Contents

Introduction

This manual deals with the technical non accounting aspects of installing Quantus. Quantus is a real time multi-user accounting system.

Quantus can be installed in the following environments:

1. Single User PC

    a. Microsoft Windows® 95 (any)
    b. Microsoft Windows® 98
    c. Microsoft Windows NT4® (with Service Pack 4 + SP4 hotfix or above)

2. Multi-user Networks

    a. Servers

        i. Novell Netware® 4.11 and above
        ii. Microsoft Windows® NT4 Server (with SP4 + SP4 hotfix or above)

    b. Workstations

        i. Microsoft Windows® 95 (any)
        ii. Microsoft Windows® 98
        iii. Microsoft Windows NT4® (with SP4 + SP4 hotfix or above)

The software which is used to run Quantus is identical in the above environments and data can be copied from one environment to another without restriction (subject to license).

Components

Quantus requires four components to run.

TCP/IP

All versions of Quantus utilise the TCP/IP protocol for communications. This is true for the thin client (NT server version) and even for the single user PC version which has exactly the same architecture as the networked versions. All single user PCs, NT servers and all workstations must be configured with TCP/IP before any other software is installed. Workstations in a Novell environment must still be configured with TCP/IP even though the Netware server itself does NOT require TCP/IP to be running. This is because the communications on a Novell network are handled by the database manager between the workstation and the server (which generally does not use TCP/IP) but communications between Quantus and the database within the workstation still use TCP/IP.

Pervasive.SQL V7.0

Pervasive is a database manager (formerly called Btrieve) which is used by Quantus for both programs and data storage. It requires no day to day management and provides an SQL (Structured Query Language) interface for third party tools to access the database.

ProIV

ProIV is a RAD tool (Rapid Application Development) which has been used by the Quantus developers to write the accounting system. A run time version of ProIV is required to run Quantus code. ProIV looks after the interface between the accounting system and the database manager across all the different platforms that are available. Quantus

This is the accounting system logic structures and programs which are used on a day to day basis by the accountants.

The Quantus code is written in ProIV and resides in a set of files, the main one of which is GENFILE.BTR. This file is stored alongside all the other files in a Pervasive database (hence the .btr suffix which is derived from the old name for Pervasive - **Btr**ieve).

The setup of the accounting environment is dealt with in another manual.

TCP/IP

Introduction

TCP/IP is a protocol (structured mechanism for communicating) which is not installed on Windows machines by default. It is now widely used because it has become the standard protocol for the internet.

If your PC is attached to a network then you require knowledge of the network environment in which you are working to be able to setup TCP/IP as it will affect other users on your network. Contact your network administrator before proceeding with this installation.

Installation

1. Windows NT4 Stand Alone PC

   It is essential that Windows NT4 is patched with service pack 4 and the service pack 4 hotfix (or higher) before starting this process. Service Pack 5 (but not 4) is available from the Microsoft web site **www.microsoft.com** .

   Setting up TCP/IP on a Windows NT4 Stand Alone PC is rather confusing. The Microsoft implementation of TCP/IP requires you to link the protocol to a communications device, even if you do not have or need one for the particular purpose. This can be either a true network device (NIC - network interface card) or a windows pseudo networking device (Dial-up Networking).

   For the purposes of getting TCP/IP onto a non networked PC it is therefore necessary to install dial-up networking (this may have been configured for you automatically by an Internet Service)! You do not need to do this if you already have a modem installed on your PC or if you have a peer to peer network using the serial ports to connect two or more machines.

   If you have not already suffered from dial-up networking then you install it as follows:

   Double click on My Computer and the screen appears as shown in **Figure 1** (it is taken from a Windows NT4 PC without internet explorer 5). Double mouse click on dial-up networking. Press Install. The system will ask you to insert the NT4 CD into the CD drive. When you do this the CD may autostart, if it does so then close the NT4 setup window.

Figure 1 NT4 Dial-up Networking

Press OK in the “Files Needed” window. This will install numerous services, protocols and RAS and will then ask you to install a modem as shown in **Figure 2**.

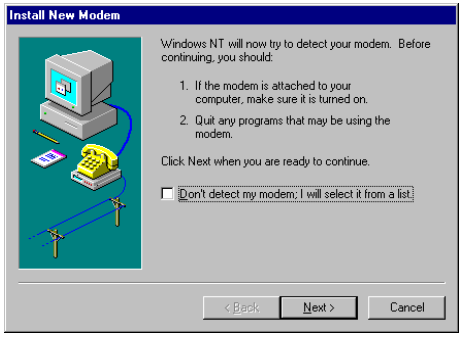

Figure 2 NT4 Install Modem

If you do not have a modem tick the checkbox

"Don't detect my modem; I will select it from a list"

and press Next. The system displays the screen shown in **Figure 3**.

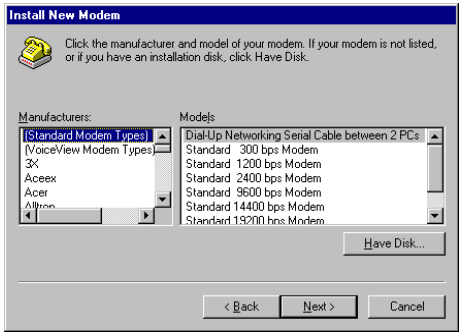

Figure 3 NT4 Install New Modem

"Standard Modem Type" will be highlighted in the left panel and "Dial-Up Networking Serial Cable between 2 PCs" will appear grey in the right panel. Press Next. The screen appears as shown in **Figure 4**.

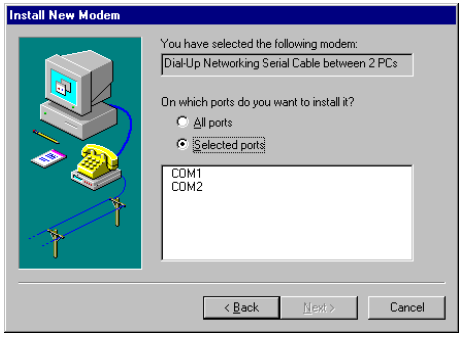

Figure 4 NT4 Select New Modem - 2

Highlight one of the ports and press Next. Press Finish. The system will now return you to the RAS setup process. Your screen should look like **Figure 5**.

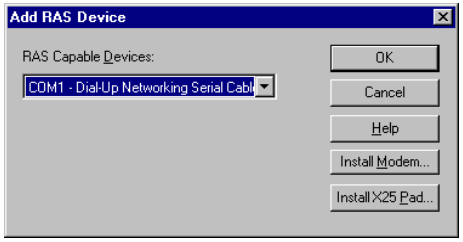

Figure 5 NT4 Add RAS Service

Press OK. The screen will look like **Figure 6**.

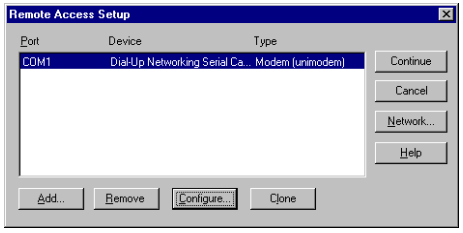

Figure 6 NT4 RAS Setup

Press the button marked "Network". The screen displayed is as shown in **Figure 7**.

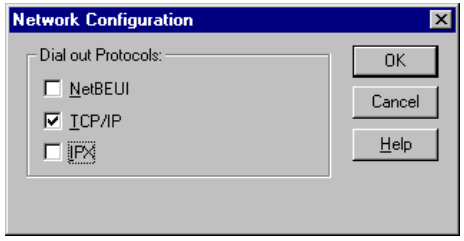

Figure 7 NT4 RAS Network

Tick the checkbox TCP/IP (at last) and untick the others; press OK.

Press Continue. **DO NOT RESTART YOUR COMPUTER** because you must now disable some of the services that Microsoft has automatically installed. Microsoft assume (wrongly) that you will never use TCP/IP without either a network or dial up networking. You do need TCP/IP when you do not have dial up networking. This sad position can however be rectified as follows.

Select Start, Settings, Control Panel and double mouse click on Services. The screen appears as shown in **Figure 8**.

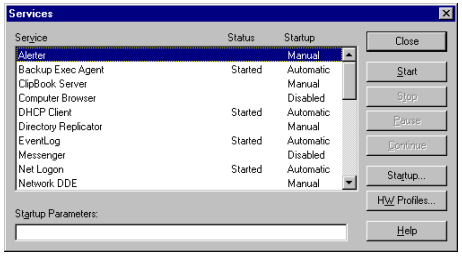

Figure 8 NT4 Services

Scroll down and highlight the “Server” service press the “Startup” button (NOT “Start”) and the screen looks as shown in **Figure 9**. Select the “Disable” radio button and press OK.

Repeat the process for the “Computer Browser” service and the “Messenger” service.

Restart your computer.

Reinstall Service Pack 4 and the SP4 Hotfix or above.

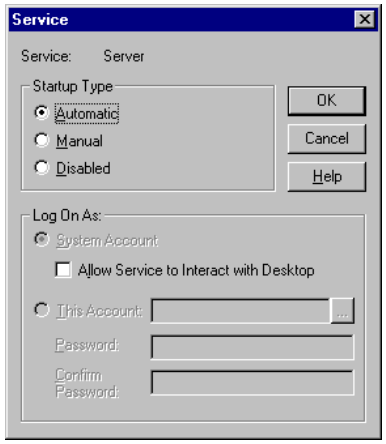

Figure 9 NT4 Services 2

2. Windows NT4 workstation attached to Novell Server

   a. Attached to a Novell 4.11 server out of the box (using IPX/SPX) - Thick Client

      The Quantus/ProIV client uses TCP/IP to communicate with the accounting engine running on the workstation; the accounting engine interfaces with the Pervasive Requesters running on the workstation and the Pervasive Requesters communicate with the Novell server using IPX/SPX (the native Novell Protocol).

