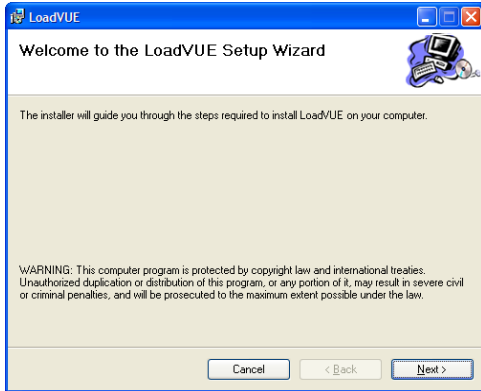
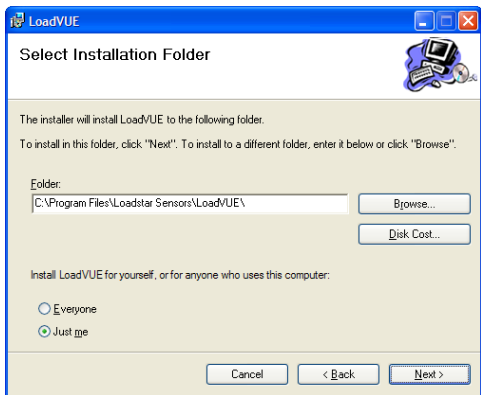


Installation

Insert the LoadVUE CD-ROM into your drive. The installation Wizard should start up automatically. If it does not, click **Start...Run...** and use the **Browse** button to select X:\setup.exe where X: stands for the letter of your CD-ROM drive. Click OK until the LoadVUE setup screen appears. Click **Next**.



Select the installation folder. Click **Next** twice and LoadVUE will be installed.



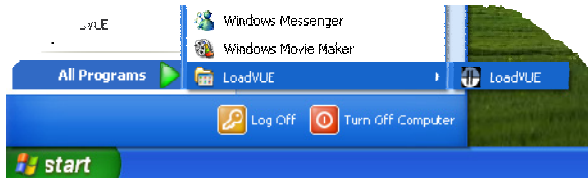
Note: LoadVUE requires the presence of Microsoft .NET Framework. Most versions of Windows XP and Windows Vista already contain .NET Framework. If your computer does not have it, you will be prompted to install it.

iLoad Digital USB Sensor Driver Installation

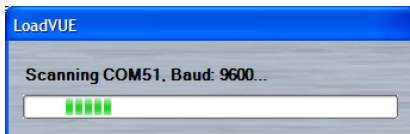
LoadVUE installation will also install the drivers needed automatically. If you want to connect the sensors to other computers without LoadVUE however, you may need to install the drivers manually. In that case, please plug in your sensors and install the drivers following the instructions in the section [Driver Installation and Operation of iLoad Digital USB Sensors](#). Otherwise, please skip to the next section.

Operation

To run LoadVUE, click **All Programs...LoadVUE** or double-click on the Desktop shortcut for LoadVUE.

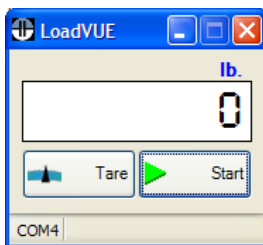


LoadVUE will scan all installed COM ports for attached sensors.



Note: Loadstar Sensors Drivers should first be installed for the sensors to be detected.

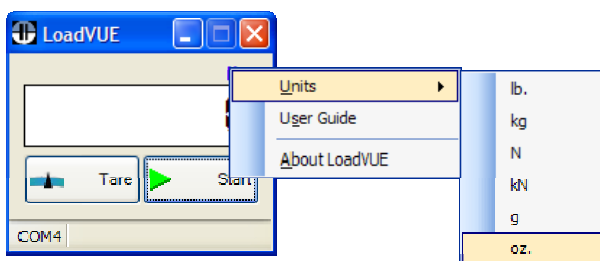
The LoadVUE main window is now shown.



Click **Tare** to zero the load on the sensors.

