



BY JOHN E. JOHNSTON

Z.E.N.works – Zero Effort Networking for Users: Part III — Workstation Inventory

Z.E.N.works allows you to automatically perform a hardware inventory of all the workstations attached to your network.

Z.E.N.works provides many tools to help network administrators manage end users' workstations. This article will show you how to harness the power of ZEN to perform a hardware inventory on all of your end users' desktops.

The Workstation Inventory feature of Z.E.N.works provides a method to automatically perform a hardware inventory on the workstations attached to your network. The information about each workstation is stored in a Workstation object within the NetWare NDS tree. Some of the information contained in the Workstation Inventory includes:

- ◆ drives present on the workstation
- ◆ size of hard drives
- ◆ hard drive file system in use
- ◆ IRQ, I/O Port, DMA and memory information
- ◆ video adapter information including video RAM present
- ◆ video resolution, color depth and refresh rate
- ◆ operating system in use
- ◆ CPU type and speed
- ◆ amount of memory installed

To give you an idea of the look and feel of the Workstation Inventory feature, let's take a look at a couple of the inventory screens. Figure 1 illustrates the Drives page of the Workstation Inventory. Notice that this PC has an A: drive, a C: hard disk and a CD-ROM drive. By double clicking on the C: drive you can see the size of the hard drive. Figure 2 shows the operating system installed on the workstation, the CPU type and speed, the amount of RAM installed on the workstation, and the system BIOS type and version.

Tip: *Most of us will be required to check the system BIOS levels on the workstations attached to our networks to determine if the BIOS level is Year 2000 ready. The Workstation Inventory allows us to check the BIOS level and date without going to each workstation to obtain this information.*

Prerequisites for Enabling the Workstation Inventory Feature

Before you can implement the Z.E.N.works Workstation Inventory feature, the following prerequisites must be met:

- ◆ the Z.E.N.works client must be installed on the workstations
- ◆ a user policy package must be created
- ◆ the workstations must be registered and imported into the NDS tree

The steps required to perform the above tasks were covered in Part I (*Technical Support*, September 1998).

Enabling the Workstation Inventory Feature for Windows 95 Workstations

Once you have met all of the prerequisite requirements, you are ready to prepare your NDS to accept the workstation inventory. The following steps are required to implement the Z.E.N.works Workstation Inventory feature for Windows 95 workstations:

1. Create a Windows 95 Workstation Package. Start NWADMIN32 and right click on the OU that is to contain the Workstation Policy Package. Then, click on Create.
2. Click on Policy Package and then, click on the down arrow and select WIN95

Workstation Package. Enter a name for the package and click on the "Define additional properties" box, as shown in Figure 3. Then, click on Create.

3. The panel shown in Figure 4 will be displayed. Click on "Workstation Inventory" to enable the inventory feature.

Note: Notice the Default schedule shown in Figure 4. You can modify this schedule by clicking on the Edit button.

4. Click on the Associations tab and associate this Workstation Package with a user or an OU as shown in Figure 5. This should be a test user or test OU that you will use to become familiar with the process of enabling the workstation inventory feature. Once you are comfortable with the process, you can begin implementing the inventory feature on your end users' workstations. The next time the associated user(s) logs into the NetWare tree, the workstation inventory process will be scheduled.

Enabling the Workstation Inventory Feature for Windows NT Workstations

The procedure for enabling the Workstation Inventory feature for Windows NT workstations is the same as for Windows 95 workstations. Additionally, the same prerequisite steps are required for Windows NT Workstation as for Windows 95 workstations. The only exception to the steps outlined in the aforementioned Windows 95 section is that you must choose the NT counterparts of the various NDS components.

