



Experion PKS
Release 520

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ABOUT THIS DOCUMENT

The Configuration Utility is used for configuring Honeywell software packages on Experion and non-Honeywell nodes. The items that appear in the Configuration Utility's Configure menu depend upon which Honeywell software packages have been installed on the node; therefore, not all sections in this guide may apply to your site.

Beginning with Experion R431 and TPN R685, the Enhanced TPS Node (ETN) has been introduced. In ETN, the LCNP4 card has been removed and is replaced by a combination of Enhanced TPS Node Interface card (ETNI) and K4LCN board which provides the same functionality as the LCNP4 card. Throughout the document, unless specifically mentioned, the term LCNP4 can be interchangeably used with the terms ETNI-K4LCN hardware.

1.1 Revision history

Revision	Date	Description
A	June 2021	Initial release of the document

1.2 References

The following list identifies documents that are sources of information for certain topics in this publication.

Document title
<i>System Management Configuration Guide</i>
<i>TPS File Transfer Installation and User's Guide</i>
<i>GUS Display Builder User's Guide</i>
<i>GUS Remote Displays User's Guide</i>
<i>Native Window User's Guide</i>

GETTING STARTED

2.1 Using This Manual

The Configuration Utility is used for configuring Honeywell software packages on Experion PKS and non- Honeywell nodes.

The items that appear in the Configuration Utility's Configure menu depend upon which Honeywell software packages have been installed on the node; therefore, not all sections in this guide may apply to your site.

To use this guide, go to the section describing the Configure menu item of interest.

2.2 Starting the Configuration Utility

2.2.1 Prerequisites

One of the following software components must be installed on a node that is used to start the Configuration Utility:

Running multiple instances of the Configuration Utility can present inconsistent views of the information and may cause problems. Similarly, the Configuration Utility should not be open while the 'Add/Remove Board' utility is being run.

2.2.2 Method 1 - Start the Configuration Utility

1. Log on to the node as the local **Administrator** or another user account that is a member of the local **Administrators** group.

TIP

Use the *Computer Management* tool on the node to view the installed users and groups.

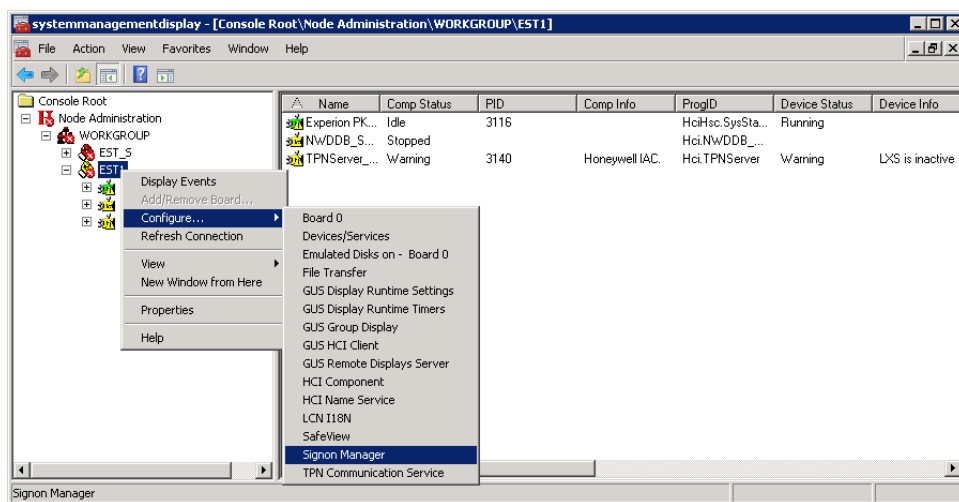
2. For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
3. Select **Configure**.
The Configure menu appears containing the 'pages' of the Configuration Utility available for the local node.

2.2.3 Method 2 -Start Configuration Utility from System Management Display

If a Honeywell System Management Display has been created (using the Honeywell Node Administration MMC snap-in), then you can use the following procedure to access a node's Configuration Utility through the Honeywell System Management Display.

1. Select **Start > All Programs > Honeywell Experion PKS > System Management > System Management Display**.
2. Select the previously configured console of interest: **[console name].msc** and respond to any request for User Id and passwords.
3. Expand the hierarchy until you see the computer item of interest. Right-click the computer, and then select **Configure**.

The Configure menu appears containing the 'pages' of the Configuration Utility available for the selected node. The following Configure menu is an example for an ES-T node.



For detailed instructions on creating a Honeywell System Management Display, refer to the *System Management Configuration Guide*.

Remote configuration through System Management Display

- The System Management Display supports remote (non- local) node configuration of the following items in the Configuration Utility:
 - Devices/Services
 - SignOn Manager
 - HCI Component
 - HCI Name Service

2.2.4 Configuration Utility Menu Items

The items available in the Configuration Utility depend upon the software installed on the target node. The remaining sections of this guide describe the selectable items in the Configure menu or refer to other documentation.

BOARD CONFIGURATION PAGES

3.1 Accessing the board configuration pages

The name of the node's local LCNP board appears as a menu item in the node's Configuration Utility as 'Board0' (the default name) or as a customized name (for example, EST01). Selecting the menu item invokes the ' Board Configuration Pages.'

3.1.1 Defining the LCNP Board Name for an ES-T/ESVT Node

Experion nodes have preconfigured personalities. The board name defaults to ' Board0'and under normal conditions need not be changed.

3.1.2 Board Configuration Pages based on LCNP Personality

There are eight specific board configuration pages for each of the available LCNP board personalities as shown in the following table.

ESVT and ACE-T uses the APP personality.

An ES-T uses the GUS personality.

Board Configuration Pages	LCNP Personality			
	GUS	US	APP	AM
1. LCNP	X	X	X	X
2. Common	X	X	X	X
3. Emulated Disks	X	X		
4. Keyboard	X	X		
5. Native Window	X	X		
6. Printer	X	X		
7. Data Access Configuration	X		X	
8. TPN Time Sync	X		X	

3.2 LCNP Page

3.2.1 Usage of the LCNP Page

The LCNP Page is used for configuring an LCNP board that is running on a ES-T, Experion APP, US, or AM.

3.2.2 Overview of the LCNP Page

The LCNP Page controls settings to configure LCN addressing, personality, and user access.

3.2.3 Accessing the LCNP Page

- For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or
From the System Management Display, right - click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)
- Select the following:
Configure >[LCNP board name]
Where [LCNP board name] is 'Board 0'(the default name) or a customized name.
- Select the **LCNP** tab to display the following (ES-T example shown):

Board 0 : EST1

Printer | Emulated Disks | Data Access Configuration

LCNP | Common | Native Window | TPN Time Sync | Keyboard

Description

The LCNP adapter card supports the execution of a standard TDC Personality and provides connection to the LCN.

This form provides configuration information for the adapter's identity on the LCN network.

For Experion nodes, this form also specifies the generic source for TPS System Alarms reported to the Experion server through this node.

LCN Address: NG Name:

LCN Name:

Personality: GUS

Experion TPS System Alarm
<Source Name>
esvt1

Computer Name
 LCN Name
 Cluster Server Name
 <Disable>

LCNP Reset Controls
Local Remote
From LCNP Status Display

LCNP Auto Restart
 Enable LCNP Auto Restart

OK Cancel Apply Help

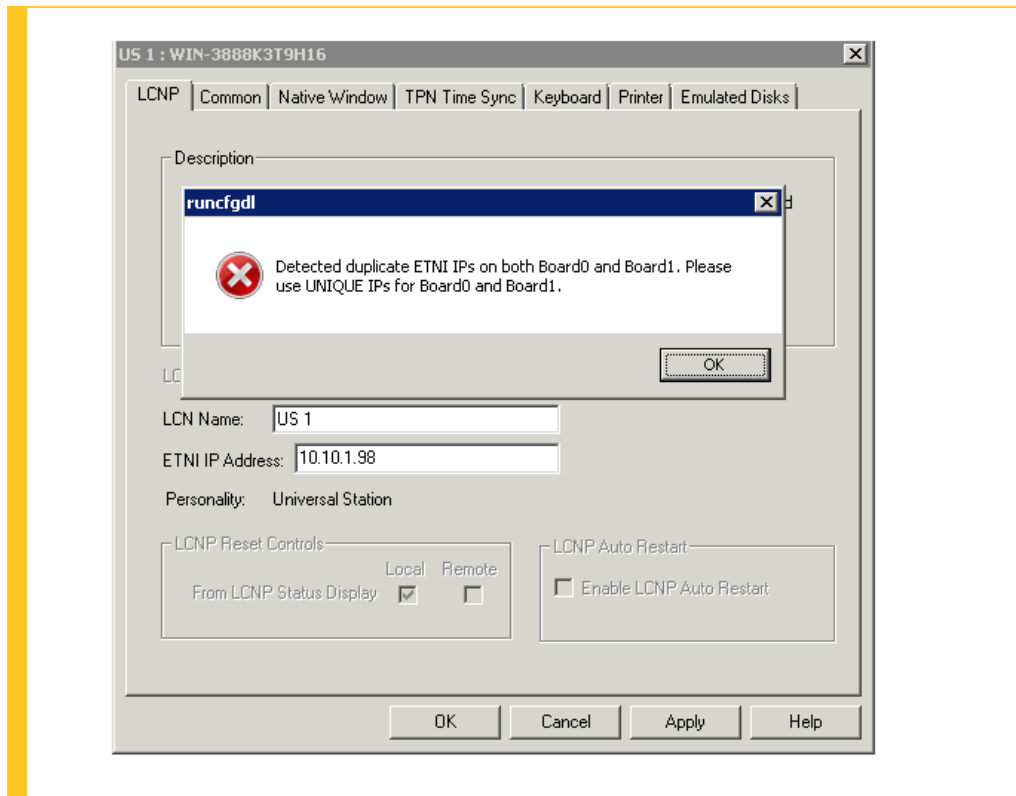
ATTENTION

Beginning with Experion R500, for an Enhanced TPS Node, the following fields have been modified on the LCNP (Board0) screen:

- the **LCN Address** field is disabled and users can only view the configured **LCN Address**. The **LCN Address** is set on the K4LCN board using switches.
- the **LCNP Auto Restart** option is replaced with the **K4LCN Auto Restart** option, this option provides automatic loading of K4LCN with LCN Node personality.
- the **ETNI IP Address** field specifies the IP address of the ETNI board to which the ETN is paired. This field is only available in ETN.

ATTENTION

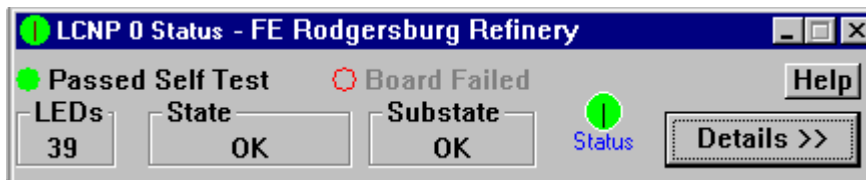
For an ETN-based PCUS Node, while configuring IP addresses for both ETNI processor boards, enter unique IP addresses for ETNI Board 0 and ETNI Board 1, if not, the Configuration Utility detects duplicate IP addresses and displays an error message as shown in the following image.



3.2.4 LCN address

The **LCN Address** field specifies the LCN address of the node.

The **LCN Address** appears in the **LEDs** field of the LCNP Status display. For the following example, '39' was entered as the LCN Address:



The **LCN Address** also appears in the **LEDs** field of the LCN Native Window Status Bar. For the following example, '2' was entered as the LCN Address:



For an Enhanced TPS Node, the **LCN Address** field has been disabled and users can only view the configured **LCN address**. The **LCN address** is set on the K4LCN board using switches.

