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HART INTERCIVIC

Setup Procedures for systems including BOSS/TALLY and BALLOT NOW

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Table of Contents

- From

Change History

Version	Date	Author	Description
1	6/28/01	Victor Babbitt and Steve Gonzalez	Created preliminary document

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SECTION 1. INTRODUCTION

QUICK REVIEW

The procedures outlined in this document are designed to help a technician install a complete BOSS/Tally or Ballot Now system starting with a new computer and the required software and hardware.

OVERVIEW

There is presently a large number of steps required to complete an installation. The installer will begin generally with the required hardware and at least 3 disks, the OS installation disk, which contains the particular operating system to be installed on this system; the Hart Utilities disk, which contains the many drivers, utility programs and associated data that is required for installation, and the Application Installation CDs, which contain the BOSS, Tally or Ballot Now programs.

While the steps below are listed sequentially, we can break down them functionally as follows:

- A) Do a clean install of the NT 4.0 Operating System. Hart will use just one reference Operating System disk in all Hart BOSS/Tally/Ballot Now installations.
- B) Install and configure drivers for audio, video, SCSI, PCMCIA Card Readers, printers and CD-R drives.
- C) Install the Applications, whether BOSS, Tally or Ballot Now.
- D) Set up global system auditing
- E) Create Election Administrator Users
- F) Create Restricted Users
- G) Make Security alterations to global computer environment.

SECTION 2. HARDWARE REQUIRED

The following Hardware is required in typical installations

1. PCMCIA (MBB) card reader/writer

2. Parallel Card (for second printer for Tally)
3. Audio Card
4. SCSI card (for interface to scanner for Ballot Now)
5. CD Writer

SECTION 3. SOFTWARE REQUIRED

The software required for installation of BOSS, Tally, and/or Ballot Now is as follows:

HART NT 4.0 OS INSTALLATION DISK

This disk contains the standard Operating system. All Hart installations will be clean installs of this particular OS. The particular OS used is NT 4.0 Workstation, build 1381. Note that the Product number required for installation is on the CD label.

HART INSTALLATION UTILITIES DISK

This disk contains various drivers, the NT service pack, profile .dat files and other files needed to complete typical installations. The CD will include:

BOSS_Tally_BN_SETUP.doc - A MS Word document on the setup procedures for a BOSS, Tally or Ballot Now system.

BOSS_Tally_BN_SETUP.txt - A text document on the setup procedures for a BOSS, Tally or Ballot Now system.

\ASPI - Folder for ASPI32.exe, a driver required for proper installation of Ballot Now.

\Dat - Folder that contains the NTUSER.dat file, which holds environment information for restricted users.

\Drivers - Folder for audio and video drivers typically needed for installations.

\Elan - Folder with the Elan PCMCIA (MBB) card reader/writer drivers.

\MCE Card Explorer - Executable required as part of the MBB reader software.

\NIC - A .inf file that is needed on Ballot Now installations.

\Parallel - Folder with the parallel card driver

\SP6 - Folder with Microsoft NT4.0 Service Pack 6a with 128-bit encryption

HART APPLICATION INSTALLATION DISK (BOSS/ TALLY)

This disk contains the executable installation package for BOSS and Tally programs.

HART APPLICATION INSTALLATION DISK (BALLOT NOW)

This disk contains the executable installation package for the Ballot Now program.

DRIVER CDS FOR PARTICULAR PRINTERS

While printer drivers may be included in the Hart Installation Utilities Disk under \Printers, the installer may be required to install printer drivers from manufacturer CDs or downloadable drivers from manufacturers web sites.

ADAPTEC CD CREATOR

This program is required for any installation where election data needs to be archived or transferred by writing a CD-R.

SECTION 4. INSTALLATION PROCEDURES

STEP 1

With the power cord unplugged, install all needed extra hardware like SCSI cards, parallel port cards, Elan card readers or whatever is needed in the system. Ballot Now gets a SCSI; Tally gets a second Parallel Port Card. Ballot Now, BOSS, and Tally all get an Elan card reader.

STEP 2

Insert Hart NT 4.0 OS Installation Disk into system and boot to system BIOS and alter the boot sequence such that the CD boots first and the Hart Drive boots second.

STEP 3

Exit and save changes from BIOS and continue to boot to CD.

STEP 4

The NT install will begin. Follow prompts until you get to the portion of configuring the partitions.

STEP 5

Delete all the partitions and create one 4GB partition (4048MB), which is the maximum size allowed by NT.

STEP 6

Select the Partition created and install NT to that partition and then you will be prompted to format the partition. Format the partition using NTFS only.

STEP 7

After the format has completed then continue with the install following the prompt and select the defaults. Then you will be required to reboot. REMOVE THE CD BEFORE REBOOTING.

STEP 8

The system will complete booting and request the CD. Insert the CD and wait 5 seconds and then click on OK.

STEP 9

The install will begin again and you will then be prompted to select what kind of installation to perform. Select the radio button to do a Custom install.

