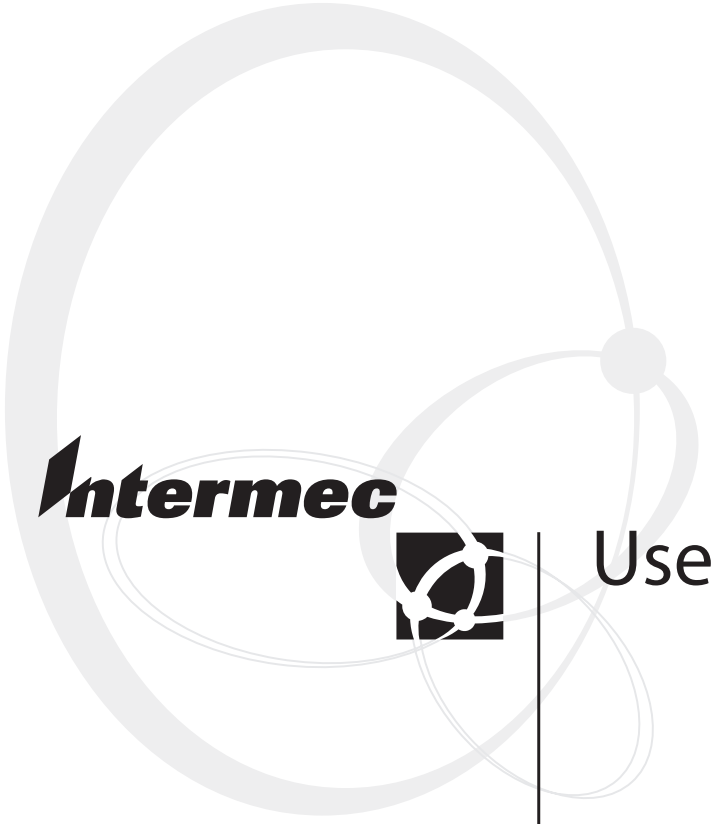

Intermec

User's Guide

Data Collection Browser™ Client

Intermec Technologies Corporation
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U.S. service and technical support: 1-800-755-5505
U.S. media supplies ordering information: 1-800-227-9947

Canadian service and technical support: 1-800-668-7043
Canadian media supplies ordering information: 1-800-268-6936

Outside U.S. and Canada: Contact your local Intermec service supplier.

Manual Change Record

This page records the changes to this manual. The manual was originally released as version 001.

Version	Date	Description of Change
002	10/99	This manual was changed to support new features.
003	12/00	This manual was changed to support dcBrowser rev. 2.0 and 2.1.
004	01/02	This manual was changed to add attributes to the input tag, to add special attributes to the meta tag, to explain how to run multiple simulator sessions, and to explain how to transfer files to the 6400 using TFTP.

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ASCII to Hex Conversion

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Before You Begin

This section introduces you to standard warranty provisions, safety precautions, warnings and cautions, document formatting conventions, and sources of additional product information. A documentation roadmap is also provided to help you find the appropriate information.

Warranty Information

To receive a copy of the standard warranty provision for this product, contact your local Intermec support services organization. In the U.S.A. call 1-800-755-5505, and in Canada call 1-800-668-7043. Otherwise, refer to the Worldwide Sales & Service list for the address and telephone number of your Intermec sales organization.

Safety Summary

Your safety is extremely important. Read and follow all warnings and cautions in this book before handling and operating Intermec equipment. You can be seriously injured, and equipment and data can be damaged if you do not follow the safety warnings and cautions.

Do not repair or adjust alone Do not repair or adjust energized equipment alone under any circumstances. Someone capable of providing first aid must always be present for your safety.

First aid Always obtain first aid or medical attention immediately after an injury. Never neglect an injury, no matter how slight it seems.

Resuscitation Begin resuscitation immediately if someone is injured and stops breathing. Any delay could result in death. To work on or near high voltage, you should be familiar with approved industrial first aid methods.

Energized equipment Never work on energized equipment unless authorized by a responsible authority. Energized electrical equipment is dangerous. Electrical shock from energized equipment can cause death. If you must perform authorized emergency work on energized equipment, be sure that you comply strictly with approved safety regulations.

Cautions and Notes

The cautions and notes in this manual use the following format.

Caution
A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.

Conseil
Une précaution vous avertit d'une procédure de fonctionnement, d'une méthode, d'un état ou d'un rapport qui doit être strictement respecté pour empêcher l'endommagement ou la destruction de l'équipement, ou l'altération ou la perte de données.

Notes: Notes are statements that either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

About This Manual

This manual contains information necessary to install, configure, operate, and troubleshoot the Data Collection Browser™.

This manual was written for the MIS personnel, operations personnel, analysts, and programmers who need to know how to install, configure, test, and use dcBrowser. You should be knowledgeable of your company's network and data collection software. You should be familiar with data communications and network protocols.

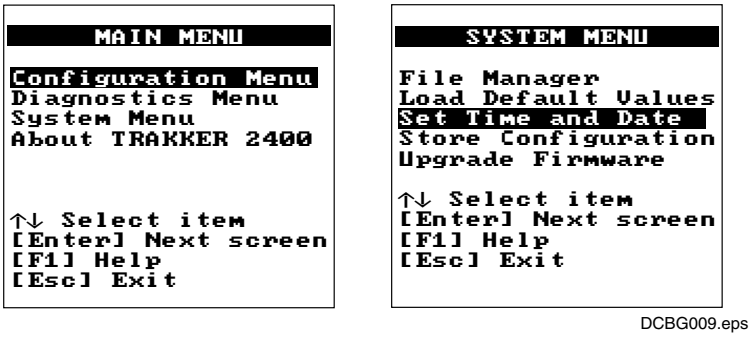
Terminology

You should be aware of how these terms are being used in this manual:

Term	Description
Host	The term “host” refers to a personal computer or other computer that communicates with the terminal.
DCS 30X	The term “DCS 30X” can refer to the DCS 300, DCS 301, or the software-only dcBrowser gateway. dcBrowser does not work with the Model 200 Controller.
Device	The generic term “device” indicates any data collection device that works with dcBrowser.
Trakker Antares	The term “Trakker Antares” identifies the product family of Trakker Antares terminals, which includes the hand-held terminals, vehicle-mount terminals, and stationary terminals. dcBrowser does not work with the 2460 and 2461 terminals.
JANUS	The term “JANUS” identifies the product family of JANUS devices, which includes the hand-held terminals and vehicle-mount terminals.
502X	The term “502X” identifies the product family of 5020 and 5023 Data Collection PCs™.
6400	The term “6400” identifies the product family of 6400 computers, which includes RF and batch models.
700	The term “700” identifies the product family of 700 series mobile computers, which includes RF and batch models.

Conventions for Software Screens and Messages

This manual includes illustrations that represent how the devices display software screens and messages. Here are two examples:



DCBG009.eps

Conventions for Input From a Keypad or Keyboard

This table describes the formatting conventions for input from PC keyboards, host computer keyboards, and terminal keypads:

Convention	How to Interpret the Convention
Bold text	Indicates the keys you must press on a PC or a host keyboard. For example, "press **Enter**" means you press the key labeled "Enter" on the PC or the host keyboard.
A	Shows the key you must press on the terminal. For example, "press A" directs you to press the A key on the terminal keypad.
f 2 4 8	Shows a series of terminal keys you must press and release in the order shown. For example, "Press f 2 4 8 to run the Trakker Antares 2400 Menu System."
Ctrl-N	Shows a series of terminal keys you must press and hold in the order shown. For example, "Press **Ctrl-**N to ping the DCS 300."

Other Intermec Manuals

You may need additional information when working with dcBrowser in a data collection system. Please visit our Web site at www.intermec.com to download many of our current manuals in PDF format. To order printed versions of the Intermec manuals, contact your local Intermec representative or distributor.

1

Getting Started

This chapter describes the Data Collection Browser and explains the environments that you must set up in order to run the Data Collection Browser.

Learning About the Data Collection Browser

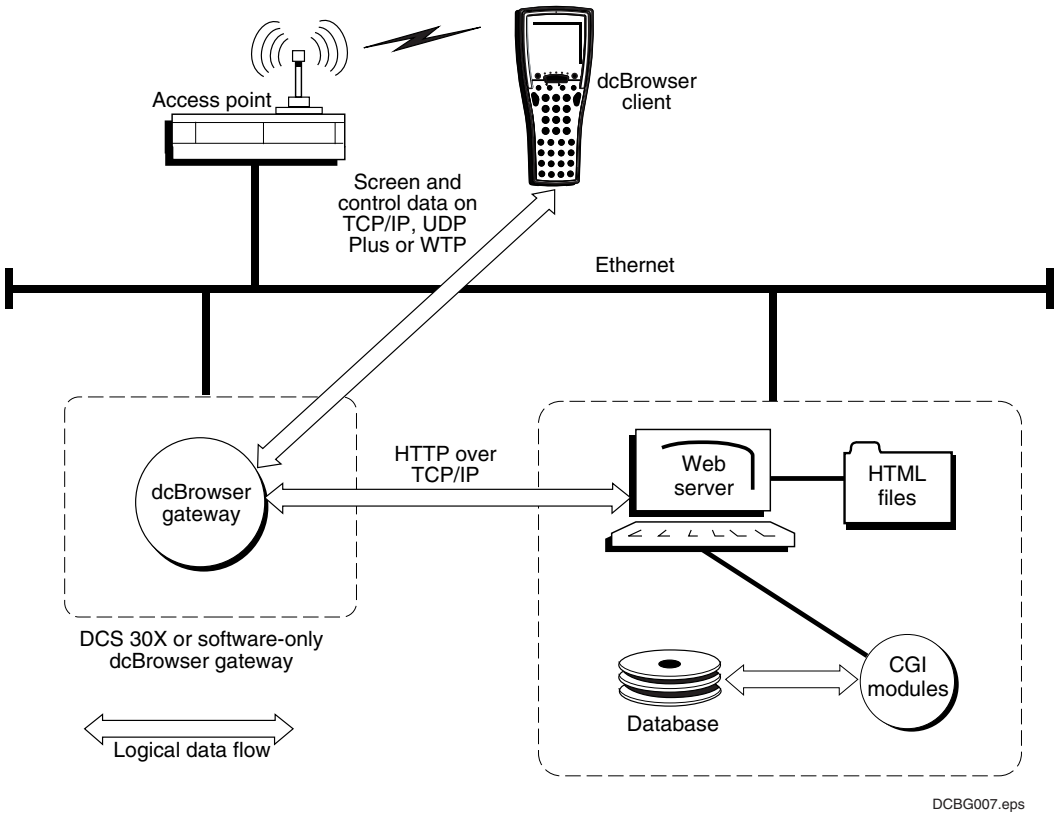
The Intermec Data Collection Browser™ (dcBrowser™) provides a HyperText Markup Language (HTML) application development environment for Intermec data collection devices. Use dcBrowser to run HTML applications in your data collection network and to send the information to your enterprise information system.

Using the dcBrowser has many advantages:

- You can simplify application development by using state-of-the-art tools.
- You can leverage access to legacy information through existing HTML applications for your PC. You only need to develop new Web pages for the devices.
- You can use the same application for all your data collection devices, since dcBrowser can reformat Web pages for different screen sizes.
- You have reduced support costs. You can easily upgrade your applications, since they reside in a central location on the Web server.
- You reduce project risk by using Web-based middleware servers. In other words, you can deploy a data collection network and retain the flexibility to change the back-end system.
- You use less bandwidth in your data collection network because the data collection devices only provide the user interface, while the Web server provides all of the computational power.

You create applications using standard Web technology software tools. These applications reside on a Web server. The dcBrowser gateway converts standard Web (HTML v3.2 syntax) pages received from Web servers into condensed ASCII and sends them to the dcBrowser client running on the device. Refer to the illustration and explanation on the next page.

Understanding dcBrowser



1. A device running the dcBrowser client is turned on, and it requests a Web page.
2. The dcBrowser gateway identifies the Web home page for this device. The dcBrowser gateway requests this home page from the Web server.
3. The Web server sends the requested home page to the dcBrowser gateway.
4. The dcBrowser gateway interprets the Web home page, creates a compressed data format, and sends it to the device.
5. Information from the device is sent to the dcBrowser gateway, which takes the compressed data format, converts it to HTML, and sends it to the Web server. The Web server may send other Web pages to the device based on information that it receives.

About the Environments

You should understand the following three environments:

Development Environment Use the development environment to create the HTML application for your data collection devices. Your application development tool must support the HTML v3.2 syntax. You should test and debug your application in the development environment before you use the test environment. For help, see Chapter 2, “Developing and Testing Your Application.”

Test Environment Use the test environment to simulate running the HTML application. Copy your application and Web pages to a Web server, and then load a Web browser and the simulator on your PC. Using the Web server, the Web browser, and the simulator, you can run your application. The simulator contains a local dcBrowser gateway that runs on your PC, and it simulates the dcBrowser gateway on the DCS 30X or the software-only dcBrowser gateway. The simulator also simulates the device screens so you can enter data and see how the application responds. For help, see Chapter 2, “Developing and Testing Your Application.”

Runtime Environment Use the runtime environment to run the HTML application in your data collection network. If necessary, load the dcBrowser client on your devices, and then copy your application and Web pages to a Web server. You configure the dcBrowser gateway on the DCS 30X. When you turn on your devices, they request a Web page from the Web server. For help, see the user's manual that ships with your DCS 30X or the online help for the dcBrowser gateway software.

