

컴퓨터공학 All in One

C/C++ 문법, 자료구조 및 심화 프로젝트 (나동빈)
제 72강 - OpenSSL 설치하기

OpenSSL 설치하기

OpenSSL을 활용하면 클라이언트와 서버가 SSL 통신을 이용하여 데이터를 안전하게 주고 받을 수 있습니다.

윈도우 개발환경에서 OpenSSL을 이용하기 위한 가장 쉬운 방법은 이미 빌드가 완료된 OpenSSL을 설치하여 Visual Studio 상에서 바로 적용하는 것입니다.

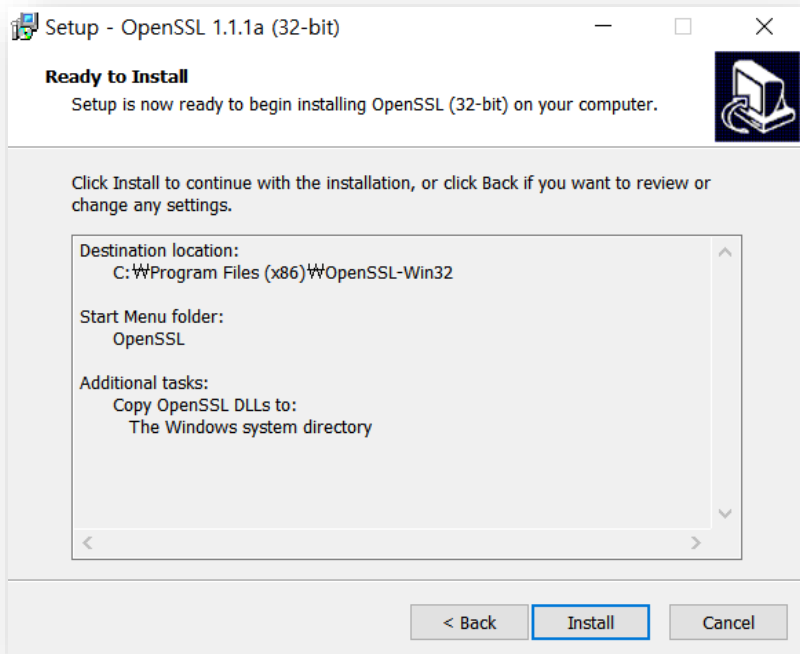
OpenSSL 설치하기

OpenSSL 설치 경로: <http://slproweb.com/products/Win32OpenSSL.html>

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Download Win32 OpenSSL today using the links below!		
File	Type	Description
Win64 OpenSSL v1.1.1a Light EXE MSI (experimental)	3MB Installer	Installs the most commonly used essentials of Win64 OpenSSL v1.1.1a (Recommended for users by the creators of OpenSSL). Only installs on 64-bit versions of Windows. Note that this is a default build of OpenSSL and is subject to local and state laws. More information can be found in the legal agreement of the installation.
Win64 OpenSSL v1.1.1a EXE MSI (experimental)	43MB Installer	Installs Win64 OpenSSL v1.1.1a (Recommended for software developers by the creators of OpenSSL). Only installs on 64-bit versions of Windows. Note that this is a default build of OpenSSL and is subject to local and state laws. More information can be found in the legal agreement of the installation.
Win32 OpenSSL v1.1.1a Light EXE MSI (experimental)	3MB Installer	Installs the most commonly used essentials of Win32 OpenSSL v1.1.1a (Only install this if you need 32-bit OpenSSL for Windows. Note that this is a default build of OpenSSL and is subject to local and state laws. More information can be found in the legal agreement of the installation.
Win32 OpenSSL v1.1.1 EXE MSI (experimental)	30MB Installer	Installs Win32 OpenSSL v1.1.1a (Only install this if you need 32-bit OpenSSL for Windows. Note that this is a default build of OpenSSL and is subject to local and state laws. More information can be found in the legal agreement of the installation.
Win64 OpenSSL v1.1.0j Light	3MB Installer	Installs the most commonly used essentials of Win64 OpenSSL v1.1.0j (Recommended for users by the creators of OpenSSL). Only installs on 64-bit versions of Windows. Note that this is a default build of OpenSSL and is subject to local and state laws. More information can be found in the legal agreement of the installation.

