

MaxPORT v.1.1.3

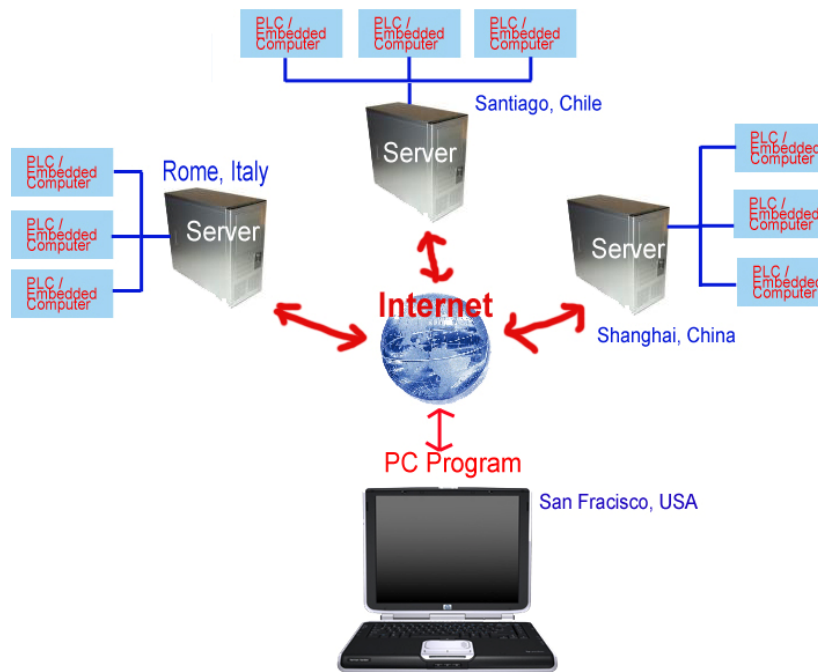
Open Source Visual Basic program for Downloading/Monitoring over Internet

Today, I will show you how you can setup the MaxPORT software to work on any PC in the world as a server system for managing all the XPORT devices you have hooked up in different parts of the world.

Let me start out with a brief history of how things were done in the past. A lot of the other products out on the market can do the same thing as MaxPORT can do, except you need a separate PC or some type of Server device to manage the different devices. And most of the time, you will need a static IP address, which if available, can take about \$80 a month from your wallet.

With MaxPORT, you can sign up for any dynamic DNS (DDNS) at websites such as www.no-ip.com for free, which allows you to manage your XPORT devices wherever you go. Simply put it, the MaxPORT custom firmware is designed so it will search for a domain name such as **cubloc.no-ip.com** instead of 65.231.23.123. By having DDNS, you are able to change the actual IP address behind the **cubloc.no-ip.com**. All you do is log in to www.no-ip.com and simply change the IP address to point to where you are using your PC.

Enough with my explaining, let's drink a cup of well brewed coffee and see this in a diagram:

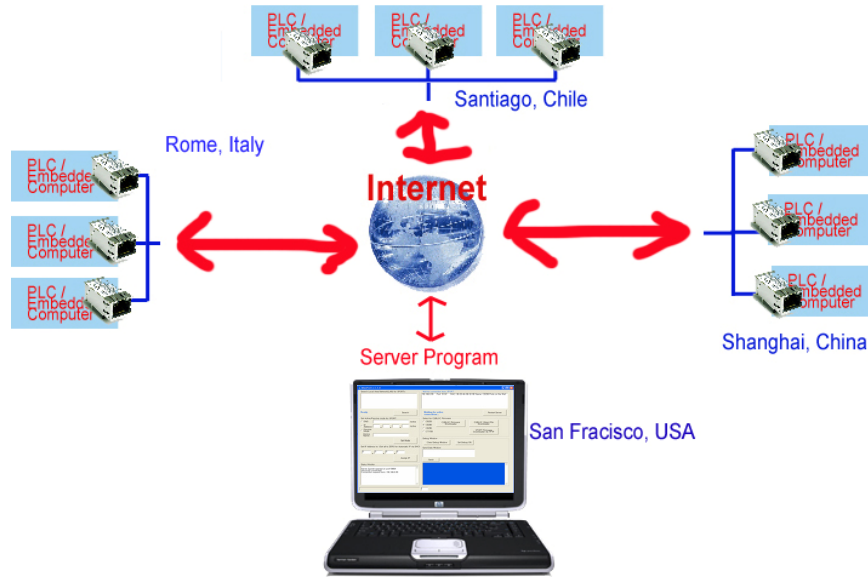


(Other Products on the market: requires a PC and a server program for each location)

