# CAS DSP Workshop

**Ingredients**

DSP board

Mini-USB cable (ordered from RS)

Scope

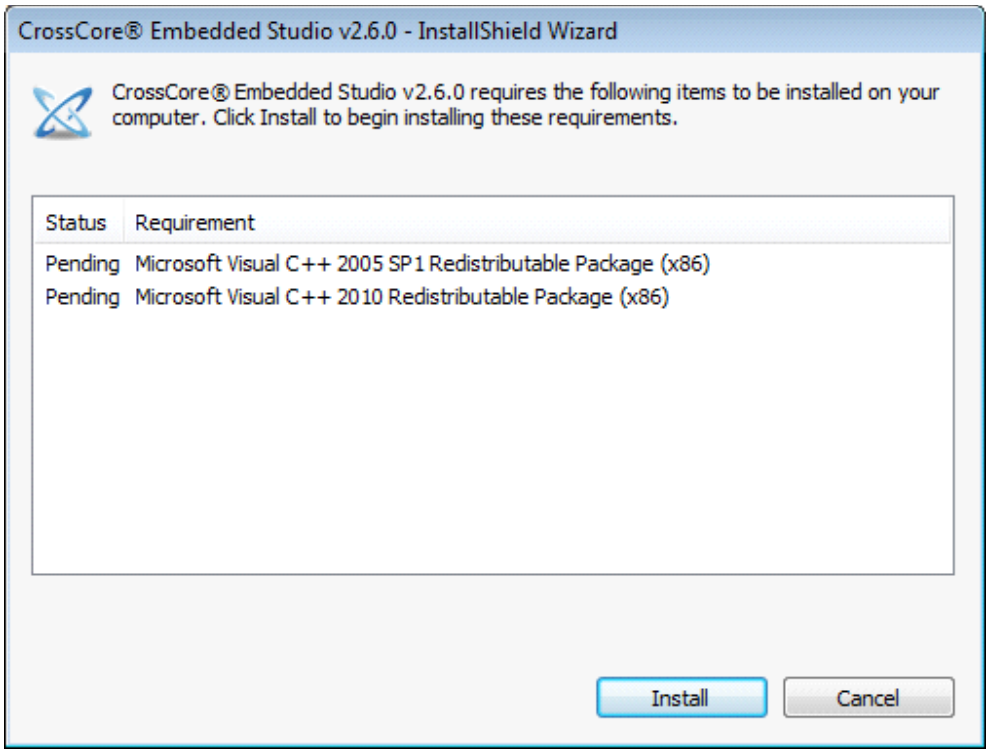
Clip-on oscilloscope probe

2 x RCA->BNC cables (need to find source!)

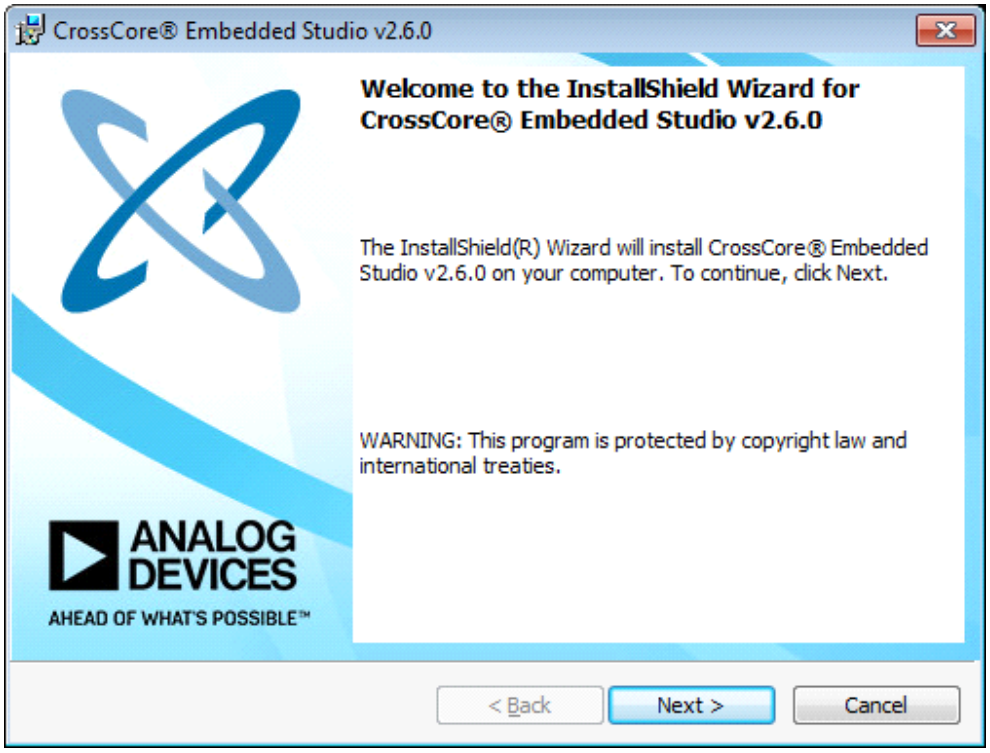
BNC ‘T’

**Installation of CrossCore Embedded Studio**

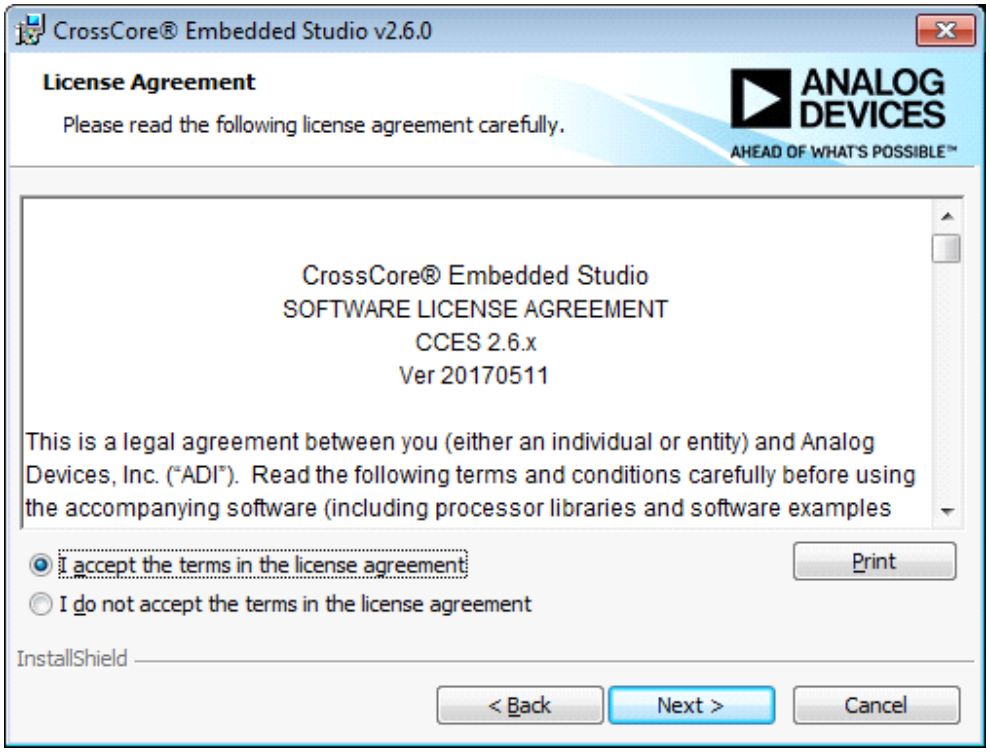
Go to http://www.analog.com/CCES
Click on Downloads (on the left)
Download & run CCES 2.6.0 for Windows (takes you to download of 754Mb here



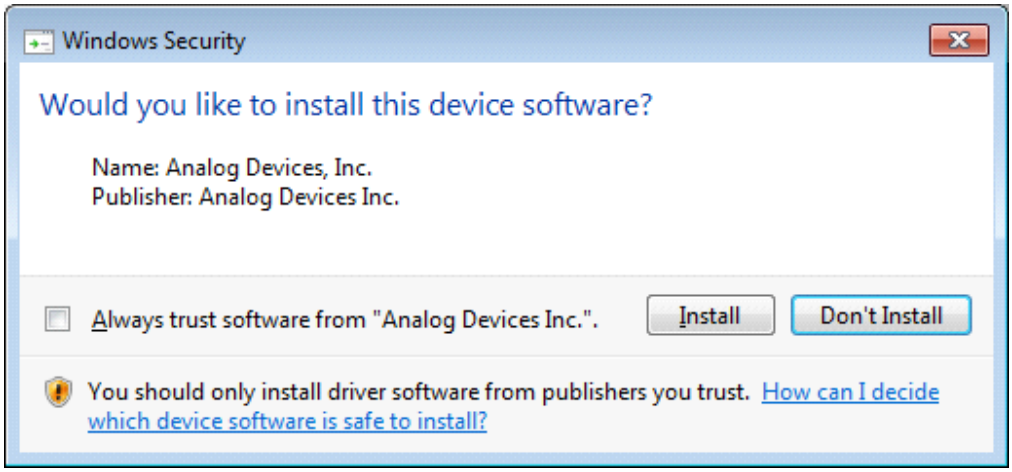

Click Install



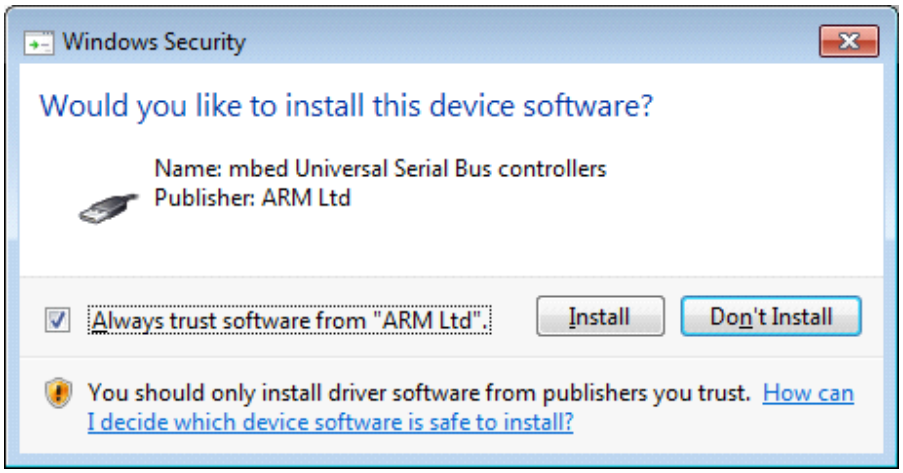

Next…



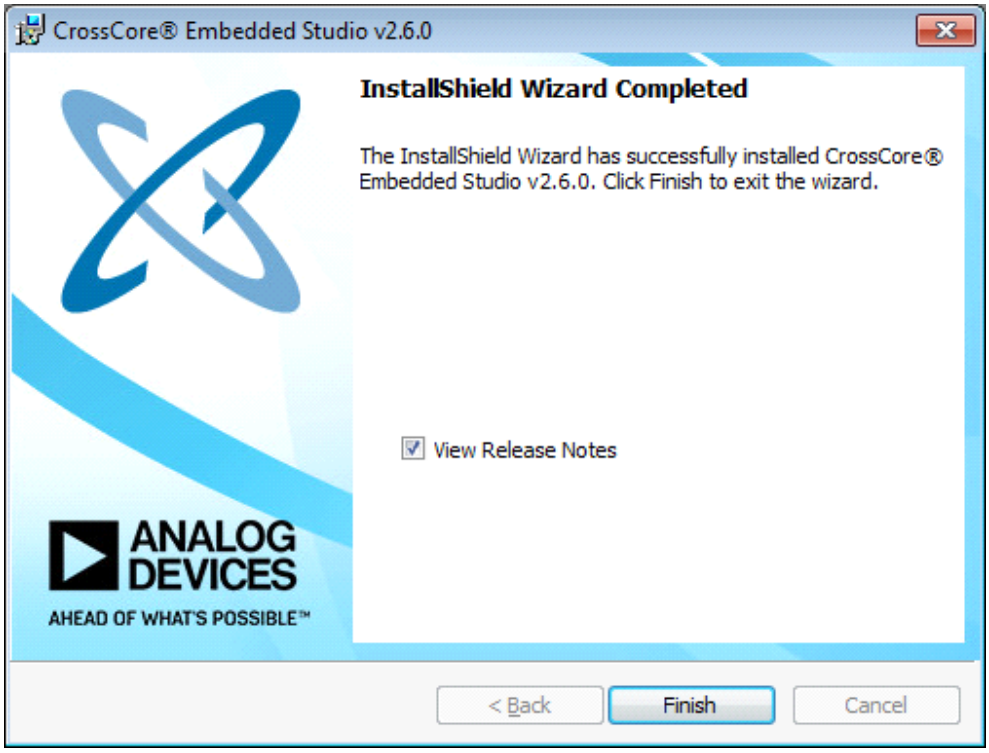

Accept everything until you get to Installation...