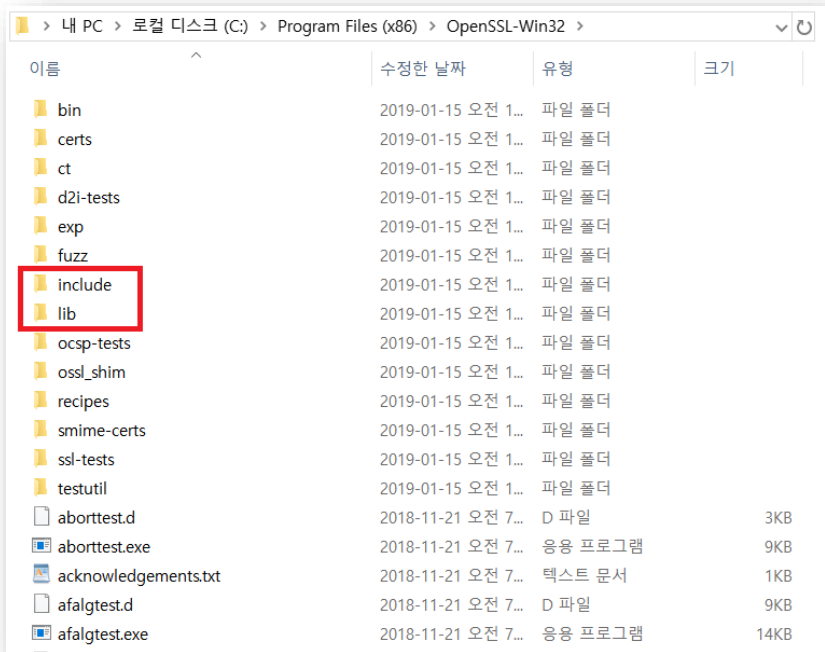
OpenSSL 설치하기

OpenSSL 설치 경로 확인하기



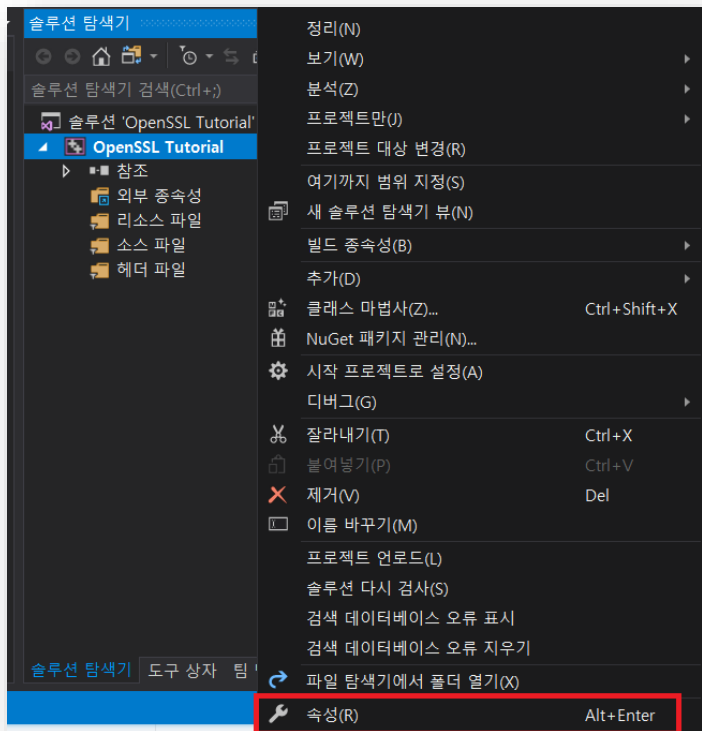
OpenSSL 설치하기

OpenSSL 라이브러리 확인하기



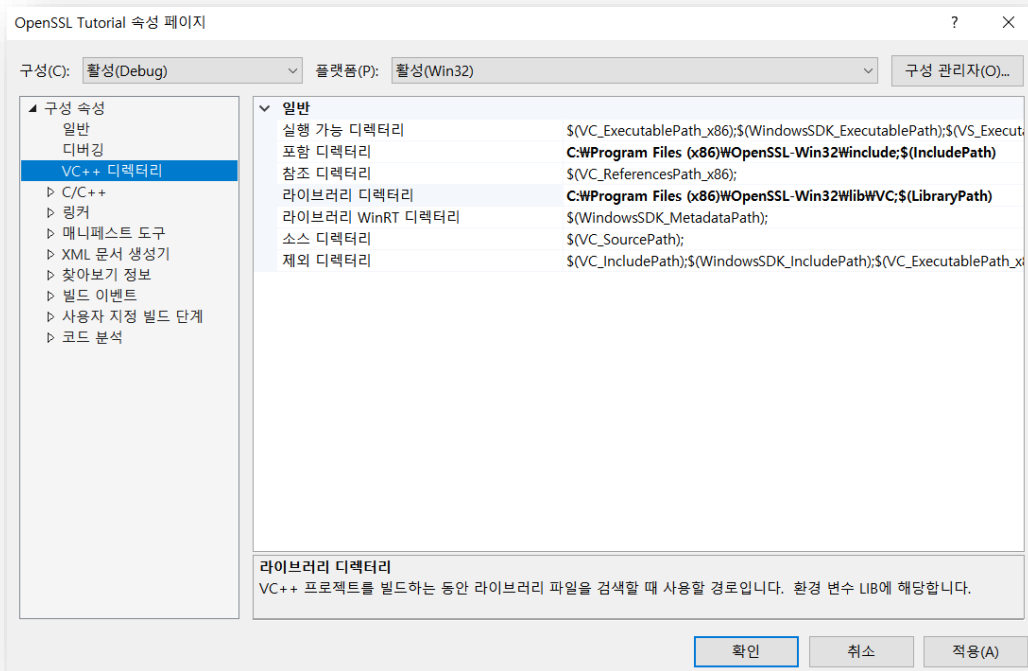
OpenSSL 설치하기

프로젝트 구성 및 환경 설정하기



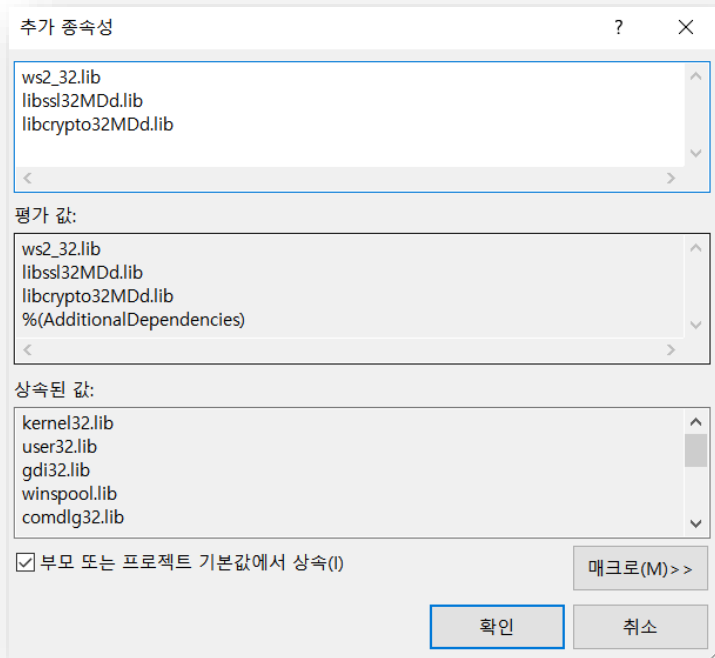
OpenSSL 설치하기

OpenSSL 포함 디렉터리 및 참조 디렉터리 설정하기



OpenSSL 설치하기

OpenSSL 추가 종속성 설정하기



OpenSSL 설치하기

OpenSSL 라이브러리 테스트하기

```
#include <iostream>
#include <winsock.h>
#include <openssl/ssl.h>
#include <openssl/err.h>
```

OpenSSL 설치하기

인증서 생성을 위한 환경 설정 (ssl.conf)

```
[req]
default_bits = 1024
encrypt_key = yes
distinguished_name = req_dn
x509_extensions = cert_type
prompt = no

[req_dn]
# Organizational Unit Name (eg. section)
OU=Dongbin

# Common Name (*.example.com is also possible)
CN=localhost

[cert_type]
nsCertType = server
```

