# WHITE PAPER

March 1997

Compaq Computer Corporation

# CONTENTS

Introduction	3
Document Conventions	3

#### System

Configuration	4
Hardware Requirements	
Software Requirements	5
Layout of Storage Partition	6

#### pcANYWHERE32

Configuration	. 7
Host Server	7
Remote Control Setup	13
Online Service Setup	17
Increasing Performance	20
Downloading Files	20
F10 Key	23

Remote Administration of System Partition Compaq System Partition Administrator	
Updating Utilities System Configuration Diagnostics Systems ROMPaq Options ROMPaq Array Configuration Drive Array Advanced Diagnostics	29 30 30 31 32
Running Utilities Remotely from System Partition Remote Connection to Remote Insight.	
Remote Administration of OS Utilities Compaq NT Software Support Disk Compaq Resource Kit for Microsoft Windows NT Windows NT Service Packs Windows NT Resource Kit	35 36 36



Doc Number 074A/0397

1

# Compaq Remote Server Administration Using pcANYWHERE32 and Remote Insight Under Microsoft Windows NT Server

# **EXECUTIVE SUMMARY**

Compaq has developed a number of tools to enable remote administration of the server. These include Remote Insight and the remote control facility available in Compaq diagnostics. While each solution provides a particular remote function, none currently provide a wider range remote administration function which would not only include ROM upgrades, system partition upgrades, and driver updates, but also allow for the upgrade of service packs for Microsoft Windows NT Server and installation of other applications such as SAP.

*This paper provides solutions for the broader implementation of remote administration using pcANYWHERE.* 

#### NOTICE

The information in this publication is subject to change without notice.

COMPAQ COMPUTER CORPORATION SHALL NOT BE LIABLE FOR TECHNICAL OR EDITORIAL ERRORS OR OMISSIONS CONTAINED HEREIN, NOR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS MATERIAL.

This publication does not constitute an endorsement of the product or products that were tested. The configuration or configurations tested or described may or may not be the only available solution. This test is not a determination of product quality or correctness, nor does it ensure compliance with any federal, state or local requirements. Compaq does not warrant products other than its own strictly as stated in Compaq product warranties.

Compaq, Compaq Insight Manager, ROMPaq, and SmartStart, registered United States Patent and Trademark Office.

Other product names mentioned herein may be trademarks and/or registered trademarks of their respective companies.

©1997 Compaq Computer Corporation. All rights reserved. Printed in the U.S.A.

Microsoft, Windows, Windows NT, Windows NT Advanced Server are trademarks and/or registered trademarks of Microsoft Corporation.

**Compaq Remote Server Administration Using pcANYWHERE32 and Remote Insight Under Microsoft Windows NT Server** First Edition (March 1997)

Document Number 074A/0397

#### INTRODUCTION

The purpose of this document is to help customers implement Compaq Remote Administration solutions in a Microsoft Windows NT Server environment. It addresses the process for updating and utilizing Compaq utilities, system ROMs, system software, and Microsoft Windows NT Server.

This document includes information extracted from other Compaq White Papers and technical documentation. The level of detail in this document is intended to explain the technical concepts and provide information on implementing these concepts in practical situations. However, this document assumes the user thoroughly understands administration of Compaq hardware and Microsoft Windows NT Server. Detailed information about these topics can be found in various white papers on Compaq's Web site and in help files for each of the utilities and applications.

#### **Document Conventions**

This document uses the following conventions to distinguish elements of text:

	Table 1 Document Conventions
Convention	Use
OK, Next	Screen button labels appear in bold initial caps.
Keys	Keys appear in bold initial caps. When you see a plus sign (+) between two keys, hold down the first key while you simultaneously press the second key.
FILENAMES	Names of files appear in uppercase italics.
Menu Options, Command Names, Dialog Box Names, Icon Labels	These appear in initial capital letters.
PROGRAMS, COMMANDS, DIRECTORY NAMES, DRIVE NAMES	These appear in uppercase letters.
USER INPUT	Information you type exactly as it appears is shown in uppercase and in a different typeface.
Select Item, Item	Items separated by commas indicate menu items you select in a sequence.
Important:	Text set off in this manner presents clarifying information or specific instructions.
Note:	Text set off in this manner presents commentary, sidelines, or points of information.

# SYSTEM CONFIGURATION

Before a system can be administered remotely, it must be configured and set up. With the tools currently available, it is not possible to set up an unconfigured system remotely. Once the system has been set up, however, system upgrades and the installation of additional software can be administered remotely.

The figure below illustrates a sample system configuration for remotely administering a host server.



Figure 1: Sample System Configuration

#### **Hardware Requirements**

#### **Host Server**

The Host Server must first be configured and a 32 MB system partition installed. Both Remote Insight and a modem must be installed and configured on the Host Server. This enables a Remote PC to communicate with the Host Server through pcANYWHERE Remote Control and with the Host Server Remote Insight through pcANYWHERE Online Service.

#### **Remote PC**

It is recommended that two modems be installed in the Remote PC. Two modems enable the Remote PC to communicate with Host Server via both Remote Insight and the remote communication software simultaneously.

Remote Control on the Remote PC loses its connection to the Host Server whenever the Host Server reboots. As a result, the remote user is unable to see what is occurring on the Host Server. However, the Online Service connection to Remote Insight remains intact even when the Host Server reboots, so the remote user is able to see the Host Server go through POST.

When the Remote PC has two modems, the remote user can watch the Host Server boot process through the Online Service connection and verify that the system came up correctly, even after losing the Remote Control connection.

This document assumes two modems are configured in the Remote PC.

Host Server = The server that is remotely controlled by a Remote PC. It runs the host software of pcANYWHERE.

**Remote PC** = The system that is used to remotely control a Host Server.

#### NOTE:

It is recommended that the modem speed be at least 28.8 Kbytes/sec. Performance will be unacceptable with a lower speed modem.