      It is still essential that Windows NT4 is patched with service pack 4 and the service pack 4 hotfix (or higher) before starting this process. Service Pack 5 (but not 4) is available from the Microsoft web site **www.microsoft.com** .

      Highlight Network Neighbourhood and right mouse on it.

Select properties from the drop down menu. The screen appears as shown in **Figure 10**.

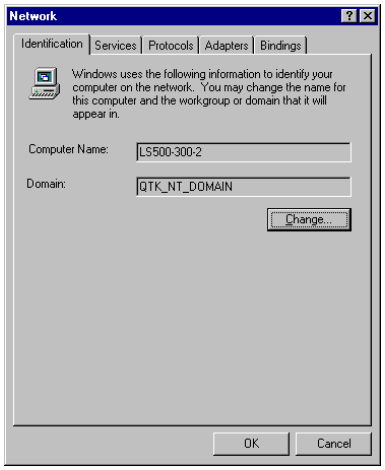

Figure 10 NT4 Network Neighbourhood

Select the Protocols tab and check to see if there is an entry for TCP/IP Protocol as shown in **Figure 11**. If there is then your machine already has TCP/IP installed on it and you have to do nothing further.

If it does not have TCP/IP in the list then press the Add button and select TCP/IP from the list of protocols available. Press OK. The system will then ask for the NT4 workstation CD. Insert the CD in the CD drive and press OK. The system will install TCP/IP and leave you with the Properties tab open as shown in **Figure 12**

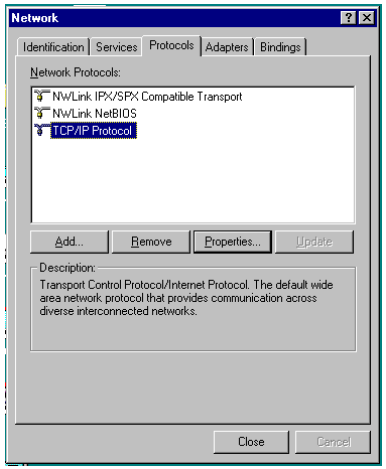

Figure 11 Protocols Installed

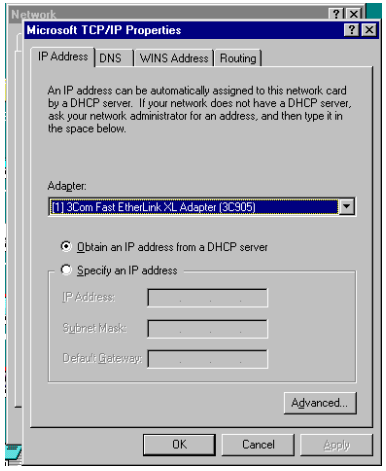

Figure 12 TCP/IP Properties

Your network administrator will advise you on what parameters are required to run TCP/IP in your environment. In the simplest case you select the radio button “obtain an IP address from a DHCP server” and the process is automatic. If your network does not have a DHCP server (which allocates IP addresses to workstations) then you will have to create an IP address. This is complicated and should not be done without understanding the implications. If there are no other TCP/IP based systems running on your workstation (including RAS or Dial Up Networking) or network then you can safely allocate any number such as the following:

IP Address	200.1.1.100
Subnet mask	255.255.255.0

Press OK and OK again. The system will ask you to shut down and reboot your workstation. You should press the Yes button.

b. Windows NT workstation attached to a Novell 5 server or a Novell 4.11 server with TCP/IP configured

Follow the same process as outlined in section 2.a except for the fact that the TCP/IP address must fit into the scheme already running on your network. You should not select an IP address at random.

In a Novell environment running IP, communications between the Pervasive Requesters and the Novell server may be either via IPX/SPX or TCP/IP depending on the performance of the network and configuration of Pervasive.SQL.

3. Windows NT4 workstation attached to NT4 server

The Quantus/ProIV client uses TCP/IP to communicate with the accounting engine on the NT4 server - Thin Client. This reduces the volume of traffic on the network and allows Quantus to operate very fast over slow networks and remote connections such as ISDN.

The accounting engine interfaces directly with the Pervasive database engine both of which are running on the server.

Follow the same process as outlined in section 2.a except for the fact that the TCP/IP address must fit into the scheme already running on your network. You should not select an IP address at random. In addition you must add an address for the default gateway which may or may not be the NT server itself.

4. Windows NT4 server

Follow the same process as outlined in section 2.a except for the fact that the TCP/IP address must fit into the scheme already running on your network. You should not select an IP address at random.

5. Windows 95/98 Stand Alone PC

Setting up TCP/IP on a Windows 95/98 Stand Alone PC is rather confusing. The Microsoft implementation of TCP/IP requires you to link the protocol to a communications device, even if you do not have or need one for the particular purpose. This can be either a true network device (NIC - network interface card) or a windows pseudo networking device (dial-up networking).

For the purposes of getting TCP/IP onto a non networked PC it is therefore necessary to install dial-up networking (this may have been configured for you automatically by an Internet Service)! You do not need to do this if you already have a modem installed on your PC or if you have a peer to peer network using the

parallel or serial ports to connect two or more machines.

If you have not already suffered from dial-up networking then you install it as follows:

Double click on My Computer and the screen appears as shown in **Figure 13** (it is taken from a Windows 98 PC with internet explorer 5). Double mouse click on dial-up networking. Press Next.

Select install new modem (even if you do not have a modem) as shown in **Figure 14**. If you have no modem attached to your computer then carry on with this but check the box “Don’t detect my modem; I will select it from a list”. Press Next.

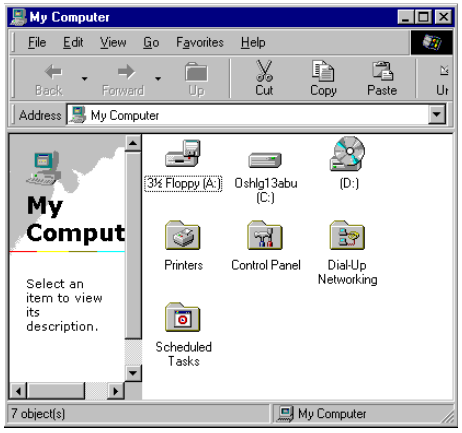

Figure 13 W98 Dial-up Networking

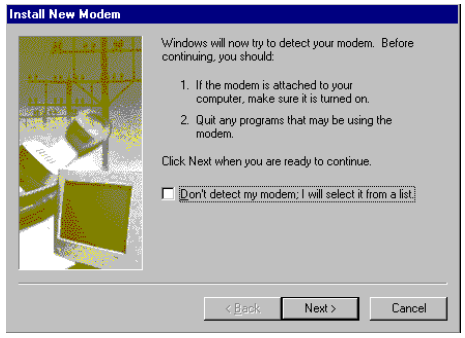

Figure 14 W98 install new modem

The screen appears as shown in **Figure 15**.

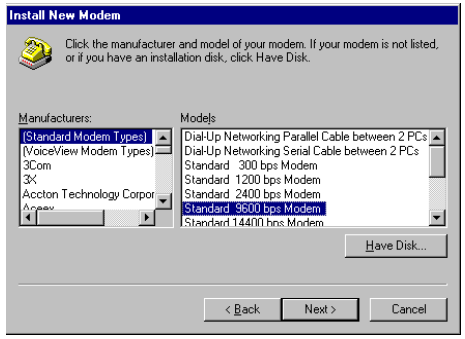

Figure 15 W98 Modems

Highlight Standard Modem Types in the left panel and Standard Dial-up Modems in the right panel. Press Next and the screen appears as shown in **Figure 16**.

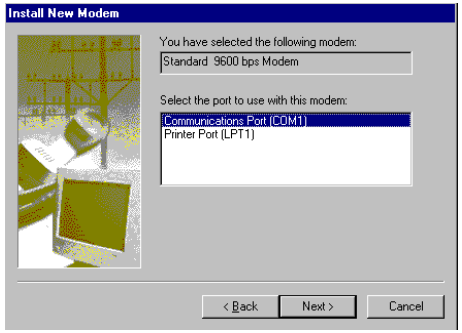

Figure 16 W98 Select Comms Port

Leave Communications Port (COM1:) highlighted and press Next.

Figure 17 W98 Location Information

The screen shown in **Figure 17** is displayed. Type your telephone area code in the field “What area code are you in now”. You have to do this to be able to proceed. Press Next to get to the Finish as shown in **Figure 18**. Press Finish - hooray!

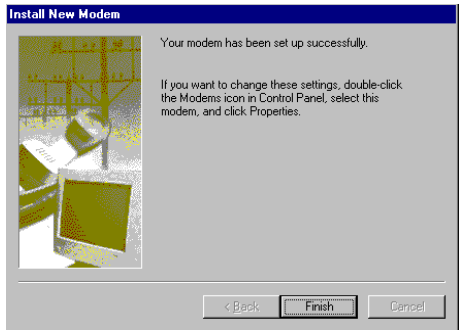

Figure 18 W98 Finished Modem

You now have half of what you need to use TCP/IP, and of course you have not actually installed that yet! Next start control panel (Start, Settings, Control Panel) and then double click on Networking. The screen should look as shown in **Figure 19**.

