Install and Configure a TPS APP Node

Objective

Given an NT Server node, install the TPS APP software and configure the node to be a TPS APP node.

Prerequisites

- Your partition sheet
- Completed *Install and Configure TPS PDC* exercise

Introduction

During this lab exercise, you will configure several setting required for a TPS APP Node:

- Set Administrator Password
- Configure Local User Accounts
- Configure Local Auditing
- Reconfigure LCNP4 board as a APP node
- Perform the LCNP4 Board configuration
- Configure Devices/Services
- Connect APP Node to LCN
- Install APP Personality
- Configure APP Node Security
- Install Additional APP Node Software

Estimated Time to Complete: 1 hour

Procedures

Retrieve your partition sheet. You will need it for the following procedures.

Perform the following procedures on the APP node:

Set Administrator Password

✓	Step	Action
	1	At the APP node, log on as Local Administrator. **Note:** In "the real world," your APP node will be a different computer than your PDC. With separate computers, you would have the choice of logging on to the APP node as the Local Administrator or as the Domain Administrator. In this class, the APP and PDC are the same computer so you will only be able to log on to the node as the Domain Administrator. As you go through this lab, always log on as the Domain Administrator whether the instructions specify Local or Domain Administrator.
	2	Press the CTRL+ ALT+ DEL keys.
	3	Select the **Change Password …** button.
	4	Enter the new password **Studentxx** (where xx is your student number) **DO NOT ENTER ANY OTHER PASSWORD!** **USE THIS FORMAT EXACTLY!**
	5	Press the TAB key.
	6	Enter the new password again to confirm it.
	7	Select the **OK** button.

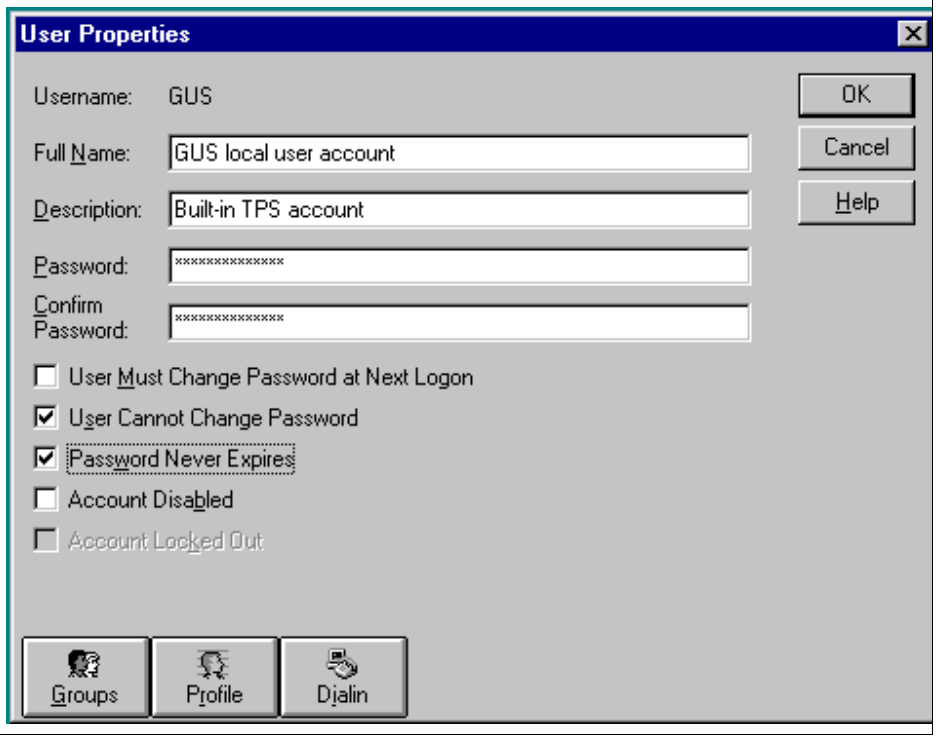
Measurement

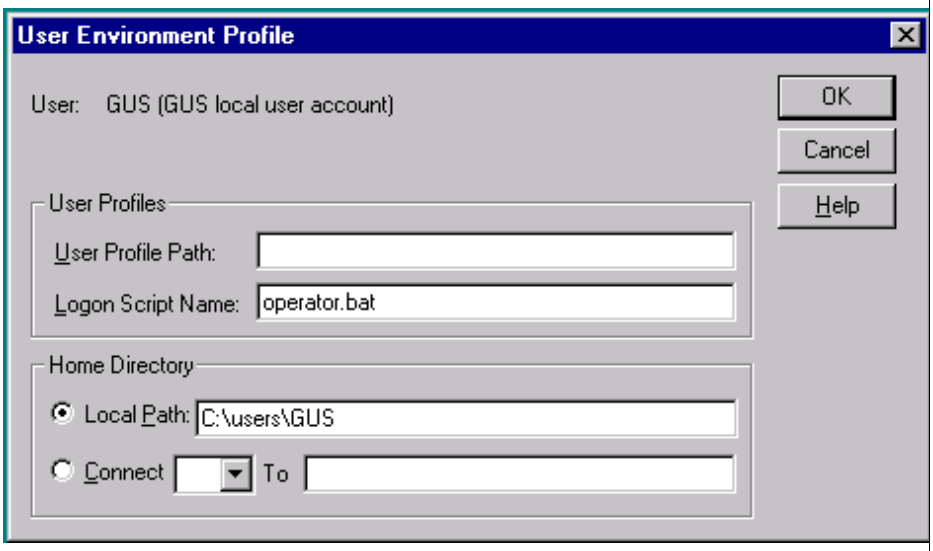
✓	Step	Action
	8	Log on as the Local Administrator using the new administrator password.