The following is a checklist of prerequisites for enabling the Workstation Inventory feature for Windows NT Workstations:

- ✓ install the Z.E.N.works client on the workstation
- ✓ create a Windows NT User Policy Package
- ✓ enable the Workstation Import Policy within the Windows NT User Policy Package
- ✓ associate the Windows NT User Policy Package with a user, group of users or OU
- ✓ register the workstation
- ✓ import the registered workstation(s)

Main tasks:

- ✓ create a Windows NT Workstation package
- ✓ enable the Workstation Inventory option within the Windows NT Workstation package
- ✓ associate the Windows NT Workstation package with a user, group of users or OU

Viewing Workstation Inventory

Once you've enabled the Workstation Inventory feature, you're ready to view the information gathered about your workstations. To view the information in your Workstation Inventory, perform the following from NWADMIN32:

1. Double click on the OU that should contain the Workstation objects. You should see your Workstation objects as shown in Figure 6. If you do not see a Workstation object in your OU, this might be caused by the random method that Z.E.N.works

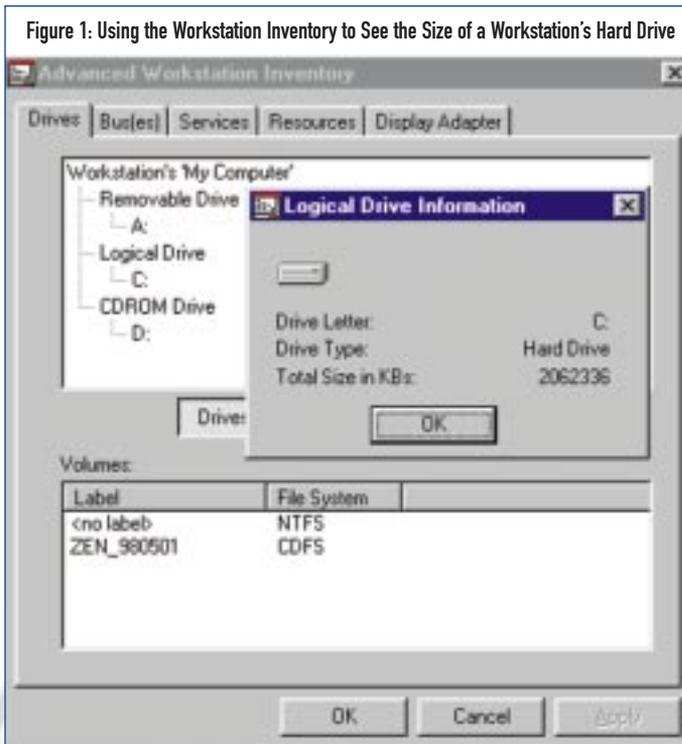


Figure 2: Using the Workstation Inventory to View OS, CPU, RAM and BIOS Information