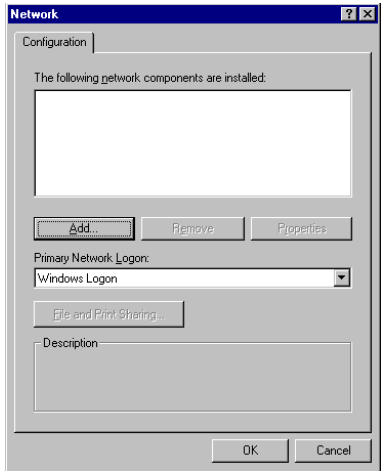

Figure 19 W98 Networking

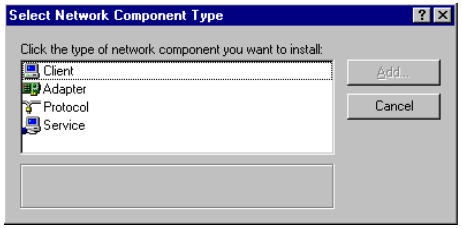

Figure 20 W98 Network Components

Press Add to get the screen shown in **Figure 20**. Highlight Protocol and the screen looks like**Figure 21**; press Add. The screen shown in **Figure 22** appears.

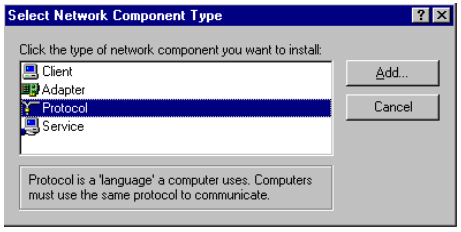

Figure 21 W98 Network Components 2

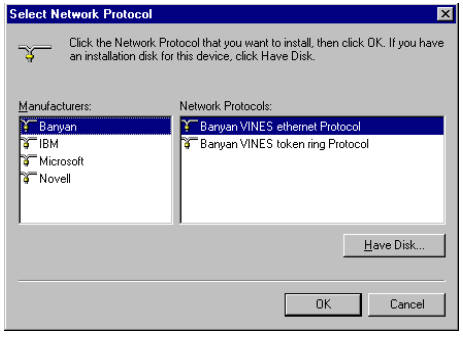

Figure 22 W98 Network Protocol

Highlight Microsoft in the left panel, and scroll the right panel until you see TCP/IP (at last) Highlight TCP/IP in the right panel. Press OK. Scroll the left panel until you see Microsoft and highlight it; then highlight Dial-up adapter. The screen then appears as shown in **Figure 23**. Press OK.

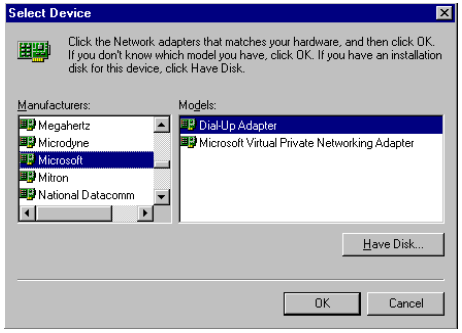

Figure 23 W98 Select Devices

Do not try to configure the properties of TCP/IP; it is unnecessary unless you are going to participate on a real network. Press OK and restart your computer.

6. Windows 95/98 workstation attached to Novell server

The Quantus/ProIV client uses TCP/IP to communicate with the accounting engine running on the workstation; the accounting engine interfaces with the Pervasive Requesters running on the workstation and the Pervasive Requesters communicate with the Novell server using IPX/SPX (the native Novell Protocol).

a. Windows 95/98 workstation attached to a Novell 4.11 server out of the box (using IPX/SPX) - Thick Client

Highlight Network Neighbourhood and right mouse on it. Select properties from the drop down menu. The screen

appears as shown in **Figure 24**.

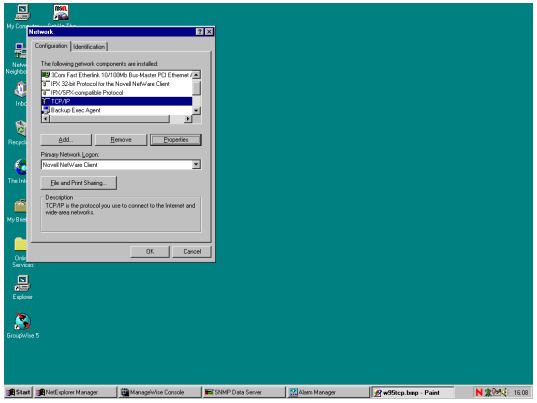

Figure 24 W95 Network Neighbourhood Properties

Select the Configuration tab and check to see if there is an entry for TCP/IP. If there is then your machine already has TCP/IP installed on it and you have to do nothing further.

If it does not have TCP/IP in the list then press the Add button and highlight Protocols from the list as shown in **Figure 25**.

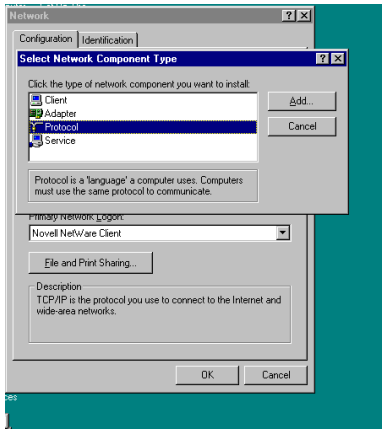

Figure 25 W95 Network Neighbourhood Configuration tab

Press Add. Highlight Microsoft from the list on the left and TCP/IP from the list on the right as shown in **Figure 26**.

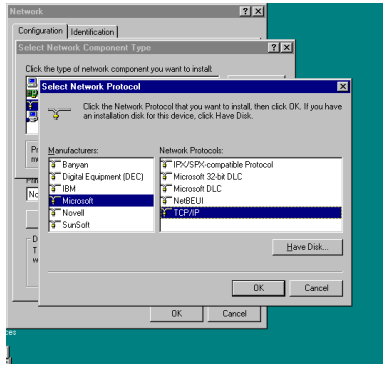

Figure 26 W95 Network Neighbourhood TCP/IP

Press OK.

Depending on the configuration of your machine the system may then ask for a CD. If so insert the CD in the CD drive and press OK.

The system will install TCP/IP and leave you in the properties of TCP/IP as shown in **Figure 27**.

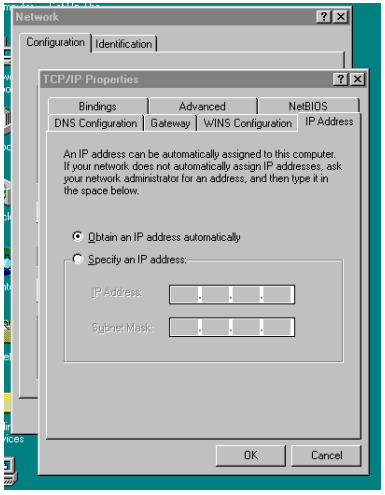

Figure 27 W95 TCP/IP Properties

Your network administrator will advise you on what parameters are required to run TCP/IP in your environment. In the simplest case you select the radio button “obtain an IP address automatically” and the process is automatic. If your network does not have a DHCP server (which allocates IP addresses to workstations) then you will have to create an IP address. This is complicated and should not be done without understanding the implications. If there are no other TCP/IP based systems running on your workstation (including RAS or Dial Up Networking) or network then you can safely allocate any number such as the following:

IP Address	200.1.1.100
Subnet mask	255.255.255.0

Press OK and OK again. The system will ask you to shut down and reboot your workstation. You should press the Yes button.

b. Windows 95/98 workstation attached to a Novell 5 server or a Novell 4.11 server with TCP/IP configured

Follow the same process as outlined in section 6.a except for the fact that the TCP/IP address must fit into the scheme already running on your network. You should not select an IP address at random.

In a Novell environment running IP, communications between the Pervasive Requesters and the Novell server may be either via IPX/SPX or TCP/IP depending on the performance of the network and configuration of Pervasive.SQL.

7. Windows 95/98 workstation attached to NT4 server

The Quantus/ProIV client uses TCP/IP to communicate with the accounting engine on the NT4 server - Thin Client. This reduces the volume of traffic on the network and allows Quantus to operate very fast over slow networks and remote connections such as ISDN.

The accounting engine interfaces directly with the Pervasive database engine both of which are running on the server.

Follow the same process as outlined in section 6.a except for the fact that the TCP/IP address must fit into the scheme already running on your network. You should not select an IP address at random.

Pervasive.SQL V7.0

Introduction

The Pervasive.SQL v7.0 (formerly Btrieve) database manager is a core component of Quantus. It is used to store the programs and the users data files, and is responsible for all storage of data on disk. As such its performance is critical to the performance of Quantus itself, and care must be taken to set the parameters of the database initially.

Once configured the database will require little or no day to day management, unless the accounting system expands significantly with more users.

There are a small number of settings that must be adjusted initially. If the system is to be used by more than 10 users you should discuss the settings directly with the Quantus support staff.

Pervasive database products are available for the following environments:

1. Microsoft Windows® 95
2. Microsoft Windows® 98
3. Microsoft Windows® NT4 Workstation
4. Microsoft Windows® NT4 Server
5. Novell Netware® Server

You must make certain that you have the correct version for your environment.

Installation

Do not install Pervasive.SQL unless TCP/IP has been correctly configured.

1. Demonstration Version

   All versions of Pervasive are available as demonstration software which is time barred after 60 days. The stand alone PC version is available from the Quantus web site **www.quantus.co.uk** and Quantus Systems Limited can supply demonstration CDs for Novell and NT4 server versions.

   a. Stand Alone PC

      Download the file pv7wksta.exe from the website. It is a self extracting WinZIP file. Create a directory on your PC called Pervasive and place the file in it; double mouse click on it to explode it. It will ask you which directory to install it to; allow it to expand the file into the same directory (Pervasive). This is not the live working directory.