STEP 10

Next prompt is to enter the your name and organization. Here enter the entity's name for both options (Example: "Harris County") The maximum is 15 characters.

STEP 11

Then enter the Product Key, which is located on the label of the Hart NT 4.0 OS Installation Disk.

STEP 12

Enter the Computer Name. This is going to be a combination of the entity's name along with the application such as BOSS.

STEP 13

Enter the Administrator password. Steve Gonzales (512) 252-6652 will hold the list of all Administrator passwords. Contact him for the Administrator password for this system.

STEP 14

Continue on with the installation and do not create an emergency recover disk at this time.

STEP 15

Select the components you will install. Uncheck the Accessibilities Options, double click on the Accessories and uncheck everything except the Calculator and WordPad. Under Communications uncheck everything except HyperTerminal. Under Multimedia uncheck everything but Media Player, Sound Recorder, and Volume Control.

STEP 16

Then you will be prompted to setup the system to connect to a network. Select the option to NOT to connect the system to a network at this time.

STEP 17

Configure the clock, set the proper time and date, and accept the video settings. DO NOT try to configure the video at this time.

STEP 18

The install will continue and the request that you reboot. Eject the CD and reboot.

STEP 19

Boot into the system BIOS and change the boot sequence to the following: 1) Hard Drive, 2) CD-ROM Drive. Note that the Floppy drive IS NOT in the boot sequence at all. Password protect the BIOS with the Administrator Password.

STEP 20

Install Service Pack 6a with 128-bit encryption from the Hart Installation Utilities CD under \SP6. Reboot.

STEP 21

Remove the IE, Inbox and Briefcase Icons from the desktop. Empty the recycle bin.

STEP 22

Configure the extra hard drive space through Disk Administrator as one large partition. Format the partition NTFS. Once the format is done, configure the drive letters so that C: and D: are the hard drive and the CD-ROM is drive E:

STEP 23

Under system properties Startup/Shutdown set the show list time for 5 sec and do the same under Hardware Profiles for wait for user selection. Set it for 5 sec as well.

STEP 24

Load the video drivers from the Hart Installation Utilities CD. You will find video drivers in the \Drivers\ (system model number) \Video\ folder. Find Setup.exe within this folder and run it from the CD. Reboot.

STEP 25

Configure the video settings for 1024x768 and 16bit color.

STEP 26

Load the audio drivers from the Hart Installation Utilities CD. You will find audio drivers in the \Drivers\\Audio\ folder. Find Setup.exe within this folder and run it from the CD. Reboot.

STEP 27

Load drivers for the SCSI card next (If this machine is for Ballot Now). If this machine will use Tally, then the second parallel port card and will need the drivers for it installed at this point. Both types of drivers are found on Hart Installation Utilities CD, under the \SCSI and \Parallel folders specifically. Reboot once completed.

STEP 28

Load the drivers for the Elan card reader, found on Hart Installation Utilities CD under \Elan. Reboot when finished.

STEP 29

Run the installation program for MCE Card Explorer, which is found on the Hart Installation Utilities CD under \MCE Card Explorer. Running this program registers us with card services, after installation our next step will be to remove this. Reboot when finished.

STEP 30

During boot install a PCMCIA card into the reader.

STEP 31

Go to Control Panel, then Devices and set the PcCGoCIs device to boot. Then remove the PCMCIA card. If the PcCGoCIs device is not found, run MCE explorer with the card in the slot, then check devices again.

STEP 32

We now need to remove the MCE. Do not run the uninstall program. Delete the \MCE Card Explorer folder. Delete the \Winnt\Profiles\All Users\Start Menu\Programs\MCE Card Explorer folder.

STEP 33

If system is running Ballot Now, run the installation program ASPIINST.exe. You will find this in the Hart Installation Utilities CD under \ASPI. Reboot when finished.

STEP 34

Install the needed printer drivers with the printers connected to the correct ports. Reboot after installing each device. Test each printer after installation. The printer drivers will be found on CD's supplied by the printer or on the manufacturers web site. Install the drivers only, do not install any

extraneous software not required by the printer for operation. Note that for Tally installations, the Laser Printer needs to be installed on LPT2 and set as default.

STEP 35

Install the Adaptec CD Creator Software. This should come on a separate Adaptec disk, or a Dell disk containing the Adaptec Software. This is required for any system where archiving or transfer of election data is being done by writing a CD-R. Reboot after installation and test.

STEP 36

If BOSS and Tally are required, install the BOSS & Tally software from the Hart Application Installation Disk (BOSS/Tally). If Ballot Now is to be installed, install Ballot Now from the Hart Installation Application Disk (Ballot Now). Note that Ballot Now should be installed on another drive, which is required as the boot drive is limited to 4GB. Reboot after installing software.

STEP 37

If the system is running Ballot Now, run AddScan.exe from the \Hart InterCivic\Ballot Now\ folder. Browse to C:\Winnt\Pictran\Scanner Drivers and search for the specific driver for the scanner that is attached, and load that driver.

