Department of Computer Science & ICT   Tonbridge School

How do I set up the VPN?

ICT Home Page   **How to do things**   **The VPN**

Click one of the following links for instructions on your operating system

Windows 2000   **Windows XP**   **Windows 98**

Windows 95   **MAC OS**   **Windows Me**

MS-DOS   **Linux**   **RISC PC**

Setting up your VPN from home

Before seting up the VPN you need to obtain a hosts file from the Resources Server in the Vere Hodge Centre.

To obtain your hosts file follow the next two preliminary stages.

Preliminary Stage (1)

To get your hosts file from school look at your Y drive. (This is the resources file server.) Go into the VPN folder, and inside here you will find a file called 'hosts'.

Copy it onto a floppy disk to take home.

(The contents of this window will be slightly different on your home computer - RJB has done this via the VPN!)
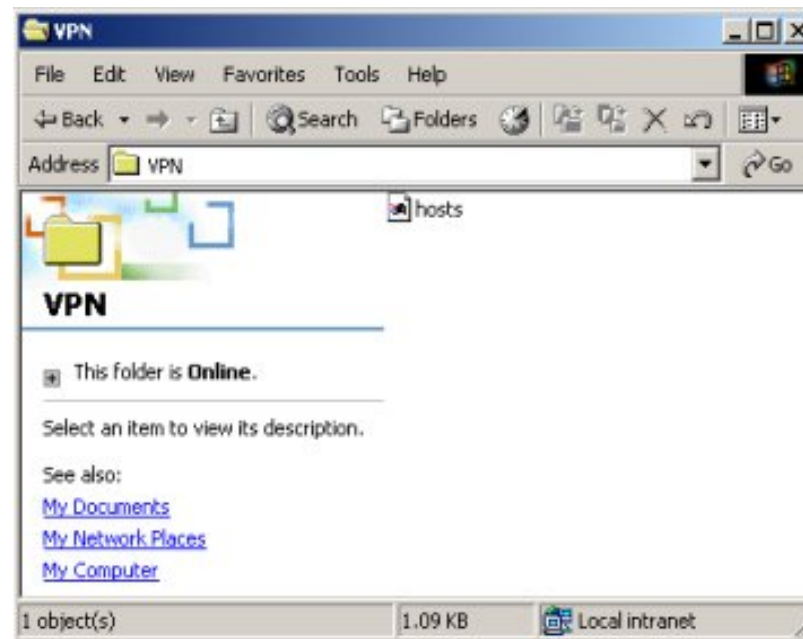
Preliminary Stage (2)

Setting up your hosts file at home

Go into your local C drive. Go into the 'windows directory' and find the 'system32 directory'. You may have to show files or directories which might be hidden.

Go into the 'drivers directory', then into the 'etc. directory', and copy the hosts file from your floppy into here.

(The contents of this window will be slightly different on your home computer.)
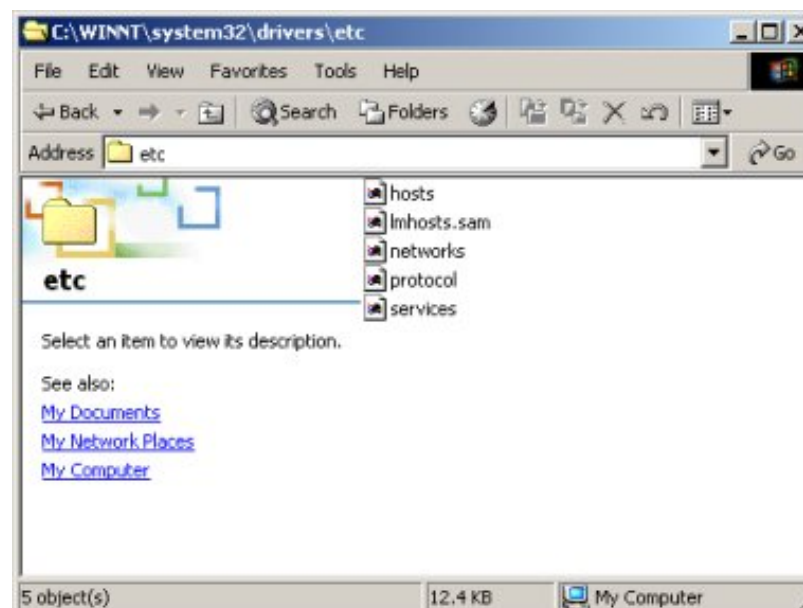
Setting up the VPN - INSTRUCTIONS

This set up is intended to give your home computer access to the school facilities. The VPN will provide a secure tunnel through the internet into the school network. Once connected to the school, resources are accessed using a web browser. Remember, if it takes a long time to download half a megabyte of material from the Internet, it will take a similar amount of time to download equivalent files from the school, because the VPN passes through the Internet!

Eventually there will be several operating systems supported, but the instructions for setting it up are limited to the same operating system that we have at school, and the operating system that is recommended for the staff computers at home. ICT literate pupils and staff will probably be able to work out what to do for *any* operating system by extrapolation from the Windows 2000 instructions given here. All vital information that you need is present.

Make sure that you enter all of this information precisely. Any 'misspelled word' or 'error in punctuation' etc. will probably mean that you won't get connected, or if you do connect, then something probably won't work properly.

Our technicians and ICT staff do not have time to spend on sorting out individual problems with the machines you have at home. *If many boys can't connect then we obviously have a problem and will deal with it. If all boys in a particular year can't connect then this is also our problem and we will deal with it. However, if boys are successfully connecting to our VPN then it's probably a problem with your set up, and you will need to deal with it. I suggest that you speak with other boys or teachers who have successfully connected with the same operating system. As more boys connect and get used to the system it should become easier for all involved.*

Instructions for Windows 2000 Professional

Click here to print an Adobe pdf version of these Windows 2000 Professional VPN set up instructions. These are intended to be taken home.

