



# SDCLib & Windows

## Dependencies

# **SDCLib Dependencies on Windows 10**

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This document describes how to setup the dependencies to build the SDCLib under Windows 10.

To generate the SDCLib Makefiles via CMake for your IDE (Visual Studio etc.) please refer to the respective documentation.

# Overview

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- Introduction
- OpenSSL
- XSDCXX
- Xerces-C
- Next Steps

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# Introduction

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- SDCLib Makefiles can be generated via a provided CMake script
- In order for this to succeed, you first have to build / download some dependencies to the correct locations
- This manual will guide you through the required steps, including:
  - Installing OpenSSL
  - Downloading XSDCXX
  - Downloading and Building Xerces-C++ XML Parser

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# OpenSSL

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- SDCLib uses OpenSSL to handle message encryption
- Minimum required version is (currently) 1.0.1b
- Download OpenSSL (64bit version!) from **a trusted source**, f.e.
  - **Win32 OpenSSL 1.1.0f** (64-Bit) from heise.de:  
<https://www.heise.de/download/product/win32-openssl-47316/download#swvz.zwischen.dl.win32-openssl-47316>

# OpenSSL

64 Bit Version



The screenshot shows the Heise Download website with the following content:

- Header: heise Download, Kategorien, Blog, Themenspecials, Aktueller Deal, Suchbegriffe...
- Sub-header: Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10
- Item 1: Win32 OpenSSL 1.0.2l 32-Bit  
Systemvoraussetzungen: Windows ME, Windows NT, Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10  
Download-Größe: 20805 KByte  
Download button: Download  
Virensan-Ergebnis: Virenfrei
- Item 2 (highlighted): Win32 OpenSSL 1.1.0f 64-Bit  
Systemvoraussetzungen: Windows ME, Windows NT, Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10  
Download-Größe: 33617 KByte  
Download button: Download  
Virensan-Ergebnis: Virenfrei
- Item 3: Win32 OpenSSL 1.0.2l 64-Bit  
Systemvoraussetzungen: Windows ME, Windows NT, Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10  
Download-Größe: 23569 KByte  
Download button: Download  
Virensan-Ergebnis: Virenfrei
- Footer: Unsere Partner für schnelle und sichere Downloads:

When asked, let the installer copy the OpenSSL \*.dll files to your system folder.