Set the Date and Time

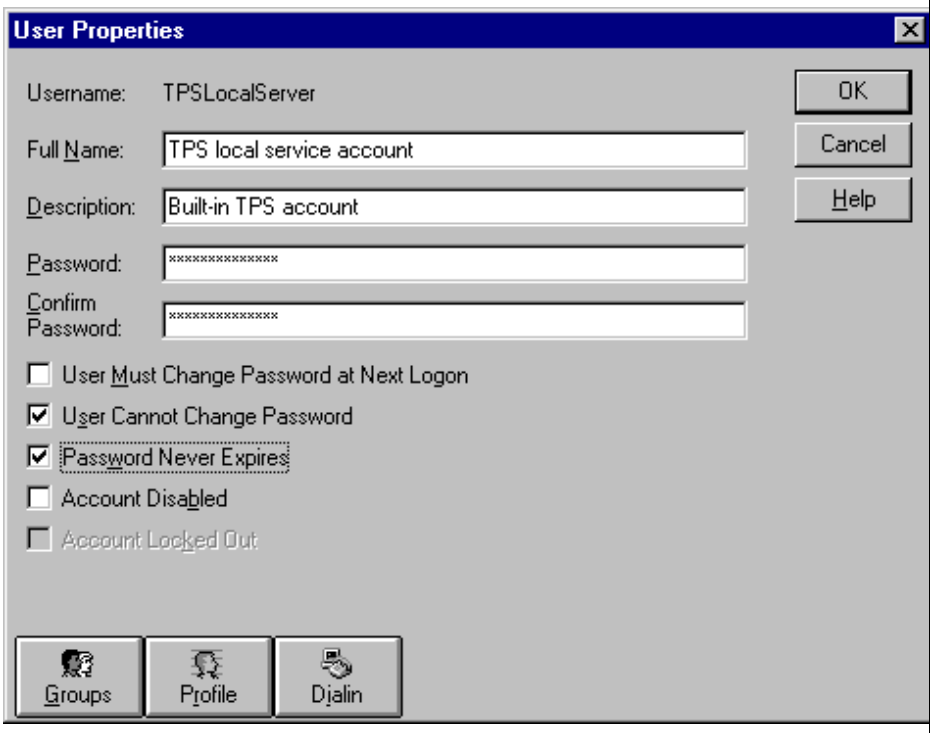
✓	Step	Action
	9	Select **Start→Settings→Control Panel**.
	10	Double-click the **Date/Time** icon.
	11	Select the **Time Zone tab**.
	12	Use the drop down menu to select the **local time zone**.
	13	Click the **Apply** button.
	14	Select the **Date & Time tab**.
	15	Enter the correct **date** and **time**, then Click the **OK** button.
	16	Close the Control Panel window.

Configure Local User Accounts

✓	Step	Action
	17	While logged in as the Local Administrator, select the **User Manager*** Administration Tool as follows: **Start > Programs > Administrative Tools (Common) > User Manager*** *In class, you will use the User Manager for Domains because the APP node is the PDC. In the "real world", your APP will not be your PDC, and you will use User Manager.
	18	Double-click the GUS account.
	19	Select these options: ➢ User Cannot Change Password ➢ Password Never Expires Deselect: ➢ User Must Change Password at Next Logon 

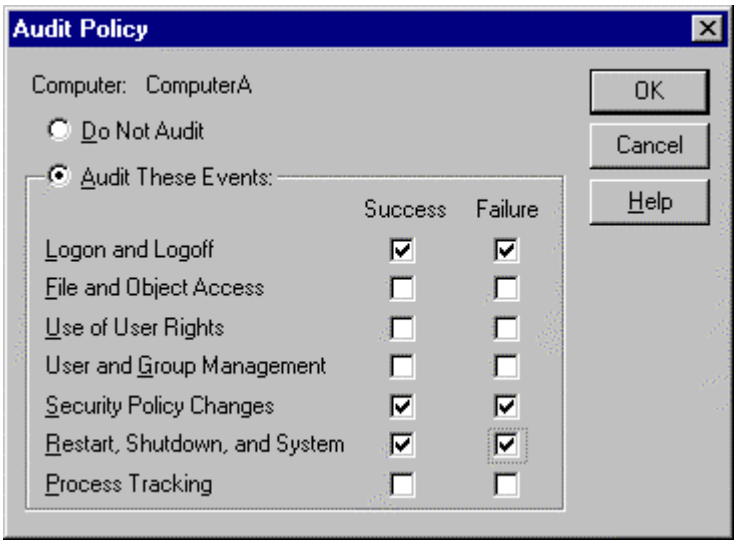
✓	Step	Action
	20	Select the **Profile** button. 
	21	Enter/verify the login script name is: `operator.bat` in the **Login Script Name** text box of the *User Environment Profile* dialog.
	22	Enter/verify the **Local Path** is: `C:\users\gus`
	23	Select the **OK** button to save your changes and close the *User Environment Profile* dialog.
	24	Select the **OK** button to close the *User Properties* dialog.