Don't forget that you can't load this file from home until you have set up the VPN!

If you don't have Acrobat Reader installed on your computer at home, you can get a copy by clicking on this yellow icon. You can download it at school if you wish, and then take it home on a Zip disk.

Stage (1)

Double Click on the 'My Computer' desktop icon to reveal the 'Control Panel' as shown opposite.

(The contents of this window will be slightly different on your home computer.)

Stage (2)

Open up the Control Panel by double clicking on it and find the 'Network and Dial-Up-Connections' icon.

- You can see the required icon in the middle of the row at the bottom of the screen.
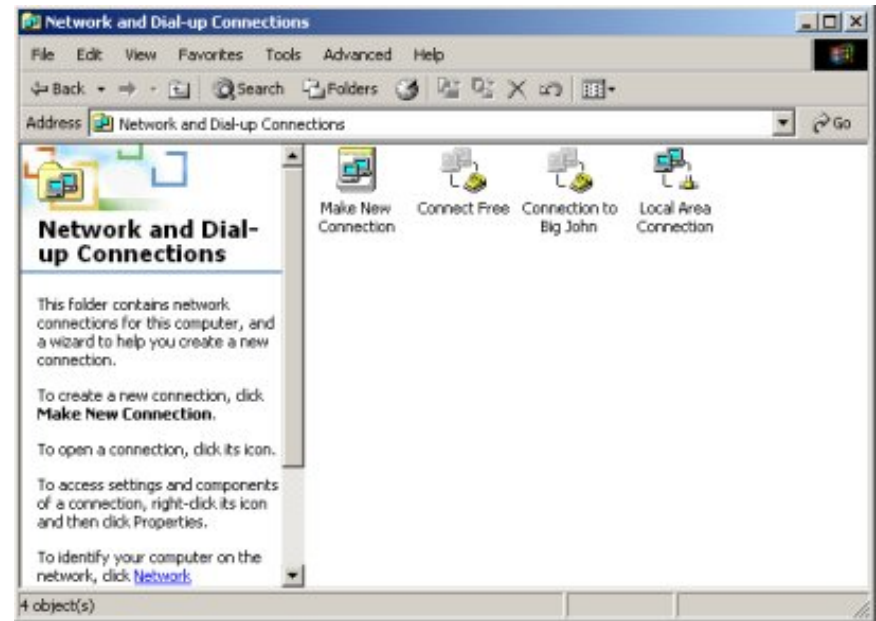
Double click the 'Network and 'Dial-Up-Connections' icon.

(The contents of this window will be slightly different on your home computer.)

Stage (3)

Double click on the 'Make New Connection' icon shown on the left.

(The contents of this window will be slightly different on your home computer.)

Stage (4)

Welcome to the Network Connection Wizard should appear as shown in the window here.

- You may cancel the Wizard at any stage.
- When running this Wizard you will be prompted to input a lot of information.
- If you get lost in the middle of what you are doing, or make a few mistakes, you can always start again. (i.e. go to stage (1)).
- If you are not happy with following these instructions then click 'cancel' and get help from a friend or colleague who is.
- Don't forget that *you have to be sitting at your home computer* to carry out these operations. They can't be done at school.

After the Wizard appears, click over the 'Next>' button.

Stage (5)

Select the 'Connect to a private network through the Internet connection' option.

- i.e. you are going to create a Virtual Private Network (VPN) or 'tunnel' through the Internet

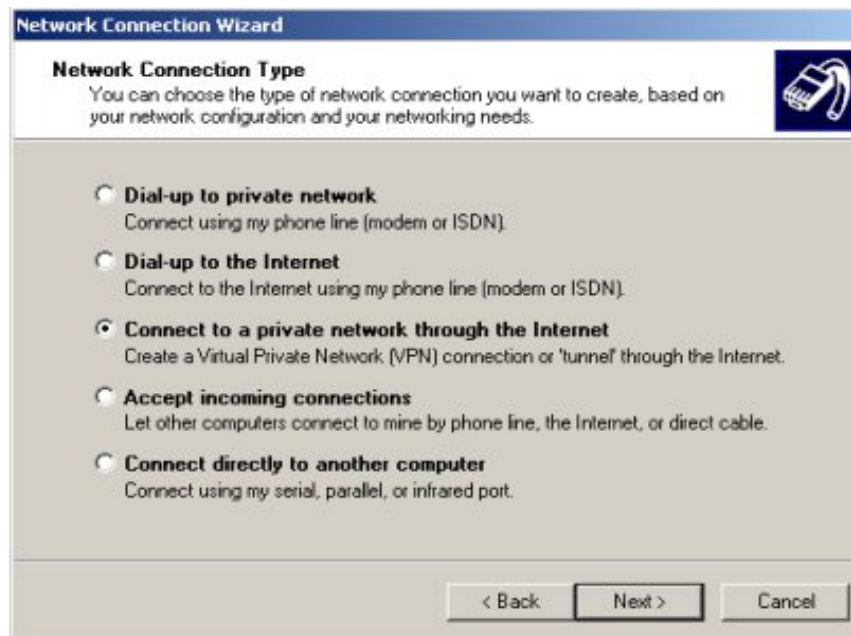### Click over the 'Next>' button.

Stage (6)

Choose the 'Automatically dial this initial connection' *only if you wish to dial up your ISP when you start up this VPN connection.*

- You must obviously have an account with an ISP to do this. (e.g. CompuServe, BT OpenWorld etc.)
- This is an annoying option if you wish to connect to the VPN in the middle of an Internet session. *(i.e. you are surfing the net and suddenly decide to use the VPN)*
- It is the best option if you wish to connect to the VPN *before* you start using the Internet
- You can switch it 'on' or 'off' later if you wish.