#### Software Requirements

This document assumes the following:

- Microsoft Windows NT Server 4.0 is installed on the Host Server and the Host Server is fully functional.
- pcANYWHERE is installed on both the Host Server and the Remote PC.
- Remote Control and Call Online Service settings are configured in pcANYWHERE on the Remote PC.
- Host Server has access to at least 500 MB of disk space in order to perform remote maintenance. The disk space is required for the Host Server to retrieve software for installations and upgrades.

Technically, this partition can exist either on the Host Server or as a share on a File Server on the same network as the Host Server. However, the procedures in this document require that a partition on the Host Server is used to store the software.

The table below details version requirements. Although older versions may work, it is recommended that the system be upgraded to the latest versions.

Table 2 Minimum Version Requirer	nents
Utility/OS/Application	Minimum Version
Compaq Software Support CD	3.20A
Compaq Management CD	3.20A
Microsoft Windows NT Advanced Server	4.0
Symantec pcANYWHERE32 (see Note)	7.5

NOTE:

The Remote Control function in pcANYWHERE is used to control the Host Server; the Call Online Service function is used to communicate with the Compaq Insight Management Board.

File Server = The server that is connected to the same network as the Host Server and stores the files used by the other servers to perform upgrades/installs.

NOTE:

If the host server is a multiprocessor system, contact Symantec to obtain the latest update to pcANYWHERE32 v7.5.

#### Layout of Storage Partition

It is recommended that you create a detailed directory structure to store the files for the various utilities and software, naming the directories with readable names and version information. Within this document, static directory names are used as examples instead of variable names, according to the following directory naming convention:

<utility file name> <utility version> = OptRom 232A

The figure below shows a sample directory structure you might use to store the executables for various utilities and software.



Figure 2: Sample Directory Structure for Storage Partition

# PCANYWHERE32 CONFIGURATION

#### **Host Server**

Before a Remote PC can contact the Host Server, the Host Server must be configured to act as a host and receive calls.

Follow the steps below to set up the Host Server.

- 1. Start pcANYWHERE.
- 2. Select the **Be A Host PC** option.



- 3. Double-click on the Add Be A Host PC Item icon. pcANYWHERE starts a Wizard to assist you in configuring the Host Server.
- 4. On the initial Wizard screen, enter the name of the Host Server and click Next.



*IMPORTANT: The communication device that* 

pcANYWHERE uses must be configured under Windows NT Server before setting up the server to be a Host.

5. Select the connection device and click Next.



6. Disable the **Automatically launch after wizard** option by clearing the checkbox (so that the Host software is **not** launched automatically after the Wizard has finished). Click on **Finish**.

Be A Host PC Wizard	
	You have just successfully navigated through the configuration of a new Host.
	Any of the settings may be changed by selecting properties from the icon's right-click menu.
	To prevent unauthorized access to your host, modify the properties for this item and specify individual caller privileges.
	To start this Host now, check "Automatically launch after wizard".
1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	L Automatically launch after wizard
	< <u>B</u> ack Finish Cancel

:

#### **Host Properties**

The Host PC Wizard sets up the Host Server with default properties, which are sufficient for basic operations. However, you may wish to customize the properties to your specific needs. The Properties dialog box allows you to modify the software configuration of the Host Server.

Follow these steps to modify the default host properties:

1. From the pcANYWHERE main screen select the newly created Host icon.

<pre></pre>		uu Holo						_ 8 ×
	u <u>O</u> anaes <u>A</u> ie	w Teh						
Quick Start	Be A Host PC	Remote Control	File Transfer	Be A Sateway	Remote Networking	Call Online Service	Exit	
🧃 🎦 🗙	<u><u><u></u></u></u>	8-0- 8-0- 8-0-						
<u></u>	<u></u>	<u></u>	2	-				
Add Be A Host PC Item	DIRECT	MODEM	NETWORK	HOSTS	RV			
For Help, press F	1							NUM

2. Select File, Properties from the main menu.

HOSTSRV Properties					×
Connection Info	Settings	Callers	Security Options	Protect Item	1
🔰 🗇 🗑 🗋 of the device na	mes.		item by checking the e and then click Deta		
Device list Hayes Accura 28 COM1 COM2 COM3 COM4 SPX NetBIOS Banyan VINES TCP/IP ISDN via CAPI 2.1 Infrared			Details	J	
		Ok	Cancel	Apply	<u>H</u> elp
- 1		1.00			

3. Click on the appropriate tab and change the properties according to your system setup.

#### **Caller Accounts**

In the steps below, instructions are provided for setting up Caller Accounts. This process is necessary for controlling access to the Host Server.

- 1. On the Properties screen, click on the **Callers** tab.
- 2. Select Specify individual caller privileges.
- 3. Double click on the Add Caller icon to initiate the Wizard for configuring a new caller.

Connection Info       Settings       Callers       Protect Item         Allow full access to all callers       Specify individual caller privileges         Specify individual caller privileges       Image: Specify individual caller privileges         Allow full access to all callers       Image: Specify individual caller privileges         Allow full access to all caller       Image: Specify individual caller privileges         Image: Specify individual caller       Image: Specify individual caller         Image: Spe	C Allow full access to all callers Specify individual caller privileges    Image: Image	C Allow full access to all callers Specify individual caller privileges    Image: Image	IOSTSRV Properti	es					
Specify individual caller privileges	Specify individual caller privileges	Specify individual caller privileges	Connection Info	Settings	Callers	Security Option	is Prote	ct Item	
			C Allow <u>f</u> ull acces	s to all callers					
			• <u>Specify</u> individu	al caller privilege	es				

4. From the first Add Caller Wizard screen, enter the name of the caller and click Next.



5. Enter the new password and confirm it, then click Next to continue.

What will the caller's login name be?	
ADMIN ADMIN What will the caller's password be? (If left blank, the caller will not have a password.)	d.)