Configure the TPSLocalServer account

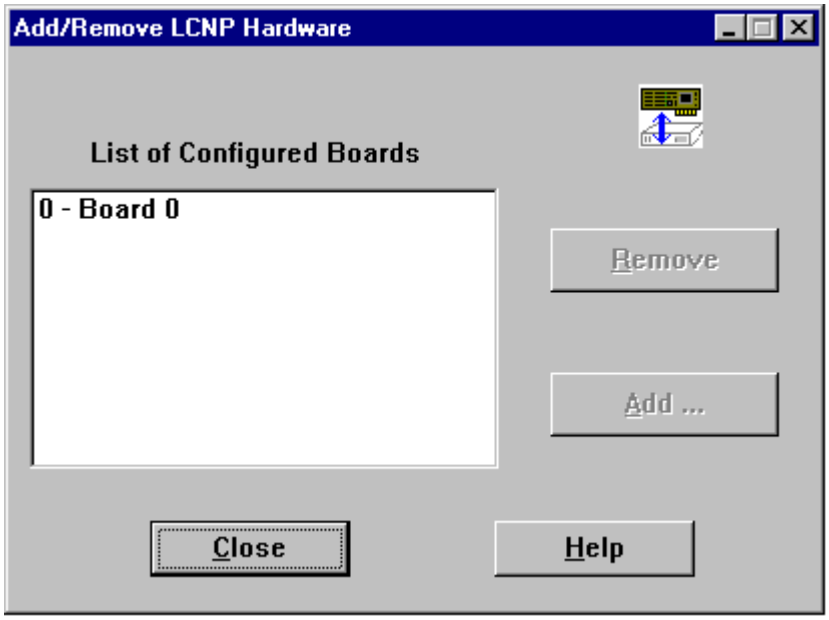
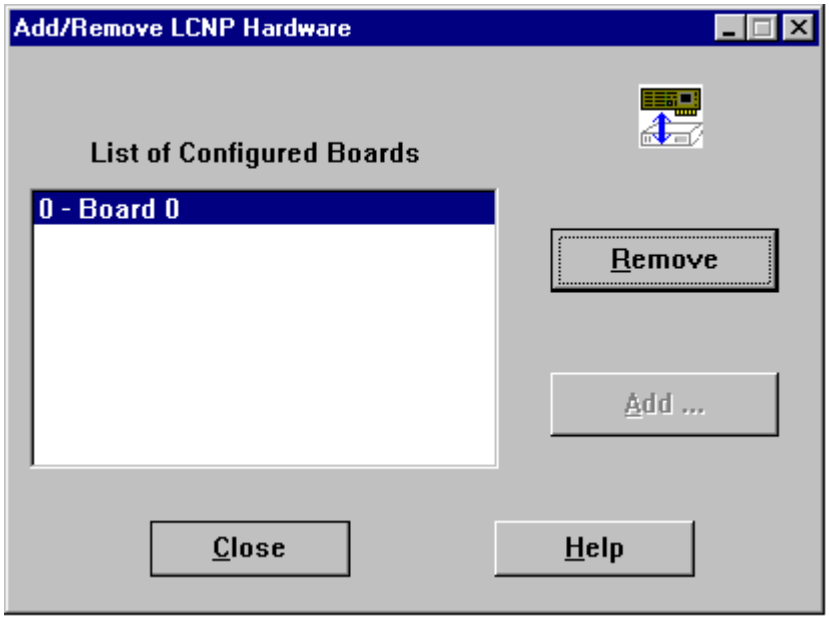
✓	Step	Action
	25	Double-click the TPSLocalServer user account.
	26	Select these options: ➢ User Cannot Change Password ➢ Password Never Expires Deselect: ➢ User Must Change Password at Next Logon 
	27	Select the **OK** button to save your changes and close the *User Properties* dialog.

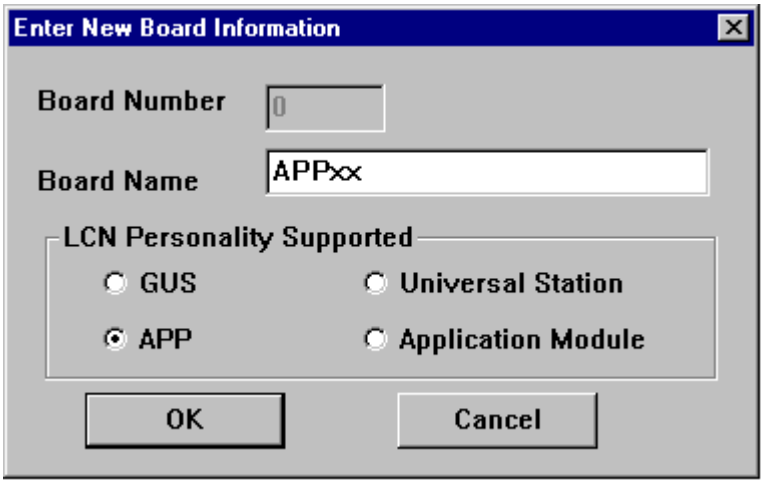
Configure Local Auditing

The Audit Policy determines which events appear in the Security event log.