Tick Always trust software from “Analog Devices Inc.” and Install

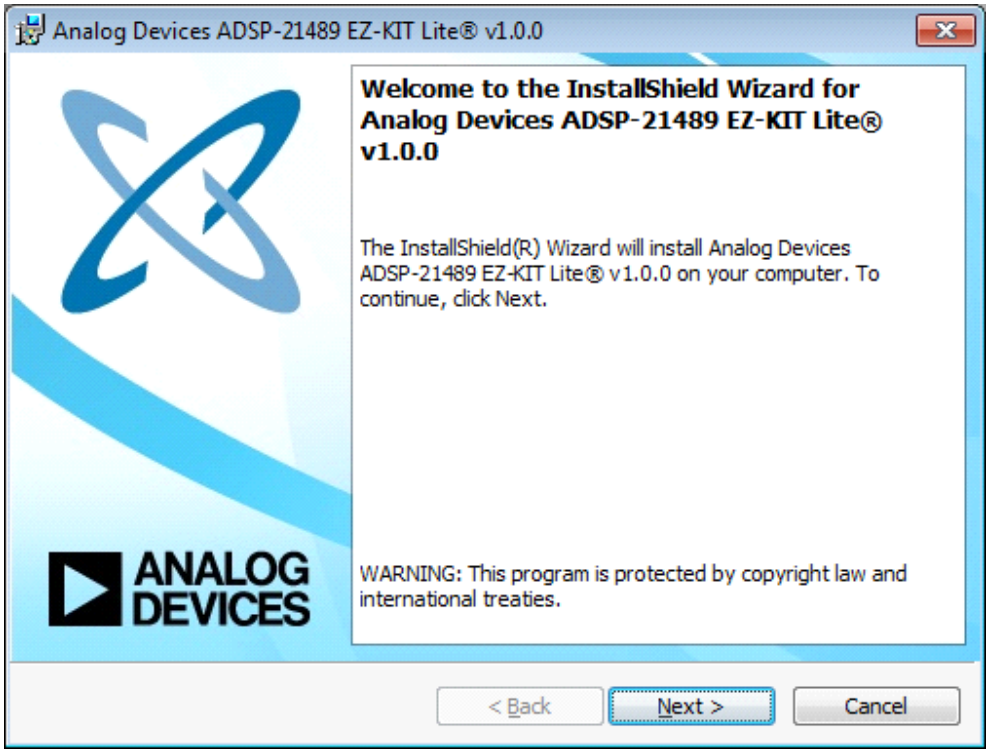


Install after ticking to Always trust


CrossCore® Embedded Studio v2.6.0
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed CrossCore® Embedded Studio v2.6.0. Click Finish to exit the wizard.
View Release Notes
ANALOG DEVICES
AHEAD OF WHAT'S POSSIBLE™
< Back
Finish
Cancel
Finish

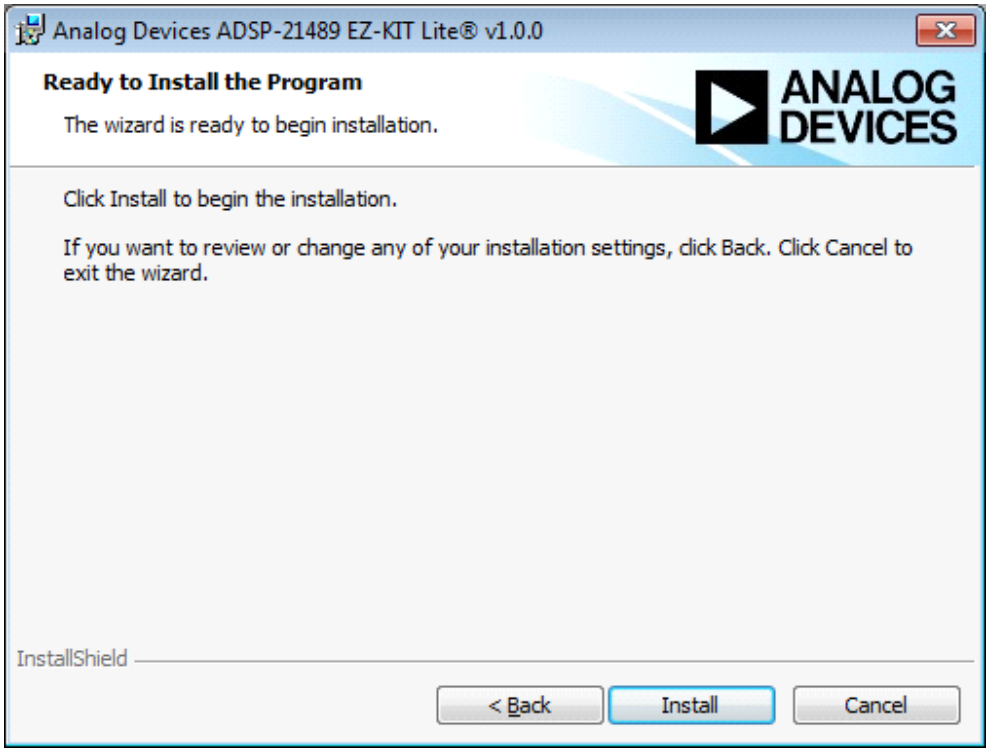
**Installing Board Support Package**

Go to http://www.analog.com/21489EZKit
Click on Software (on the left)
ADSP-21489 Board Support Package (Rev. 1.0.0)
Download Software (takes you to here)

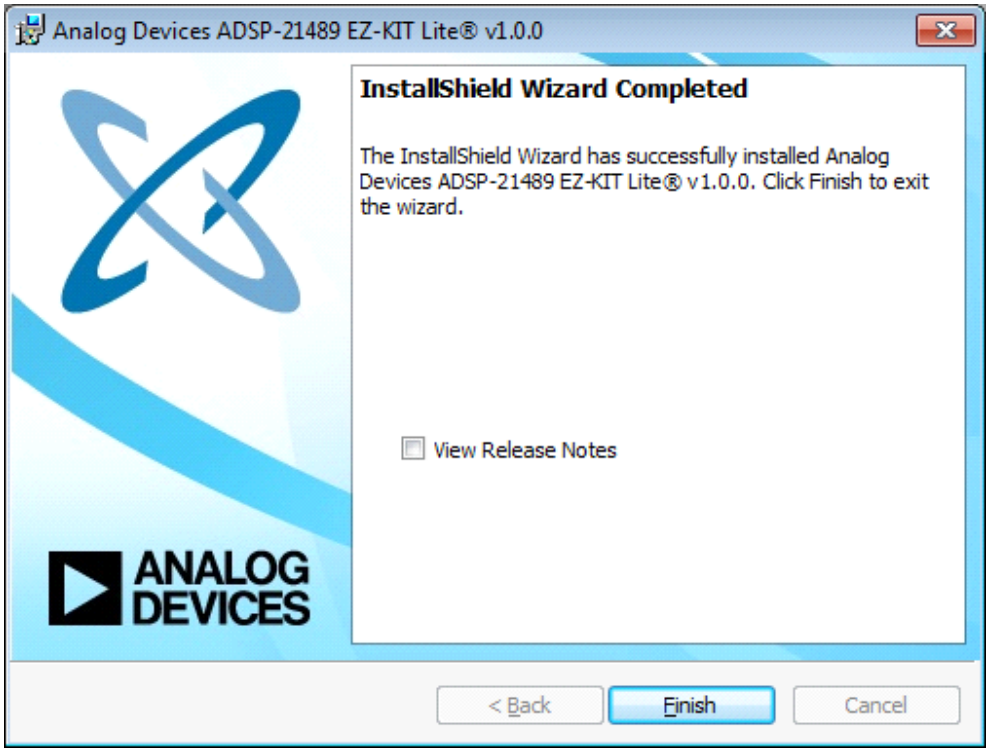



Next

Accept

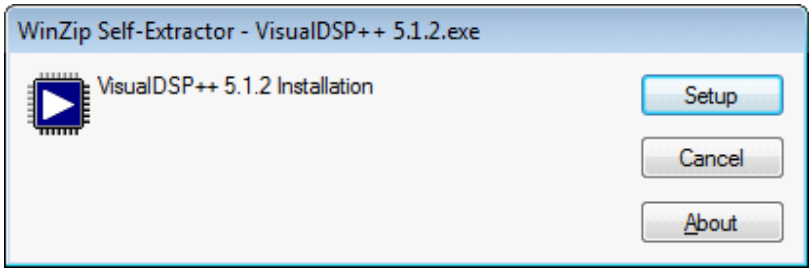


Install

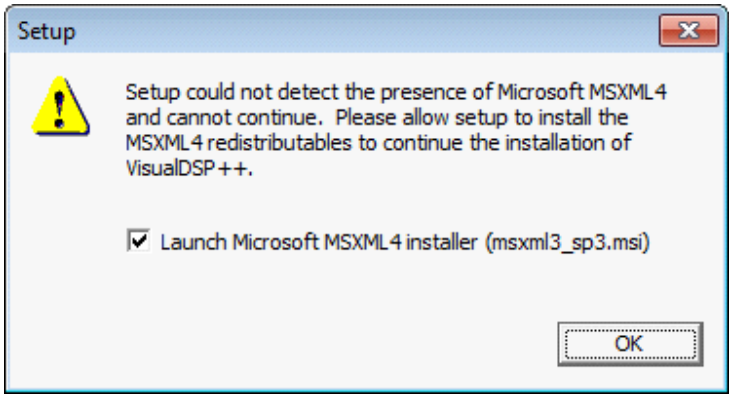

Analog Devices ADSP-21489 EZ-KIT Lite® v1.0.0
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Analog Devices ADSP-21489 EZ-KIT Lite® v1.0.0. Click Finish to exit the wizard.
View Release Notes
ANALOG DEVICES
< Back
Finish
Cancel
Finish

**Installing VisualDSP++**

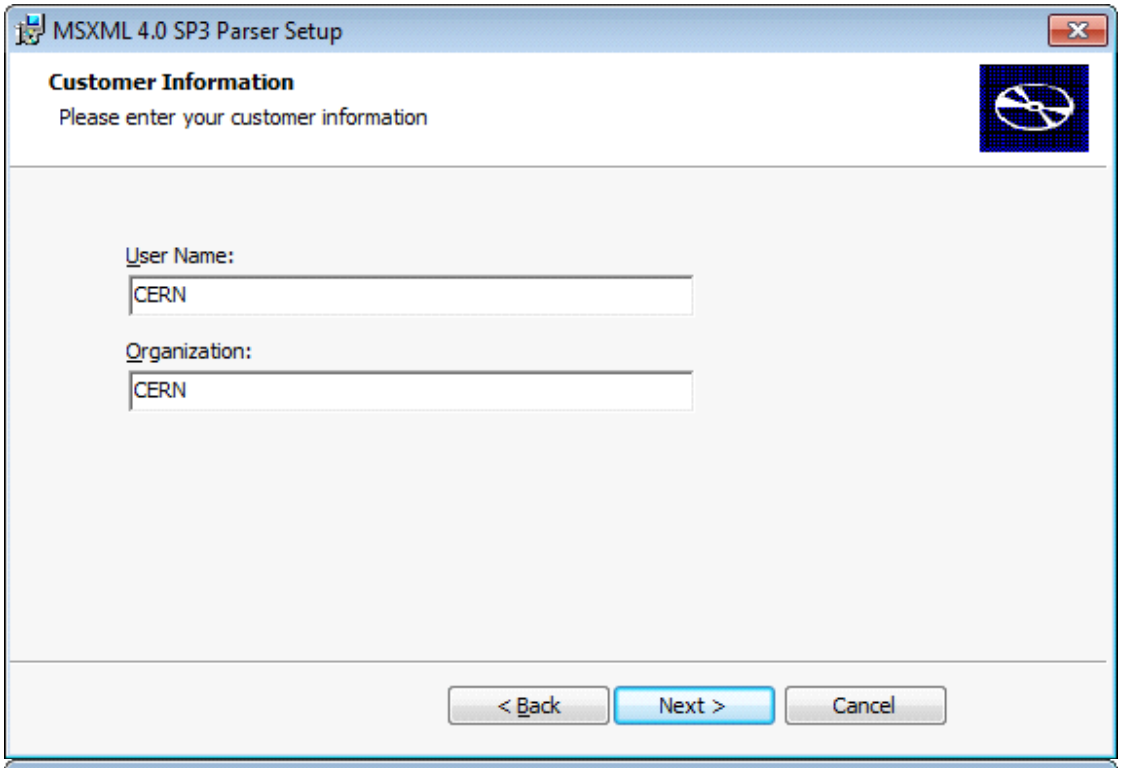
Go to http://analog.com/VisualDSP
Click on Downloads and Related Software (on the left)
VisualDSP++ 5.1.2 Software
Download Software (takes you to download 996Mb from here)

