



iCEcube2 Installation Guide

APRIL 12, 2014

Platforms Supported

iCEcube2 Tools

iCEcube2 - Windows Installation

- Assemble required materials
- Perform the installation
- Verify installation success
- Install Programming Tools.

iCEcube2 – Linux Installation

Uninstall/Modify iCEcube2

Floating License Setup

Appendix A: Node Locked License File Troubleshooting.

Appendix B: Install iCEman driver on Vista Home.

Node-locked License

- Windows 7 OS, 32-bit / 64-bit
- Windows XP Professional

Floating License Server

- Windows 7 OS, 32-bit / 64-bit
- Windows XP Professional
- Red Hat Enterprise Linux WS v4.0

iCEcube2 Tool Suite consists of Synthesis, Place and Route, Simulation and programming tool sets.

Features	Windows OS	Linux OS
iCEcube2 Core Tools	Yes	Yes
Lattice Synthesis Engine(LSE)	Yes	Yes
Synplify-Pro Synthesis	Yes	Yes
Integrated ALDEC Active-HDL Simulator*	Yes	No
iCEcube2 Programming Tools*	Yes	No
Lattice Diamond Programmer**	Yes	Yes

* Integrated ALDEC Active-HDL simulator and iCEcube2 Programming tools are only available in windows platform.

** Lattice Diamond Programmer is the preferred device programmer for the Lattice iCE devices.

Download the latest iCEcube2 installer from Lattice website.

<http://www.latticesemi.com/products/designsoftware/icecube2/downloads.cfm>

- Registration is required prior to download

Request the license file from lattice admin(lic_admn@latticesemi.com). License file enables the iCEcube2 IDE, Synplifypro synthesis tool and the Aldec Active-HDL simulator.

- Node-Locked License (Windows only)
 - Launch “cmd” console, type “ipconfig –all” to get the MAC ID of the system.
 - Submit your MAC ID to Lattice.
- Floating License (Linux & Windows)
 - Submit the MAC ID of your license server to Lattice
 - Windows
 - Launch “cmd” console, type “ipconfig /all” to get the MAC ID.
 - Linux
 - Type “ifconfig –a”. The Ethernet HWAddr gives the required MAC ID.
 - You will need to modify the license file to include your license server name and port information.

Launch the iCEcube2 windows installer

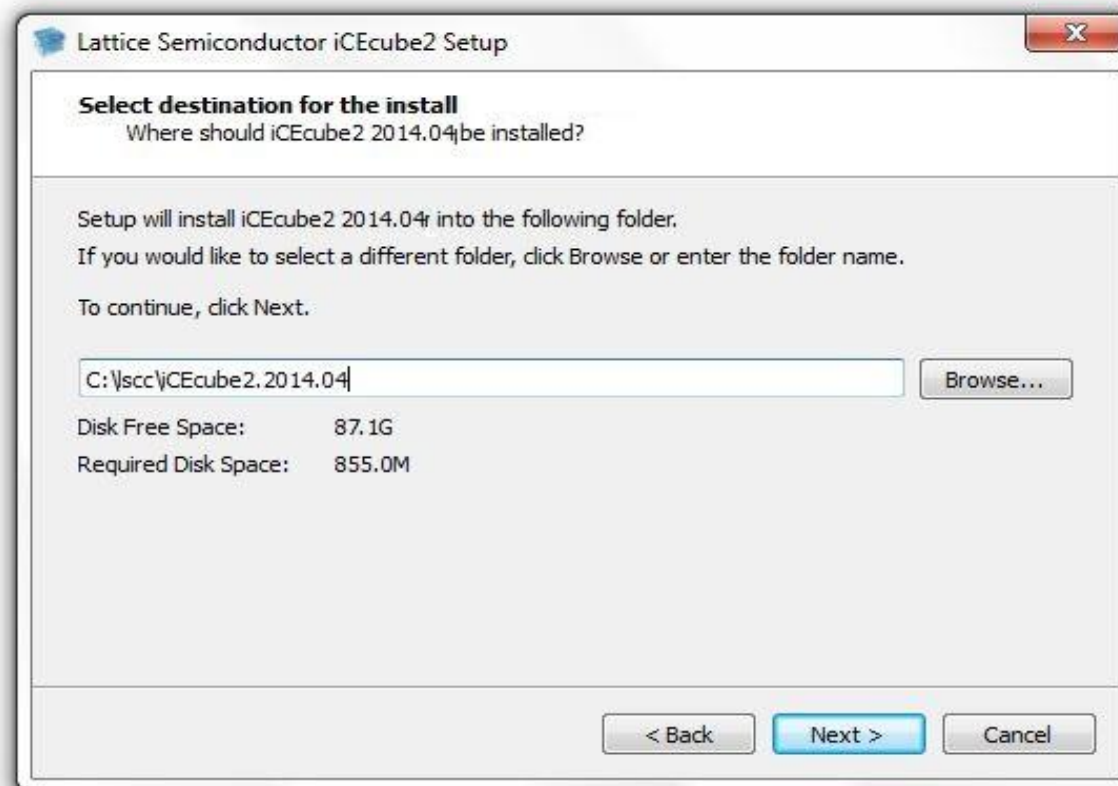


Accept the license agreement



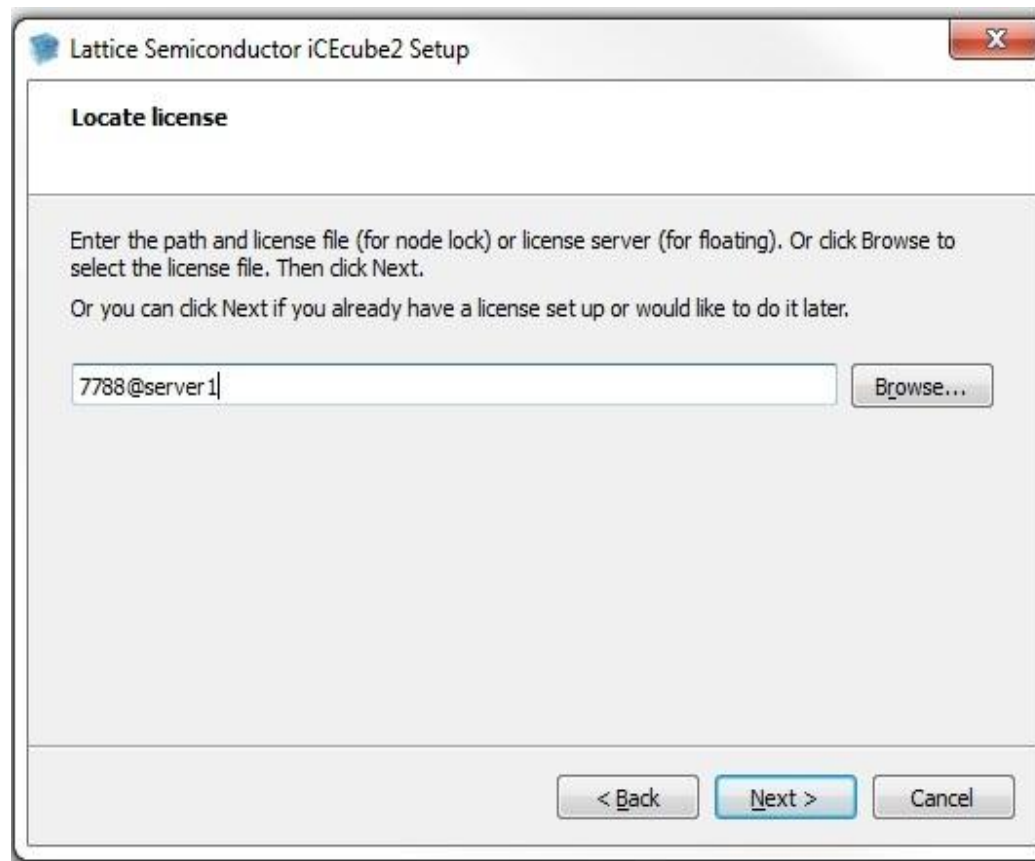
Select the installation directory

- Default location is recommended
- No spaces are allowed



Specify iCEcube2 license by either:

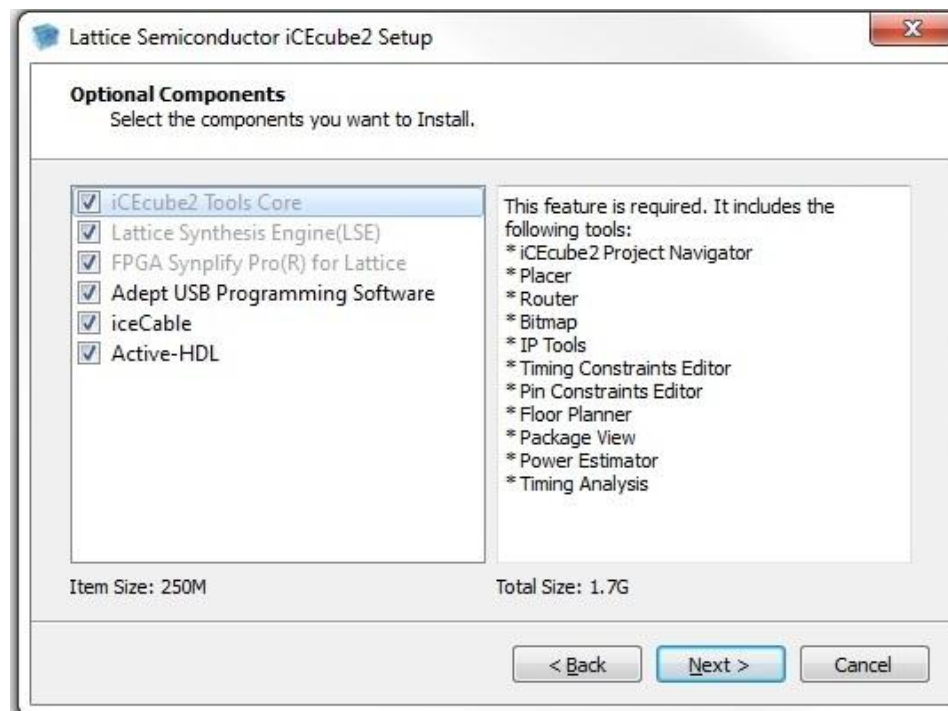
- Browsing to locate a license file on disk
- Typing a floating license server into the text box