2

Developing and Testing Your Application

This chapter provides a list of the HTML features that are supported, the features that are not supported, and additional information about some of the tag attributes. It also provides a summary of the HTML tags and how dcBrowser supports them and a sample HTML file.

About the Development Environment

dcBrowser provides a runtime environment for data collection devices. For more information about the development environment, see Chapter 1, "Getting Started."

Note: Compile your CGI scripts for whatever environment your Web server uses. If you want to put your CGI scripts and your Web pages on the DCS 30X, you must compile your CGI scripts for OS/2.

You can put your CGI executables into the D:\USERDATA\CGI-BIN directory, and you can put your Web pages into the D:\USERDATA\HTDOCS directory on the DCS 30X. Once you have moved your Web pages, you must add /user to the URL of the Web page. For example, if you moved RFSIGN.HTM to the D:\USERDATA\HTDOCS directory, the URL would be /user/rfsign.htm. Also, if you wanted RFSIGN.HTM to use a CGI executable in the D:\USERDATA\CGI-BIN directory, you would need to change the following code:

```
<FORM METHOD=POST ACTION="/cgi-bin/cgi.exe">
```

to

```
<FORM METHOD=POST ACTION="/user-cgi/cgi.exe">
```

You would need to make similar changes in CGI.C to allow for the correct virtual directories.

Supported HTML Features

dcBrowser supports a subset of HTML 3.2 syntax. dcBrowser also supports the Hypertext Transfer Protocol (HTTP) 1.0 standard. Generally, dcBrowser supports the tags that provide simple display and data entry capabilities, such as text, password, and input types. It automatically filters content that cannot be displayed or processed on the data collection devices.

dcBrowser also supports hypertext links, such as anchor, by assigning them to the device's function keys. Since the 700 Series Mobile Computer does not have function keys, use the stylus to select hypertext links. When you write your application, be sure you understand the user interface and screen capabilities of the devices.

Devices can only display one font with no attributes, such as <CITE>. You may want to use some of the tags to indicate how the text is used, not how it is displayed on the device. This release supports the heading hierarchy by using extra spacing and indentation.

Unsupported HTML Features

The following list explains some of the HTML features that are not currently supported by dcBrowser. Contact your local Intermec representative to determine which features will be implemented in future releases.

- HTML tags that are inappropriate for the devices. These tags are either implemented as far as possible or ignored. The dcBrowser gateway filters the HTML tags that are beyond the device's capability.
- Plug-ins or other extension mechanisms, such as Java or ActiveX.
- Client-side scripting languages, such as JavaScript or JScript.
- Graphics. dcBrowser supports the image tag by using the alternate text attribute (ALT). The device displays the ALT text instead of the graphic.
- HTML-like security.
- Audible alerts, other than the standard beeps for the device. You can sound an optional beep a chosen number of times when the device displays a new screen.
- Cookie support is limited to the session.
- Differences between scanner input and keypad input. dcBrowser cannot differentiate between the two.

Summary of HTML 3.2 Tags

The Worldwide Web Consortium (W3C) has recommended that Web browsers support the following HTML 3.2 tags. The device supports each of the tags in one of these three ways:

- The device displays the tag as expected and documented in an HTML reference manual.
- The device displays the text; however, since the device only supports one font, it displays the text, but ignores the attributes.
- The device ignores the tag.

For a complete description of HTML tags, see an HTML reference manual.

HTML Tag	Description	Supported as Documented	Text Displayed, No Format	Not Supported, Ignored	Supported with Special Attributes or Notes
<!--…>	Comment	X			
< > &amp	Escape sequences	X			
<A>	Anchor				X
<ADDRESS>	Address		X		
<APPLET>	Java Applet			X	
<AREA>	Area			X	
<B>	Bold	X*			
<BASE>	Base			X	
<BEEP>	Beep	X			
<BIG>	Big text		X		
<BLOCKQUOTE>	Block quote		X		
<BODY>	Body	X			
 	Line break	X			
<CAPTION>	Caption		X		
<CENTER>	Center	X			
<CITE>	Citation		X		
<CODE>	Code		X		
<DD>	Definition definition		X		
<DFN>	Definition		X		
<DIR>	Directory list	X			

Summary of HTML 3.2 Tags (continued)

HTML Tag	Description	Supported as Documented	Text Displayed, No Format	Not Supported, Ignored	Supported with Special Attributes or Notes
<DIV>	Division		X		
<DL>	Definition list		X		
<DT>	Definition term		X		
<EM>	Emphasized	X*			
<EMBED>	Embed			X	
<FONT>	Font			X	
<FORM>	Form	X			
<FRAME>	Frame			X	
<FRAMESET>	Frame set			X	
<H1>…<H6>	Heading 1…6	X			
<HEAD>	head				X
<HR>	Horizontal rule	X			
<HTML>	HTML	X			
<I>	Italic		X		
<IMG>	Inline image				X
<INPUT>	Form input				X
<ISINDEX>	Is index		X		
<ITCPRINT>	Print				
<KBD>	Keyboard		X		
<LI>	List item		X		
<LINK>	Link	X			
<MAP>	Map			X	
<MENU>	Menu list	X			
<META>	Meta				X
<NOBR>	No break	X			
<NOEMBED>	No embed	X			
<NOFRAMES>	No frames	X			
<OL>	Ordered list		X		
<OPTION>	Option			X	
<P>	Paragraph				X

Summary of HTML 3.2 Tags (continued)

HTML Tag	Description	Supported as Documented	Text Displayed, No Format	Not Supported, Ignored	Supported with Special Attributes or Notes
<PARAM>	Parameters			X	
<PRE>	Preformatted text	X			
<S>	Strike		X		
<SAMP>	Sample		X		
<SELECT>	Form select			X	
<SMALL>	Small text		X		
<SPAN>	Span	X			
<STRIKE>	Strike		X		
<STRONG>	Strong		X		
<STYLE>	Style			X	
<SUB>	Subscript		X		
<SUP>	Superscript		X		
<TABLE>	Table				X
<TD>	Table data	X			
<TEXTAREA>	Form text area			X	
<TH>	Table header	X			
<TITLE>	Title	X			
<TR>	Table row	X			
<TT>	Teletype		X		
<U>	Underline	X*			
<UL>	Unordered list			X	
<VAR>	Variable		X		
<WBR>	Word break			X	

*The 6400 devices do not support the bold <B> tag. The JANUS devices do not support bold <B>, emphasized <EM>, and underline <U> tags. Emphasized displays as inverse text.

Special HTML Tags

This section describes HTML tags with special attributes or notes that are particular to using these tags with dcBrowser. For a complete description of HTML tags, see an HTML reference manual.

Anchor

Syntax: `<A>...</A>`

Attributes: href

Special Attributes: key= Assigns a function key to the anchor when links are enabled. Using this attribute overrides the default function key assignments.

Notes: To use the href attribute, you must enable the links feature. When links are enabled, the dcBrowser gateway maps the first ten anchor tags in a Web page to the device's function keys in the order that they appear (on the 502X, the dcBrowser gateway maps the first 12 anchor tags, mapping the last two to M1 and M2). On the device, the user sees the function key (e.g., F1), a greater-than sign (>), and the link. The user presses the appropriate function key to jump to the link.

Only http links are supported.

Example:

```
<A HREF="HELP.HTM" KEY="F5">HELP</A>
```

If you press **F5**, the Web server finds the HELP.HTM file, and the device displays the help Web page.

Beep

Syntax: <BEEP>

Attributes: repeat= Sets the number of beeps. The default number of repeats is 0. The valid range for repeats is 0 to 32,767.

Notes: To set the beep volume and frequency, see the user's manual for your device.

Example: <BEEP REPEAT=3>

The device beeps three times.

Headings

Syntax:

```
<H1>…</H1>
<H2>…</H2>
<H3>…</H3>
<H4>…</H4>
<H5>…</H5>
<H6>…</H6>
```

Notes: <H1> is centered in uppercase letters with a blank line before and after the heading.

<H2> is left-justified with a blank line before and after the heading.

<H3> is left-justified in uppercase with a two-character indentation and a blank line before the heading.

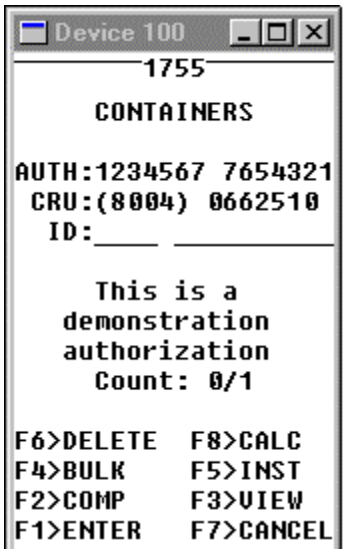
<H4> is left-justified with a four-character indentation and a blank line before the heading.

<H5> is left-justified with a six-character indentation and a blank line before the heading.

<H6> is left-justified with an eight-character indentation and a blank line before the heading.

Headings (continued)

Example: `<H1>containers</H1>`



The device displays "containers" in uppercase letters with a blank line before and after the heading.

Image

Syntax: `<IMG>`

Attributes: alt

Notes: Since some device's screens cannot render graphics, dcBrowser displays the alt text.

Image (continued)

Example:

```
<IMG SRC="TRIANGLE.GIF" ALT="*">1998 Player Roster
```

The device displays the asterisk (*) instead of the TRIANGLE.GIF graphic.

Input

Syntax:

```
<INPUT TYPE=>
```

Attributes:

hidden
int
password
reset
submit
text

Special Attributes:

cursor	Positions the cursor in the last field containing the cursor attribute.
transmit	Creates an input field that is automatically submitted when it is filled with bar code data from the scanner. For more information, see "Using Auto-Transmit Fields" later in this chapter.
key=	Assigns a function key to be associated with the input type when links are enabled. Using this attribute overrides the default function key assignments.
scanonly	Accepts only scanner input for the field.

Input (continued)

dti_capture=	Puts data in a field based on data type identifier. If a field is tagged to accept only scanned data with a certain set of leading characters, the data is routed to that field when you scan the bar code even if the cursor is not in that field.
dti_strip	Removes the data type identifier identified by the dti_capture from the scanned bar code.
noscan	Disables scanned input for the field. This field accepts input from the device's keypad.

Notes: Use the value attribute to set a default value for the input field that is specified by the name attribute.

The input field cannot extend beyond the right edge of the device's screen. dcBrowser does not support viewporting.

The `MAXLENGTH` field supports scrolling fields. You can set `MAXLENGTH` to any number, but only the number set as `SIZE` will show at a time.

Example:

```
<INPUT TYPE="text" NAME=Birthday SIZE=8 MAXLENGTH=8 TRANSMIT>
```

When you scan bar code data into the B-DAY field, the device automatically sends the screen data to the Web server.

Meta

Syntax: `<META>`

Special Attributes: id= Sets the identification that appears in the dcBrowser gateway configuration screen in the Custom ID column. You can use this identification to identify a specific relationship between that device and the server. The identification can be any alphanumeric and special characters.

Notes: You must set the SHOW_USERID parameter in DCB.INI. For help, see the online help for the dcBrowser gateway.

Paragraph

Syntax: `<P>`

Attributes: None.

Notes: The dcBrowser gateway puts a blank line before a paragraph and left justifies the paragraph.

Multiple paragraph tags have no cumulative effect.

Print

Syntax: `<ITCPRINT>...</ITCPRINT>`

Special Attributes:

baud= Sets the baud rate on the device to allowed values, for example 9600. For valid baud rates, see the user's manual for your device.

data= Sets the data bits to 7 or 8. If this attribute is not used, the data bits are set to 8.

flow= Sets the flow control. Valid values are:

- D DSR with XON/XOFF
- X XON/XOFF
- N None (default)

message= Defines the message displayed on the device screen while printing. Use HTML code for non-alphanumeric characters. The default message is "RS-232 PORT IN USE PLEASE WAIT."

parity= Sets the parity. Valid values are:

- O Odd
- E Even
- N None (default)

stop= Sets the stop bits to 1 or 2. The default is 1.

Print (continued)

wait= Causes wait for clear to send (CTS). Use this attribute when communicating with a modem. The default is no wait. You can set the device to wait from 00 to 99 seconds.

Note: Use the Print tag to pass control and data messages from the Web server to a printer attached to the COM port of a Trakker Antares terminal running the dcBrowser client. Check with your Intermec sales representative for the availability of the Print feature with other products.

For the Print tag, you must have a printer connected to the serial port of your device. For more information, contact your Intermec sales representative.

The device will send whatever is between the Print tags to the printer (see the example).

Example:

```
<ITCPRINT>Company Name for Label Heading</ITCPRINT>
```

The printer attached to the device prints "Company Name for Label Heading."

Table

Syntax: `<TABLE>…</TABLE>`

Attributes: border

Special Attributes:

scrollable= Determines how many table rows (<TR>) are displayed on the device's screen at a time. If the table contains more rows than this setting, you need to decide how a user will scroll through the rows.

up= If links are enabled, this attribute assigns a function key to be associated with scrolling to the previous section of the table.

down= If links are enabled, this attribute assigns a function key to be associated with scrolling to the next section of the table.

Notes: If you have a scrollable table and links are disabled, **F5** is hard-coded to scroll to the previous section of the table and **F6** is hard-coded to scroll to the next screen. You must add HTML tags to your Web page to provide this information for your user.

The width of a column in a table is the size of the largest cell in the column. This includes the <TH> tag.

Column data is flattened to a single row. That is, data does not wrap within a column cell. The cell width is widened to accommodate the data.

Rows are automatically wrapped.

Using the break tag
 in a table tag has no effect.