STEP 38

If the system is running Ballot Now, copy the \NIC folder from your Hart Installation Utilities CD onto the C drive. Now right-click on the network neighborhood. You will be prompted to install network. When asked for an adapter, point the browser to the .inf file within the C:\NIC folder. When queried for a DHCP server, say NO. When this process finishes it will bring up network properties. Reinstall the Service pack and reboot. Then open the Network Prop and Enter the IP address of the computer as 192.162.0.1. Share the Ballot Now directory, and map the shared Ballot Now directory to the "Z:" drive. Use //192.162.0.1/Ballot Now as the directory name. Test Ballot Now at this time. When testing, be sure that the correct scanner under the preferences tab is selected.

STEP 39

In the Control Panel, go to Devices and set the boot sequence of Tvichw32 to automatic.

STEP 40

Note when testing BOSS, Tally or Ballot Now: the default logins and passwords for these programs are as follows: BOSS, Tally login is "BOSSADMIN", password is "ADMINBOSS". For Ballot Now, the default login is "BNADMIN", and the default password is "ADMINBN".

STEP 41

Install any extra software required for this installation, such as Adobe or Office at this point.

STEP 42

Run Rdisk to make the emergency repair disk.. To Run Rdisk, go to Start > Run > rdisk.

STEP 43

Under User Manager, go to Policies>Audit Policy. Set the audit policy for the machine to log the success and failure of a) Logon and Logoff and b) File and Object Access.

STEP 44

For each of the following folders, right click on the folder, go to Properties > Security > Auditing. Check box for “replace auditing on subdirectories”. Add all user groups to auditing, except the System group. Check to audit success of “read”, “write”, and “delete”. The folders to set auditing on are: /BOSS, /Tally, /Ballot Now.

STEP 45

Under Event Viewer, go to Log > Log Settings for security logs only. Set the maximum logfile to 500 MB (500032KB). Check box to “overwrite events as needed”. This Logfile should give the machine a running log of the last approximately 150 hours of use. Clear the log at this time, do not save it to disk, and reboot.

STEP 46

For each drive, right click, go to Properties > Security > Permissions. Check “Replace permissions to all subdirectories”. Set permissions for Administrator to “FULL”, for Power Users and Users to “Change” (RWXD). Remove any other groups that are listed (such as the group Everyone). After setting the permissions on the drives, on the following folders to “Read” (RX) for the Power Users and Users Groups (note that we are setting only the files to READ access, do not check the “Replace permissions to all subdirectories” box).

\BOSS

\Tally

\Winnt\System32

\Program Files\Common Files

\Program Files\Hart InterCivic

For the \Ballot Now folder, change the permissions on the .dll and .exe files only to “Read” (RX) for the Power Users and Users Groups.

For \Winnt\Profiles, set this folder and Check “Replace permissions to all subdirectories” to “Read” (RX) for Power Users and Users Groups.

STEP 47

Create a new user called “Election Admin”. Set password as “election” (User may change this later). Set Password to “never expires”. Assign new user to Power User group only.

STEP 48 LOG ON AS ELECTION ADMIN BEFORE MOVING DAT FILE.

Move the ntUser.dat file from /DAT folder on the Hart Installation Utilities Disk, to /Winnt/Profiles/Default User. CHECK PROPERTIES OF FILE AND REMOVE CHECK FOR READ ONLY.

STEP 49

Move files in \Winnt\Profiles\All Users\Desktop to \Winnt\Profiles\Administrator\Desktop and \Winnt\Profiles\Election Admin\Desktop

STEP 50

Move the 1) Adaptec Easy CD Creator folder, 2) the Administrative Tools Folder and 3) the Hart InterCivic folder found in \Winnt\Profiles\All Users\Start Menu\Programs to \Winnt\Profiles\Administrator\Start Menu\Programs and \Winnt\Profiles\Election Admin\Start Menu\Programs.

STEP 51

Remove the contents of all the following folders (but not the folders themselves)

Winnt\profiles\Default User\Application Data\
Winnt\profiles\Default User\Cookies\
Winnt\profiles\Default User\Desktop\
Winnt\profiles\Default User\Favorites\
Winnt\profiles\Default User\Local Settings\
Winnt\profiles\Default User\My Documents\
Winnt\profiles\Default User\NetHood\
Winnt\profiles\Default User\PrintHood\
Winnt\profiles\Default User\Recent\
Winnt\profiles\Default User\SendTo\
Winnt\profiles\Default User\Start Menu\ (except \Programs)
Winnt\profiles\Default User\Start Menu\Programs\
Winnt\profiles\USER\Templates\
Winnt\profiles\All Users\Documents\
Winnt\profiles\All Users\Start Menu\ (except \Programs)
Winnt\profiles\All Users\Start Menu\Programs\

STEP 52

For each program that needs to be installed, (BOSS\Tally\Ballot Now), put a shortcut to the corresponding executables into the path Winnt\profiles\Default User\Start Menu\Programs\.