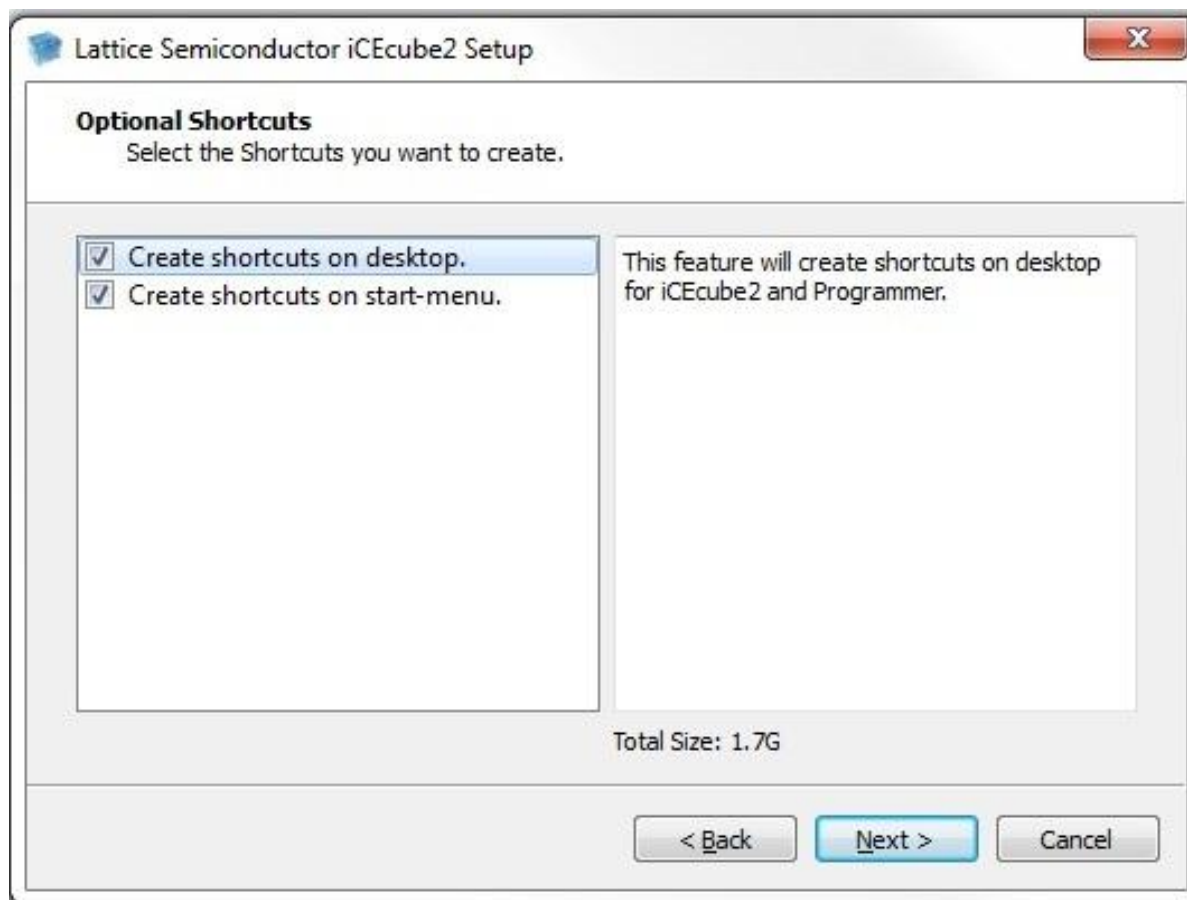
Install Adept USB Programming Software for iCEman or iCEcable.

- Check off the boxes if you have already installed or do not need to program iCE65/iCE40 Evaluation Boards

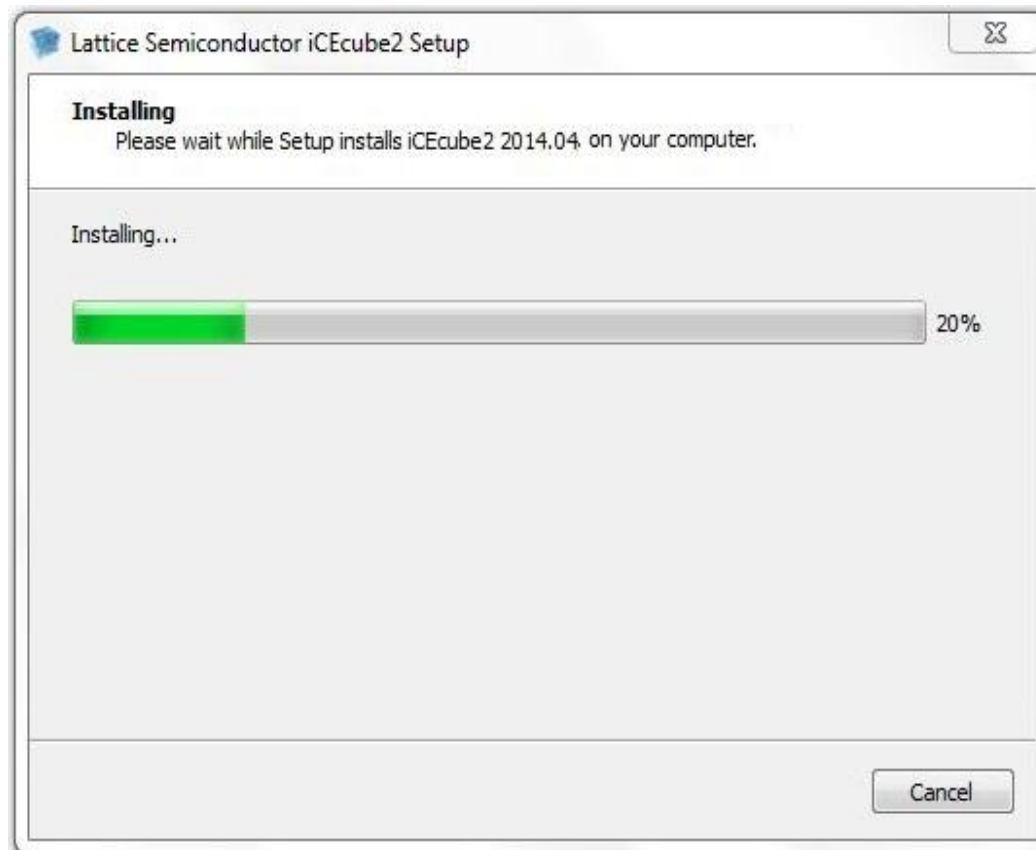
Install the “Active-HDL” Windows based Simulation Software for functional and timing verification.



Create shortcuts on desktop and start-menu.



Installer starts to install iCEcube2 on your computer



When the Setup Wizard is finished, click “Finish” to exit and launch iCEcube2.

Congratulations!! You have successfully installed iCEcube2.



To program the iCE65/iCE40 evaluation boards either the Lattice Diamond Programmer (preferred) or the programming software's shipped with iCEcube2 installer needs to be installed.

Lattice Diamond Programmer:

Lattice Diamond programmer is the preferred programmer to program the iCE devices. Download and install the latest Lattice Diamond Programmer from Lattice website.

<http://www.latticesemi.com/Products/DesignSoftwareAndIP/ProgrammingAndConfigurationSw/Programmer.aspx>

iCEcube2 Programmer:

