



DCS/WBT

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# DynaComm Connectivity Series Windows-based Terminal Training

March 2000

# Agenda



**DCS/WBT**

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- Company Overview
- Terminal Emulation Overview
- Introduction to DCS/WBT
- NetPrint for WBT
- Lab Exercises & Review
- Troubleshooting Procedures

# Company Overview



DCS/WBT

- Privately held corporation founded in 1982.  
Based in Houston, Texas
- Develop PC/WBT-to-host terminal emulation and connectivity software for the Windows environment and its associated corporate markets.
- Since 1984, FutureSoft has focused exclusively on the GUI environment.
- Customers include individuals, corporate users and government agencies.

# Company Overview



DCS/WBT

- Firsts
  - First to market communications software for Microsoft Windows
  - First Windows terminal emulation to offer network host access
  - First communications software sold as an integral part of Windows (Terminal)



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# Terminal Emulation Basics



# Terminal to Host Topology



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# Basic Components

## Host



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- Communications
- Operating System
- Storage
- Applications

# Basic Components Terminal



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- Display (Output)
- Keyboard (Input)
- Communications (Host connectivity)



# Communication Basic Types



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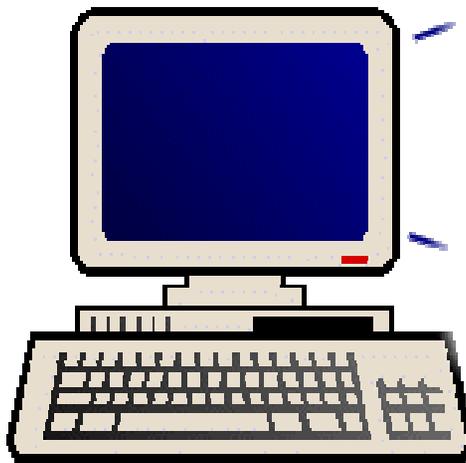
- Direct Serial
- Comm TAPI (Modem)
- TCP/IP (Internet/Intranet)



# Terminal Display Functions



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Selectable Font

Font Sizing

Attribute Mapping

Number of Rows

Number of Columns

Hot Keys

Status Bar

Scroll Bars

Session Buttons



# Keyboard Functions



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- Launch Scripts
- Launch Applications
- Send String
- Send Terminal Key

# Terminal Emulation Benefits



DCS/WBT

- Auto Logon Macro
- File Transfer (Session Export)
- Configurable display attributes and keyboard mapping
- HTTP remote file support



# Terminal Emulation Overview



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- Terminal Types
- Connection Types
- Emulations



# Terminal Communication



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- Asynchronous (character based)
- Synchronous Block Mode (transaction based)
- Hybrid (both asynchronous and synchronous)

# Character Based Terminals



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- ANSI-BBS (with SCO ANSI extensions)
- Digital VT-52,100/102,220,320 and 420
- Wyse 50/60



# Block Mode Terminals



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- TN3270
- TN5250



# Supported Connection Type



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- Telnet TCP/IP



# Emulations

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<u>Host(s)</u>	<u>Emulation(s)</u>
Unix Hosts:RS6000, Sun, SCO, Red Hat, HP9000 etc...	VTxxx, WYSE, ANSI,
IBM (370)	TN3270, TN3270 Print
IBM AS/400	TN5250, TN5250 Print



# Introduction to DCS/WBT



DCS/WBT

- Features and Capabilities
- Considerations



# Features and Capabilities

## General



DCS/WBT

- Consistent UI and functionality
- Simple to Install, use, and configure
- Runs stand-alone on thin client terminal
- Multiple Host Access
  - IBM (3270 and 5250)
  - DEC
  - Unix OS based Hosts
- Able to Save/Load session properties
- All access via TCP/IP
- HTTP file access for central control

# Features and Capabilities Emulators



DCS/WBT

- ANSI w/ SCO Extensions
- ANSI
- DEC VT52/100/102/220/320/420
- WYSE 50/60TN3270
- TN3270e
  - 3278 (Models 2,3,4 and 5)
  - 3279 (Models 2,3,4 and 5)
- TN5250 (Models 2 and 5)