As you can see, you need a server PC for every location and a PC server program. That's additional money out of your pocket for each location. You would also need static IP for each Server location, which would be \$80 a month for each location!

On top of it, think about the maintenance of running a **virus-prone** operating system. This would cause lots of problems down the road in maintenance labor for the PC and more money out of your wallet.

Let's see how we can save some money and also have a maintenance-free embedded internet system.



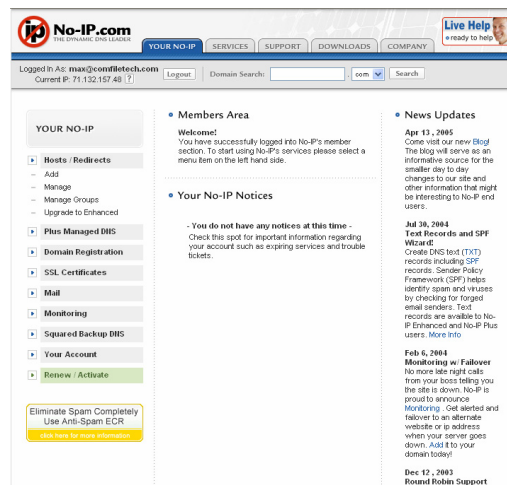
(MaxPORT requires no PC s and no server programs for each location)

As you can see here, the Server is actually wherever your PC is. You do not need any static IP Addresses or Server PCs; all you need to do is plug in an XPORT to your CUBLOC Board or CuTOUCH using XPORT Dongle. By using the MaxPORT Server Program, you will be able to download and monitor all of your CUBLOCs and CuTOUCHes that are spread throughout the world.

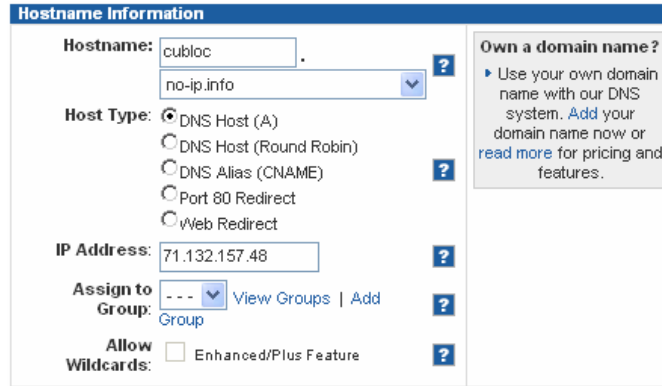
Let's get started!

First, you will want to sign up for a DDNS service, I recommend www.no-ip.com. Go register for free service there first.

Once you log-in to www.no-ip.com, you should see something like below:



Now click "Add" under Hosts/Redirects.

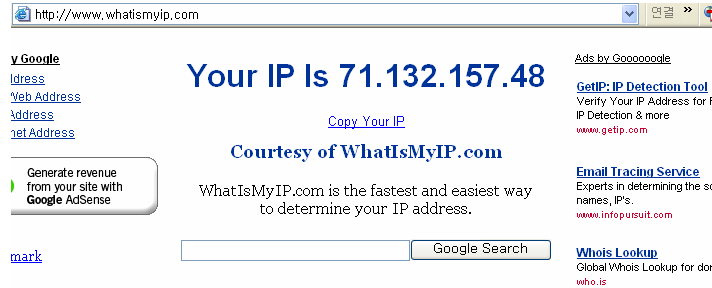


Under **Hostname**, you can type in a desired name. So mine is cubloc.

Now under IP Address, you need to enter IP address of the network you are in. This isn't your PC's IP Address, but IP Address for the whole network your PC is in.