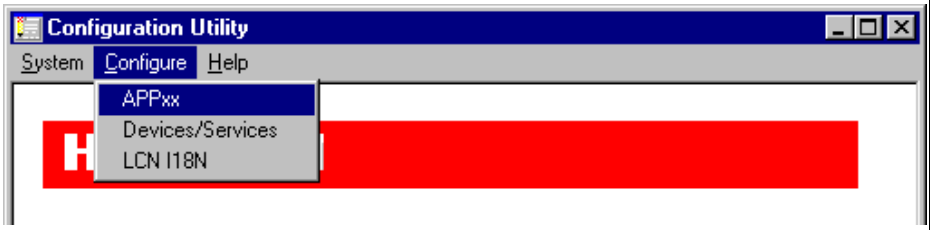
✓	Step	Action
	28	While still in the **User Manager for Domains** utility, select the **Policies** menu.
	29	Select the **Audit …** menu option.
	30	Select the **Audit These Events** radio button.
	31	Set the Audit Policy as listed below: 
	32	Select the **OK** button to save your changes and close the *Audit Policy* dialog.
	33	Close the **User Manager for Domains**.

Reconfigure LCNP4 board as a APP node

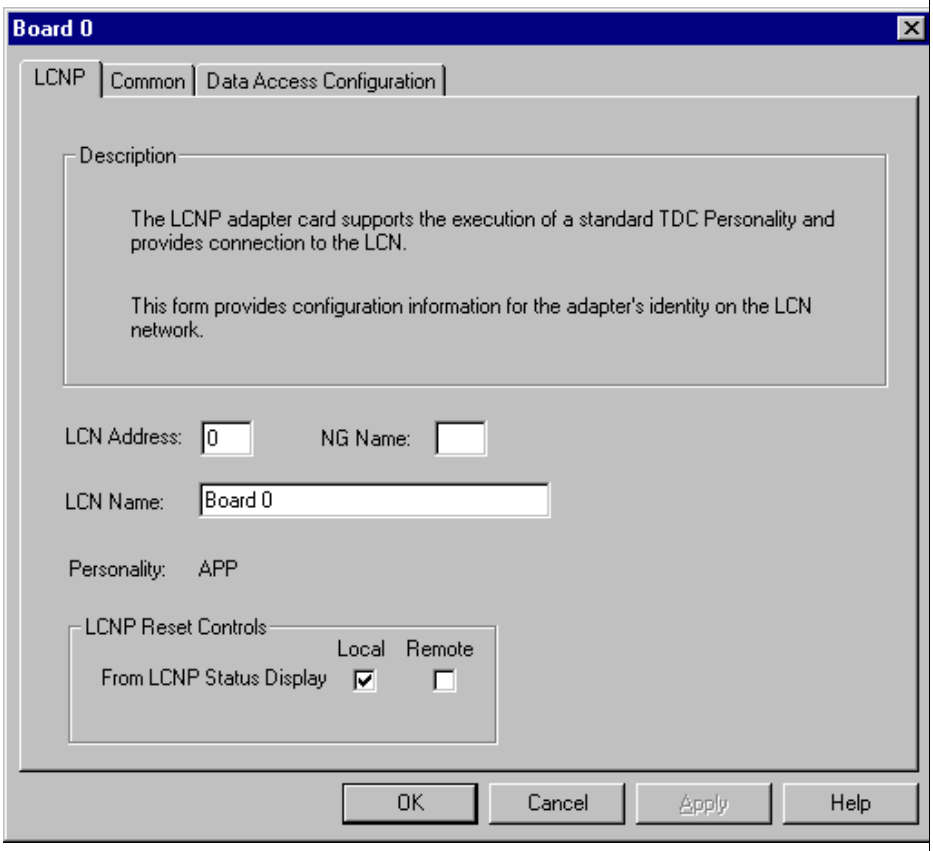
✓	Step	Action
	34	Open the **Add Board** utility as follows: From the Windows NT task bar, select **Start** > **Programs > Honeywell TPS > AddBoard** 
	35	If a **Board 0** is present, highlight (select) the existing board entry and then select the **Remove** button to delete the selected board and select the **Yes** button in the *Are You Sure* dialog. 

✓	Step	Action
	36	Select the **Add…** button to name the APPs LCNP board.
	37	 Enter the LCN Name, for the APP node that is listed on your partition sheet, in the **Board Name** text box field. **Example:** Enter a board name of **APP21** (where 21 is the LCN address).
	38	If not selected, select the **APP** radio button in the **LCN Personality Supported** area of the *Enter New Board Information* dialog.
	39	Select the **OK** button to save and close the dialog.
	40	Select the **Yes** button in the *Are You Sure* dialog.
	41	Select the **Close** button in the *Add/Remove LCNP Hardware* dialog.