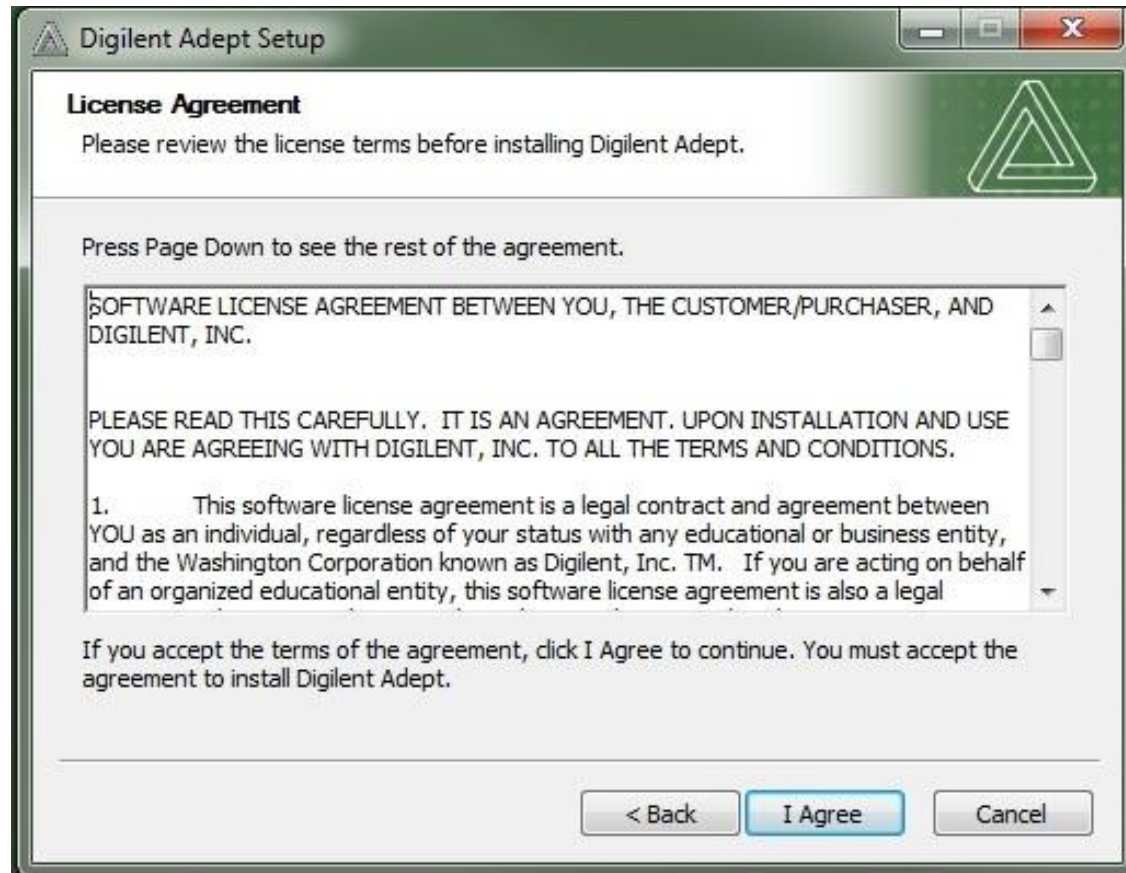
The iCEcube2 programming software's can be either installed along with iCEcube2 installation process (slide 10) or through the “Modify” installation options (slide 32) as and when required. Slide 15 to 25 explain the steps in installing iCEcube2 programming tools.

Note: The iCEcube2 programming tools are only available in windows platform.

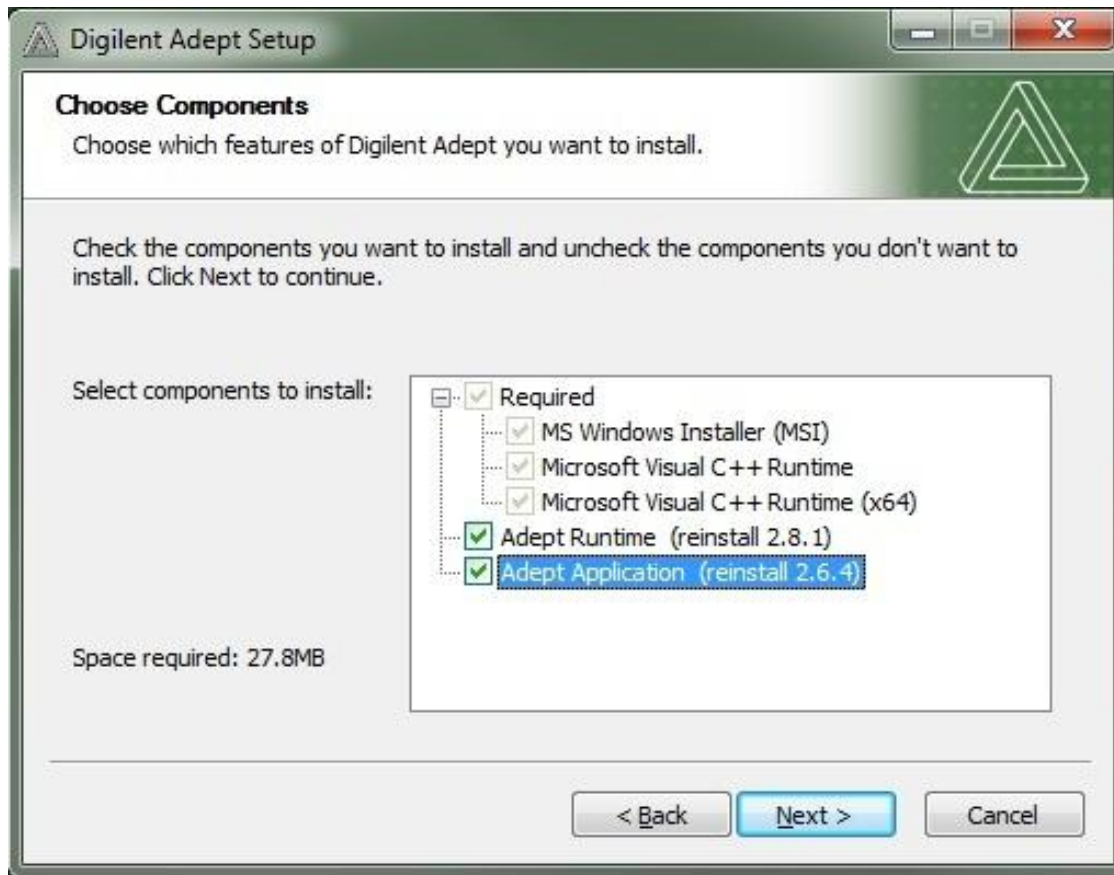
Adept installs the required USB drivers for iCEman65 and iCEblink40 evaluation kit boards in your system.



Review the license agreement and Click on “I Agree”.



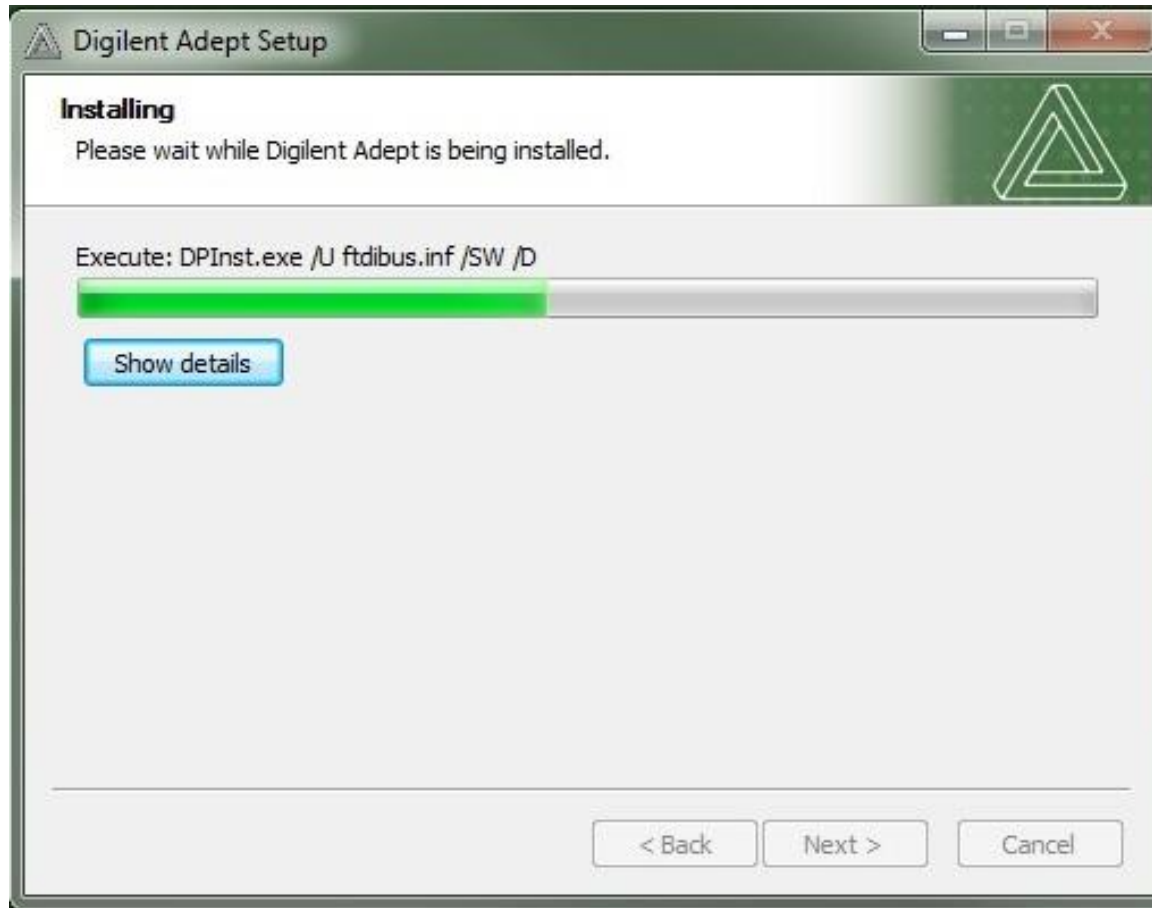
Select the components to Install and click on “Next”.



Select the “Destination Folder” and click on “Install”.