6. Select **Finish** to complete the configuration of a new caller.

#### Service Startup Parameters

In order for the pcANYWHERE Host Service to start automatically when the server is started, the service startup parameters must be changed. To set these parameters:

- 1. On the Windows NT Server Start Up menu, select Control Panel, Services.
- 2. In the Services box, select pcANYWHERE Host Service.

)er <u>v</u> ice	Status	Startup		Close
License Logging Service	Started	Automatic	•	
Messenger	Started	Automatic		Start
Net Logon	Started	Automatic		
Network DDE	Started	Manual		Stop
Network DDE DSDM	Started	Manual		
NT LM Security Support Provider		Manual		Pause
pcANYWHERE Host Service	Started	Automatic		Continue
Plug and Play	Started	Automatic		Source
Remote Procedure Call (RPC) Locator		Manual		Charles
Remote Procedure Call (RPC) Service	Started	Automatic	<b>-</b>	Sta <u>r</u> tup
				HW Profiles
Startup Parameters:				

3. Click Startup and set the startup parameter to Automatic.

#### **Remote Control Setup**

Before a Remote PC can connect to the Host Server, the Remote PC must be configured to contact the Host using the pcANYWHERE Remote Control function.

Follow these steps to set up Remote Control on the Remote PC:

- 1. Start pcANYWHERE.
- 2. Select the **Remote Control** option.
- 3. Double click on the **Add Remote Control Item** icon. pcANYWHERE starts a Wizard to assist the user in configuring the Remote PC to connect to the Host Server.

de ANYWHE	RE32						
<u>File Edit Action</u>	on <u>U</u> tilities (	⊻iew <u>H</u> elp					
Quick Start	Be A Host PC	Remote Control	File Transfer	Be A Gateway	Remote Networking	Call Online Service	Exit
		0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-					
\$	<u>s</u>	s an	s se				
Add Remote Control Item	DIRECT	MODEM	NETWOF	iκ			
For Help, press F	1						

4. On the initial Wizard screen, enter the name for the Remote PC and click on Next.



IMPORTANT: The communication device that pcANYWHERE uses must be configured under Windows NT Server before setting up the server to be a Remote PC.

5. Select the connection device, then enter the phone number of the Host Server and click Next.



6. Disable the **Automatically begin remote control session upon wizard completion** option by clearing the checkbox, then click **Finish**.



#### **Remote PC Properties**

The Remote Control Wizard sets up the Remote PC with default properties, which are sufficient for basic operations. However, you may wish to customize the properties to your specific needs. The Properties dialog box allows you to modify the software configuration of the Remote PC.

Follow these steps to modify the default Remote PC properties:

1. From the pcANYWHERE main screen select the newly created Remote PC icon.



2. Select File, Properties from the main menu.



3. Click on the appropriate tab and change the properties according to your system setup.

#### **Automatic Login**

Follow the steps below to enable the Remote PC to automatically log in to the Host Server upon connection.

- 1. From the pcANYWHERE main screen select the Remote PC icon.
- 2. Select File, Properties from the main menu.

Connection Info	Settings	Automated Tasks Protect Item
Name: Hos	st-Any	
letwork host PC to a		
Phone number of h	nost PC to contri	rol
C Use dialing pro Area Code: F	perties and pho Ph <u>o</u> ne number:	
O Use manually e	ntered prefix, ar	rea code, phone number:
48066		
48066		
48066 Number <u>o</u> f redial a	ttempts: 0	Seconds between redials: 10
, Number <u>o</u> f redial a Login information —	· [	
' Number <u>o</u> f redial a	· [	
' Number <u>o</u> f redial a Login information —	· [	
Number <u>o</u> f redial a Login information Automatically	· [	in connection
, Number <u>o</u> f redial a Login information ⊡ Automatically Login name:	login to host up	in connection
, Number <u>o</u> f redial a Login information ☑ Automatically Login name: Password:	login to host up	ADMIN
, Number <u>o</u> f redial a Login information ☑ Automatically Login name: Password:	login to host up	ADMIN
, Number <u>o</u> f redial a Login information ☑ Automatically Login name: Password:	login to host up	ADMIN

- 3. On the Settings tab, select Use manually entered prefix, area code, phone number.
- 4. Enter the phone number of the Host Server.
- 5. Under Login Information, select Automatically login to host upon connection.
- 6. Enter the Login Name.
- 7. Enter the password in **Password** and **Confirm password**.
- 8. Click on **OK** to save the changes.

#### Online Service Setup

The Online Service option is used to allow the Remote PC to connect to Remote Insight on the Host Server.

To set up the Remote PC:

- 1. Start pcANYWHERE.
- 2. Select the Call Online Service option.
- 3. Double click on the **Add Online Service Item** icon. pcANYWHERE starts a Wizard to assist you in configuring the Remote PC to connect to Remote Insight on the Host Server.

🚰 pcANYWHE	RE32							×
<u>Eile E</u> dit <u>A</u> ctio	n <u>U</u> tilities <u>(</u>	⊻iew <u>H</u> elp						
Quick Start	Be A Host PC	Remote Control	File Transfer	Be A Gateway	Remote Networking	Call Online Service	Exit	
	<u>•</u>	0-0- 0-0-						
ALC.	<b>(</b>	<b>I</b>						
Add Online Service Item	MODEM	SYMANTEC						
For Help, press F	1						NUM	

4. On the first Wizard screen, enter the name of the Online Service and click on Next.



IMPORTANT: The communication device that pcANYWHERE uses must be configured under Windows NT Server before setting up the server to be a Remote PC.

÷

5. On the next screen, select the communications device and enter the phone number for Remote Insight on the Host Server, then click **Next**.