Click over the 'Next>' button.

Stage (7)

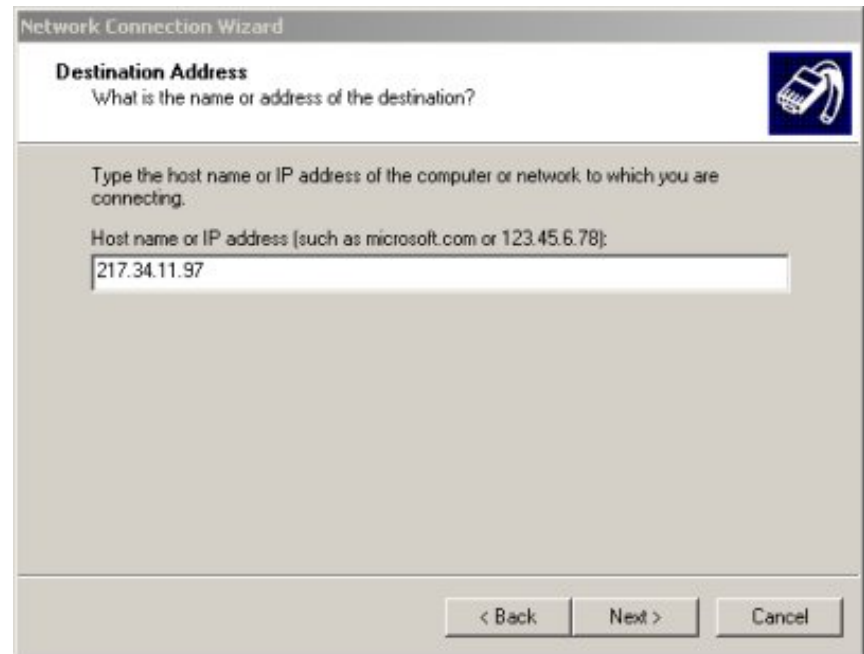**In the Host name or IP address box enter the following:**

217.34.11.97

Click over the 'Next>' button.

Stage (8)

Make sure that 'For all users' is selected.

Click over the 'Next>' button.

Stage (9)

Choose a user-friendly name for your VPN connection.

- You can leave it as 'Virtual Private Connection' if you wish.
- RJB has renamed his connection 'Tonbridge School VPN' as shown here.

I suggest you tick the 'Add a shortcut to my desktop' - it makes it easier to connect later.
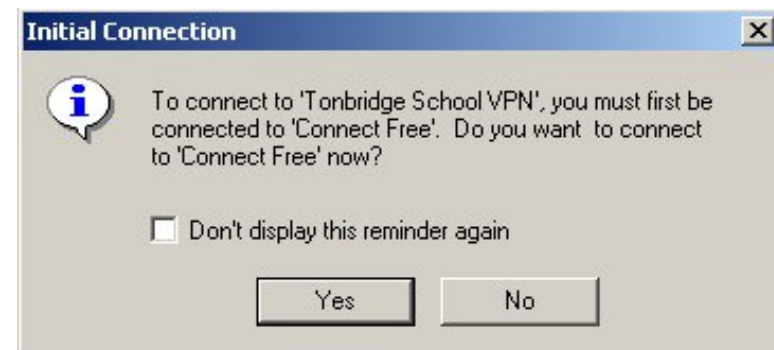
Click over the 'Finish' button.

Stage (10)

Respond with 'No' to the prompt to connect to Tonbridge VPN.

- You don't want to connect yet because *this set up is not complete*, and it would therefore not work if you attempted the connection at this stage.
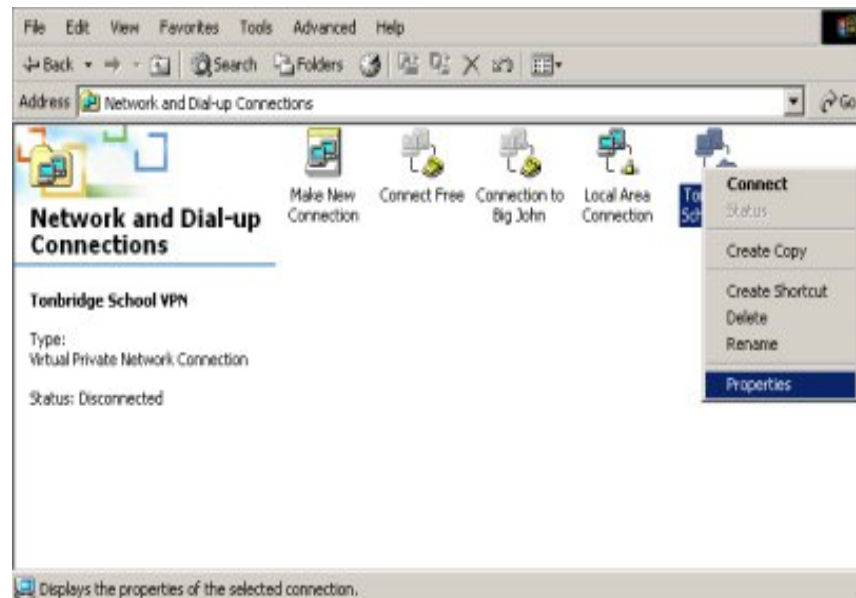
Stage (11)

Open up 'My Computer', go into control panel and open up the 'Network and Dial-up Connections' window.