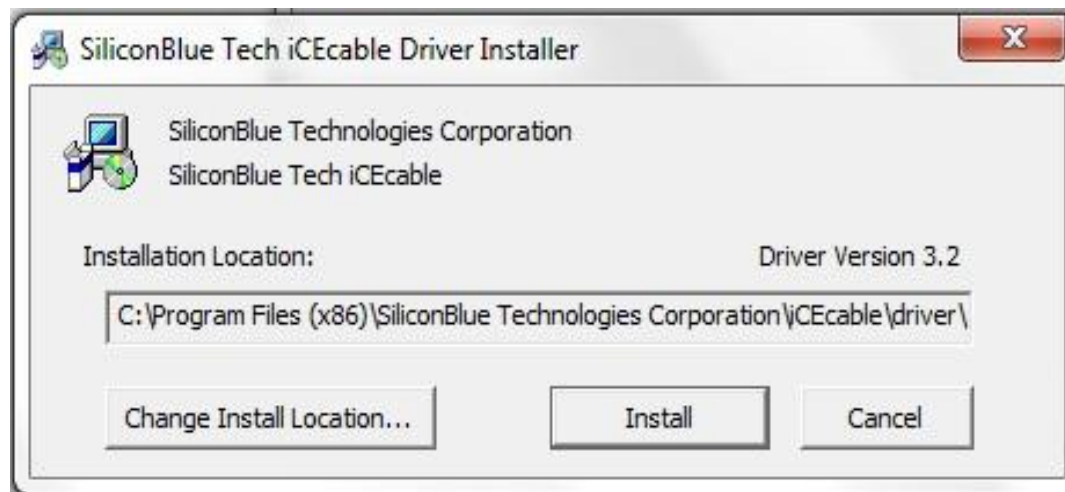
Install Wizard starts to install Adept.



Installation of Adept completed. Select “Finish” to close the wizard.



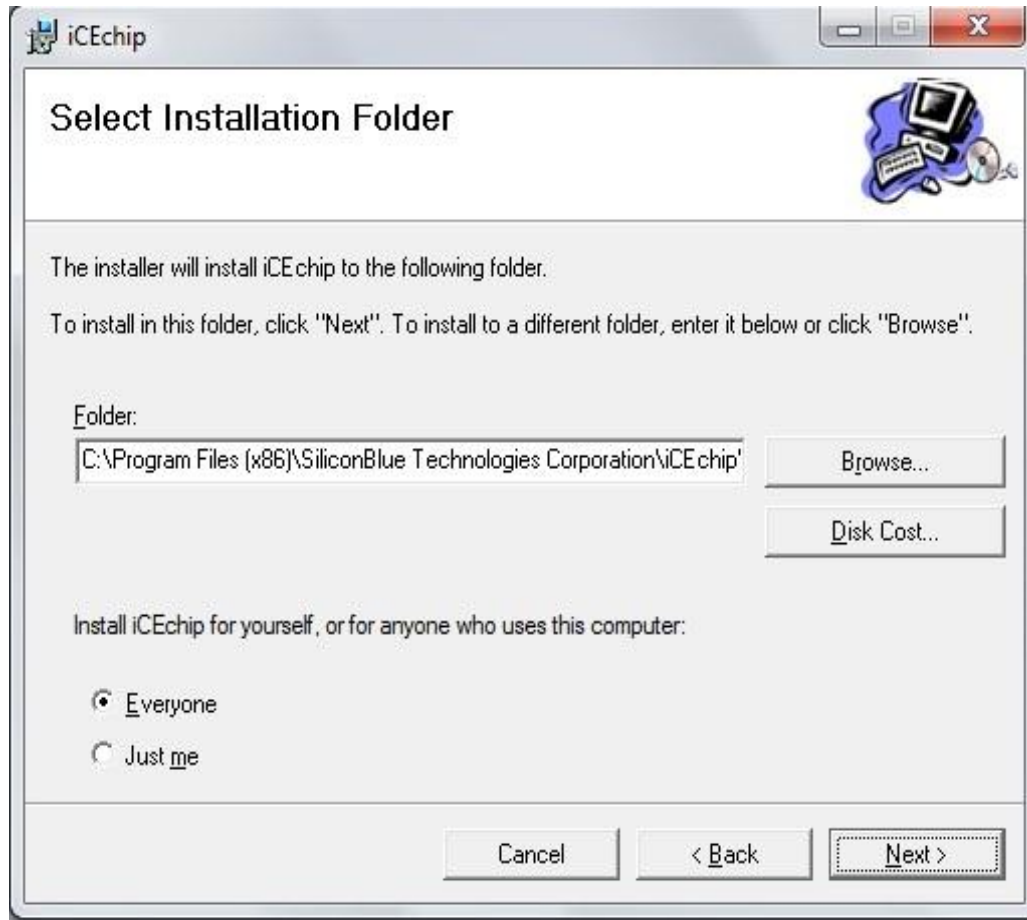
iECable driver is required for programming the boards.
Click on “Install” to install the iECable driver.



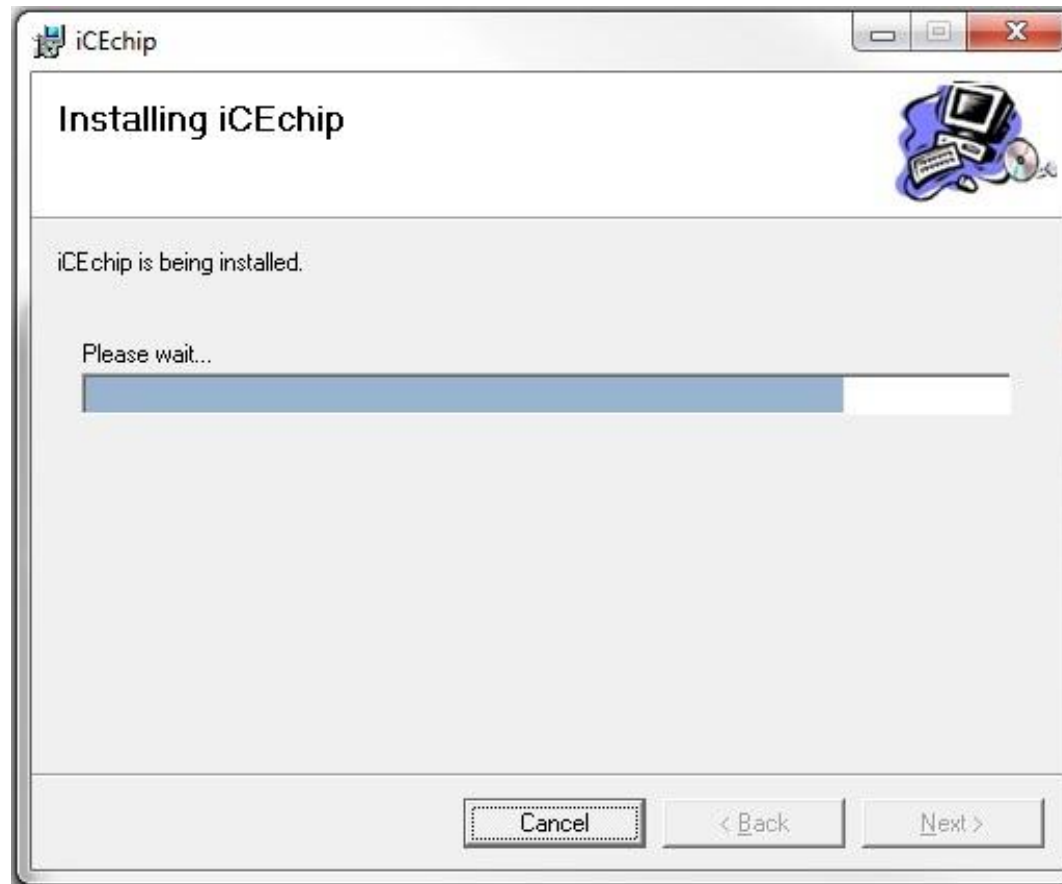
iCEchip is a software tool to program the NVCM for the FPGA devices.



Select the installation folder and click on “Next” to install iCEchip.



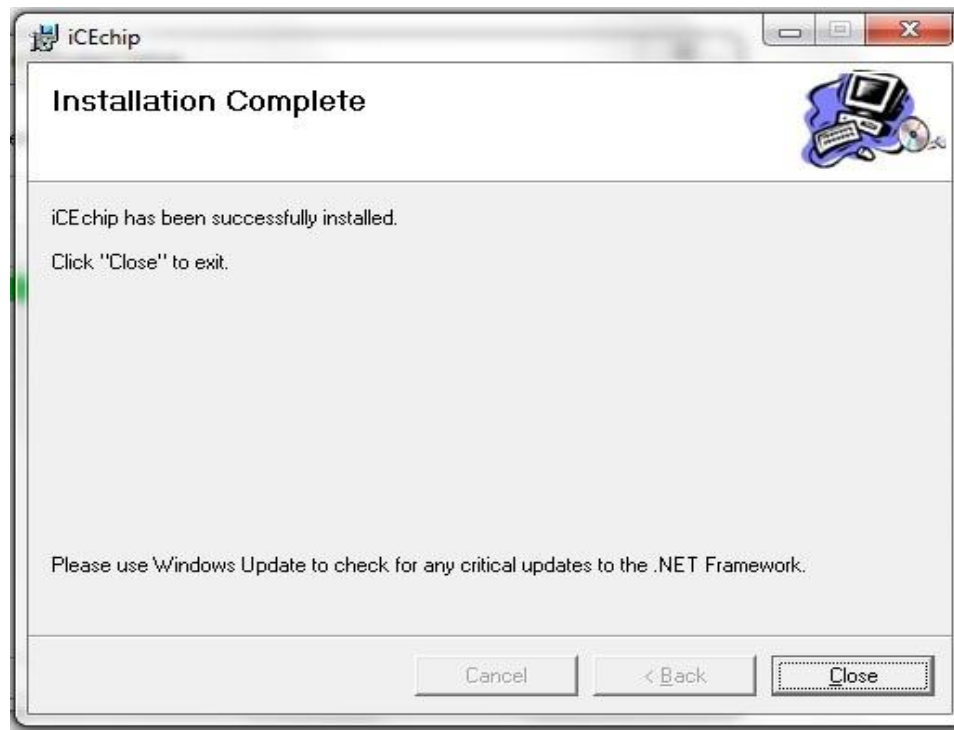
Setup starts to install iCEchip.



iCEchip installation completed.

iCEchip can be invoked by

- Double Click on the Desktop Icon.
- Start->Programs->iCEchip->icechip.



