

Windows 95 and Windows CE Configuration Utilities

# **REFERENCE MANUAL**

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#### " NOTICE

# **CONTENTS**

**SECTION 1** 

. . . . . .

Windows 95 General Information

. . . . . . . . . . . .

Introduction	1-1
Specifications	1-2
Target Platforms	1-2
Windows 95 External File Dependencies	1-2
Utility Functions	1-3
Clock	1-3
External Program Execution	1-3
System Information	1-4
Communications	1-4
TCOM Setup	1-4
LAN	1-4
Dial Up Networking	1-5
NON DHCP	1-5
Operation	1-5

#### **SECTION 2**

Windows CE General Information

Introduction	2-1
Specifications	2-2
Target Platforms	2-2
Windows CE External File Dependencies	2-2
Utility Functions	2-3
Clock	2-3
External Program Execution	2-3
System Information	2-4
Communications	2-4
TCOM Setup	2-4
LAN	2-4

Dial Up Networking	2-5
NON DHCP	2-5
Operation	2-5

#### SECTION 3

#### **User Reference**

Starting the Windows Configuration Utility	3-1
Screen Reference	3-3
General	3-3
Banner/About Screen	3-4
Main Menu	3-5
Identification	3-7
Model:	3-7
Serial #:	3-7
Username:	3-8
Password:	3-8
Route ID:	3-8
Run Program	3-9
Date/Time	3-10
Date	3-11
Time	3-11
Communicate	3-11
Dial-Up Networking	3-12
Wired Network	3-12
Manually configure the client settings (no DHCP)	3-13
Dial-Up Networking	3-14
Username	3-14
Password	3-14
NT Domain	3-14
IP Address	3-15
Port	3-15
I/O Timeout	3-15
Modem	3-15
Wired Network	3-16
IP Address	3-16
Port	3-16
I/O Timeout	3-17
Load NDIS driver	3-17
Line Speed (115,200 bps,460,800 bps)	3-17
Client	3-18

IP Address	3-18
Subnet Mask	3-18
Default Gateway	3-18
Domain	3-19
DNS Server	3-19

#### **SECTION 4**

**TCOM Error Codes** 

#### FIGURES

3-3
3-4
3-5
3-7
3-9
3-10
3-12
3-14
3-16
3-18

#### TABLES

Table 1-1 Windows 95 External File Dependencies	1-2
Table 2-1 Windows CE External File Dependencies	2-2
Table 3-1 Command Line	3-1
Table 4-1 TCOM Error Codes	4-1

# Section 1

# Windows 95 General Information

### Introduction

The Windows Configuration Utility is an executable that performs many of the tasks of setting up an Intermec 602 or 6110 hand-held computer (HHC) to perform an initial TCOM.

The utility can:

- Set the system clock
- Provide battery statuses and other hand-held computer information
- Execute other applications
- Setup and execute a TCOM session

This configuration utility is designed for use as a shell application run on initial startup of one of the target HHC, or executed by the user or other applications to perform normal TCOM sessions.

There are a number of components that must be loaded on the HHC along with the PSWCM0C.EXE program.

# **Specifications**

# **Target Platforms**

This application is designed to be used on the 602 and 6110 HHC running Windows 95 operating system using the x86 processor.

# Windows 95 External File Dependencies

The following table shows the files needed for operation of the Windows 95 Configuration Utility and the directories they are expected to be in.

File	Directory	Notes
PSWCM0C.EXE	C:\Intermec\WINCFG\	
NCSE.EXE	C:\Intermec\NRINet\	
NRINET.DLL	C:\Intermec\NRINet\	
HHCINFO.DLL	C:\Intermec\WINCFG\	
TCOMM.DLL	C:\Intermec\WINCFG\	
PSKBDEDT.DLL	C:\Intermec\WINCFG\	
PSWCFG.DLL	C:\Intermec\WINCFG\	
FTPSCR32.EXE	C:\Intermec\WINCFG\	This is needed to launch the FTP server. This server should be located at: C:\Intermec\FTP\ftpdwin.exe
MFC42.DLL	C:\Intermec\WINCFG\	
Alt.dll	C:\Intermec\WINCFG\	

Table 1-1 Windows 95 External File Dependencies

File	Directory	Notes
NRINET.LOG	C:\Intermec\NRINet\	File will be created in this directory with each TCOM session. An application may check this file for more detailed information about actions and errors occurring within a NRINetTCOM session.
NRINET.INI	C:\Intermec\NRINet\	File will be created here if it does not previously exist. An application may preset this file with entries to control a TCOM session.