- i.e. carry out the first three stages at the beginning of these instructions again - but this time, if you have carried out these instructions precisely, you should now have a VPN connection too.
- The name will reflect what you called it above.

Right click over your 'Tonbridge School VPN' icon.

Click over the 'properties option'.

- The properties option appears when you right-click the mouse over your VPN connection icon.

Stage (12)

The 'General' tab should show the '217.34.11.97' option you typed in earlier.

- These tabs act like tabs on a cardboard filing system. They appear at the top of the window, and enable you to choose different options.
- The 'Dial another connection first:' option will be ticked only if you chose it earlier.
- Make sure that the last option 'Show icon in task bar when connected' is ticked.
- If you don't tick this last option then you won't get any visual feedback while the VPN is working.
- If you click the OK box by mistake, you can get back to this point by carrying out stage (11).
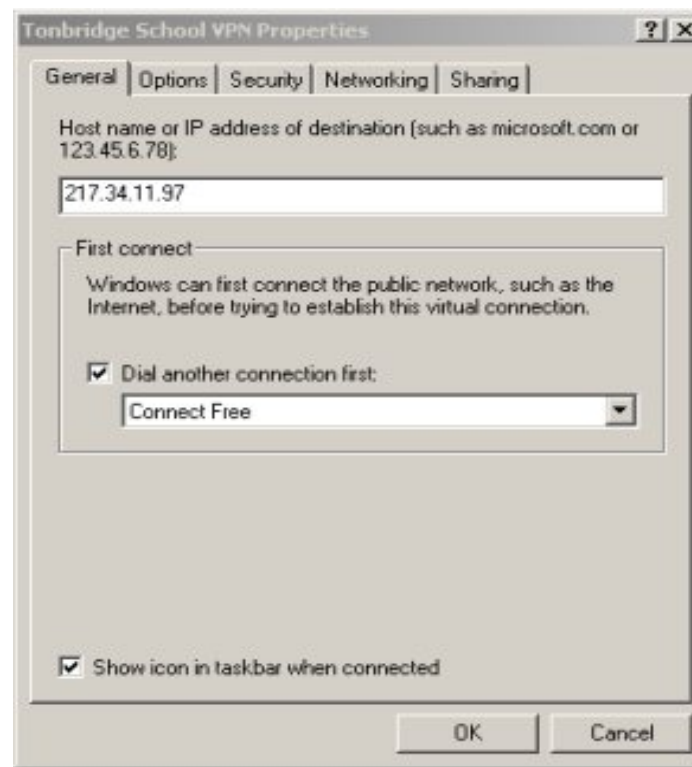
Stage (13)

Click the 'Options Tab' and check you have the following settings:

- Display progress while connecting should be ticked.
- Prompt for name and password, certificate, etc. should be ticked.
- Redial attempts should be 3.
- Time between redial attempts should be 1 minute.
- Ideal time before hanging up should be never.
- If you click the OK box by mistake, you can get back to this point by carrying out stage (11).
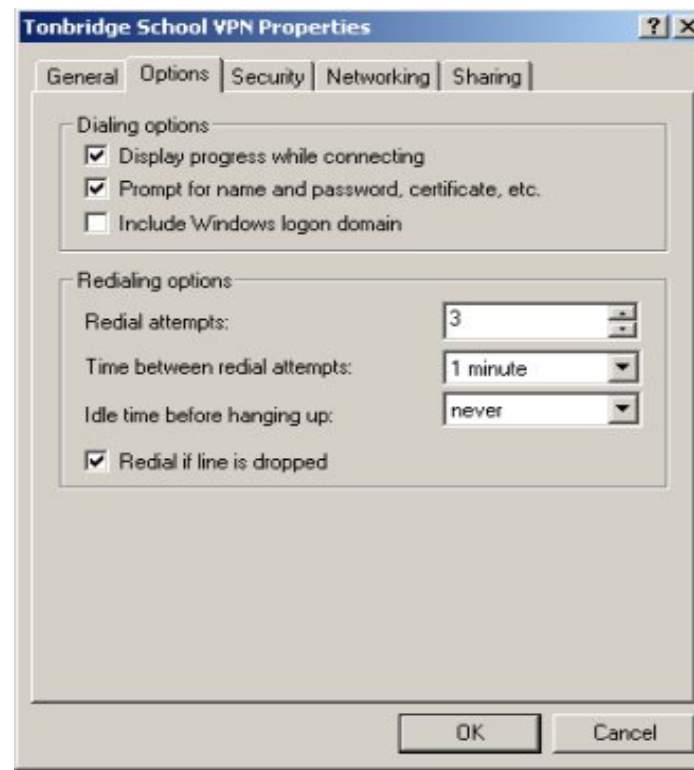
Stage (14)

Click the 'Security Tab' and check you have the following settings:

