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## 1. Gcc

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
* Executing task: C:\msys64\mingw64\bin\g++.exe -g2 -O3 -DDEBUG D:\CryptoLibrary\AES.cpp -o D:\CryptoLibrary\AES.exe -D_WIN32_WINNT=0x0A00 -pthread -LD:\CryptoLibrary\libs\cryptopp\gcc -l:libcryptopp.a -ID:\CryptoLibrary\include -Wall
* Terminal will be reused by tasks, press any key to close it.
```

```
PS D:\CryptoLibrary> ./AES.exe
Usage:
D:\CryptoLibrary\AES.exe generate <keyfile>
D:\CryptoLibrary\AES.exe load <keyfile>
D:\CryptoLibrary\AES.exe buffer
• PS D:\CryptoLibrary> ./AES.exe generate keyfile.bin
Key and IV saved to file: keyfile.bin
• PS D:\CryptoLibrary> ./AES.exe load keyfile.bin
Key and IV loaded from file: keyfile.bin
Loaded Key: 15E0E5E7E06AEB39AEAE69FEF6A92D47
Loaded IV: 8BEAD483C49048AD1CFF825EB22EEE81
• PS D:\CryptoLibrary> ./AES.exe buffer
Key and IV saved to memory buffer.
Key and IV loaded from memory buffer.
Loaded Key: 688EF46D8E32B30CA85674671EF0D891
Loaded IV: D6E12CA372DC037C85CB0DF92E7ED427
❖ PS D:\CryptoLibrary>
```

 AES.cpp	26/03/2025 5:25 CH	C++ Source File	5 KB
 AES.exe	26/03/2025 5:26 CH	Application	21.813 KB

## 2. Clang

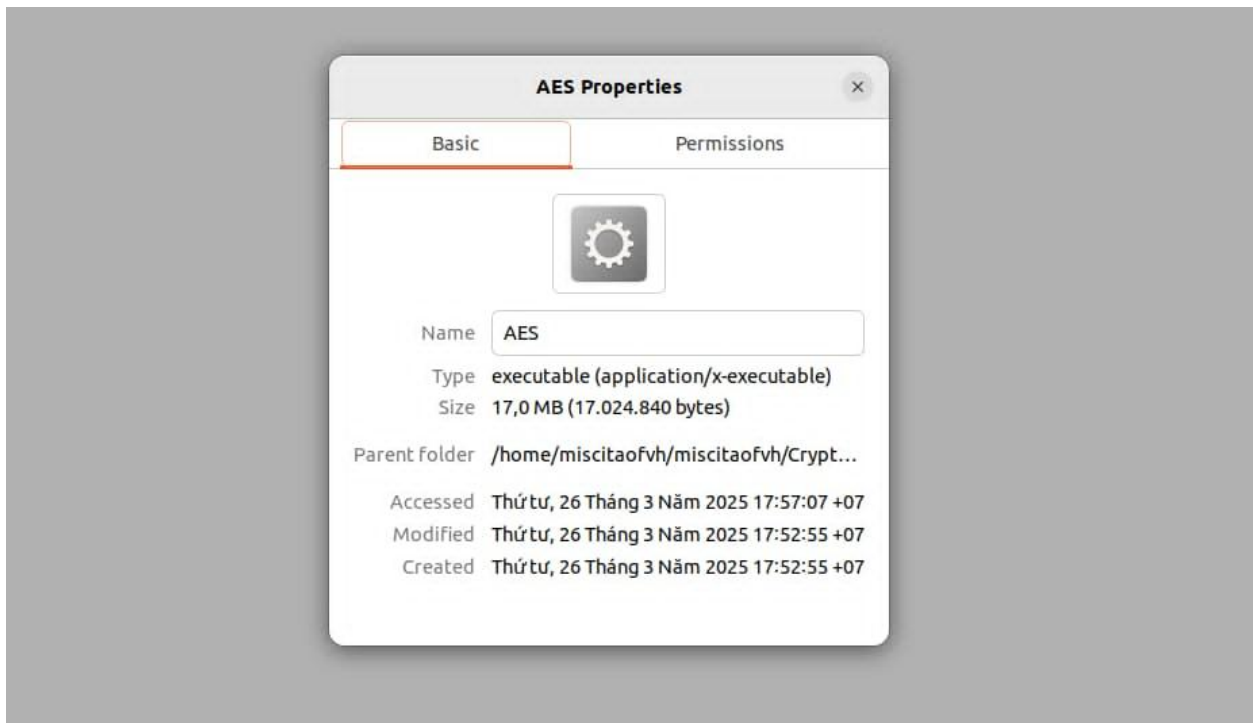
```
miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$ ./
DES-CBC include/ lib/ .vscode/
miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$ ./DES-CBC
key: B487F5F71148B210
iv: 1D07E9907438E10F
plain text: Bui i thực hành thử nhĩ t-Ngoc Tư-Clang
cipher text (hex): C2CA8C7489BC4388F65962C6026323DA908DA5FA3F882925D1365499EDA5645904383A67320C36A7132B95D655AEFDCD0994B8D16F311D08B
cipher text (base64): wsoMdm8Q4D2WMLGAgMj2pCnpFo/iCkl0T2Ume2L2FkE0DpnMgw2pxMrldZVrv3NCZSw0W8x
HYs=