Call an Online Service Wizard	What type of device will you be using to
	connect to this Online Service?          Sportster 28800 Internal         Details
	What is the Online Service's phone number? 48065
	< <u>B</u> ack <u>N</u> ext > Cancel

6. Select the terminal emulation mode (default is ANSI) and click Next.

Call an Online Service Wizard	
	What terminal emulation do you want to use?
	< <u>B</u> ack <u>N</u> ext > Cancel

7. Disable the Automatically call the Online Service after wizard option by clearing the check box, then click Finish.



#### **Online Service Properties**

The Online Service Wizard sets up the online session with default properties, which are sufficient for basic operations. However, you may wish to customize the properties to your specific needs. The Properties dialog box allows you to modify the configuration of the Online Service session.

Follow these steps to modify the default Online Service properties:

1. From the pcANYWHERE main screen select the newly created Online Service icon.



- 2. Select File, Properties from the main menu.
- 3. Click on the appropriate tab and change the properties according to your system setup.

#### **Increasing Performance**

There are several ways that performance can be enhanced when remotely administering a server with pcANYWHERE.

- Set the video resolution of the Host Server to 640 x480.
- Increase the speed of the communications link between the Remote PC and the Host Server.

#### **Downloading Files**

You can download files from the Remote PC to the Host Server using the File Transfer function of pcANYWHERE. Before downloading files, however, you may want to be aware of how long the transfer process will take. The table below shows transfer times for various utilities described in this document.

Table 3 Time Required to Download Files			
Files	Download Time		
Array Configuration Utility	15 minutes		
Compaq Resource Kit for Microsoft Windows NT	4 hours		
Drive Array Advanced Diagnostics Utility	15 minutes		
Diagnostic Utility	15 minutes		
Microsoft NT Resource Kit	14 hours		
NT Software Support Disk	7 hours		
Options ROMPaq	2 hours		
Microsoft NT Service Packs	6 hours		
SmartStart and Support Software	12 hours		
System Configuration Utlity	4 hours		
Systems Management	20 minutes		
Systems ROMPaq	6 hours		

NOTE: These times were achieved using 33.6 Mbps modems. Your performance may vary based on the integrity of your communications link. Follow these steps to download files from the Remote PC to the Host Server.

- 1. Use pcANYWHERE to connect the Remote PC to the Host Server.
- 2. From the Remote PC online menu, select **File, Transfer**. The pcANYWHERE File Manager dialog box is displayed.

🖰 HOSTSRV - pcANYWHERE File Manager				_ 🗆 >
<u>F</u> ile ⊻iew <u>T</u> ag <u>C</u> onfigure <u>H</u> elp				
REMOTECTRL	<b></b>	HOSTSRV	/	
	15,5	05,220 bytes i	n 135 files	
E C: •	<b>C</b> :	-		
Remote: C:\Files\pcANYWHERE\Download\*.*	Host: C:\Program	Files\pcANY	WHERE\*.	×
€ ☐ pcANY_v75U [SUB-DIR] 1/16/97 1:07 PM No Files Found	<ul> <li>Data</li> <li>Dawnload</li> <li>symshel.exe</li> <li>101kbd.reg</li> <li>75up_b.exe</li> <li>Anywhere.bin</li> <li>Autorun.iff</li> <li>Aw.reg</li> <li>Aw.resdos.386</li> <li>Aw_host.386</li> <li>Aw_host.sys</li> <li>Aw16ipx.dll</li> </ul>	[SUB-DIR] [SUB-DIR] 8,000 116 3,644,113 2,228 26 3,143 31,291 6,707 31,040 11,776	1/14/97 6/10/96 11/2/96 1/16/97 1/16/97 12/23/96 11/2/96 11/2/96 11/2/96 11/2/96	1:58 PM     3:53 PM     7:52 AM     7:52 AM     11:48 AM     11:53 AM     1:53 AM     1:752 AM     7:52 AM     7:52 AM     7:52 AM     7:52 AM     7:52 AM     7:52 AM
Send Local Copy Delete Rename	Add AutoXfer Creat	te Folder	Go To	Sync

- 3. On the Remote PC section of the screen, select the files to download to the Host Server.
- 4. On the Host Server section of the screen, select the location for the downloaded files.

🖰 HOSTSRV	- pcANYWHE	RE File Ma	nager	
<u>F</u> ile ⊻iew <u>T</u> a	ig <u>C</u> onfigure j	<u>H</u> elp		
	REMOTE	CTRL	-	HOSTSRV
	1,171,086 bytes	in 18 files		
A:	•			► H: ▼
Remote: A:\*.*				Host: H:\Download\SysConfig\*.*
🛅 Difdata	[SUB-DIR	] 11/21/96	2:31 AM 🔺	t
Cí.dbr	512	2 11/21/96	2:33 AM	No Files Found
Cf.exe	740,875	5 11/21/96	2:33 AM	
Cf.inf	1,044	11/21/96	2:33 AM	
Cf_help.hlp	21,225	5 11/21/96	2:33 AM	
Config.sys	121	11/21/96	2:33 AM	
Fmt.com	8,259	3 11/21/96	2:33 AM	
Ftm.exe	37,125	5 11/21/96	2:33 AM	
Himem.exe	17,640	) 11/21/96	2:33 AM	
🗖 Install.exe	164,804	11/21/96	2:33 AM	
Logo.exe	5,126	5 11/21/96	2:33 AM	
Memory.sys	3,212	2 11/21/96	2:33 AM	
R_con.exe	5,165	5 11/21/96	2:33 AM	
Realdli.dli	19.000	) 11/21/96	2:33 AM 🗶	
Send	Local Copy	Delete	Rename	Add AutoXfer Create Folder Go To Sync

5. Click **Send** to initiate the file transfer. pcANYWHERE displays a dialog box with the source and destination for the file transfer.