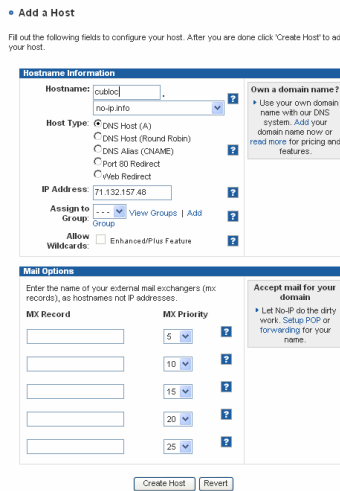
When you are adding, this should come up automatically but to double-check, open another browser window and go to www.whatismyip.com.

This will tell you the IP Address your PC belongs to.



As you can see the IP Address in www.no-ip.com matches the one my PC is actually in.

Now Click on **Create Host** like here:



MX Record	MX Priority
<input type="text"/>	5
<input type="text"/>	10
<input type="text"/>	15
<input type="text"/>	20
<input type="text"/>	25

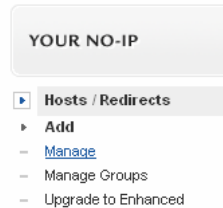
• Add a Host

The host **cubloc.no-ip.info** resolving to **71.132.157.48** has successfully been added to our system. New additions will take up to 5 minutes to become live on our DNS servers.

If you get the above message, you are set to go. It means that whenever someone or some internet device searches for **cubloc.no-ip.info**, they will get 71.132.157.48, which points to your local network.

Max's TIPS

If you want to change your IP Address later on because you are in a different location do this:



Click on **Manage** under **Hosts/Redirects** after logging in,

• Hosts / Redirects

No-IP Free Domains

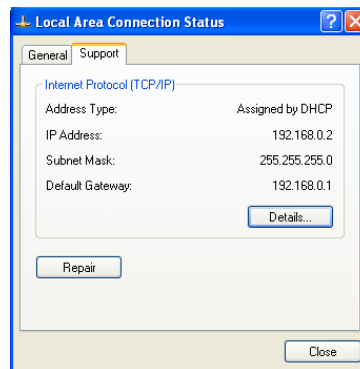
Host:	IP / URL	Action:
no-ip.info		
cubloc.no-ip.info	71.132.157.48 [IP]	Modify Delete

WC = Wildcard



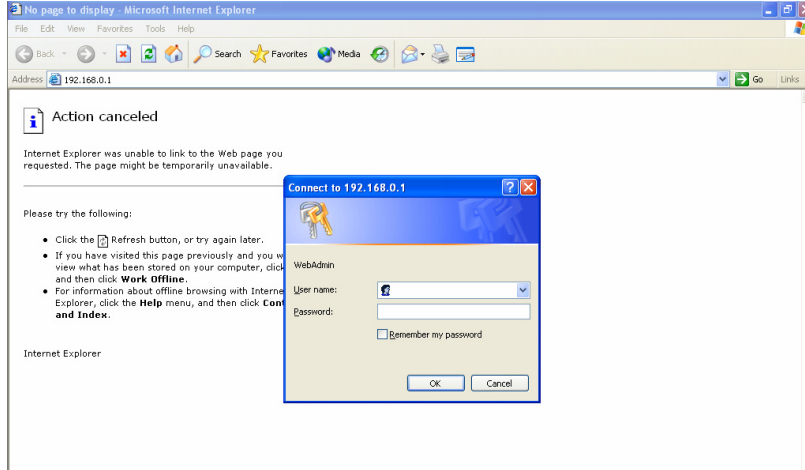
Click on **Modify** and simply change the IP Address to what shows up on your browser under www.whatismyip.com then click on **Modify Host**. As it takes some time to update their DNS server, you will need to wait 5-10 minutes to take effect.

Now you will need to do one more thing, which is to put your PC accessible to the internet. To do this, you will have to have admin access to your router. Usually you can access your router by typing your gateway address in your browser.



Check your gateway by checking your Internet connection like shown above. Note that my **PC IP Address** is **192.168.0.2**. You will need this info further down the road.