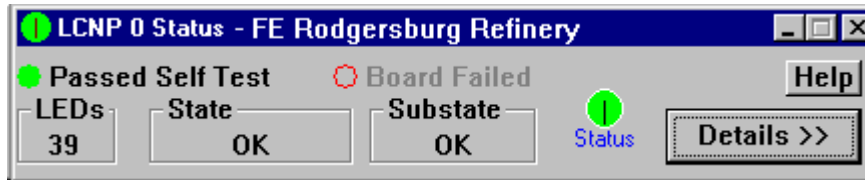
3.2.5 LCN name

LCNP Status and Native Window can be connected to the local LCNP board or to a PIN- connected

LCNP board mounted in a GUS on another LCN. The LCN Name field helps the user identify which LCN the LCNP Status and/or Native Window is connected to.

The LCN name is specified in the **LCN Name** field.

The **LCN Name** appears in the title bar of the LCNP Status display. For the following example, 'Rodgersberg Refinery' was entered as the LCN Name:



The **LCN Name** also appears in the title bar of the LCN Native Window. For the following example, 'Rodgersberg Refinery' was entered as the LCN Name:



3.2.6 NG Name

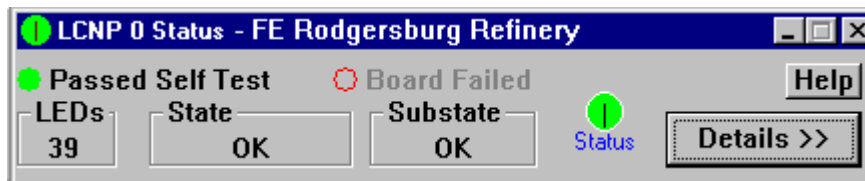
Data access is established through the Network Gateway's (NG) communication link to other LCNs.

The **NG Name** field specifies the two-letter name of the LCN's Network Gateway, if one exists.

The field should not be left blank. A space should be entered if the system does not have a Network Gateway.

For an Enhanced TPS Node, type the pre-determined NG Name for the ETN-K4LCN Reset functionality to work.

The **NG Name** appears in the title bar of the LCNP Status display. For the following example, 'FE' was entered as the NG Name:



The **NG Name** also appears in the title bar of the LCN Native Window. For the following example, 'FE' was entered as the NG Name:



3.2.7 Personality

This is the personality loaded through the **Autoload Net** command.

3.2.8 LCNP Reset Controls

Select the **Local** box to allow the LCNP to be reset from the local status display. Select the **Remote** box

to allow the LCNP to be reset from the LCNP status display of a remote node.

On the LCNP Status display, the **Reset LCNP** button will be enabled as shown below.

ATTENTION

In the following LCNP Status display, the CNI slot cannot be seen because the TPS- SIM has not been installed.

LCNP 0 Status - <no NG name> Board 0

Passed Self Test Board Failed

LEDs: 5 State: OK Substate: OK Status: Status No Details

LED Description

Node Address	Status 1	Status 2
Slot 2: WSI2 4039 001c 0000 0000 0000 0000 0000 0085	●	○
Slot 3: SCSI 47ca 0702 0000 0099 0280 8c00 3f3f 0101	●	○
Slot 4: EPDG 4742 1002 68f8 30a1 0280 8420 0000 0000	●	○

Bar LED Status

○ ST ○ BE ○ ND ○ DCE ○ DAT ○ SBE ○ DPE ○ GT ○ MBE

Refresh

Refresh Now 1 Seconds 1/10 Second Reset LCNP

Time Sync

Demand TimeSyn TPS Time: 11:02:59 TPN Time: 11:03:11 Set TPN to TPS time

Last Execution Result: at 10:26:10 [TPS time]
Gradual Adjustment In Effect, TPN time was 10:26:22

Revisions

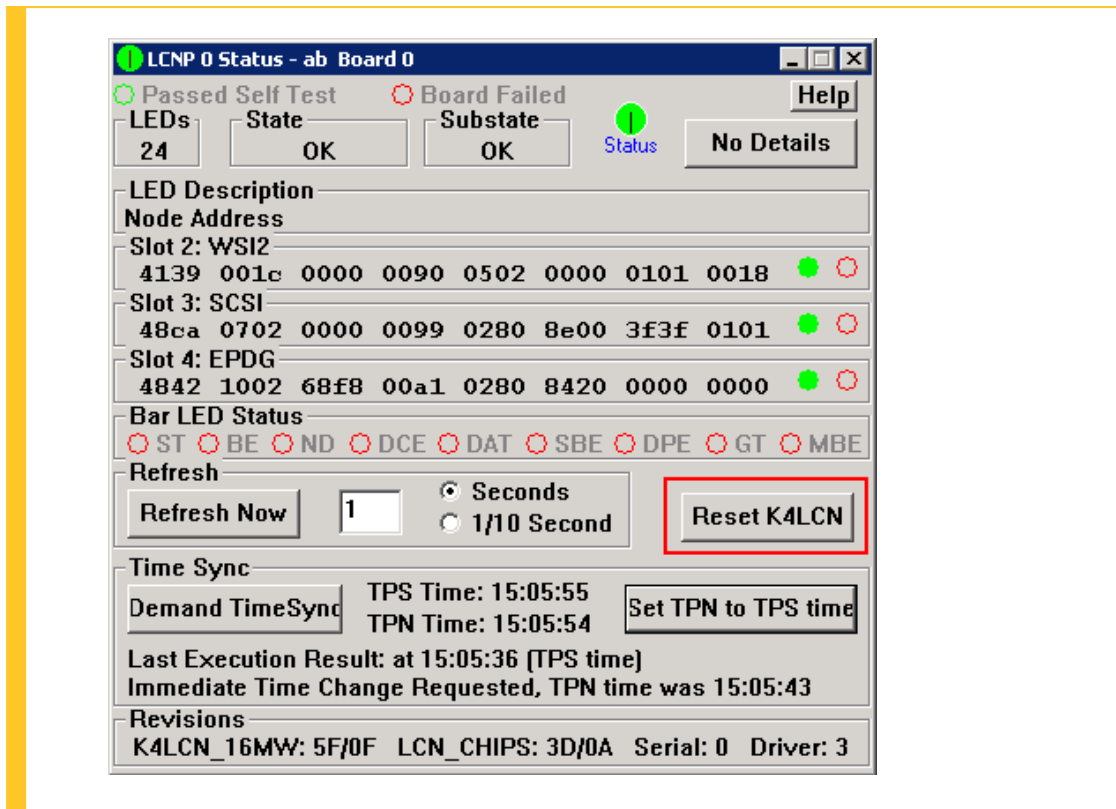
LCNP4-GPS: 5L/0L LCN_CHIPS: 3K/0C Serial: 2 Driver: 3

ATTENTION

Beginning with Experion R500, for an Enhanced TPS Node, the **Reset LCNP** button is replaced with the **Reset K4LCN** button. This button performs a RESET on the K4LCN.

Following are the prerequisites for the K4LCN Reset functionality to work:

- The NG Name must be configured for all the nodes.
- All the nodes must be a part of a domain.
- Any other TPS Node in OK state in the same network must be running.



Refer to the *Reset LCNP Board* section in the *Native Window User's Guide* for additional information.

3.2.9 Experion TPS System Alarm

Select the source for an Experion TPS System Alarm. (The default selection is Cluster Server Name and the server name is automatically provided by the ES-T). For new installs, the default selection is <Disable>. Migrated systems may have to set the Experion TPS system alarm to Cluster Server Name. It is recommended to disable the TPS system alarm and instead use the TPS System Status and TPS Console Status indicators in the Experion Station status bar.

Computer Name

There is one TPS system alarm for each ES-T. Type the Computer Name in the <Source Name>.

LCN Name

LCN Name is a user-selected TPS system alarm source identifier to allow the aggregation of TPS system alarms among a set of ES-Ts, based on configuration or operational considerations.

The Experion PKS System Alarm Summary Display shows a TPS system alarm per LCN Name. Type the LCN Name in the <Source Name> space.

Cluster Server Name

Every ES-T in the Experion PKS cluster is configured for the Cluster Server Name as a default. If Cluster Server Name is selected, there is only one TPS System Alarm on the Experion PKS System Alarm Summary Display per cluster.

<Disable>

You can disable the TPS system alarm for a node. It is recommended to use this setting for users migrating to Experion R410.

TIP

The **Experion TPS System Alarm** is applicable only for ES-T nodes.

When a TPS System Alarm occurs, a Windows event occurs on each ES-T. The System Event Server (SES) captures and converts this Windows event into an Experion PKS System Alarm, or updates an existing alarm.

The selection of the option determines the source of the Experion TPS System Alarm and specifies the name of the source.

3.2.10 TPN Time Sync Controls

LCNP4- GPS boards support a TPN time synchronization option that allows you to synchronize TPN time to TPS time. An LCNP4-GPS board displays buttons in the details mode to adjust the time synchronization. A node can leverage this Time sync capability only when configured as a Clock Source in the NCF; other GPS enabled nodes become listener nodes. Once configured as a Clock Source, enable and configure time sync on the clock source node.

Since GUS R330 and APP R211, the TPN Time Sync function provides the ability to synchronize TPN time to TPS node time.

The TPN Time Sync controls on the LCNP Status Display are the **Demand Time Sync** button and the **Set TPN to TPS time** button. The buttons are enabled only on the node that is designated as the Master clock source.

The LCNP Status display also shows the current TPS and TPN times, and the time and result of the last time- synchronization execution.

Beginning with Experion R500 and TPN R686, you can perform TPN time synchronization on an ETN node.

The Primary and Secondary clock source nodes must have the LCNP4- GPS (or later) board installed. During configuration of the System Wide Values in the Network Configuration File (NCF.CF), assign CLOCK NODE 1 and CLOCK NODE 2 to the node numbers that have the LCNP4- GPS board installed. The clock source node that has its personality loaded first becomes the Master clock source node.

Due to specific Microsoft time conversion routines used for daylight savings, TPN time may be incorrect under the following conditions.

3.2.11 Demand Time Sync

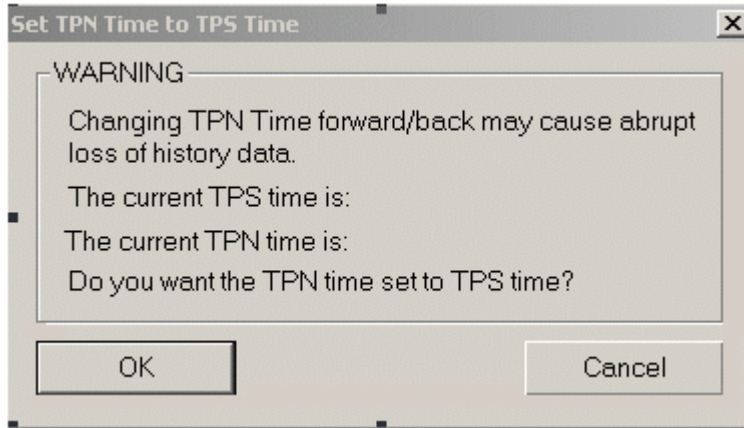
Clicking on this button initiates a time sync analysis without waiting for the next time sync interval to occur. It has the same effect as a configuration change in that whenever the configuration of the TPN Time Sync function changes, TPN time synchronization is initiated. This button is functional when the **Enable TPS to TPN Time Synchronization** function is selected on the Configure Board 0-TPN Time Sync Page.

3.2.12 Set TPN to TPS Time

This button allows the user to synchronize TPN time to TPS time. The button is functional when the

Time Sync checkbox is selected on the Configure Board 0-Common Page, and it is independent of the **Enable TPS to TPN Time Synchronization** selection on the Configure Board 0-TPN Time Sync page. In addition, the button is operational only when a user has signed onto the node using the Engineer privilege.

When you click on the **Set TPN to TPS time** button, the following dialog box appears:



The warning message indicates that TPN time will be changed to TPS time immediately. Click **OK** to accept the change or click **Cancel** to leave TPN time unchanged. When you click **OK**, TPN time is immediately changed to TPS time. A Warning- Level event is logged on the System Event Log. This option has the same effect as changing the TPN time manually.

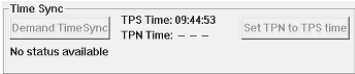
CAUTION

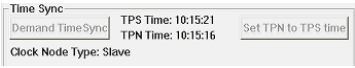
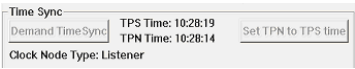
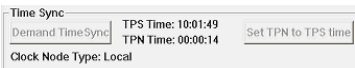
When the user clicks OK, TPN time is set to the current TPS time.