Begin File Transfer	×
Send: 17 files and 1 folder	
From: REMOTECTRL	OK
A:	Cancel
To: HOSTSRV	Help
H:\Download\SysConfig	

- 6. If the transfer location is not correct, click **Cancel** and reselect the source and destinations.
- 7. When the transfer information is correct, click **OK** to begin the transfer. When the file transfer process begins, a progress bar shows the status of the transfer.

HOSTSRV - File Transfer Status				
Durrent File: A:\	Cf.exe			
Files to Send:	18	Files Sent:	2	
Total Bytes:	1,173,462	Bytes Transferred:	2,888	
Elapsed Time:	00:00:01	Bytes /sec:	2,888	
Time Remaining:	00:09:53			
	🗖 End se	ssion when finished		
Resume Remote Control				
		Cancel		

When the file transfer process has completed, the progress bar is completely filled.

🎦 HOSTSRV - File Transfer Status 📃 🔲 🔀				
Smrtscsi.sys				
18	Files Sent:	18		
1,173,462	Bytes Transferred:	1,173,462		
00:03:59	Bytes /sec:	4,909		
00:00:00				
End sess	sion when finished			
	OK			
	Smrtscsi.sys 18 1,173,462 00:03:59 00:00:00	Smitscsi.sys 18 Files Sent: 1,173,462 Bytes Transferred: 00:03:59 Bytes /sec: 00:00:00		

8. Click the **OK** button to return to the File Manager dialog box. From this point, you can download more files or exit out of the pcANYWHERE File Manager.

#### F10 Key

To enable the F10 key in pcANYWHERE you must edit the Registry as follows:

HKEY_LOCAL_MACHINE
□□Software
□□Symantec
□□Current Version
□□Online Service

- 1. Under Online Service, add Use Extended Macro Keys.
- 2. Change Value Data to 1.

#### **REMOTE ADMINISTRATION OF SYSTEM PARTITION**

Compaq provides a number of Compaq-specific utilities to the customer. Before these utilities can be used remotely, they must be installed on the system partition on the Host Server. The following sections discuss how to upgrade the system partition and the utilities installed on the system partition using both of the following methods:

- Installation from the SmartStart and Support Software CD, which contains all the major software deliverables on one CD.
- Installation from individual diskette sets containing a single utility such as ROMPaq, System Configuration, and others.

#### **Compaq System Partition Administrator**

The simplest method of updating the entire system partition is to use System Partition Administrator, a utility on the Compaq Resource Kit for Microsoft Windows NT. This utility uses the information on the Compaq SmartStart and Support Software CD to update various utilities such as System Configuration, Diagnostics, and ROMPaqs on the system partition. For further information on how to run the Compaq Resource Kit, see the section in this document on "Remote Administration of OS Utilities, Compaq Resource Kit."

#### Installing Compaq System Partition Administrator

Follow these steps if a web browser exists on the host system:

- 1. Run the program **RESOURCEKIT.EXE**.
- 2. Select Browse Compaq Resource Kit.
- 3. Select Utilities.
- 4. Select Miscellaneous.
- 5. Select System Partition Administrator.
- 6. Select **Open** in the Confirm File Open dialog box.
- 7. Select Setup in the WinZip Self-Extractor dialog box.

#### IMPORTANT:

A standard 32M system partition must exist on the host system before using System Partition Administrator.

- 8. Select Agree for the license agreement.
- 9. Enter the location to put the program in the Select Directory dialog box.
- 10. Enter the program group in the Select Program Manager Group dialog box.
- 11. Select **OK** in the Compaq System Partition Administrator Setup dialog box.
- 12. When the installation is complete, exit from the Compaq Resource Kit.

Follow these steps if a web browser does not exist on the host system:

- 1. Go to the directory \UTILITIES\MISCELLANEOUS on the Compaq Resource Kit.
- 2. Run the program CPQ\_SYSTEM\_PARTITION\_ADMIN.EXE.
- 3. Select Setup in the WinZip Self-Extractor dialog box.
- 4. Select Agree for the license agreement.
- 5. Enter the location to put the program in the Select Directory dialog box.
- 6. Enter the program group in the Select Program Manager Group dialog box.
- 7. Select **OK** in the Compaq System Partition Administrator Setup dialog box.
- 8. When the installation is complete, exit from the Compaq Resource Kit.

#### Using Compaq System Partition Administrator

After Compaq System Partition Administrator has been installed, follow these steps to use the utility:

1. Double-click on the System Partition Administrator icon or select it from the Windows NT Server Start menu. The following screen is displayed.

😴 System Partition Administrator	_ 🗆 ×
Service Maintainence Service Control System Partition Control	
System name:	-
Select "Browse" to search for System name: Browse	
	-
Install Service <u>R</u> emove Service	
Exit	Help

2. Enter the name of the Host Server in the System Name box, or click on **Browse** to find the server name.

🖥 System Partitio	n Administrator 📃 🗖
Service Maintainer	nce Service Control System Partition Control
[	-
System name:	HOSTSRV
	Select "Browse" to search for System name: Browse
	Install Service <u>R</u> emove Service
	E <u>x</u> it <u>H</u> elp

NOTE: To remove the utility, click the Remove Service button on the Service Maintenance tab.

- 3. The first time you run this utility, you must install it by clicking on the **Install Service** button.
- 4. When the service has been successfully installed or removed, a message is displayed indicating the status. Click **OK** to proceed to the next screen.



- 5. Select the Service Control tab in the System Partition Administrator dialog box.
- 6. Select the name of the Host Server as the Installed System.
- 7. Select Mount Partition and click the Apply button.

System Partition A	dministrator			_ []
Service Maintainence	Service Control	System Partition	Control	
Installed Systems:	HOSTSRV		<b>•</b>	Apply
Mount Partition	O Mount/	Share Partition	O <u>D</u> ism	ount Partition
<u>S</u> tart	Service	<u>S</u> to	p Service	
Service status of Installed System:	IOSTSRV [ Dismo	unted ]		
To update the Service	's current status,	select the ''Refre	sh'' button:	<u>R</u> efresh
			E <u>x</u> it	<u>H</u> elp

8. After the system partition has been mounted, a message box appears indicating the system partition was successfully mounted. Click **OK** to proceed to the next screen.