Next, open up your Browser and type in the gateway like this:



My gateway is 192.168.0.1 so I typed that into the Browser.
Usually you will get a screen like above to enter User name and Password.

Try the following for hacking most routers:

1. User name is usually **admin** and there should be no Password.
2. User name is left blank and try **admin** as Password.
3. Sometimes, there's no User name or a Password, and you can just press **OK**.

If none of these work, you will have to talk to your internet guy at your company or your house.

Max's TIPS

If you are trying to do this in a corporate network with the latest technology firewall, you will have to ask your IT Manager to set some settings on the firewall or the router.

Ask them to forward ports for TCP and UDP.

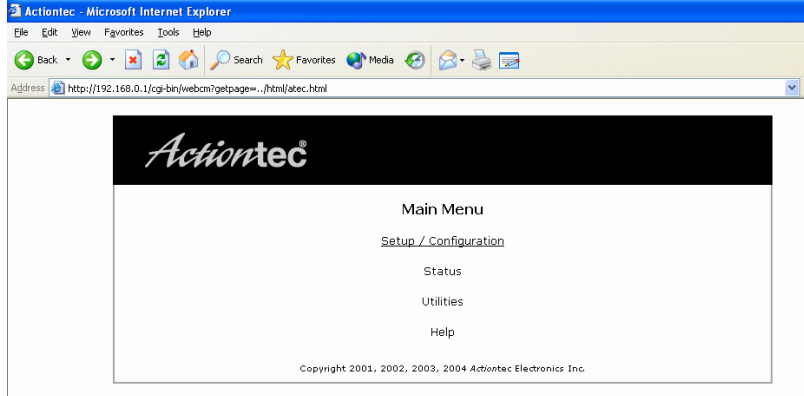
Give them the following information and they should know what to do with it.

Local Port	Remote Port (From the Internet)
59005	any
59004	any

Local IP Address: IP Address of your PC. (Mine would be 192.168.0.2 as seen in the Local Connection Status in p. 4.)

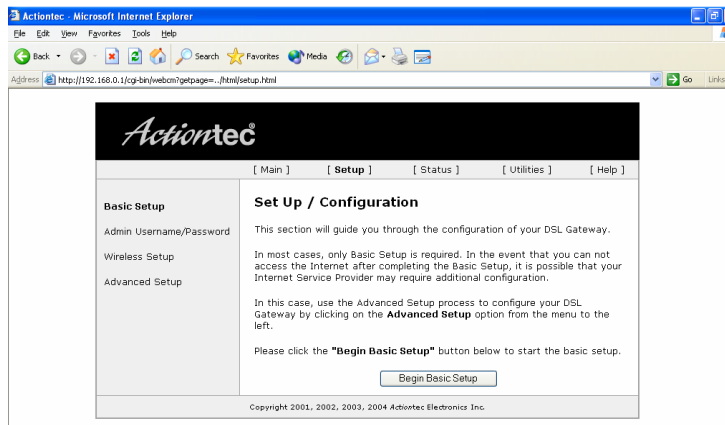
Remote IP Address: Any

Okay, if you have gotten through the log-on window, you should see something similar to this:



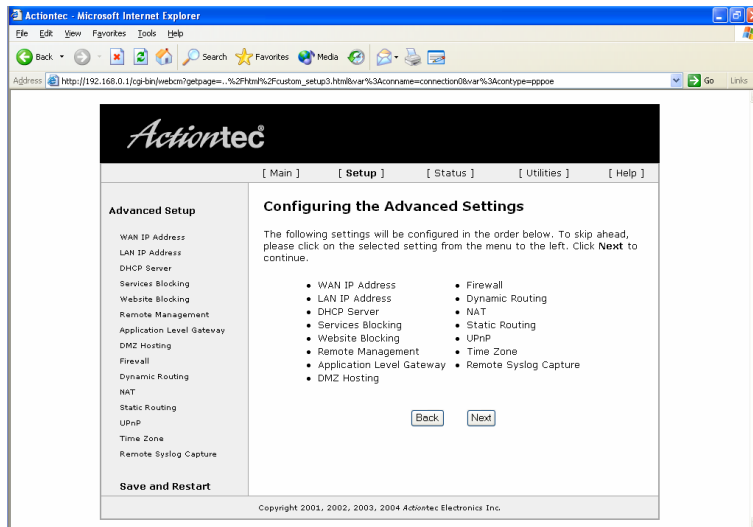
(This may differ for every router but something similar to above)