## Features and Capabilities (Other)



DCS/WBT

- Auto-Login Macro
- Hotspots
- Network Print
- Local Print (raw)
- Control character key map support
- Character translation editor
- Export file capability



# Considerations

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- No trace capabilities (no file upload)
- Instances dependent on RAM
- Application space dependent on available ROM



# Session Export



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Export Session Document



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# NetPrint for WBT's



# NetPrint for WBTs



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## NetPrint Overview

NetPrint.pdf



# NetPrint for WBTs



DCS/WBT

- Provides network printing functionality
- Allows WBT access to network printers
- Print consists of a client and server component
- Supports any Windows NT-compliant printer
- Multiple print servers, multiple printers per server

# NetPrint additional capabilities



DCS/WBT

- Point and click printer selection
- Does not require any Windows CE-based print drivers
- Centralized print administration
- Utilizes small footprint universal print driver
- Server component runs as NT Service



# NetPrint Client



DCS/WBT

- Universal driver is selected using the same method as any other print driver
- Ability to select specific Print server by name
- Pre installed on WBT



DCS/WBT

**Printer settings** [OK] [X]

Print Server | Printers

Server address

IP Address    [0] [0] [0] [0]

Host Name    [myprintserver.domain.com]

Port Number    [2457]

Device ID      [hp]

# NetPrint Client printer settings



DCS/WBT

- Server address
  - IP address
    - Displays the IP address of the WBT
  - Host Name
    - Displays host address where NetPrint service resides
  - Port Number
    - Displays NetPrint port number
- Device ID
  - User Name established to access printing services
  - User has access to “their” personal set of printers



DCS/WBT

**Printer settings** [OK] [X]

Print Server | Printers

**Print service address**

Host Address: anatolyk.futuresoft.com  
User Name: hp

**Printers**

\\FSE\_SERVER2\HP4DEV [v]

Refresh Set as default

# NetPrint Client Printer configuration



DCS/WBT

- Printers
  - Print service address
    - Host address
      - Windows NT server where NetPrint resides
    - User Name User name set up on the Print Server tab Device ID field
  - Printers
    - Displays the default printer
    - Clicking down arrow shows all printers available to the user

# NetPrint Client Printer configuration (cont)



DCS/WBT

- Refresh (button)
  - Updates the user's available printers list
  - Administrator changes on the NetPrint server will be shown only after a refresh



# Print Server



DCS/WBT

- Supports both formatted and pre-formatted (pass-thru) printing
- Multiple print servers and Multiple printers per server
- Supports ant networked NT 4.0-compliant printer
- Centralized management and administration



# NetPrint Server



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- Print Server Facility consists of:
  - Print server control panel manager application
  - Print server administrative tool
  - Print server utility



# NetPrint Server



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- Available Printers
  - All printers on the network
  - A subset of printers on the network
  - All printers made available to Print Server
  - A subset of all printers available to Print Server



# NetPrint Server



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- Printers are made accessible by
  - Creating user accounts
  - Providing permissions to all printers to be accessed through the service
  - Adding printers via the “Add a printer wizard”



# NetPrint Server



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FutureSoft  
Web Download  
<http://www.futuresoft.com>



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# Lab Exercises



# Lab Exercises



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- Perform ALL Lab Exercises
- Perform Labs in sequential order
- Follow directions **EXPLICITLY**
- Contact Lab Instructor where indicated
- Contact Lab Instructor if results are different than indicated



# Troubleshooting



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- Connectivity
- Emulation

# Troubleshooting Connectivity



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- Make sure the connector type is correct for the host and emulation
- Ping the host if connection can't be made via Telnet TCP/IP
- Try to connect to other hosts (public or private to test connection)

# Troubleshooting Emulation



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- Ensure the emulation is the correct type for the host
- Check to see if emulation properties are correct for the host application
- Try other applications on the host to determine if symptom is application specific
- Refer to DCS help file for keyboard mapping issues

# FutureSoft Technical Support



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- Available test host systems
- DCS 8 (Trace & help)
- Escalation procedures



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**Thank You!**