To update the Service's current status, select the "Refresh" button:

<u>R</u>efresh

Help

E<u>x</u>it

#### NOTE:

On the Service Control tab, the status of the installed system shows as mounted and the drive letter it was mounted to is displayed.

9. Select the System Partition Control tab.



- 10. In the Available Systems dialog box, select the name of the Host Server.
- 11. Check the boxes for Verbose output and Update IO.SYS/MSDOS.SYS.

- 12. In the Support Software Source Path field, enter the location of the Support Software, or click on **Browse** to search for the location.
- 13. Click on Update.

The utility updates files in the system partition using files from the source you specified in step 12. During the update process, a DOS box displays a list of the files being copied. This information is also sent to an activity log file that you can view in the next step

14. When the update process has completed, a dialog box appears asking whether you wish to view the activity log. Click **YES** to open the log file.



15. Review the log file to determine whether errors have occurred. Make the necessary changes to correct any errors.

S	ystem Partition Update Log		
1	Currently installed on target system \\HOSTSRV:		
1.2	Installed: System Configuration Version: 2.33 Revision: A	10	
And and	Installed: Diagnostics TEST Version: 10.10 Revision: B		
1	Installed: Compaq System ROMPaq Version: 3.01 Revision: C		
Installed: Drive Array Advanced Diagnostics Version: 1.37 Revision: A			
140	Installed: Compag Options ROMPag Version: 2.32 Revision:		
122	Installed: Compaq Array Configuration Version: 1.02 Revision: C		
2.1			
1	Large (32MB) partition detected.		
	Analusing and oppuling files to Sustem Partition	-	
	KSave Log		

NOTE: See the section "Possible Errors" for more information on troubleshooting Activity Log errors. 16. When the update is successfully completed, dismount the system partition by clicking on the **Service Control** tab, selecting **Dismount Partition**, and clicking the **Apply** button.

😵 System Partition Administrator 📃 🗖 🗙		
Service Maintainence Service Control System Partition Control		
Installed Systems: HOSTSRV  Apply Mount Partition Mount/Share Partition Dismount Partition		
Start Service Stop Service		
Service status of INHOSTSRV [ Mounted (B:) ]		
To update the Service's current status, select the "Refresh" button: <u>R</u> efresh		
E <u>x</u> it <u>H</u> elp		

The utility displays a message indicating that the system partition has been dismounted. Depending on your needs, you can stop the System Partition Administrator utility service when the upgrade has been completed.

spadmin	×
٩	The System Partition Service was successfully dismounted on the system [HOSTSRV].
	<u>OK</u>

#### **Possible Errors**

If you see the error message that indicates a file could not be found to copy, look in the appropriate INF file to see what is listed, then compare the listing to what is on the actual diskettes. Sometimes files are listed in the INF file but are not being used.

Example:

```
Diags H:\SS_SUPPORT_320A\DIAGS\TAPE2.TM file referenced in DIAG.INF not found on source. The system cannot find the file specifed. (0x2).
```

In this case the file TAPE2.TM was referenced in the INF file as a file to be processed, but the file does not exist.

# UPDATING UTILITIES

Compaq sometimes publishes interim releases of Compaq utilities and makes them available for download from the Compaq WEB site or on diskettes from Compaq Technical Support. On the Compaq WEB site are SoftPAQ files that contain diskette images of various Compaq utilities. The following sections provide information on how to use these diskettes to upgrade the various Compaq utilities on the system partition.

The following sections assume that you have created diskettes for the utilities described.

# **System Configuration**

To update the System Configuration utility on the Host Server system partition, use the File Transfer function in pcANYWHERE to download files from the System Configuration diskettes to a subdirectory on the Host Server. Then use the Compaq System Partition Administrator utility to update the files from the subdirectory to the system partition on the Host Server. This process is outlined in the detailed steps below.

- 1. Use the **Remote Control** function in pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert **System Configuration Disk 1** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server.

a:\ to h:\SysCfg\_233A

1. Insert **System Configuration Disk 2** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server

```
a:\ to h:\SysCfg_233A
```

- 2. Insert **System Configuration Disk 4** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server
  - a:\ to h:\SysCfg\_233A
- 3. Use the **System Partition Administrator** utility to mount the system partition of the Host Server (drive letter **B**).
- 4. On the Host Server, copy all the files from the subdirectory to the system partition.

```
h:
cd h:\SysCfg_233A
xcopy *.* b:\ /s /v
```

5. Use the **System Partition Administrator** utility to dismount the system partition of the Host Server.

NOTE:

Do not download the files on System Configuration Disk 3. These are configuration files for older products and are unnecessary.

#### Diagnostics

To update the Diagnostics utility on the Host Server system partition, use the File Transfer function in pcANYWHERE to download files from the Diagnostics diskette to a subdirectory on the Host Server. Then use the Compaq System Partition Administrator utility to update the files from the subdirectory to the system partition on the Host Server. This process is outlined in the detailed steps below.

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert the **Diagnostic** diskette into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server.

a:\ to h:\Diags\_1011A

- 4. Use the **System Partition Administrator** utility to mount the system partition of the Host Server (drive letter **B**)..
- 5. On the Host Server, copy all the files from the Diagnostics utility subdirectory to the system partition.

```
copy h:\ Diags_1011A\*.* b:\diags
```

6. Use the **System Partition Administrator** utility to dismount the system partition of the Host Server.

#### Systems ROMPaq

To update the Systems ROMPaq utility on the Host Server system partition, use the File Transfer function in pcANYWHERE to download files from the Systems ROMPaq diskette to a subdirectory on the Host Server. Then use the Compaq System Partition Administrator utility to update the files from the subdirectory to the system partition on the Host Server. This process is outlined in the detailed steps below.