      Run setup.exe from the Pervasive directory. It will create a directory Drive_Letter:\pvsw which is the real working directory. It is not mandatory to use the C: drive but we recommend that you do so. If you wish you can then delete Pervasive and all the files in it; we recommend that you keep the WinZIP file for the time being.

   b. Microsoft Windows® NT4 Server and Novell Netware® Server

      Follow the instructions for the full product installation below.

2. Full Product

a. Novell Version from Pervasive CD

Login to your network as Admin or a user with Admin equivalent rights.

Insert the Pervasive.SQL CD into the CD drive and it will start automatically. If it does not then find the file setup.exe on the root of the CD using explorer and double mouse click on it or Run (CD Drive Letter):\setup.exe eg D:\setup.exe from the Start button.

Follow the instructions on the install shield and unless you have good reason not to do so accept all the default settings. Navigate through the process pressing the Next button on each screen.

Insert the license floppy disc into the A: drive when asked.

The system will install NLMs into the sys:system directory and create a directory pvsw on the Novell server. We recommend that you allow this directory to be installed on sys: as well. This is usually the F: drive letter.

Pervasive tests your environment and reports whether it can run successfully.

During the install process the Pervasive client will be installed on your local PC. At the end of the installation you will have a new directory on your local hard disc Drive_Letter:\pvsw and several new program groups on your Start Menu. These appear as shown in **Figure 28**.

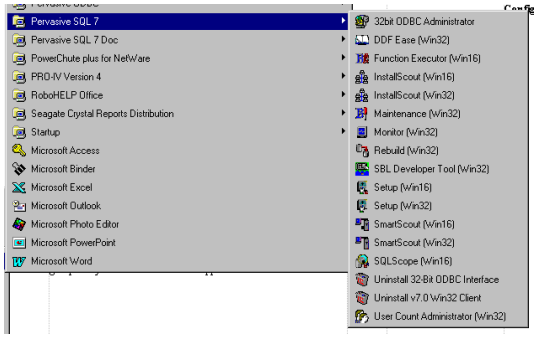

Figure 28 Pervasive Programs

Subsequent workstation installations do not require the CD. You can install the Pervasive Client by running setup.exe form the Novell Server sys: volume f:\pvsw\clients\win32 directory. You should login to the workstations as Admin or equivalent or grant RWCEMF rights to the pvsw directory so that Pervasive can run its test processes during the installation.

b. NT4 Server Version from Pervasive CD

Login to your NT4 server as Administrator or a user with Administrator equivalent rights.

Insert the Pervasive.SQL CD into the CD drive and it will start automatically. If it does not then find the file setup.exe on the root of the CD using explorer and double mouse click on it or Run (CD Drive Letter):\setup.exe eg d:\setup.exe from the Start button.

Follow the instructions on the install shield and unless you have good reason not to do so accept all the default settings.

Navigate through the process pressing the Next button on each screen.

Insert the license floppy disc into the A: drive when asked.

The system will install executables into the winnt\system directory and create a directory pvsw on the server. Whilst technically not essential we recommend that you allow this directory to be installed on the c: drive as well.

Pervasive tests your environment and reports whether it can run successfully.

During the install process the Pervasive client will be installed on your server. At the end of the installation you will have several new program groups on your Start Menu. These appear as shown in **Figure 28**.

Subsequent workstation installations do not require the CD. You can install the Pervasive Client by running setup.exe from the NT Server c:\pvsw\clients\win32 directory. To do this you must create a share over the c:\pvsw\clients\win32 directory.

3. Patches

There are patch kits on the Quantus website **www.quantus.co.uk** and the Pervasive web site **www.pervasive.com** currently Service Pack 3 which should be installed after the main product has been installed. There are four separate patch kits as follows:

Stand Alone PC	sp3wse.exe

NT4 Server	sp3nt.exe
Netware Server	sp3nw.exe
Workstation client	sp3clnt.exe

To install these simply download the file, double mouse click on the file from Explorer and the upgrade will take place automatically. These upgrades do not affect the configuration settings.

Configuration

Using the PC or a workstation with the Pervasive Client software installed.

From the Start Menu, select Pervasive SQL 7 Setup Win32. The screen appears as shown in **Figure 29**.

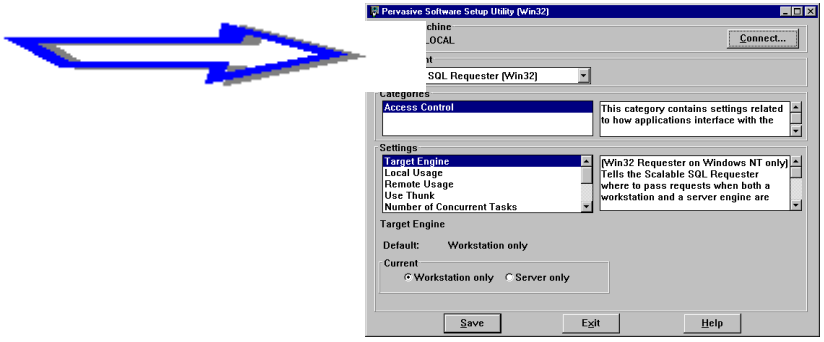

Figure 29 Pervasive Setup (Win32)

There are many configurable options in the Pervasive.SQL setup, but most do not have to be changed for Quantus.

Firstly it is important to understand that it is technically possible to have database engines (known as Microkernel engines) running on either a local workstation or a server or both. Quantus can run in many different configurations but the only supported configuration is to use only one of the database engines. On a stand alone PC this would be Local and on a network it would be a shared server. The configuration program can address both the local engine and a remote server engine. **Do not forget to connect to the correct engine.**

The engine being addressed by the setup program is shown in the top left of the window as indicated by the arrow in **Figure 29**.

1. Stand Alone PC

The screen appears as shown in **Figure 31**. Do not try to change the engine with the Connect button, as there is only one available called “Local”. Press the down arrow in the Component drop down box (marked with the arrow) and the screen appears as shown in **Figure 33**.

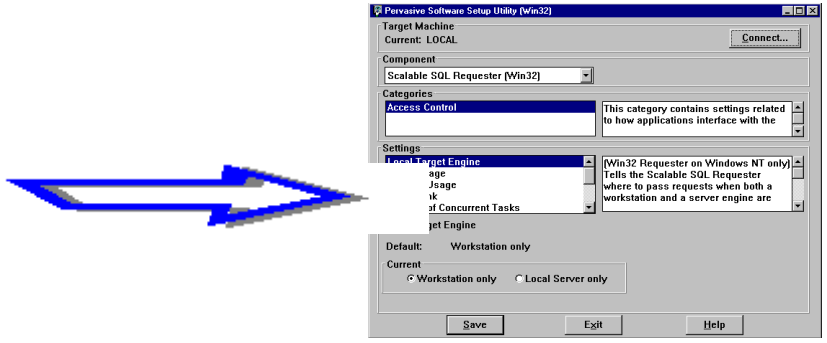

Figure 31 Pervasive PC Setup (Win32)

The drop down window has a scroll bar on the right; scroll down in this window until you see MKDE Workstation Engine; the screen should look as shown in **Figure 34**.

Highlight MKDE Workstation Engine and it will be selected in the Component field. The settings window will change and the screen will appear as shown in **Figure 36**.

Make sure that the item “File Settings” is highlighted in the Categories window and that the item “Open Files” is highlighted in the Settings window; change the figure in the Current field (marked by the arrow in **Figure 36**) to 200. The screen should then appear as shown in **Figure 37** .

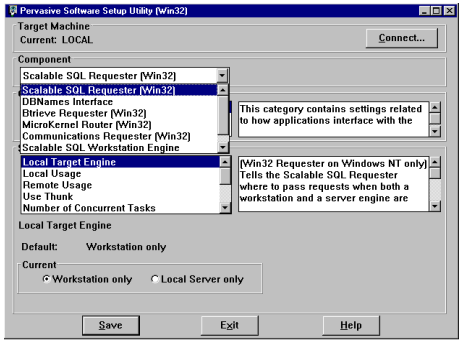

Figure 33 Pervasive PC Setup (Win32) - 2

At any time you can press the Save button to save your current selections.

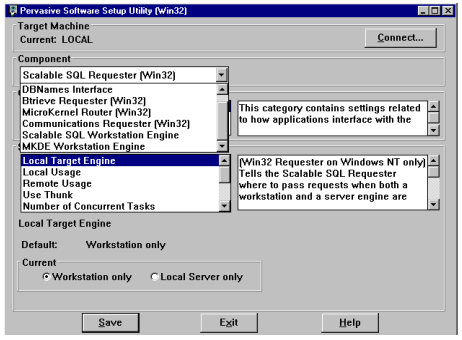

Figure 34 Pervasive PC Setup (Win32) - 3

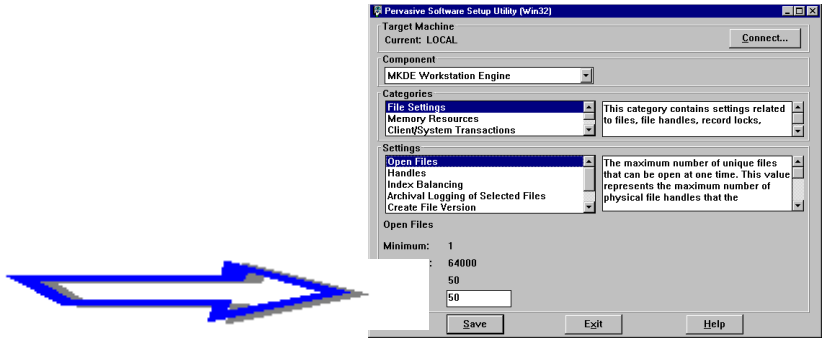

Figure 36 Microkernel Open Files - 1

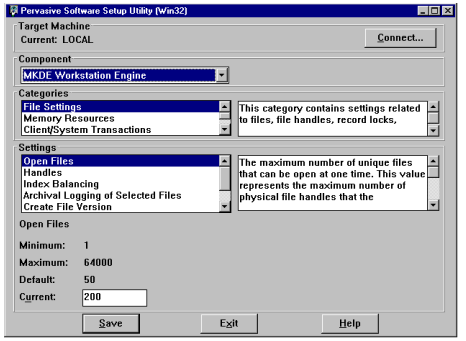

Figure 37 Microkernel Open Files

Next highlight the item in the Settings window “Handles” and change the figure in the Current field from 200 to 500.