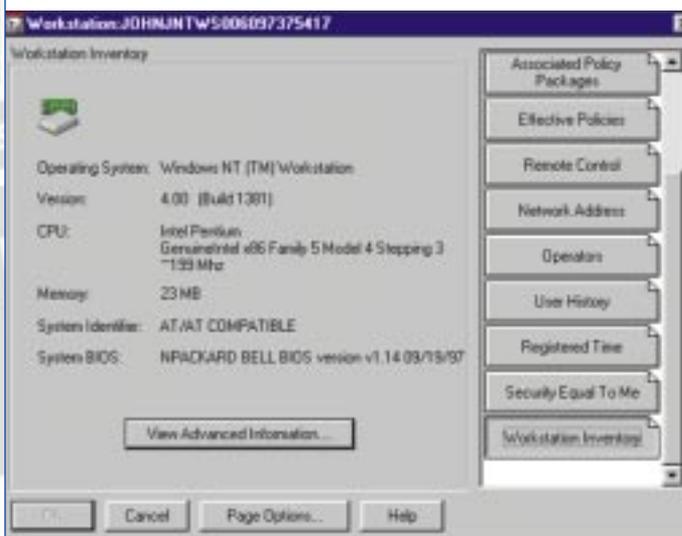


Figure 3: Creating the Windows 95 Workstation Package

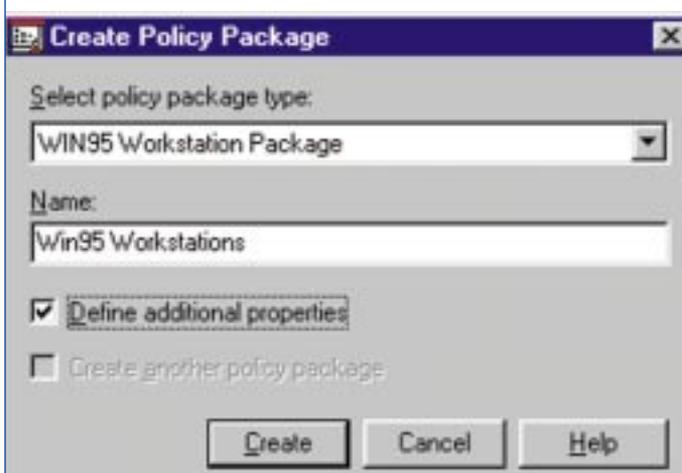


Figure 4: Enabling the Workstation Inventory Feature

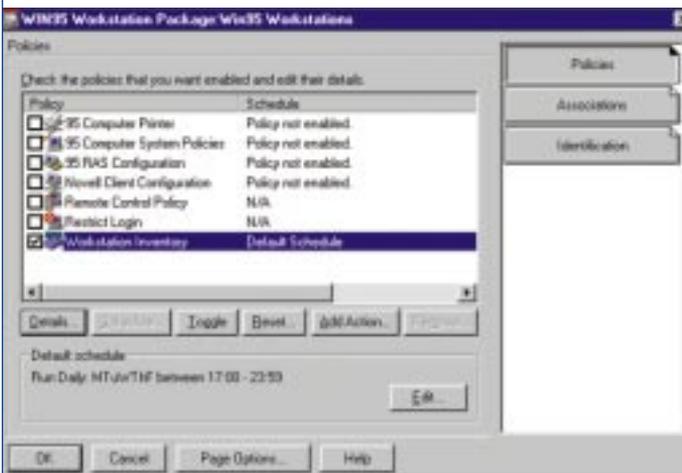