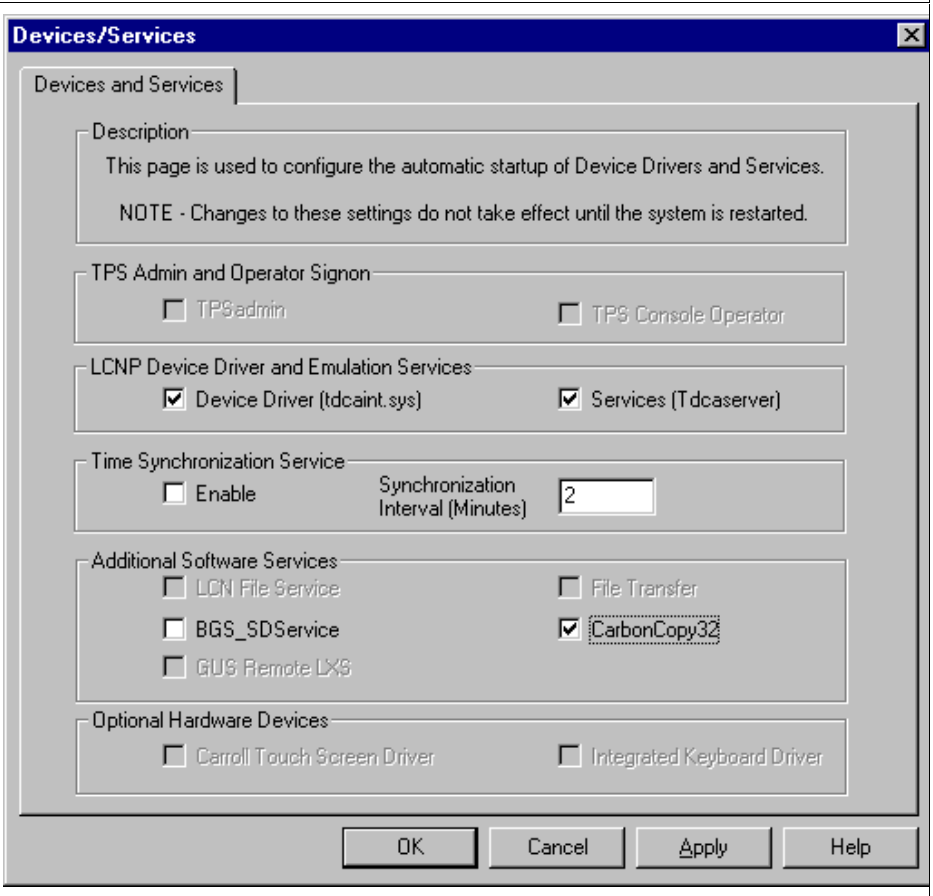
Perform the LCNP4 Board Configuration

✓	Step	Action
	42	Open the **Configuration Utility** as follows: **Start > Programs > Honeywell TPS > Configuration Utility**
	43	Select the **Configure** menu. 
	44	Select the **APPxx** menu option.

LCNP Configuration

✓	Step	Action
	45	 Enter the LCN Address, for the APP node that is listed on your partition sheet, in the **LCN Address** text box field.
	46	Enter a space in the **NG Name** text box field. **DO NOT LEAVE THIS FIELD EMPTY.**
	47	Enable LCNP local reset by selecting the **Local** check box in the **LCNP Reset Controls** area.
	48	Select the **OK** button to save your changes and close the dialog.

Configure Devices/Services

✓	Step	Action
	49	Select the **Configure** menu.
	50	Select the **Devices/Services** menu option.
	51	 Select the **Device Driver (tdcaint.sys), Services (Tdcaserver),** and **CarbonCopy32** check boxes.
	52	Deselect (uncheck): • The **BGS_SDService** box • The **Enable** box under Time Synchronization Service
	53	Select the **OK** button to save your changes and close the *Devices/Services* dialog.
	54	Close the **Configuration Utility**.

Connect APP Node to LCN

✓	Step	Action
	55	Shutdown the APP node as follows: **Start > Shutdown > Shutdown the Computer?**
	56	Turn off the power to the APP node.
	57	Connect the APP's LCNP4 to the LCN • AUI cable from the LCNP4 to the MAU (Transceiver) • LCN cables to the MAU
	58	When connected, power on the APP node.

Optional Exercise

NOTE: This part of the lab is optional. It is intended for students who feel they need practice using an emulated disk and the Command Processor. If you choose to perform this part of the lab, you must perform it from your GUS node.

Load Additional TPN System Files

NOTE: This procedure is performed from the GUS node.

Copy Files from the &CUS and &CLX Directories		
	59	Log on to the GUS as Local Administrator.
	60	Open the **Command Processor** from the **Native Window** Engineering Main Menu.
	61	Enter the **LSV NET** command to verify that the **&CUS** and **&CLX** directories exist.
	62	Use the **Create Directory** command to create the directories if either/both are not found.
	63	Insert the TPN Application Module Software CD.
	64	Mount the **disk_&z3.lcn** emulated disk in one of your emulated drives.

	65	Copy the files from the Application Module Personality CD using the following commands (x = the number of the left or right emulated drive):
		`UNPT NET>&CUS>*.*`
		`UNPT NET>&CLX>*.*`
		`CP $Fx>&CUS>AMCL06_2.LO NET>&CUS>=`
		`CP $Fx>&CUS>XACCES.LO NET>&CUS>=`
		`CP $Fx>&CUS>XOPTN.LO NET>&CUS>=`
		`CP $Fx>&CLX>AMCL06.SF NET>&CLX>=`
		`PT NET>&CUS>*.*`
		`PT NET>&CLX>*.*`

	66	Dismount the emulated disk and remove the CD.

Install APP Personality

✓	Step	Action
	67	Log on to the APP node as Administrator.
	68	Insert the **Application Module** software CD-ROM into the APP node's CD drive.
	69	Navigate to the **\APP1xx\pers_am\Disk1** directory. Note: Be sure to use the APP1xx directory. The AMW directory is for another node type which was the precursor to the APP node.
	70	Double-click the **setup.exe** file to initiate installation.
	71	On the *Welcome* dialog, select the **Next** button.
	72	Accept the software license agreement terms by selecting the **Yes** button.
	73	Verify that the **Name** and **Company** information is correct.
	74	Enter **1** in the **Serial** data entry port and then select the **Next** button.
	75	Enter **C:** for the drive letter and then select the **Next** button.
	76	Select **Typical Installation** and then select the **Next** button.
	77	Select the **Next** button in the *Start Copying Files* dialog to begin installation.
	78	Select the **Finish** button.
	79	Remove the **Application Module** software CD-ROM from the APP node's CD drive.