Next highlight the item “Memory Resources” in the Category window and “Cache Allocation” in the Settings window. The screen appears as shown in **Figure 38**.

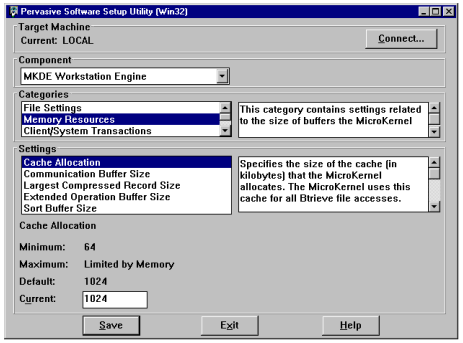

Figure 38 Microkernel Memory Default

This setting represents the amount of the computer's RAM (Random Access Memory) which is allocated to the Pervasive database at any point in time. This memory is used exclusively by Pervasive and reduces the memory available to other applications whilst Pervasive (and therefore Quantus) is running. It has no effect on the memory when Pervasive is not loaded. The amount of memory to allocate to the Pervasive Cache is therefore dependent on other factors on the machine. As a rule of thumb allocate the following cache:

Windows® NT4 PC

Total Memory in Mb	Pervasive Cache in Kb
32	2048
48	4096
64	10240
96	20480

128	40960

Windows® 95/98 PC

Total Memory in Mb	Pervasive Cache in Kb
16	2048
32	6144
64	20480

Change the default figure in the Current field from 1048 to the relevant figure above. After this change the screen will appear as shown in **Figure 39**.

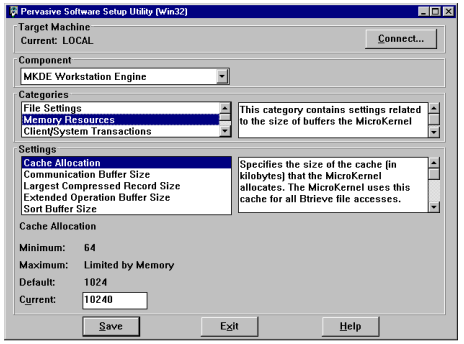

Figure 39 Microkernel Memory Setting

If you allocate more memory to the Pervasive database engine Quantus will run faster. There is a point where this is not true because you have to leave enough memory for basic machine functions to operate. Therefore machines with only the minimum

memory configuration can not spare any significant amount to the Pervasive Cache.

Press the Save button and then the Exit button.

2. Novell and NT Servers

From the Start Menu, select Pervasive SQL 7 Setup Win32. The screen appears as shown in **Figure 40**.

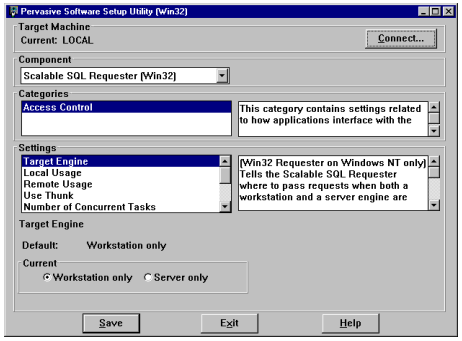

Figure 40 Pervasive Setup (Win32) Network

This is slightly different from the Stand Alone PC version in that there are more settings, but the windows on the screen are the same. Refer to section 1 page 33 above if you do not understand how to use this setup utility.

Firstly connect to your server by pressing the Connect button. The screen appears as shown in **Figure 41**.

Type the name of the server that you want to connect to in the Server Name field and press OK.

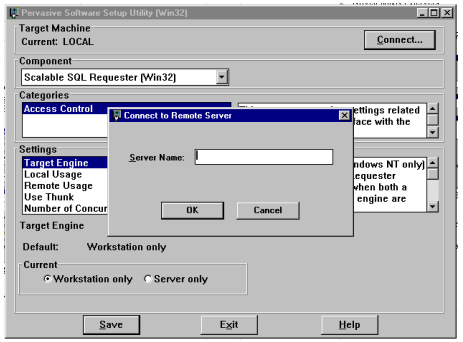

Figure 41 Pervasive Setup (Win32) Connect

Pervasive will connect you to the relevant server engine and display the setup screen as shown in **Figure 42**.

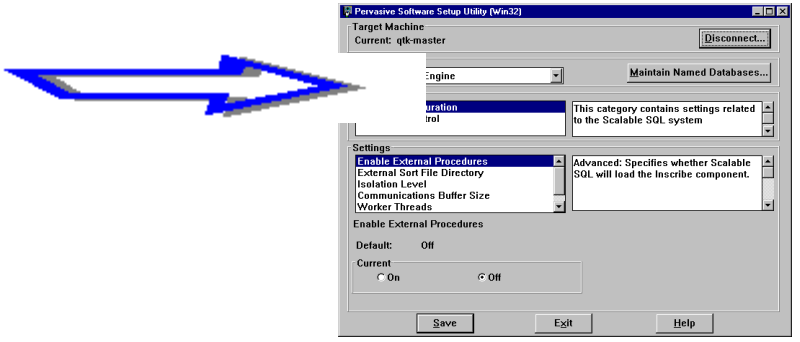

Figure 42 Pervasive Setup (Win32) Network - 2

The Target Machine as shown by the arrow will have changed to your named server.

There are more implications to the setup of the Pervasive Database in a network environment and if possible you should consult your network administrator. Under normal circumstances for a 10 user accounting system the default settings will be adequate except for the following settings:

Component	Categories	Settings	Current
MicroKernel Database Engine	File Settings	Open Files	500
		Handles	1000
	Memory Resources	Cache Allocation	as large as possible
	System Resources /Directories	Active Clients	50
		Worker Threads	4
Btrieve Communications Manager	Server Communication Configuration	Number of Sessions	50
		Number of Communication Threads	10

Change these settings using the same techniques as described above for the stand alone PC version.

After the settings have been saved you must restart the server for the settings to take effect.

You can monitor the actual status of all these settings using the Pervasive SQL Monitor (Win32) utility which is installed automatically by the setup routine. Don't forget to connect to the correct server before you look at the statistics.

ProIV

Introduction

ProIV is a Rapid Application Development (RAD) tool which enables developers to write powerful applications which are transportable across hardware and operating systems platforms and across databases. Quantus can technically run on any machine from a mainframe to a PC and on databases such as Oracle, Sybase and Microsoft SQL server.

Quantus has not been ported to these environments yet for various reasons, primarily one of cost to the user, however it is technically simple to do so.

A run time version of ProIV is required to execute the Quantus programs and this is licenced to the user in addition to the Quantus programs. From the user's point of view it is not important, however it does give the user considerable independence from particular hardware or operating system environments and databases, and ensures that no matter how large the accounting system that is required, it will be possible to transport the system to more powerful hardware.

Quantus have chosen to restrict the range of supported platforms for practical reasons; this is not caused by ProIV itself.

Installation

Do not install ProIV until TCP/IP has been configured on your system.

1. Demonstration and Full System

   There is a version of ProIV on the Quantus website
   www.quantus.co.uk
   which can be used for demonstration or full installation.

   The software for demonstration and full use is the same because it is controlled by a software key (see below).

   Create a directory on your PC called proiv529. Download the file proiv529.exe onto your PC and put the file into the proiv529 directory; double mouse click on the file in Explorer. The file is a self extracting WinZIP file which will expand into c:\temp by default. We recommend that you do not do this but change the path to c:\proiv529. This directory is not the live directory but is used to install the ProIV source software onto the PC.

   When the file expands into this directory it will create several sub directories and a file setup.exe.

   Alternatively if you have a ProIV CD then insert the CD into the CD drive and it will start automatically. If it does not then find the file setup.exe on the root of the CD using explorer and double mouse click on it or Run (CD Drive Letter):\setup.exe eg d:\setup.exe from the Start button.

   Do not run Quantus with any version of ProIV other than the version on the Quantus website (currently kernel 529 and client 129), including newer versions.

   The source software in the proiv529 directory created from the

download file or from the CD can be copied directly onto a network drive and can be used for installation of additional network workstations. Copying of the source files (from the directory proiv529) to a Novell Netware server or NT4 server can be by anybody with adequate rights to the server volumes/drives.

If you do this then you will have the following structure on the server:

Drive Letter	Directories Off Specified Directory	Files in directory	Sub Directories	Files in Sub Directory
Drive_ Letter:	\proiv529	various+ setup.exe	client	client.z
			\demo	demo.z
			\mfc32	client32.z
			\Painter	painter.z
			\Studio	studio.z
			\Windows	kernel.z

Unlike Pervasive which has a different CD for each platform the ProIV installation includes all the possible environments in a single installation process. It is therefore slightly more difficult.

The 32 bit ProIV software is installed onto the local disc of the PC by setup.exe whether it is a stand alone PC or a network workstation. When you run setup.exe the installation process creates a directory Drive_Letter:Pro40 eg c:\pro40. Installations onto a Windows® NT4 workstation or NT4 Server should be carried out by the Administrator as entries are written to the Registry.