- Typical (recommended settings) should be ticked.
- Validate my identity as follows should be 'Require secured password'.
- Require data encryption (disconnect if none) should be ticked. Don't forget that your password and this data encryption provides a good deal of your security.
- If you click the OK box by mistake, you can get back to this point by carrying out stage (11).
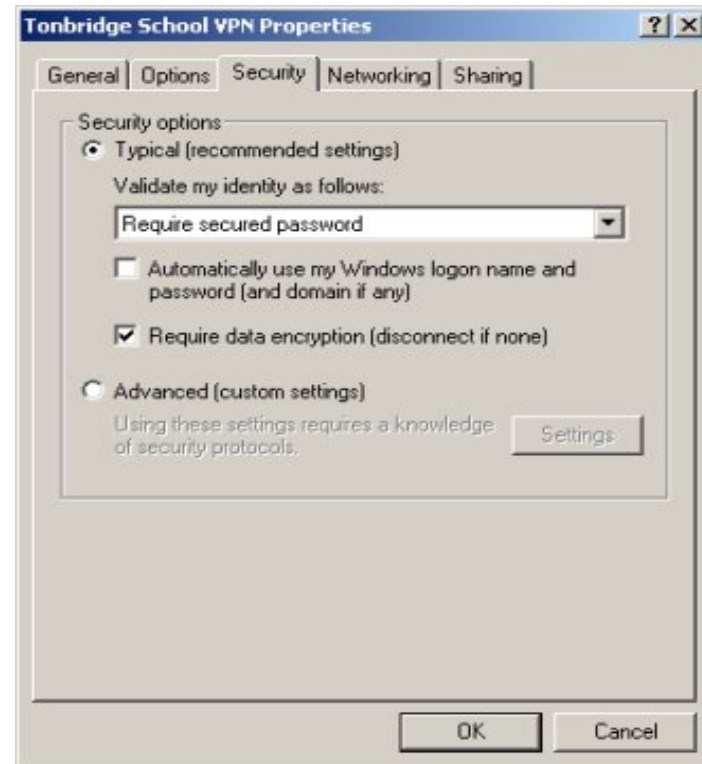
Stage (15)

Click the 'Networking Tab' and check you have the following settings:

- Alter the 'Type of VPN server I am calling' to Point to Point Tunneling Protocol (PPTP)
- Make sure the Internet Protocol (TCP/IP) is highlighted.
- If you click the OK box by mistake, you can get back to this point by carrying out stage (11).

Click on the 'Properties' button.
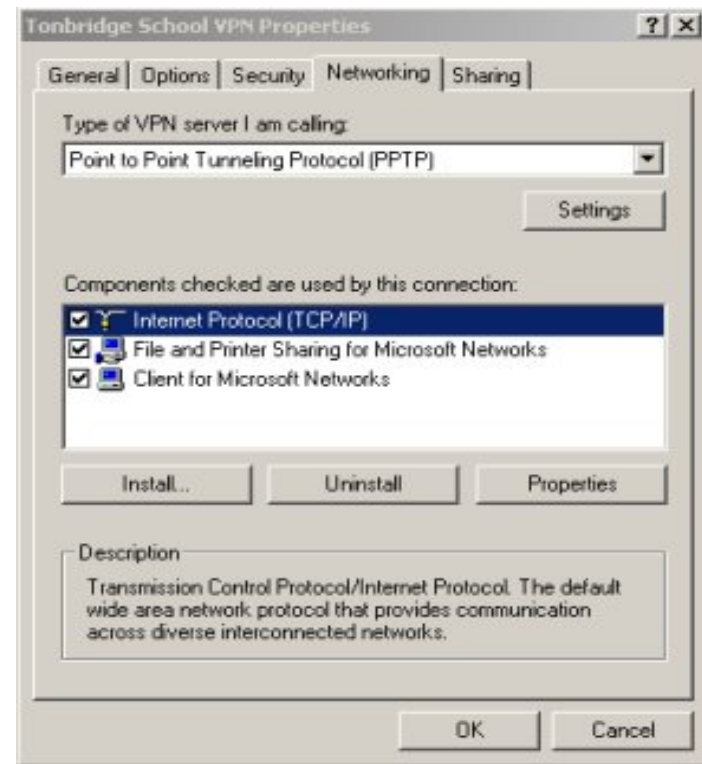
Stage (16)

Check that the following things are set.

- Obtain an IP address automatically should be selected.
- Use the following IP address should be empty
- Obtain DNS server address automatically should be selected.
- The alternate DNS server entry should be empty.

Click on the 'Advanced' box.
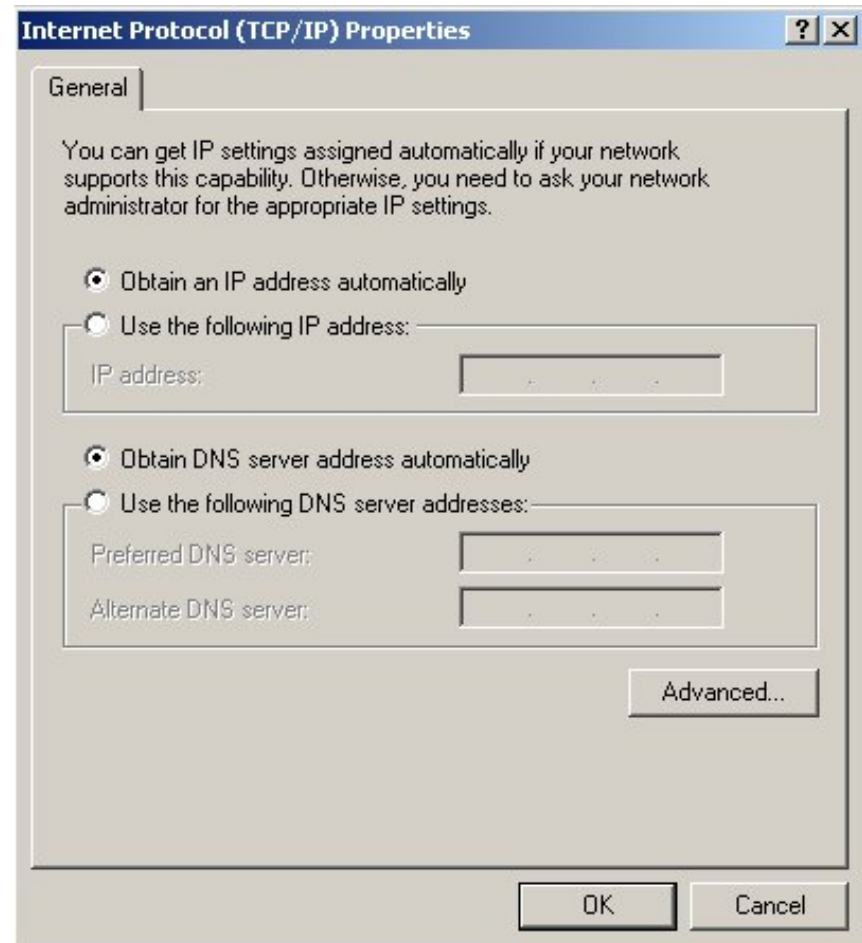
Stage (17)

Click the 'General Tab' and check you have the following settings:

- Make sure that 'Use default gateway on remote network' is *not* ticked.