Table 1-1 (continued)Windows 95 External File Dependencies

# **Utility Functions**

### Clock

Allows the setting of the local time and date on the HHC.

### **External Program Execution**

Provides for executing an external process.

### System Information

Provides access for the following information.

- **NOTE:** Not all information is available on all platforms.
  - Main and backup battery statuses
  - Current date and time
  - HHC model number
  - HHC serial number

#### **Communications**

Provides the capability to perform Modem and LAN based NRINet TCOM sessions.

#### **TCOM Setup**

The *TCOM Setup* utility is not intended to provide the functionality to set all possible settings for an NRINet TCOM session, only the most commonly used settings. Other settings may be provided by external applications placing settings in the NRINet.ini file.

The utility provides the following settings to perform an NRINet TCOM session.

- " NRINet User Name
- NRINet Password
- " Route ID.
- " IP Address
- " Port
- " I/O Timeout
- LAN or Dial Up Networking

#### LAN

#### - Load NDIS Driver

#### Dial Up Networking

- Telephone Prefix
- Telephone Number
- Username
- Password
- " NT Domain
- Modem Selection
- DHCP (Y/N)

#### NON DHCP

- " IP Address
- Subnet Mask
- Default Gateway
- " Domain
- DNS Server

### Operation

The *Operation* utility may be started upon reset of the HHC, by a user from the task bar start button, or by an application.

Command line parameters may be used to control various features of the application.

# Section 2

# Windows CE General Information

### Introduction

The Windows CE Configuration Utility is an executable that performs many of the tasks of setting up an Intermec 602 or 6110 hand-held computer (HHC) to perform an initial TCOM.

The utility can:

- Set the system clock
- Provide battery statuses and other hand-held computer information
- Execute other applications
- Setup and execute a TCOM session

This configuration utility is designed for use as a shell application run on initial startup of one of the target HHC, or executed by the user or other applications to perform normal TCOM sessions.

There are a number of components that must be loaded on the HHC along with the PSWCMCE.EXE program.

# **Specifications**

# **Target Platforms**

This application is designed to be used on the 602 and 6110 HHC running Windows CE operating system using the x86 processor.

# Windows CE External File Dependencies

The following table shows the files needed for operation of the Windows Configuration Utility and the directories they are expected to be in.

File	Directory	Notes
<b>PSWCMCE.EXE</b>	\STORAGE	
	CARD\PROGRAMS\INTERMEC\	
NCSE.EXE	\STORAGE	
	CARD\PROGRAMS\INTERMEC\	
NRINET.DLL	\STORAGE	
	CARD\PROGRAMS\INTERMEC\	
HHCINFO.DLL	\STORAGE	
	CARD\PROGRAMS\INTERMEC\	
TCOMM.DLL	\STORAGE	
	CARD\PROGRAMS\INTERMEC\	
PSWCFG.DLL	\STORAGE	
	CARD\PROGRAMS\INTERMEC\	
MFCCE.DLL	\STORAGE CARD\WINCE\MFC\	
<b>OLECTL212.DLL</b>	\STORAGE CARD\WINCE\MFC\	

Table 2-1 Windows CE External File Dependencies

•		
File	Directory	Notes
WCESTART.INN	\STORAGE CARD\WINCE\	Needed only if it is desired that the configuration utility start automatically after a hand-held computer reboot.
NRINET.LOG	\STORAGE CARD\PROGRAMS\INTERMEC\	File will be created in this directory with each TCOM session. An application may check this file for more detailed information about actions and errors occurring within a NRINetTCOM session.
NRINET.INI	\STORAGE CARD\PROGRAMS\INTERMEC\	File will be created here if it does not previously exist. An application may preset this file with entries to control a TCOM session.