2. Stand Alone PC & Workstation on Netware® network

   This section does not apply to a workstation attached to an NT4 server.

   Run setup.exe from either the local PC proiv529 directory or the server where you have copied the files to, or from the CD.

   Follow the prompts, accept the license by pressing the Yes button, and then you get to the Product screen which appears as shown in **Figure 44**.

   Make a selection form the Product screen as follows:

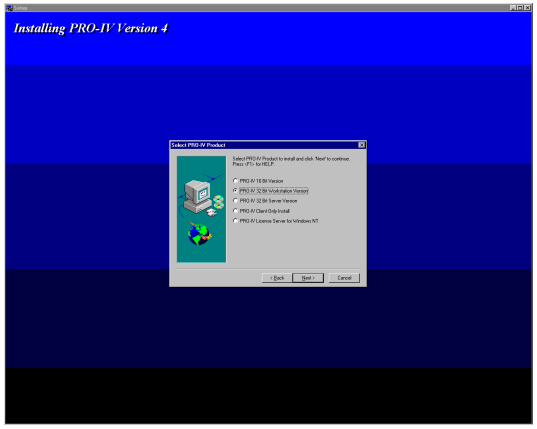

Figure 44 ProIVProduct Selection

Stand Alone PC	ProIV 32 bit Workstation Version
Workstation attached to a Novell Server	ProIV 32 bit Workstation Version

NT Server (at the server)	ProIV 32 bit Server Version

The Workstation version contains all the client files and in a mixed Novell/NT4 environment you should just run the Workstation Version. This allows access to either type of server.

Press the Next button. The system displays the Select Components screen which appears as shown in **Figure 45**.

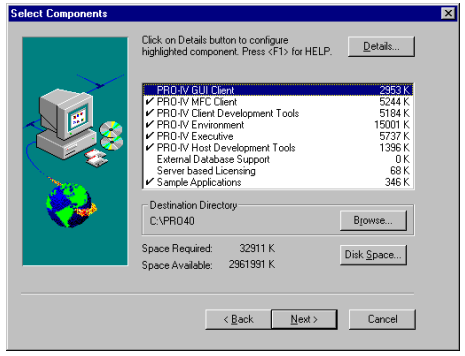

Figure 45 ProIV Select Components

This screen is important and it is not very intuitive.

Highlight the item “External Database Support” and press the button marked Details. Tick Btrieve and press OK. This returns you to the Select Components screen.

If you are using a Novell server then highlight Server based Licensing and press the Details button. Mouse on the Novell Netware radio button and type the name of your server in the Server Name field. ProIV will install a license file onto this server which can be accessed by any user on the network.

Highlight and remove the tick on the following items

ProIV Client Development Tools
ProIV Host Development Tools
Sample Applications

which are not required.

The finished selections should appear as shown in **Figure 46**.

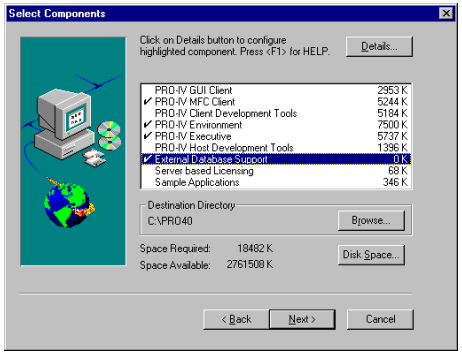

Figure 46 Completed Select Components

Tick the Next button.

Tick the Next button to accept the default Folder.

The system then launches a DOS task which creates the licence files as shown in **Figure 47**. In this DOS task there is a Site Id (marked by the arrow) which you should record on the form provided.

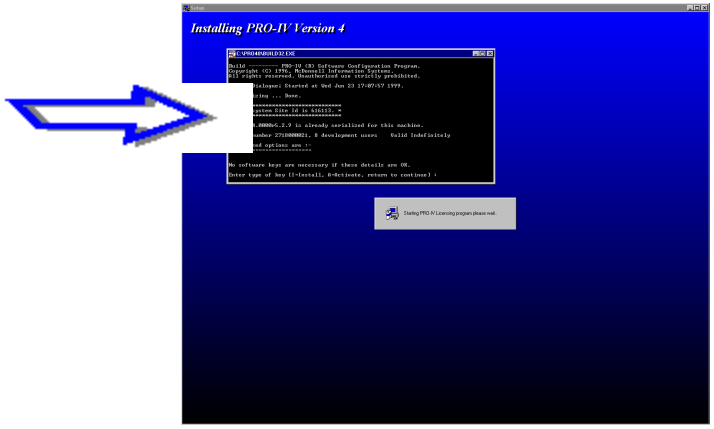

Figure 47 ProIV Licensing Program

If you are running an evaluation copy of Quantus press <ENTER> at this point and ProIV will ask you to confirm that you want to run an evaluation copy of the software, type Y followed by <ENTER>.

This will install a time barred version which will be active for 30 days.

If you are installing a full version of Quantus then you will have been supplied with an installation key with the product. Type I and <ENTER> followed by this 24 digit key and <ENTER>.

The system will then ask you to enter your company name. Type in a name between 5 and 32 characters and press <ENTER>.

The installation key causes the system to create a temporary license which is valid for 60 days. Before this time has expired you must return the form with the details of the Serial Number

and Site Id to Quantus for validation. Quantus will then provide a permanent Activation Key which must be processed into the system before the end of 60 days from installation.

Your system must be re-serialised if you wish to change hardware.

The system will then probably warn you that it is about to overwrite some Windows® Dynamic Link Libraries (DLLs) with newer versions, or not as the case may be. These messages have a format shown in **Figure 49**.

Figure 49 Typical DLL Prompt

You should read each message carefully as some DLLs will be newer and some older. The button which is highlighted is the default which the system expects you to take. You must install the newer DLLs and you must not install the older DLLs. If you are in doubt about what to do press the <ENTER> key to accept the default.

The system then runs several automated processes and completes the installation. Press the Finish button to complete the process.

3. Windows workstation attached to NT4 server

Run setup.exe and follow the prompts, accept the license by pressing the Yes button, and then you get to the Product screen which appears as shown in **Figure 44**.

Make a selection from the Product screen as follows:

Workstation attached to an NT server	ProIV Client Only Install

Press the Next button. The system displays the Select Components screen which appears as shown in **Figure 50**.

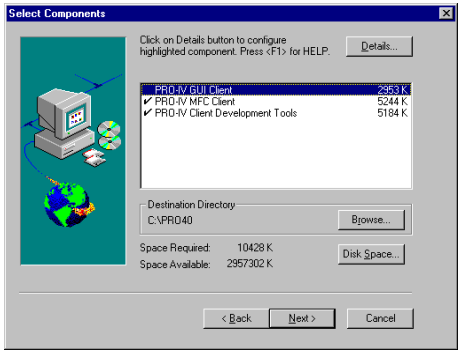

Figure 50 ProIV Client Only Select Components

Highlight and remove the tick on the following item

ProIV Client Development Tools

Tick the Next button.

Tick the Next button to accept the default Folder.

The system will then probably warn you that it is about to overwrite some Windows® Dynamic Link Libraries (DLLs)with newer versions, or not as the case may be. These messages have a format shown in **Figure 49**.

You should read each message carefully as some DLL's will be newer and some older. The button which is highlighted is the

default which the system expects you to take. You must install the newer DLLs and you must not install the older DLLs. If you are in doubt about what to do press the <ENTER> key to accept the default.

The system then runs several automated processes and completes the installation. Press the Finish button to complete the process.

4. NT4 Server

In the Thin Client model used on an NT server, processing of the accounting data actually takes place on the NT server rather than the workstation. The workstation only runs a “presentation” layer which does little more than display an image on the screen of the workstation. This processing and the communication with the workstation is done by the ProIV kernel. Unlike a Novell environment (where there is no ProIV software running on the server) it is necessary to install ProIV components to the NT4 server as well as the workstation.

Run setup.exe and follow the prompts, accept the license by pressing the Yes button, and then you get to the Product screen. Select ProIV 32 bit Server Version as shown in **Figure 51**.

Now follow the same procedure as for the Stand Alone PC already described above in section 2 on page 44. Select exactly the same components including Btrieve as the external database. Do not select a serialisation server (which is only required for Novell Netware systems).

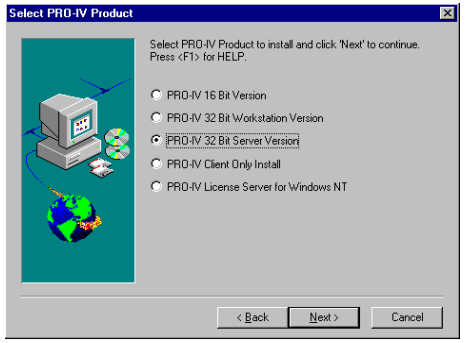

Figure 51 ProIV NT4 Server installation

5. Access Control

a. Novell Server

If you have copied the ProIV source files to a Novell server and you want users to install the software from that server you will have to grant RF rights to the proiv529 directory. Otherwise there is no ProIV software on the Novell server which is used during processing.

b. NT4 Server

Grant/Revoke the following rights. This is done in Explorer by highlighting and right mousing on the folder, highlighting and mousing on properties, selecting the Security tab and pressing the Permissions button.

Folder	Sub Folder	User	Rights

\pro40	all	Administrator	Full Control
		Everyone	Remove
		System	Full Control
\proiv529	all	Administrator	Full Control
		Everyone *	Read

* if you grant this right so that users can install ProIV onto their workstation you must also create a share to the proiv529 folder, otherwise users can not see the folder. Altematively do not grant the Read right to Everyone and login to each workstation as Administrator to carry out the install process.

This assumes that you are not using an automated process to deliver software to the client workstations of course.