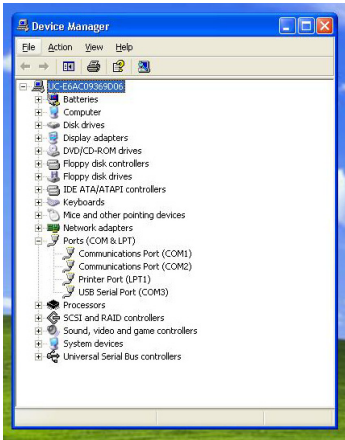
Click **Start** to start reading the sensors. The sensors will be polled as fast as possible but the data is displayed at a more human-readable rate.

The current unit system is displayed above the load reading. Click on the units to change the units. You can also right-click on the load to change the units.



HyperTerminal Operation of iLoad Digital USB Sensors

When your iLoad Digital USB sensors is connected and correctly installed, you should see a COM port assigned to it as shown highlighted in the following screen shot of the Device Manager. You can view the Device Manager by going to the Control Panel in Windows and double-clicking on **System**. On the System dialog box click on the Hardware tab and then click on the **Device Manager** button.



If you have more COM ports than you have sensors connected, you can double-click on the entry for a COM port. The ports associated with iLoad Digital USB sensors will indicate that they have FTDI driver as shown below.



You are now ready to start using your iLoad Digital USB sensor.

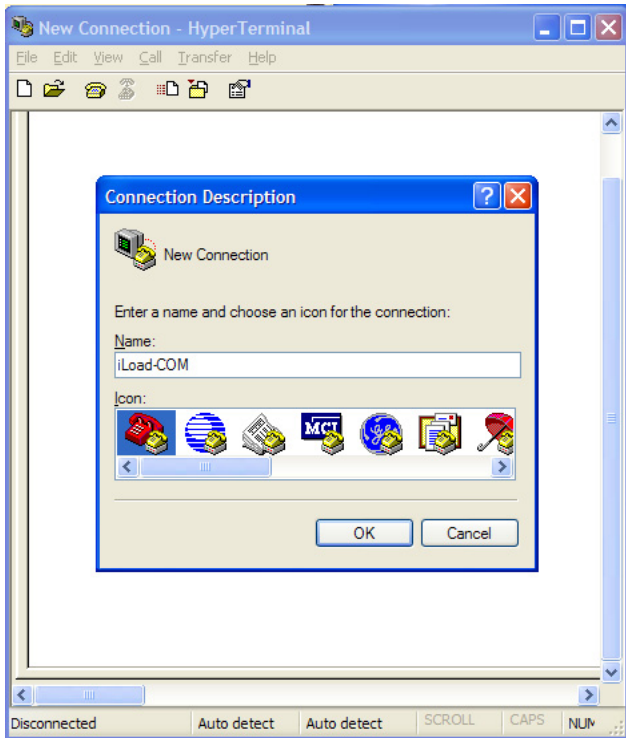
HyperTerminal Operation

In Windows XP, launch the HyperTerminal program.

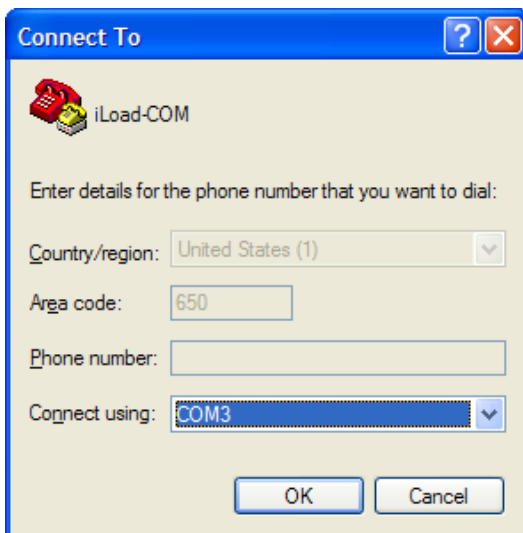
Start...All Programs...Accessories...Communications...HyperTerminal

Note: Windows Vista does not include a terminal client. However, free terminal client software like Teraterm is available.