The current TPS time may be slightly different that the time specified in the dialog pop-up depending on when the last time update occurred.

3.2.13 TPS Time, TPN Time, and Time Synchronization Status





TPS time, TPN time, and Time Synchronization status are shown on the LCNP Status display as described in the following listing:

If clock node type is...	Then...
not an APP, GUS, or LCN- connected Experion node with an LCNP4- GPS (or later) installed.	Current TPS time and 'No Status Available' are displayed. 
a master clock source and the Time Sync is Not Enabled.	Current TPS time and 'Time Sync Not Operational' are displayed.
a master clock source and the Time Sync are Enabled.	Current TPS time and TPN time are shown with the last execution status.

If clock node type is...	Then...
a secondary clock source	Current TPS time, TPN time, and clock node type are displayed. 
a listener (not a master or a secondary clock source)	Current TPS time, TPN time, and clock node type are displayed. 
local node	Current TPS time, TPN time, and clock node type are displayed. 

3.2.14 Last Execution Result

When the node is the Master clock node, the ' Last Execution Result' displays the results of the prior TPN time sync operation as described in the following listing:

Results on the Master Clock Source node	Diagram
No Action - Within Dead Band, TPN time was 17:33:21	
Gradual Adjustment in Effect, TPN time was 09:59:08	
Immediate Time Change Requested, TPN time was 09:45:29	
No Action - Difference Exceeded Cutoff, TPN time was 00:00:37	

3.2.15 Enable LCNP Auto Restart

The **Enable LCNP Auto Restart** box is unchecked by default. If the box is checked, then whenever the LCNP goes into PWR_ON state, the LCNP is automatically loaded with the LCN Node personality using the local personality image files from the local hard disk. After the personality image files are loaded, the LCN files such as the NCF, area database, and backplane modules are loaded from the NET (History Modules).

The LCNP Auto Restart feature is not applicable to Application Module Replacement and Universal Station Replacement nodes.

The Enable LCNP Auto Restart check box can be made available as a menu item in the Native Window Access Menu. Refer to section [Native Window Page](#).

Beginning with Experion R500, for an Enhanced TPS Node, the **Enable LCNP Auto Restart** option is replaced with the **Enable K4LCN Restart** option. The information provided in this section also applies to the K4LCN Auto Restart option.

CAUTION

When LCNP Auto Restart is enabled, any time the LCNP goes into PWR_ON state, the LCNP will be automatically loaded. You will not be able to do a Local/Target load. You have to disable the LCNP Auto Restart feature before you can load the node manually.

If nodes are to be restarted by the Automatic TPN System Restart function, then the LCNP Auto Restart option for each node must be disabled in the respective Configuration Utility.

Related Scenarios

A list of six different scenarios related to the **LCNP Auto Restart** option follow.

Note: All scenarios, except the ones with Native Windows, also apply to LCN-connected Servers and APP nodes; and the option will be loaded with APP Node personality.

Prerequisite

History modules containing files including the NCF, Area database, and backplane option files are required.

Scenario 1: Experion Station - TPS is powered on/rebooted and required History Module(s) are running

When a Experion Station - TPS is powered on or rebooted, the Windows operating system loads and the LCNP goes into the PWR_ON state. If the **LCNP Auto Restart** option is enabled, a Experion Station - TPS automatically loads the LCNP with the personality using files from the Experion Station - TPS local hard disk, and then loads LCN files (including the NCF, area database files, and backplane module files) from the History Module(s).

Scenario 2: Experion Station - TPS is powered on/rebooted and required History Module(s) are not running

When a Experion Station - TPS is powered on or rebooted, the Windows operating system loads and the LCNP goes into the PWR_ON State. If the **LCNP Auto Restart** option is enabled, the Experion Station - TPS starts loading the files from the Experion Station - TPS local hard disk. If the system History Module is not running, Experion Station - TPS fails after trying to open the NCF file for approximately 10 minutes. If the Backplane modules and the Area database files are not available during startup, the Experion Station - TPS node displays a prompt (&CUS N, 1,2,3,4,X ? or AR0X N, 1,2,3,4,X ? respectively) on its Native Window , if the Native Window is already running. If Native Window is invoked AFTER the prompt is generated, the prompt will NOT show up in the Native Window, but the personality will still be waiting for an input from the user. The node will be stalled in the READY state until the user takes an action.

For an Experion APP or Experion server - TPS node, the LCNP stalls in the READY state until corrective action is taken and the LCNP is reset.

When the required History Module starts running and the LCNP is reset to the PWR_ON state, the LCNP is automatically loaded with the personality.

Scenario 3: A Experion Station - TPS is shutdown and the required History Module(s) are running

When a Experion Station - TPS is shutdown, the LCNP goes into the QUALIF state and **LCNP Auto Restart** is not initiated. At this point, you must either load the personality manually or reset the LCNP to the PWR_ON state so that the LCNP is automatically loaded with the personality.

Scenario 4: A failed Experion Station - TPS is being dumped

When a Experion Station - TPS is in the FAIL state and its memory is being dumped, the LCNP state changes from the FAIL state to the PWR_ON state and the dump process starts. When the dump is finished, if the **LCNP Auto Restart** option is enabled, the LCNP auto restart is initiated and the Experion Station - TPS is automatically loaded with the personality.

Scenario 5: A failed Experion Station - TPS is being loaded

When a failed Experion Station - TPS node is being loaded from System Status Display of another station, the LCNP state will transition from FAIL to PWR_ON state. If the LCNP auto restart is enabled, LCNP auto restart is initiated and the LCNP will be automatically loaded with the personality. The target load from the System Status Display will fail, because LCNP auto restart has taken over. If the LCNP auto restart is enabled, you can reset the LCNP to the PWR_ON state and the LCNP will be automatically loaded with the personality.

Scenario 6: Experion Station - TPS and History Module nodes are powered on simultaneously

When the Experion Station - TPS and History Module nodes are powered on simultaneously, the History Module is booted automatically and the LCNP goes into the PWR_ON state. At this point, if the LCNP Auto Restart option is enabled, the LCNP starts loading the local QLTs and PI files and then tries to open the NCF every 10 seconds for approximately 10 minutes (that is, 60 times in 10 minutes). If the History Module is available and running in the span of 10 minutes, the LCNP will be loaded and put into running state.

3.3 Common Page

3.3.1 Usage of Common Page

The Common Page is used for configuring an LCNP board running on Experion APP, ES-T, AM, or US.

3.3.2 Overview of the Common Page

The **Common** page is used to enable emulation service functions and to determine each function's event log actions.

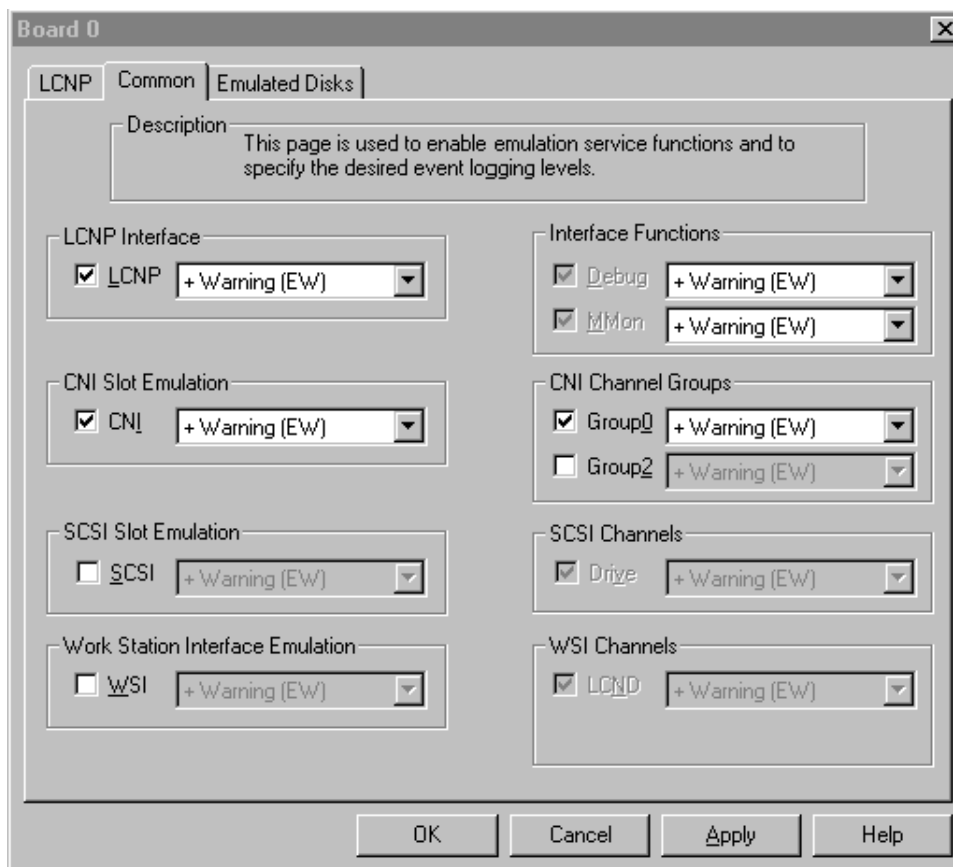
The default settings are correct for most sites. Do not change any setting without advice from Honeywell personnel. Not all combinations of Common page settings result in usable systems, but Honeywell special case recommendations will always result in viable combinations.

3.3.3 Accessing the Common Page

- For ES-T and Experion APP nodes, select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#).
- Select **Configure > [LCNP board name]**
Where [LCNP board name] is 'Board 0' (the default name) or a customized name.
- Select the **Common** tab to display information, similar to the following examples.

3.3.4 Common Page Example 1

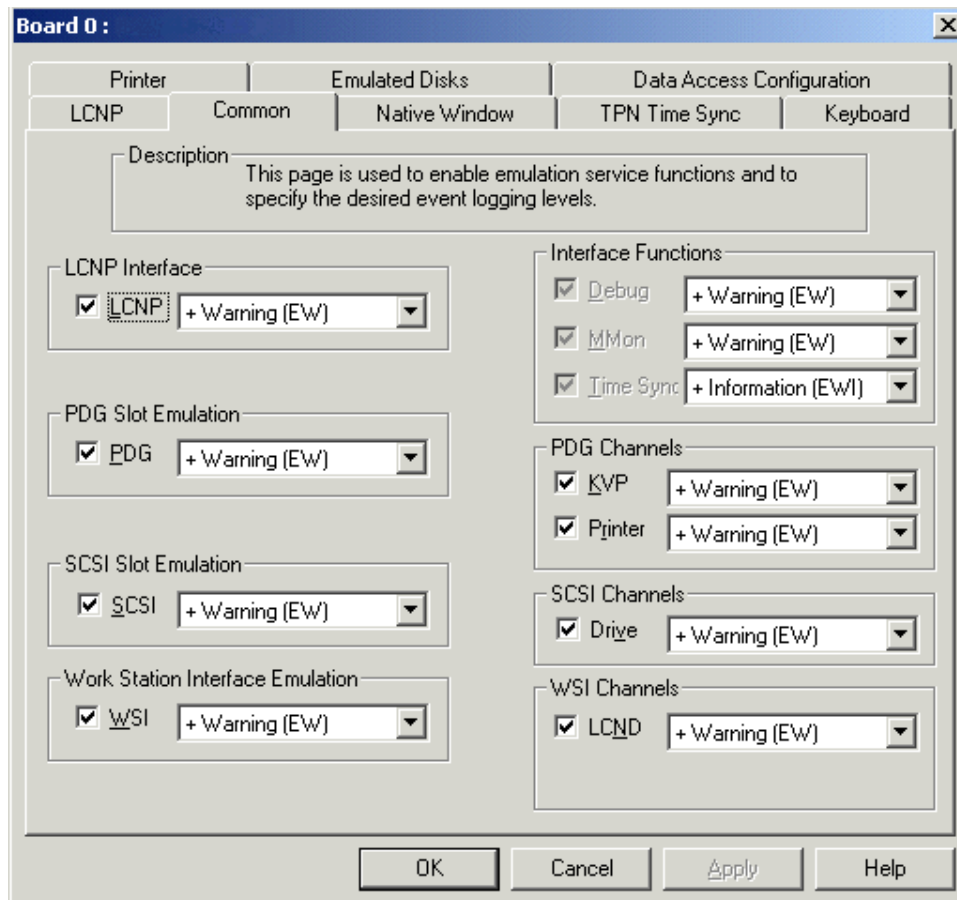
The following Common Page example indicates that Honeywell Hi- Spec Solution's TPS- SIM software is installed, due to the inclusion of the CNI slot and the exclusion of a PDG slot.