Quantus

Introduction

Quantus is the accounting system. Quantus is written in ProIV and uses Pervasive.SQL to store its data on physical hard discs.

The Quantus programs are found in a small number of files, the main ones of which are genfile.btr and logic.btr which are found in the qwin32 directory.

Users data is stored in the directory/folder called qwindata which just contains user data. There are a small number of files which are already populated for you with essential data, but most are empty initially.

Installation

1. Demonstration System

   There is only one demonstration version of Quantus which is for a Stand Alone PC. It is available from the Quantus website **www.quantus.co.uk** .

   Create a directory on your PC called quantus. Download the file quantus5.exe onto your PC and put the file into the quantus directory; double mouse click on the file in Explorer. The file is a self extracting WinZIP file which will expand onto the local disc of the PC running the process and create all the source files required to run Quantus.

   If you accept the default installation directory c:\ it will create the following directory structure:

Drive Letter	Directories Off Root	Files in directory	Sub Directories	Files in Sub Directory
c:	\qwin32	quantus programs *.btr	\bitmaps	bitmaps *.bmp
			\ini	initialisation files *.ini and *.piv
			\imports	blank but required
			\qrw	blank but required
			\sql updates	blank but required
			\temp	blank but required
			\text	blank but required
Drive_ Letter:	\qwindata	database definition files *.ddf	\data	quantus empty data files *.btr
			\temp	blank but required

The software is time barred after 30 days.

2. Novell Netware Server Full Version

   Using a workstation attached to the network, and logged in as Admin or Admin equivalent, put the Quantus CD into the CD drive and run setup.exe from the root of the CD

   Follow the prompts pressing the Next button. Setup will create the following directory structure:

Drive Letter	Directories Off Specified Directory	Files in directory	Sub Directories	Files in Sub Directory
Drive_ Letter:	\qwin32	quantus programs *.btr	\bitmaps	bitmaps *.bmp
			\ini	initialisation files *.ini and *.piv
			\imports	blank but required
			\qrw	Quantus Crystal Reports
			sql updates	blank but required

Drive_ Letter:	\qwindata	database definition files *.ddf	\data	quantus empty data files *.btr
			\temp	blank but required
			\text	blank but required

Normally the qwin32 directory will be located under a programs directory on a programs volume and the qwindata directory will be located on a user data volume.

Grant rights to the users or group as follows:

\qwin32	RWCF
\qwin32\bitmaps	RF
\qwin32\ini	RWCMF
\qwin32\imports	Quantus Administrator only RWCEMF
\qwin32\qrw	RF
\qwin32\sql updates	Quantus Administrator only RWCEMF
\qwindata\data	RWF
\qwindata\temp	RWCEMF
\qwindata\text	RWCEMF

3. Windows NT Server Full Version

   At the NT server and logged in as Administrator or equivalent put the CD into the CD drive and run setup.exe from the root of the CD. Follow the prompts pressing the Next button. Setup will create the following directory structure:

Drive Letter	Folder Off Specified Folder	Files in Folder	Sub Folder	Files in Sub Folder
Drive_ Letter:	\qwin32	quantus programs *.btr	\ini	initialisation files *.ini and *.piv
			\imports	blank but required
			\qshared\bitmaps	bitmaps *.bmp
			\qshared\qrw	Quantus Crystal Reports
			sql updates	blank but required
Drive_ Letter:	\qwindata	database definition files *.ddf	\data	quantus empty data files *.btr
			\temp	blank but required
			\text	blank but required

The installation assumes that there is a folder structure already in existence where user's save their own files in such a way that each users data is separate. This manual assumes that this is called "Users" and that each user has their own folder under this folder which can be referred to by the variable %username%. Create two folders under each user's individual directory called Quantus and Reports. The structure will look like this:

Drive Letter	Folder	Sub Folder	Sub Folder
C:	\users	\Peter	\Quantus

	\Reports	
\Max	\Quantus	
	\Reports	
\Jeff	\Quantus	
	\Reports	
%username%		

Create the following shares on the NT Server:

Sharename	Folder
quantus share	\qwin32\qshared
users	\users

Grant/Revoke the following rights. This is done in Explorer by highlighting and right mouse clicking on the folder, highlighting and mouseing on properties, selecting the Security tab and pressing the Permissions button.

Folder	Sub Folder	User	Rights
\qwin32		Administrator	Full Control
		Everyone	Remove
		System	Full Control
\qwin32	\ini	Administrator	Full Control
		Everyone	Remove
	\imports	Administrator	Full Control
		Everyone	Remove

	\qshared\bitmaps	Administrator	Full Control
		Everyone	Read
	\qshared\qrw	Administrator	Full Control
		Everyone	Read
	sql updates	Administrator	Full Control
		Everyone	Remove
\qwindata		Administrator	Full Control
		Everyone	Remove
		System	Full Control
	\data	Administrator	Full Control
		Everyone	Remove
		System	Full Control
	\temp	Administrator	Full Control
		Everyone	Remove
		System	Full Control
	\text	Administrator	Full Control
		Everyone	Change
		System	Full Control
\users		Administrator	Full Control
		Everyone	Read
	\%username%	Administrator	Full Control
		%username%	Change
	\%username%\Quantus	Administrator	Full Control
		%username%	Change
	\%username%\Reports	Administrator	Full Control
		%username%	Full Control

Configuration

There is a small amount of configuration required to get Quantus running. This involves creating two icons on the desktop and telling the interface between ProIV and Quantus the location of the databases. The links are in a set of configuration files (.ini and .piv files) located in the qwin32\ini directory. These have to be customised to suit different platforms (Novell or NT4 servers) and to suit each user's particular environment (path to qwindata and qwin32 for example). Lastly the .piv files contain user configurable elements of the system such as desktop colours and therefore these files can be either placed in the user's directory, thereby allowing the user to change their own settings or they can be shared and locked to stop users from changing their desktop environment.

1. Demonstration Version on a PC

   The ini and piv files have been pre-prepared in the demonstration version of the system and require no further tailoring providing the demonstration version of the software resides on a Stand Alone PC on the c: drive with the two directories \qwin32 and \qwindata located directly off the root of the c: drive.

   You must still create two short cuts on the desk top. Right mouse button anywhere on the desktop not occupied by an existing icon. Select New Shortcut and the system displays a window like **Figure 52**.

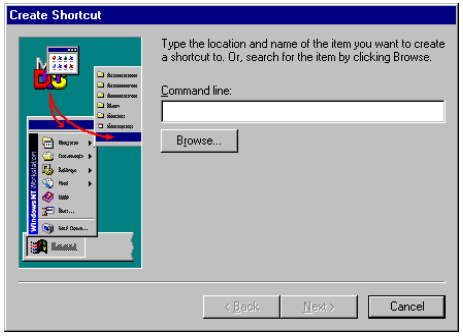

Figure 52 Create Shortcut

Type c:\win32\ini\qwin32.piv in the command line or browse to the file and folder. Press the Next button and enter "Quantus" in the Name field. Press the Finish Button.

Repeat the process with the file C:\qwin32\ini\qwinnew.piv and the Name "Quantus New Entity Setup".

2. Workstation attached to a Novell Server

   You must create the icons in exactly the same way as for the Stand Alone PC, but in addition you must edit the ini and piv files. These files are located in the \qwin32\ini directory.

   a. Essential Changes

      A typical piv file is shown in **Figure 53**. Open the novell.piv file supplied in the \qwin32\ini directory by dropping it onto Notepad and change the following lines:

      B:i:\ntapps\qwin32\bitmaps
      RC:\PRO40\PRO32.exe SYS MDC /INI:i:\ntapps\qwin32\qwin32.ini

by replacing the underlined section with the correct path on your server.

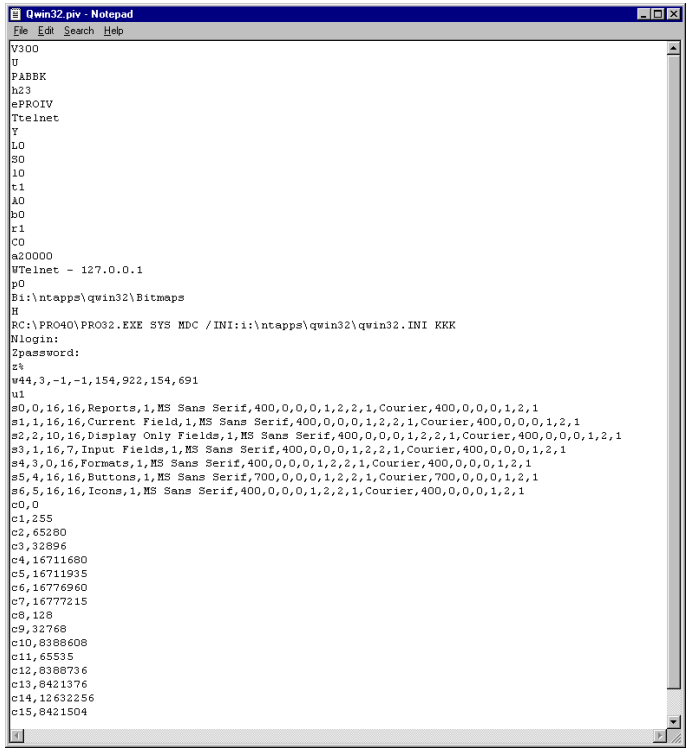

Figure 53 Novell qwin32.piv

Save the file as qwin32.piv in the same directory.

A typical ini file is shown in **Figure 54** and **Figure 55**.