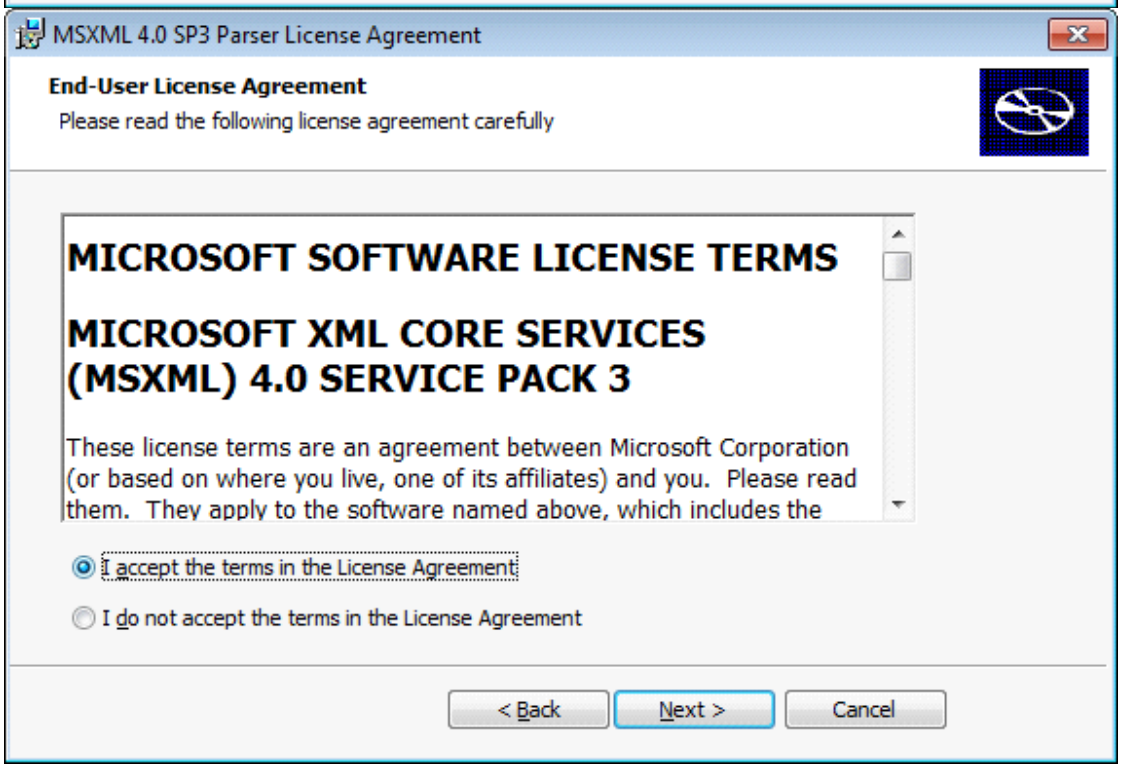


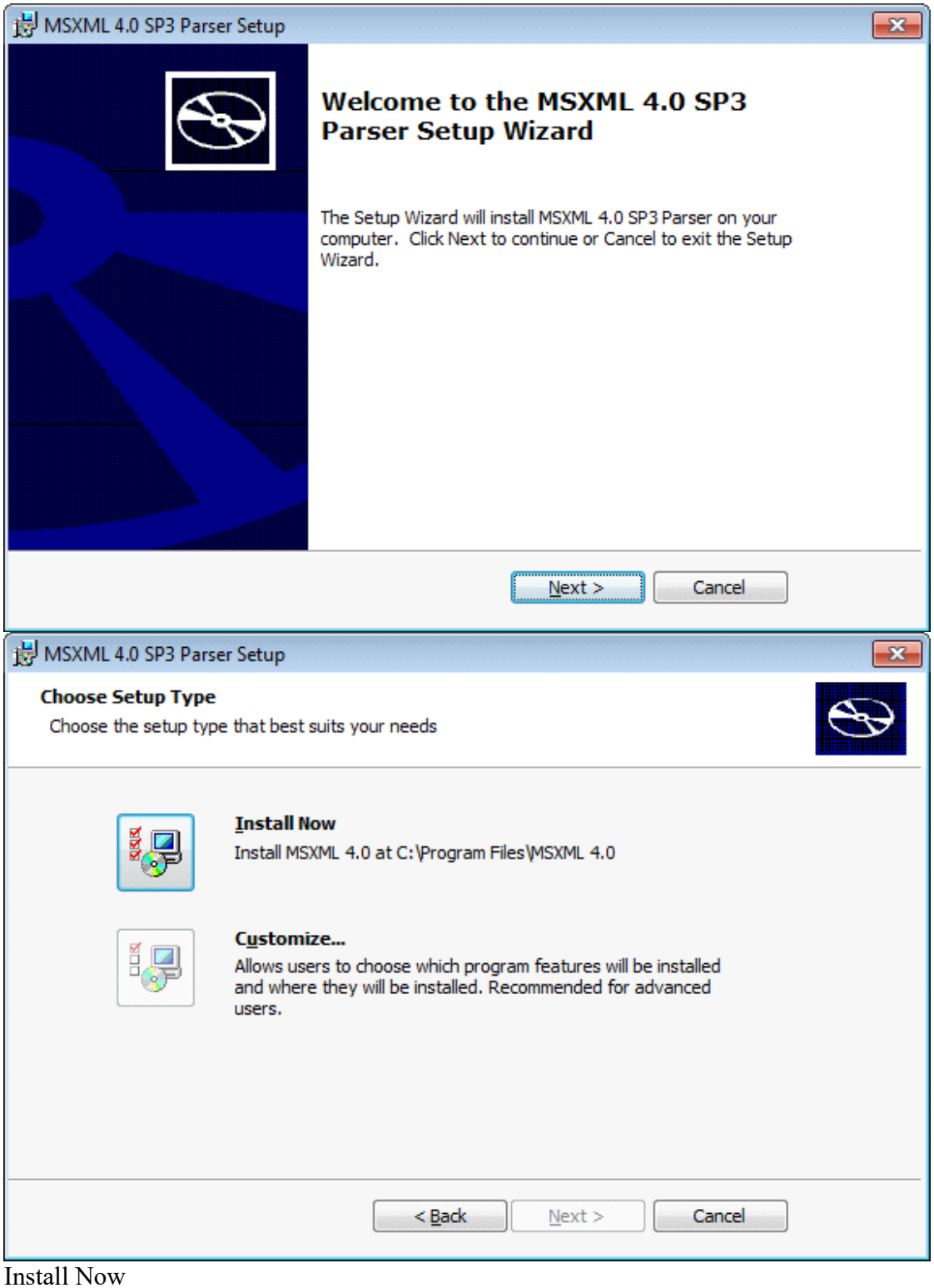

Click Setup

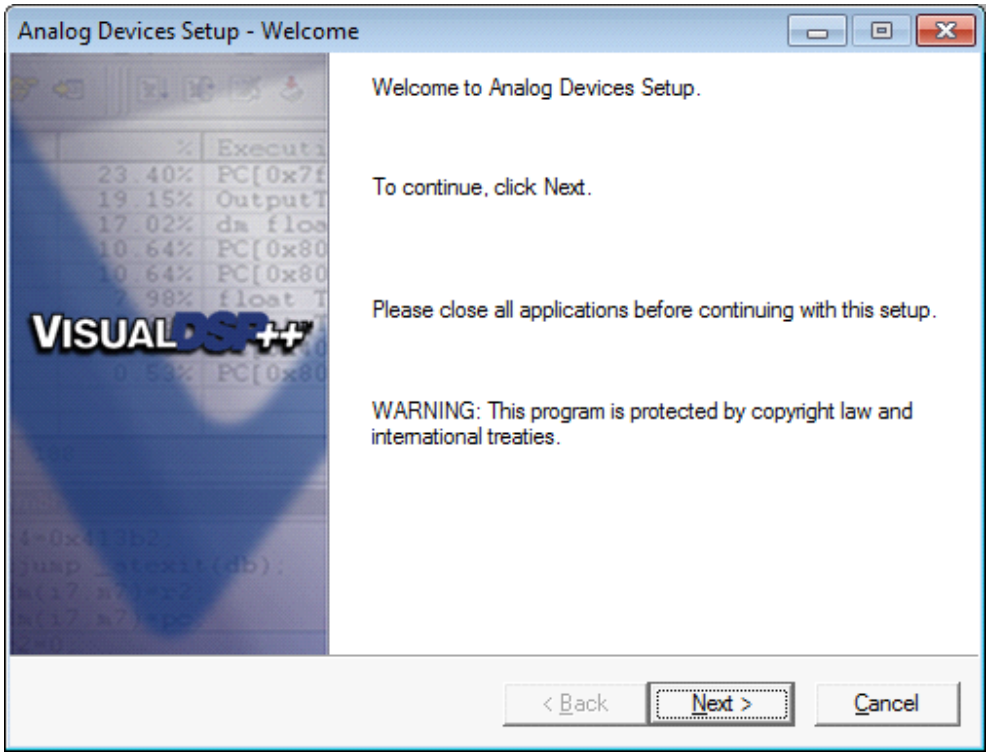


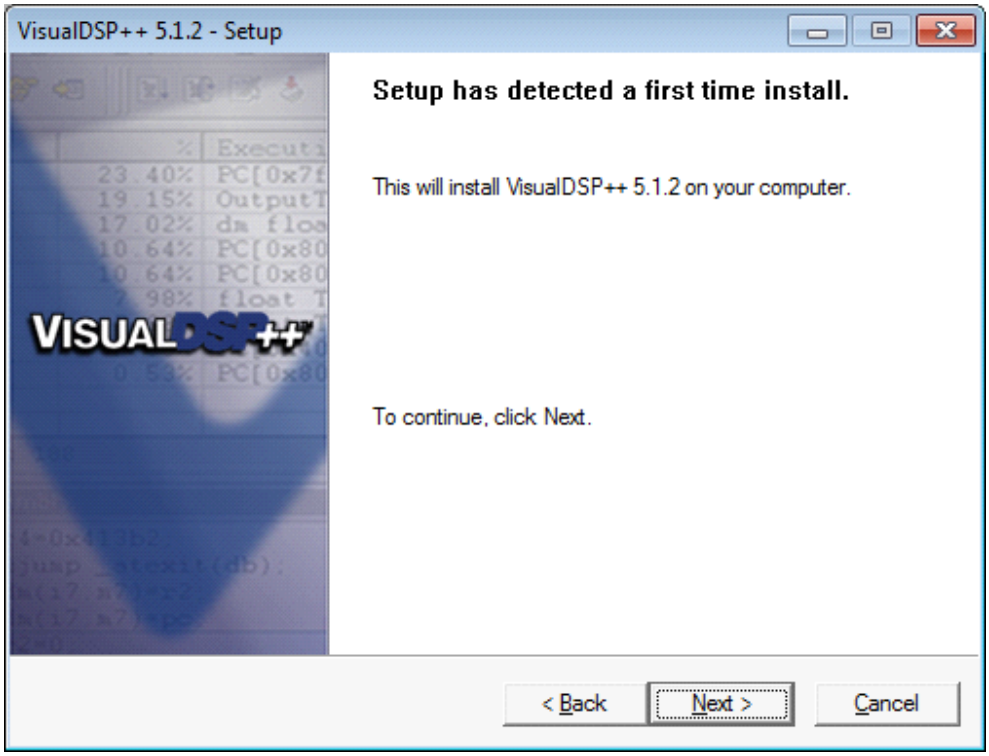

Tick Launch and Click OK

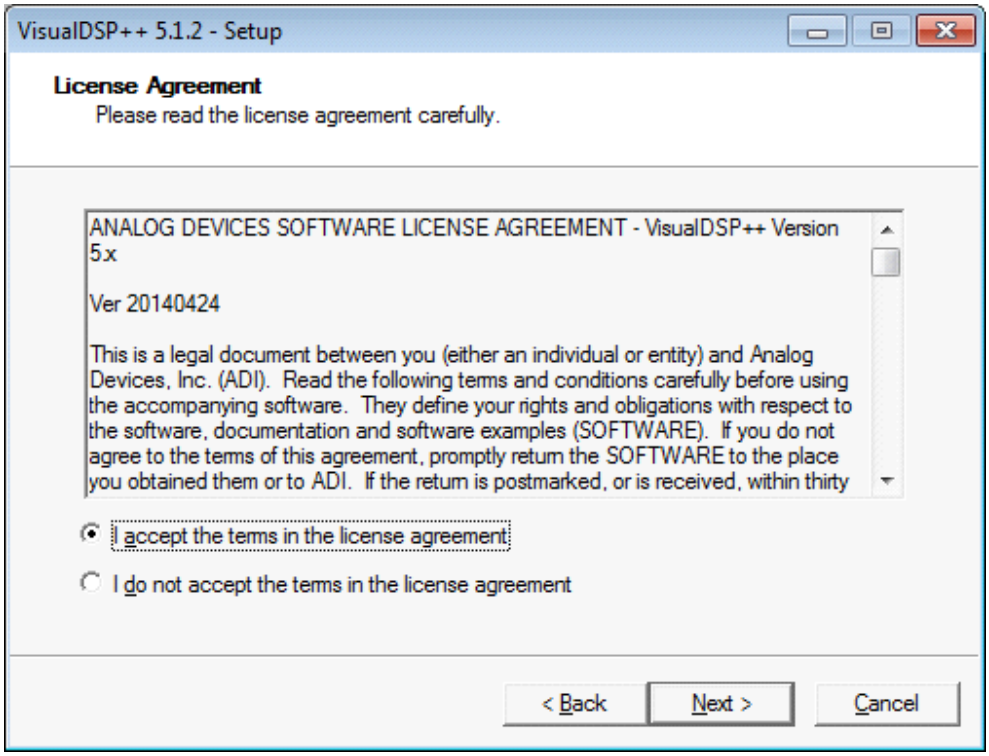

MSXML 4.0 SP3 Parser Setup
Customer Information
Please enter your customer information
User Name:
CERN
Organization:
CERN
< Back
Next >
Cancel


MSXML 4.0 SP3 Parser License Agreement
End-User License Agreement
Please read the following license agreement carefully
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT XML CORE SERVICES (MSXML) 4.0 SERVICE PACK 3
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the
I accept the terms in the License Agreement
I do not accept the terms in the License Agreement
< Back
Next >
Cancel