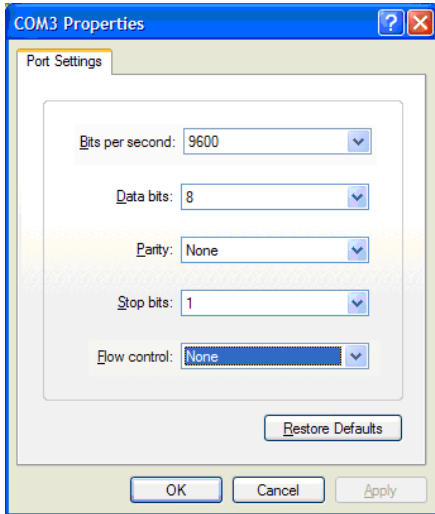
Set up a new connection to connect to the iLoad Digital USB sensor's COM port.



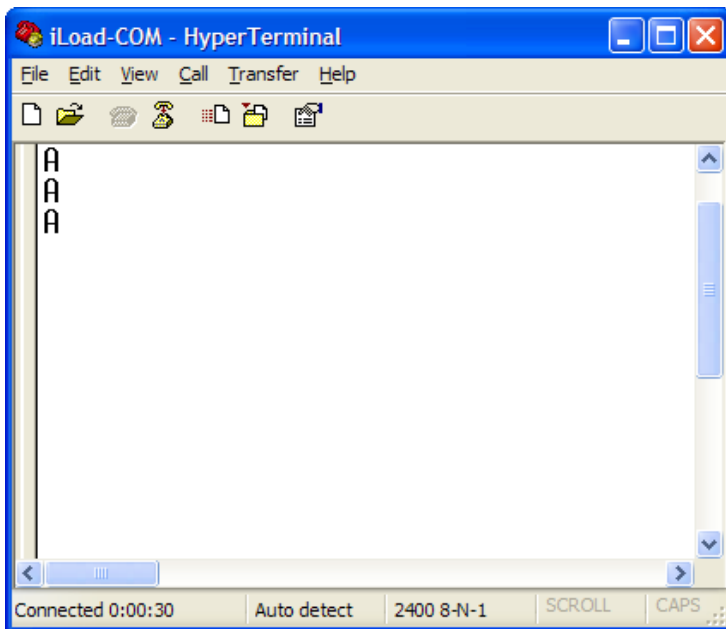
In the "**Connect To**" window, select the appropriate COM port.



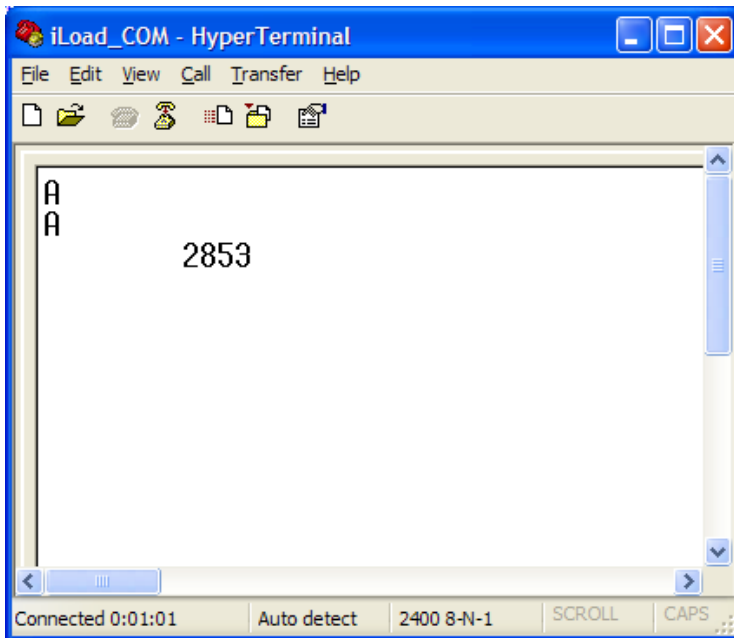
In the "Port Settings" dialog box, select **9600** as Bits per Second and **None** as the Flow Control.



Click **OK** to accept the settings. Then click **Enter** a few times. You should see the sensor respond with an "A".

