Dream Cheeky Missile Launcher

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COMPUTER SCIENCE 323 – SOFTWARE DESIGN

Missile Launcher

This presentation will walk you through how to setup your missile launcher.

It will provide a tutorial to assist you in controlling the missile launcher, required libraries, and how to run the test program.

Device Background

The DreamCheeky Thunder Missile is a USB enabled foam missile launcher that uses air burts to shoot foam missiles.

The Range is about 25 feet, but the accuracy will be low at that range.

The missile launcher is available online at ThinkGeek.com

You can download some control software online at:

http://www.dreamcheeky.com/download-support

You can learn more about it by visiting the product web-page

http://www.dreamcheeky.com/thunder-missile-launcher

Application Programming Interface (API)

To programmatically control your missile launcher you will have to use an API.

You may find one via Google. One is hosted on Google Code that has worked well for me in the past.

- http://code.google.com/p/thunder-missile-api/

This page hosts a single C# source file that provides all the methods you'll need to control the device for your project.

Universal Serial Bus (USB) Library

You'll need a USB library (DLL) to interact with the device. This USB library is installed with the Thunder Missile Launcher software whose download link is listed on a previous slide.

This library is USBLib.dll and is provided in the vendors program folder.

Steps

So before you start writing code:

- 1. Download the Thunder Missile Launcher Software
- 2. Install the program on your machine
- 3. Download the MissileLauncher.cs class from the Google Code page (Apache License)

Make sure that your Missile Launcher will work first by the software. This makes sure that you can control the device before you write code. VALIDATE ALWAYS!

Example Project

Use git to download the example project provided here:

- GIT

Make sure you can run the example before you developer code. VALIDATE ALWAYS!

You can use this as a basic test to try new functionality if you need to in the future.

USB Tangent:

Note that the device has a specific Vendor and Product ID that the USB library needs to know before it can control or communicate with the device.

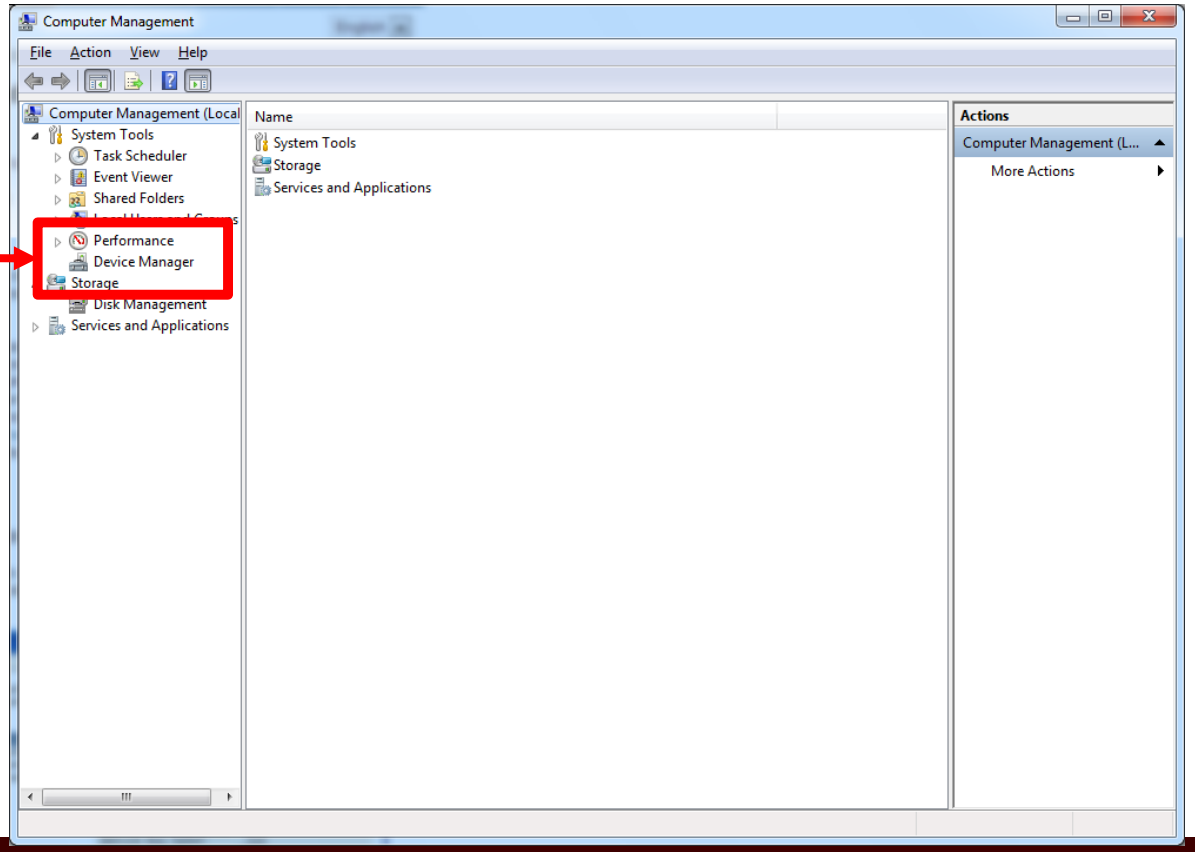
These next few slides detail how you can find this information easily. However, the example project should list the appropriate vendor and product ID.

USB Tangent: Finding the Vendor and Product ID via Device Manager

Windows has a GUI application that allows you to validate the hardware on your machine, update drivers, etc.