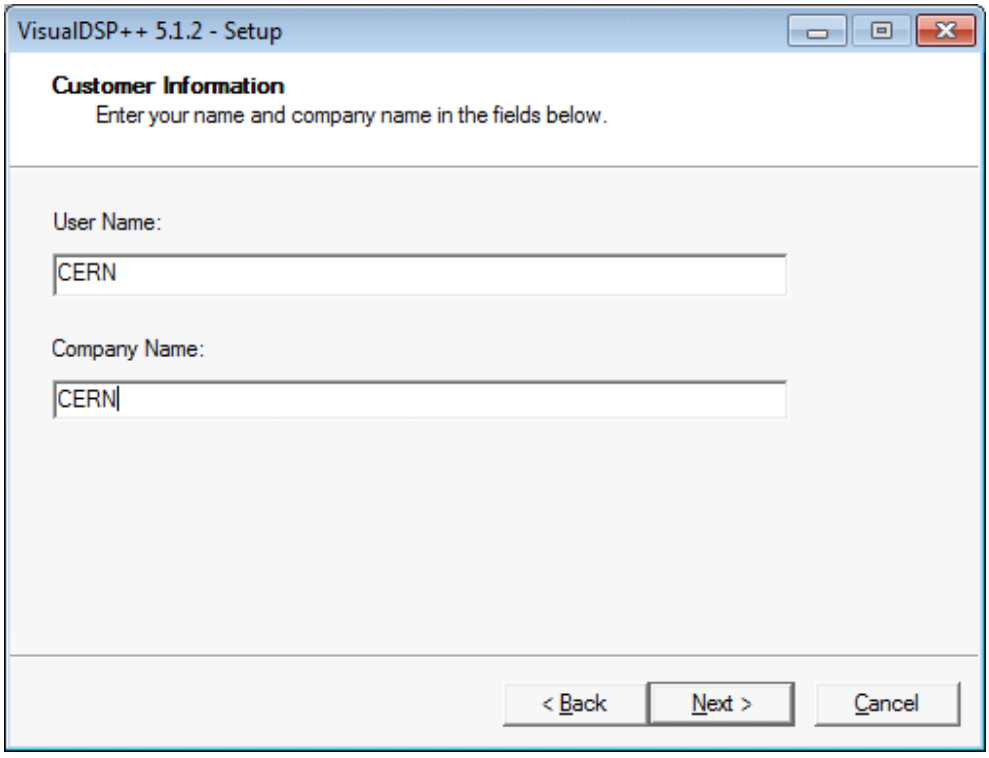

MSXML 4.0 SP3 Parser Setup
Welcome to the MSXML 4.0 SP3 Parser Setup Wizard
The Setup Wizard will install MSXML 4.0 SP3 Parser on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Next >
Cancel
MSXML 4.0 SP3 Parser Setup
Choose Setup Type
Choose the setup type that best suits your needs
Install Now
Install MSXML 4.0 at C:\Program Files\MSXML 4.0
Customize...
Allows users to choose which program features will be installed and where they will be installed. Recommended for advanced users.
< Back
Next >
Cancel
Install Now

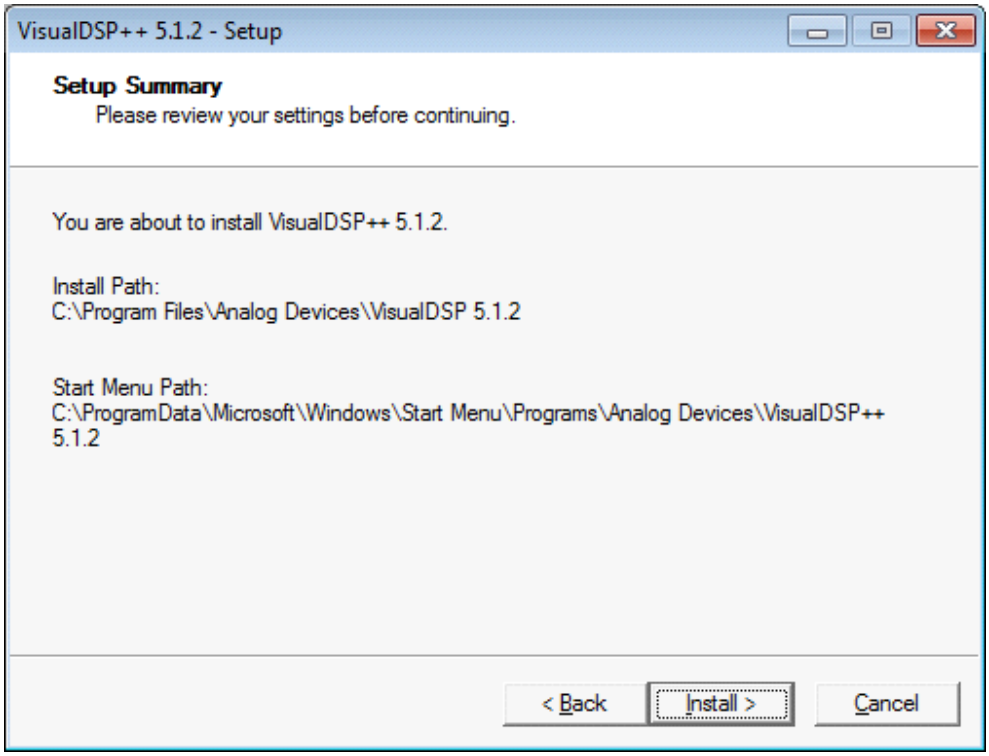

Analog Devices Setup - Welcome
Welcome to Analog Devices Setup.
To continue, click Next.
Please close all applications before continuing with this setup.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel


VisualDSP++ 5.1.2 - Setup
Setup has detected a first time install.
This will install VisualDSP++ 5.1.2 on your computer.
To continue, click Next.
< Back
Next >
Cancel

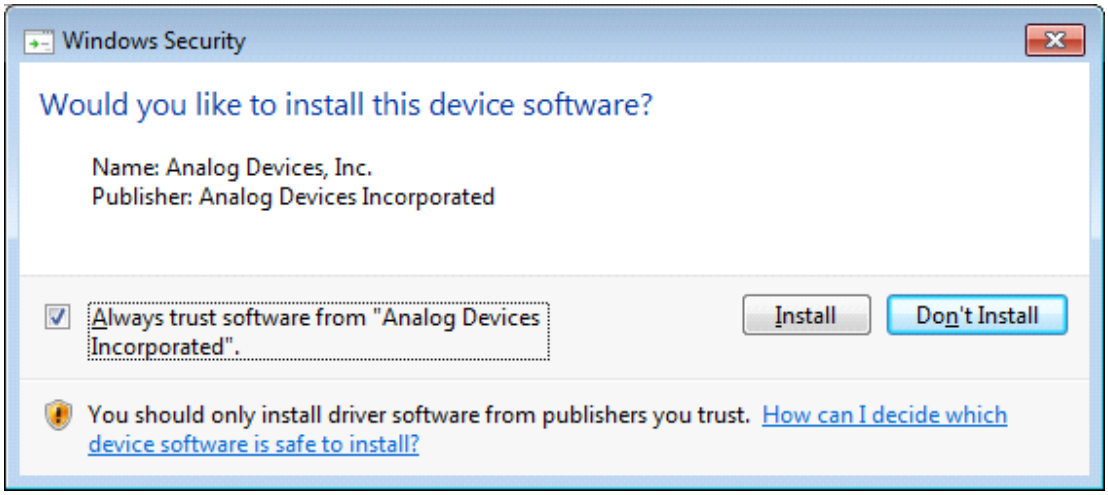

VisualDSP++ 5.1.2 - Setup
License Agreement
Please read the license agreement carefully.
ANALOG DEVICES SOFTWARE LICENSE AGREEMENT - VisualDSP++ Version 5.x
Ver 20140424
This is a legal document between you (either an individual or entity) and Analog Devices, Inc. (ADI). Read the following terms and conditions carefully before using the accompanying software. They define your rights and obligations with respect to the software, documentation and software examples (SOFTWARE). If you do not agree to the terms of this agreement, promptly return the SOFTWARE to the place you obtained them or to ADI. If the return is postmarked, or is received, within thirty
I accept the terms in the license agreement
I do not accept the terms in the license agreement
< Back
Next >
Cancel

Accept etc

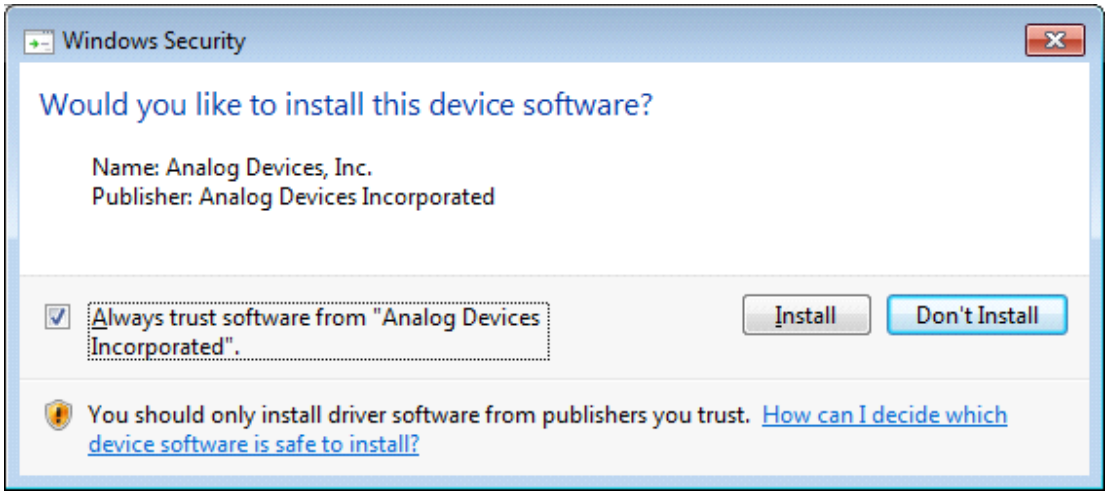

VisualDSP++ 5.1.2 - Setup
Customer Information
Enter your name and company name in the fields below.
User Name:
CERN
Company Name:
CERN
< Back
Next >
Cancel