Download the latest iCEcube2 installer for linux from Lattice website.

<http://www.latticesemi.com/products/designsoftware/icecube2/downloads.cfm>

Launch the iCEcube2 linux installer

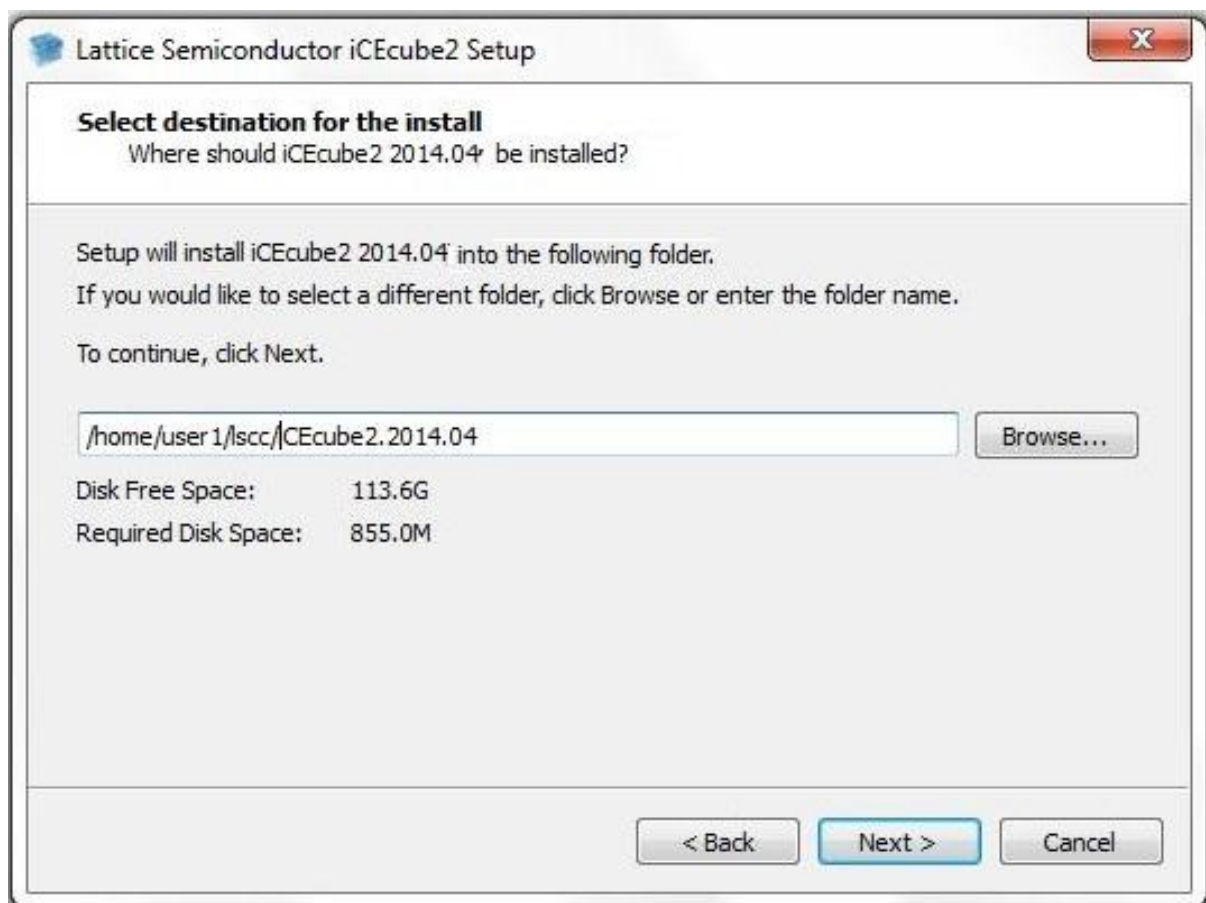


Accept the license agreement



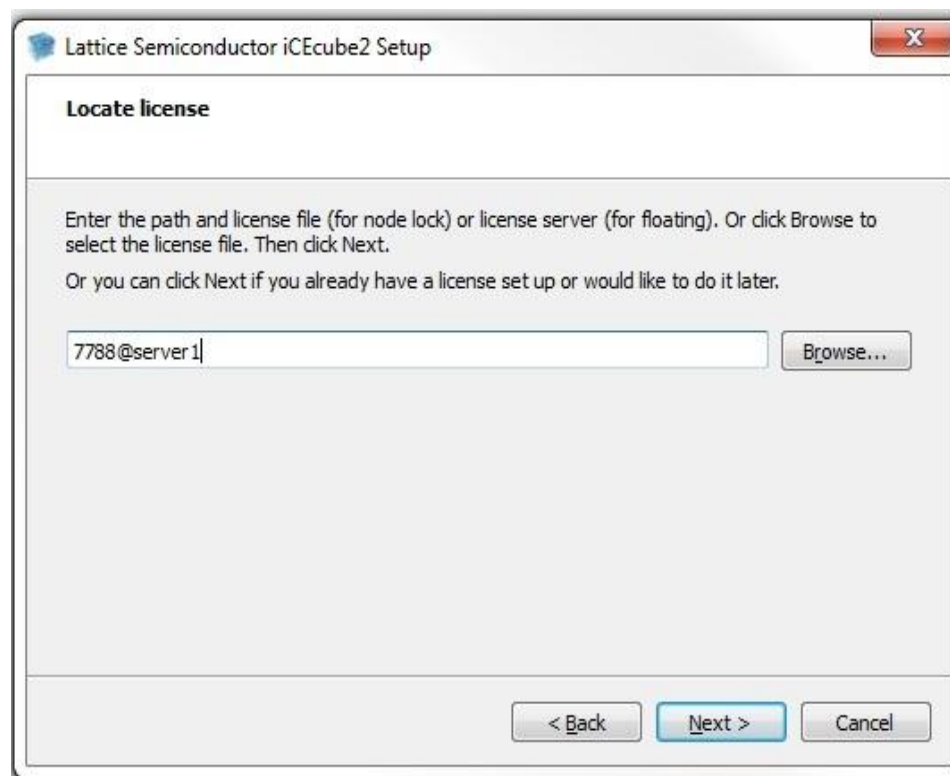
Select the installation directory

- Default location is recommended
- No spaces are allowed

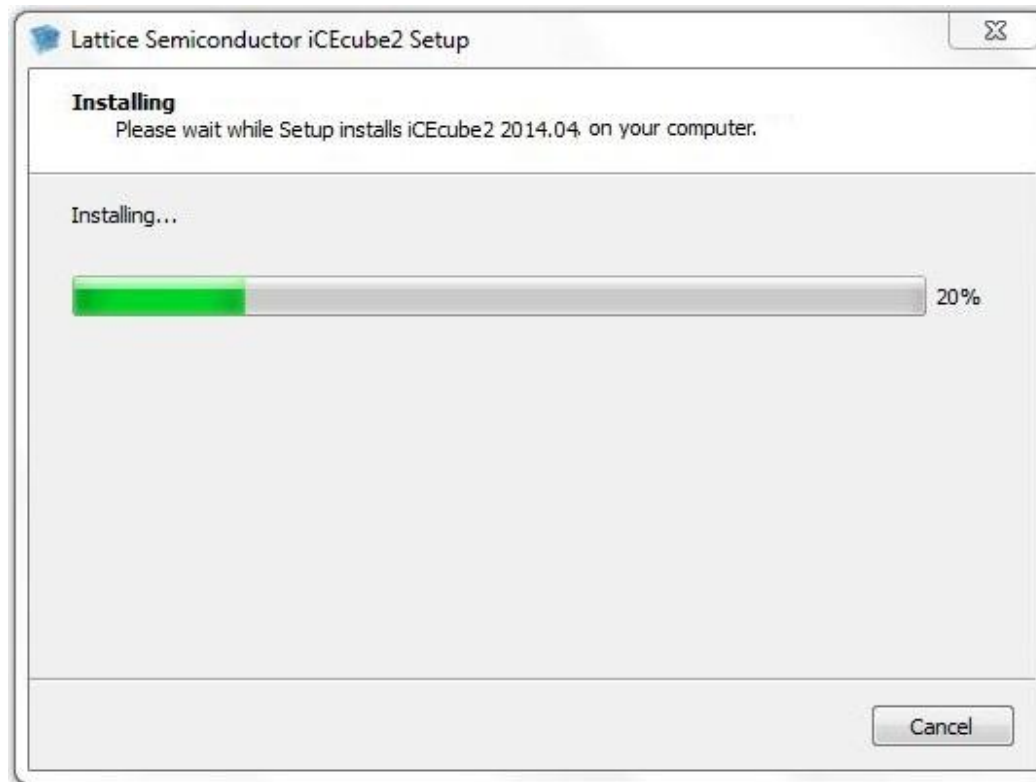


Specify iCEcube2 license by either:

- Browsing to locate a license file on disk
- Typing a floating license server into the text box



Installer starts to install iCEcube2 on your computer



When the Setup Wizard is finished, click “Finish” to exit and Launch iCEcube2.