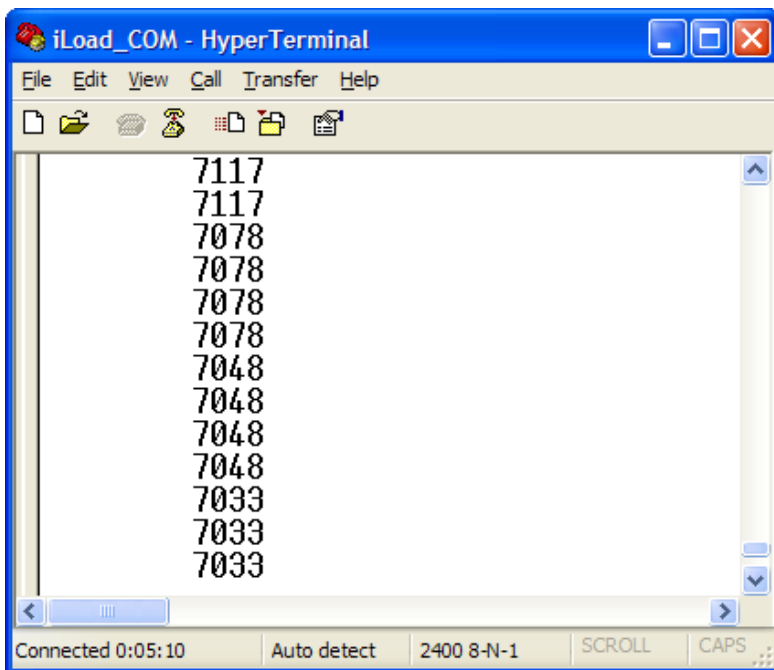


Type **00W1** and hit **<Enter>**. The sensor will respond with the current load on the sensor in millipounds. In the figure below the load is 2.853 pounds.



Type **CT0<Enter>** to tare the sensor. This will zero the load (all further readings will subtract the load sensed at this point.)

Type **00W0<Enter>** to output the load continuously. Hitting **<Enter>** at any time will stop outputting the readings.



Basic command set

The iLoad Digital USB sensor can be used through LoadVUE or LoadVUE Lite software from Loadstar Sensors. It can also be used directly as a COM port using any terminal emulation software such as HyperTerminal that is included with Windows XP. To set up HyperTerminal or other terminal emulation program to communicate with the sensor, select the appropriate COM port in the program and connect. Once connected, a few simple commands are all that are needed to operate the sensor:

<Enter>	This just pings the port and the sensor responds with “A” to indicate that it is set up and ready.
CT0	This sets the tare (or zero) for the sensor. If you plan to zero out a preload, please use this command.
O0W1 O0W0	The O0W1 command outputs the weight or force reading once. O0W0 outputs a continuous stream of weight or force readings. Simply send a <carriage Enter> to stop streaming. The output is in 1/1000 of a pound (millipound). E.g., if the reading returned is 2345, the sensor reading is equivalent to 2.345 lb.
O0S2	Outputs the temperature within the sensor in deg. C. Note that this is the temperature within the sensor and is usually a few degrees higher than ambient.
SLC	This command outputs a floating point number that indicates the load capacity of the sensor in lb.
SS1	This command outputs the last three digits of the serial number of the sensor.
SS0	This command outputs the model number of the sensor.

Writing Your Own Software to Communicate with iLoad Digital USB Sensors

Since the iLoad Digital USB Sensors present themselves to Windows as COM ports, it is very easy to write your own program to read the sensor loads. Simply open the COM port from your application and send the string `O0W1<CR>`. Then read the returned string back in millipounds. We recommend the following steps:

1. Open the port at 9600 (baud rate is not important), N, 8, 1.
2. Write a `<CR>` to the port.
3. Wait for a few milliseconds (say, 100 to 1000, this depends on your hardware, try a longer wait first then shorten it to see what works. (An alternative is to wait until there is a required number of characters in the input buffer, in this way the wait time is reduced to a minimum).
4. Read the input buffer and discard till there are no characters to read. (You can check if you get an 'A' back)
5. Write `O0W1<CR>` to the port,
6. Wait again for a few milliseconds.
7. Read the input buffer and process. This will contain the weight.
8. Repeat Steps 5 to 7 as needed.
9. Discard any bytes left in the input buffer before you close the port.
10. Close the port.

If callbacks (or events) are available, it is preferable to use them instead of polling the sensor in step 7 above. This way Windows will inform the application that there is data to be read.

Examples for Labview and Matlab are available on our support pages.