Figure 5: Associating the Workstation Package With an OU

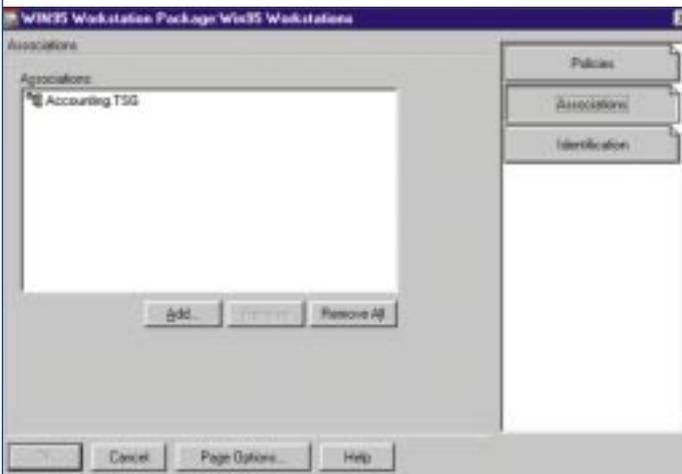


Figure 6: Viewing the Workstation Objects Created in the NDS Tree

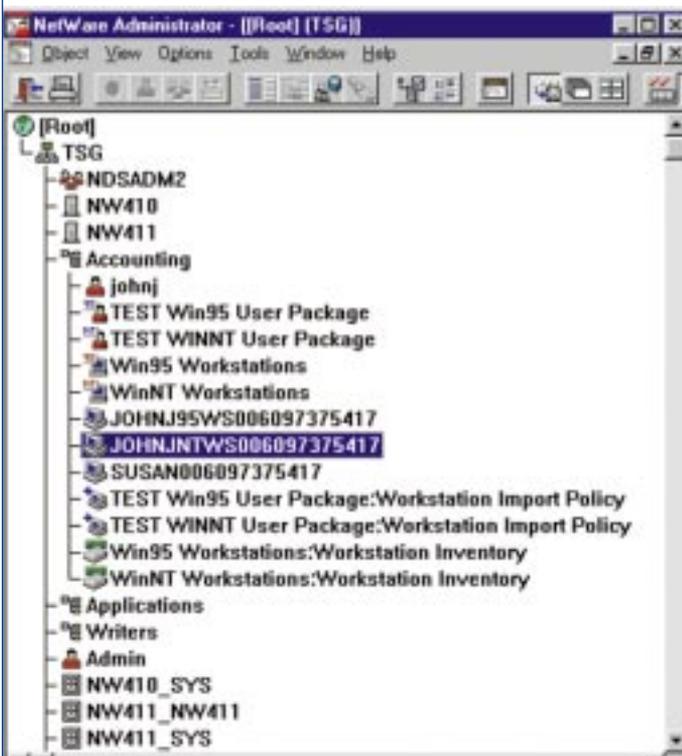