Load APP Personality

✓	Step	Action
	80	When the installation is complete, from the GUS node, open the Native Window and mount the **disk_&z6.lcn** emulated disk. This file is on the GUS-TPN software CD. Use the **Access→Mount Emulated Disks** menu selection.
	81	Display the System Status display by selecting the "**S**" button on the status bar.
	82	Select your APP node and display the Application Module **Node Status** display.
	83	Perform a **Manual Load** (use **Cold Load**) of your APP node. Load the AM personality (program) from the **NET**; load the Null database from the **Alternate Source** disk_&z6.lcn emulated disk.
	84	Dismount the emulated disk, then remove the CD.
	85	Checkpoint (**Save**) the AM database to the HM (**Net**).

	86	**Shutdown** the LCN-side of the APP node, then reset the APP node LCNP4 board.
	87	Load the LCN-side of the APP node with the **APP** personality using the **AUTOLOAD NET** target.

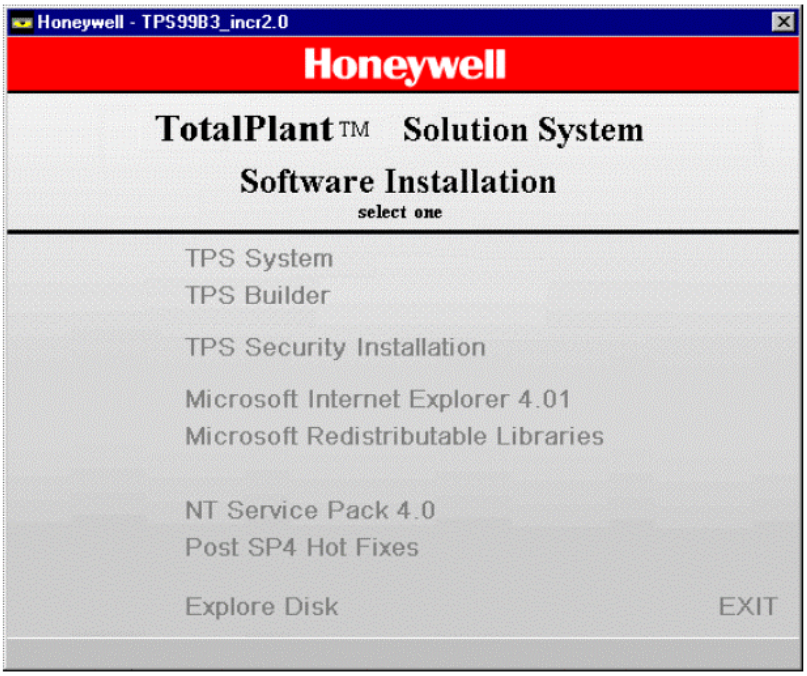
Add APP Node to the NT Domain

Normally, the APP will not be a PDC, and you would:

- Configure the TCP/IP settings
- Configure the NT Domain

You performed these tasks for the APP/PDC node in the first lab.

Install TPS Security

✓	Step	Action
	88	At the APP node, insert the **TPS System Software CD-ROM**. The following will appear: 
	89	Click **TPS Security Installation**.
	90	If the domain name is not correct, enter the NT Domain name listed on your partition sheet and then select the **Next** button.
	91	In the *Configure This Machine as a…* window, select the **TPS Domain Node** radio button option and then select the **Next** button.
	92	In the *Welcome* window, select the **Next** button.
	93	Read the Software License Agreement and accept the software license agreement terms by selecting the **Yes** button.
	94	If not already correct, enter a **Name** and **Company** from your partition sheet.

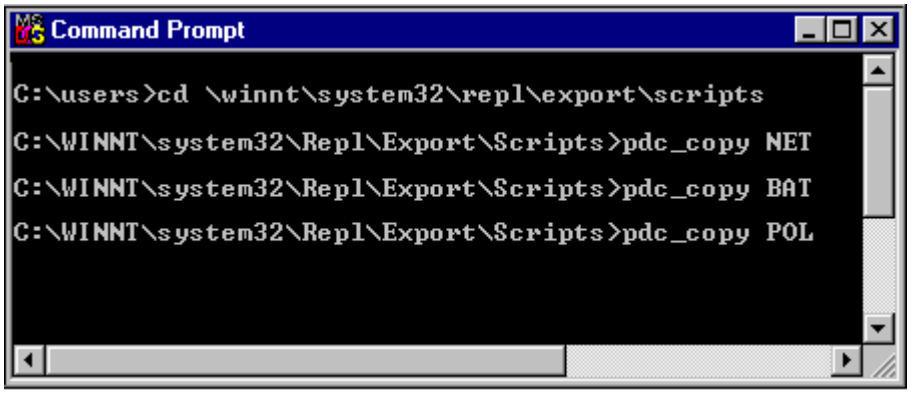
✓	Step	Action
	95	Enter **1** in the Serial text field and then select the **Next** button.
	96	Enter **C:** as the drive letter where the TPS software will be installed and select the **Next** button.
	97	Select the **Typical** installation option and select the **Next** button.
	98	Verify the current settings and select the **Next** button to begin the security configuration.
	99	Wait for configuration to complete (about 2 minutes). Ignore the errors that may display during the installation process. Select the **I prefer to view the configuration log at another time** radio button and then select the **Next** button.
	100	Select the **Finish** button.
	101	Select **EXIT** on the Software Installation window, then select **Yes** to confirm.
	102	Remove the CD from the drive.