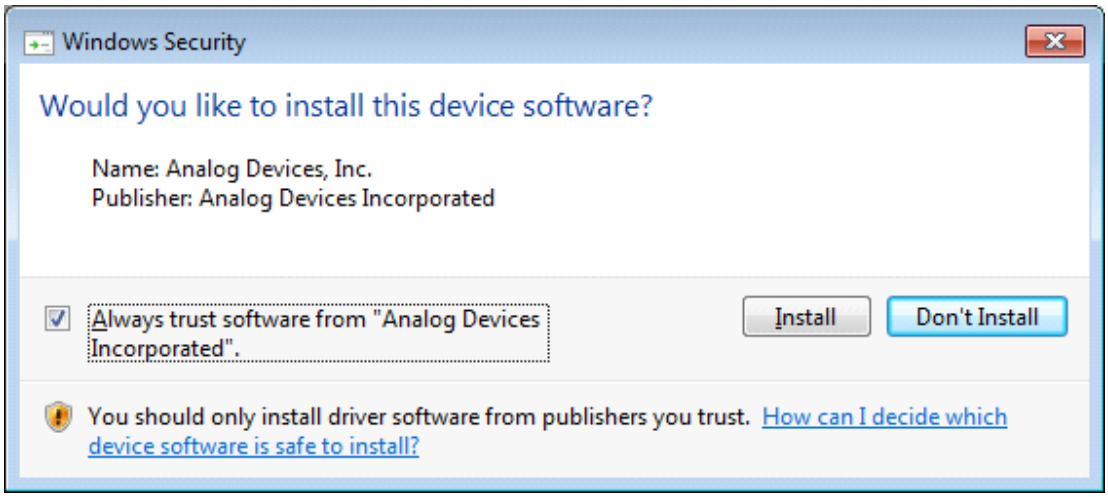
Install



Always trust, then Install

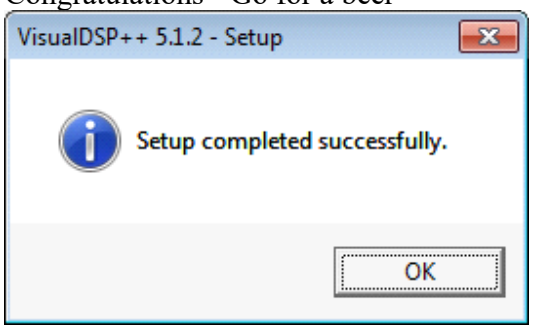


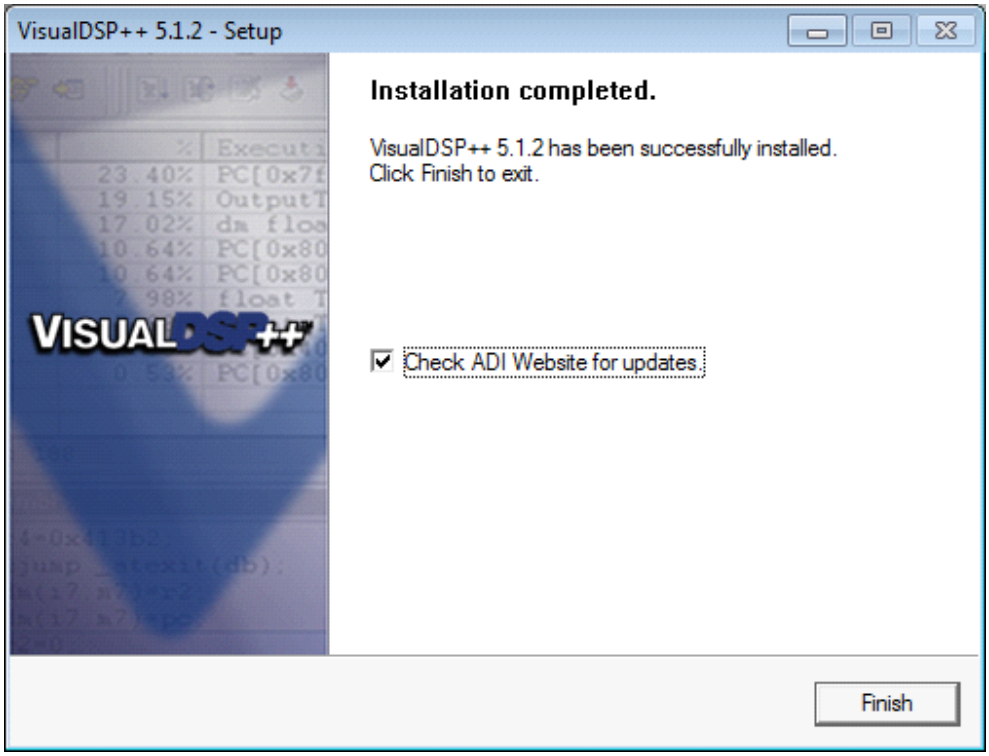

Install




Install

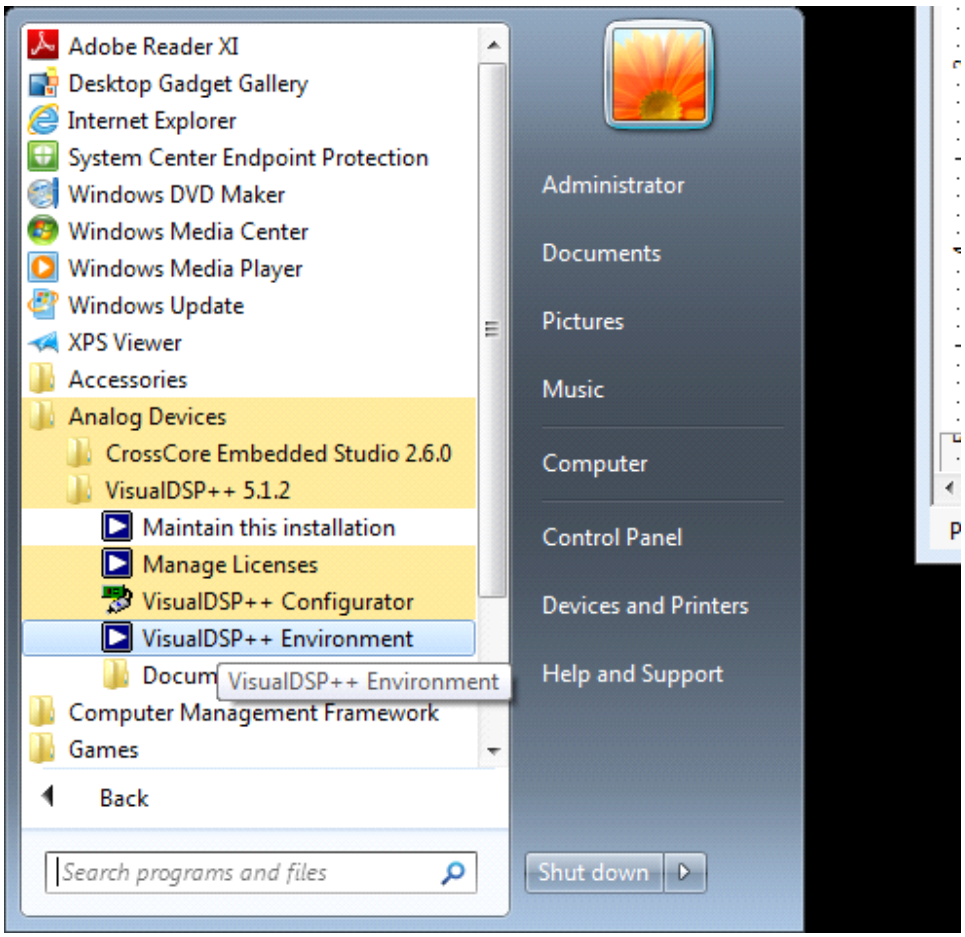
Congratulations - Go for a beer



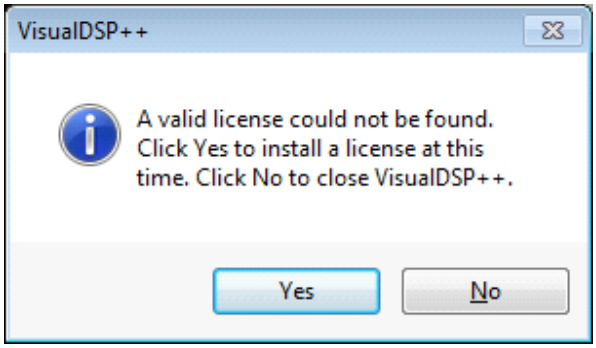


Check ADI Website for updates then Finish

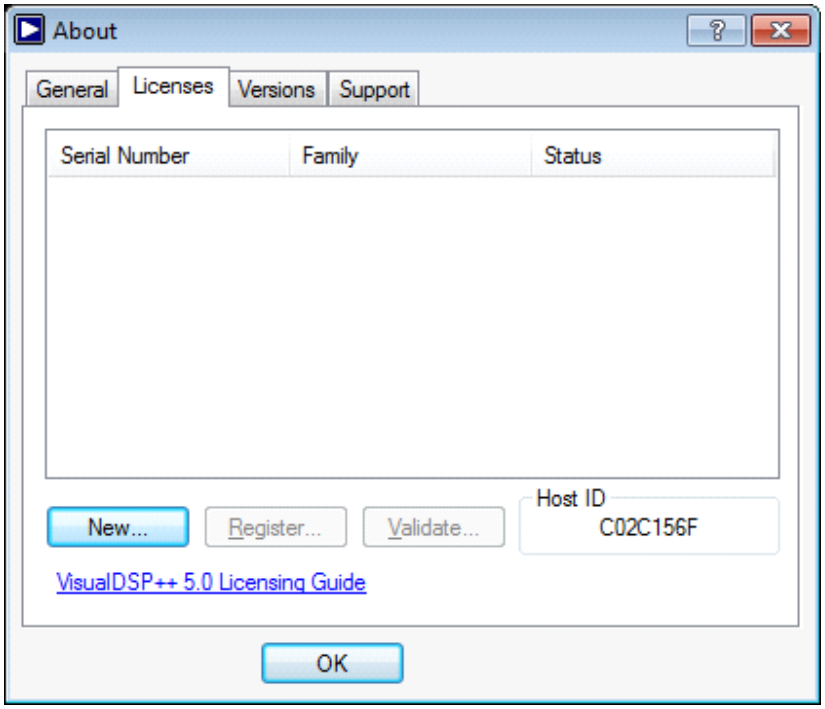
**Starting VisualDSP++ for first time**



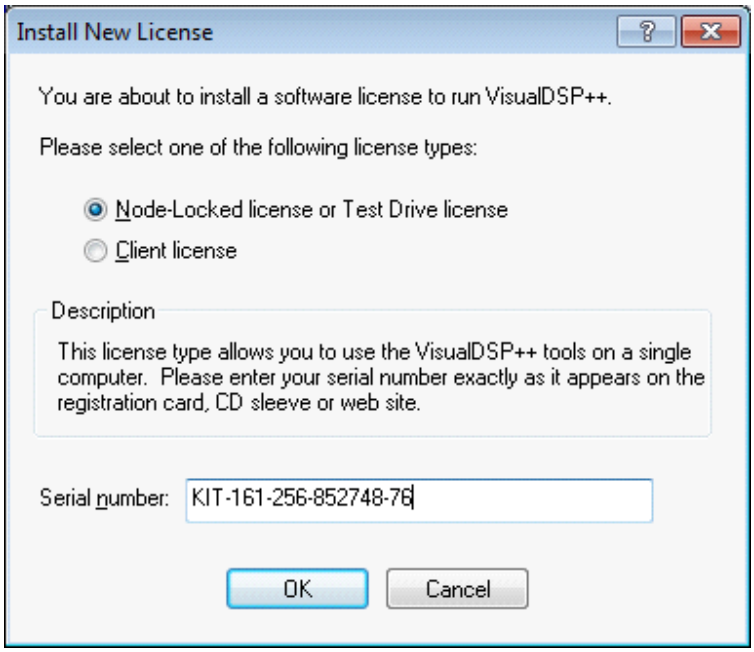

Start->Programs->Analog Devices->VisualDSP++ 5.1.2->VisualDSP++ Environment



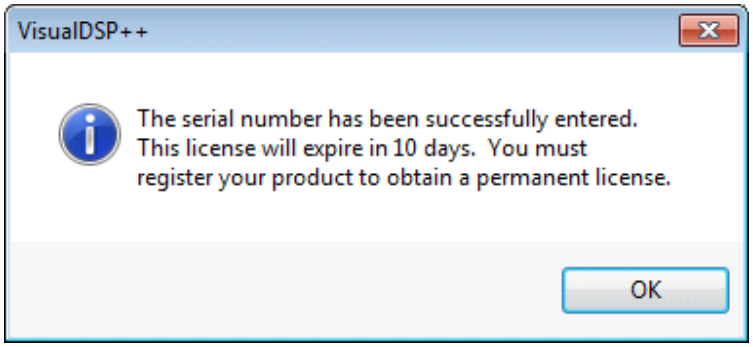

Yes