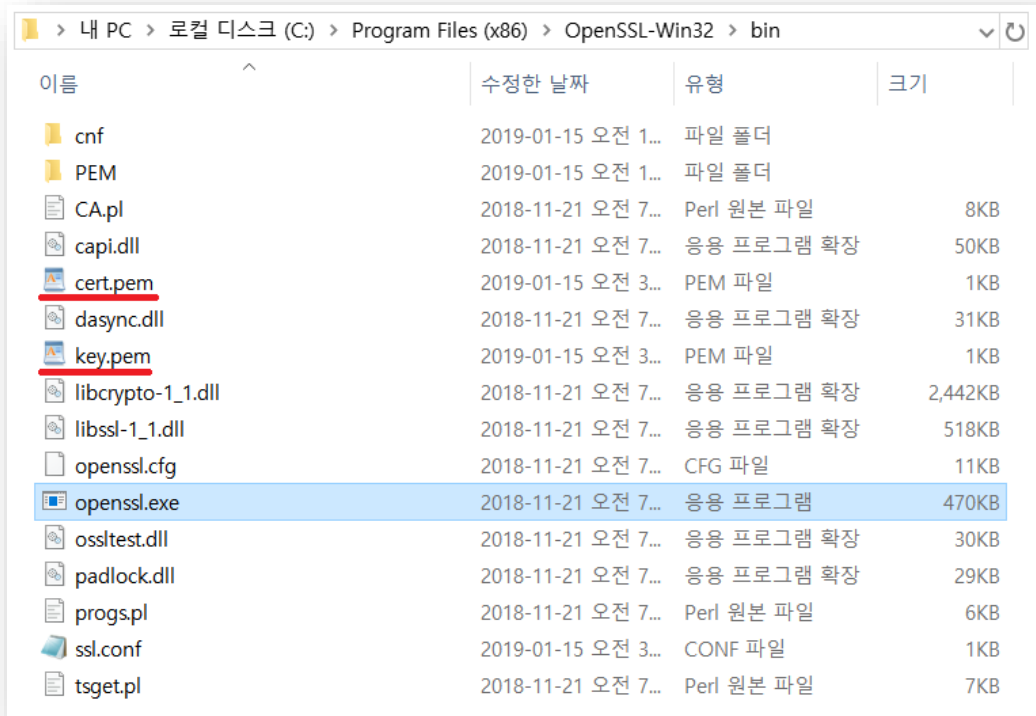
OpenSSL 설치하기

인증서 생성하기

```
openssl.exe req -new -x509 -nodes -config ssl.conf -out cert.pem -keyout key.pem -days 365
```

OpenSSL 설치하기

인증서 생성하기



이름	수정한 날짜	유형	크기
cnf	2019-01-15 오전 1...	파일 폴더	
PEM	2019-01-15 오전 1...	파일 폴더	
CA.pl	2018-11-21 오전 7...	Perl 원본 파일	8KB
capi.dll	2018-11-21 오전 7...	응용 프로그램 확장	50KB
<u>cert.pem</u>	2019-01-15 오전 3...	PEM 파일	1KB
dasync.dll	2018-11-21 오전 7...	응용 프로그램 확장	31KB
<u>key.pem</u>	2019-01-15 오전 3...	PEM 파일	1KB
libcrypto-1_1.dll	2018-11-21 오전 7...	응용 프로그램 확장	2,442KB
libssl-1_1.dll	2018-11-21 오전 7...	응용 프로그램 확장	518KB
openssl.cfg	2018-11-21 오전 7...	CFG 파일	11KB
openssl.exe	2018-11-21 오전 7...	응용 프로그램	470KB
ossltest.dll	2018-11-21 오전 7...	응용 프로그램 확장	30KB
padlock.dll	2018-11-21 오전 7...	응용 프로그램 확장	29KB
progs.pl	2018-11-21 오전 7...	Perl 원본 파일	6KB
ssl.conf	2019-01-15 오전 3...	CONF 파일	1KB
tsget.pl	2018-11-21 오전 7...	Perl 원본 파일	7KB