Invoke iCEcube2 from bash shell by “<installation_dir>/iCEcube2 &’

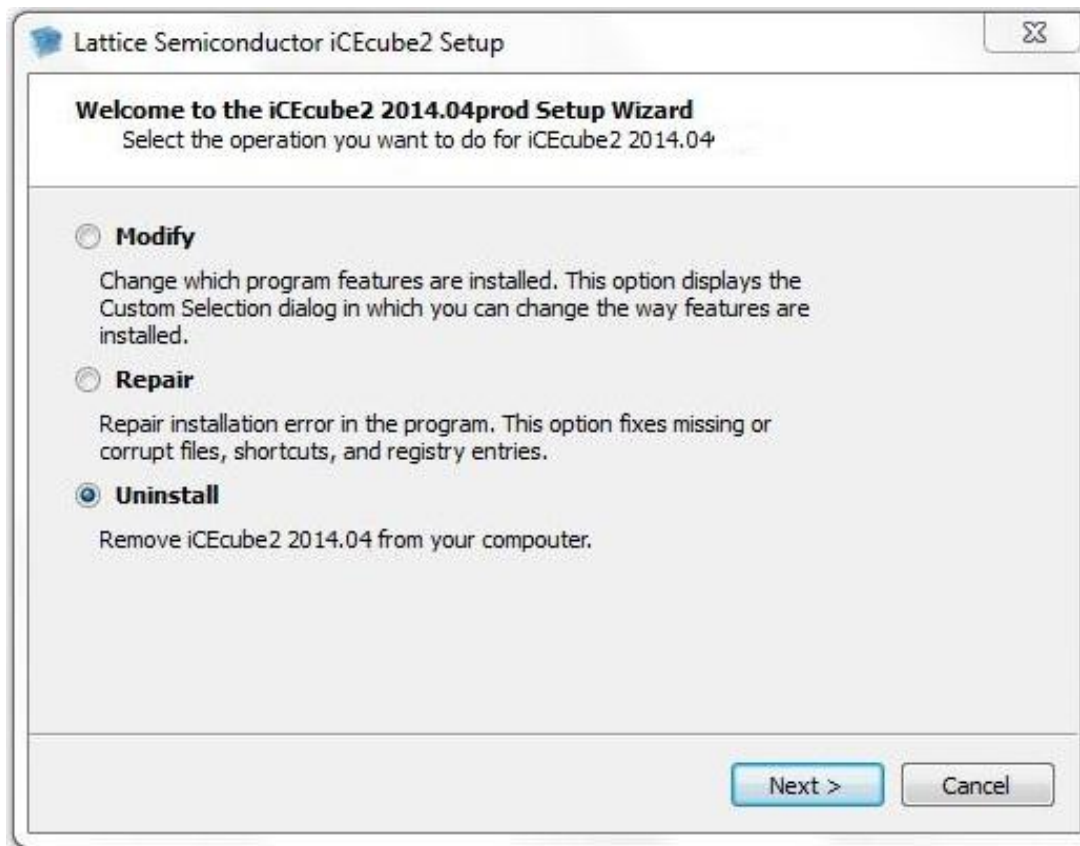


Note : The Integrated Aldec Active HDL simulation software and iCEcube2 programming tools are only available in windows platform.

Invoke `<installation_dir>/Setup.exe`

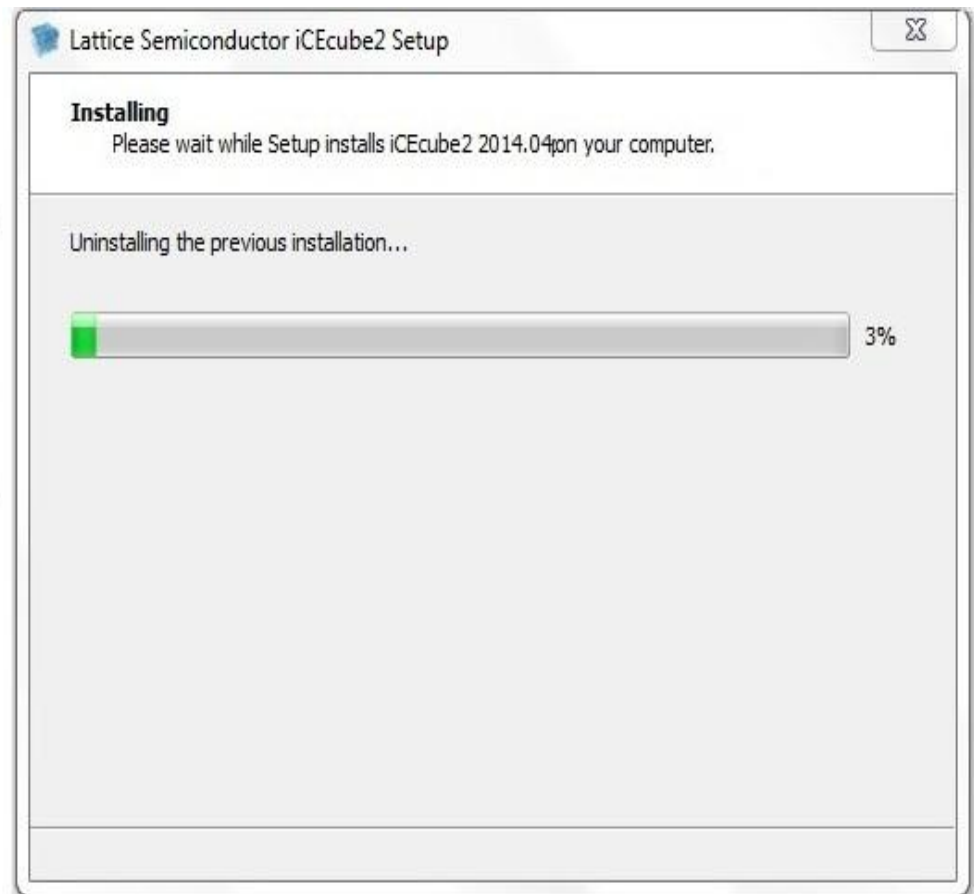
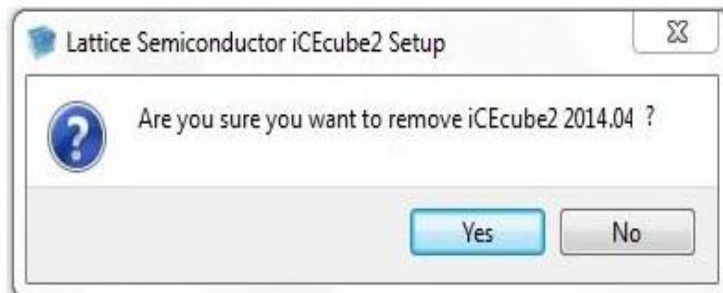
Use Modify option to install the required programming tools for windows.

Now, Select Uninstall option to uninstall the iCEcube2 software



Confirm to uninstall iCEcube2.

Setup wizard starts to uninstall the software from your computer.



Uninstall process completed. Click on “Finish” to exit the setup wizard.



iCEcube2 license management utilities are located at
<instllation_dir>\sbt_backend\bin\win32\opt

- Imgrd.exe : License server program.
- Imutil.exe : FLEXlm utility to diagnose ,control license
- Imtools.exe : Utility to setup and control floating server
- ispdsgmn.exe : The Lattice Semiconductor licensing daemon for windows

Edit the floating license file to specify the server name , port and the paths to the Lattice daemon.

```
SERVER <servername> 0018d1ye3037 <portnumber>  
DAEMON lattice <instllation_dir>\sbt_backend\bin\win32\opt\ispdsdmn.exe
```

```
FEATURE LSC_ICECUBE2_A lattice 10.0 11-mar-2014 10 7B847C77C779 \  
VENDOR_STRING="LSC_ICECUBE2_A "
```

```
FEATURE LSC_ADVANCED lattice 8.0 11-mar-2014 10 FF474427C07C \  
VENDOR_STRING="ispLEVER Advanced "
```

.....

Start license server using the Imgrd/Imtools program.

Each client PC must have the LM_LICENSE_FILE variable set to point to the license server.

iCEcube2 license management utilities are located at
<instllation_dir>/sbt_backend/bin/linux/opt

- **Imgrd.exe** : License server program.
- **Imutil.exe** : FLEXlm utility to diagnose ,control license.
- **lattice** : The Lattice Semiconductor licensing daemon for linux

Edit the floating license file to specify the server name , port and the paths to the Lattice daemon.

```
SERVER <servername> 0018d1ye3037 <portnumber>
DAEMON lattice <instllation_dir>/sbt_backend/bin/linux/opt/lattice

FEATURE LSC_ICECUBE2_A lattice 10.0 11-mar-2014 10 7B847C77C779 \
  VENDOR_STRING="LSC_ICECUBE2_A "

FEATURE LSC_ADVANCED lattice 8.0 11-mar-2014 10 FF474427C07C \
  VENDOR_STRING="ispLEVER Advanced "
```

.....

Start license server using the Imgrd utility.

Each client PC must have the LM_LICENSE_FILE variable set to point to the license server.

Verify that the required network adapter is present

- Inspect the license file, and make note of the HOSTID string (e.g. HOSTID=000C2965945E)
- Windows
 - Launch “cmd” console, type “ipconfig –all”
- Linux
 - Type “ifconfig –a”
- Verify that one of the network adapters listed has a physical address that matches HOSTID

Make sure LM_LICENSE_FILE environment variable points to the license.dat file.

Re-run the iCEcube2 license setup wizard

- Navigate to the iCEcube2 installation directory
- Launch “LicenseSetup.exe” and re-enter the license path and file name

APPENDIX B: INSTALL ICEMAN DRIVER ON VISTA HOME



There is a bug in the current installer that occurs only in Windows Vista Home.

