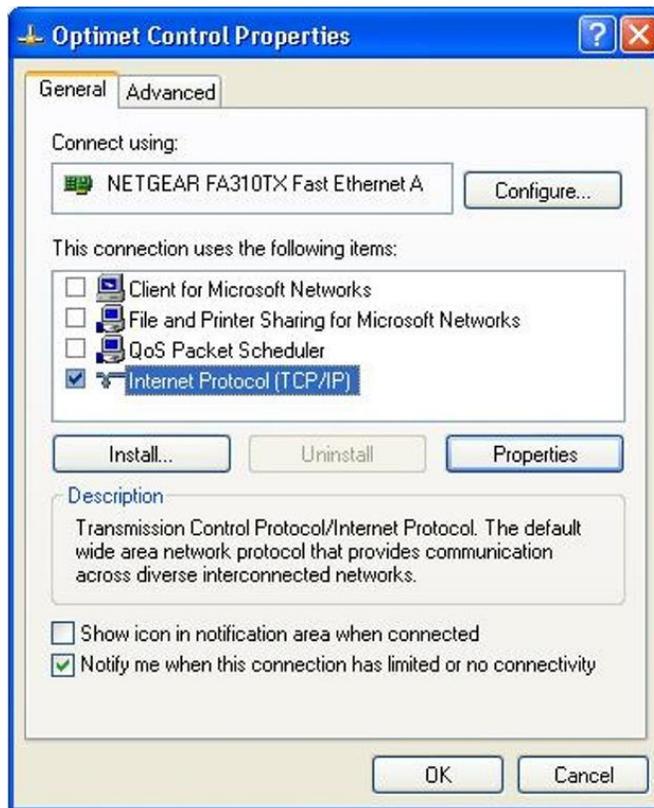
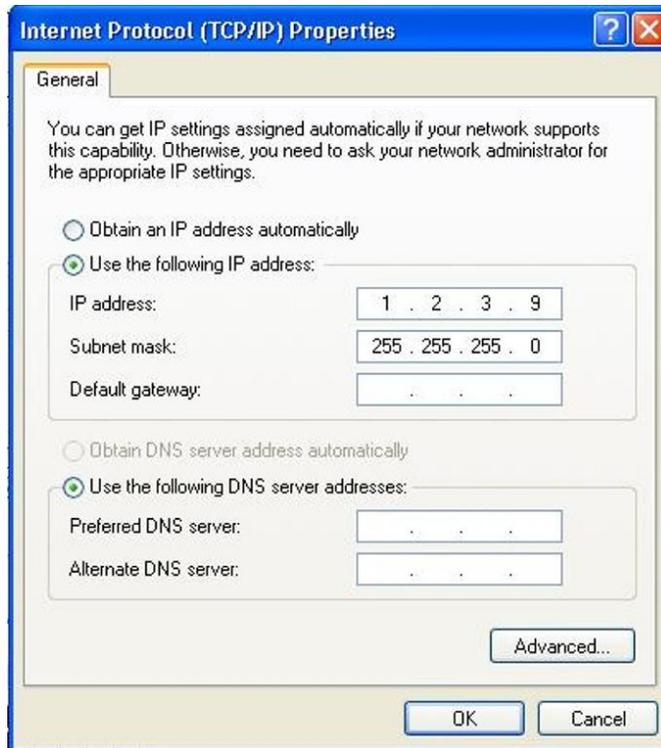


## A few things before starting:

1. Make SURE to disconnect all power from the laser control box before connecting or disconnecting any other cables. The laser control box is the black box that all of the wire plug into. Please see the picture below.
2. The Optimet laser MUST have its own dedicated NIC card. To set up the connection for the Optimet:
  - a. Create a new network connection. Uncheck all but the TCP/IP as shown below.

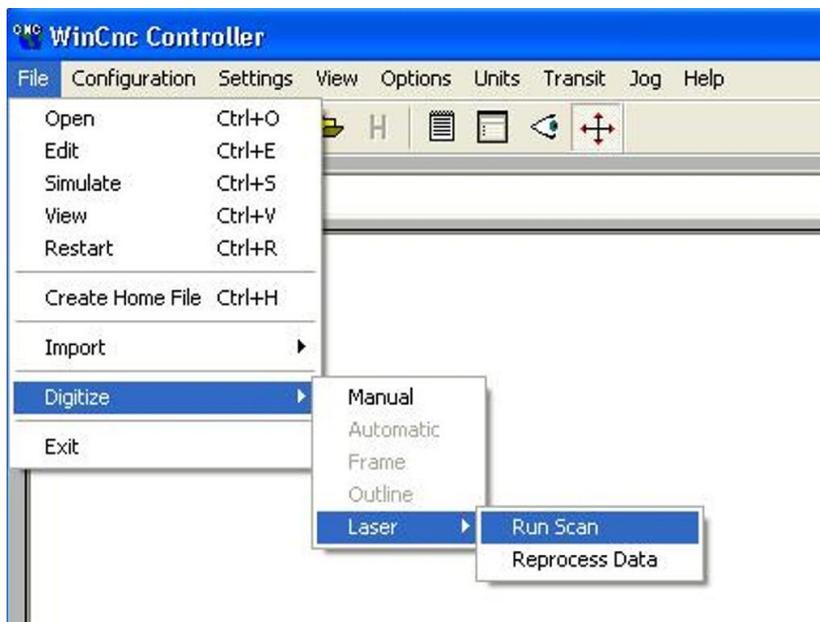


- b. Click on "Properties", and set the IP Address and Subnet mask as shown below.

