openframeworks – installation visual studio (VC++ 2005, express edition):

Step 1: Download and install VC++ 2005 E.E.

Microsoft has released a free version of their visual c++ compiler. You can read about it here and download it here.

The downloading can be done either online (using a "bootstrap" application), or manually. Manually is useful, if, for example, you want to burn a CD with the installer to use later on, or if you will have a computer you are installing to which is offline. The manual download has all the features, and therefore is pretty massive.

In these instructions we did the manual install for all of the downloads, but the online one shouldn't be too different. If there are any differences, or if you have suggestions about this page, please post let us know in the forum
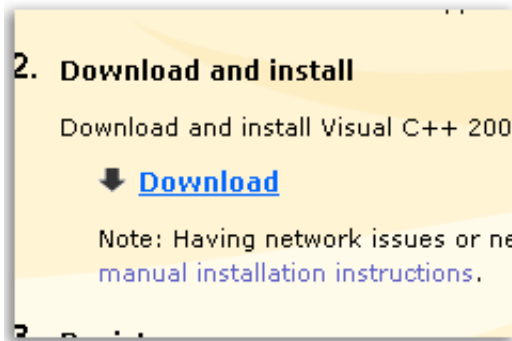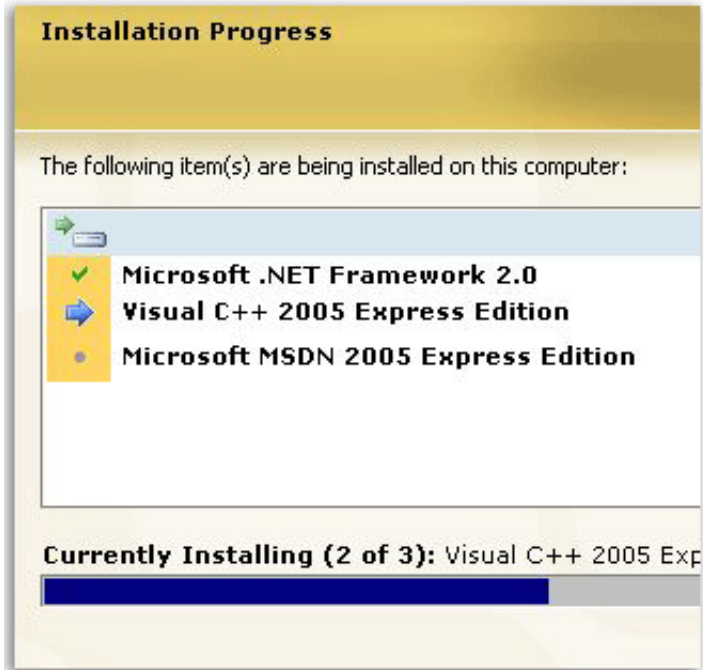
downloading the visual studio app

When you install visual studio, you have some options. We choose to install the IDE and the MSDN library, but not the SQL server.
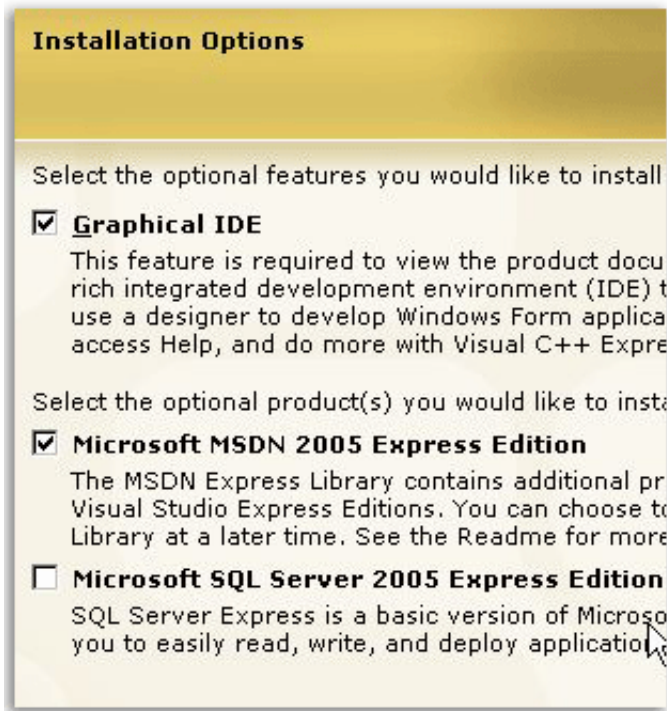
suggested installing options