Your goal now is to find something called **"DMZ Settings"**. On my router, here how I do it:

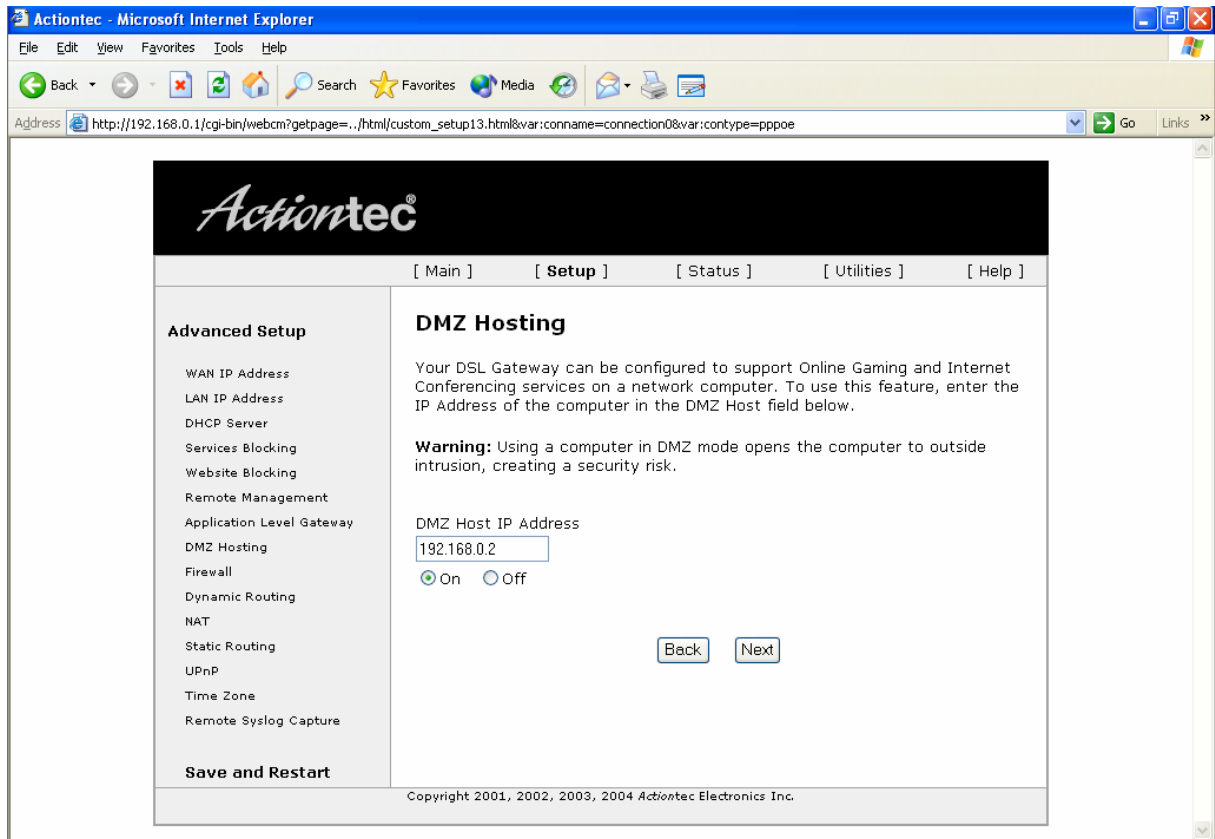


I first go into the **Setup/Configuration** page by clicking on it.

"DMZ Settings" usually is in Advanced Setup, so I click on Advanced Setup.



As you can see here, there is a menu called **DMZ Hosting**, so I click on it.