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# XSDCXX

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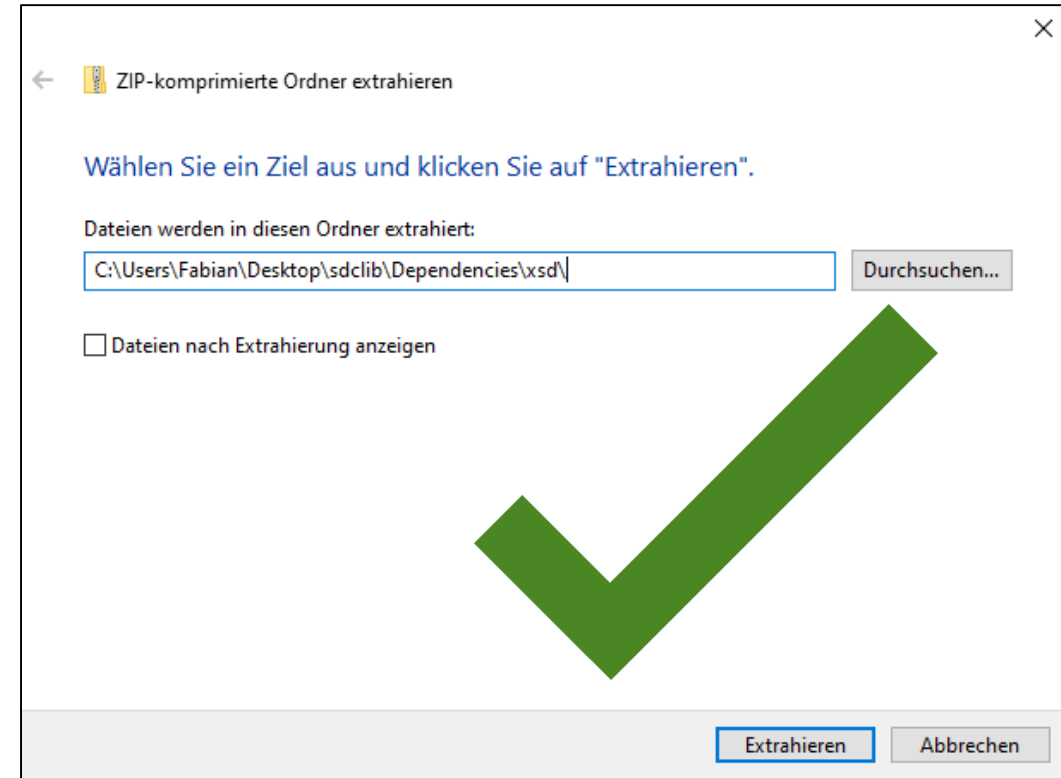
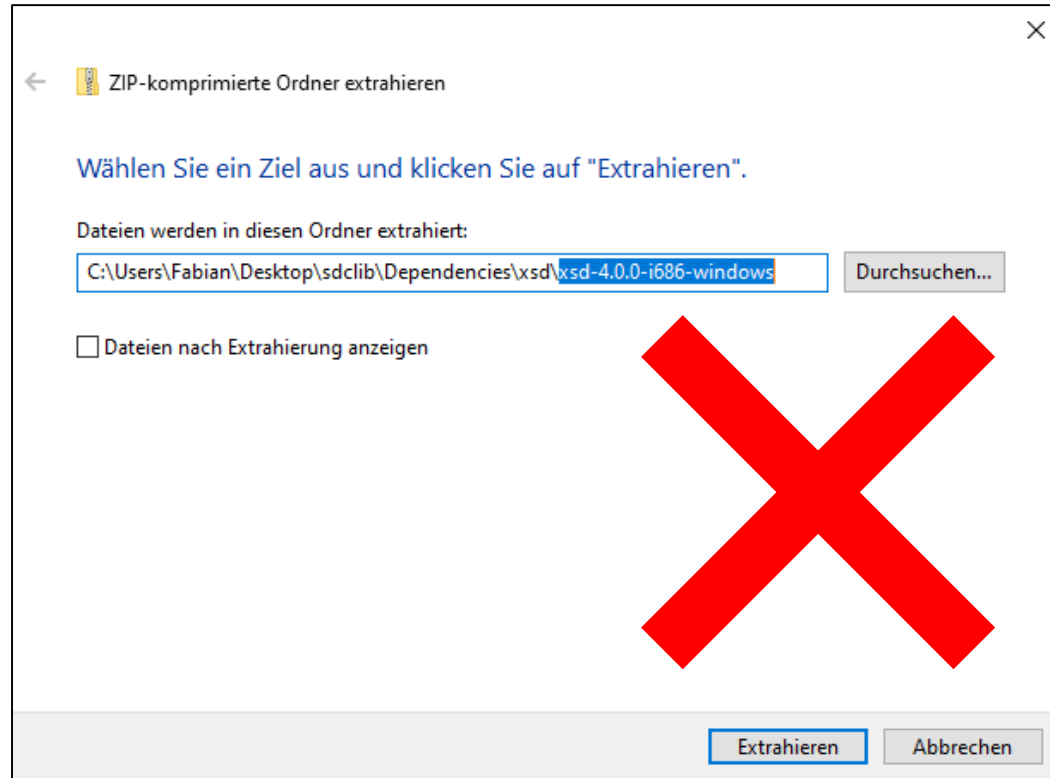
- Download XSDCXX zip (NOT the .msi installer!) from the official CodeSynthesis homepage  
<https://www.codesynthesis.com/download/xsd/4.0/windows/i686/xsd-4.0.0-i686-windows.zip>
- Extract it to **sdclib/Dependencies/xsd**