3.3.5 Common Page Example 2

The following Common Page is a ES-T example.

The example indicates that Honeywell Hi- Spec Solution's TPS- SIM software *is not* installed, due to the inclusion of the PDG slot and the exclusion of a CNI slot.



3.3.6 Setting Choices

Each one of the following settings determine one function event log action:

Setting	Result
Error Only (E)	Only function error messages will be written to the event log.
+ Warning (EW)	Function error and warning messages will be written to the event log. This default setting should be used for most installations. Do not change this setting without advice from Honeywell personnel.
+ Information (EWI)	Function error, warning, and information messages will be written to the event log.
+ Debug (EWID)	Function error, warning, information, and debug messages will be written to the event log.

3.3.7 Common Page Setting Definitions

Setting	Definition
LCNP Interface	Connects an ES- T, ESVT, Experion APP, with the TPN.
PDG Slot Emulation	Controls video, the keyboard, and the printer. It is required for US- type personalities. Only available if Honeywell Hi- Spec Solutions TPS- SIM is not installed.
CNI Slot Emulation	Contact Honeywell Hi- Spec Solutions for detailed information. Only available if Honeywell Hi- Spec Solutions TPS- SIM is installed.
SCSI Slot Emulation	Enables cartridge drive emulation. It is required for US- type personalities.
Work Station Interface Emulation	Enables work station loads and TPN data access. It is required for, Experion APP, ES-T and ESVT nodes.
Interface Functions	Debug - Enables the low level TPS debugger. MMon - Supports proper synchronization between the various TPS indicators (such as keyswitch) and the same indicators on the ES-T. Debug and MMon should be enabled unless specifically advised otherwise by Honeywell personnel. Time Sync - Time Sync option is selected by default indicating that Time Sync function emulators are running. When the Time Sync is running it adds the TPN Time Sync tab to the Configure- Board 0 pages.
PDG Channels	KVP - Supports the keyboard, video, and pointer (mouse, trackball, or touch screen) functions needed by US personalities. Printer - Enables printing. It is enabled by default in order to support printing on a local or network printer. Only available if Honeywell Hi- Spec Solutions TPS- SIM is NOT installed.
CNI Channel Groups	Contact Honeywell Hi- Spec Solutions for detailed information. Only available if Honeywell Hi- Spec Solutions TPS- SIM is installed.
SCSI Channels	Allows a US or ES- T to support emulated disk operation.
WSI Channels	Contains the LCNP emulator This function should be enabled on all ES- T nodes unless specifically advised otherwise by Honeywell personnel.

3.4 Data Access Configuration Page

3.4.1 Usage of the Configuration Page

The Data Access Configuration Page is used for configuring an LCNP board that is running on an Experion APP or ES-T.

3.4.2 Overview of the Configuration Page

The settings on the Data Access Page determine the number of channels and servers that are reserved

for High Priority Requests during node initialization.

3.4.3 Accessing the Configuration Page

1. For ES-T or Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#).
2. Select the following:
Configure > [LCNP board name]
Where [LCNP board name] is 'Board 0' (the default name) or a customized name.
3. Select the **Data Access Configuration** tab to display the following (ES-T example shown):

Board 0

LCNP Common Native Window TPN Time Sync Keyboard
Printer Emulated Disks Data Access Configuration

Description

Configuration of the DA High Priority Channels and Servers allows the user to decide upon the number of Channels and Servers that DA will reserve for High Priority Requests during initialization.

NOTE: changes only take effect after reloading personality.

This form provides configuration information for the modification of the number of DA High Priority Channels and Servers.

High Priority Channels

Enter a number between zero (0) and twenty (20). Channels:

High Priority Servers

Enter a number between zero (0) and six (6). Servers:

Warning: Setting High Priority Servers to the maximum value (6) will not allow services requiring low priority channels to run.

OK Cancel Apply Help

3.4.4 Setting the High Priority Channels

This configuration parameter allows you to configure the personality to set aside a defined number of the data access channels for high priority actions only.

The only contention for these channels will be between high priority data access applications.

Low priority data access applications will have to share the remaining channels with other low priority data access applications and non- data access applications such as file transfer and journal access.

The following formula is used:

Number of Low Priority Channels = 20 - (Number of High Priority Channels)

After you have set the number of High Priority Channels, you can set the number of High Priority Servers as shown below.

3.4.5 Setting the High Priority Servers

This configuration parameter allows you to configure the personality to set aside a defined number of data access servers to service high priority requests only.

The following formula is used:

Number of Low Priority Servers = 6 - (Number of High Priority Servers)

Honeywell recommends that you do not set the number of high priority servers to 6. For more information about the recommended settings on this page, refer to the 'Verifying Configuration of Board 0 Data Access Configuration and TPN Server Channels' in the *Integrated Experion-TPS User's Guide*

3.5 Emulated Disks Page

3.5.1 Usage of the Emulated Disks Page

The Emulated Disks Page is used for configuring an LCNP board that is running on a Experion Station - TPS node.

3.5.2 Overview of the Emulated Disks Page

Emulated Disks provide cartridge drive functionality for Native Window by allocating Windows file space for LCN file storage. Windows Emulated Disk files contain LCN directory structures and file information stored in LCN file format.

Emulated disk files can be located:

- on a local or remote hard disk.
- on a local or remote CD- ROM.

Note that emulated disk files stored on tape must be copied to a hard disk or a CD- ROM to be usable.

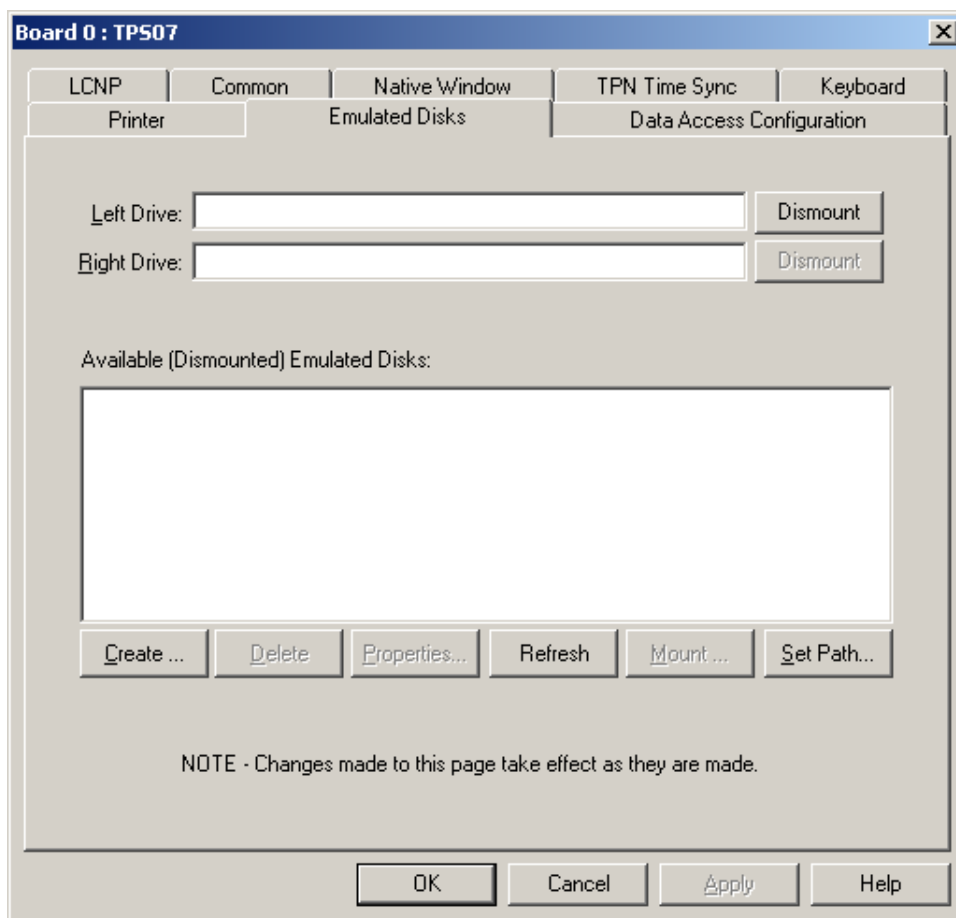
Emulated disks are referenced by \$Fnn drive numbers, where nn is one of the station's assigned cartridge drive numbers as configured in the NCF for the station's LCN address.

With TPN R670, emulated disks can also be operated from the GUS/US using the TPN Command Processor and EC files. For TPN R671 and greater, the emulated disks can also be operated from the Experion Station- TPS.

Refer to *Command Processor Operations Manual* for more information about operating emulated disks using the TPN/LCN Command Processor and EC files.

3.5.3 Accessing the Emulated Disks Page

- For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)
- Select the following:
Configure > [LCNP board name]
Where [LCNP board name] is 'Board 0' (the default name) or a customized name.
- Select the **Emulated Disks** tab to display the following (ES-T example shown):



3.5.4 The Left Drive Field

The **Left Drive** emulator corresponds to the lower- numbered drive (as indicated for the node on the Native Window Console Status display).

3.5.5 The Right Drive Field

The **Right Drive** emulator corresponds to the higher- numbered drive (as indicated for the node on the

Native Window Console Status display).

3.5.6 The Dismount Buttons

Use the dismount buttons as follows to dismount an emulated disk:

It is imperative that emulated disks be dismounted after their use. Otherwise, a user in a following session will not be able to mount the emulated disk, because the disk will still be flagged as being in use by the prior user and therefore unavailable.

Click the **Left Drive Dismount** button if you wish to dismount the left emulated disk, or the **Right Drive Dismount** button if you wish to dismount the right emulated disk.

You can also drag the disk to the Available (Dismounted) Emulated Disks list.

RESULT: The emulated disk is dismounted and it then appears in the **Available (Dismounted) Emulated Disks** list.

3.5.7 The Available (Dismounted) Emulated Disks List

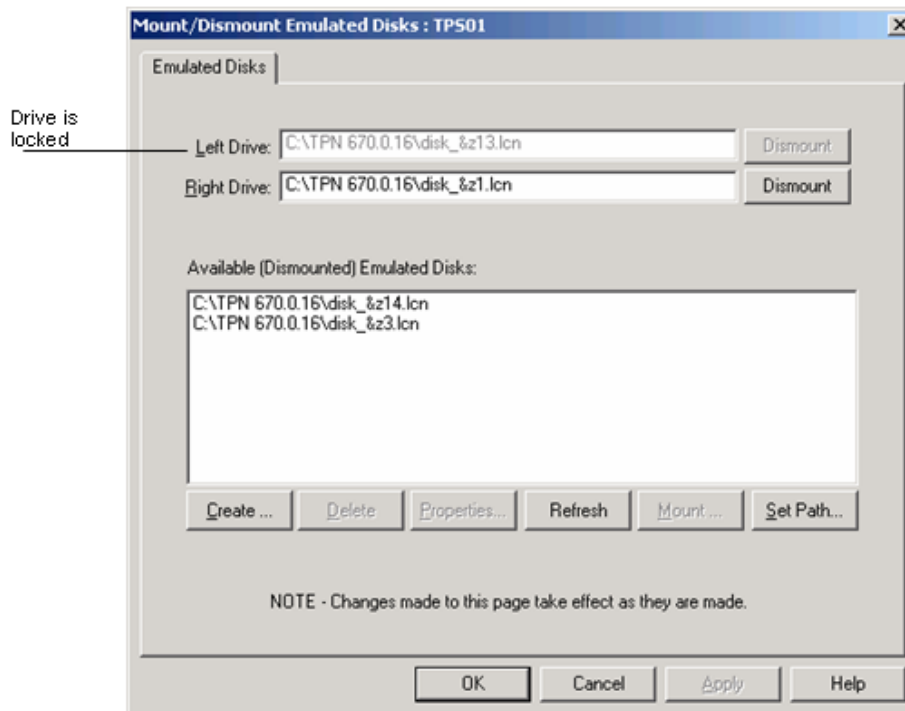
This field contains a listing of available local and remote emulated disk files that are located:

- on a local or remote hard disk.
- on a local or remote CD- ROM.