Novell ini file page 1

Figure 54 Novell qwin32.ini file -1

Novell ini file page 2

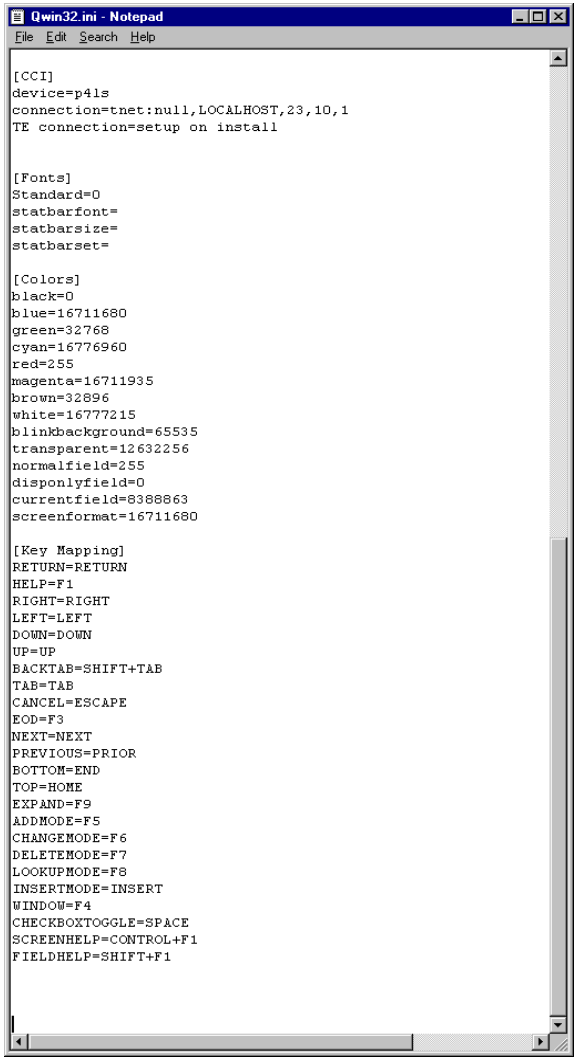

Figure 55 Novell qwin32.ini file - 2

Open the novell.ini file supplied in the \qwin32\ini directory and change the following lines:

[Environment]
propath=i:\ntapps\qwin32
prodata=g:\qwindata

[database - quantus]
location=g:\qwindata

by replacing the underlined section with the correct path or drive letter on your server.

Save the file in the same directory as qwin32.ini

b. Shared piv versus user piv

If you want each user to be able to configure their own desktop settings then copy the qwin32.piv into your user's home area and change the command line in the desktop icon to point to: Drive_Letter:\pathname\%username%\qwin32.piv

Otherwise if you want the piv to be shared by all users flag the file \qwin32\ini\qwin32.piv as read only. Do this either in NDS or by launching the dos prompt and changing to the \qwin32\ini directory and typing "flag qwin32.piv ShRo" (Shareable Read Only). In this case do not change the command line in the icon.

c. Multiple Sessions

It is possible to run several sessions of Quantus on a single workstation. To achieve this on a Novell Network each session MUST be launched from a different icon. The reason for this is that each session must be identified as different by the communications process. To achieve this, copy the .piv

and .ini file that you have created above and rename them qwin32(2).piv and qwin32(2).ini. Make a new icon and point the command line of the icon to qwin32(2).piv either in the users directory or the shared directory. If you point the icon to the user's home directory you must copy the .piv into the user's home directory after making the following change:

Edit qwin32(2).piv line 4 which reads

h23

to

h5002 (or any other number)

and edit the line which was originally

RC:\PRO40\PRO32.EXE SYS MDC /INI:i:\ntapps\qwin32\qwin32.INI

To read your equivalent of

RC:\PRO40\PRO32.EXE SYS MDC /INI:i:\ntapps\qwin32\qwin32(2).INI

Then edit the qwin32(2).ini and change the line

PROIV_PORT=23

to PROIV_PORT=5002

This must be in capital letters and the number must match the number used in the .piv file line h5002.

You can create more pairs of .piv and .ini files as you wish. Each user should launch one instance of each icon to get multiple sessions on a single workstation. This can be very easily controlled using the Novell NAL (Novell Application

Launcher) product.

3. NT4 Server

   There is a small amount of setup required on the NT 4 Server itself. In the c:\winnt directory there is a file created by the ProIV installation called Pro4.ini. You need to find and edit this file. The file appears as shown in **Figure 56**.

   a. Essential Changes

      Open the pro4.ini file in the c:\winnt directory and change the following lines:

      [Environment]
      FSIDEFAULT=PROISAM

      by replacing the underlined section with the following:

      FSIDEFAULT=Btrieve

      "Btrieve" must be written exactly as shown, capital first letter only.

      Add the following sections after the [CLIENT32] section:

      [USER OFFICE]
      PROIVCODIV=MDC
      PROIVOPER=SYS
      INIPATH=C:\Qwin32\ini\qwin32.INI

      [USER OFFICENEW]
      PROIVCODIV=MDC
      PROIVOPER=ZZZ

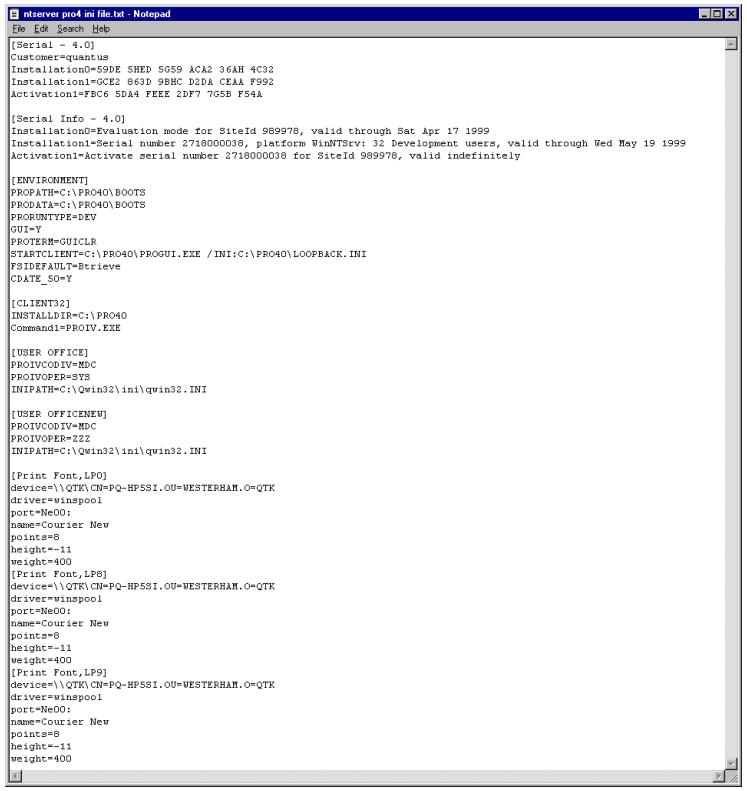

Figure 56 NT4 Server ProIV ini file

INIPATH=C:\Qwin32\ini\qwin32.INI

b. Multiple Databases

If you wish to run several databases simultaneously, add more [USER] sections to this file pointing each to a different .ini file.

4. Workstation attached to an NT4 Server

You must create the icons in exactly the same way as for the Stand Alone PC, but in addition you must edit the .piv file.

a. Essential Changes

A typical .piv file is shown in **Figure 57**. Open the nt4.piv file supplied in the \qwin32\ini directory and change the following line:

WTelnet - 207.1.2.252

by replacing the underlined section with the correct TCP/IP address of your NT4 Server.

Save the file as c:\qwin32\ini\qwin32.piv.

b. Shared piv versus user piv

If you want each user to be able to configure their own desktop settings then copy the qwin32.piv into your user's home area and change the command line in the desktop icon to point to:

Drive_Letter:\pathname\%username%\qwin32.piv

Otherwise if you want the piv to be shared by all users set the file access for \qwin32\ini\qwin32.piv as read only. In this case do not change the command line in the icon.

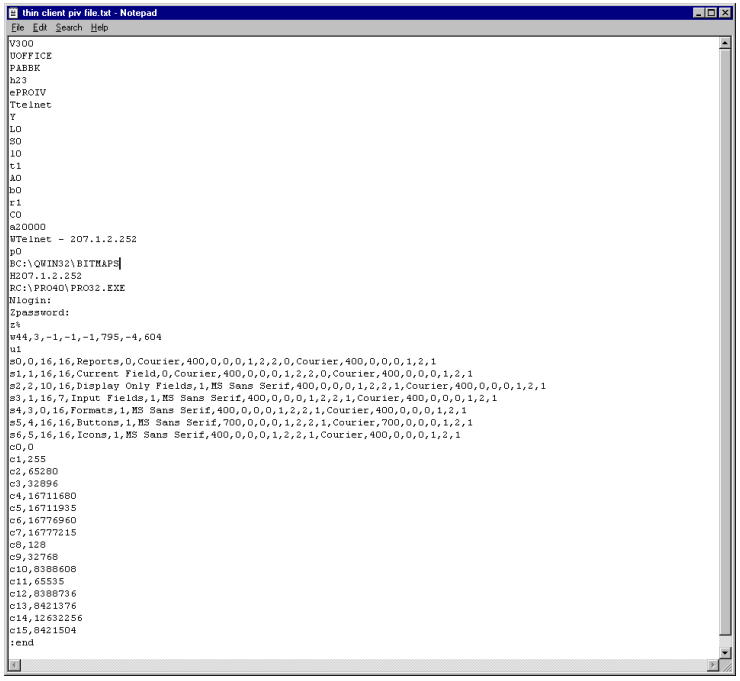

Figure 57 piv file for thin client connection.

c. Multiple Sessions

You can use the same icon to launch as many sessions of Quantus as you wish on a single machine on an NT4 Server based system.

Index