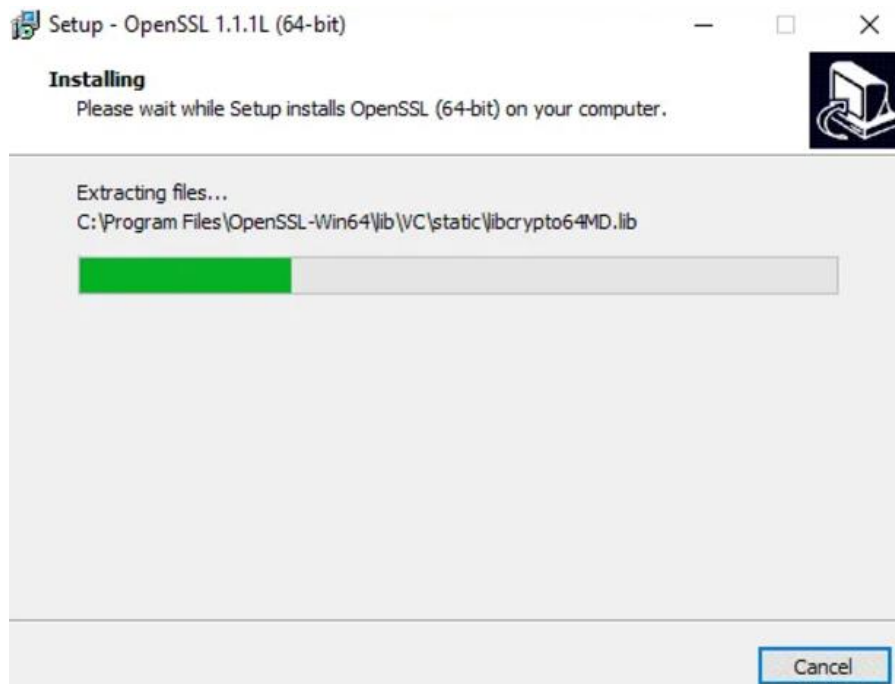
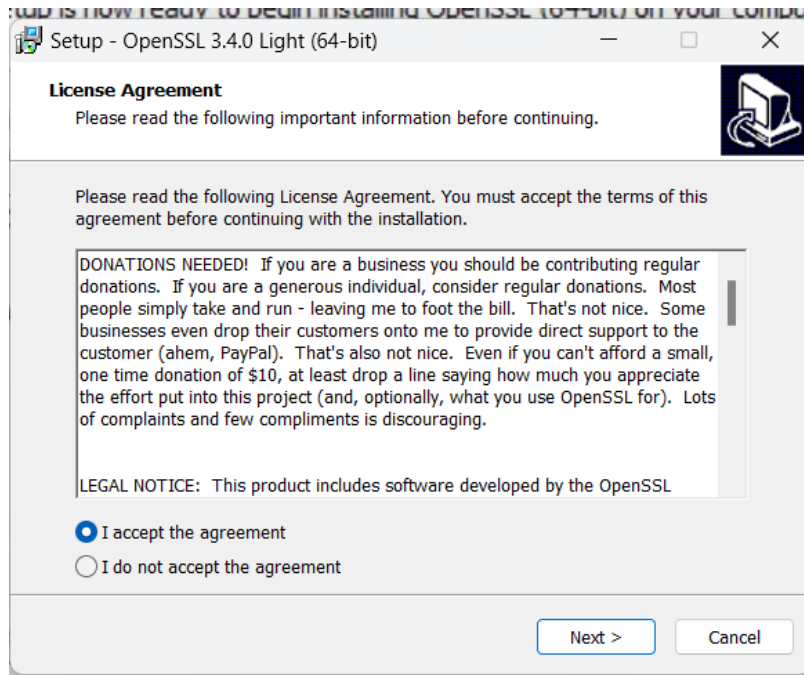


COMPREHENSIVE GUIDE TO INSTALLING AND CONFIGURING OPENSSL ON WINDOWS

OpenSSL: Install OpenSSL for Windows:

- Download the installer from

<https://slproweb.com/products/Win32OpenSSL.html>





Correct Steps to Set Environment Variables for OpenSSL

1. Set OPENSSL_CONF

Run this command to set the OPENSSL_CONF environment variable:

```
$Env:OPENSSL_CONF = "C:\Program Files\OpenSSL-Win64\bin\openssl.cfg"
```

2. Add OpenSSL to the Path Environment Variable

Instead of overwriting the Path, append the OpenSSL directory to the existing Path:

```
$Env:Path += ";C:\Program Files\OpenSSL-Win64\bin"
```

Verify the Changes

To ensure the environment variables are set correctly:

1. Check the OPENSSL_CONF value:

```
echo $Env:OPENSSL_CONF
```

This should output:

C:\Program Files\OpenSSL-Win64\bin\openssl.cfg

2. Verify OpenSSL is accessible:

openssl version

This should display the OpenSSL version installed on your system.

```
PS C:\Windows\system32> $Env:OPENSSL_CONF = "C:\Program Files\OpenSSL-Win64\bin\openssl.cfg"
PS C:\Windows\system32> $Env:Path += ";C:\Program Files\OpenSSL-Win64\bin"
PS C:\Windows\system32> echo $Env:OPENSSL_CONF
C:\Program Files\OpenSSL-Win64\bin\openssl.cfg
PS C:\Windows\system32> openssl version
OpenSSL 3.4.0 22 Oct 2024 (Library: OpenSSL 3.4.0 22 Oct 2024)
PS C:\Windows\system32>
```

Persist the Changes

If you want these changes to persist across PowerShell sessions, add them to your system's environment variables:

1. Open **System Properties**:
 - Right-click **This PC** or **My Computer** → **Properties** → **Advanced system settings**.
 - Click **Environment Variables**.
 2. Add or update the variables:
 - **OPENSSL_CONF**: Set it to C:\Program Files\OpenSSL-Win64\bin\openssl.cfg.
 - Append ;C:\Program Files\OpenSSL-Win64\bin to the existing Path variable.
-

- Follow the installation steps and add OpenSSL to your PATH environment variable.