Table (continued)

Example:

```
<TABLE BORDER SCROLLABLE=6 UP="F5" DOWN="F6">
<TR><TD ALIGN=LEFT>QB<TD>Moon
<TR><TD ALIGN=LEFT>QB<TD>McNair
<TR><TD ALIGN=LEFT>RB<TD>Bettis
<TR><TD ALIGN=LEFT>RB<TD>Bennett
<TR><TD ALIGN=LEFT>WR<TD>Thigpen
<TR><TD ALIGN=LEFT>WR<TD>Johnson
<TR><TD ALIGN=LEFT>TE<TD>Sharpe
<TR><TD ALIGN=LEFT>K<TD>Stoyanovich
<TR><TD ALIGN=LEFT>D<TD>Giants
<TR><TD ALIGN=LEFT>WR<TD>Reed
<TR><TD ALIGN=LEFT>RB<TD>Dunn
<TR><TD ALIGN=LEFT>RB<TD>Levens
</TABLE>
```

Since the scrollable attribute is set to 6, the device only displays the first six lines of the table. If you press **F6**, the next lines appear.

Example Web Page and HTML Code

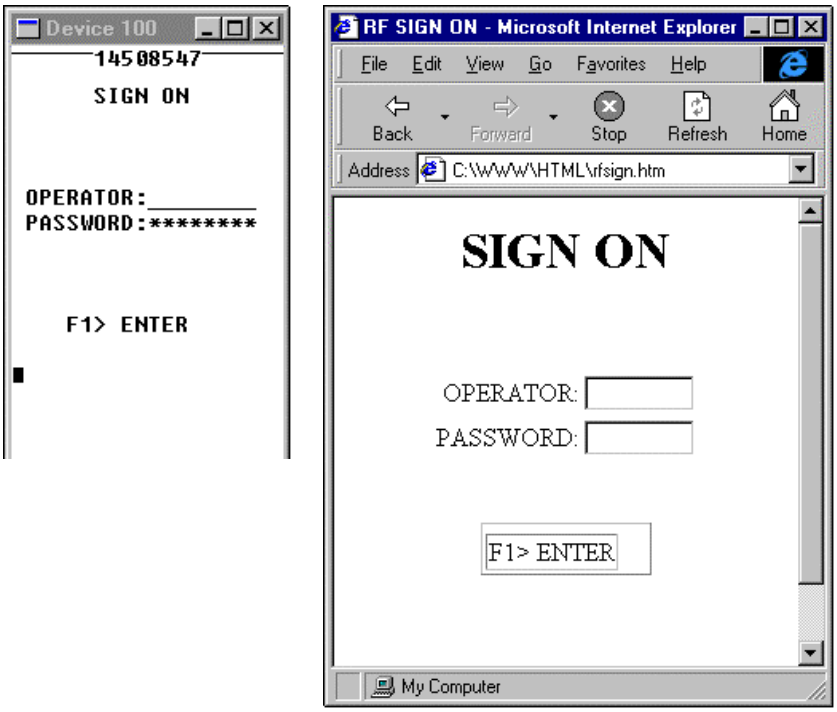
The RFSIGN.HTM file contains the HTML code for the home page of the sample application. This table shows two different ways that you can see the home page. If you run the sample application using the simulator, the simulator will display a Web page similar to the screen on the left. If you use a Web browser to open the RFSIGN.HTM file, your browser will display a Web page similar to the screen on the right.

To set up the sample application and Web pages

1. Copy the .EXE files from the \INTERMEC\DCBROWSER\EXAMPLES\CGI_BASED\CGI\BIN directory to the CGI-BIN directory for your Web server.

2. Copy the .HTM files from the \INTERMEC\DCBROWSER\EXAMPLES\CGI_BASED\HTML directory to the HTML directory for your Web server.

Simulator **Web Browser**



Note: To run the sample application, you must disable the links feature.

After you open the Web page, you can use either a text editor or a Web browser to view the HTML code. If you use a Web browser other than Internet Explorer or Netscape Communicator, see the documentation that came with your Web browser.

To use a text editor to view the HTML code

1. Choose Open from the File menu.
2. Go to the \INTERMEC\DCBROWSER\HTML directory, and then choose RFSIGN.HTM.
3. Click OK.

To use Internet Explorer to view the HTML code

- Choose Source from the View menu.

To use Netscape Communicator to view the HTML code

- Choose Page Source from the View menu.

The RFSIGN.HTM file is printed next.

RFSIGN.HTM

```
<HTML>
<HEAD>
<TITLE>RF SIGN ON</TITLE>
</HEAD>
<BODY>
<CENTER>
<H1>SIGN ON</H1>
<FORM METHOD=POST ACTION="/cgi-bin/cgi.exe">
<BR>
<BR>
<TABLE>
<TR ALIGN=LEFT>
<TD ALIGN=RIGHT>OPERATOR:
<TD ALIGN=LEFT><INPUT TYPE="text" NAME=UserID SIZE=8 MAXLENGTH=16>
<TR ALIGN=LEFT>
<TD ALIGN=RIGHT>PASSWORD:
<TD ALIGN=LEFT><INPUT TYPE="Password" NAME=Password SIZE=8 MAXLENGTH=16>
</TABLE>
<BR>
<BR>
<TABLE BORDER>
<TR>
<TD ALIGN=CENTER>
<TD ALIGN=CENTER>
<TD ALIGN=CENTER>
<TD ALIGN=CENTER>
<TR>
<TD ALIGN=CENTER>F1&gt ENTER
<TD ALIGN=CENTER>
<TD ALIGN=CENTER>
<TD ALIGN=CENTER>
</TABLE>
<INPUT TYPE="hidden" NAME="FormName" VALUE="RfSign.htm">
<INPUT TYPE="submit" NAME="Action" VALUE="F1">
<INPUT TYPE="submit" NAME="Action" VALUE="F2">
<INPUT TYPE="submit" NAME="Action" VALUE="F3">
<INPUT TYPE="submit" NAME="Action" VALUE="F4">
<BR>
<INPUT TYPE="submit" NAME="Action" VALUE="F5">
<INPUT TYPE="submit" NAME="Action" VALUE="F6">
<INPUT TYPE="reset"  NAME="Action" VALUE="F7">
<INPUT TYPE="submit" NAME="Action" VALUE="F8">
</CENTER>
```

RFSIGN.HTM (continued)

```
</FORM>
</BODY>
</HTML>
```

Advanced Features

This section explains some features of dcBrowser that may not be standard for HTML applications.

Using the Links Feature

When you enable the links feature, dcBrowser assigns the Enter key (EN>), and then it assigns function keys to anchor tags and input type="submit" tags. Up to ten function keys are assigned to links in the order they are encountered in the HTML file. Only http links are supported, and you can control the function that is assigned.

For example,

```
<INPUT TYPE="submit" VALUE="Help" NAME="HlpScrn1">
```

In a normal Web browser, a button that contains the name "Help" appears. When the user clicks this button, the form-processing sequence begins and the application tells the Web server HlpScrn1=Help. If you enable the links feature, the device displays a function key, a greater-than sign, and the value that is the name of the button in a normal Web browser:

```
F1>Help
```

When you press **F1**, the form-processing sequence begins, and the application tells the Web server that HlpScrn1=Help (just as it would if the anchor was selected with a mouse in a standard browser).

If you disable the links feature, the value is ignored, and the name is whichever function key was pressed. The application tells the Web server that Action=function key. That is, if you press **F1**, the application tells the Web server that Action=F1. The application handles function key responses.

Using Auto-Transmit Fields

dcBrowser supports using auto-transmit fields, and it supports using the scan-ahead and type-ahead features to enter data. Although not standard for HTML applications, these features are most useful for repetitive screens with long refresh rates, such as a timecard system in which people scan a badge as they walk through a door.

Scan-ahead and type-ahead are always available. While the device is waiting for a new screen, all scanned and keyed data is buffered. When the device receives a new screen with input fields, it applies the buffered data to the new screen. If an auto-transmit field is filled in before the end of the screen is reached, the screen is transmitted, and the remainder of the scan-ahead or type-ahead data waits for the next screen.

If the device receives a new screen that has no input fields, the device assumes that the screen is an error message. All scan-ahead data and type-ahead data are discarded.

Type-ahead can include the arrow keys and any of the alphanumeric keys, but it cannot include action keys such as a function key or the enter key.

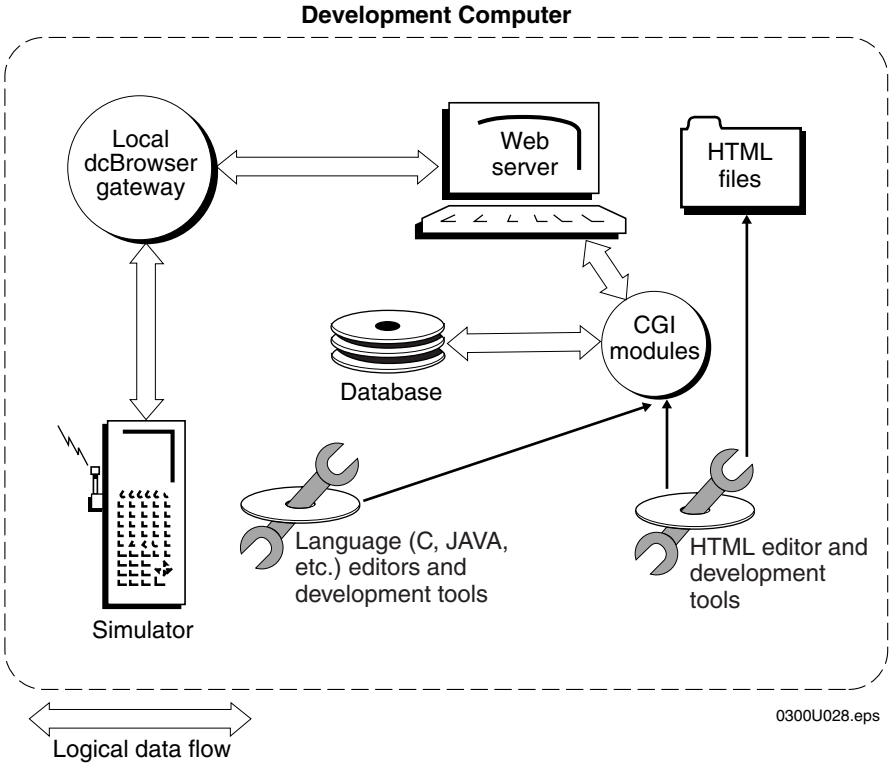
Note: Screens with input fields have no way to ensure that the scan-ahead data or type-ahead data is put in the correct field. The receiving application must validate the data.

About the Test/Software Only Gateway Environment

Use the test environment to simulate running your HTML application before you run it in your data collection network. You can run your application on your PC using the client simulator.

When you run the application on your PC, you are using three main parts: the Web server, the local dcBrowser gateway, and the client simulator. To set up this test environment, follow the guidelines in "Configuring the Test/Software Only Gateway Environment" later in this chapter.

Note: In the software only dcBrowser gateway environment, the test environment is the local dcBrowser gateway that you use on the Windows NT/2000/ME server. The server requires an additional license file. For help placing the license file and configuring the dcBrowser gateway, see the online help for the gateway.



Setting Up the Test/Software Only Gateway Environment

Use the test/software only gateway environment to simulate running the HTML application on your PC.

Minimum Requirements

- PC (not provided by Intermec)
  - Intel-based, Pentium
  - 32 MB RAM
  - 10 MB available hard disk space
  - Screen must use a VGA device
  - CD-ROM drive
  - Windows 95/98/NT/2000/ME
- Web server
- Web browser—Internet Explorer 4.0 or higher/Netscape Navigator 4.5 or higher (not provided by Intermec)
- dcBrowser simulator (on dcBrowser client CD)

Note: A free Web server is provided in INTERMEC\DCBROWSER\DEVTOOLS. Intermec does not provide product support for the server. For help installing the Web server, see the README.TXT.

To set up the test/software only gateway environment

1. Load a Web server and a Web browser on your PC. For help, see the documentation that came with your Web server and Web browser.
2. Load the dcBrowser simulator on your PC. For help, see "Installing the Client Environment and Simulator" later in this chapter. This manual assumes that you keep the default directory and directory structure.
3. Verify that your test environment works by running the sample application and Web pages. For help, see "Setting Up the Sample Application and Web Pages" later in this chapter.
4. Copy your application and Web pages to the appropriate directories on the Web server. For help, see "Testing Your Application" later in this chapter.

Installing the Client Environment and Simulator

The dcBrowser simulator ships on each dcBrowser client CD-ROM. You can also download the simulator from the Intermec Web site at www.intermec.com.

To load the simulator

1. Place the dcBrowser client CD into the CD-ROM drive on your Windows 95/98/NT/2000/ME computer.
2. If you have AutoPlay enabled for your CD player, the CD automatically opens and the dcBrowser Setup Launcher screen appears; otherwise, run SETUP.EXE on the top level of the CD. The Welcome screen appears.
3. Read the Welcome screen and click Next. The Software License Agreement screen appears.
4. Read the Intermec Software License Agreement and click Yes. The Choose Destination Location screen appears.
5. Choose the path where you want to install the simulator.

   The default directory is C:\INTERMEC. You can choose Browse to modify the default directory structure to meet your needs; however, Intermec recommends that you change only the drive letter, not the directory structure.
6. Click Next. The Setup Type screen appears.
7. Click Complete or Custom. Intermec recommends that you perform a complete setup. The Select Program Folder screen appears.

8. Choose the Program Folder.

   The default program folder is Intermec. You can select another folder into which you want to copy your program icons.