Note that files must be copied from a tape to a hard disk to be usable.

3.5.8 Locking options

With GUS R360, an emulated drive can be locked using the TPN Command Processor and EC files. After an emulated disk is mounted, the emulated drive can be locked using the EDLOCK command. Locking prevents dismounting of the emulated disk file. On the Emulated Disks page, a locked drive is disabled for dismounting.



You cannot dismount the emulated disk until you unlock the drive. You can unlock the drive using the EDUNLOCK command.

Refer to *Command Processor Operations, SW11* for more information about emulated disk commands.

Locked drives cannot be unlocked from the Emulated Disks page.

3.5.9 The Delete Button

If you want to delete a mounted disk, then follow the directions in the [The Dismount Buttons](#) section before proceeding.

1. Select a dismounted emulated disk from the Available (Dismounted) Emulated Disks list.

2. Click **Delete**.

RESULT: The dialog '**Do you want to free the disk space?**' appears.

3. Click **Yes** or **No**:

- Click **yes** to remove the emulated disk from the list and physically delete the file from its storage location.
- Click **No** to remove the emulated disk from the Available (Dismounted) Emulated Disks list, but not physically delete the file from its storage location.

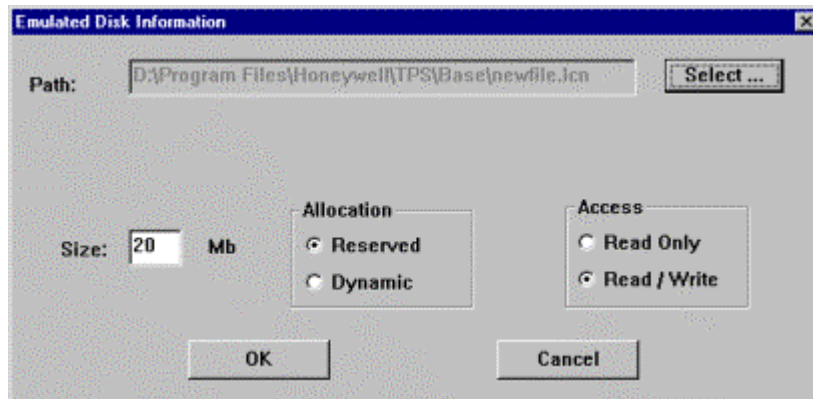
3.5.10 The Properties Button

If you want to delete a mounted disk, then follow the directions in the [The Dismount Buttons](#) section before proceeding.

1. Select a dismounted emulated disk from the **Available (Dismounted) Emulated Disks** list.

2. Click **Properties**.

RESULT: The **Emulated Disk Information** dialog appears with the selected emulated disk file in the **Path** field.



Size and Allocation are grayed out indicating that they cannot be changed.

TIP

Additional properties on emulated disks, such as date stamp and file permissions, can be viewed by browsing to the file in Windows Explorer, right clicking the file, and selecting 'Properties'.

3.5.11 The Refresh Button

The refresh button is used for refreshing the Available (Dismounted) Emulated Disks list.

3.5.12 The Mount Button

The emulated disk to be mounted must be included in the **Available (Dismounted) Emulated Disks** list.

If you wish to mount a disk in a drive that already has an emulated disk mounted, then follow the instructions in [The Dismount Buttons](#) section before proceeding.

1. Select the available emulated disk to be mounted from the **Available (Dismounted) Emulated Disks** list.
2. Click **Mount** and then select the drive that you wish to mount.

You can also drag an emulated disk from the available list to an open Left Drive or Right Drive field.

3.5.13 CD-RW Considerations

Special Considerations when using a CD-RW (re-writable CD) with emulated disk files:


3.5.14 The Set Path Button

With GUS R360, the TPN Command Processor and EC files use an emulated disk path to create, mount, and delete emulated disks. This path can be configured using the Set Path button on the Emulated Disks page. Honeywell strongly recommends you to use \Program Data\Honeywell\EngineeringData\EmulatedDisks as the default emulated disk path.

Use the Set Path button as follows to configure the emulated disk path:

1. Click **Set Path**.

RESULT: The **Set Path** dialog box appears.

2. Click **Browse**  and then select a path for emulated disks.

OR

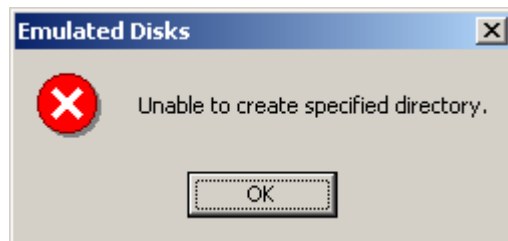
Enter the path. Honeywell strongly recommends you to use \Program Data\Honeywell\EngineeringData\EmulatedDisks as the default emulated disk path.

ATTENTION

If you want to use a different directory, then restrict the access to the particular directory to Honeywell users only.

ATTENTION

If you enter an invalid path, the following error message appears:



Click **OK** and enter the correct path.

3. Click **OK**.

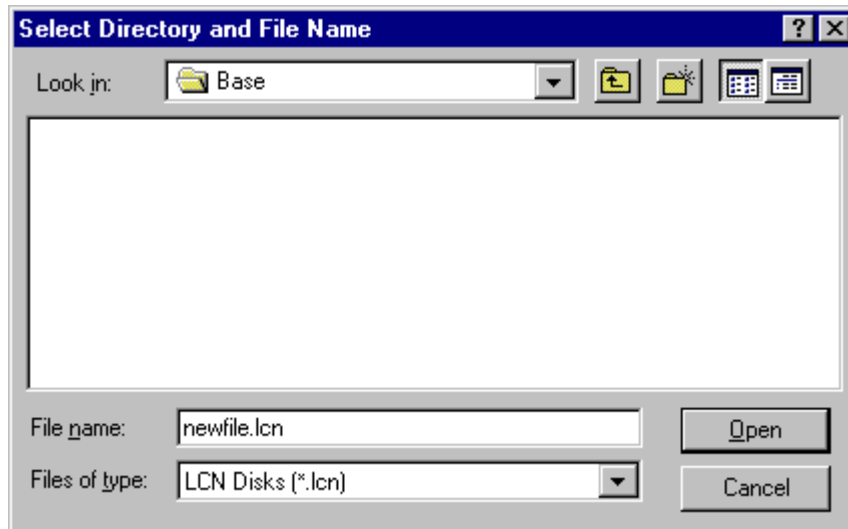
3.5.15 The Create Button

The Create button is used for creating emulated disks on a local or remote GUS node.

Use the Create button as follows to create an emulated disk:

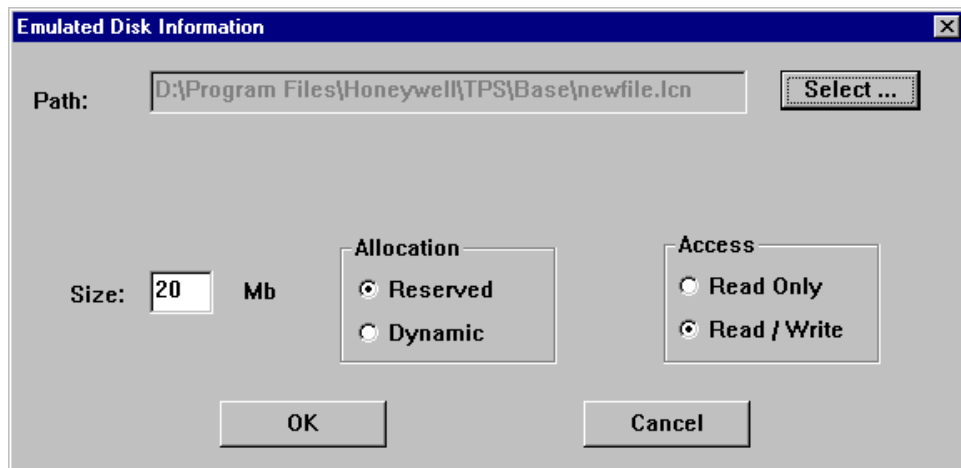
1. Click **Create** on the **Emulated Disks** dialog page.

RESULT: The **Select Directory and File Name** dialog box appears.



Honeywell strongly recommends you to use \\Program Data\Honeywell\EngineeringData\EmulatedDisks as the default emulated disk path.

2. Select a drive and directory.
3. Enter a new filename.
4. Click **OK**.
5. **RESULT:** The **Emulated Disk Information** dialog appears.



6. Type in the maximum file size (in megabytes, not to exceed 500 Mb) in the **Size** field.
7. Select one of the **Allocation** radio buttons.
 - Select **Reserved** to allocate the entire amount of file storage space. This space is reserved for the file even if its size is less than the maximum file size. The amount of disk storage used does not increase with the amount of data stored on the emulated disk.
 - Select **Dynamic** to allocate a file storage space maximum. This allows the file to grow dynamically. If the original file size is less than the allocated maximum file size, it uses only the storage capacity required by the file. As the file size increases, so does the storage used until the allocated maximum is reached.
8. Select one of the **Access** radio buttons:
 - The **Read Only** button provides TPS access to your emulated disk and disallows user changes.

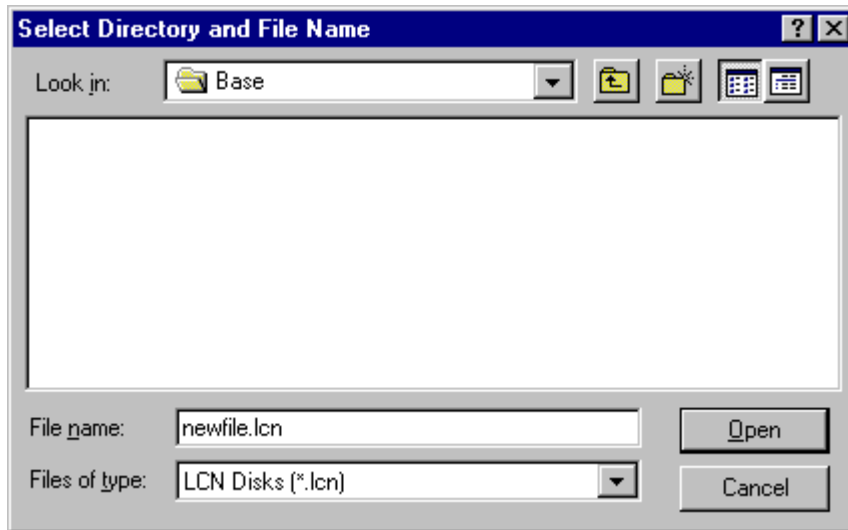
The Read Only choice would not make sense, since there is nothing written into the new file yet, and it cannot be initialized or written to by the TPN if it has read- only access.

- Select **Read/Write** to provide TPN access to your emulated disk and allow user changes.