Figure 7: Forcing the Inventory Process to Run

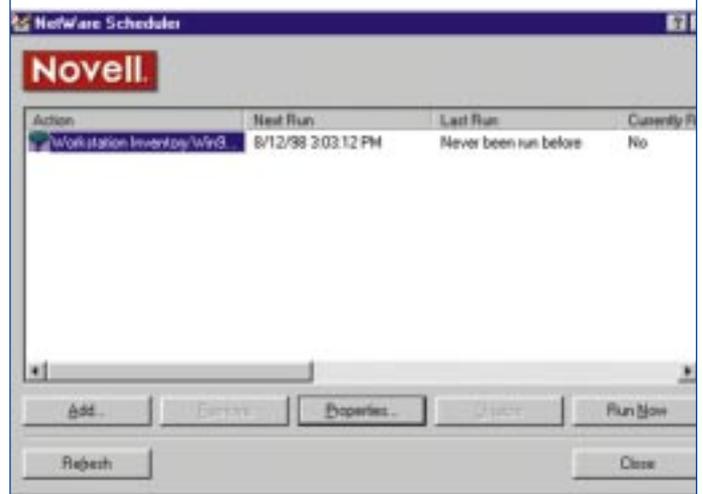


Figure 8: Viewing the Names of the Users Who Have Logged Into This Workstation

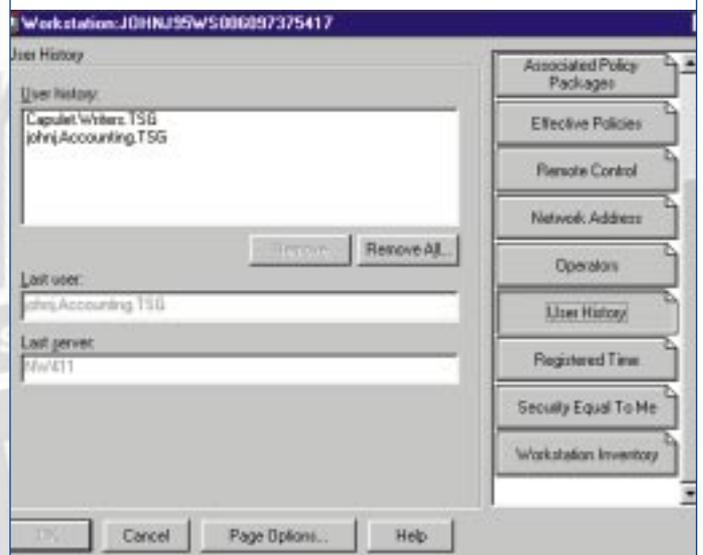
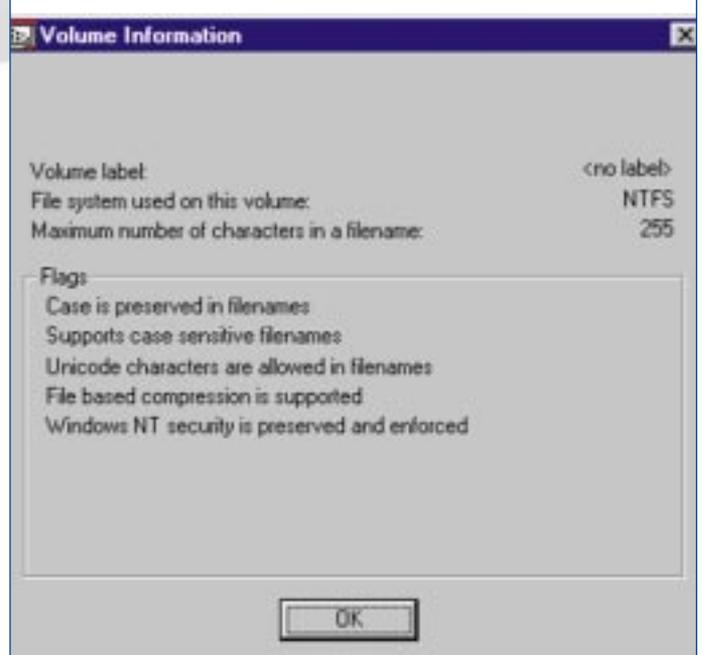