We now need to try it to see if it works!

To do this you will need to log on to the VPN from your home computer.

We first assume that you are *not* in the middle of using the internet, and that you have chosen the 'Automatically dial this initial connection' option. If you are currently using the net, then double-clicking on the 'Tonbridge School VPN' icon will take you to stage (19).

Stage (18)

Double click over the shortcut to 'Tonbridge School VPN' which you created on your desktop in stage (6). (Not shown here.)

Only do the next four things if you did not create a shortcut.

- Double click on 'My Computer'.
- Double click on the 'Control panel'.
- Double click on the 'Networking and Dial Up Connections'.
- Right click on the 'Tonbridge School VPN' icon (or whatever you called it above.)

Click over the 'Connect' option.

Stage (19)

Your System will prompt you to connect to the internet via your ISP first.

- I would suggest that you don't opt to get rid of the reminder shown here. If you do you might connect by accident at some time in the future.
- This option won't show if you are already connected to the net. If this is the case go to stage (22).

Connect Connect Free
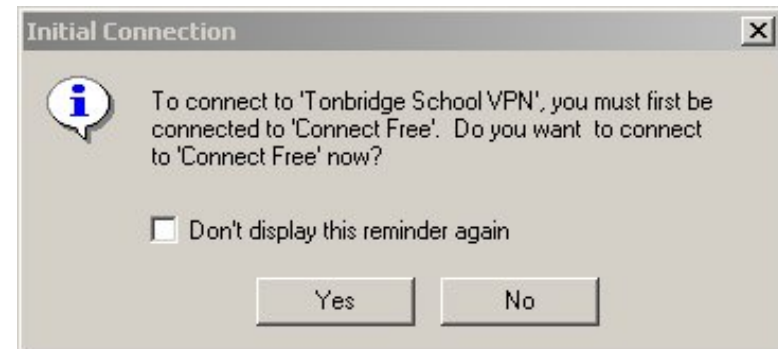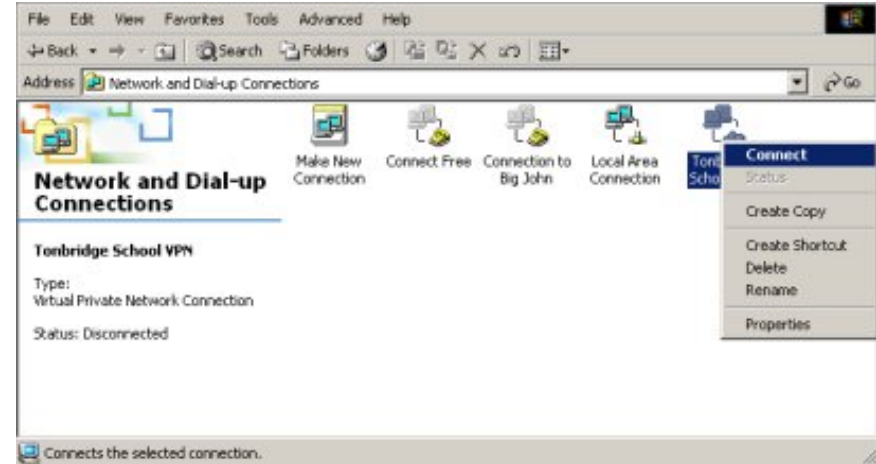
Stage (20)

Dial up your ISP in the usual way.

- You may need to respond to a window like this if your ISP has been set up to 'Ask before dialling'.
- RJB's ISP is shown here for convenience.

(The contents of this window will be different on your home computer.)

User name: free3176703

Password: xxxxxxxxxxxxxxxx

☑ Save password

Dial: 08456621517

Dial | Cancel | Properties | Help

Stage (21)

After opening a port, (not shown here) your ISP should be dialled.

- If you are lucky enough to have an ADSL connection then you won't see this part.

Connecting Connect Free...

Dialing 08456621517...

Cancel

Stage (22)

The first time that you access the VPN you will probably have to change the user name which you use at home to that which you use at school. 'Ray Bradley' shown here on his home computer, would need to be changed to RJB in this example.

- Your user name at school is your logon name.
- For **staff** it's their **initials**.
- For **pupils** it's **surname and initials**. Therefore, if Mickey Mouse was at Tonbridge, he would probably log on as MouseM.

Enter your password for the 'ict domain' at school. Your 'ton-school' domain password will not be acceptable, unless it's the same.

- Don't forget to obey the rules for sensible passwords on our networks. It's essential if you connect via the VPN.
- Failure to choose a sensible password could mean unauthorised people accessing your files - if this happens then **you are responsible for this**.

Stage (23)

Pay careful attention to who has access to your passwords - don't tell them to anybody.

- **Don't let windows save your password here** - unauthorised users could get into your school files from home if you do - **You will be responsible if this happens.**
- **Common Room** - *Don't save your password* - your children, assuming they have unsupervised access to your

computer, will be able to access confidential staff information at school. **You will be responsible if this happens**.