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 1. Insert the **Systems ROMPaq** diskette into the Remote PC, and transfer the following files from the diskette to a subdirectory on the Host Server:

a:\ROMPAQ.EXE	to	h:∖SysRom_307A
a:\ROMPAQEX.INF	to	h:\SysRom_307A
a:\SYSROM.INF	to	h:\SysRom_307A
a:∖CPQ* *	to	h:\SysRom_307A

If you have a ROMPaq diskette containing the images for only one specific server: Instead of copying the SYSROM.INF file, you will need to modify the INS file and add the appropriate image names.

5. Use the **System Partition Administrator** utility to mount the system partition of the Host Server (drive letter **B**).

#### NOTE:

When downloading the Systems ROMPaq files, not all files on the diskette are copied. Some of the files on the Systems ROMPaq diskette are system files and are not necessary

On the Host Server, copy all the files from the subdirectory to the system partition. 6.

```
h٠
cd h:\SysRom 307A
copy * * b:\
```

7. Use the System Partition Administrator utility to dismount the system partition of the Host Server.

# **Options ROMPaq**

To update the Options ROMPaq utility on the Host Server system partition, use the File Transfer function in pcANYWHERE to download files from the Options ROMPag diskettes to a subdirectory on the Host Server. Then use the Compaq System Partition Administrator utility to update the files from the subdirectory to the system partition on the Host Server. This process is outlined in the detailed steps below.

- 1. Use the Remote Control function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- Insert **Options ROMPag Disk 1** into the Remote PC, and transfer the following files from 1. the diskette to a subdirectory on the Host Server:

a:\ROMPAQ.EXE	to	h:\OptRom_232A	
a:\ROMPAQEX.INF	to	h:\ OptRom_232A	
a:\OPTROMPQ.INF	to	h:\ OptRom_232A	
a:\OPTROMPQ.LST	to	h:\ OptRom_232A	
a:\*.opt	to	h:\ OptRom_232A	
a:\ *.nnn	to	h:\ OptRom_232A	
(where <b>nnn</b> is a three digit hex number)			

2. Insert **Options ROMPaq Disk 2** into the Remote PC, and transfer the following files from the diskette to a subdirectory on the Host Server:

a:\OPTRPQ2.INF	= to	h:\ OptRom_232A	
a:∖*.opt	to	h:\ OptRom_232A	
a:\*.nnn	to	h:\ OptRom_232A	
(where <b>nnn</b> is a three digit hex number)			

- 3. Use the **System Partition Administrator** utility to mount the system partition of the Host Server (drive letter **B**).
- 4. On the Host Server, copy all the files from the subdirectory to the system partition.

h: cd h:\download\optrom 232A copy \*.\*

5. Use the System Partition Administrator utility to dismount the system partition of the Host Server.

NOTE:

When downloading the Options ROMPaq files, not all files on the diskette are copied. Some of the files on the Options ROMPaq diskette are system files and are not necessary.

# **Array Configuration**

To update the Array Configuration Utility (CPQACU) on the Host Server system partition, use the File Transfer function in pcANYWHERE to download files from the Array Configuration Utility diskettes to a subdirectory on the Host Server. Then use the Compaq System Partition Administrator utility to update the files from the subdirectory to the system partition on the Host Server. This process is outlined in the detailed steps below.

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert **CPQACU Disk 1** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server.

a:\ to h:\Cpqacu\_102C

4. Insert **CPQACU Disk 2** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server

a:\ to h:\Cpqacu\_102C

5. Copy the following files from one subdirectory to another subdirectory on the Host Server.

copy h:\Cpqacu\_102C\MINIWIN.INF h:\Cpqacu\_102C \WIN copy h:\Cpqacu\_102C\FILES1.EXE h:\Cpqacu\_102C \WIN

1. Go to the \Cpqacu\_102C \WIN subdirectory and run **FILES1.EXE** to uncompress the files, then delete the FILES1 executable.

h: cd h:\Cpqacu\_102C \WIN files1 delete files1.exe

2. Copy the following files from one subdirectory to another subdirectory on the Host Server

 copy
 h:\Cpqacu\_102C\CPQACU.INF
 h:\Cpqacu\_102C \ACU

 copy
 h:\Cpqacu\_102C\FILES2.EXE
 h:\Cpqacu\_102C \ACU

 copy
 h:\Cpqacu\_102C\FILES3.EXE
 h:\Cpqacu\_102C \ACU

 copy
 h:\Cpqacu\_102C\FILES3.EXE
 h:\Cpqacu\_102C \ACU

 copy
 h:\Cpqacu\_102C \FILES5.EXE
 h:\Cpqacu\_102C \ACU

3. Go to the \Cpqacu\_102C \ACU subdirectory and run **FILES2.EXE** and **FILES3.EXE** to uncompress the files, then delete the FILES2 and FILES3 executables.

h: cd h:\download\cpqacu\acu files2 files3 delete files2.exe delete files3.exe

4. Use the **System Partition Administrator** utility to mount the system partition of the Host Server (drive letter **B**).

NOTE:

After the CPQACU files are downloaded, several files must be uncompressed and put into appropriate subdirectories. 5. On the Host Server, copy all the files from the \Cpqacu\_102C \WIN subdirectory to the Windows subdirectory and all the files from the \Cpqacu\_102C \ACU subdirectory to the CPQACU subdirectory on the system partition.

copy h:\Cpqacu\_102C \WIN b:\windows copy h:\Cpqacu\_102C \ACU b:\cpqacu

6. Use the **System Partition Administrator** utility to dismount the system partition of the Host Server.

#### **Drive Array Advanced Diagnostics**

To update the Drive Array Diagnostics (DAAD) utility on the Host Server system partition, use the File Transfer function in pcANYWHERE to transfer two files from the DAAD diskette to a subdirectory on the Host Server. Then use the Compaq System Partition Administrator utility to update the files from the subdirectory to the system partition on the Host Server. This process is outlined in the detailed steps below.