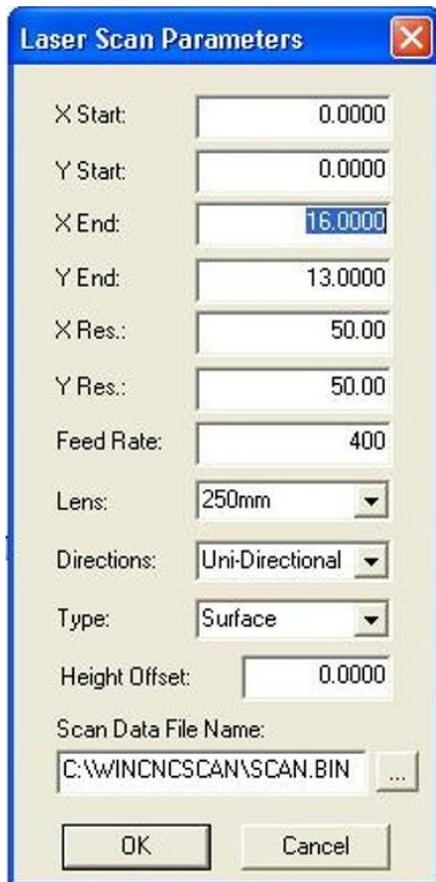


## To Digitize using Optimet Laser:

1. Select File->Digitize->Laser->Run Scan from the drop down menu.



2. Enter the starting XY and ending XY positions for the area on the table to be scanned. This can be changed later if needed. **\*\*NOTE:** If you set a G92 at the lower left corner of the object to be scanned, you can set X start and Y start to Zero, which simplifies things.



**Laser Scan Parameters**

X Start: 0.0000

Y Start: 0.0000

X End: 18.0000

Y End: 13.0000

X Res.: 50.00

Y Res.: 50.00

Feed Rate: 400

Lens: 250mm

Directions: Uni-Directional

Type: Surface

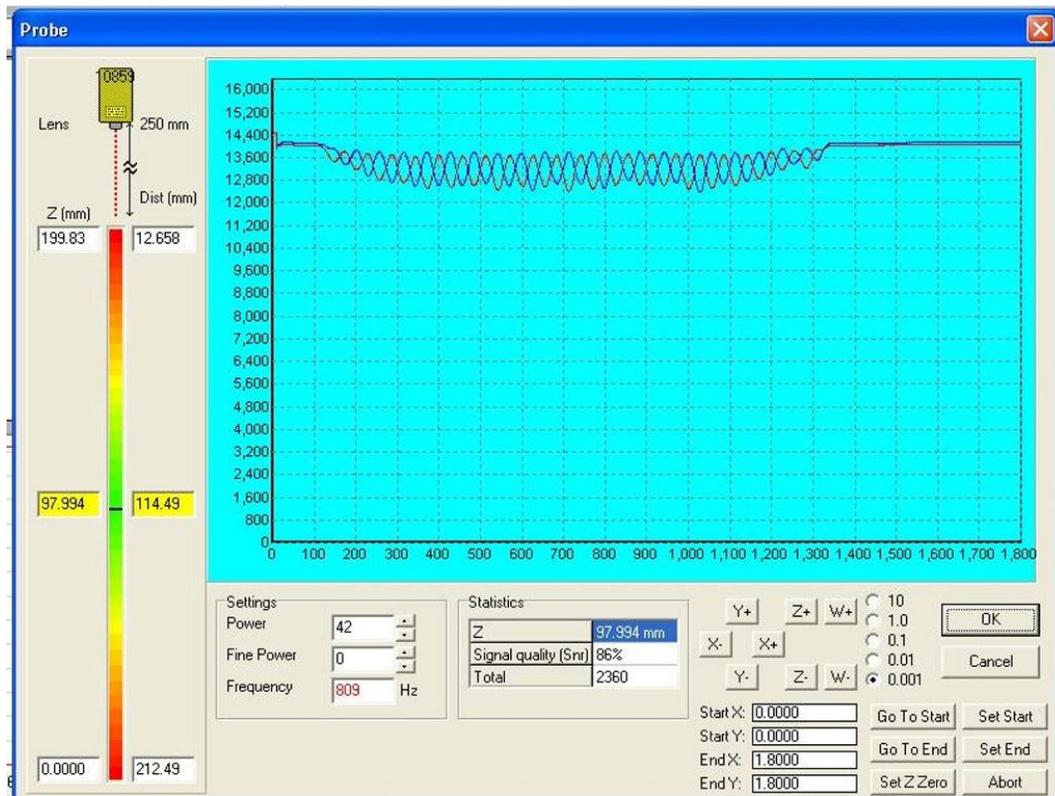
Height Offset: 0.0000

Scan Data File Name: C:\WINCNCSCAN\SCAN.BIN

OK Cancel

3. Enter the resolution (DPI) values for X and Y directions. (Better resolution usually means it takes longer to run the scan.)
4. Select the 250mm lens.
5. Select Unidirectional (highest quality).
6. Select Surface Scanning.
7. Select a height offset if needed (this will adjust the position of the 3D data in the resulting image).
8. Click OK.

You will then see the next screen.



9.

On this next screen the laser power and laser height should be adjusted using the incremental job buttons.

Adjust XY so that the laser points to a location on the part approximately at the middle of the parts height variance.

Adjust the laser power so that the SNR is 80% or better and the total saturation value is between 1000 and 2000.

Adjust Z so that the laser distance indicator on the left side of the screen sets close to the middle of its range.

Click start scan.

When the scan completes a dialog box appears allowing you to specify a tolerance and the location and name of the STL file to be generated. The tolerance allows you to eliminate data to reduce file size. Using a value of 0.001 to 0.005 usually yields the best results. Click save.

Remember that parts that are not of a consistent color may need to be coated or painted in a light color for good results. Wood, plastic, plaster and similar materials usually do not require coating or painting.