- Skip the workaround for other OS versions

Implement workaround before installation by turning off user account control (UAC)

Change this option using the control panel

- Method 1: Control Panel Standard View
- Method 2: Control Panel Classic View

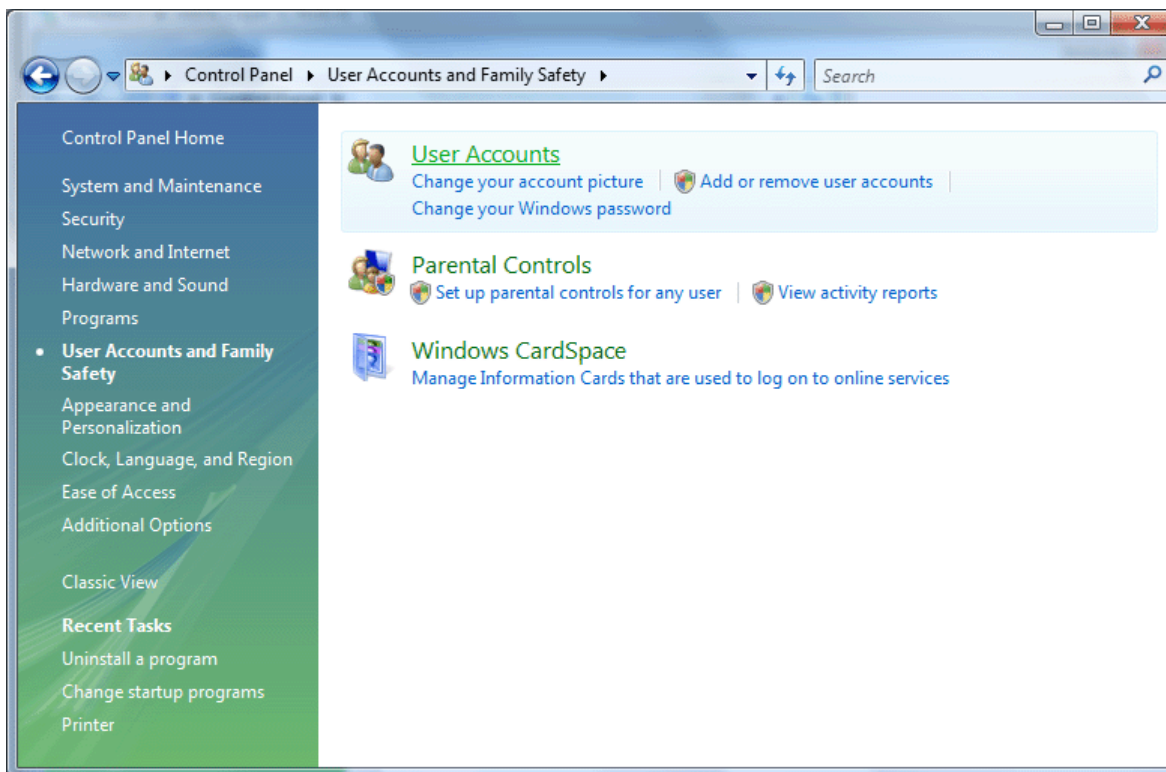
REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Standard View, step 1 of 4: Click “User Accounts and Family Safety”



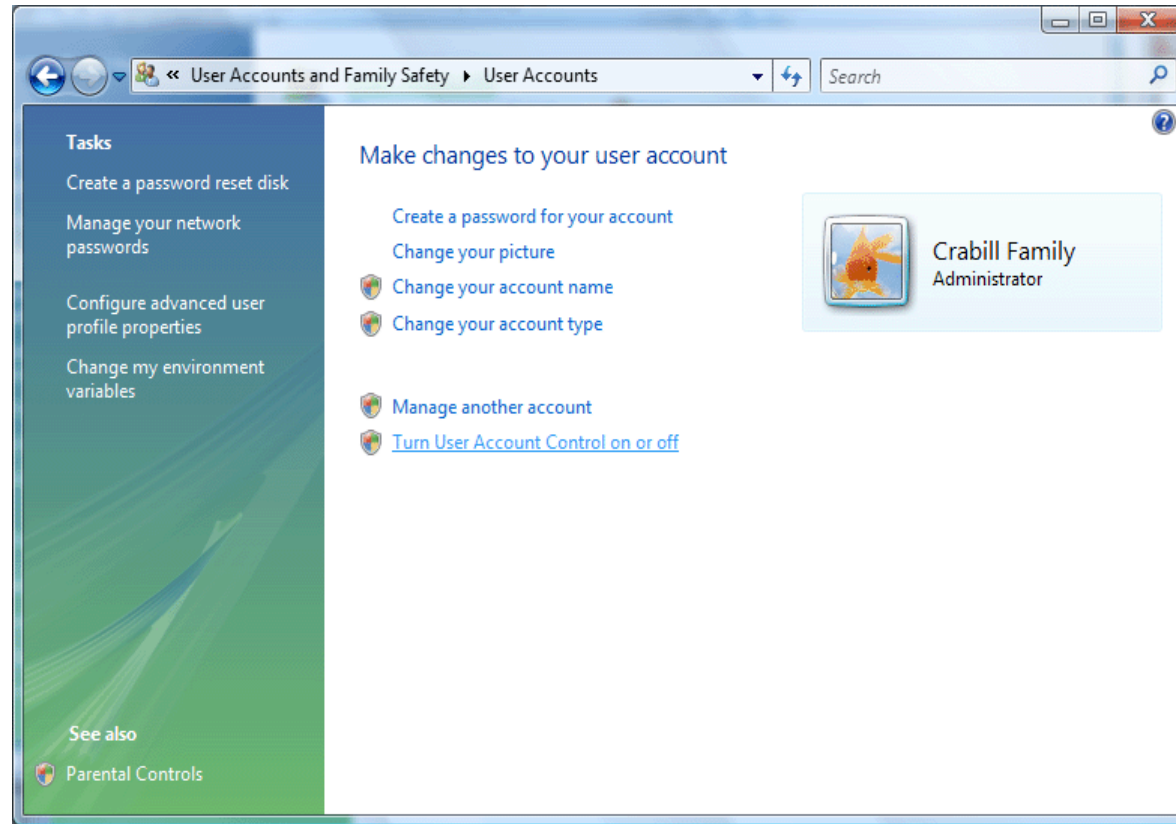
REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Standard View, step 2 of 4: Click “User Accounts”



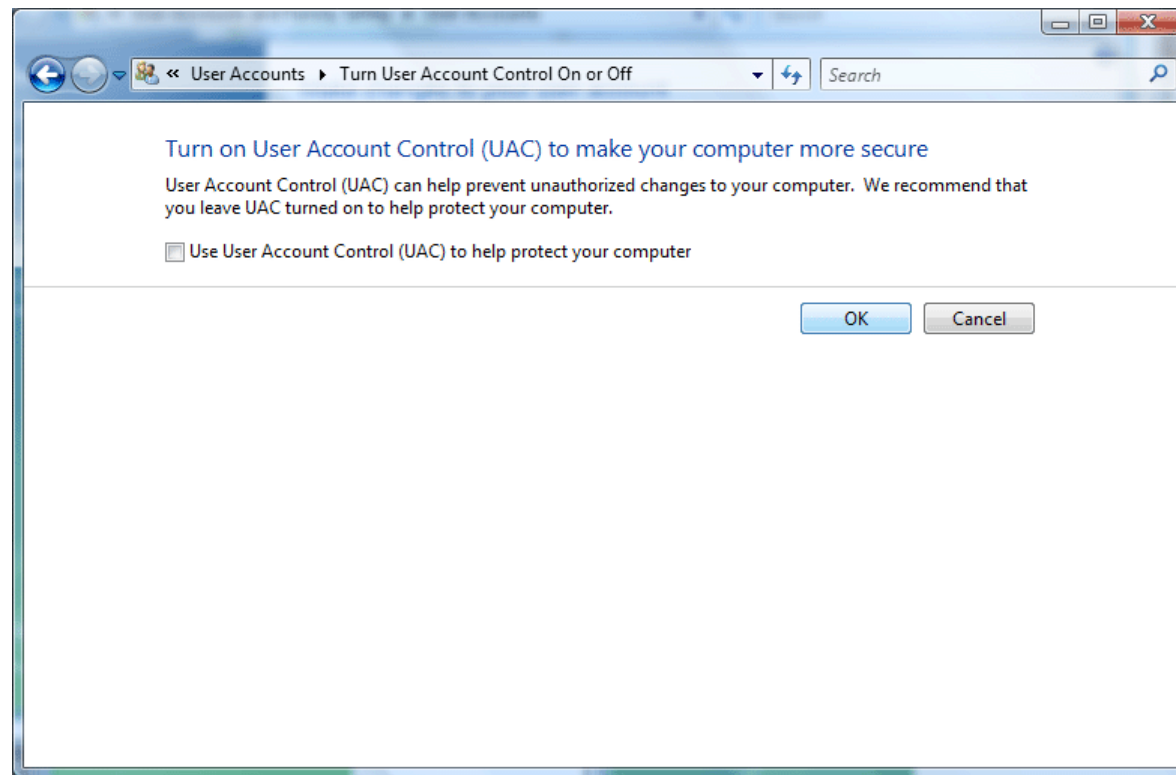
REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Standard View, step 3 of 4: Click “Turn User Account Control on or off”