## Note

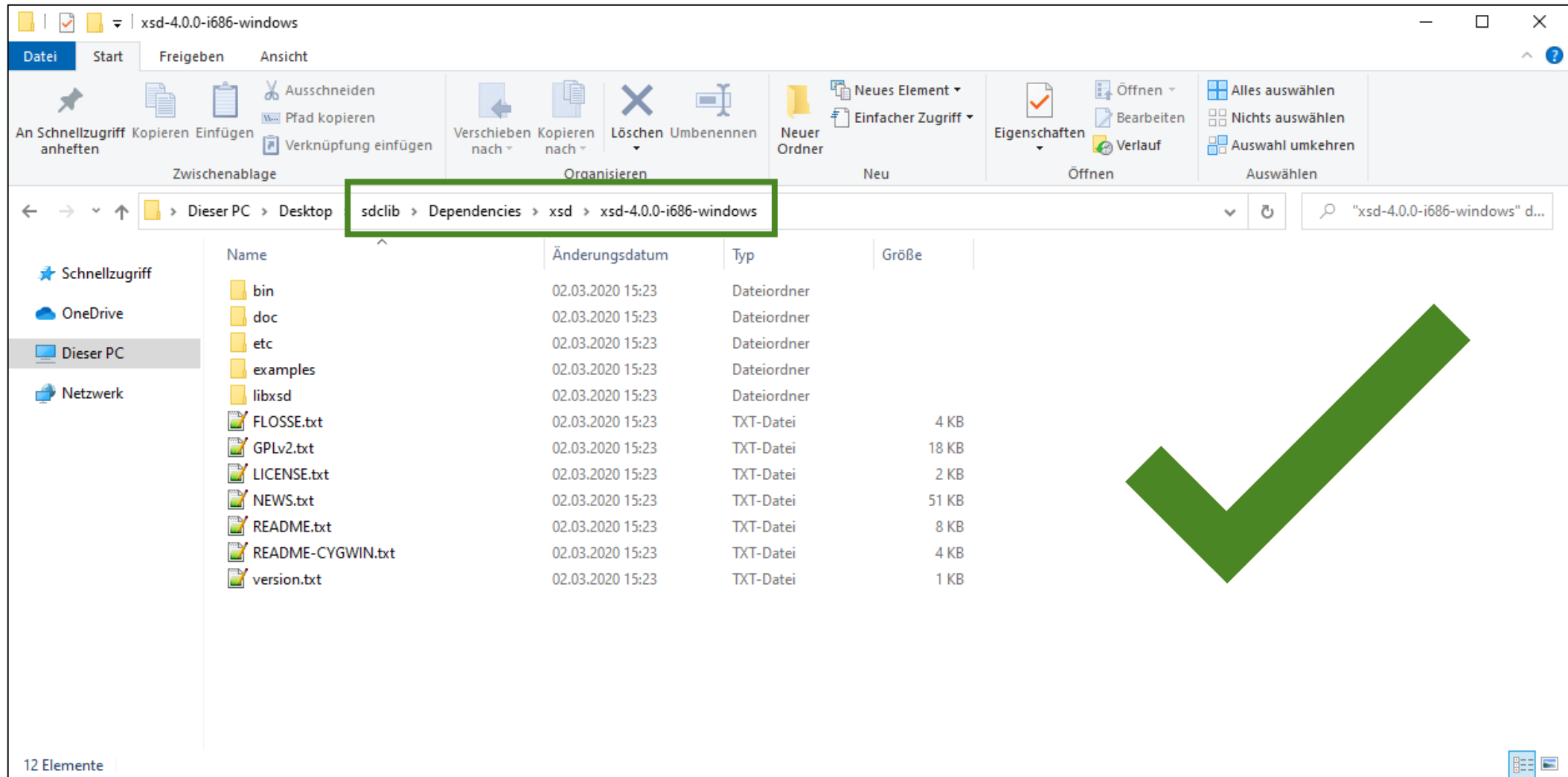
Depending on how you extract it the extraction process might create an additional folder named after the downloaded .zip archive.

It is important that you extract the content directly into the specified folder without any additional layer. See next pages.