The installer does it's thing:

At this point, we have now installed visual studio. Now we have two more downloads (plus some settings to tweak): the microsoft SDK and the directX SDK.
Step 2: Microsoft SDK

For some reason *(we aren't sure why, exactly)* the visual studio express installation does not include the microsoft SDK which contains the headers and libraries needed to make "microsoft-y" applications. We need it for open frameworks, and in general, it's a good thing to have installed.
(Everything we describe in this step is also documented on this microsoft web page).
The SDK has the odd name of "Windows Server® 2003 R2 Platform SDK". Server? you ask. We have no idea, really.
In order to get the SDK you will have to pass windows "validation", part of Windows Genuine Advantage. (we think this is a **genuine pain**). Some info on WGA here.
Note: we downloaded the ISO, and made a CD with the SDK for later installs, but we think the web installer must be similar.
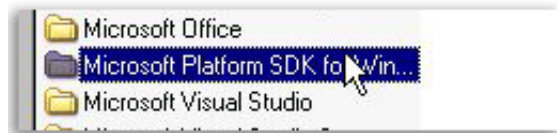
sdk page

Download the SDK and install it.
(to add: some pictures of the installation options. what to choose, etc)
After installing, you should now see the SDK in your "program files" directory:

Now we are going to change some settings in visual studio to make the compiler know about the SDK.
Load up the Microsoft Visual C++ 2005 Express Edition application.
naviagte to:
Tools > Options > Projects and Solutions > VC++ Directories
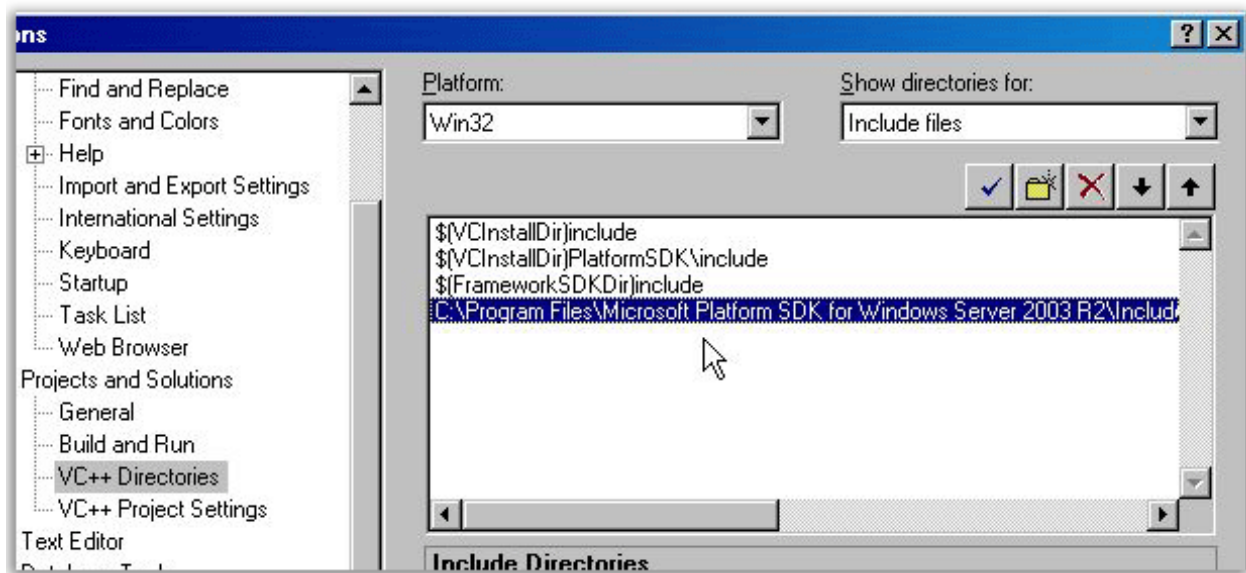
Add these paths:
change" C:\Program Files\" if necessary – for example, if your hard drive is not "C:\" or your program file directory is titled differently (non-english windows, etc).
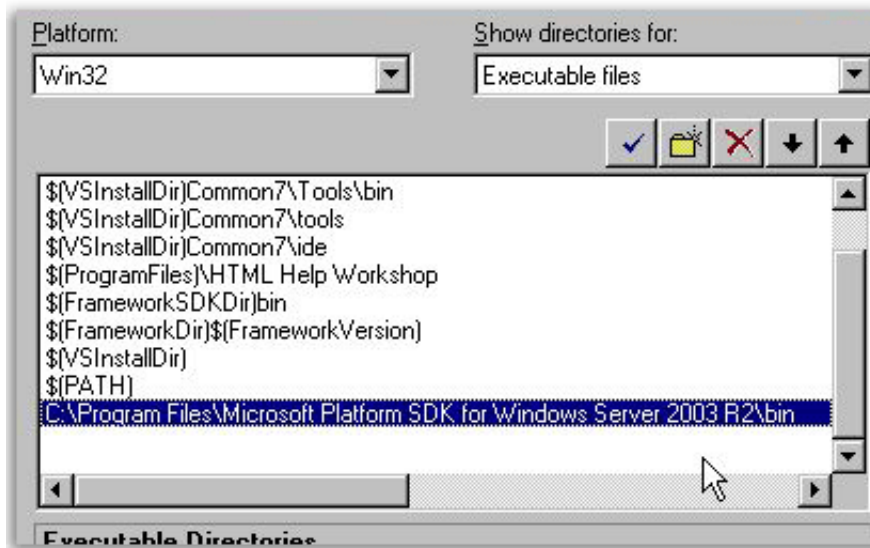**Include files:** C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\Include
Executable files: C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\Bin
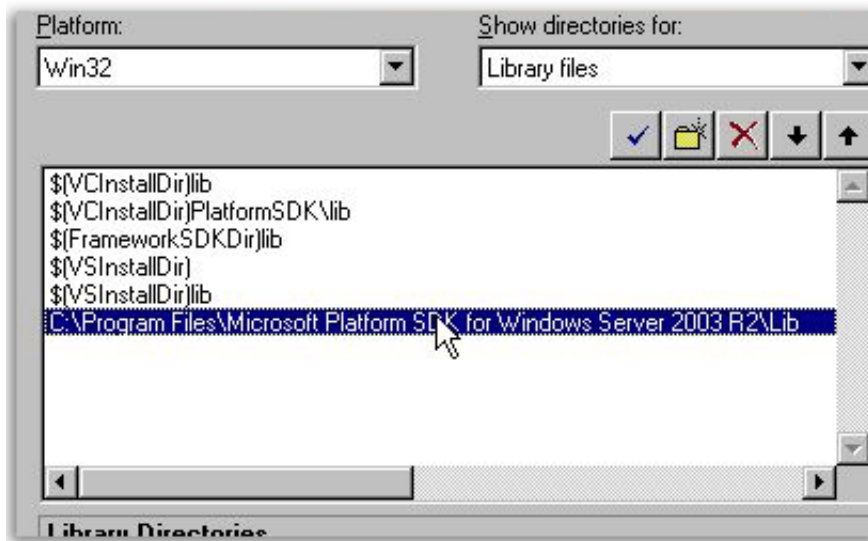**Library files:** C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\Lib

adding the **include** path


adding the **exe** path

addind the **lib** path

Step 2: Direct x sdk
Now, we need to download the directx sdk. This will give us access to the libraries necessary for audio (rtAudio is compiled for directsound). Also, when we include this windows directShow video input wrapper in the future, this will give us access to the libraries we need.
Download here