Distribute Files from the PDC to TPS Nodes

NOTE: This procedure was done when the GUS was added to the network. At the time, the GUS and the PDC were the only nodes on the network. Therefore, the files were copied from the PDC to the GUS (and to the correct directory on the PDC). Now that we have added the APP node to the network, the procedure must be performed again so that the files will be distributed from the PDC to the APP node.

The procedure actually copies files from the PDC to ALL the nodes on the network (that are listed in the **pdc_copy.bat** file). Because, in this class, the APP node and the PDC are the same node, the files have already been copied to the APP node, and this procedure is not necessary. However, if the APP node were a separate node from the PDC, the **pdc_copy.bat** file would have to be edited to include the APP node on its list, then this procedure would be followed.

When all of the TPS nodes have been added to the NT domain the **HOSTS**, **LMHOSTS**, **operator.bat**, and **NTConfig.pol** files (to be discussed) must be distributed from the PDC to all of the TPS nodes.

✓	Step	Action
	103	Log on to the PDC as the TPSAdministrator.
	104	Open the **Command Prompt** utility: **Start > Programs > Command Prompt**
	105	Change the directory to **\Winnt\System32\Repl\Export\Scripts** 

Distribute the HOSTS and LMHOSTS Files		
•	**106**	Note: You may need to remove the read-only attribute of the destination files for the following command to be successful. Enter the command: **`pdc_copy NET`** This command distributes the HOSTS and LMHOSTS files to all of the TPS nodes. To determine if pdc_copy was successful, you should see the message "2 file(s) copied" for the PDC, and for each GUS and APP node in TPS Domain(s). In class, you should see the message three times – once for the PDC, once for the APP, and once for the GUS. If you do not see this message three times, investigate and correct the problem, then run pdc_copy again.
Distribute the operator.bat File		
	107	Enter the command: **`pdc_copy BAT`** This command distributes the file to all of the TPS nodes. To determine if pdc_copy was successful, you should see the message "2 file(s) copied" for each GUS and APP node in TPS Domain(s). In class, you should see the message twice – once for the GUS, and once for the APP. If you do not see this message twice, investigate and correct the problem, then run pdc_copy again.
Distribute the NTConfig.pol File		
	108	Enter the command: **`pdc_copy POL`** This command distributes the file to all of the TPS nodes. To determine if pdc_copy was successful, you should see the message "1 file(s) copied" for each GUS and APP node in TPS Domain(s). In class, you should see the message twice – once for the GUS, and once for the APP. If you do not see this message twice, investigate and correct the problem, then run pdc_copy again.

Install Additional APP Node Software

✓	Step	Action
Deactivate all TPS Applications		
	109	At the APP node, log on as the TPSAdministrator.
	110	Open the **Configuration Utility** as follows: **Start > Programs > Honeywell TPS > Configuration Utility**
	111	Select **Configure→ Devices/Services**.
	112	Note all boxes that are checked so you can select them later. ☐ TPSadmin ☐ TPS Console Operator ☐ Device Driver ☐ Services ☐ Enable ☐ LCN File Service ☐ File Transfer ☐ BGS_SDService ☐ CarbonCopy32 ☐ GUS Remote LXS ☐ Enable Touch Screen Driver ☐ Enable Integrated Keyboard Driver
	113	Uncheck all boxes and then select the **OK** button.
	114	Close the **Configuration Utility**.
	115	Shutdown and restart the APP node.
	116	Log on as Domain Administrator WHILE HOLDING THE **SHIFT** KEY DOWN. **Note:** the SHIFT key is held down at the time the ENTER key is pressed. You ensure that no applications are active by holding the SHIFT key while you log on. You must hold the key down until the log in is complete (the cursor is the normal cursor).
Install Software Components		
	117	Insert the TPS Sys Software CD-ROM.
	118	When the Software Installation window appears, select **TPS System**.
	119	When the *Welcome* dialog displays, read the details and if you agree select the **Next** button.
	120	Accept the software license agreement terms by selecting the **Next** button. The *User Information* dialog is displayed.
	121	Read the Third-Party Software Compatibility Policy and select the **Next** button.
	122	If this dialog has been used before, the information will be filled in. If not, enter the **Name**, **Company**, **License No.**, and **Authorization No.** information from your partition sheet and then select the **Next** button.

✓	Step	Action
	123	When the License No. and Authorization No. have been validated, the *Package Selection* dialog displays with a list of the available licensed packages. Select the following package: **APP Solution Package**
	124	Select the **Install Package** button.
	125	Select the **Default** radio button option for **Installation Type** and then select the **OK** button. If you encounter read-only files, select the checkbox and the **Yes** button to overwrite them.
	126	When all selected packages are installed, select the **Exit** button to exit the install program.
	127	Select the **Yes** button to answer the *Are you sure…* dialog.
	128	Click **EXIT** on the Software Installation window, then select **Yes** to confirm.
	129	Remove the TPS Sys Software CD-ROM from the APP node's CD drive.
Restart TPS Applications		
	130	Open the **Configuration Utility** as follows: **Start > Programs > Honeywell TPS > Configuration Utility**
	131	Select the **Configure** menu.
	132	Select the **Devices/Services** menu option.
	133	1. Check the **TPS Admin** box. 2. Uncheck the TPS Console Operator box. 3. Refer to step 112 and check the boxes for the desired services and then select the **OK** button.
	134	Close the **Configuration Utility**.
	135	Shutdown and restart the node.

