



Wonderware NetDDE and Microsoft Network DDE

Wonderware® NetDDE™ was developed by Wonderware to extend the Microsoft Windows DDE capabilities across different networks. With NetDDE, you can establish multiple DDE conversations between Windows, Windows NT, Windows 95, UNIX, and VMS programs that run on different computers within a network. NetDDE on Windows NT supports **NetBIOS** and **Windows Sockets (Winsock)** compliant TCP/IP stack protocols.

In May 1992, Wonderware and Microsoft signed a licensing agreement that allowed Microsoft to bundle the NetBIOS version of Wonderware NetDDE into the Microsoft office products. This led to a Microsoft version of NetDDE called **Network DDE**. Network DDE is bundled by Microsoft with the Windows for Workgroups (WFW), Windows 95 and Windows NT operating systems.

By default, Network DDE on Windows NT comes with the Microsoft NetBIOS interface and the NetBEUI transport protocol. But, you can install a Winsock compliant TCP/IP stack (usually the Microsoft TCP/IP stack) in place of NetBIOS and still use the NetBEUI protocol.

Note on Windows NT NetDDE Services and DDE Security

With Windows NT version 3.1, the NetDDE services used to start up automatically. However, with Windows NT version 3.5, the NetDDE services do not automatically start up. (The reason is Microsoft wanted Windows NT to initiate faster.) You need to configure the NetDDE services by selecting **Control Panel/Services**. Make sure that you set Network DDE to **Automatic** startup and Network DDE DSDM to **Manual** startup, because it is started automatically by the Network DDE service.

You also need to configure the DDE Security if you will have a server on Windows NT that provides data to a DDE client on another node. For more information, see *Configuring DDE Security for Windows and Windows NT*.

Wonderware NetDDE Extensions for Windows NT

The Wonderware NetDDE Extensions for Windows NT is an **option** (not a requirement) that allows a Windows NT computer to communicate with another computer using TCP/IP.

When the NetDDE extensions are installed on a Windows NT computer, they will: 1) modify the Windows NT NETDDE.EXE file so that the default queue size is increased from 20 to 1000; 2) add a GUI for DDE Share Security Management; and 3) add TCP/IP support through Winsock.

To avoid having the NetDDE Services hang on startup, you must add your computer node name in the HOSTS file. That is, modify the file `\WINNT35\SYSTEM32\DRIVERS\ETC\HOSTS` and add the IP address and node name of your Windows NT node.

Note You must have TCP/IP configured on your computer before you install version 1.3a of



the NetDDE extensions. (Version 1.3b corrects this problem.) If you install the NetDDE extensions before TCP/IP is configured, then you will get network drive errors or service errors. The reason is the installation program cannot check to see if TCP/IP is installed and it goes ahead and changes the System Registry. Thus, if you do not have TCP/IP installed, errors will result because the System Registry has changed. (See Uninstalling NetDDE Extensions for Windows NT for more information.)

Windows NT NetDDE Communication Requirements

The following two sections describe the requirements for NetDDE communication using Windows NT, both with NetBIOS and with TCP/IP:

Windows NT and NetBIOS

No setup is necessary to allow Windows NT to communicate using NetBIOS. This is because Microsoft Network DDE is built into the Windows NT operating system. You do not need to install the Wonderware NetDDE Extensions for Windows NT on the Windows NT node to communicate using NetBIOS.

The Windows NT node can communicate using NetBIOS to any other platform that is running NetDDE and has the NetBIOS interface configured. Currently, the other platforms that support NetDDE communication with NetBIOS are **Windows 3.1**, **Windows for Workgroups**, and **Windows 95**.

Note To communicate NetBIOS between a Windows NT node and a Windows 3.1 node, you must install NetBIOS and Wonderware NetDDE for Windows (release 1.3 or later) on the Windows 3.1 node. (Release 1.2 and earlier of Wonderware NetDDE for Windows did not have the security features that are required by Windows NT.)

Windows NT and TCP/IP

To set up the Windows NT node to communicate using TCP/IP, you must install the **Wonderware NetDDE Extensions for Windows NT** and configure TCP/IP on the Windows NT node. This must be done on both Windows NT nodes if you are communicating between two Windows NT nodes.

The Windows NT node can communicate using TCP/IP to any other platform that is running NetDDE and has a supported TCP/IP stack. Currently, the other platforms that support NetDDE communication with TCP/IP are **Windows 3.1**, **Windows for Workgroups**, **Windows 95**, and a variety of **UNIX** and **VMS** platforms. For a current list of NetDDE platforms and their supported TCP/IP stacks, see Matrix of Supported Network Software for NetDDE.

Note There is a current limitation where a DDE client on a UNIX or VMS computer cannot



communicate directly to a I/O Server on a Windows NT or WFW computer that has password protection. This is because Wonderware has not yet implemented NT-type security in their NetDDE for UNIX and VMS. For a workaround, see Connecting a DDE Client on VAX or UNIX to a I/O Server on NT.