9. Click Next. The Start Copying Files screen appears.

10. Review the current settings and click Next.

    If you need to return to a previous screen to make changes, click Back.

11. Wait for the simulator to be installed on your PC. The Setup Complete screen appears.

When you restart your computer, a new program folder appears containing two icons: Run Simulator and Local dcBrowser Gateway. During installation, the files are loaded into a directory tree as shown next:

```
INTERMEC
  |-DCBROWSER
  |     |-CLIENT
  |         |-JANUS
  |         |-TRAKKER
  |         |-I5020
  |         |-I6400
  |         |-I700
  |     |-DEV TOOLS
  |     |-GATEWAY DOCS
  |     |-DOCS
  |     |-EXAMPLES
  |         |-ASP
  |         |-CGI_BASED
  |         |-SIMPLE
  |     |-GATEWAY
  |-TOOLS
      |-FILECOPY
      |-JANUSIMAGEMANAGER
```

Running Multiple Copies of the Simulator (Optional)

If you want to run a loopback test with many end devices or have the simulator connect to a dcBrowser gateway that is not on the same PC as the simulator, you can set up multiple copies of the simulator.

Note: Only the first copy of the simulator is associated with the function keys.

To set up the simulator to run multiple copies

- From a DOS prompt, type `-hx.x.x.x -pport -isimid -l` and press **Enter**.

  where:

  x.x.x.x is the IP address for the PC running the dcBrowser gateway, where *x* is a value from 0 to 255.

  port is the port number the gateway is communicating through. The default is 4060. Only change the port number if you change the DCS_PORT parameter in the DCB.INI file. For more information about the DCB.INI file, see the online help for the dcBrowser gateway for NT.

  simid is a unique ASCII string that identifies the simulator copy.

  -l starts the loopback test.

Setting Up the Sample Application and Web Pages (Optional)

When you load the simulator, a sample application and Web pages are also loaded. Before you run your application and Web pages in the test environment, test your test environment using the sample application and Web pages.

To set up the sample application and Web pages

1. Copy the .EXE files from the \INTERMEC\DCBROWSER\EXAMPLES\CGI_BASED\CGI\BIN directory to the CGI-BIN directory for your Web server.

   Note: If you use a Microsoft Web server, you may need to create a virtual CGI-BIN that points to the directory where the files are installed. Make sure to choose the Execute check box when configuring that directory.

2. Copy the .HTM files from the \INTERMEC\DCBROWSER\EXAMPLES\CGI_BASED\HTML directory to the HTML directory for your Web server.
3. Start your Web server.
4. Start the Local dcBrowser Gateway. A DOS window appears.
5. Start your Web browser.

Configuring the Test/Software Only Gateway Environment

Test your application and Web pages the same way that you set up the sample application and Web pages.

To run your application

1. Copy your .EXE files to the CGI-BIN directory for your Web server.

Note: If you put your CGI scripts in a different directory than CGI-BIN, you may need to modify your HTM files to tell them where to look for the CGI scripts.

2. Copy your .HTM files to the HTML or home directory for your Web server.
3. Start your Web server.
4. Start the local dcBrowser gateway. For help starting the local dcBrowser gateway, see the online help for the DCS 30X or for the software only dcBrowser gateway. A DOS window appears.
5. Configure the local dcBrowser gateway. For help, see "Configuring the Local dcBrowser Gateway" in the next section.
6. A simulator window appears. Press **Ctrl**-**F1** to change the screen size.

Configuring the Local dcBrowser Gateway

When you configure the local dcBrowser gateway, you must define Device 0, which is the default configuration. Any devices that communicate with the same Web server and require the same home page do not need a unique configuration. When a device connects to the gateway and it doesn't have its own configuration (as determined by the device's IP address), the gateway assigns it a new device ID and uses the Device 0 configuration. This device ID and configuration appear in the dcBrowser Device Mapping Configuration table. An asterisk by the device number indicates that this device uses the Device 0 configuration. After you start the simulator in a test environment with no unique device configurations, a device with IP address 127.0.0.1 appears in the table.

You must create a unique configuration for any devices that do not communicate with the host defined for Device 0 or that need a home page different from Device 0. Assign the device a unique device number, and then fill in the rest of the fields. The device number and configuration for this device appear in the dcBrowser Device Mapping Configuration table. No asterisk appears by the device number.

To configure the local dcBrowser gateway for the default configuration

Note: If you access the Internet by using a proxy server, you must add 127.0.0.1 to your Exceptions list. The Exceptions list contains the addresses that you do not want to use with a proxy server.

1. Start the Web browser.
2. In the Address line or the Go to line, type:

   ```
   http://127.0.0.1:4050
   ```

   The dcBrowser Device Mapping Configuration screen appears.
3. In the table below the configuration screen, click 0. The Device 0 information appears in the configuration screen fields.
4. In the Host IP:Port field, enter the IP address and port of the Web server. If the Web server is on the same PC as the simulator, type:

   ```
   127.0.0.1:80
   ```
5. In the Home Page field, enter the name of the Web page that the Web server sends to the device when the device is turned on.
6. Enable or disable the Links, Post Device ID, and Lowercase parameters. For help, see the online help for the DCS 30X or for the software only dcBrowser gateway.
7. Click Update. Verify your changes to Device 0 in the table.
8. Click Save. Your changes are saved.

You can also edit a device configuration.

To change a device configuration

1. Click the device ID.
2. Change the configuration fields and runtime parameters.
3. Click Update. If the device ID had an asterisk after it indicating that it used the Device 0 configuration, the asterisk disappears.

Testing Your Application

1. Verify that the correct home page appears for each device.
2. Using the simulator, run the application. Make sure that the data the Web server returns is the data you expect.
3. Using the simulator, test the application for unexpected user input or keystrokes. Verify that appropriate error messages appear.

Setting Up the Runtime Environment

To set up the runtime environment for the DCS 30X, see the documentation that came with your DCS 30X. To set up the runtime environment for the software only dcBrowser gateway, see the online help.

3

Trakker Antares Terminals

This chapter explains how to determine if the dcBrowser client is loaded on your Trakker Antares terminal and how to load and run the dcBrowser client.

Overview

Use this chapter to

- verify that the dcBrowser client is loaded.
- load the dcBrowser client if it is not loaded.
- configure your Trakker Antares terminals.
- connect to the dcBrowser gateway.
- run the dcBrowser client.

Verifying the dcBrowser Client is Loaded

If your Trakker Antares TCP/IP or UDP Plus terminals came preloaded with the dcBrowser client, go to "Configuring Your Trakker Antares Terminals," later in this chapter.

To determine if you have the dcBrowser client loaded on your terminal

1. On your terminal, access the Trakker Antares 2400 Menu System by pressing f 2 4 8 or by scanning this bar code:

   Enter Test and Service Mode

   ..-.

Note: If your terminal has a Left Enter key, you must use it when entering the key sequences in Step 1; otherwise, just use the ↵ key.

2. Choose System Menu from the Main Menu, and then choose File Manager.
3. Select drive C and press ↵. A list of applications that are loaded on your terminal appears. Look through this list for DCBT24.BIN, which is the dcBrowser client filename.

If you have the dcBrowser client loaded on your terminal, go to "Configuring Your Trakker Antares Terminals," later in this chapter.

If you do not have the dcBrowser client loaded, go to the next section, "Loading the dcBrowser Client."

Loading the dcBrowser Client

This section explains how to load the dcBrowser client on your terminals. You can load the dcBrowser client on your terminals in one of the following four ways:

Note: Currently, you can use the DCS 300 to download the dcBrowser client only to your UDP Plus terminals.

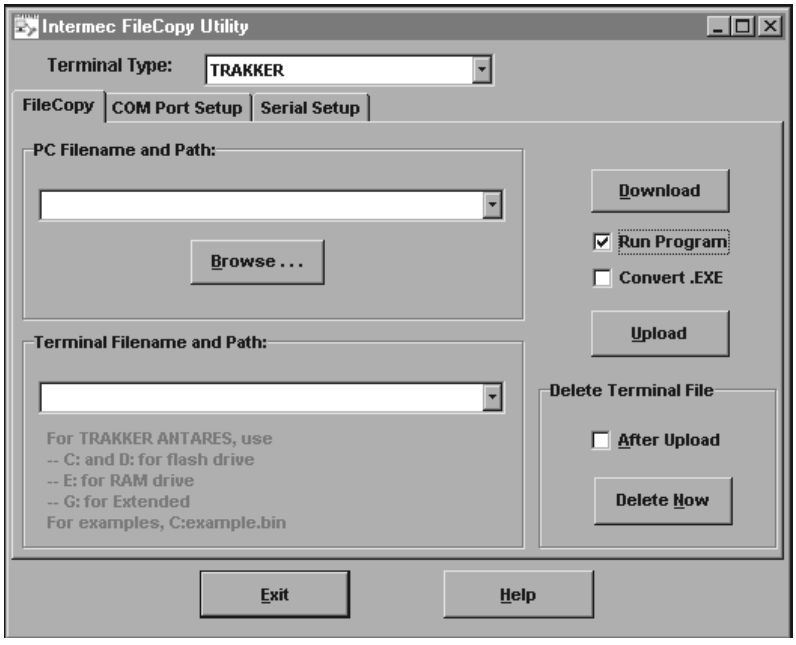
- Use the Windows-based FileCopy utility.
- Use the DOS utility, LOADER.EXE.
- Use the Receive File or Transmit File reader commands.
- Use a host application.

This section explains how to use the FileCopy utility. For help using LOADER.EXE, reader commands, or a host application, refer to your Trakker Antares terminal user's manual.

The FileCopy utility ships on the dcBrowser client CD. When you installed the simulator, this utility was loaded in the \INTERMEC\TOOLS\FILECOPY directory on your PC.

To load DCBT24.BIN on your terminals using the FileCopy utility

1. Connect the terminal to your PC. For help, see your Trakker Antares terminal user's manual.
2. Run FileCopy. The Intermec FileCopy Utility dialog box appears.



3. Click the Terminal Type field down arrow. A list of terminals that the FileCopy utility supports appears. Choose TRAKKER.
4. Check the COM port parameters and the serial parameters to verify that the settings for your PC match the values that are set for the terminal's serial port. The FileCopy online help contains detailed information about using the utility.

   Use the Trakker Antares 2400 Menu System to configure the serial port parameters on the terminal. For help, see the Trakker Antares terminal user's manual.
5. If you are in the Trakker Antares 2400 Menu System, exit the menu system.
6. Select the FileCopy tab.
7. In the PC filename and path box, type:

   `C:\INTERMEC\DCBROWSER\CLIENT\TRAKKER\DCBT24.BIN`
8. In the Terminal filename and path box, type:

   `C:DCBT24.BIN`
9. Choose Download.

The dcBrowser client is downloaded to your terminal.

Configuring Your Trakker Antares Terminals

Before the Trakker Antares terminal can communicate with the dcBrowser gateway, you must set the host IP address or the controller IP address to the dcBrowser gateway IP address. You must then set the network port to 4055 for TCP/IP terminals or 05555 for UDP Plus terminals.

To configure the network port

1. On your terminal, access the Trakker Antares 2400 Menu System by pressing f 2 4 8 or by scanning this bar code:

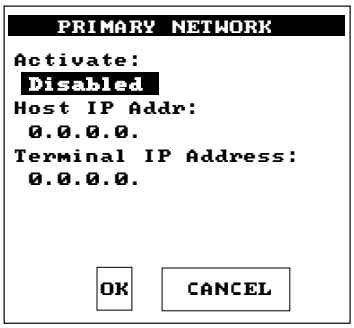
   Enter Test and Service Mode

   .-.

Note: If your terminal has a Left Enter key, you must use it when entering the key sequences in Step 1; otherwise, just use the ↵ key.

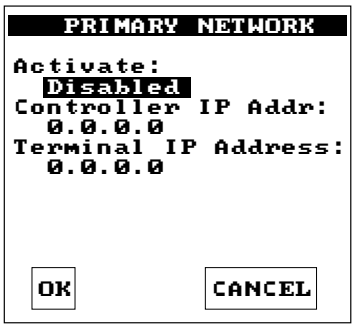
2. From the Main Menu, choose Configuration Menu, Communications Menu, and then Primary Network. The Primary Network screen appears.

TCP/IP



DCBG001.eps

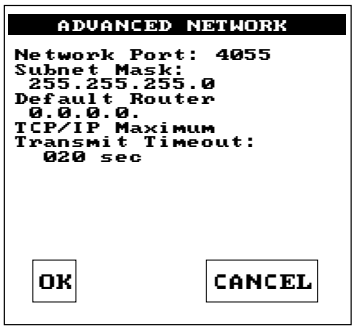
UDP Plus



DCBG001.eps

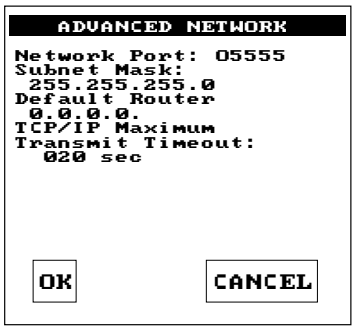
3. Set the Activate field to 2.4 GHz RF, Ethernet, or 802.11.
4. Set the Host IP Address field or the controller IP address to the dcBrowser gateway IP address.
5. Set the Terminal IP Address field to the IP address of the terminal and press ↵. The Communications menu appears.
6. Choose Advanced Network. The Advanced Network screen appears.

TCP/IP



DCBG004.eps

UDP Plus



DCBG003.eps

7. Set the Network Port field to 4055 for TCP/IP or 05555 for UDP Plus and press ↵. The Communications menu appears.

You may still need to configure your terminals to communicate with the access points. For help, see your terminal user's manual and your access point user's manual.