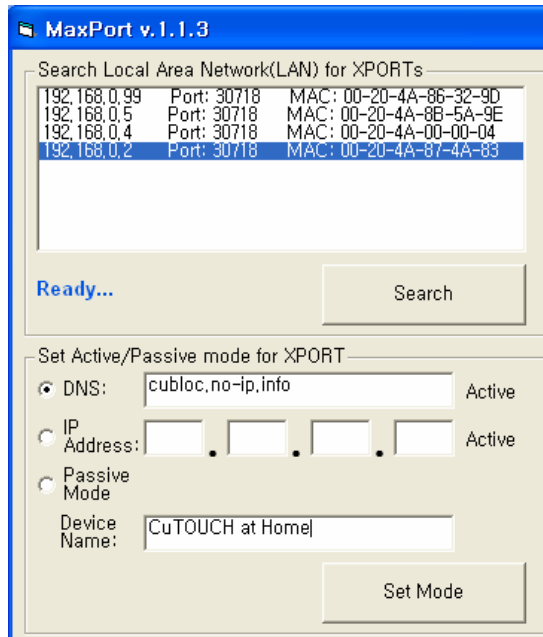


Next I enter my PC's IP Address, select **On**, and Click **Save and Restart**.

Now you are set to go! Your PC is officially visible and accessible from anywhere in the world over the internet. If you are having trouble, I can walk you through, give me a call at 888-928-2562 OR 650-638-1350 ext. 201.

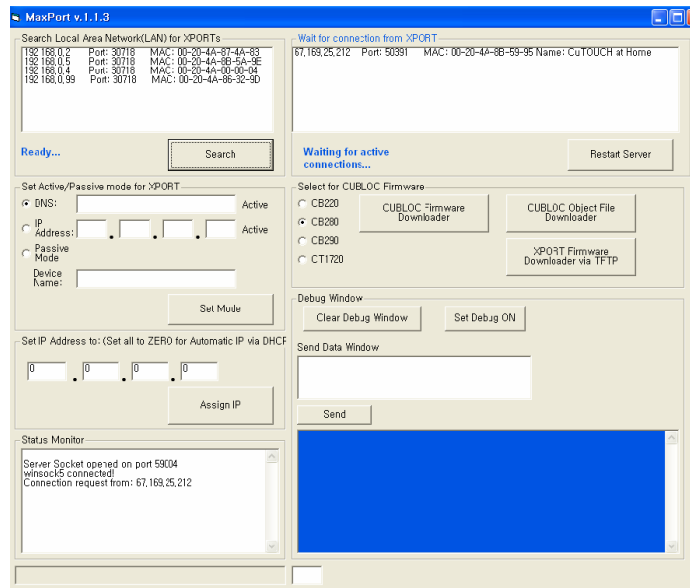
Now the hard part is over, let's go on and start experimenting with MaxPORT Server Program!

I have one XPORT and CuTOUCH connected to my apartment in San Francisco. That XPORT is programmed to point at cubloc.no-ip.com. To set the XPORT to that, simply:

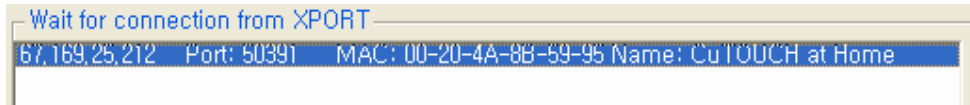


Select the XPORT, then enter the DDNS under DNS like above, then name your device so you know which one it is, and then click on **Set Mode**. After you do this, you can put the XPORT/CUBLOC combo any network in the world that supports DHCP (Automatic IP) and should find a way back to the MaxPORT Server Program.

After I do that to the XPORT and put in on my home router, I came back to my office in Foster City. I run my Maxport113.exe and see the following after doing all the DDNS and router setup.



As you can see under **Wait for connection from XPORT**, you can see that my XPORT from my CuTOUCH at my apartment has made a successful connection to MaxPORT Server Program.




Let's select the CuTOUCH and try doing some downloads!

First, let's start downloading an easy object file...

First, open up a.cul file that I have included it here and save as an object file (a.obj).