Table 2-1 (continued) Windows CE External File Dependencies

## **Utility Functions**

### Clock

Allows the setting of the local time and date on the HHC.

### **External Program Execution**

Provides for executing an external process.

### System Information

Provides access for the following information.

- **NOTE:** Not all information is available on all platforms.
  - Main and backup battery statuses
  - Current date and time
  - HHC model number
  - HHC serial number

#### **Communications**

Provides the capability to perform Modem and LAN based NRINet TCOM sessions.

#### **TCOM Setup**

The *TCOM Setup* utility is not intended to provide the functionality to set all possible settings for an NRINet TCOM session, only the most commonly used settings. Other settings may be provided by external applications placing settings in the NRINet.ini file.

The utility provides the following settings to perform an NRINet TCOM session.

- " NRINet User Name
- NRINet Password
- " Route ID.
- " IP Address
- " Port
- " I/O Timeout
- LAN or Dial Up Networking

#### LAN

#### - Load NDIS Driver

#### Dial Up Networking

- Telephone Prefix
- Telephone Number
- " Username
- Password
- NT Domain
- Modem Selection
- DHCP (Y/N)

#### NON DHCP

- " IP Address
- Subnet Mask
- Default Gateway
- " Domain
- DNS Server

### Operation

The *Operation* utility may be started upon reset of the HHC, by a user from the task bar start button, or by an application.

Command line parameters may be used to control various features of the application.

# Section 3 User Reference

# Starting the Windows Configuration Utility

In most cases, the utility will be started when you boot the hand held for the first time out of the box. This is because it was put into the WCESTART.INI file found in the \storage card\wince directory. However, after you load an application, it may change this file to start itself after a reboot.

You may start the Windows Configuration Utility from within an application or from the Start button's Run option.

	Command Line
Option	Usage: PSWCMCE.EXE [-b] [-t] [-x] [-s] [-h] [-d] [-v] [-f] [-?]
-?	Displays usage help and then exits the utility. It takes precedent over other options.
-t	Performs a TCOM session using the settings currently in the NRINet.ini file, then either perform a reboot or exit the program based on the / $\mathbf{r}$ option. / $\mathbf{x}$ has no meaning when this option is used.
-b	Keeps the utility from rebooting after a successful TCOM. It's used most often when calling the Configuration Utility from an application to perform a TCOM session.
-X	Will not allow the Configuration Utility to exit when the exit button is pressed. Instead it will go to the Banner/About screen. This is used when it is desired to have the Configuration Utility as a shell that always runs on the HHC.
- <b>S</b>	Keeps the utility from displaying the splash screen during startup.
-h	Will not allow the user to start a TCOM session by pressing the start button.

Table 3-1

	Command Line		
Option	Usage: PSWCMCE.EXE [-b] [-t] [-x] [-s] [-h] [-d] [-v] [-f] [-?]		
-d	Determines which dialog is displayed. Possible selections are:		
	-d0 Main Menu (default)		
	-d1 Identification dialog		
	-d2 TCOM Settings dialog		
	-d3 Run Program dialog		
	-d4 Battery Status dialog		
	-d5 Date/Time dialog		
- <b>v</b>	Specifies the path and filename of the file to receive version information. If the path or file name includes spaces, it must be enclosed in quotes. Such as: -v"\storage_card\My Inifile.ini"		
-f	Specifies the path and filename of the NRINet ini file that is to be built. If the path or file name includes spaces, it must be enclosed in quotes. The full path must always be included. Such as: -f*c:\Intermec\WinCfg\My Inifile.ini"		
	The ini file must be placed in the same directory as NCS32.EXE and NRINET.DLL files.		