Connecting to the dcBrowser Gateway

After you start the Web server and the dcBrowser gateway, you can start running your HTML application on your devices.

To connect to the dcBrowser gateway

- Scan this bar code:

  Run Program C:DCBT24.BIN

  //C:DCBT24.BIN

Or,

1. On your terminal, access the Trakker Antares 2400 Menu System by pressing f 2 4 8 or by scanning this bar code:

   Enter Test and Service Mode

   ..-.

   Note: If your terminal has a Left Enter key, you must use it when entering the key sequences in Step 1; otherwise, just use the ↵ key.

2. From the Main Menu, choose System Menu, and then choose File Manager. The File Manager screen appears.
3. Select drive C and press ↵ . A list of applications that are loaded on your terminal appears.
4. Select DCBT24.BIN and press ↵ . The dcBrowser client starts and the terminal's home page appears.

The home page is the starting screen of the application. If you need to restart the home page or if communication between the client and the dcBrowser gateway is disconnected, press **Ctrl**-P to restart communications with the dcBrowser gateway, or to return to the home page.

Running the dcBrowser Client

When you are running your HTML application, follow these guidelines:

- Use the cursor keys or **Tab** key to navigate from field to field.
- Use the device's scanner and keyboard to enter data.

- Use auto-transmit fields to cause a screen to automatically transmit when data is scanned into a specific field. For help, see "Using Auto-Transmit Fields" in Chapter 2.
- Access the hypertext links by pressing the appropriate function key.
- Press **Ctrl-**P to restart communications with the dcBrowser gateway if you want to restart at the home page.

If you reboot the terminal, the terminal restarts the dcBrowser client when it finishes rebooting.

The following table lists special dcBrowser client key combinations that you may want to use while you are running your HTML application.

Client Keys	Description
Ctrl-C	Clear screen
Ctrl-D	Toggle Debug mode
Ctrl-P	Restart communications with dcBrowser gateway and return to home page
Ctrl-N	Ping the dcBrowser gateway
Ctrl-T	Toggle Timing mode
Ctrl-W	Refresh screen
Ctrl-◀	Decrease contrast
Ctrl-▶	Increase contrast
Ctrl-▲	Increase volume
Ctrl-▼	Decrease volume

4

JANUS Devices

This chapter explains how to determine if the dcBrowser client is loaded on your JANUS device and how to load and run the dcBrowser client.

Overview

Use this chapter to

- load the dcBrowser client.
- configure the dcBrowser client.
- connect to the dcBrowser gateway.
- run the dcBrowser client.

Note: JANUS 900 MHz and batch devices do not support dcBrowser. JANUS UDP Plus devices do not support dcBrowser.

Loading and Configuring the dcBrowser Client

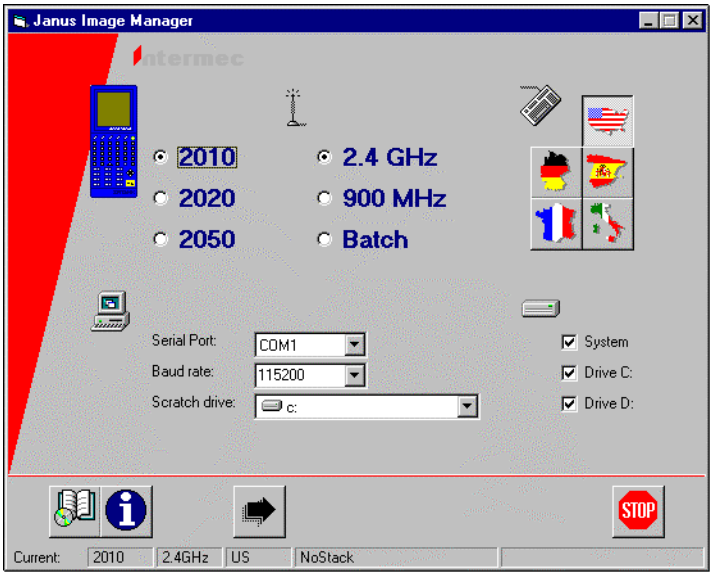
This section explains how to load the dcBrowser client (DCBJ24T.EXE) on your JANUS devices using the JANUS Image Manager utility, which ships on the dcBrowser client CD. When you installed the simulator, this utility loaded in the \INTERMEC\TOOLS\JANUSIMAGEMANAGER directory on your PC. For help using this utility, see the online help.

To load the dcBrowser client on your JANUS device, you must use the JANUS Image Manager utility v1.71 or later, and you must have a disk with FTP PC/TCP v5.0.

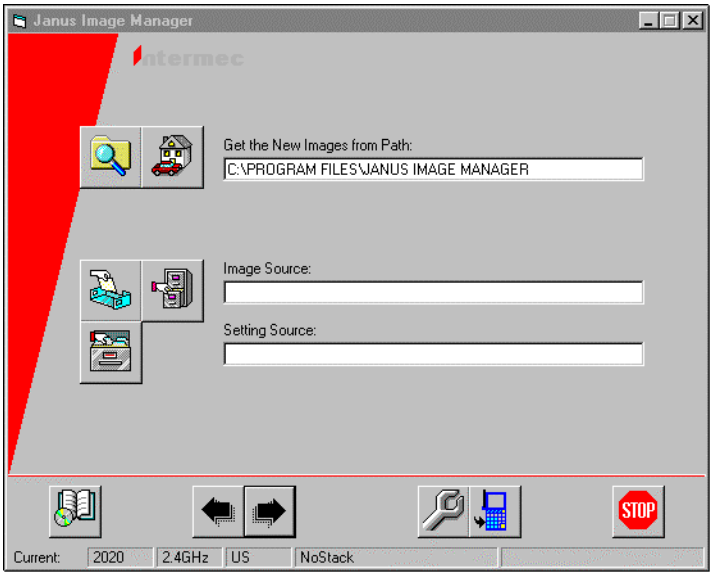
To load DCBJ24T.EXE on your devices

1. Connect the JANUS device to your PC. For help, see your JANUS device user's manual.
2. On the PC, start the JANUS Image Manager utility. The Device Selection dialog box appears.

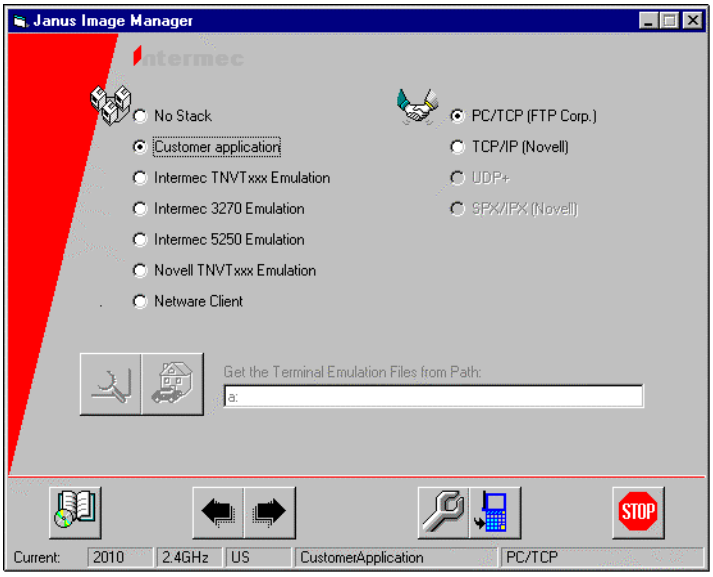
The Device Selection Dialog Box



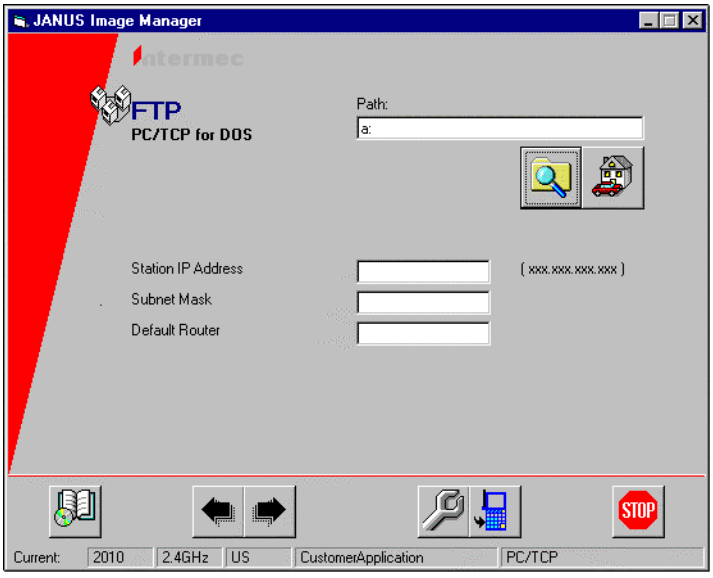
3. Choose the JANUS device that you connected to your PC, and then choose 2.4 GHz.
4. Fill in the rest of the fields, and then choose the right arrow. The Load Images dialog box appears.



5. Fill in the fields, and then choose the right arrow. The Network and Protocol dialog box appears.

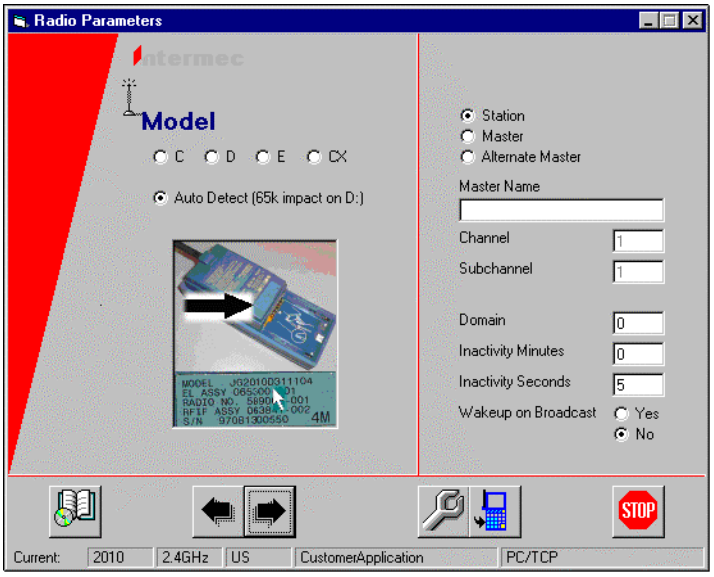


6. Choose Customer application and PC/TCP (FTP Corp.), and then choose the right arrow. The FTP PC/TCP Options dialog box appears.

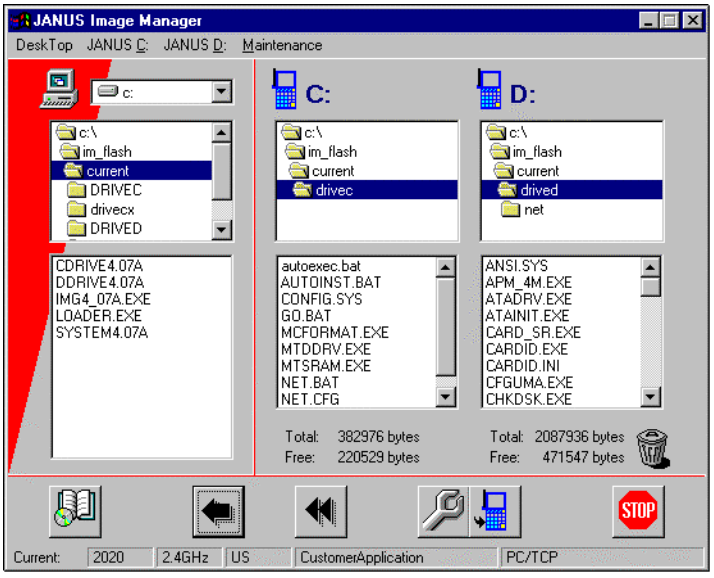


7. Insert the FTP PC/TCP v5.0 disk in the disk drive. Enter the path name in the PC/TCP for DOS field.

8. Fill in the rest of the fields and choose the right arrow. The Radio Parameters dialog box appears.



9. Fill in the fields and choose the right arrow. The Manager Images dialog box appears.



10. In the first PC column, click the directory that contains the DCBJ24T.EXE file. The default directory is \INTERMEC\DCBROWSER\CLIENT\JANUSTCP.
11. Copy the DCBJ24T.EXE file to the middle JANUS C: column.

12. In the JANUS C: column, double-click AUTOEXEC.BAT. A text editor opens the AUTOEXEC.BAT file.
13. Find and delete these two lines:

    ```
    IF EXIST APP.BAT CALL APP.BAT
    IF EXIST UNNET.BAT CALL UNNET.BAT
    ```

    You can also add a REM before each of these lines rather than delete them.
14. Choose the Make, Save, and Load icon (JANUS device). The new image with the dcBrowser client is downloaded to your JANUS device.

You do not need to configure the JANUS device for the host IP address or the network port. You can define these parameters when you run the application, or you can create a batch file that automatically runs the dcBrowser client. You add this batch file to the JANUS C drive.

The following example also frees up space on the JANUS C drive by unloading the reader wedge TSR.

Example Batch File

```
rwtsr
dcbj24t dcbrowsergatewayIP 4055
rwtsr -d
```

where *dcbrowsergatewayIP* is the dcBrowser gateway IP address.