# XSDCXX



# XSDCXX



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# Xerces-C

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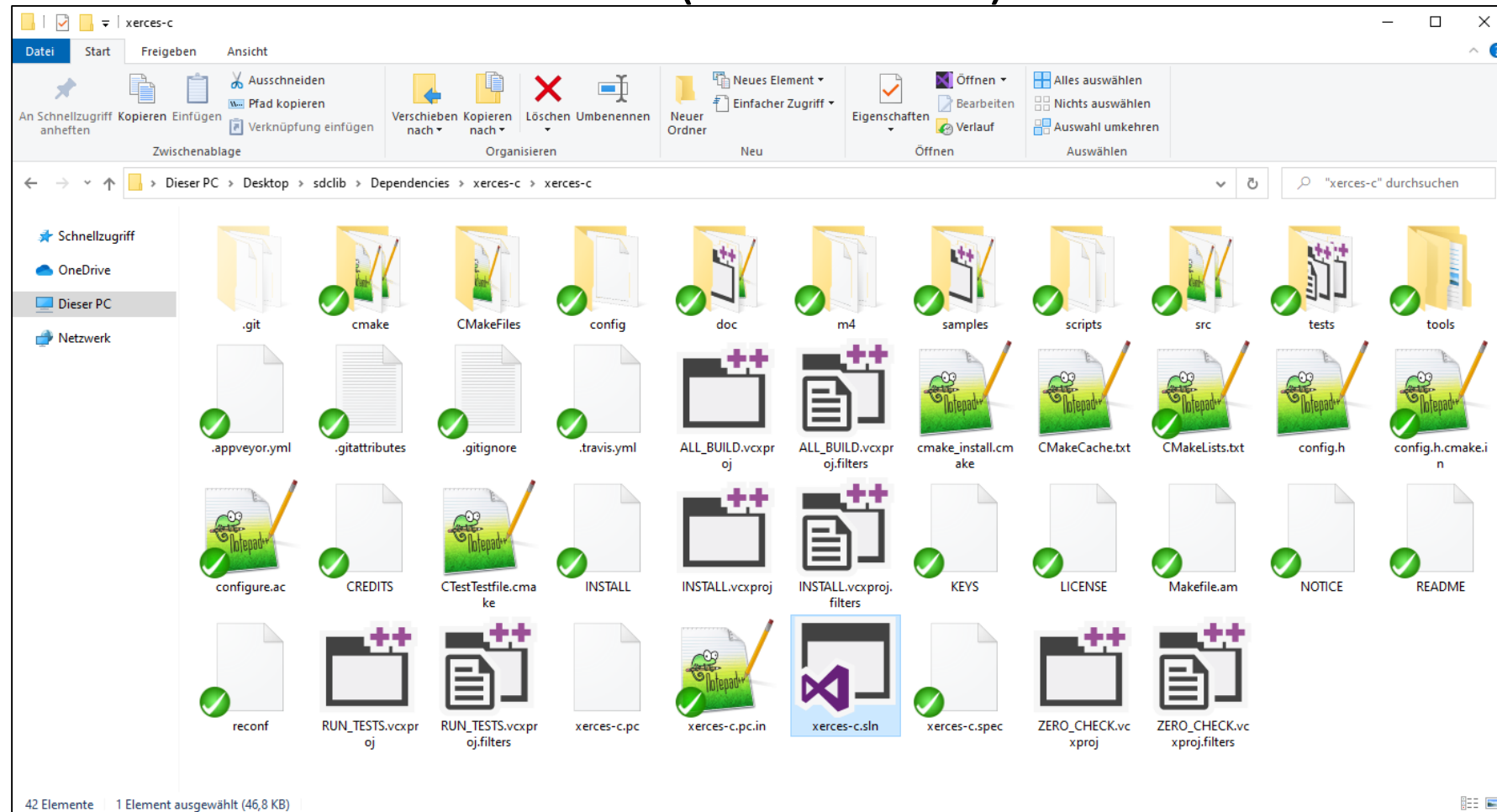
- Go to **sdclib/Dependencies/xerces-c**
- Execute **xerces\_x64.bat** to:
  - Clone xerces-c from git
  - Generate CMake x64 files (This might take some time)

## Note

I am generating a Visual Studio Solution file (.sln). Depending on your Setup the following steps might be different.