#### Table 3-1 (continued) Command Line

# Screen Reference

### General

On any screen that displays the keyboard button, you may:

- Press the button to pop up a virtual keyboard that will place characters into the edit field at the top of the screen.
- If you accept the entry, the keyboard will disappear and the text entered will move to the edit box next to the button you pressed.



Figure 3-1 Keyborad Button

### **Banner/About Screen**

This is the initial screen that appears when the utility is executed. It also is displayed when the About button is pressed from the Main Menu or the EXIT button is pressed from the Main Menu and the /x option was specified.



Figure 3-2 Banner/About Display Message

OK

Pressing this button takes you to the

Main Menu.

### Main Menu

The Main Menu screen shows buttons that take you to different areas of operation within the Configuration Utility.

Identification	Communicate
Run Program	Battery
Date/Time	Start FTP Server
Exit	About

Figure 3-3 Main Menu Screen

Identification

Takes you to the Identification Screen that lets you see the hand-held computer (HHC) type and serial number. It also lets you set and review the user name and password used for NRINet TCOM and Route ID number.

# Run Program

Takes you to the Run screen from which you can start another process running.

Date/Time

Takes you to the Date/Time screen from which you can set the local date and time for the system clock.



The operation of this button depends on whether the /x option was specified on the command line. If the /x option was not specified, the Configuration Utility process will end. Otherwise, pressing this button will take you to the Banner/About screen.

# Communicate

Takes you to the Communications Setup screen. From there you can configure the HHC for TCOM and or start a TCOM session.

### Battery

Takes you to the Battery Screen to review battery status information.



Launches an FTP server.

About

Takes you to the Banner/About screen.

## Identification

This screen identifies both the HHC that the utility is running on and the user information needed for an NRINet TCOM session.

omputer-		
Edit		
Edit		
ications—		
		ABC
Edit		ABC
Edit		ABC
7		
	0	К
	ications- Edit ications- Edit Edit Edit	Edit   Edit   ications   Edit   Edit   Edit   Edit   O

Figure 3-4 Identification Screen

#### Model:

This is a read-only field that displays the Intermec model number of the HHC. It will only show for Intermec hand held computers.

In Windows 95 this field is not yet implemented.

#### Serial #:

This is a read-only field that displays the serial number of the HHC that the utility is running on. It will only show for Intermec hand held computers.

In Windows 95 this field is not yet implemented.

### Username:

This field displays/accepts the Username that may be required for an NRINet TCOM session.

#### Password:

This field displays/accepts the Password that may be required for an NRINet TCOM session.

### Route ID:

This field displays/accepts the Route ID that may be required for an NRINet TCOM session. This field defaults to the Serial # if empty.

" NOTE:

When configuring a 6920 for communications the default route ID position is 41. Refer to NRINET Client Documentation for more information regarding route ID positions.

### Run Program

This screen allows you to run an external process from within the configuration utility.

Enter the path and file name of the program to be run into the edit field and press OK.

Run Type the name (a of the program ye like to run.	and path) ou would
Edit	ABC
Cancel	ОК

Figure 3-5 Run Program Screen

ОК

Pressing this button starts the program listed and the configuration utility continues by returning to the Main Menu screen.



Pressing this button cancels the utility and returns you to the Main Menu without executing any process.

If the program can not be found or is prevented from executing in any way, the utility will return to the main menu without executing the program. No error or warning will be generated in this event.

### Date/Time

The Date/Time screen allows you to set the local system date and time.

You may set the date and time in a variety of ways:

- Highlight a field and press the up or down key
- Enter a new value from the numeric keyboard.
- Press the arrow icons next to the date or time edit boxes to bring up additional controls to enter the new values.

Date	В
Time 3:39:54 PM	Ύβ
Time Zone:	B ht Savings
Cancel	ОК

Figure 3-6 Date/Time Screen

#### Date

This field allows you to set the current date.

#### Time

This field allows you to set the current local time.

ОК

The time will be changed when OK is pressed and the utility will return to the Main Menu.

Cancel

Pressing Cancel will return to the main menu without setting the time.

### Communicate

This screen allows you to select the most common TCOM parameters for an NRINet TCOM session.