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert the **DAAD** diskette into the Remote PC, and transfer the two necessary files from the diskette to a subdirectory on the Host Server.

a:\DAAD.EXE to h:\Daad\_137A a:\DAAD.INF to h:\Daad\_137A

- 4. Use the **System Partition Administrator** utility to mount the system partition of the Host Server (drive letter **B**).
- 5. On the Host Server, copy all the files from the utility subdirectory to the system partition.

```
copy h:\ Daad_137A\*.* b:\daad
```

6. Use the **System Partition Administrator** utility to dismount the system partition of the Host Server.

# RUNNING UTILITIES REMOTELY FROM SYSTEM PARTITION

To use the utilities on the Host Server system partition remotely, the Remote PC must communicate with Remote Insight on the Host Server, and the Host Server must be booted into the System Partition Utilities.

The utilities listed below can be used remotely. Remotely using these utilities on the system partition is identical to using them directly at the Host Server.

- System Configuration
  - Configure Hardware
  - Power-On Default
    - Set Date and Time
    - Set Power-On NumLock State
    - Set Power-On Speed
    - Set Standard Boot Order
  - Configuration Backup
    - Backup to a System Configuration SCI file
    - Restore from a System Configuration SCI file
- Diagnostics and Utilities
  - Upgrade Firmware
  - Diagnose Drive Array

#### **Remote Connection to Remote Insight**

In order to remotely use the utilities on the system partition, the Remote PC must be connected to the Host Server using the Online Service function in pcANYWHERE. (The Remote Control function of pcANYWHERE cannot be used for this connection.)

- 1. Use the **Online Service** function of pcANYWHERE to connect the Remote PC to Remote Insight on the Host Server.
- 2. After the connection has been made, press Enter three times to get the login prompt.
- 3. Type the user name and press Enter.
- 4. Type the password and press Enter.
- 5. Use the features of Remote Insight to reboot the Host Server into the Configuration Utilities from the system partition.

#### IMPORTANT:

Utilities not listed here cannot be used remotely because:

- They operate in graphics mode, and Remote Insight operates only in text mode.
- They require access to a floppy drive, which is not possible to manage remotely.
- They do not function properly.

# **REMOTE ADMINISTRATION OF OS UTILITIES**

#### Compaq NT Software Support Disk

Updating the Windows NT Server drivers on the Host Server from the Compaq NT Software Support Disk (NTSSD) remotely through pcANYWHERE is performed exactly the same as if you were using the utility directly on the server. However, the latest version of the software must reside on the Host Server. This can be provided through the Compaq SmartStart and Software Support CD or by downloading the software from the Compaq Web site.

#### Installing the Compaq NT Software Support Disk

Use the following steps to install and run the Compaq NT Software Support Disk from either the Compaq SmartStart and Software Support CD or the Compaq NT Software Support Disk.

#### Using the Compaq SmartStart and Software Support CD:

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert **Compaq SmartStart and Software Support CD** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server.
  - d:\ to h:\SS\_Support\_320A
- 4. Run the Compaq NT Software Support Disk.

cd h:\SS\_Support\_320A\cpqsupsw\ntssd setup

5. Update the necessary drivers.

#### Using the Compaq NT Software Support Disk:

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert **Compaq NT Software Support Disk 1** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server.

a:\ to h:\NTSSD\_120B

- 4. Insert **Compaq NT Software Support Disk 2** into the Remote PC, and transfer the contents of the diskette to a subdirectory on the Host Server.
  - a:\ to h:\NTSSD\_120B
- 5. Run the Compaq NT Software Support Disk.

cd h:\ NTSSD\_120B setup

6. Update the necessary drivers.

#### NOTE:

When updating the Compaq Array Configuration Utility for Windows NT Server, the utility executables must exist on the Host Server before running the NTSSD. See the section "Array Configuration Utility."

#### IMPORTANT:

Because the Compaq Resource Kit contains over 127 MB of data, it will take several hours to download the entire CD (see Table 3, page 20). You may prefer to download only the files or utilities you need to run at the remote site.

#### **Compaq Resource Kit for Microsoft Windows NT**

To use the Compaq Resource Kit remotely, the files from the CD must first be copied to the Host Server, the subdirectory on the Host Server must be shared, and a drive letter on the Host Server must be mapped to it. Otherwise the Compaq Resource Kit will not run.

The following steps provide detailed information on how to set up and run the Compaq Resource Kit.

- 1. Use the **Remote Control** function of pcANYWHERE to connect the Remote PC to the Host Server.
- 2. Start the File Transfer Manager in pcANYWHERE.
- 3. Insert the **Compaq Resource Kit for Microsoft Windows NT** CD into the Remote PC, and download the contents of the diskette to a subdirectory on the Host Server

d:\ to h:\CpqRskt\_200

- 4. Use Windows Explorer or File Manager to share the subdirectory h:\ CpqRskt\_200 on the Host Server as CpqRskt\_200.
- 5. Map a drive X: on the Host Server to the newly created share, CpqRskt\_200.
- 6. Run the Compaq Resource Kit program.

```
x:
resourcekit
```

# Windows NT Service Packs

Updating NT with the Microsoft Service Pack remotely is performed in the same way as the update is performed directly at the server. The only difference is that the Service Pack must first be downloaded to a subdirectory on the Host Server. When this has been done, you can run **UPDATE** directly on the Host Server.

# Windows NT Resource Kit

Installing and executing the Microsoft Windows NT Resource Kit remotely is identical to doing so directly at the server. The only difference is that the Resource Kit must be downloaded to a subdirectory on the Host Server before it can be installed. After it has been downloaded, you can run **SETUP** directly on the Host Server.