(We installed the "December 2006" version of the SDK – there is now a febuary 2007 version. I think there must not be much difference. You can download the December version if you want)
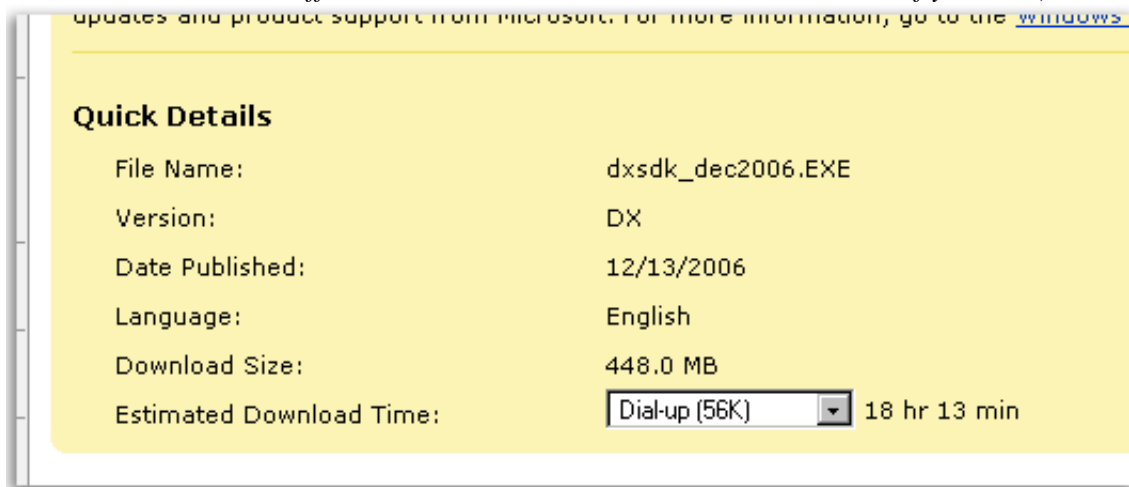
448mb – not something you want to do everyday

When you install the DX SDK you have some choices – we decided only to install the headers, the libraries and the runtime, since that is the minimum of what's needed, and anyway, openFrameworks primarily uses opengl anyway so the samples are not really all that helpful.
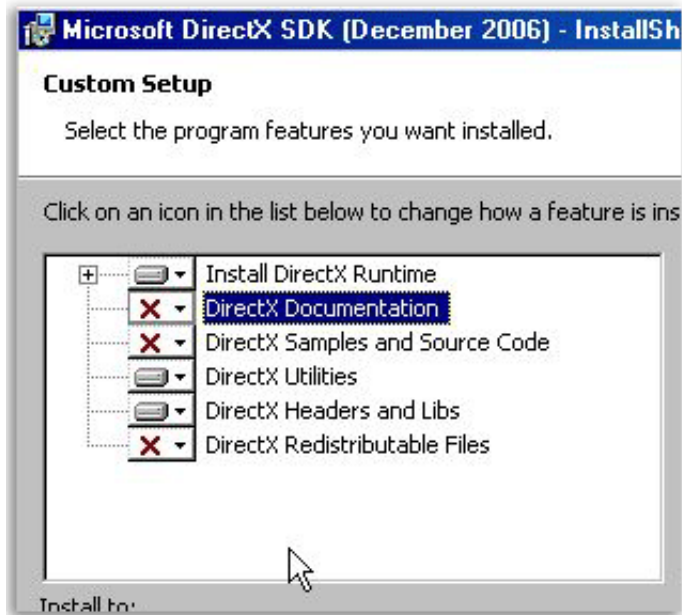
what we chose to install (x = no install)

Now, once installed you should see the DirectX SDK folder in your program files.