3.5.16 Making an Existing Local Emulated Disk Available for Mounting

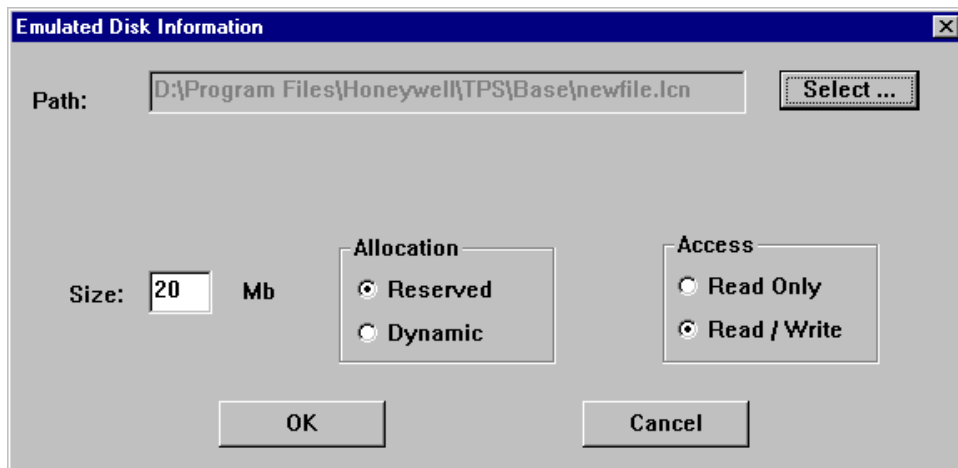
1. Click **Create** on the **Emulated Disks** dialog page.

RESULT: The **Select Directory and File Name** dialog box appears.



2. Navigate to the folder that contains the existing local emulated disk file.
3. Select the existing local emulated disk file.
4. Click **Open**.

RESULT: The **Emulated Disk Information** dialog appears.



The settings shown are the disk files current settings.

5. Click **OK**.

RESULT: The local emulated disk file will now appear in the Available (Dismounted) Emulated Disks list.

3.5.17 Making an Existing Remote Emulated Disk Available for Mounting

Incorrect registry edits WILL result in a non-operational node. Use extreme caution when editing the registry on any node for any reason.

To create the share on the Remote Node

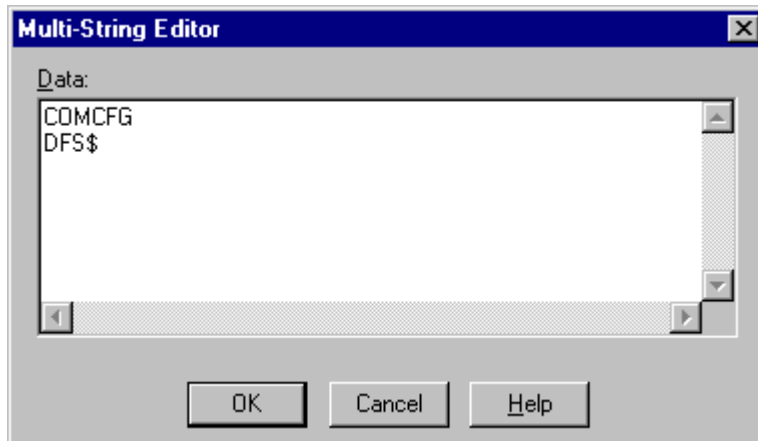
1. Log on to the remote node that hosts the emulated disk file as the local Administrator or a member of the local Administrators group.
2. Create a directory that will only be used for remote emulated disk files.
3. Right-click the directory.
4. Select **Properties**.
5. Click the **Sharing** tab and select the **Share this folder** option.
6. Enter a **Share Name**.
7. Record the **Share Name** as you will use it later when you edit the registry on the remote node.
8. Enter the following **Comment**:
This folder should not contain any files except emulated disk files.
9. Click the **Maximum Allowed** radio button.
10. Click the **Permissions** button to display the Share Permissions.
11. Set the permissions as follows:
If the remote emulated disk file has read/write enabled, then grant **Everyone** the **Full Control** permissions.
Otherwise, grant **Everyone** at least **Read** permission.
12. Click **OK** to close the **Permissions** dialog.
13. Copy the emulated disk file to the share that you just created.
14. Continue on to the section '[To set the Emulated Disk File Permissions on the Remote Node](#)'.

To set the Emulated Disk File Permissions on the Remote Node

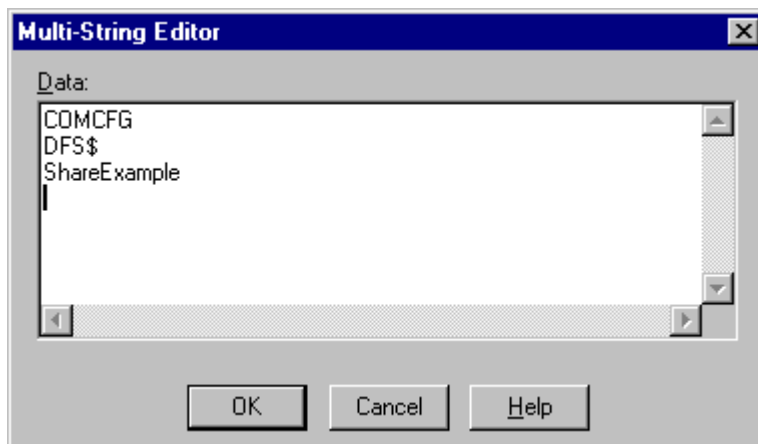
1. Right-click the emulated disk file located in the share.
2. Select **Properties**.
3. Click the **Security** tab.
RESULT: The share properties dialog box appears.
4. Set the permissions as follows:
If the remote emulated disk file has read/write enabled, then grant **Everyone** the **Full Control** permission.
Otherwise, grant **Everyone** at least **Read** permission.
5. Click **OK** to close the **File Permissions** window.
6. Continue on to the section '[To edit the Registry on the Remote Node](#)'.

To edit the Registry on the Remote Node

1. Start REGEDIT32 on the remote node.
2. Locate the following registry key on the remote system:
\HKEY_LOCAL_MACHINE\SYSTEM
\CurrentControlSet\Services\LanmanServer\Parameters.
3. Double-click the **NullSessionShares** entry to display an editing box similar to the following:



4. Add an entry after the last entry that is identical to the name of the share that you created in the above section. The following figure uses the 'ShareExample' example:



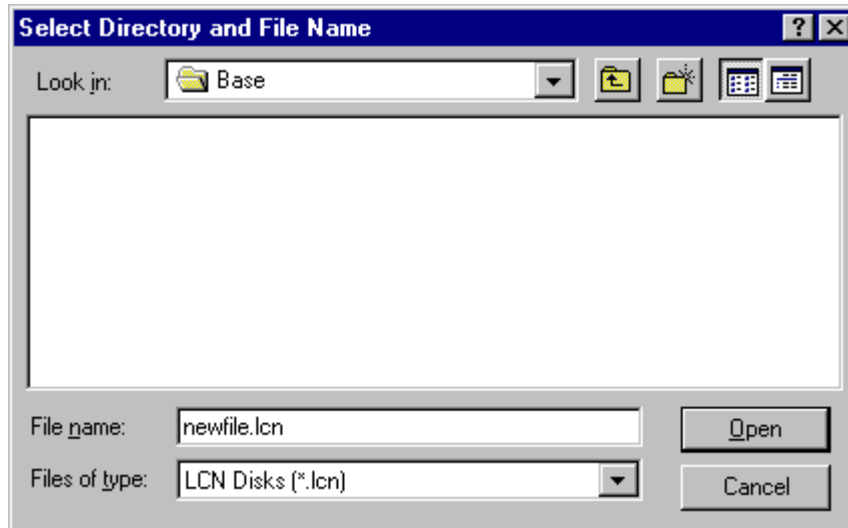
Be very careful not to delete any of the existing names. Also, be sure to press the Enter key after you type in the share name so the cursor blinks below the new share name line. This is shown in the above screen capture.

5. Click **OK**.
6. Exit REGEDIT32.
7. Continue on to the section 'Connect the Local Node to the Remote Emulated Disk'.

To connect the Local Node to the Remote Emulated Disk

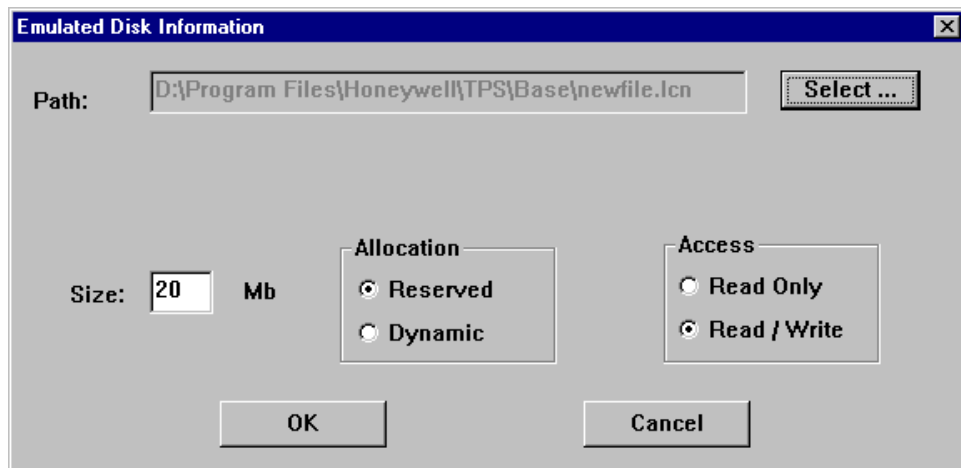
1. Access the **Emulated Disks** page as described at the beginning of this section.
2. Click **Create** on the **Emulated Disks** dialog page.

RESULT: The **Select Directory and File Name** dialog box appears.



3. Navigate to the emulated disk file located in the remote share.
4. Click **Open**.

RESULT: The **Emulated Disk Information** dialog appears.



5. Click **OK**.

RESULT: The remote emulated disk file will now appear in the **Available (Dismounted) Emulated Disks** list.

3.6 Keyboard Page

3.6.1 Usage of the Keyboard Page

The Keyboard Page is used for configuring an LCNP board that is running on a Experion Station - TPS node.

3.6.2 Overview of the Keyboard Page

The Keyboard Page enables a user to configure user- defined display keys and customize alarm annunciation.

3.6.3 Key Action and Key Label Definition

There are six User Defined keys on the Operator keyboard. Because labels are area dependent, it is recommended that you configure the six keys to have the same operation under all of the areas.

Programming the six User Defined keys entails two steps:

- First you define the Key Actions in Native Window (see the [To define Key Actions](#) section).
- Then you define the Key Titles using the Configuration Utility (see the [To define Key Titles](#) section).

TIP

On an Experion Station - TPS node, the key definition may be overridden by the Experion Station. See the toolbars and buttons definition in Setting up Station in the *Server and Client Configuration Guide*.

To define Key Actions

1. Choose **Start > All Programs > Honeywell Experion PKS > TPS Applications > Native Window** for an Experion Station - TPS node.
2. Choose **Displays > Engineering > Menu**.
3. Click **Button Configuration**.
4. Enter the required key action.
For detailed key action information, refer to the TPN manual *Implementation/Engineering Operations- 1*, Button Configuration Data Entry (PDF format).
5. Continue on to the [To define Key Titles](#).

To define Key Titles

1. For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#).

2. Select the following:

Configure > [LCNP board name]

Where [LCNP board name] is 'Board 0' (the default name) or a customized name.

3. Select the **Keyboard** tab to display the following (ES-T example shown):

Board 0 :

Printer | Emulated Disks | Data Access Configuration
 LCNP | Common | Native Window | TPN Time Sync | **Keyboard**

Description
 This page is used to configure the Emulated Keyboard behavior associated with Native Window operation.

Labels for User Defined Keys

1	&AM STATUS]	2	&COM NTWK STATUS
3	&PRC NTWK STATUS	4	&ORG SUMMARY
5	PERF&MENU	6	CLEAR &SCREEN

Annunciator Attributes

Contact #	Pitch	Duration	Repeat Rate	Enabled	
3	High	Short	Fast	<input checked="" type="checkbox"/>	Test 3
2	Medium	Medium	Medium	<input checked="" type="checkbox"/>	Test 2
1	Low	Long	Slow	<input checked="" type="checkbox"/>	Test 1

Settings...