Stage (24)

After 'logging on' and 'registering your computer on the network' (not shown here). You should get the following.

- A message showing that 'Tonbridge School VPN' is now connected should be displayed.
- Respond with OK.
- I suggest that you don't opt for 'Do not display this message again, as it gives feedback when the VPN is connected.
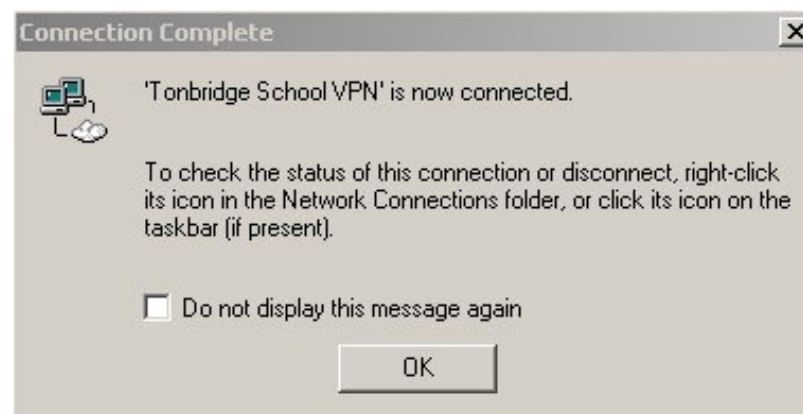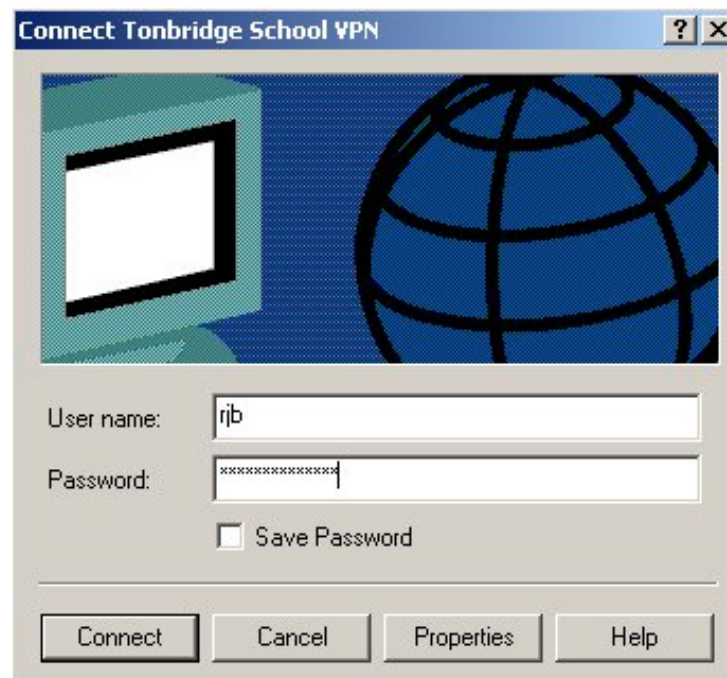
Stage (25)

**If the VPN is working, you have a second computer on your task bar. With RJB's task bar, the left-hand computer is the internet, and the right-hand computer the VPN.**

- You can check which computer is which by letting your mouse hover over the icons and reading the message.
- When connecting to or transferring data to and from the VPN, these two computers should flash on and off to show that data is being transmitted and received.
- If you are using the internet without the VPN, then you will see only one computer.
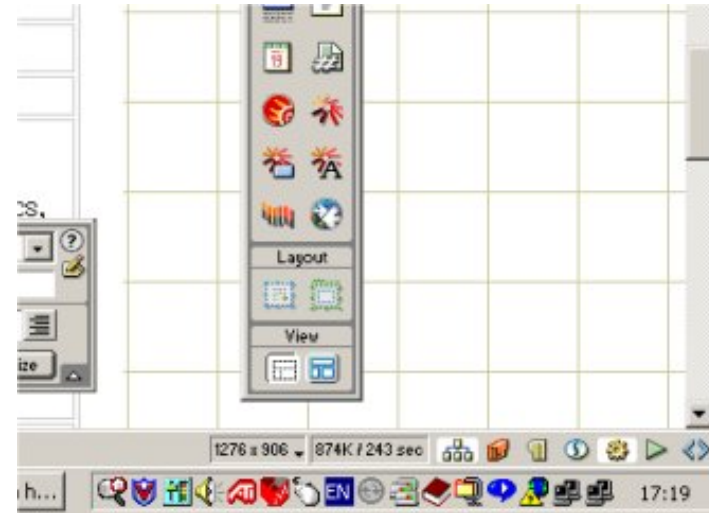
You are now connected, and can therefore shout Eureka!

However, before you can do anything useful, you will need to connect to the school resources, but do follow the last two stages to check that all is well. (*i.e. log off and then try logging on again - it's very simple the second time round*.)