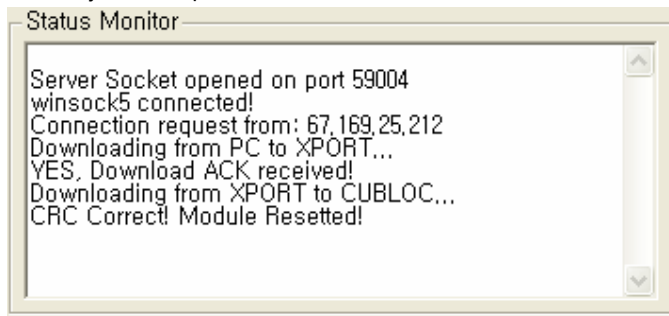
This is a simple program that increments a number.

```
' a.cul
Const Device = CB280
Dim K As Long
K=0
Do
Delay 1000
Debug "This is an XPORT TEST, Number is: ", Dec K,Cr
Incr K
Loop
```

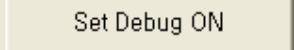


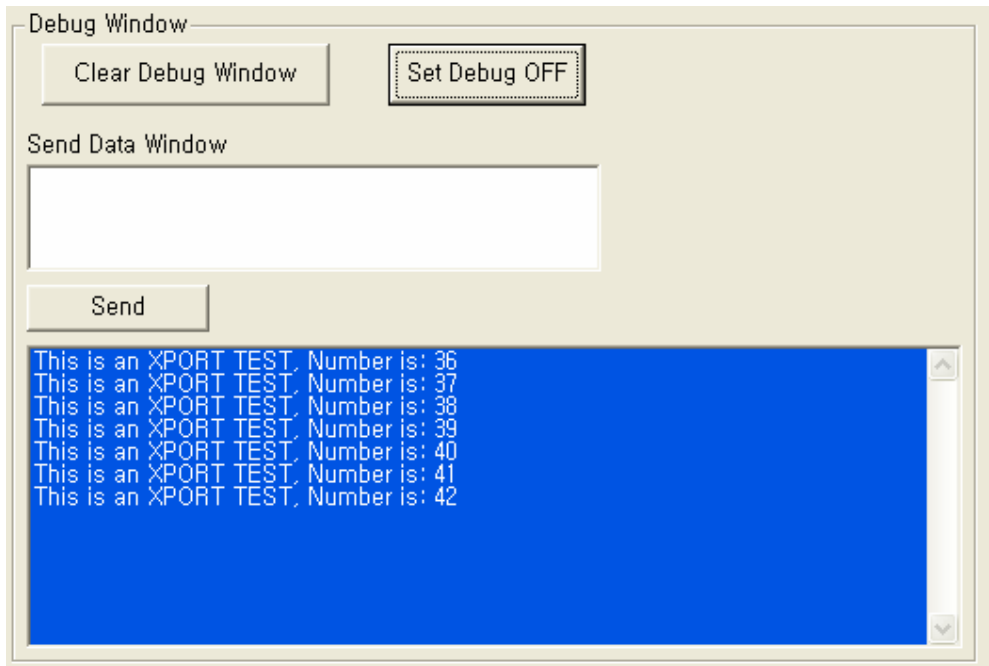
Please select the XPORT you wish to download to then press  button.

Find a.obj and then open.



If the download was successful, you will see the "CRC Correct! Module Resetted!" message in the Status Monitor. Now download has finished correctly.

Next press  button.



You will something like above in the Debug Window.
Just like part 1, you should be able to do Firmware Download.

For **MaxPORT Firmware Download** using the **XPORT Firmware Download via TFTP** button, this might not work over the internet as some routers automatically block this port on the XPORT side. The MaxPORT Firmware will be upgraded in the future if bugs arise but for the

There are a lot of issues that can cause problems but I tried to cover most of the important issues today.
If you run into problems, make sure to email max@comfiletech.com.
If you want, we can even connect together using NetMeeting so I can diagnose your problems. ☺
(yes, for free)

Next time, I will show you hack the MaxPORT Server Program to customize to your need such as temperature monitoring, Communicating, etc...etc...

Happy MaxPORTING!