Select either the Dial-Up Networking or the Wired Network radio buttons.

- The Dial-Up Networking Advanced button allows enabling Prefix and Number entry fields only if you select the **Dial-Up Networking** radio button.
- The Wired Network Advanced button is only allowed when Wired Network radio button is selected

The 'Manually configure the client settings' Advanced button is only active if the **Manually configure the client settings** radio check box is selected.



Figure 3-7 Communicate Screen

### **Dial-Up Networking**

Select the radio button to perform TCOM using a modem and phone lines.

This option enables:

- The Dial-Up Networking Advanced button which allows setting more advanced features of Dial-Up communications. It also enables
- The Prefix and Number fields described below.

This also deselects the Wired Network option.

Refer to the Dial-Up Networking screen below for additional settings.

#### Wired Network

Select this for communications over a wired LAN.

This option enables the Wired Network Advanced button which allows the setting of more advanced features of Wired communications.

It will also deselect the Dial-Up Networking option.

Refer to the Wired Network screen below for additional settings.

# Manually configure the client settings (no DHCP)

Select this when DHCP is not available or not desired. If this is selected then the settings on the Client screen will be used.

Press the **Advanced** button to set or review the Client screen settings.

#### Cancel

Pressing this button returns you to the Main Menu screen without saving the changes to this screen.

### ОК

Pressing this button returns you to the Main Menu Screen saving the changes to this screen.

#### Start

Press the **Start** button to begin a TCOM session after saving the changes selected on this screen.

Once the TCOM session is completed, the HHC unit will reboot, or return to the Banner screen, depending on the –b command line flag. Refer back to Table 2-1 Command Line flags earlier in this section for additional details.

If an error occurs during the TCOM session, a message box with the error number will pop up. After saying OK to this message box, you will remain on the TCOM screen. See Section 3 on TCOM Codes.

## **Dial-Up Networking**

This screen lets you set more advanced communications options needed when using Dial-Up Networking.

$_{\Gamma}$ Dial-up Net	working		
Username:	Edit		ABC
Password:	Edit		ABC
NT Domain:	Edit		ABC
IP Address:	Edit		ABC
Port:	Edit		ABC
I/O Timeout:	Edit		ABC
Modem:			
			В
		<b></b>	I
Cancel		0	К

Figure 3-8 Dial-up Networking Screen

#### Username

The Username field should contain the Dial-Up Networking Username for the PPP server. This may not be the same Username as specified on the 6920.

#### Password

The Password field should contain the Dial-Up Networking Password for the PPP server. This may not be the same Password as specified on the 6920.

### NT Domain

Provides the dial-up server with a Windows NT Domain name.

<sup>3-14</sup> Windows 95 and Windows CE Configuration Utilities Reference Manual

#### **IP Address**

This is the IP address or host name of the 6920 host that you are connecting to.

This same setting may be found on the Wired Network Advanced screen.

#### Port

TCP/IP port number, or the service entry name in the services file that the 6920 server is configured on.

This same setting may be found on the Wired Network Advanced screen.

#### I/O Timeout

If there is a break in communications for a period of the number of seconds specified here, the TCOM session will end and an error reported.

This same setting may be found on the Wired Network Advanced screen.

#### Modem

This is the modem that the TCOM session uses. Pressing the arrow on the right of this field brings up a list of modems available.

### Cancel

Pressing this button returns you to the Communications screen without saving your changes to this screen.

# OK

Pressing this button returns you to the Communications screen after saving your changes to this screen.

### Wired Network

This screen allows advanced settings for communicating over a wired network.

┌ Wired Network		
IP Address: 6920SER ABC		
Port:	44965	ABC
I/O Timeout:	45	ABC
Load N Line O 1 O 4	DIS driver e Speed 15,200 bps 60,800 bps	
Cancel	(	ОК

Figure 3-9 Wired Network Screen

### **IP Address**

The IP address or host name of the 6920 host that you are connecting to.

This same setting may be found on the Dial-Up Networking Advanced screen.