Install TPS Security

This procedure was performed earlier in this exercise. It must be repeated after the software was installed to set permissions on directories and registry entries that may have been added by the new software. The first time you performed this procedure, you probably got errors. This time, you should not get errors.

✓	Step	Action
	136	At the APP node, logon as the TPSAdministrator.
	137	Insert the **TPS System Software CD-ROM**.
	138	When the Software Installation window appears, select **TPS Security Installation**.
	139	If the domain name is not correct, enter the NT Domain name listed on your partition sheet and then select the **Next** button.
	140	In the *Configure This Machine as a…* window, select the **TPS Domain Node** radio button option and then select the **Next** button.
	141	In the *Welcome* window, select the **Next** button.
	142	Read the Software License Agreement and accept the software license agreement terms by selecting the **Yes** button.
	143	If not already correct, enter a **Name** and **Company** from your partition sheet.
	144	Enter **1** in the Serial text field and then select the **Next** button.
	145	Enter **C:** as the drive letter where the TPS software will be installed and select the **Next** button.
	146	Select the **Typical** installation option and select the **Next** button.
	147	Verify the current settings and select the **Next** button to begin the security configuration.
	148	Wait for configuration to complete (about 2 minutes). Select the **I prefer to view the configuration log at another time** radio button and then select the **Next** button.
	149	Select the **Finish** button.
	150	Select **EXIT** on the Software Installation window, then select **Yes** to confirm.
	151	Remove the CD from the drive.

Create an Emergency Repair Disk (ERD)

✓	Step	Action
	152	Select **Start** → **Run**.
	153	Enter **rdisk /s** and press **Enter**. A Saving Configuration progress bar will appear, then a creation verification message will appear.
	154	Click the **Yes** button to verify. A floppy insertion message will appear.
	155	To create a new ERD, insert a new floppy that can be reformatted into the A drive. To update a ERD, insert the existing ERD into the A drive.
	156	Click the **OK** button. A Formatting Disk progress bar will appear as the ERD format is taking place. A Copying Configuration Files progress bar will appear as the configuration files are being copied to the ERD. A security precaution message will appear.
	157	Click the **OK** button.
	158	Remove the diskette from the drive and label it follows: **NT ERD – XXXXX** Where XXXXX is the name of your computer.  **ATTENTION:** The diskette may only be used to recover NT on the node which was used to create the ERD diskette.
	159	Store the **NT ERD** in a secure location where it can be retrieved if necessary.

Optional Labs

The following lab procedures are intended only for those students who have completed the required portion of the lab and are waiting for other students to complete the required portion.

Allowing Other Nodes to View the Local LCNP Status

ATTENTION

The procedure in this section is optional. It is only necessary to perform this procedure if you wish to allow other nodes to access the APP node's LCNP status.

Enable Remote Computer to Connect To This Computer

Step	Action
1	Log in as the local Administrator.
2	Use Windows NT Explorer to locate the following folder: **C:\Program Files\Honeywell\TPS\Emulators\Security**
3	Right-click on the folder and select **Properties**.
4	Select the **Sharing** tab.
5	Select the **Shared As** radio button.
6	Enter the following **Share Name**: **GUS Security**  ATTENTION: There is space between "GUS" and "Security."
7	Click the **Permissions** button to display the **Access Through Share Permissions** window.
8	The default access permission is **Full Control** for the **Everyone** group. Change the **Type of Access** permission for the **Everyone** group to **Read**.
9	Click the **OK** button to close the **Access Through Share Permissions** window.
10	Do not click the **OK** button. Click the **Apply** button instead.
11	Click the **Yes** button to verify the DOS-incompatible share name.
12	Select the **Security** tab in the **Security Properties** window.
13	Click the **Permissions** button to display the **Directory Permissions** window.

Step	Action
14	Check the **Replace Permissions on Subdirectories** box.
15	Check the **Replace Permissions on Existing Files** box.
16	Use the **Add** button to add the following access permissions: • Domain Admins – Full Control • Everyone (generic user account) – Read • SYSTEM (the OS account) – Full Control • TPS Administrators (a TPS PDC group account) – Full Control
17	Use the **Remove** button to delete all access permissions not listed above.
18	Click the **OK** button to close the **Directory Permissions** window.
19	Click the **Yes** button to verify the subdirectories access permission change.
20	Click the **OK** button to close the **Security Properties** window.

Limit Users Who Can Remotely Access the LCNP Status Display

Step	Action
1	Use Windows NT Explorer to locate the following folder: **C:\Program Files\Honeywell\TPS\Emulators\Security\TdcBoard0**
2	Right-click on the **Status Applet** file in the folder and select **Properties.**
3	Select the **Security** tab in the Status Applet Properties window.
4	Click the **Permissions** button to display the File Permissions window.
5	Use the **Remove** button to delete the “Everyone” access permission.

Step	Action
6	Remove any access permission not listed below: • Domain Admins – Full Control • SYSTEM (the OS account) – Full Control • TPS Administrators (a TPS PDC group account) – Full Control • View Only Users – Read • Operators – Read • Supervisors – Read • Engineers – Read
7	Add any other needed users and groups, and only grant them **Read Only** access in order to prevent security breeches.
8	Click the **OK** button to close the **File Permissions** window.
9	Click the **OK** button to close the **Status Applet Properties** window. The users and groups granted access above can now view the LCNP status of the APP node.

References

TPS System Implementation Guide

Notes