a viable first word. If the key length equals the first word length this check will actually be what cracks the ciphers, and is why run time increases greatly when that is the case since this check is done through a recursive algorithm that is not very efficient.