### Port

TCP/IP port number or the service entry name in the services file that the 6920 server is configured on.

This same setting may be found on the Dial-Up Networking Advanced screen.

3-16 Windows 95 and Windows CE Configuration Utilities Reference Manual

#### I/O Timeout

If there is a break in communications for a specified number of seconds, the TCOM session ends and an error reported.

This same setting may be found on the Dial-Up Networking Advanced screen.

#### Load NDIS driver

When connecting using a LAN, checking this box causes the NDIS driver to be loaded before a socket is opened. If the HHC is already connected and operating on a LAN, then the user should remove the check. Default is checked.

### Line Speed (115,200 bps,460,800 bps)

This setting is available only on the 6110 HHC.

These two radio buttons control the line speed of the RS-485 connection to the 6710.

115,200 bps is currently the only valid choice.

### Cancel

Pressing this button returns you to the Communications screen without saving your changes to this screen.

### OK

Pressing this button returns you to the Communications screen after saving your changes to this screen.

# Client

This screen contains settings needed if you are not using DHCP for the TCOM session.

┌ Client Setup —— IP Address:	
Edit	ABC
Subnet Mask:	
Edit	ABC
Default Gateway:	
Edit	ABC
Domain:	
Edit	ABC
DNS Server:	
Edit	ABC
Cancel	ОК

Figure 3-10 Client Setup Screen

### **IP Address**

The IP Address that the HHC uses for the TCOM Session.

### Subnet Mask

The Subnet Mask that the HHC uses for the TCOM Session.

### **Default Gateway**

The Default Gateway that the HHC uses for the TCOM session.

<sup>3-18</sup> Windows 95 and Windows CE Configuration Utilities Reference Manual

### Domain

The TCP/IP Domain name that the HHC uses for the TCOM session.

### **DNS Server**

The Domain Name Server that the HHC uses for the TCOM session.

Cancel

Pressing this button returns you to the Communications screen without saving your changes to this screen.



Pressing this button returns you to the Communications screen after saving your changes to this screen.

# Section 4

# **TCOM Error Codes**

Table 4-1 TCOM Error Codes

HEX	DEC	ТЕХТ
0xc9	201	Missing INI file
0xca	202	Missing INI file
0xdd	221	Error creating temporary file (SESSION.CTL or DWNLREQ.DAT)
0xde	222	Bad name provided by INI file
0xdf	223	Unable to open upload file
0xe0	224	Unable to open download file
0xe1	225	Unable to create path
0xf9	249	Incomplete
0xfa	250	Unable to set Keep Alive
0xfb	251	Server reports busy
0xfc	252	Error using nRecv()
0xfd	253	Error using nSend()
0xfe	254	Error using nDoRecv()
0xff	255	Error using nDoSend()
0x100	256	Error encoding negotiation block
0x101	257	Error decoding negotiation block
0x102	258	Error posting message to application
0x103	259	Error getting upload data
0x104	260	Error processing download data
0x105	261	No I/O for "x" time
0x190	400	Winsock Error: FD_CONNECT error
0x191	401	Winsock Error: FD_READ error
0x192	402	Winsock Error: FD_WRITE error
0x193	403	Winsock Error: FD_CLOSE error

# Table 4-1 (continued)TCOM Error Codes

HEX	DEC	TEXT
0x194	404	Winsock Error: unknown error
0x258 and higher are Microsoft RAS errors		

## INDEX

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С

Configuration utility advanced dial-up networking, 3-14 advanced wired networking, 3-16 client, 3-18 communicate, 3-11 dial-up networking, 3-12 identification, 3-7 date/time, 3-10 main menu, 3-5 run program, 3-9 manually setting client settings, 3-13 starting, 3-1 wired network, 3-12

#### W

Win95 Utilities communications, 1-4 operation, 1-5 setting the clock, 1-3 system information, 1-4 TCOM setup, 1-4 WinCE Utilities communications, 2-4 operation, 2-5 setting the clock, 2-3 system information, 2-4 TCOM setup, 2-4 Windows configuration, screen reference, 3-2