

# Communicating Across The Network With The WFW API

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Demo code available on The Crescent  
Software Developers BBS

203-426-5958

WFWAPI.ZIP

# APIs

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**NETBIOS**

**IPX/SPX**

**Windows Sockets**

**MailSlots**

**Named Pipes**

**Network DDE**

# NETBIOS Advantages

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**Transport independent protocol**

**Widely supported on all major networks**

**Provides connection and connectionless services**

**Natively supported in the Win16 API**

**Relatively easy to implement in DOS**

# NETBIOS Disadvantages

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Unavailable directly from Visual Basic

Can be difficult to implement under  
Windows

# IPX/SPX

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**Novell's native protocol**

**Provides connection and connectionless services**

# IPX/SPX Disadvantages

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Can not be called directly from Visual Basic

Very low level of abstraction

May require software from Novell

# Windows Sockets Advantages

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Transport independent protocol  
Interface of choice for TCP/IP

# Windows Sockets Disadvantages

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Immature specification

Only supported on Windows platform



# Mailslots Advantages

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Transport independent protocol

High level of abstraction

Callable from Visual Basic and easy to implement

Connectionless service

Can be used to communicate between two applications on the local computer

Available on DOS, Windows, OS/2 and Unix platforms

# Mailslots Disadvantages

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No confirmation message is received

Connectionless service only

It is a “polled” API

Limit of 400 bytes per message when sent to entire workgroups

Only provides a one way path of communications

Poorly documented in the Windows for Workgroups “BETA” SDK

Major Mailslot bug in Windows for Workgroups 3.1

# Named Pipes Advantages

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Transport independent protocol

Provides a connection service

Provides a bidirectional path for communications

Uses a file metaphor - Standard file I/O can be used to access it

Is available on DOS, Windows, OS/2 and Unix platforms

# Named Pipes Disadvantages

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Pipes can only be created by a server process (I.E. Lan Manager-OS/2 or Windows NT)

Non-blocking I/O requires a callback routine making them difficult to implement in Visual Basic

# Network DDE Advantages

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**Relatively easy to implement in Visual Basic**

**Few changes required to change a DDE application to a Network DDE application**

**The ability to remotely start an application**

# Network DDE Disadvantages

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Same problems that regular DDE has

Rigid structure one must follow to use DDE

A successful connection doesn't always mean that

When remotely starting a Visual Basic application, you must retry a few times

# The Past ... DOS

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## The Lan Manager PDK

Libraries for DOS, OS/2 and Windows

## Dr. Dobbs Journal - April 1993

Undocumented Corner - The Undocumented Lan  
Manager and Named Pipe APIs for DOS and Windows

# The Future ... Win32

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Supports all of the APIs discussed today

Improves on many of them for use in  
multitasking/multithreaded programs

Well documented compared to the Windows  
for Workgroups extensions