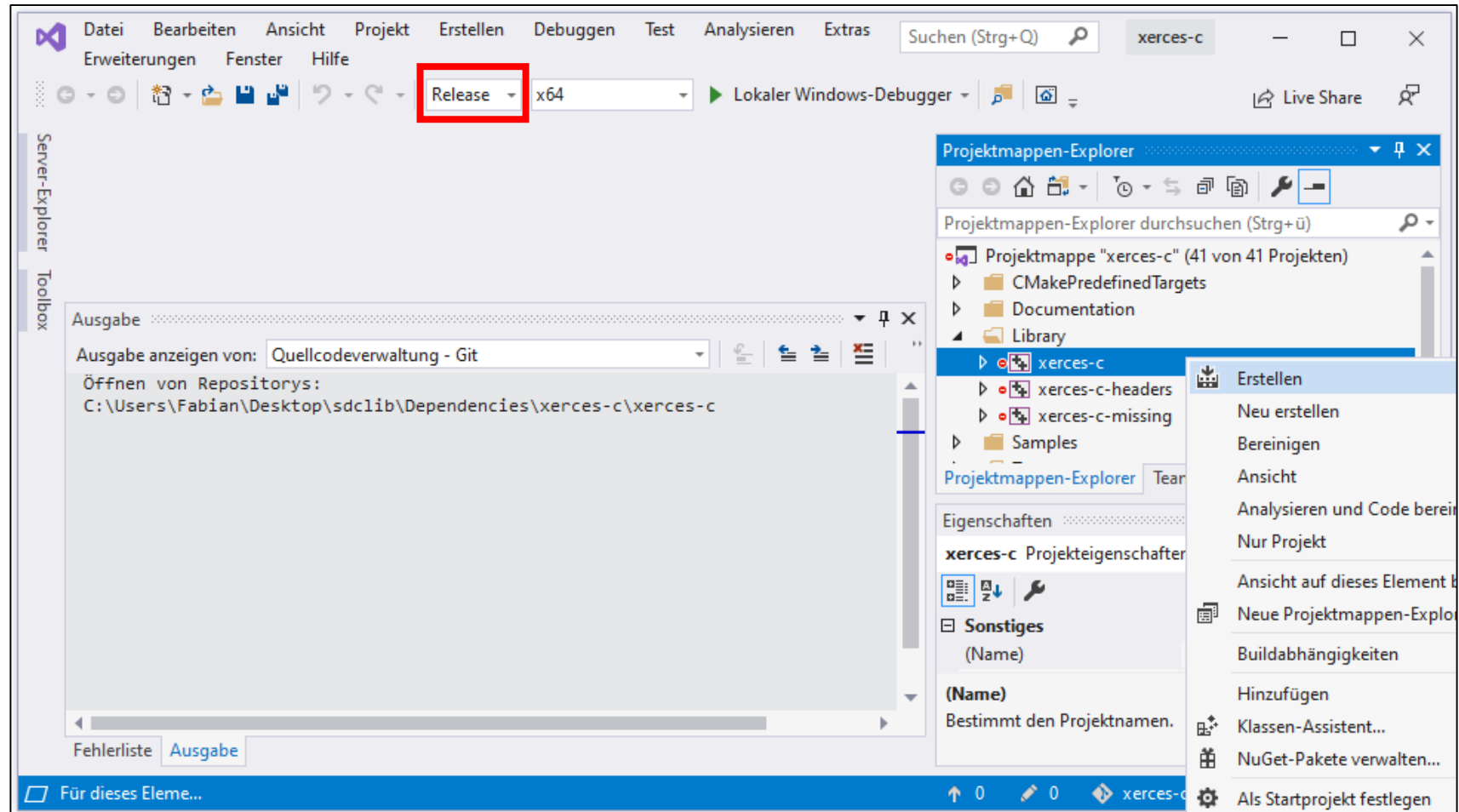
# Xerces-C

- Open the xerces-c solution file (xerces-c.sln)



# Xerces-C

- Build **Release** and **Debug** Version of project **Library** -> **xerces-c**





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## Next Steps

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- If everything worked, you have set up all dependencies for the SDCLib
- Note that the OpenSSL part is only required once for your system. When cloning another SDCLib repo you have to copy the xsd part to xerces-c part to the same location (or point the SDCLib CMake script) to the right location
- You can now proceed by importing the SDCLib CMake project into your IDE.