Logging off and logging back on again

When you have finished, don't forget to log off from the VPN. It does not prompt you when you have finished downloading information. This is because it acts as though it's a permanent resource connected to your computer. Any time-out set on your 'ISPs internet connection' will still disconnect you if you don't use the VPN for some time.
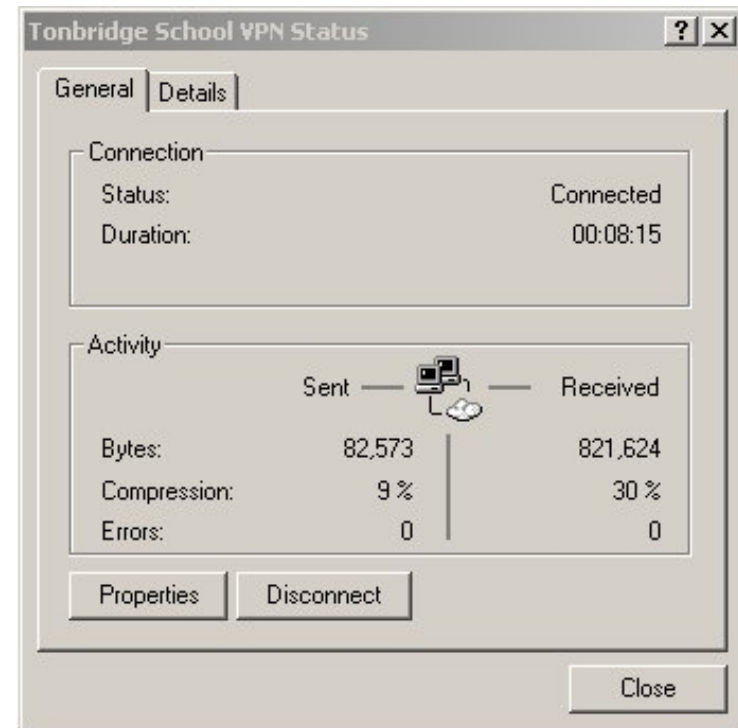
Stage (26)

To Log Off do the following:

Double Click on the little computer representing the VPN on the task bar (See stage 25)

You should get a window similar to that shown here.

Click over the 'Disconnect' button.

- Make sure that both computers have disappeared from the task bar. (Assuming that you were not connected to the internet before using the VPN.

Stage (27)

To log on next time, because the system has already been set up, simply double click on the Tonbridge School VPN shortcut on your desktop, and follow the simple instructions.

Gaining access to your work

Once set up, it's a very simple matter to access the work on your X and Z drives, your school e-mail, the resources available on the X and Y drives and school web sites (like RJB's ICT site) from home.

Stages (28) to (32) assume that you are already successfully connected to the VPN (i.e. you are on the internet, connected to your ISP and connected to the Tonbridge School VPN.)

Stage (28)

To gain access to your work do the following.

Load Internet Explorer (IE5 or IE6), and then type in *your version* of the following:

Fred Bloggs, for example might type:

ftp://gemini

because he is a **member of 5th from** and his work is saved on the **Gemini file server**. Another example, for Mickey Mouse could be as follows.

Mickey Mouse, a Novi, will type:

ftp://aries

because Mickey is a **Novi** and his work is saved on the **Aries file server.**

The screen here shows RJB attempting to connect to the VPN from home.

- If you have forgotten which file server your work is stored on! - Here is the information.
- For the Academic year 2002/2003, file servers are allocated

as follows:
- ❍ All Novi are on the Aries file server
- ❍ All 4th are on the Sirius file server
- ❍ All 5th form are on the Gemini file server
- ❍ All L6th form are on the Pegasus file server
- ❍ All U6th are on the Phoenix file server

Stage (29)

Internet Explorer will bring up a window that asks for your user name and password.

Note that your User Name needs to be prefixed by the domain name 'ICT' and a 'backslash' (\).

i.e 'ict\bloggsf', for example.

**The screen here shows RJB attempting to connect to the VPN from home.**

Stage (30)

If the above is successful, you will now see the work on your X drive, and can use it in the normal way.

Don't forget that you will need the appropriate applications on your computer at home to see your work. It's no good trying to load a Word file if you don't have Microsoft Office, for example.

(The contents of this window will be different on your home computer.)
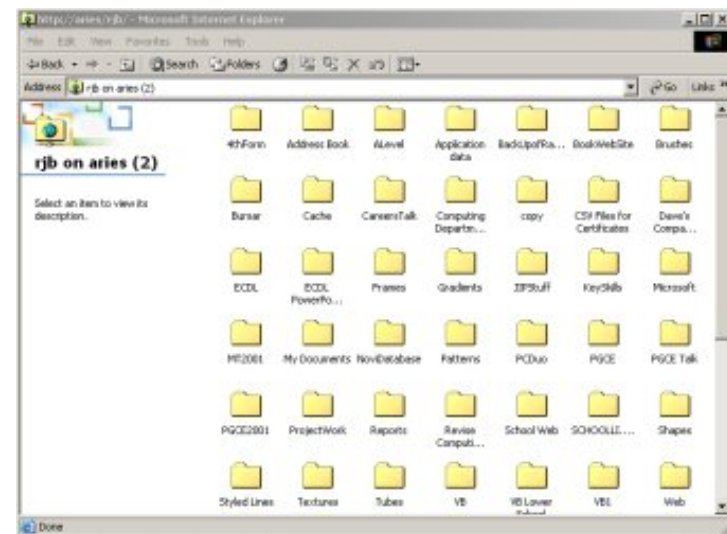
You have now completed the VPN setup and tested it!

Stage (31)

Connecting to other Resources

There are a couple of other resources from which you might find useful information. More will be added to this list as time progresses.

Just like the demonstration in Stage (29), in your IE5 or IE6 web browser, type the following:

ftp://resources

This will give you access to the resources in the ICT department. If this works then your VPN setup is functioning properly. You can also type:

http://ict

to view the ICT department web site. However, this site was designed specifically for the school intranet, and will be quite slow if you don't have a fast internet connection.

Accessing e-mail via the VPN

You can access you school e-mail account (i.e. username@tonbridge-school.org) via the VPN. This is useful if you want to pick up your school e-mail from home. These are the instructions to do this.

Stage (32)

Use outlook express (or whatever e-mail client you may have) to set up an additional account.

- Follow the instructions for <u>setting up your e-mail</u>, but instead of typing

mailserver

use

mailserver.tonbridge-school.org

instead.