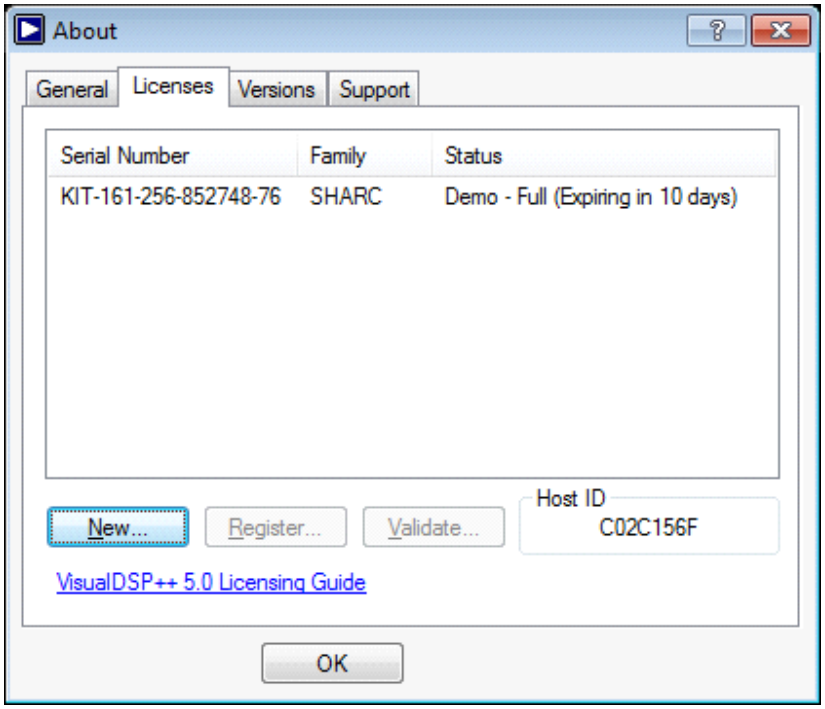
New

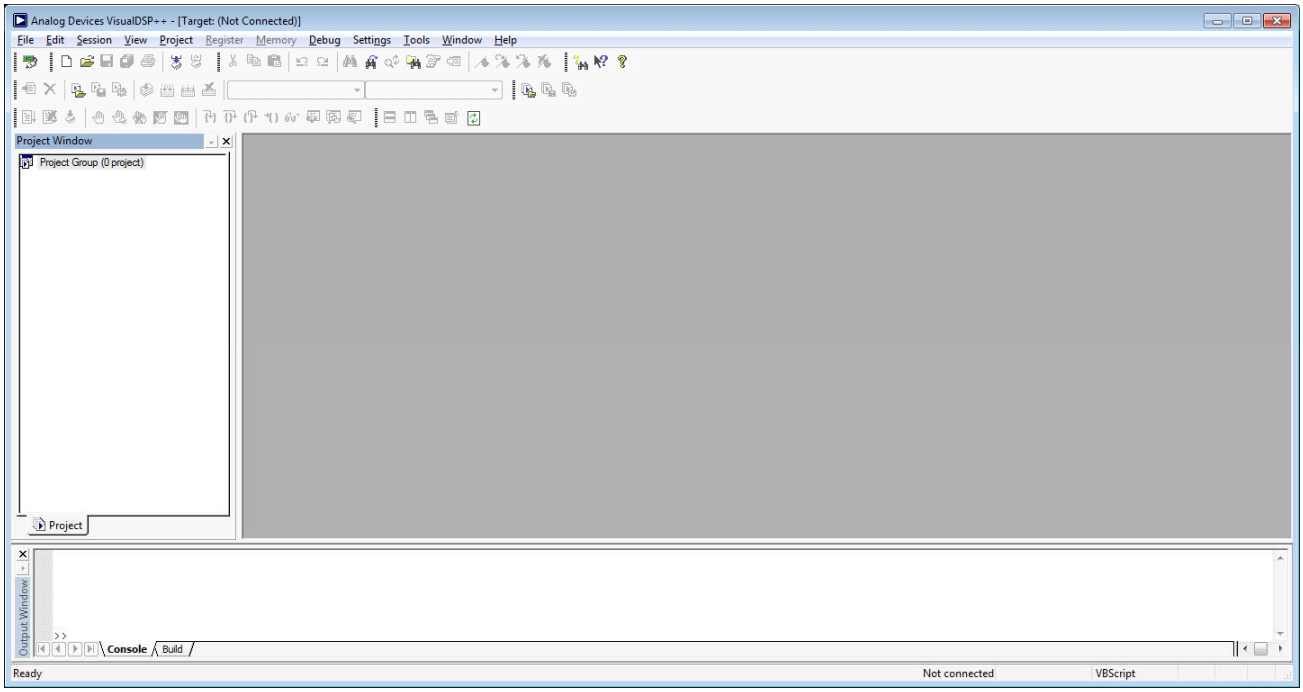


Tick Node-Locked licence, and the Serial number above



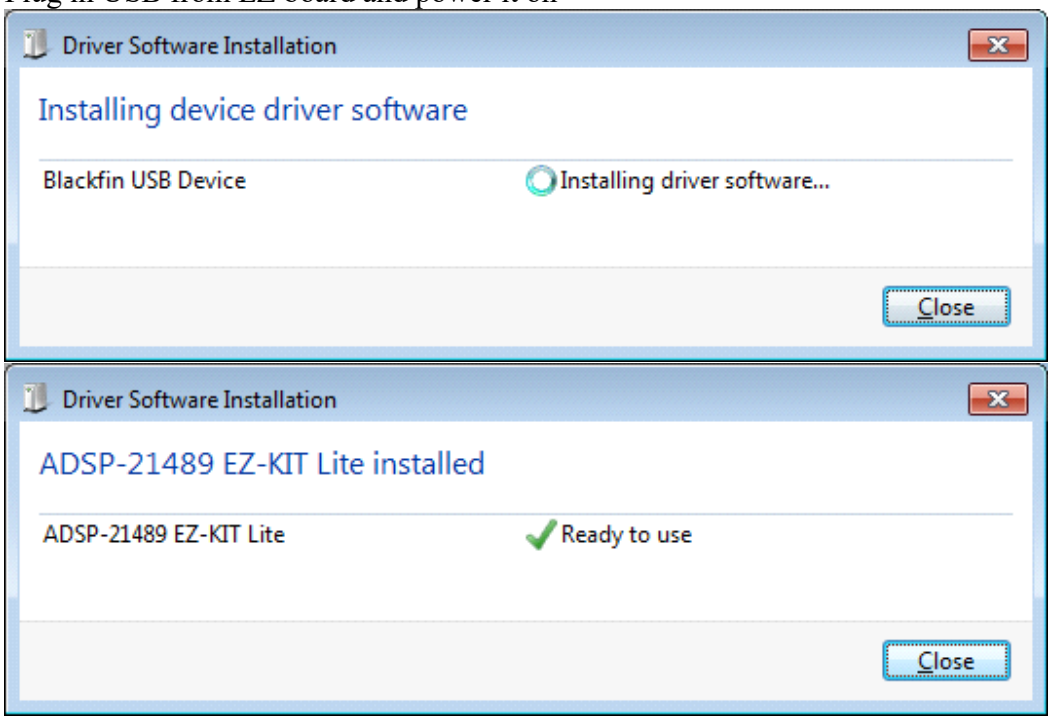

In 10 days you will be nagged for an email address



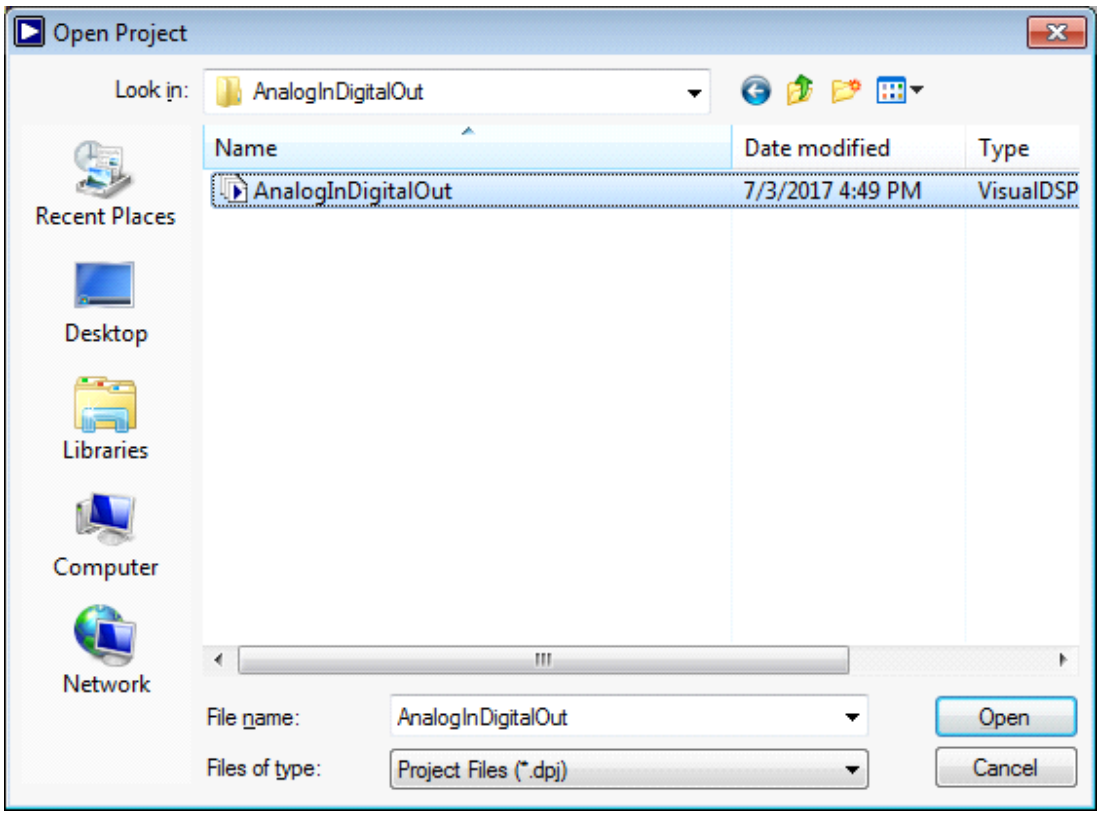


VisualDSP++ should now appear

Plug in USB from EZ board and power it on

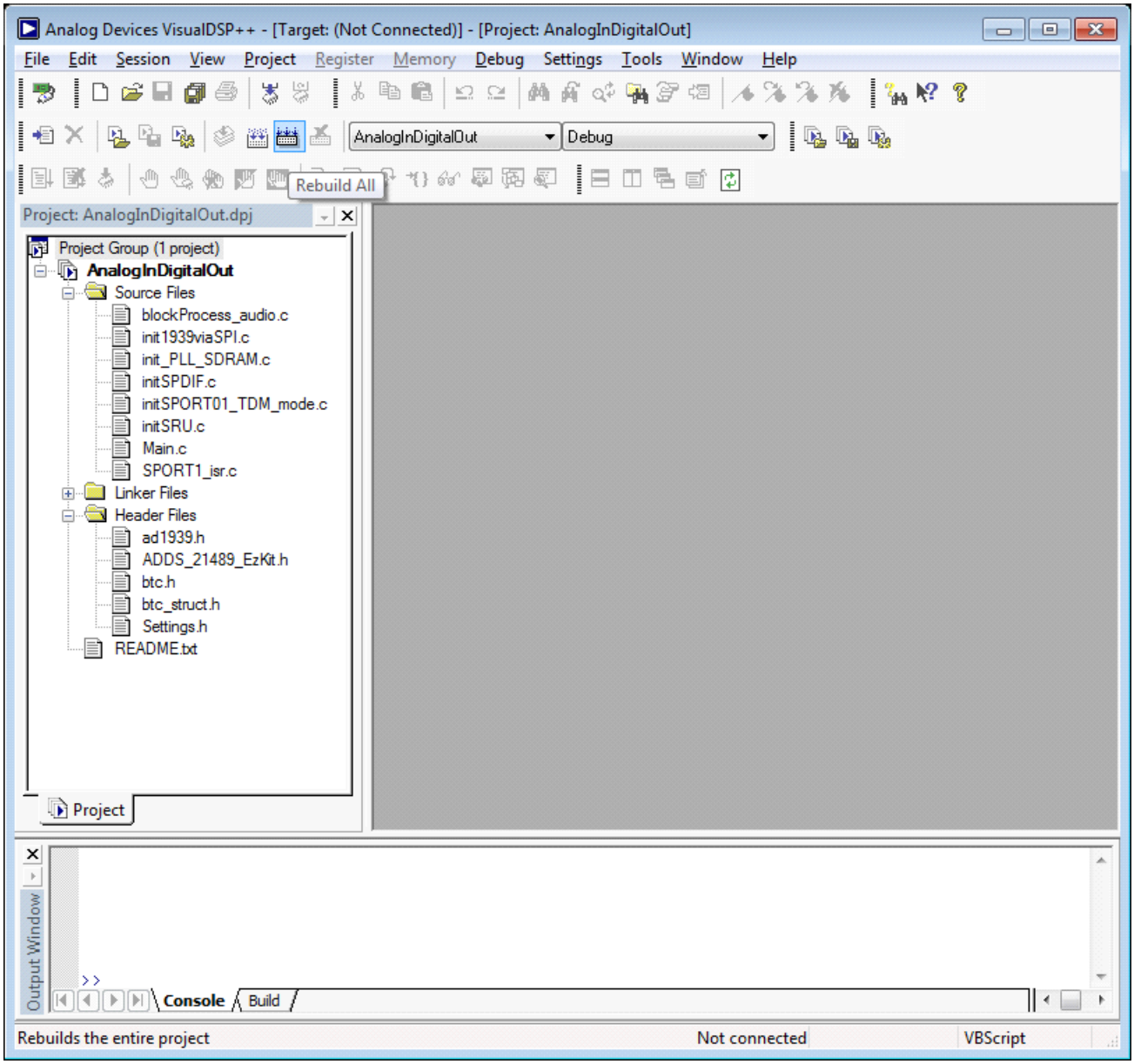


Copy project (supplied by us) to desktop for example

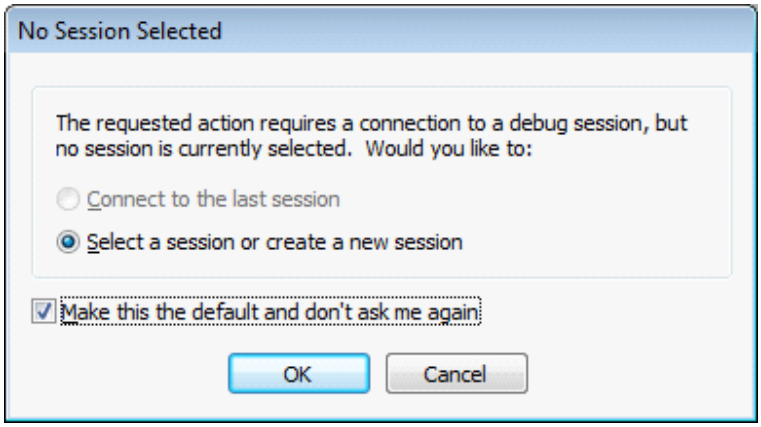



File->Open Project

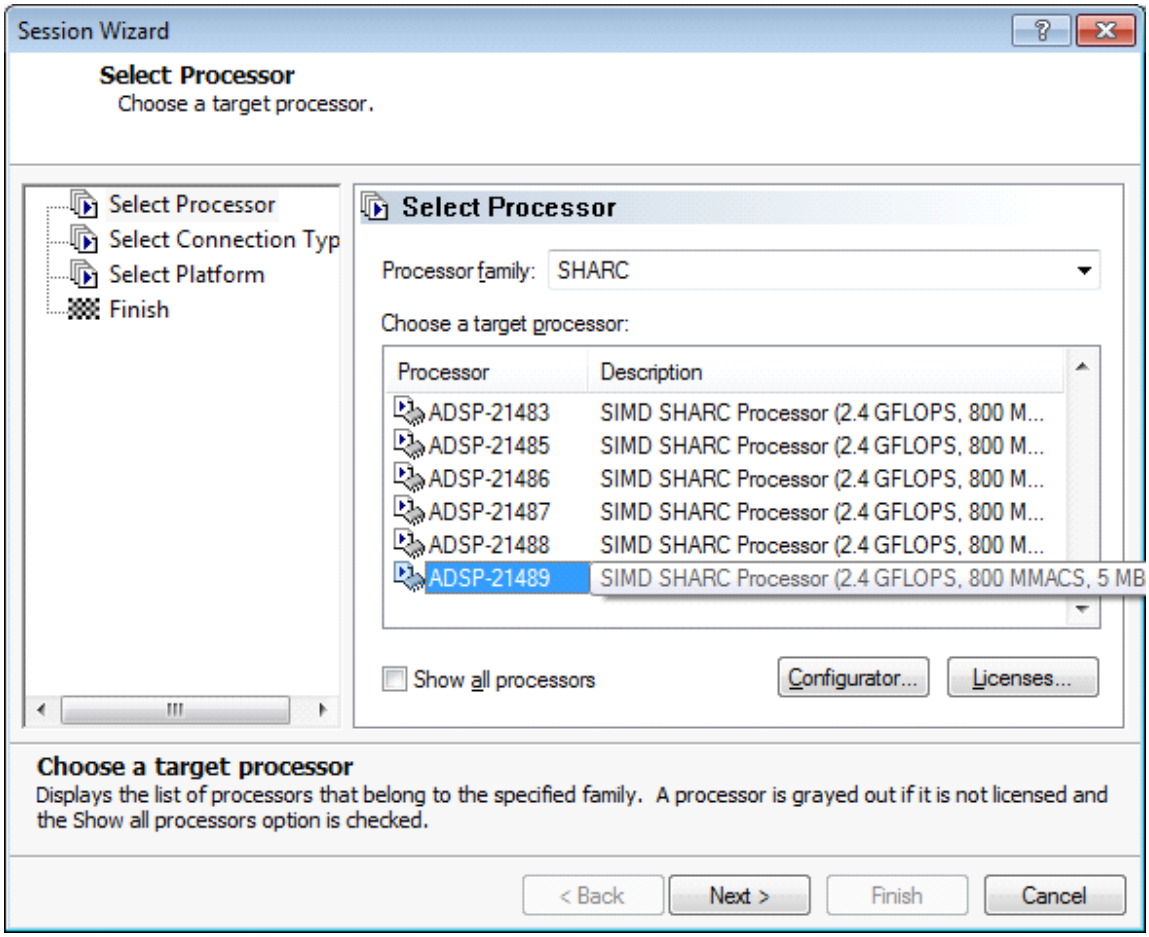
Locate the .dpj file in folder on desktop