Connecting to the dcBrowser Gateway

- From the command line, type:

  `DCBJ24T dcbrowsergatewayIP 4055`

  where *dcbrowsergatewayIP* is the DCS 30X or dcBrowser gateway IP address. The device's home page appears. The home page is the starting screen of the application. If you need to restart the home page or if communication between the client and the dcBrowser gateway is disconnected, press Alt-P to restart communications with the dcBrowser gateway.

Running the dcBrowser Client

When you are running your HTML application, follow these guidelines:

- Use the cursor keys to navigate from field to field.
- Use the device's scanner or keyboard to enter data.
- Use auto-transmit fields with scan-ahead data and type-ahead data. For help, see "Using Auto-Transmit Fields" in Chapter 2.
- Access the hypertext links by pressing the appropriate function key.
- Press Alt-P to restart communications with the dcBrowser gateway if your device has been inactive for a period of time.

If you reboot the device, the device restarts the dcBrowser client when it finishes rebooting.

This table lists special dcBrowser client key combinations that you may want to use while you are running your HTML application.

Client Keys	Description
Ctrl-C	Clear screen
Ctrl-D	Toggle Debug mode
Alt-P	Restart communications with dcBrowser gateway
Ctrl-N	Ping the dcBrowser gateway
Ctrl-T	Toggle Timing mode
Ctrl-W	Refresh screen
Ctrl-◀	Decrease contrast
Ctrl-▶	Increase contrast
Ctrl-▲	Increase volume
Ctrl-▼	Decrease volume

5

502X Data Collection PCs

This chapter explains how to load and run the dcBrowser client on your 502X Data Collection PC.

Overview

Use this chapter to

- install and configure the dcBrowser client.
- connect to the dcBrowser gateway.
- run the dcBrowser client.

Installing and Configuring the dcBrowser Client

You can use the Application Manager component of Unit Manager or ActiveSync to load the dcBrowser client on your 502X.

- Use File Manager to load applications on your 502X device over a network.
- Use ActiveSync to load applications on your 502X device. The first time you connect to ActiveSync, you must connect the 502X device to your PC's serial port and establish a connection. After the initial connection, you can connect to ActiveSync over the radio network. You can establish a serial link using an L502X Serial Communications Adapter, a D502X Serial Communications Dock, or a serial I/O card in the PC card slot.

For more information about Application Manager and ActiveSync, see the *502X Data Collection PC System Manual* (Part No. 071479).

To install the dcBrowser client on the 502X

1. Press ⊟, and then press 3 to open the Start menu.
2. Press ▲ or ▼ to highlight Run, and then press ⏎.
3. Select Browse, and then press ⏎.

Note: You can also choose to delete the CAB file as it is installed. Type `setup/d` *yourfile*.CAB in the Run dialog box, where *yourfile* is the name of the CAB file. Press ⏎. The application will be installed and the CAB file deleted.

4. Select the Windows list box.
5. Select the CAB file, and press ⏎.

The 502X system software automatically associates the CAB file with SETUP.EXE and installs the application. SETUP.EXE extracts the entire contents of the CAB file into the \SETUPMP directory. SETUP.EXE then uses the information in the INF file to copy files to their destinations, make registry changes, configure the application on the 502X, store the INF file in the application directory, and store the uninstall information in the registry.

Note: When you run SETUP.EXE, the contents of the CAB file are preserved. You can also use /D, /d, /delete, or /DELETE to remove the CAB file as the setup process progresses.

If the CAB file you are installing is very large or the available space on the 502X is limited, you may need to use the /DELETE option, which frees more program memory by reducing the size of the CAB file as application files are extracted.

IMPORTANT! SETUP.EXE writes status messages about the installation to the SETUP.LOG file. The SETUP.LOG is a text file located in the WINDOWS directory of the 502X. Errors or problems with the installation are not displayed on the 502X screen; only the messages in the SETUP.LOG indicate what has occurred.

To configure TCP/IP on the 502X

1. Run the Configuration application.
2. From the Network menu, choose Advanced, and ensure that UDP Plus is disabled.
3. Choose Radio, and give the 502X an IP address and subnet mask.

   If you have an 802.11B HR radio, give the network name under `NETWORK`.

   If you have a 2.4 GHz OpenAir radio, give a domain number and security ID number, if set.

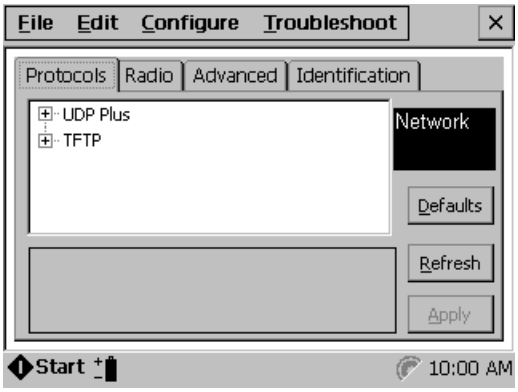
To start TCP/IP on the 502X

1. Start dcBrowser from the run menu or the desktop icon, if set.
2. To set the IP and port number of the dcBrowser gateway, press **Ctrl-F1** when the splash screen appears showing the title and version number.
3. Press **Enter** to save your configuration.

To configure UDP Plus on the 502X

1. Run the Configuration application.
2. Press Alt 9 to access the Configure menu.
3. Press ▼ to select Network, and then press . The Network configuration screen appears.

The 502X Network Configuration Screen



4. Select and enable UDP Plus, and configure any UDP Plus parameters. For help, see the *502X Data Collection PC System Manual*.
5. Press ▶ to expand the UDP Plus parameter list. For a definition of each parameter, see the *502X Data Collection PC System Manual*.
6. Set the Controller IP Address to the IP address of the DCS 30X or the dcBrowser gateway.
7. Select the Apply button, and then press ⬭ to save your changes.
8. Press Alt ⬭ 6 to exit the Configuration application.
9. Press ▼ to highlight Exit, and then press ⬭.
10. Warm boot the 502X to enable UDP Plus parameters. For help, see the *5020 Data Collection PC User's Manual* (Part No. 068975) or *5023 Data Collection PC User's Manual* (Part No. 070698).

After you have configured the 502X for a UDP Plus network, the ✣ icon appears and remains on in the Notification Tray indicating that the 502X is communicating with the dcBrowser gateway. If the icon appears, see the *5020 Data Collection PC User's Manual* or *5023 Data Collection PC User's Manual*.

Connecting to the dcBrowser Gateway

After you have loaded and configured the dcBrowser client on your 502X, change the following parameters in the INI file for the dcBrowser gateway:

Parameter	Change Value to
INPUT_HIGHLIGHT	INVERSE
ANCHOR_HIGHLIGHT	UNDERLINE
SUBMIT_HIGHLIGHT	UNDERLINE
TAB_TO_SUBMIT	TRUE
TAB_TO_ANCHOR	TRUE

For the software only dcBrowser gateway, the INI file is DCB.INI. For the dcBrowser on a DCS 30X, the INI file is WBS.INI.

To change the INI parameters

1. Open the INI file in a text editor such as Notepad.
2. Change the parameters to the required values.
3. Save the changes to the INI file.
4. Exit the text editor.

You are now ready to start the dcBrowser client and connect to the gateway.

To start the dcBrowser client on your 502X

- Choose Run from the Start menu.

If you installed the application using the CAB method, press **Ctrl**-**Esc** until the dcBrowser icon is highlighted, and then press **Enter**.

Running the dcBrowser Client

When you are running your HTML application, follow these guidelines:

- Use the cursor keys or **Tab** key to navigate from field to field.
- Use the device's scanner or keyboard to enter data.
- Use auto-transmit fields to simplify data input. For help, see "Using Auto-Transmit Fields" in Chapter 2.
- Press the appropriate function key to access the hypertext links or input buttons.
- Press **Ctrl**-P to return to the home page.

This table lists special dcBrowser client key combinations that you may want to use while you are running your HTML application.

Client Keys	Description
Ctrl-C	Clear screen
Ctrl-P	Restart communications with dcBrowser gateway
Ctrl-N	Ping the dcBrowser gateway
Ctrl-T	Toggle Timing mode
Ctrl-W	Refresh screen
Ctrl-▲	Increase volume
Ctrl-▼	Decrease volume
Ctrl-X	Exit the dcBrowser client

A configuration screen appears the first time you start the dcBrowser client. You can restart this configuration screen by pressing **Ctrl**-F1 at the splash screen.

6

RT1700 and 6400 Devices

This chapter explains how to load and run the dcBrowser client on your 6400 device and how to use dcBrowser with the RT1700.

Overview

Use this chapter to

- use the dcBrowser gateway on the RT1700.
- verify that the dcBrowser client is loaded.
- load the dcBrowser client if it is not loaded.
- start the dcBrowser client.
- run the dcBrowser client.

Note: You can use the 6400 with either TCP/IP or WTP. Each protocol uses an .EXE file and an .INI file. The .EXE file is identical for each protocol; however, the .INI file settings are different for each protocol. Instructions for changing the .INI file settings are included in this chapter.

Using the dcBrowser Gateway on the RT1700

To use RT1700 devices with the dcBrowser gateway, you must configure the RT1700.

To configure the RT1700 device

- Configure the RT1700 to run Native terminal emulation as described in the *RT1700 Radio Data Terminal User's Guide* (Part No. 961-047-068). You must configure the RT1700 as a WTP device in the DCS 30X.

The RT1700 does not support highlighting and tab to anchors.

Verifying the dcBrowser Client Is Loaded

If your 6400 came preloaded with the dcBrowser client, go to "Starting the dcBrowser Client" later in this chapter.

To determine if you have the dcBrowser client loaded on your 6400

1. Type `dir` at the DOS prompt. A list of the files loaded on your 6400 appears.
2. Look for the following two files:
   - N6400.EXE (the client program)
   - PSKNET.INI (the protocol parameter file)

If these files are not on your 6400, go to "Loading the dcBrowser Client" in the next section. If these files are on your 6400, go to "Starting the dcBrowser Client" later in this chapter.

Loading the dcBrowser Client

This section explains how to load the dcBrowser client on your 6400 device. You can load the dcBrowser client in one of the following ways:

- Use TFTP.
- Use Intersvr/Interlnk.
- Use the Windows-based FileCopy utility.

To use the dcBrowser client on the 6400, you must use one of the following two configurations:

1. A 6400 with the original terminal emulation that includes Native terminal emulation.

Note: Some dcBrowser client features are limited when used with this configuration, and if you have a WTP network, you will need to use a DCS 30X.

2. The TCP/IP bundle for either the WLI Forum OpenAir radio or 802.11b radio. You can order your 6400 to come with either configuration, or you can purchase the bundles separately and load them. For help loading the bundles, see the documentation that came with the bundle and the *6400 Hand-Held Computer User's Manual* (Part No. 961-047-093).

For the second configuration, you need to copy the files in the following table to drive C on the 6400. For a standard installation of the DCS 30X or software only dcBrowser gateway, the files are in INTERMEC\DCBROWSER\CLIENT\I6400.

File	Description
IMDCB.INI	This file provides commands needed to configure the scanner symbology. The file provides some example symbologies, but you can edit different symbologies using the reader configuration commands. For help using reader configuration commands, see the *6400 Application Development Tools System Manual* (Part No. 070130).
N6400.EXE	This file is the dcBrowser client for the 6400.
64SCN7A.EXE	This file is the utility for accessing the scanner and runs as a terminate-and-stay resident (TSR) program. If you use a scanner on the 6400, run this file before running N6400.EXE.

Required Files for the dcBrowser Client (continued)

File	Description
RL2PCM.COM	This file is a radio driver. If you are using OpenAir TCP/IP, copy this file to the 6400. After you reboot the 6400, this file automatically runs.
PSKNET.INI	This file defines the host IP address. You need to edit this file to point to the server running the dcBrowser gateway.
ITC64XFR.EXE	This file is a utility that you can use to transfer files without using Interlnk/Intersvr. You can use ITC64XFR.EXE in conjunction with FileCopy by setting up FileCopy to transfer a file using XMODEM 1K. In FileCopy, you must set the serial port to the following settings: • Baud rate = 19200 • Parity = None • Data bits = 8 • Stop bits = 1 • SOM = \x02 • EOM = \x03 • LRC = Disabled • Handshake = Disabled • Commands = Enabled, no TMF

Initially you can move these files to the 6400 using only TFTP or Interlnk/Intersvr. You can use FileCopy after you move ITC64XFR.EXE.

Setting the Network Configuration

Before you can run the dcBrowser client, you must set the 6400's network configuration using chgparms.

To set the network configuration using chgparms

1. At a DOS prompt on your 6400, type `chgparms` and press **Enter**. A menu appears. For help getting to a DOS prompt, see the *6400 Hand-Held Computer User's Guide*.
2. Choose 1 to set up the 6400's IP address and network configuration, which your network administrator provides. For more information about setting the 6400's IP address and network configuration, see the *6400 Hand-Held Computer User's Guide*.
3. Choose 4 to set up the access point security ID, which your network administrator provides. For more information on the access point's security ID, see the user's manual for the access point.

Transferring Files Using TFTP

Before you can transfer files using TFTP, you need to set up the device IP address and establish a radio connection. For help see the *6400 Hand-Held Computer User's Manual*. You can use TFTP with your 6400 on Windows 2000, Windows NT, and Windows XP.

To set up the 6400 for TFTP

- At a DOS prompt on the 6400, type `tftp serve` and press **Enter**.