OK Cancel Apply Help

4. Enter the titles for LCN user- configured buttons 1 - 6 in the **Labels for User Defined Keys** area of the Keyboard page.
 Be sure to enter the name of configured button 1 in User Defined position 1, configured button 2 in User Defined position 2, and so on.
5. Do the following if you wish to customize the ALT key in a Native Window key combination:
 Place an ampersand (&) in front of the mnemonic letter for the key title.
 For example, if you entered O&RG SUMMARY on the Keyboard Page as a key label definition, then you would press **ALT- D- U- R** in Native Window in order to display the Organizational Summary Menu.
D is the mnemonic key for the Display menu,
U is the mnemonic key for the User Defined submenu, and
R is the mnemonic key for ORG SUMMARY in this example because of the ampersand location.
6. Click **OK** to complete the Key Title Definition.

3.6.4 Key Action Invocation Methods

Kbd / Program	Key Action Invocation Method
Qwerty Keyboard	Select Function Key 1 to 6.
ABC US Keyboard	Select Function Key 1 to 6.
Integrated Keyboard	Select one of the six buttons on the lower- left side of the Relegendable Operator Control Panel.
Native Window Menu	Select the key title defined using the 'Key Title Definition' section from the Displays > User Defined Native Window menu.

3.6.5 Example Key Definition

The 'Key Action Definition' section is used to configure Button 1 as SCHEM ('MAIN MENU').

The 'Key Label Definition' section is used to define the Key 1 label as 'MAIN MENU'.

The user can now display the MAIN MENU schematic:

- by pressing Button 1 on the keyboard, or
- by selecting the **Displays > User Defined > MAIN MENU** item from within Native Window.

3.6.6 Annunciator Attributes

The Annunciator Attributes section of the Keyboard dialog page provides the opportunity to annunciate alarms through the workstation speaker when an Integrated Keyboard is NOT present.

TIP

On an Experion Station - TPS node, annunciation attributes are disregarded and should be left disabled. Annunciation is under the control of the Experion Station. See Alarm Annunciation in the *Server and Client Planning Guide*.

Customize alarm sound characteristics for each alarm contact number.

Contact

Through the NCF System Wide Values configuration, LCN alarm annunciation events (including emergency, high, and low priority alarms) can be set to correspond to contact numbers 1, 2, or 3. For example, if you want emergency priority alarms to close contact 3, select Contact 3 in the NCF configuration.

Pitch

Select high, medium, or low from the **Pitch** field selections to set a different alarm pitch for each annunciated alarm priority.

Duration

Select short, medium, or long from the **Duration** field selections to choose how long the alarm sound continues for each annunciated alarm priority.

Repeat Rate

Select fast, medium, or slow from the **Repeat Rate** field selections to choose how often the alarm repeats for each annunciated alarm priority.

Enabled Checkbox

Check the **Enabled** box to enable the respective alarm contact.

Test buttons

Click **Test** to hear an enabled alarm contact's annunciation settings.

Settings button

Click **Settings** to display the Annunciator Settings dialog box. The default settings are given in the following table.

Pitch (Hertz)		Duration (Msec)		Repeat Rate (Msec)	
High	400	Short	100	Fast	100
Medium	300	Medium	300	Medium	400
Low	100	Long	500	Slow	700

Annunciator Defaults

Contact #	Pitch	Duration	Repeat Rate	Enabled
3	High	Short	Fast	X
2	Medium	Medium	Medium	X
1	Low	Long	Slow	X

3.7 Native Window Page

3.7.1 Usage of the Native Window Page

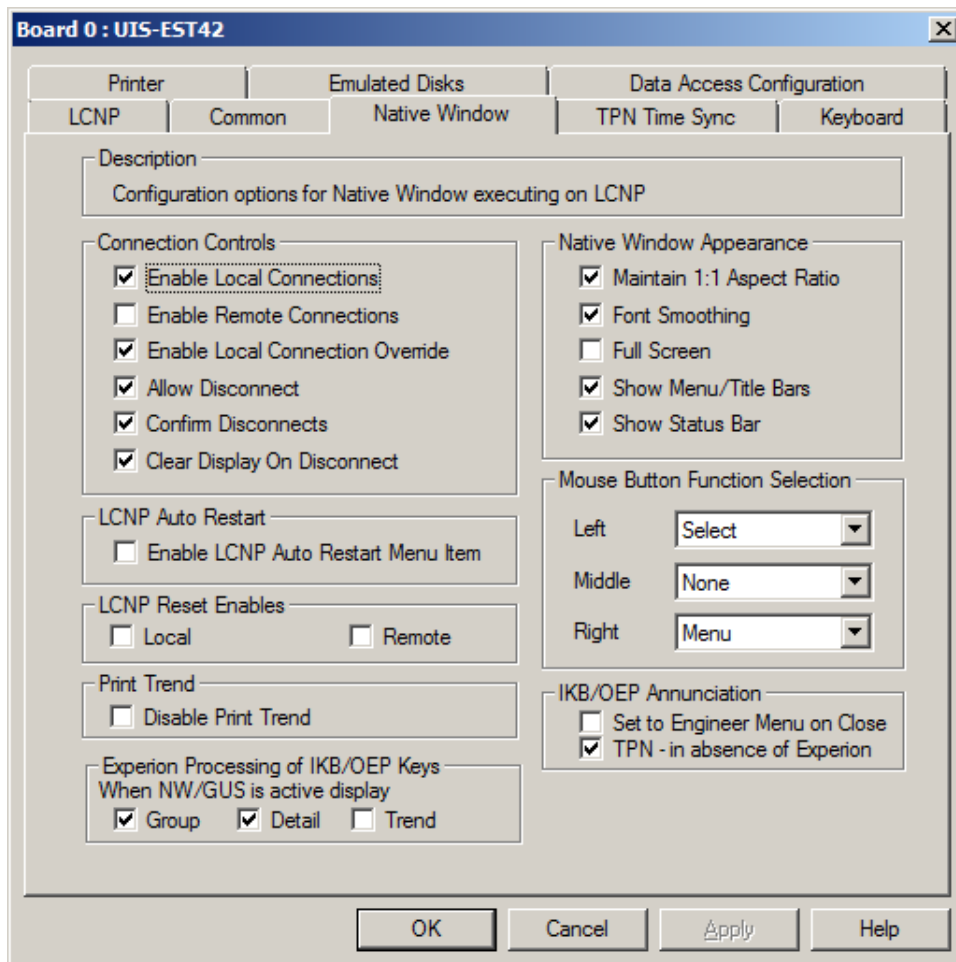
The Native Window Page is used for configuring the Native Window options for an LCNP board that is running on a Experion Station - TPS node.

3.7.2 Overview of the Native Window Page

The Native Window Page is used for controlling the operation of the Native Window application.

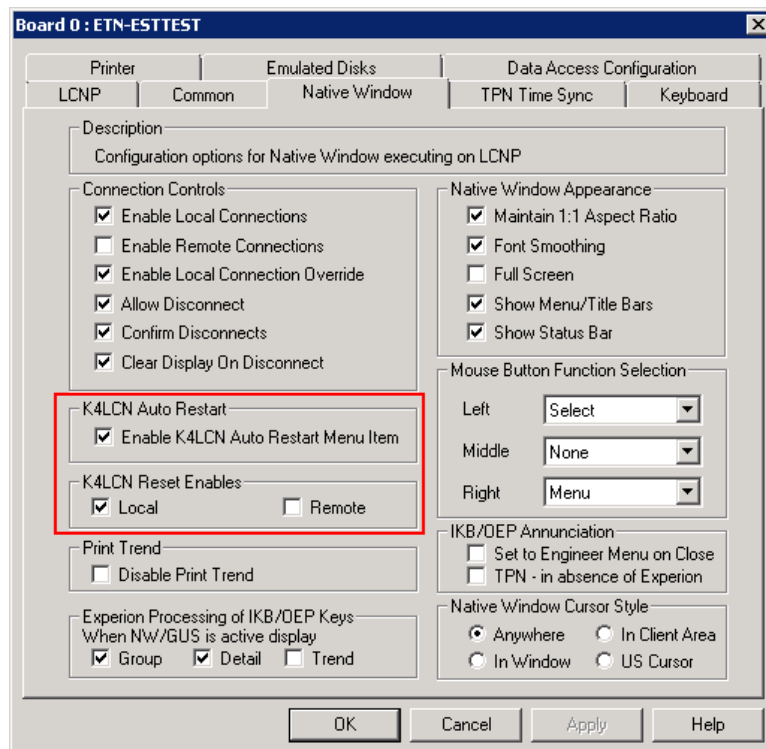
3.7.3 Accessing the Native Window Page

- For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#).
- Select the following:
Configure > [LCNP board name]
Where [LCNP board name] is 'Board 0' (the default name) or a customized name.
- Select the **Native Window** tab to display the following (ES-T example shown):



ATTENTION

Beginning with Experion R500, for an Enhanced TPS Node, the **LCNP Auto Restart** option is replaced with the **K4LCN Auto Restart** option and the **LCNP Reset Enables** option is replaced with the **K4LCN Reset Enables** option.



Following are the prerequisites for the K4LCN Reset functionality to work:

- The NG Name must be configured for all the nodes.
- All the nodes must be a part of a domain.
- Any other TPS Node in OK state in the same network must be running.

3.7.4 Connection Controls

The following table defines the selectable options for Connection Controls appearing on the Native Window page.

Option	Usage	Default Setting / Recommendation
Enable Local Connections	Check this box to enable Native Window connection to the local LCNP board by local users.	Checked by default. It is recommended that this box be checked on all node types.
Enable Remote Connections	Check this box to enable Native Window connection to the local LCNP board by remote users.	Unchecked by default. Check, this box if the TPS Administrator wants remote access.
Enable Local	Check this box to enable the ability to override a remote	Checked by default. It is

Option	Usage	Default Setting / Recommendation
Connection Override	user's Native Window connection when a local user Native Window connection is requested. The local user is notified that the Native Window is in use by another user (user is identified) and is warned that the remote user will be disconnected. If the local user overrides the connection, the remote user is disconnected and is informed that the connection was terminated.	recommended that this box be checked on all node types.
Allow Disconnect	Check the box to allow any user account to disconnect a local or remote Native Window connection. Note that if Native Window becomes disconnected, the user will be still allowed to reconnect regardless of the box setting.	Checked by default. Check this box if the disconnect option is desired by the TPS Administrator.
Confirm Disconnects	Check this box if you want users to confirm all disconnects of the Native Window.	Checked by default. It is recommended that this box be checked on all node types.
Clear Display on Disconnect	Check this box to clear the Native Window client area when it is disconnected. Otherwise, the display shown prior to disconnect is retained.	Checked by default. It is recommended that this box be checked on all node types.
IKB/OEP Annunciation	This checkbox is only visible on ES- T nodes. Check this box to have the TPN supply the IKB/OEP commands directly to the IKB Service.	The Experion station services the IEK/OEP commands first if it is running, regardless of the selection of this check box. If Experion software is not installed, then the checkbox is checked and disabled (grey).

3.7.5 Mouse Button Function Selection

The following mouse button options apply only during Native window operation.

Function	Button Default	Resulting Button Action
Select	Default setting for the left mouse button.	A screen touch message is sent to the TPN personality when the mouse button is clicked. This option may be chosen for only one of the mouse buttons at any one time.
None	Default setting for the middle mouse button.	No action occurs when the mouse button is clicked. This option may be selected for any combination of the mouse buttons.
Menu	Default setting for the right mouse button.	A context menu is shown at the cursor location when the mouse button is clicked. This option may be chosen for only one of the mouse buttons at any one time.
Enter	This is not a default setting for any of the mouse buttons.	The equivalent action to pressing the enter key occurs when the mouse button is clicked. This option may be chosen for only one of the mouse buttons at any one time.

3.7.6 LCNP Auto Restart

The **Enable LCNP Native Window Auto Restart Menu Item** box in the Configuration

Utility>Configure>Board 0>Native Window is unchecked by default. When checked, a menu item **LCNP Auto Restart** is selectable in the **Access** menu of the Native window. **LCNP Auto Restart** menu item is not key locked. By selecting the **LCNP Auto Restart** menu item, the Native window user can enable/disable the LCNP auto restart feature, thus toggling the state of the **Enable LCNP Auto Restart** checkbox (on LCNP tab). A checkmark corresponding to the menu item **LCNP Auto Restart** indicates that the LCNP auto restart feature is enabled.