recovered text: Bui i thực hành thử nhĩ t-Ngoc Tư-Clang
miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$
* History restored

miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$ ./AES
Usage:
./AES generate <keyfile>
./AES load <keyfile>
./AES buffer

miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$ ./AES generate keyfile.bin
Key and IV saved to: keyfile.bin
miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$ ./AES load keyfile.bin
Key and IV loaded from file: keyfile.bin
Loaded Key: 2EB25716A75FF075BBE8DB94381AA1F0
Loaded IV: 7C335502E273E808BB78548BCC9E1726
miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$ ./AES buffer
Key and IV saved to memory buffer.
Key and IV loaded from memory buffer.
Loaded Key: AE9AB90615653B72BCD8FDD2716D151
Loaded IV: C300DC9C0388836E06FF59FBC16EEE4D
miscitaofvh@miscitaofvh-sun:~/miscitaofvh/CryptoLibrary$
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
Executing task: /usr/bin/clang++ -g2 -O3 -DDEBUG /home/miscitaofvh/miscitaofvh/CryptoLibrary/AES.cpp -o /home/miscitaofvh/miscitaofvh/CryptoLibrary/AES -D_WIN32_WINNT=0x0A00 -lpthread -L/home/miscitaofvh/CryptoLibrary/lib -l:libcryptopp.a -I/home/miscitaofvh/CryptoLibrary/include -Wall
Terminal will be reused by tasks, press any key to close it.
```





### 3. Msvc

```
cryptlib.lib(sha.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(sha.obj)' or at ''; linking object as if no debug info
cryptlib.lib(rijndael.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(rijndael.obj)' or at ''; linking object as if no debug info
cryptlib.lib(hrtimer.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(hrtimer.obj)' or at ''; linking object as if no debug info
cryptlib.lib(modes.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(modes.obj)' or at ''; linking object as if no debug info
cryptlib.lib(gfpcrypt.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(gfpcrypt.obj)' or at ''; linking object as if no debug info
cryptlib.lib(hmac.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(hmac.obj)' or at ''; linking object as if no debug info
cryptlib.lib(gf2n.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(gf2n.obj)' or at ''; linking object as if no debug info
cryptlib.lib(ec2n.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(ec2n.obj)' or at ''; linking object as if no debug info
cryptlib.lib(ecp.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(ecp.obj)' or at ''; linking object as if no debug info
cryptlib.lib(rng.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(rng.obj)' or at ''; linking object as if no debug info
cryptlib.lib(primetab.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(primetab.obj)' or at ''; linking object as if no debug info
cryptlib.lib(cpu.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(cpu.obj)' or at ''; linking object as if no debug info
cryptlib.lib(sha_simd.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(sha_simd.obj)' or at ''; linking object as if no debug info
cryptlib.lib(rijndael_simd.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(rijndael_simd.obj)' or at ''; linking object as if no debug info
ug info
cryptlib.lib(rdttables.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(rdttables.obj)' or at ''; linking object as if no debug info
cryptlib.lib(des.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(des.obj)' or at ''; linking object as if no debug info
cryptlib.lib(gf2n_simd.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(gf2n_simd.obj)' or at ''; linking object as if no debug info
cryptlib.lib(sse_simd.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(sse_simd.obj)' or at ''; linking object as if no debug info
cryptlib.lib(dessp.obj) : warning LNK4099: PDB '' was not found with 'cryptlib.lib(dessp.obj)' or at ''; linking object as if no debug info
* Terminal will be reused by tasks, press any key to close it.
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS

```
PS D:\CryptoLibrary> ./AES.exe
Usage:
  D:\CryptoLibrary\AES.exe generate <keyfile>
  D:\CryptoLibrary\AES.exe load <keyfile>
  D:\CryptoLibrary\AES.exe buffer
• PS D:\CryptoLibrary> ./AES.exe generate keyfile.bin
Key and IV saved to file: keyfile.bin
• PS D:\CryptoLibrary> ./AES.exe load keyfile.bin
Key and IV loaded from file: keyfile.bin
Loaded Key: 09AEF5913033089E612EA96619B0E71C
Loaded IV: 0ED2C217E672FEF811855ADCBD0D7D6E
• PS D:\CryptoLibrary> ./AES.exe buffer
Key and IV saved to memory buffer.
Key and IV loaded from memory buffer.
Loaded Key: 46C3F99180856945DB7380D89752B42
Loaded IV: E27E8CCBF5E308A649A376686C5DF54F
❖ PS D:\CryptoLibrary>
```

 AES.cpp	26/03/2025 5:37 CH	C++ Source File	5 KB
 AES.exe	26/03/2025 5:38 CH	Application	5.519 KB