To transfer files

1. Make sure you have the IP address for the 6400 and that the 6400 is communicating through an access point to your PC.
2. Start a DOS session on your PC.
3. Type `tftp -i` *`host`* `put` *`filename c`*`:\`*`filename`*

   where: -i — specifies binary image transfer mode (also called octet). In binary image transfer mode, the file is transferred byte by byte. Use this mode to transfer files.

   host — is the IP address for the 6400.

   put — indicates that the file is going to the 6400. To transfer files from the 6400 to the PC, replace `put` with `get`.

   filename — is the name of the file that you want to transfer.

   c — is the destination drive on the 6400.
4. Press **Enter**.

Transferring Files Using Interlnk/Intersvr

To transfer files using Interlnk/Intersvr, your PC must be running Interlnk, which is part of MS-DOS.

Note: Interlnk/Intersvr are not available in Windows NT and Windows 2000. Use TFTP to transfer files.

To transfer files

1. Load Interlnk as a device driver in your CONFIG.SYS file on the PC by inserting the following statement at the end of CONFIG.SYS:

   ```
   DEVICE=C:\DOS\INTERLNK.EXE /DRIVES:2
   ```

The previous statement assumes that MS-DOS is located in the C:\DOS directory on your PC. The `DRIVES:2` parameter allows mapping of two drives from the 6400.

2. Reboot the PC.
3. Connect the serial port on the 6400 to the serial port on the PC. For help, see the *6400 Hand-Held Computer User's Manual*.
4. Press **Ctrl-Alt-Del** on the 6400 and then press **Alt**. The boot selection menu appears.

Note: If **Ctrl-Alt-Del** does not boot the 6400, press **Enter-Enter-Blue Shift-Yellow Shift** at the same time.

5. Select 5. The 6400 boots to the DOS prompt.
6. At the DOS prompt on the PC, type `interlnk` and press **Enter**. The following chart appears:

```
C:\WIN>interlnk

Port=COM2

This Computer     Other Computer

(Client)             (Server)

--------------    ------------------------

  F:       equals     A:

  G:       equals     C:
```

7. Copy the files to Drive G.
8. Set the network configuration. For help, see "Setting the Network Configuration" earlier in this chapter.

Configuring the Host Connection

You configure the host connection in the PSKNET.INI file, which you download to the 6400. This file determines which protocol is used (WTP or TCP/IP) and the connection information for that protocol.

To edit PSKNET.INI

1. Complete the PSKNET.INI file for each 6400. A sample of the PSKNET.INI file is shown below.

For WTP

```
[net use]
loaded-wtp-stack = true
loaded-tcp-stack = false

[wtp addresses]
host-name = DCS1
domain-lanID = 2
terminal-number = 2

* do not change this value
```

For TCP/IP

```
[net use]
loaded-wtp-stack = false
loaded-tcp-stack = true

[pctcp addresses]
server-ip = IP of gateway
port-use = 4055*
```

Note: The PSKNET.INI file contains unique information for each 6400. You must complete the PSKNET.INI file for each 6400.

Set [net use] section to match the protocol you are using.

2. Set the [wtp addresses] or [pctcp addresses] section with the correct values for the system configuration.

Note: For WTP, the host-name and domain-lanID may be the same for several or all of the terminals in a configuration. The host-name is a unique name that you configure through your DCS 30X. The domain-lanID is a unique name that you configure through your access point software. Each device has a unique terminal number that corresponds to the device number on the dcBrowser Device Mapping Configuration screen. When configuring your devices, be sure to select WTP for the device connection type.

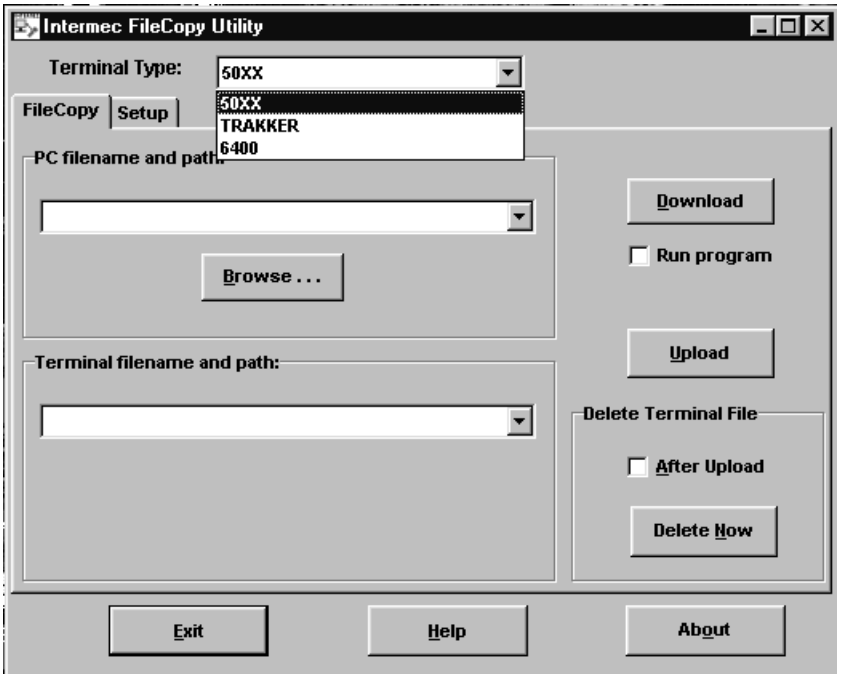
Transferring Files Using FileCopy

The FileCopy utility ships on the dcBrowser Client CD. When you installed the simulator, this utility was loaded in /INTERMEC/TOOLS/FILECOPY on your PC.

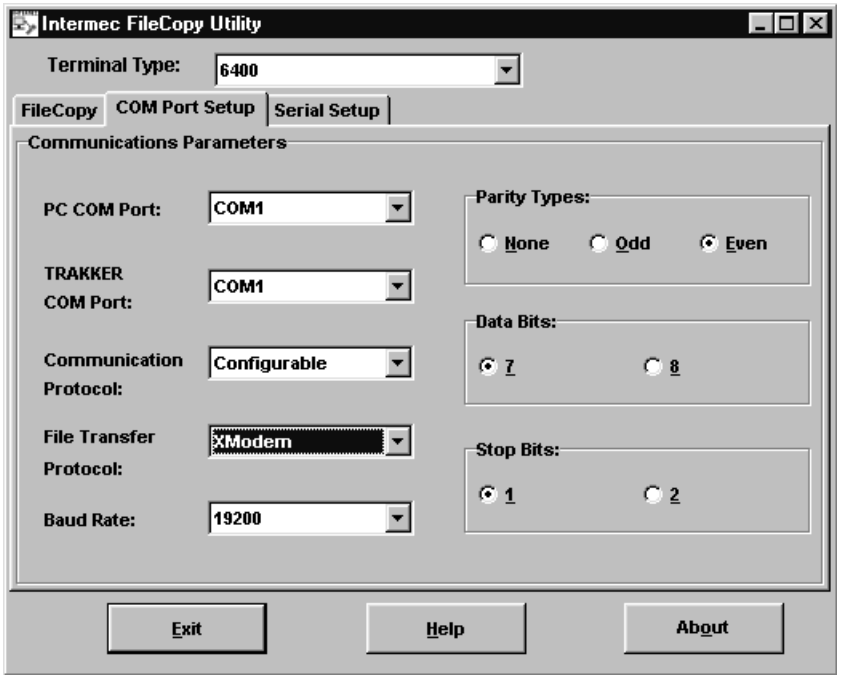
To load the dcBrowser client using FileCopy

1. On your PC, start FileCopy.
2. Click the down arrow for the Terminal Type field and select 6400.

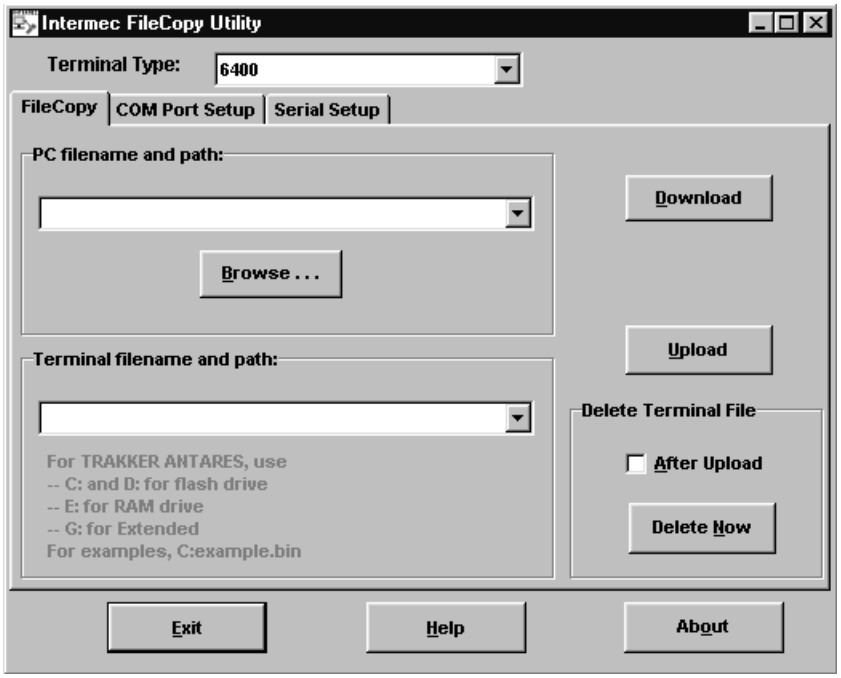
Terminal Type Field



3. Click the COM Port Setup tab.



4. Set the following port settings:
   - PC COM Port = the COM port that the 6400 is connected to
   - TRAKKER COM Port = COM1
   - Communication Protocol = Configurable
   - File Transfer Protocol = XMODEM
   - Baud Rate = 6400's baud rate. To set the 6400's baud rate, type `Mode Com1 Baud=`*`baudrate`* at the 6400's DOS prompt where *baudrate* is the new baud rate.
5. Click the FileCopy tab.



6. Under PC filename and path, click Browse and select the path to the N6400.EXE. For a standard installation, N6400.EXE should be in INTERMEC\DCBROWSER\CLIENT\I6400.
7. Under Terminal filename and path, type `c:\n6400.exe`.
8. Click Download.

   On the PC, a status window appears showing the progress of the transfer.

Starting the dcBrowser Client

After you have loaded and configured the dcBrowser client, you are ready to start the client.

To start the dcBrowser client on the 6400

1. Type `loadscan`. Two TSR programs run and then the DOS prompt returns.
2. Type `n6400`. The following text appears:

   ```
   Thin client for dcBrowser
   ```

   Then the Web page for the device appears.

Running the dcBrowser Client

When you are running your HTML application, follow these guidelines:

- Use the cursor keys to navigate from field to field.
- Use the device's scanner or keyboard to enter data.
- Use auto-transmit fields with scan-ahead data and type-ahead data. For help, see "Using Auto-Transmit Fields" in Chapter 2.
- Access the hypertext links by pressing the appropriate function key.
- Press and release **Ctrl**, and then press U to restart communications with the gateway if your device has been inactive for a period of time.

If you reboot the device, the device restarts the dcBrowser client when it finishes rebooting.

This table lists special dcBrowser client key combinations that you may want to use while you are running your HTML application.

Client Keys	Description
Ctrl-D	Toggle Debug mode
Ctrl-U	Restart communications with dcBrowser gateway
Ctrl-N	Ping the dcBrowser gateway
Ctrl-T	Toggle Timing mode
Ctrl-W	Refresh screen
Ctrl-X	Exits the dcBrowser client

7

700 Series Mobile Computer

This chapter explains how to load and run the dcBrowser client on your 700 Series Mobile Computer.

Overview

Use this chapter to

- configure and start the dcBrowser client.
- connect to the dcBrowser gateway.
- run the dcBrowser client.

Configuring and Starting the dcBrowser Client

You can use the Application Manager component of Unit Manager for PlanNET or ActiveSync to load the dcBrowser client on your 700.

- Use File Manager to load applications on your 700 over a network.
- Use ActiveSync to establish a serial connection between your desktop PC and a 700. You can establish a serial link using a 700 Series Single Dock, a serial cable, or an ActiveSync cable. For more information, contact your Intermec sales representative.

For more information about Application Manager, see the online help for Unit Manager for PlanNET. For more information about ActiveSync, see "Using ActiveSync" later in this chapter.

Note: If your 700 has firmware v1.05 or higher, you need to load ITC50.DLL along with the dcBrowser client. You can find this file on the dcBrowser CD in Intermec\dcBrowser\client\I700.

Before you can run the dcBrowser client, you need to configure TCP/IP on the 700. You also need to find the IP address and port number for the PC or DCS 30X that the dcBrowser gateway is running on.

To configure TCP/IP on the 700

1. From the Start menu, select Settings. The Control Panel appears.
2. Tap the Connections tab.
3. Tap Network.
4. Under Adapters installed, tap the Ethernet card driver you are using for your network.
5. If you are using a dynamic host configuration protocol (DHCP) server, select Use server-assigned IP address.

If you are not using a DHCP server, select Use specific IP address and enter the IP address, subnet mask, and default gateway for your 700. Your network administrator should provide you with this information.

6. Tap OK. A message appears; tap OK.
7. Tap the System tab and tap Wireless Network.
8. Choose Access Point and tap Edit Profile.
9. In the Network Name field, enter the network name.
10. Tap OK twice.
11. To exit the Control Panel, select another application from the Start menu.

To start dcBrowser for the first time on the 700

1. From the Start menu, select dcb700. A splash screen appears showing the dcBrowser title and version number.
2. To set the IP and port number of the dcBrowser gateway, tap (Press Here for Setup).
3. Press **Enter** to save your configuration.