Finally, as we did with the microsoft SDK, we need to add paths to the visual studio compiler so that it knows where to look for directX libs, exes and header files. Load the Microsoft Visual C++ 2005 Express Edition application.
naviagte to:
**Tools > Options > Projects and Solutions > VC++ Directories**
Add these paths:
change" C:\Program Files\" if necessary – for example, if your hard drive is not "C:\" or your program file directory is titled differently (non-english windows, etc). Also, you may need to change the name of the SDK if you don't install December 2006 for example. Take a look in your program files if you have a doubt.
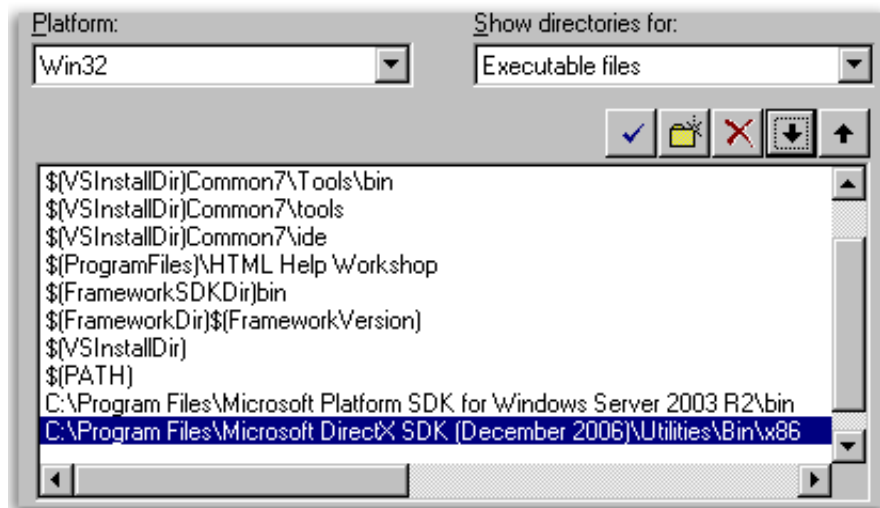**Include files:** C:\Program Files\Microsoft DirectX SDK (December 2006)\Include
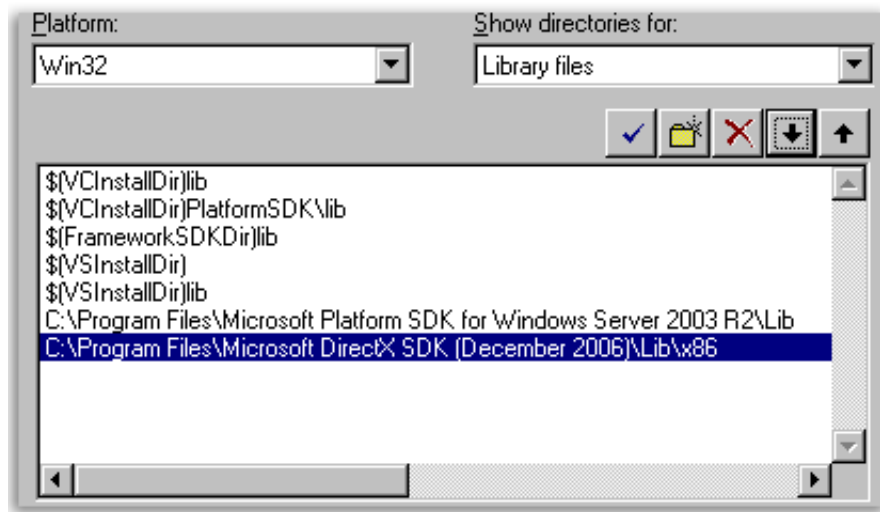**Executable files:** C:\Program Files\Microsoft DirectX SDK (December 2006)\Utilities\Bin\x86
Library files: C:\Program Files\Microsoft DirectX SDK (December 2006)\Lib\x86
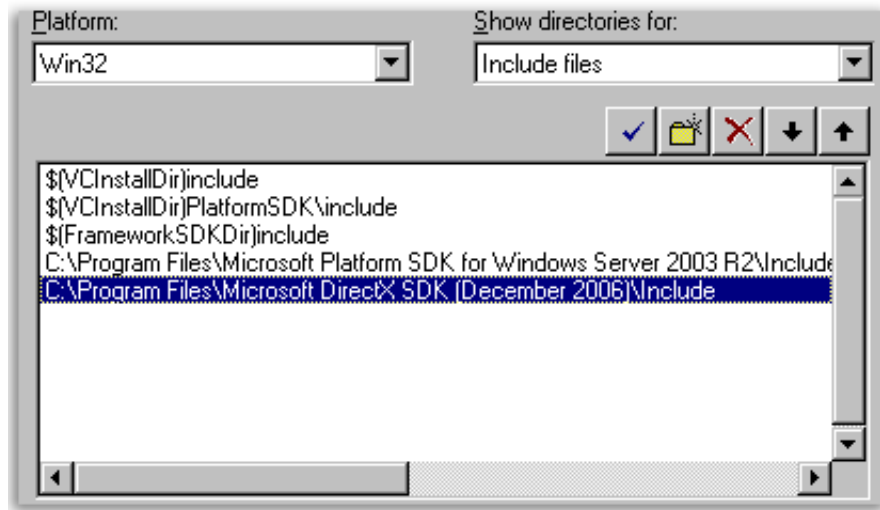
addind the directx **include** path

addind the directx **exe** path

addind the directx **lib** path