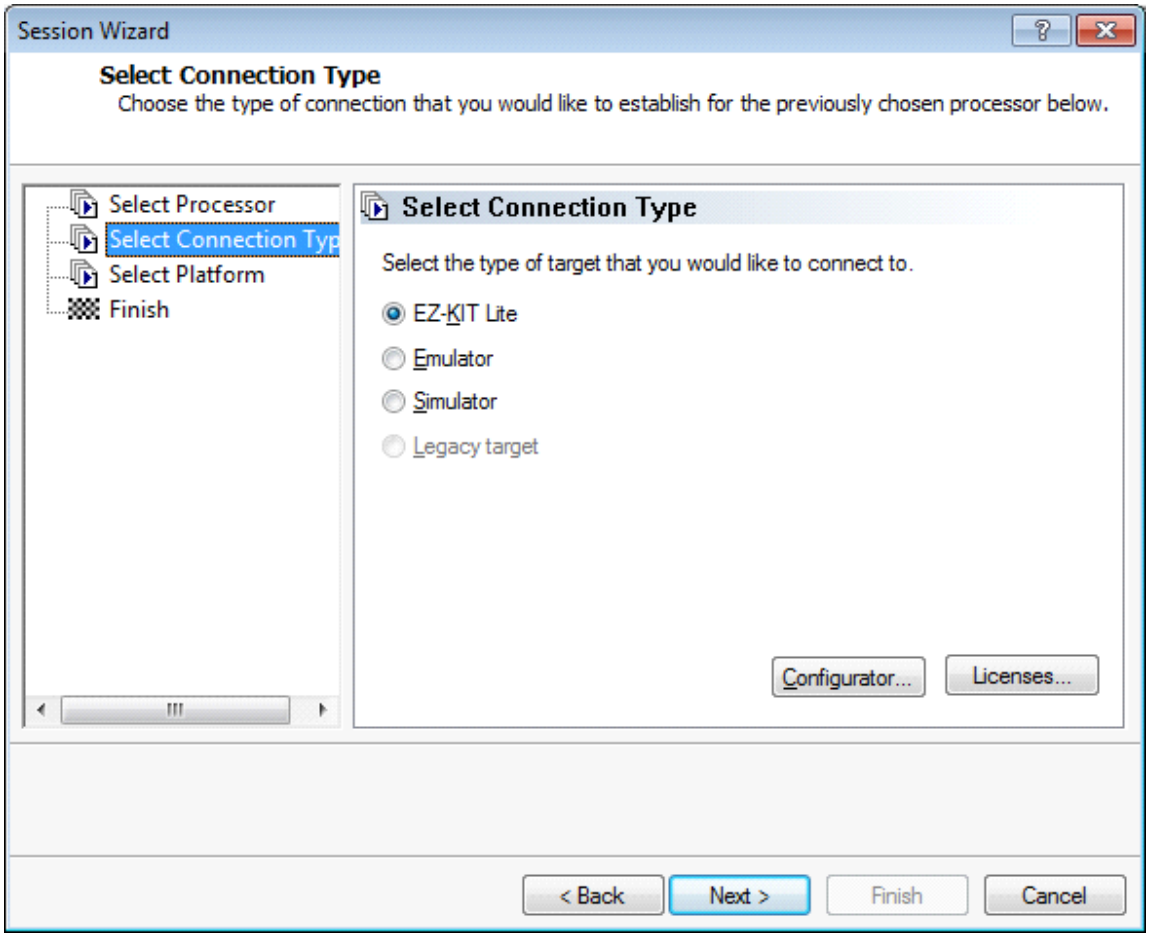

Click Rebuild All



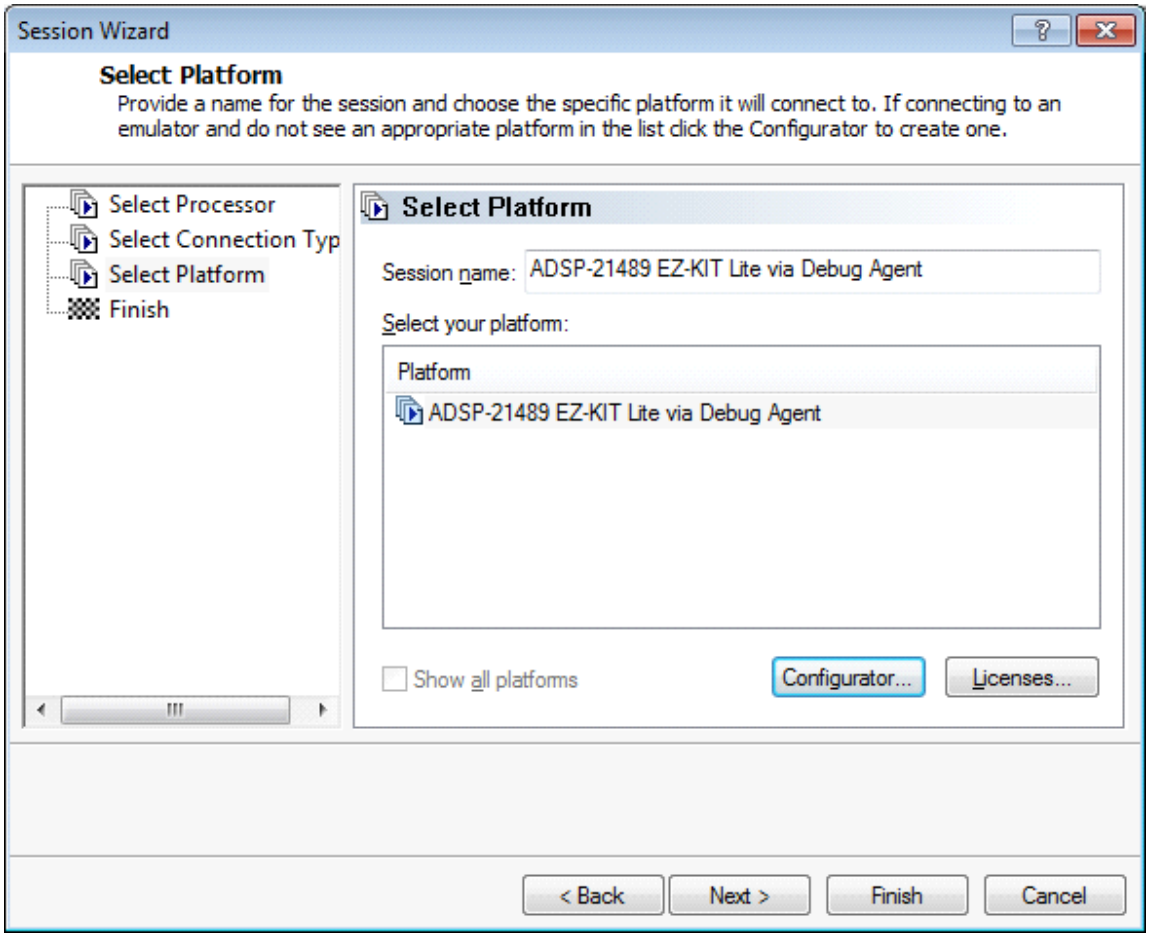

Create a new session



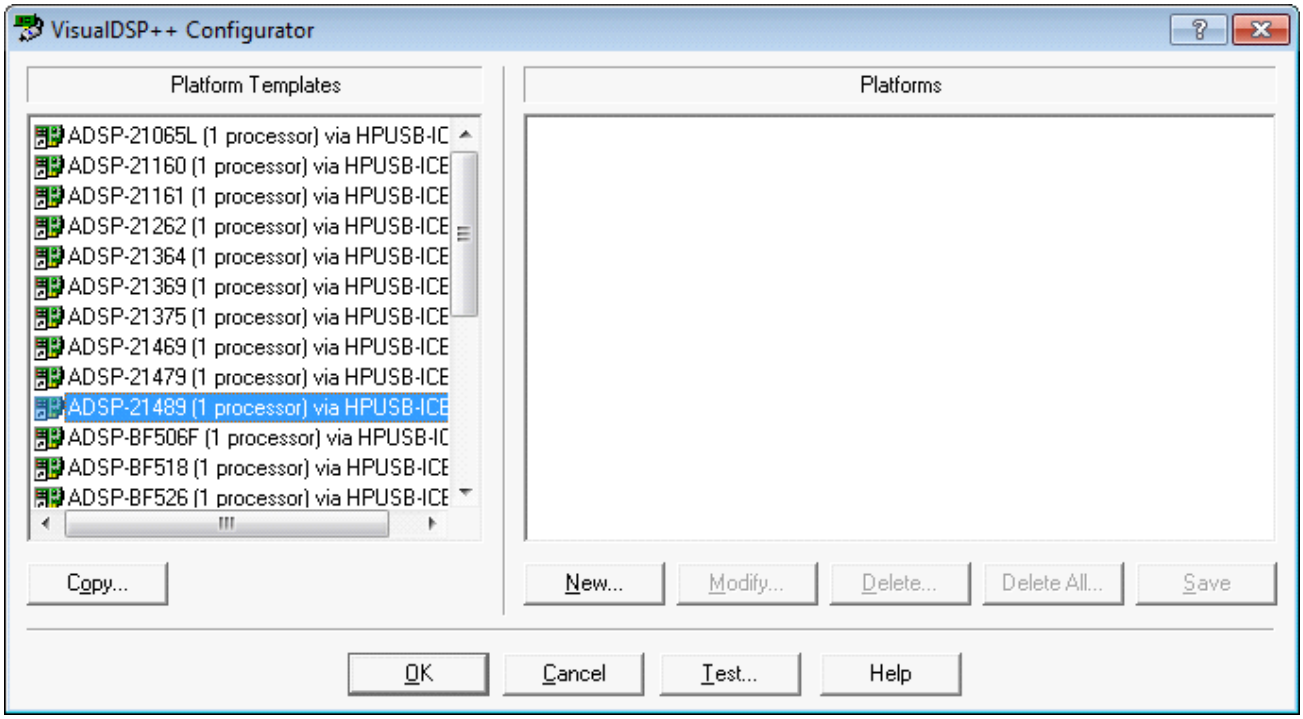

Select the ADSP-21489 SHARC processor in list


Session Wizard
Select Connection Type
Choose the type of connection that you would like to establish for the previously chosen processor below.
Select Processor
Select Connection Typ
Select Platform
Finish
Select Connection Type
Select the type of target that you would like to connect to.
EZ-KIT Lite
Emulator
Simulator
Legacy target
Configurator...
Licenses...
< Back
Next >
Finish
Cancel