Using ActiveSync

You can use ActiveSync to establish a connection between your desktop PC and a 700 for file viewing and synchronization, remote debugging, and other device management activities.

Caution
The 700 should be powered by an AC power source when you use ActiveSync.

Conseil
Il faut alimenter le 700 par une source de courant AC lors de l'exécution du ActiveSync.

When you perform a cold boot, you lose the configuration settings that enable a connection to ActiveSync. IrDA, RF, or Ethernet settings remain after a cold boot.

Installing ActiveSync

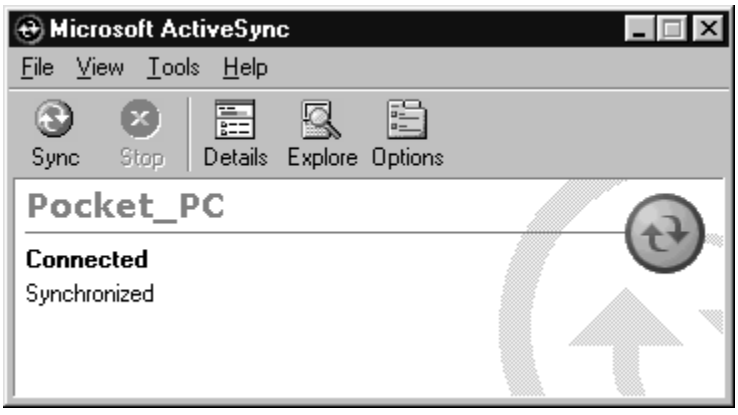
Instructions for using ActiveSync are provided with the product. ActiveSync can be downloaded from the Microsoft Web site at www.microsoft.com/mobile/pocketpc /default.asp.

To establish a partnership between a 700 and a desktop PC, you must use a serial cable, an ActiveSync cable, or a 700 Series Single Dock. To order a cable or dock, contact your Intermec sales representative.

To install ActiveSync and establish a partnership with your 700

1. Connect the 700 to your desktop PC using a serial cable, an ActiveSync cable, or a 700 Series Single Dock. For help, see the documentation that came with your cable or dock.
2. Download ActiveSync from the Microsoft Web site and follow the onscreen instructions for installing it on your desktop PC. When this process is complete, the Get Connected dialog box appears.

3. Select the Next button on the desktop PC. The 700 should shortly be communicating with your desktop PC. Follow the onscreen instructions for establishing a partnership. When the partnership has been established, the device name of your 700 appears in the ActiveSync window on your desktop PC:



Now that the partnership has been established, all future connects and disconnects will be handled through ActiveSync.

Note: On the 700, PC Connection sets a baud rate of 19200 when first establishing an ActiveSync partnership. If you change the 700 baud rate setting after a partnership has been established, it may take several connection attempts before ActiveSync can automatically match the desktop PC to the new baud rate. After the connection is made at the new baud rate, this becomes the default ActiveSync baud rate.

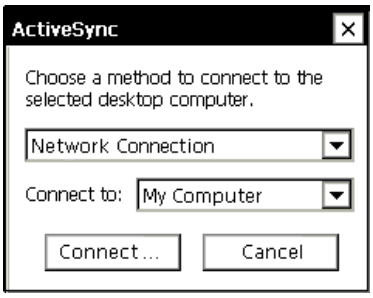
Reconnecting to Your Desktop PC

After you have created a partnership using ActiveSync, use it to re-establish the connection between the 700 and your desktop PC.

To reconnect a 700 to a desktop PC using ActiveSync

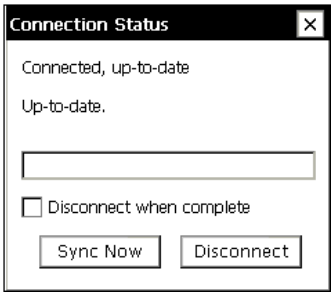
1. If you are using a batch 700, connect it to your desktop PC through a serial cable, an ActiveSync cable, or a 700 Series Single Dock. If ActiveSync is set to automatically connect with devices, the 700 immediately establishes a connection and the 700 ActiveSync window appears on your desktop PC.

   If you are using an RF 700, be sure it is within range of an access point.
2. From the Start menu, tap Programs and then Connections.
3. Tap ActiveSync. The ActiveSync dialog box appears.



4. Tap the down arrow by the Method field and choose a connection method:
   - Choose Infrared if you are using the IrDA port.
   - Choose Network Connection if you are using a radio.
   - Choose one of the default baud rates to connect serially. Choose the baud rate that your desktop PC uses.
5. Tap the down arrow by the Connect to field and choose your desktop PC or another device with which you want to establish the connection.

6. Tap Connect. The Connecting to Desktop message box appears. When ActiveSync has established the connection, the Connection Status dialog box appears.



To disconnect a 700 using ActiveSync

- Tap Disconnect in the Connection Status dialog box. The 700 disconnects itself from the desktop PC and closes the Connection Status dialog box.

Connecting to the dcBrowser Gateway

After you have loaded and configured the dcBrowser client on your 700, change the following parameters in the INI file for the dcBrowser gateway:

Parameter	Change Value to
INPUT_HIGHLIGHT	INVERSE
ANCHOR_HIGHLIGHT	UNDERLINE
SUBMIT_HIGHLIGHT	UNDERLINE
TAB_TO_SUBMIT	TRUE
TAB_TO_ANCHOR	TRUE

For the software only dcBrowser gateway, the INI file is DCB.INI. For the dcBrowser on a DCS 30X, the INI file is WBS.INI.

To change the INI parameters

1. Open the INI file in a text editor such as Notepad.
2. Change the parameters to the required values.
3. Save the changes to the INI file.
4. Exit the text editor.

You are now ready to start the dcBrowser client and connect to the gateway.

To start the dcBrowser client on your 700

- From the Start menu, select dcb700.

Running the dcBrowser Client

Note: You need to use the soft keyboard for the key sequences that include the **Ctrl** key.

When you are running your HTML application, follow these guidelines:

- Use the cursor keys, **Tab** key, or stylus to navigate from field to field.
- Use the device's scanner or keyboard to enter data.
- Use auto-transmit fields to simplify data input. For help, see "Using Auto-Transmit Fields" in Chapter 2.
- Use the stylus to access the hypertext links or input buttons.
- Press **Ctrl**-P to return to the home page.

These tables list special dcBrowser client key combinations that you may want to use while you are running your HTML application.

The following table lists key combinations for the virtual keyboard.

Virtual Keys	Description
Ctrl-C	Clear screen
Ctrl-N	Ping the dcBrowser gateway
Ctrl-T	Toggle Timing mode
Ctrl-W	Refresh screen
Ctrl-▲	Increase volume
Ctrl-▼	Decrease volume

This table lists key combinations for keys on the 700.

Client Keys	Description
Gold-7	Restart communications with dcBrowser gateway
Gold-9	Exits the dcBrowser client

To open the IP configuration screen, tap "Press Here for Setup" only at the 700 splash screen.

8

Troubleshooting

This chapter describes solutions to some common problems. It also explains the diagnostics and how you can get help from Intermec Product Support.

Symptoms and Solutions

If you have problems running dcBrowser in your data collection network, look for your symptom in the table below, and then try the solutions in the order that they are listed. If your problem is not listed in the table, you can look at the diagnostics or refer to the Product Support Web page.

Symptom	Solution
From your device, you cannot connect to the DCS 30X.	View the current connections to be sure that you have a connection configured between the dcBrowser client and the dcBrowser gateway. Ping the DCS 30X. Make sure that you have configured the network port on the device to 4055 for TCP/IP or 05555 for UDP Plus. Make sure that you have correctly configured your RF network parameters on the device, access point, and DCS 30X. On the DCS 30X, access the command prompt. Ping the device IP address. If you are using a UDP Plus or WTP terminal, check your configurations and correct if necessary.
From your PC, you cannot connect to the DCS 30X.	You may access the Internet by using a proxy server. Make sure that you have added the DCS 30X IP address to your Exceptions list.
After you reboot the DCS 30X, the response time between the device and the Web server is slower than expected.	You can continue to send data from the device. The network will speed up in about 30 minutes. Stop the dcBrowser gateway. Start the dcBrowser gateway and then turn on ONE device. When the device's home page appears, then you can turn on the other devices.
UDP Plus device continually reboots.	Verify that dcBrowser gateway is running. Verify that the downline network is running. Verify that the device is configured in downline connections. Verify port number.
The dcBrowser gateway starts and then stops.	The dcBrowser gateway is already running as a service on the PC. Close one copy of the gateway.

Symptoms and Solutions (continued)

Symptom	Solution
You start the dcBrowser client for the device and "`Thin client for dcBrowser`" is not replaced by the device's Web page.	Use the `PING` command from the PC to verify that the device's radio is configured properly. If you have a 6400, verify that the host IP address is correct in PSKNET.INI. Verify that the dcBrowser gateway is running.
You start the dcBrowser client for the device and "`Thin client for dcBrowser`" is replaced by an error message.	Verify that the Web page is configured for the device. Verify that the DCS 30X is configured properly. After you change the DCS 30X configuration, you must save and reboot. For help, see the DCS 30X online help. Verify that your Web server is running. Verify that the host IP address has :80 at the end of it in the dcBrowser gateway configuration page.
The scanner in the 6400 is not working.	Verify that either 641223.EXE or 64SCN7B.EXE started on reboot in your AUTOEXEC.BAT. Ensure 64SCN7A.EXE was run before N6400.EXE and after the above listed files.

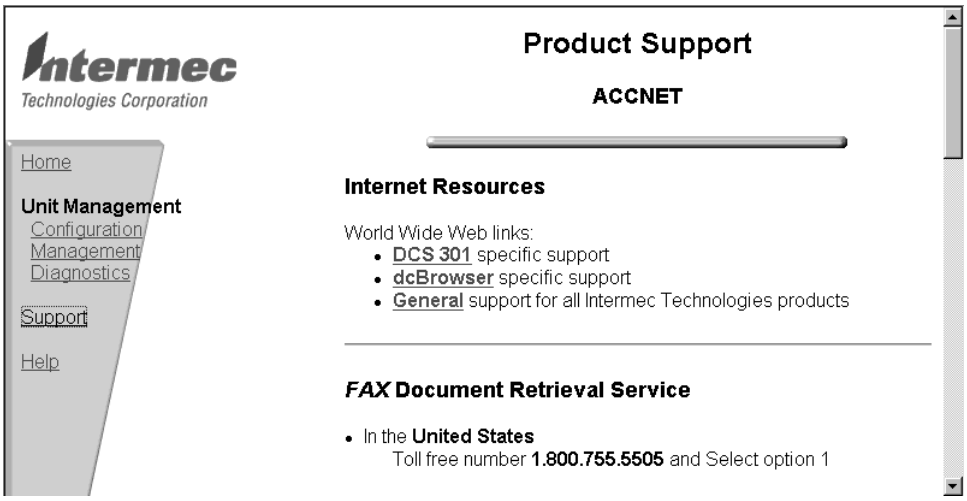
Using the Intermec Product Support Web Page

The Product Support page provides many ways to get help:

- Internet resources to link to the Product Support home page for the DCS 30X and other Intermec products.
- Fax document retrieval services to access many Intermec documents, frequently asked questions, and other literature at any time.
- Telephone number to contact Product Support if you are a U.S. customer.
- E-mail address and fax number to contact Product Support with a specific question using a new case form.

To access the Product Support page

- From the DCS 30X home page, click Support. The Product Support page appears.



For help filling out the new case form, see the online help.

A

ASCII to Hex Conversion

This appendix provides a table for converting ASCII characters to their hexadecimal values.

ASCII to Hex Conversion

Hex[1]	ASCII[2]	Hex[1]	ASCII[2]
00	NUL	20	SP[3]
01	SOH	21	!
02	STX	22	"
03	ETX	23	#
04	EOT	24	$
05	ENQ	25	%
06	ACK	26	&
07	BEL	27	'
08	BS	28	(
09	HT	29	)
0A	LF	2A	*
0B	VT	2B	+
0C	FF	2C	,
0D	CR	2D	-
0E	SO	2E	.
0F	SI	2F	/
10	DLE	30	0[4]
11	DC1	31	1[4]
12	DC2	32	2[4]
13	DC3	33	3[4]
14	DC4	34	4[4]
15	NAK	35	5[4]
16	SYN	36	6[4]
17	ETB	37	7[4]
18	CAN	38	8[4]
19	EM	39	9[4]
1A	SUB	3A	:
1B	ESC	3B	;
1C	FS	3C	<
1D	GS	3D	=
1E	RS	3E	>
1F	US	3F	?

ASCII to Hex Conversion Table (continued)

Hex[1]	ASCII[2]	Hex[1]	ASCII[2]
40	@	60	`
41	A	61	a
42	B	62	b
43	C	63	c
44	D	64	d
45	E	65	e
46	F	66	f
47	G	67	g
48	H	68	h
49	I	69	i
4A	J	6A	j
4B	K	6B	k
4C	L	6C	l
4D	M	6D	m
4E	N	6E	n
4F	O	6F	o
50	P	70	p
51	Q	71	q
52	R	72	r
53	S	73	s
54	T	74	t
55	U	75	u
56	V	76	v
57	W	77	w
58	X	78	x
59	Y	79	y
5A	Z	7A	z
5B	[	7B	{
5C	\	7C	|
5D	]	7D	}
5E	^	7E	~
5F	_		

1 This column lists the hexadecimal value.

2 This column lists the ASCII character.

3 SP is the SPACE character.

4 The Code 39 characters /P through /Y may be interchanged with the numbers 0 through 9.

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Data Collection Browser™ Client User's Guide

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