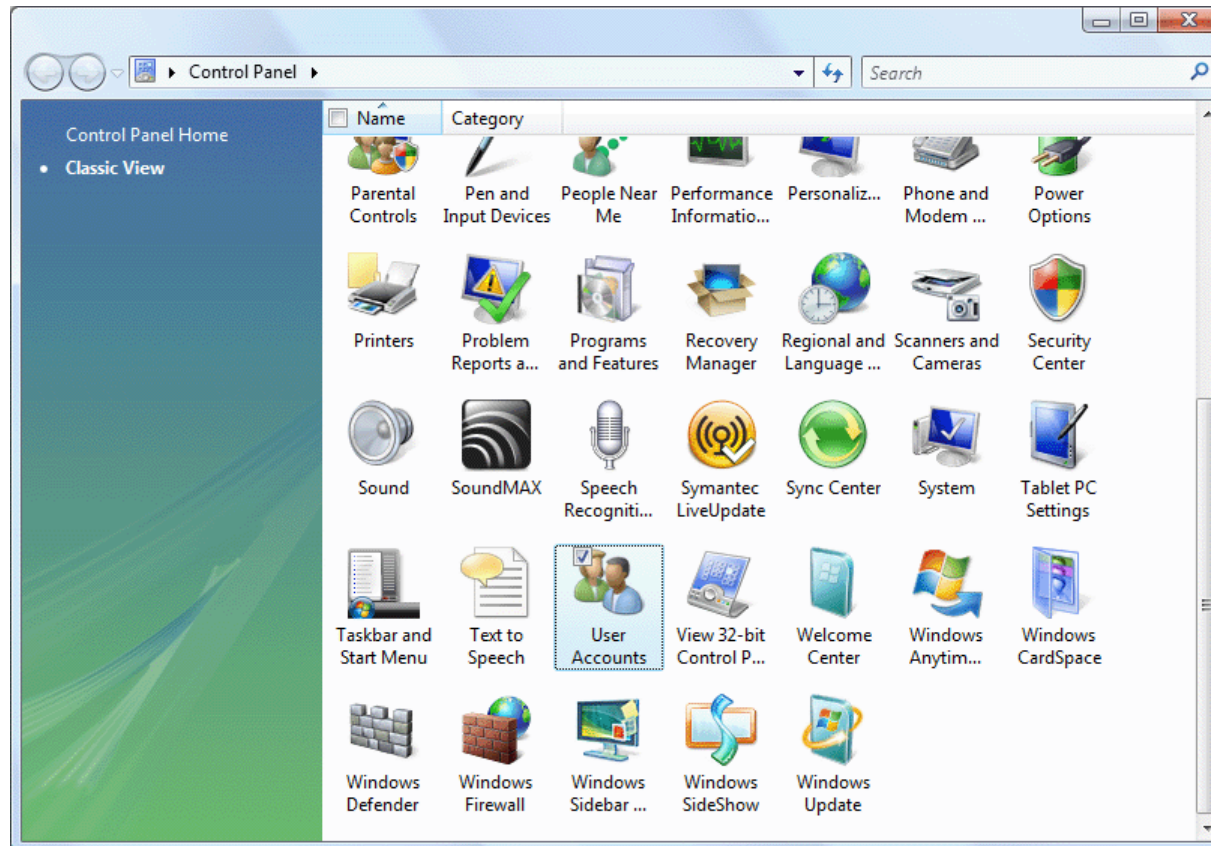
REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Standard View, step 4 of 4: Uncheck “Use User Account Control” if checked, click OK.



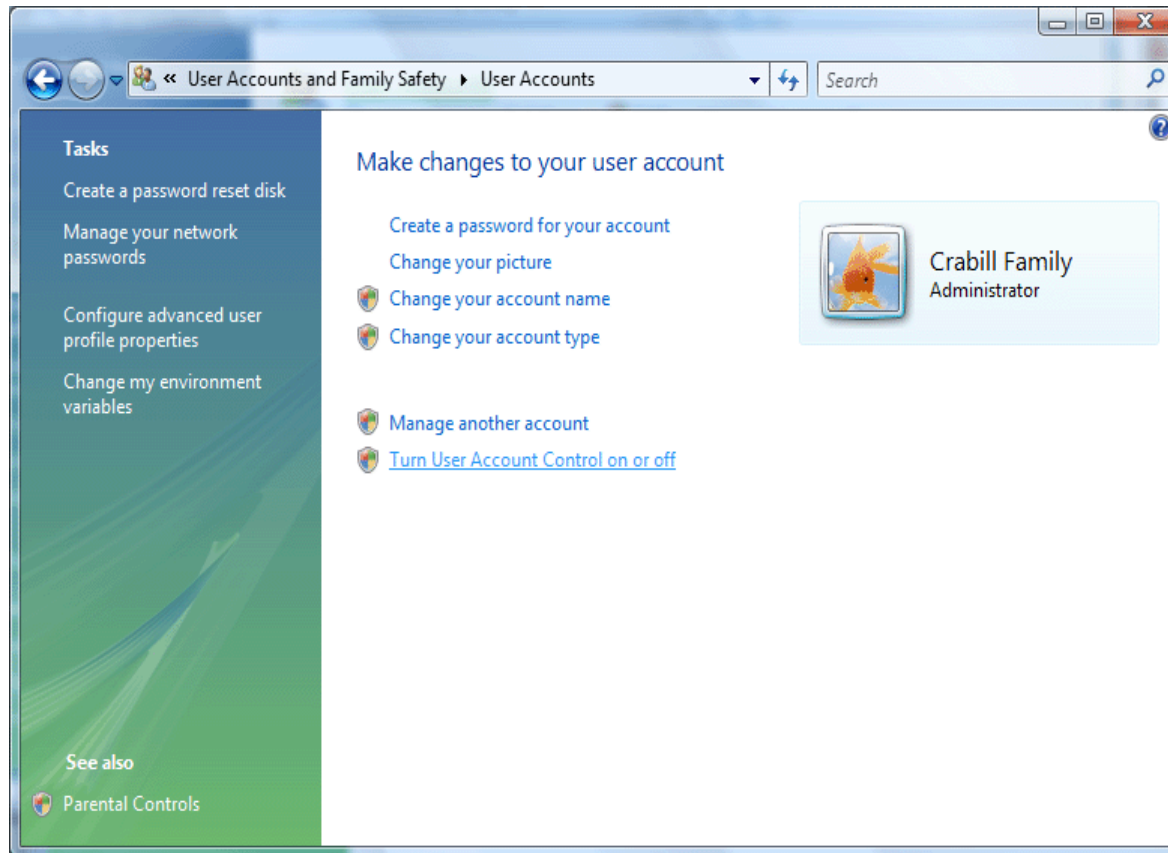
REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Classic View, step 1 of 3: Click “User Accounts”



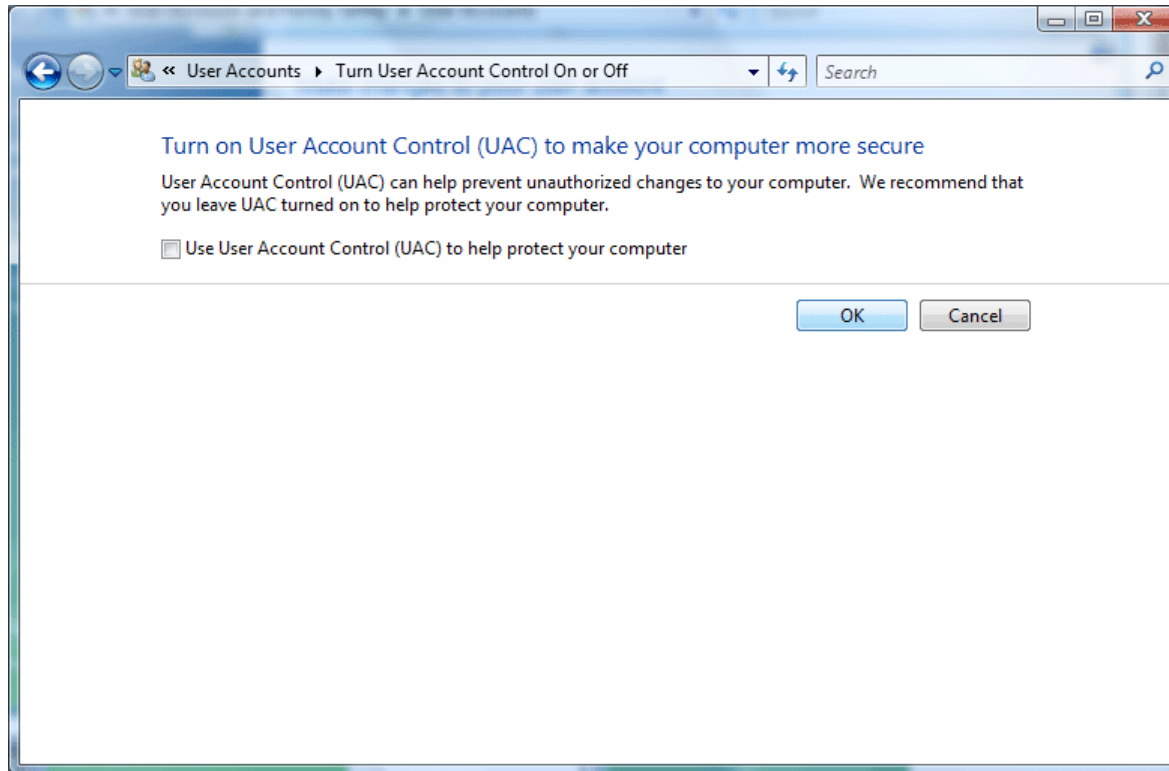
REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Classic View, step 2 of 3: Click “Turn User Account Control on or off”



REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)

Classic View, step 3 of 3: Uncheck “Use User Account Control” if checked, click OK



REQUIRED WORKAROUND (WINDOWS VISTA HOME ONLY)



Windows Security Center may issue warnings once UAC is turned off. If desired, turn UAC on after installation.