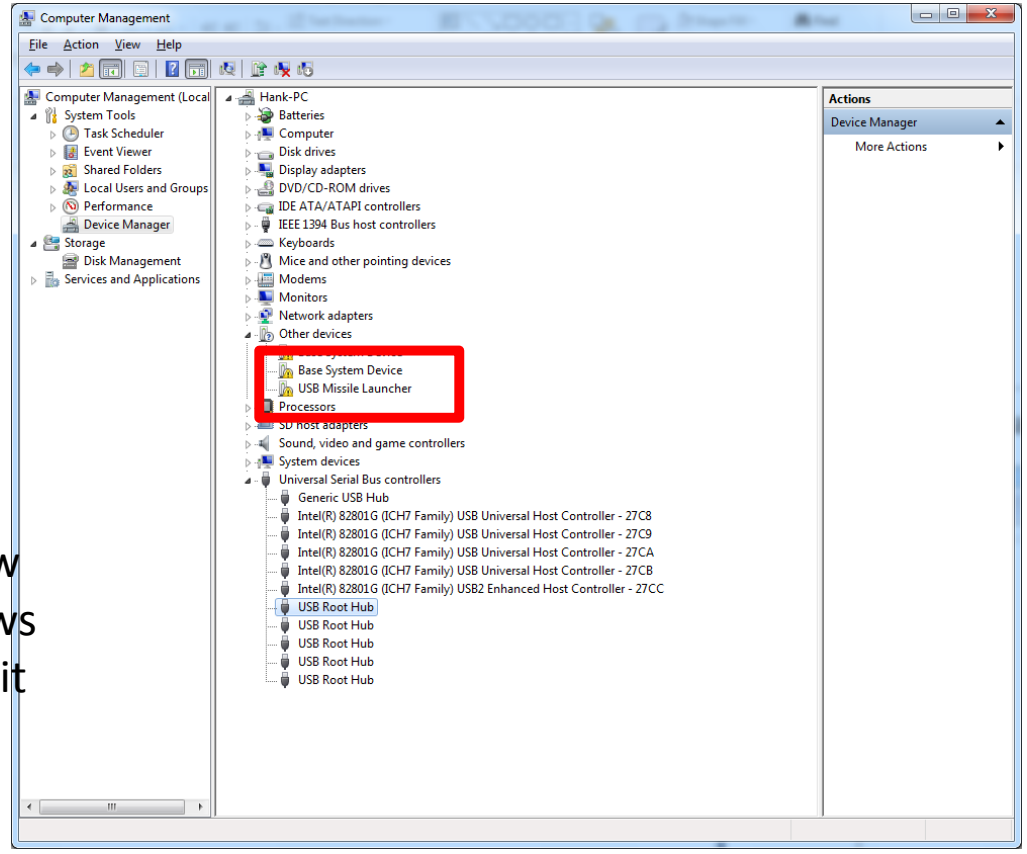
Right Click -> My Computer -> Manage

Then click here!

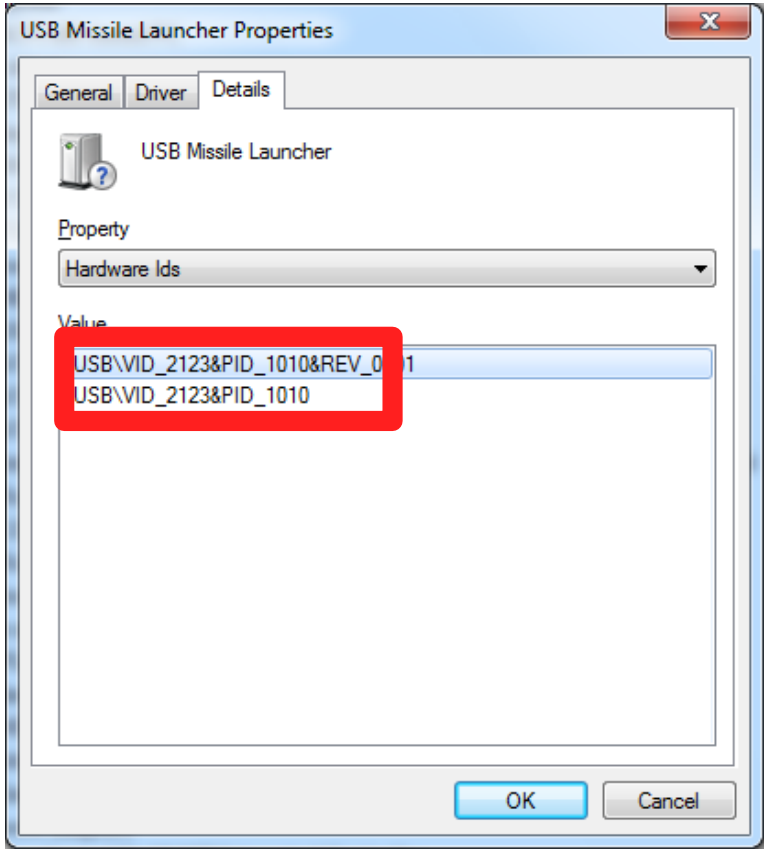


Physically plug the Missile Launcher

Note that the highlighted may show up only for a second, while Windows tries to install device drivers…then it will disappear.



Right Click → Properties → Select Details → Hardware Ids



Vendor ID = 2123
Product ID = 1010