Figure 9: Information About the Hard Drive Obtained by Double-Clicking on the Hard Drive



uses to stagger the actual inventory process. This random invocation of the inventory process prevents all of your workstations from being inventoried at the same time, consuming large quantities of bandwidth. To check if your test workstation has performed the Workstation Inventory process, go to the workstation in question and double click on the NetWare Scheduler icon on the system tray. You should see a screen similar to the one shown in Figure 7. If the "Last Run" field shows "Never been run before", click on the "Run Now"

2. If you double click on one of the Workstation objects, you will see a screen similar to the one shown in Figure 8. If you click on the User History tab, you will be able to see a list of users who have logged onto this workstation.
3. Click on the Workstation Inventory tab to view the actual inventory. The screen shots presented in Figures 9 through 17 will show you some of the information stored in the Workstation Inventory.

Figure 10: Displaying the Busses on the Workstation

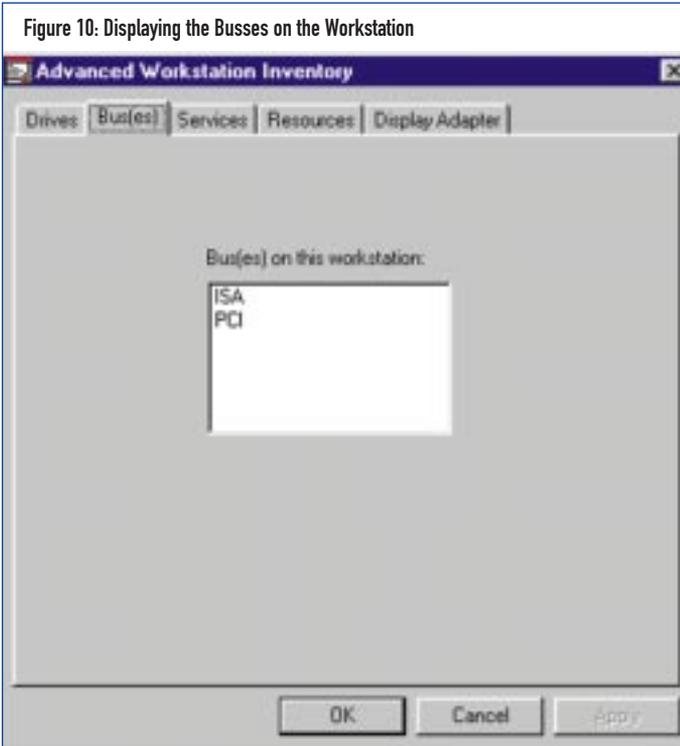


Figure 12: Services Running on the Workstation

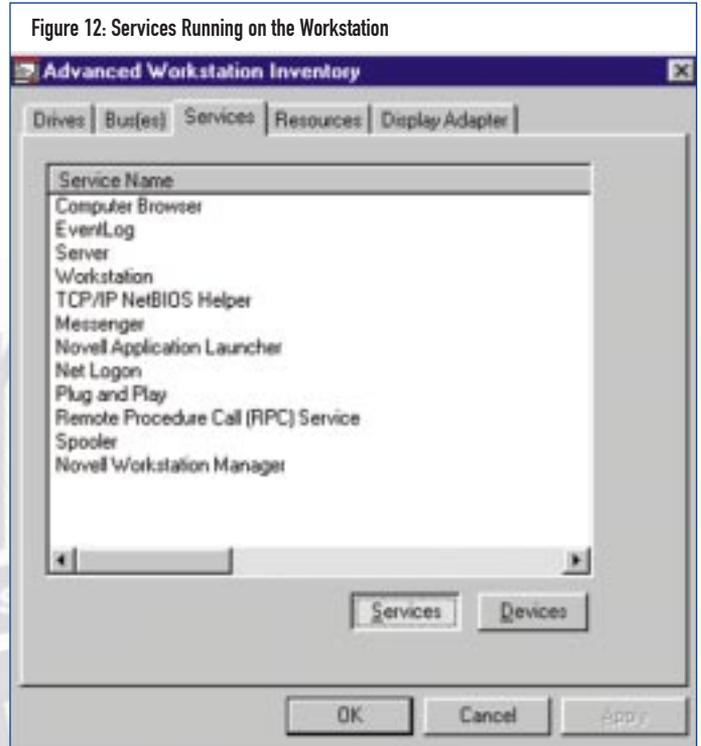


Figure 11: The Devices Present on the Workstation Notice that some software components are included in this list.