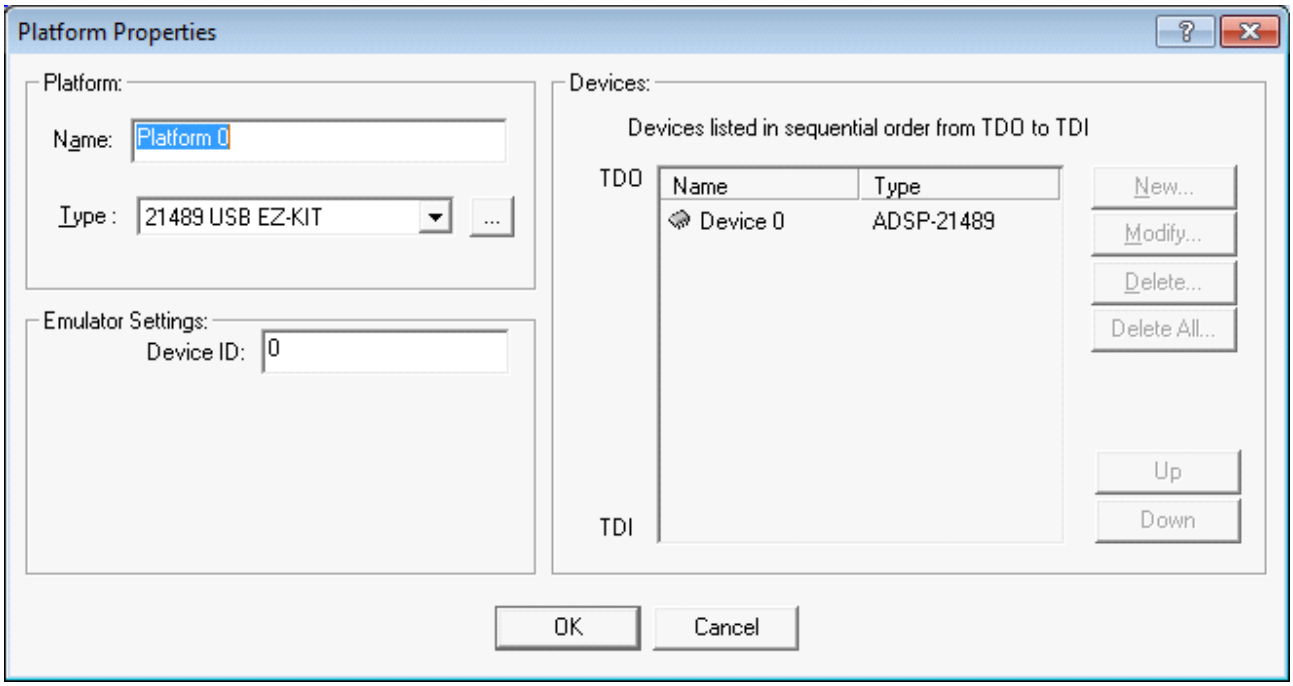
Next



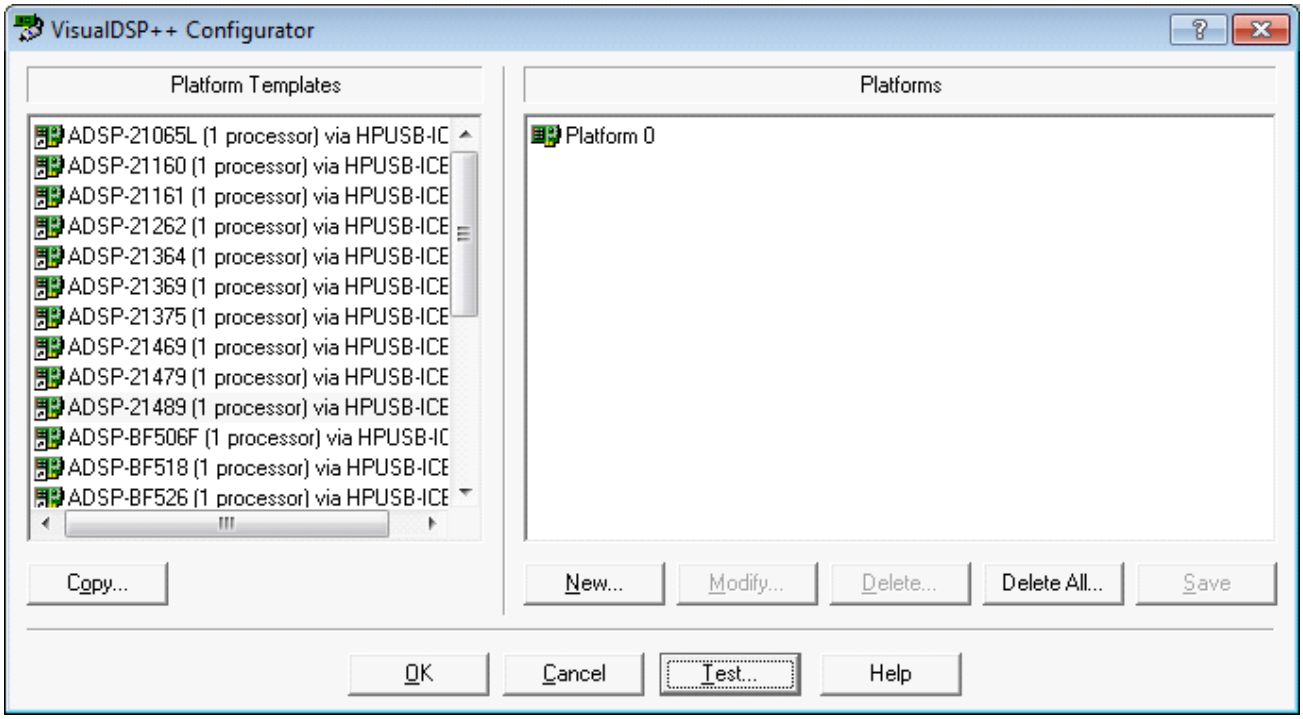

Click Configurator

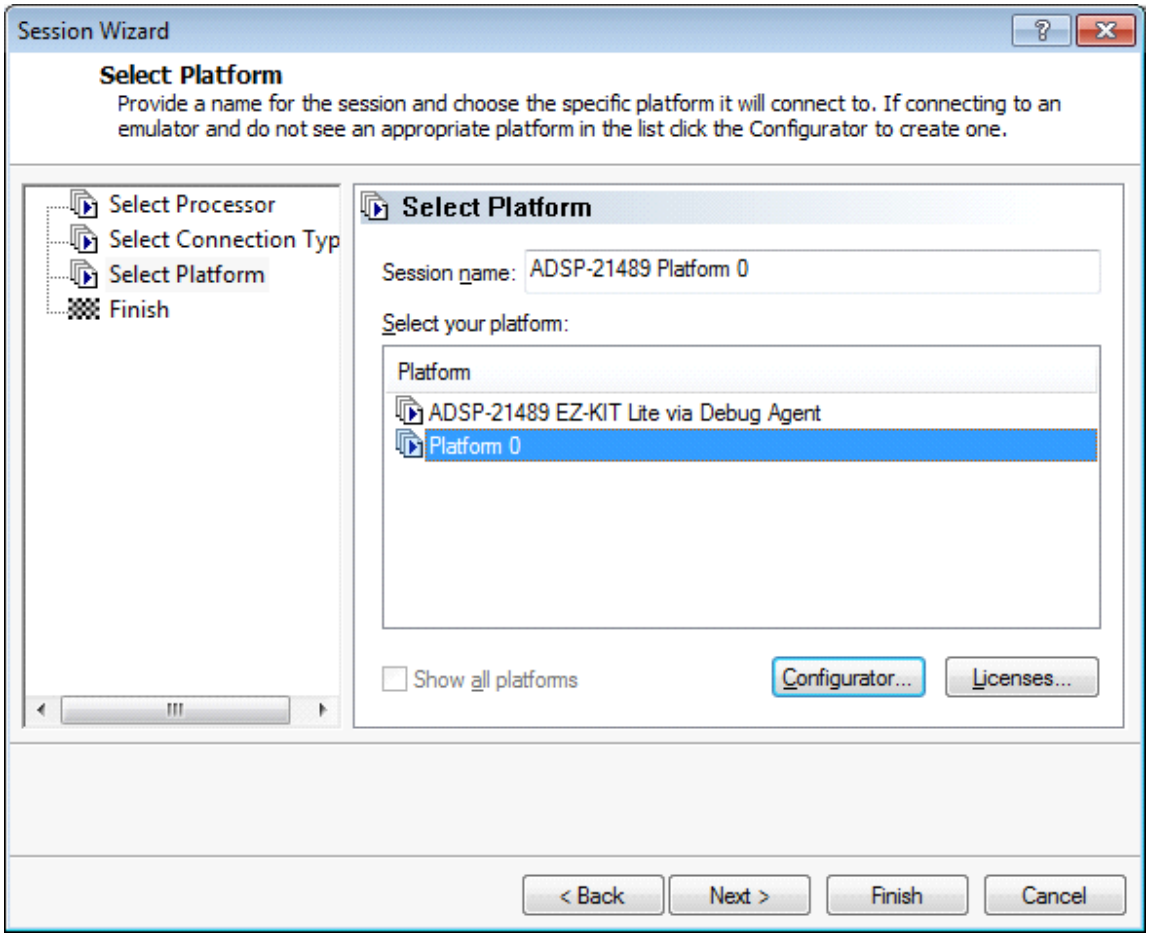


Select ADSP-21489, then press New

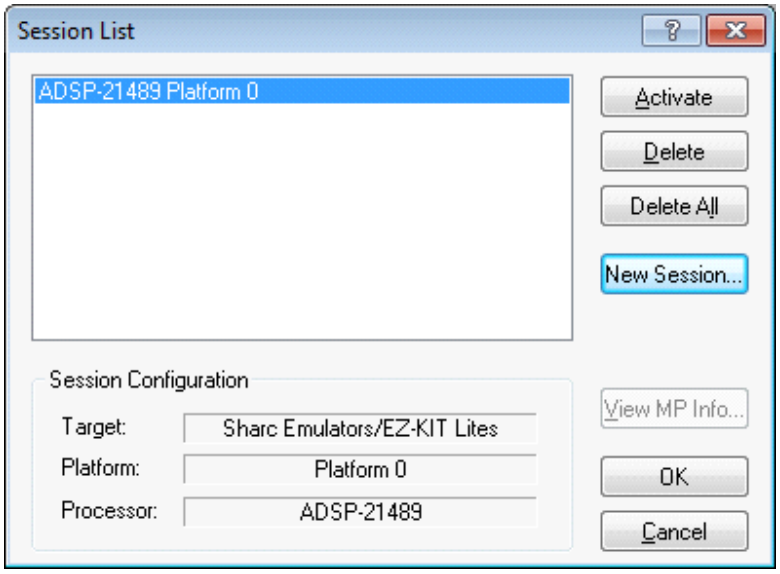


OK

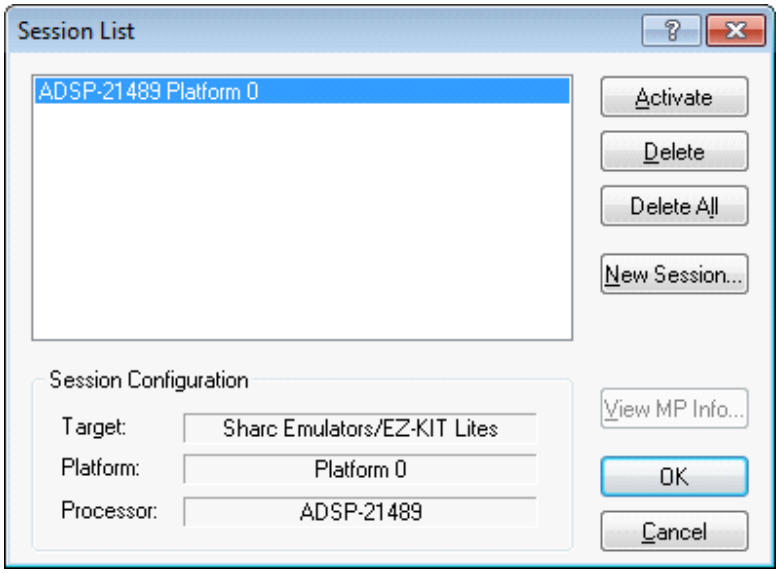

VisualDSP++ Configurator
Platform Templates
ADSP-21065L (1 processor) via HPUSB-IC
ADSP-21160 (1 processor) via HPUSB-ICE
ADSP-21161 (1 processor) via HPUSB-ICE
ADSP-21262 (1 processor) via HPUSB-ICE
ADSP-21364 (1 processor) via HPUSB-ICE
ADSP-21369 (1 processor) via HPUSB-ICE
ADSP-21375 (1 processor) via HPUSB-ICE
ADSP-21469 (1 processor) via HPUSB-ICE
ADSP-21479 (1 processor) via HPUSB-ICE
ADSP-21489 (1 processor) via HPUSB-ICE
ADSP-BF506F (1 processor) via HPUSB-IC
ADSP-BF518 (1 processor) via HPUSB-ICE
ADSP-BF526 (1 processor) via HPUSB-ICE
Platforms
Platform 0
Copy...
New...
Modify...
Delete...
Delete All...
Save
OK
Cancel
Test...
Help
OK




Select Platform 0 then Finish

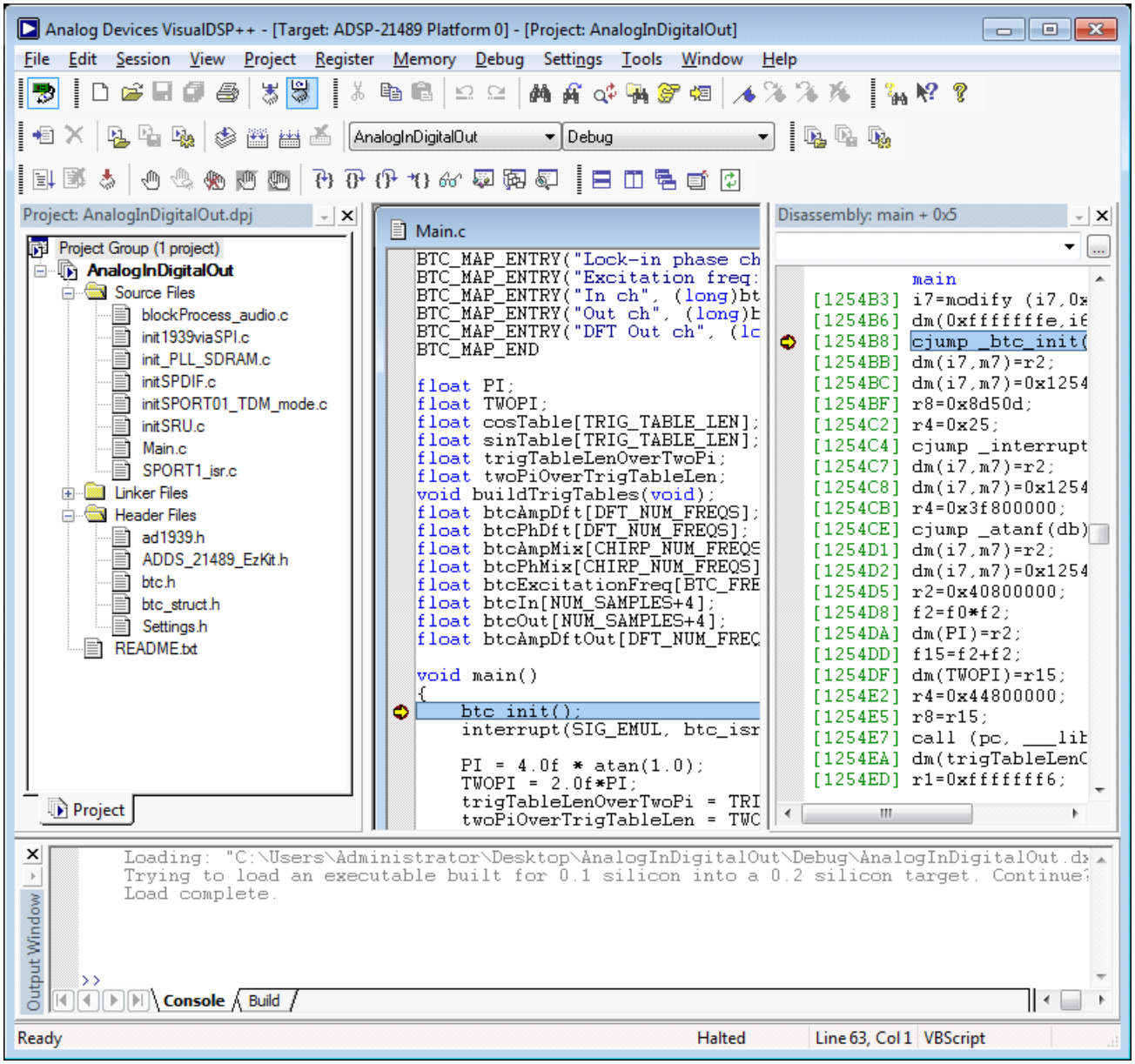



Click OK



Click Activate

Project should build now automatically




Reload the binary

Run (F5)

!