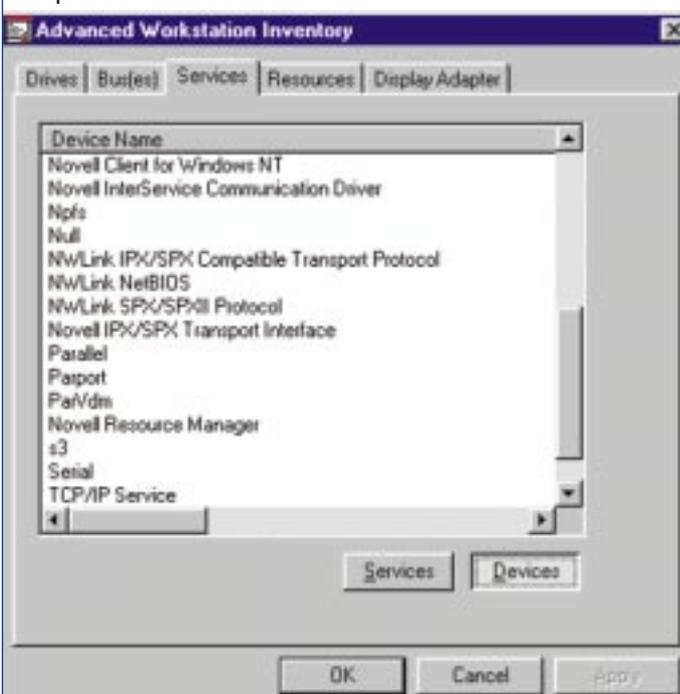


Figure 13: IRQs in Use on the Workstation

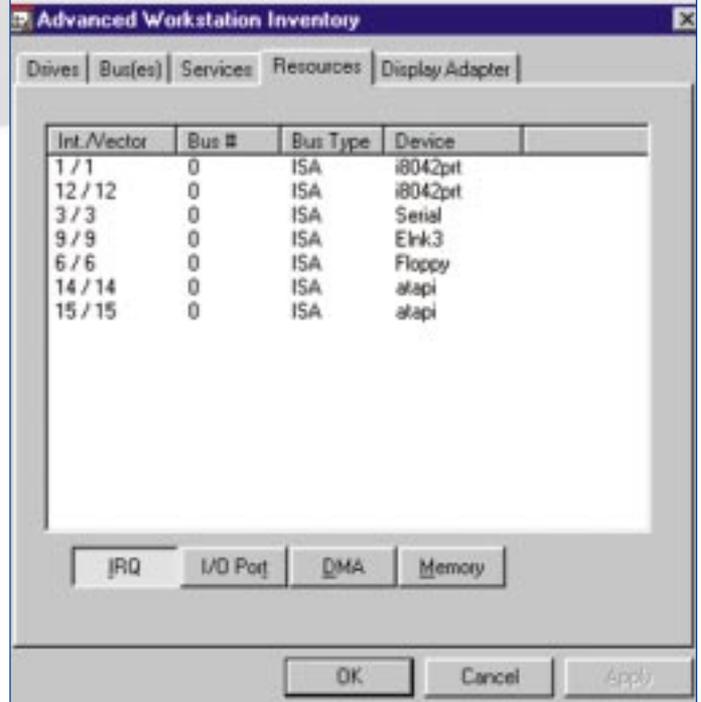


Figure 14: I/O Ports in Use on the Workstation

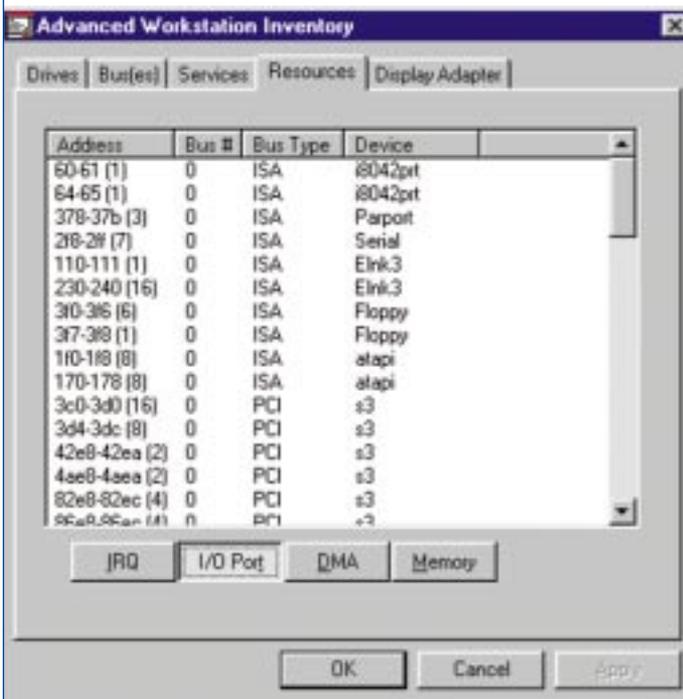


Figure 15: DMA Channels in Use on the Workstation

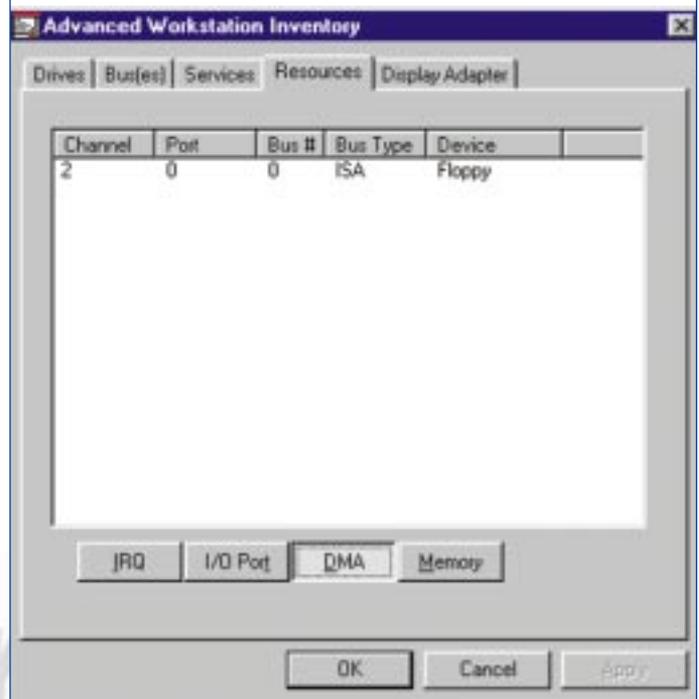


Figure 16: Memory Addresses in Use on the Workstation

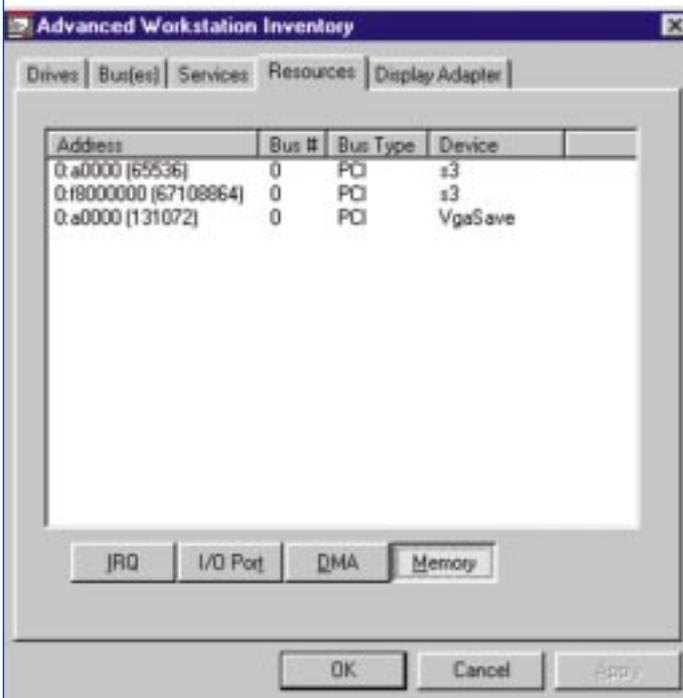
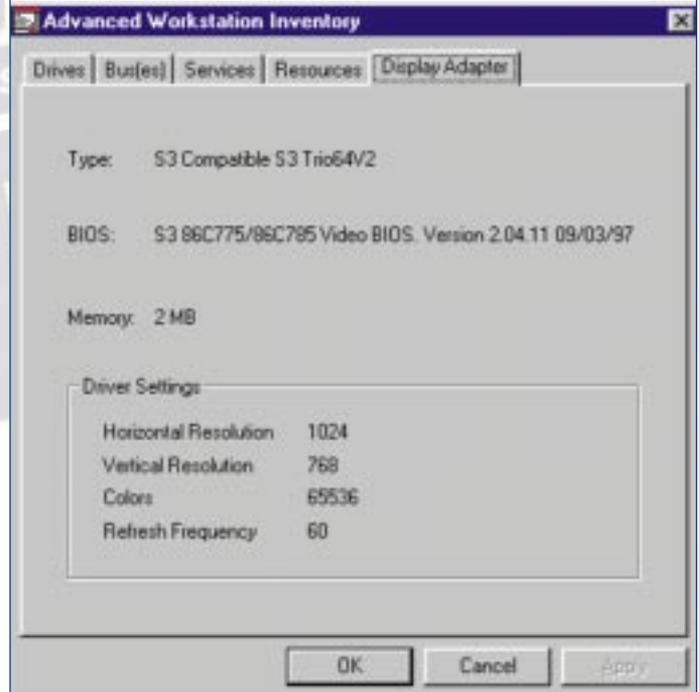


Figure 17: Video Adapter Information

Notice that you can view the adapter type, memory installed, resolution, color depth and refresh rate.



CONCLUSION

Managing desktops and distributing software are the most time consuming tasks performed by most IS shops. Z.E.N.works can help reduce this burden. For more information on Z.E.N.works, please refer to the Z.E.N.works section of the Novell web site at www.novell.com/products/nds/zenworks/index.html. 

NaSPA member John E. Johnston is manager of technical support and communications for a major hospital in Pennsylvania. He designs and maintains cross-platform local and wide area networks utilizing NetWare, OS/2, DOS, and Windows.

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