Scenario

If **Configuration Utility>Configure->Board 0->Native Window>Enable LCNP Auto Restart** Menu Item is enabled and either the **Configuration Utility>Configure>Board 0>LCNP>Enable LCNP Auto Restart** or **Native Window>Access>LCNP Auto Restart** is enabled.

When a ES-T node is powered on or rebooted, the Windows operating system is loaded. If the **LCNP Auto Restart** or **Configuration Utility>Configure->Board 0>LCNP>Enable LCNP Auto Restart** menu item is unchecked, the user has to manually load the Native Window. As soon as the **LCNP Auto Restart** is enabled and a RESET is initiated to the LCNP, a power on, or a reboot of the node, the LCNP 'Native Window' is automatically loaded with the personality.

CAUTION

When **LCNP Auto Restart** is enabled, any time the LCNP goes into PWR_ON state, the LCNP will be automatically loaded. You will not be able to do a Local/Target load. You have to disable the **LCNP Auto Restart** feature before you can load the node manually (Local/Target).

ATTENTION

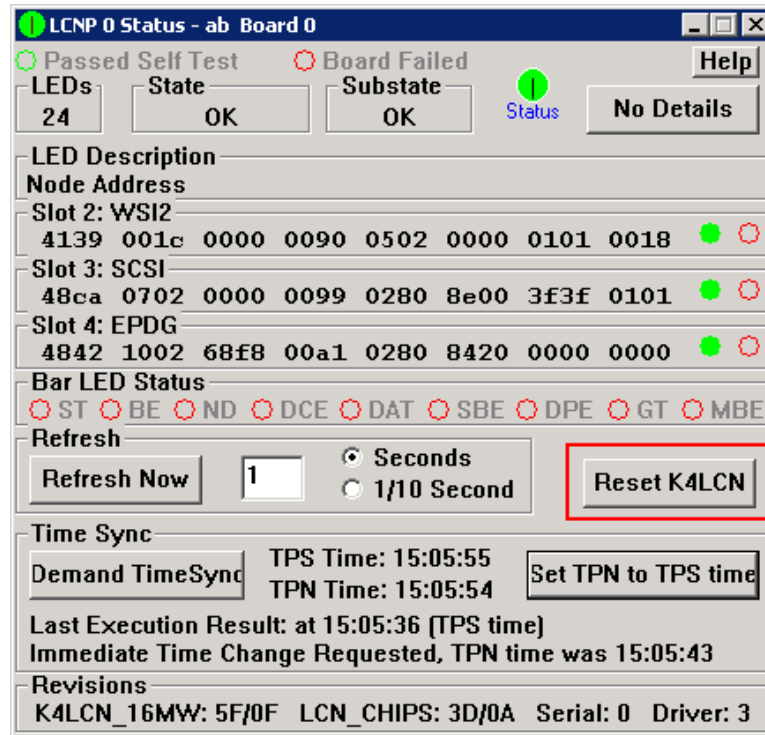
Before performing a memory dump, you must insure that the Auto Restart menu item is not selected. If the Auto Restart menu item is selected, the LCNP will try to restart during a memory dump, canceling the dump.

You can also uncheck the Enable Native Window Auto Restart menu box within the Configuration Utility to disable Auto Restart.

ATTENTION

Beginning with Experion R500, for an Enhanced TPS Node, the following changes have been made on the user interfaces.

- On the LCNP Status Display, the **Reset LCNP** button is replaced with the **Reset K4LCN** button.



- On the LCNP (Board0) display, the **Enable LCNP Auto Restart** option is replaced with the **Enable K4LCN Auto Restart** option.

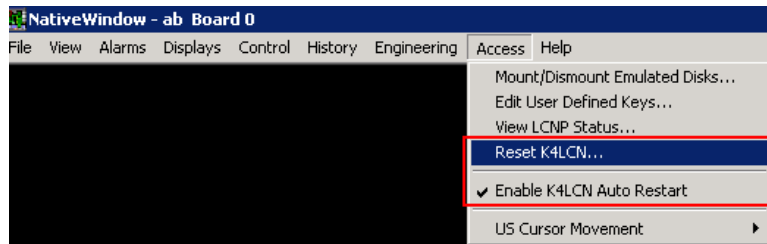
Following are the prerequisites for the K4LCN Reset functionality to work:

- The NG Name must be configured for all the nodes.
- All the nodes must be a part of a domain.
- Any other TPS Node in OK state in the same network must be running.

3.7.7 Access Menu in the Native Window

ATTENTION

Beginning with Experion R500 and TPN R686, on the Access menu item in Native Window, the **Reset LCNP Board...** option is replaced with the **Reset K4LCN...** option and the **LCNP Auto Restart** option is replaced with the **Enable K4LCN Auto Restart** option.



3.7.8 LCNP Reset Enables

- Local: Allows the LCNP board to be reset from the *local* Native Window or Emulators Status display. The default setting is unchecked.
- Remote: Allows the LCNP board to be reset from a *remote* Native Window or Emulators Status display. The default setting is unchecked.

Refer to the 'Reset LCNP Board' section in the *Native Window User's Guide* for additional information.

3.7.9 Print Trend

Disable Print Trend

Check this box to disable the Print Trend function. The default setting is unchecked (Print Trend function is enabled).

When this box is checked, the PRINT TREND function is disabled in the FILE MENU and the HISTORY MENU of the Native Window. In addition, the PRINT TREND key on the IKB (Integrated Keyboard) also is disabled.

3.7.10 Native Window Appearance

Maintain 1:1 Aspect Ratio Option

Check this box and characters and objects will appear with coordinated, proportional heights and widths.

The default setting is checked and this is the recommendation for all node types.

Font Smoothing Option

Check this box to enable font smoothing on ES- T startup. When the Native Window is called up, the display appears with smoother characters at all window sizes.

If the font smoothing setting in Configuration Utility is changed during Native Window operation, changes will take effect only after the Native Window has been disconnected and reconnected.

Fonts used by the Native Window may be specified in the Configuration Utility's **LCNI18N** property page. Users may specify any font currently installed on the ES-T system; however, only non-proportional fonts (every character is the same width) work properly in Native Window. Font smoothing is most effective with True- Type fonts, particularly Courier New. The default fonts (lcn8x16_0 and lcn8x8_0) are raster, not True- Type, fonts.

The default setting is checked and this is the recommendation for all node types.

For examples of font smoothing, refer to the 'Font Smoothing' section in the *Native Window User's Guide*

Full Screen Option

Check this option to display Native Window on the full screen after connection. This is a connection-time action only. The user is allowed to make Native Window non- full- screen after connect, unless the Menu Bar is also hidden. Refer to the following section, [Show Menu/Title Bars Option](#), for information. If the menu bar is configured as hidden, and Full Screen is enabled, the Native Window will remain full screen until it is shut down or disconnected.

The default setting is unchecked. It is recommended that the box be checked for US Replacement nodes.

Show Menu/Title Bars Option

Check this option and the menu and title bars will be visible at connect time.

Uncheck this option and the right mouse button menu option to make them visible will be grayed. The menu bar will therefore be inaccessible until the box is checked, and Native Window is disconnected and reconnected, or shut down and restarted.

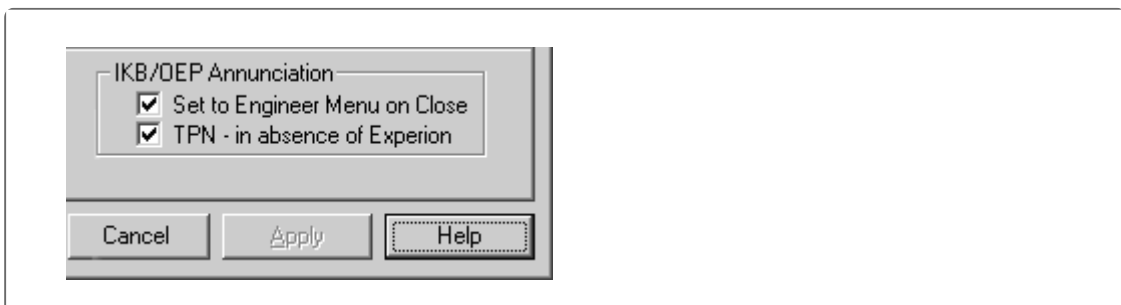
The default setting is checked. It is recommended that the box be checked for ES- T nodes. The setting is the choice of the Product Administrator on US Replacement nodes.

Show Status Bar Option

Check this option and the status bar will be visible at connect time. Uncheck this option and the right mouse button menu option to make the status bar visible will be grayed. The status bar will therefore be inaccessible until the box is checked. The default setting is checked. It is recommended that the box be checked for Experion Station - TPS nodes. The setting is the choice of the Product Administrator on US Replacement nodes.

3.7.11 IKB/OEP Annunciation selections

The Board Configuration Page displays selections for IKB/OEP annunciation. The 'TPN - in absence of Experion' setting appears for Experion nodes and does not appear for a GUS node.



Set to Engineer Menu on close

When checked, closing the Native Window sets the emulators to the Engineering Main menu and suppresses IKB alarm annunciation.

TPN - in absence of Experion

The setting appears when using Experion nodes, such as the Experion Station - TPS and Native Window only Experion node. Choosing the setting depends on the Experion node type, its intended use, and availability of Experion Station functionality.

If an Experion Station with TPS options node (for example, an Experion Station - TPS or ES- CE), then uncheck so Experion events can annunciate from the IKB/OEP.

If a Native window only, Experion ready node (that is, the node does not have Experion Station functionality available), then check so TPN events can annunciate from the IKB/OEP.

3.7.12 Experion Processing of IKB/OEP Keys

With Experion R400, operators can invoke Experion Detail, Group, Trend, and Group History displays directly from the Native Window or GUS displays, associated with any point in the change zone for the active Native Window or GUS display. For example, consider the point A100 is displayed in the Native Window change zone. If you press the IKB Detail key while the Native Window is the active display, the Experion detail display for A100 is invoked. Similarly, an Experion Group, Trend, or Group History display is invoked for the point A100 by pressing the Group, Trend or Hour Avg IKB key, if the change zone point is configured in an Experion group or trend. If a change zone point is not configured in an Experion group or trend, then the operator is prompted for Experion group/group history or trend number to invoke.

If there is no change zone point selected in the active Native Window or GUS display, then Experion prompts for a detail point or group/group history or trend number to invoke. This behavior occurs for Detail, Group, Trend/Hour Avg IKB key presses only if their respective checkbox is selected in the **Experion Processing of IKB/OEP Keys** area of the NativeWindow configuration page. Note that Trend and Hour Avg IKB keys share the 'Trend' checkbox on the Native Window configuration page.



When the options are selected, Experion processes the keys in the following sequence.

- A change zone point is searched in the active NW/GUS display; if found, then that point is used for invoking the associated Experion display, unless no group/trend configured for that point.
- If a point is not found, or no group/trend configured for the change zone point, the system prompts for a point to invoke the Detail display, or a number to invoke the Trend/Group History/Group display.

When the options are not selected, the pressing of the IKB key is allowed to be processed by the Native Window if it is the active display, or by GUS, if it is the active display.

- If the Native Window is the active display, then the Native Window processes the key directly. For example, if the Detail option is cleared, then the Native Window may prompt for the detail to invoke in the Native Window.
- If the GUS display is the active display and the display is configured to process the key (for example, 'OnDetail page script implemented') then the GUS display processes the key. Otherwise, Experion prompts for a point to invoke the Detail display, or a number to invoke the Trend/Group History/Group display.

By default, the Detail and Group options are selected. The Trend option is cleared to maintain consistency with pre-R400 behavior, which allows for the Native Window to process the Trend key when the Native Window is the active display.

3.8 Printer Page

3.8.1 Usage of the Printer Page

The Printer Page is used for configuring an LCNP board that is running on a US or Experion Station - TPS node.

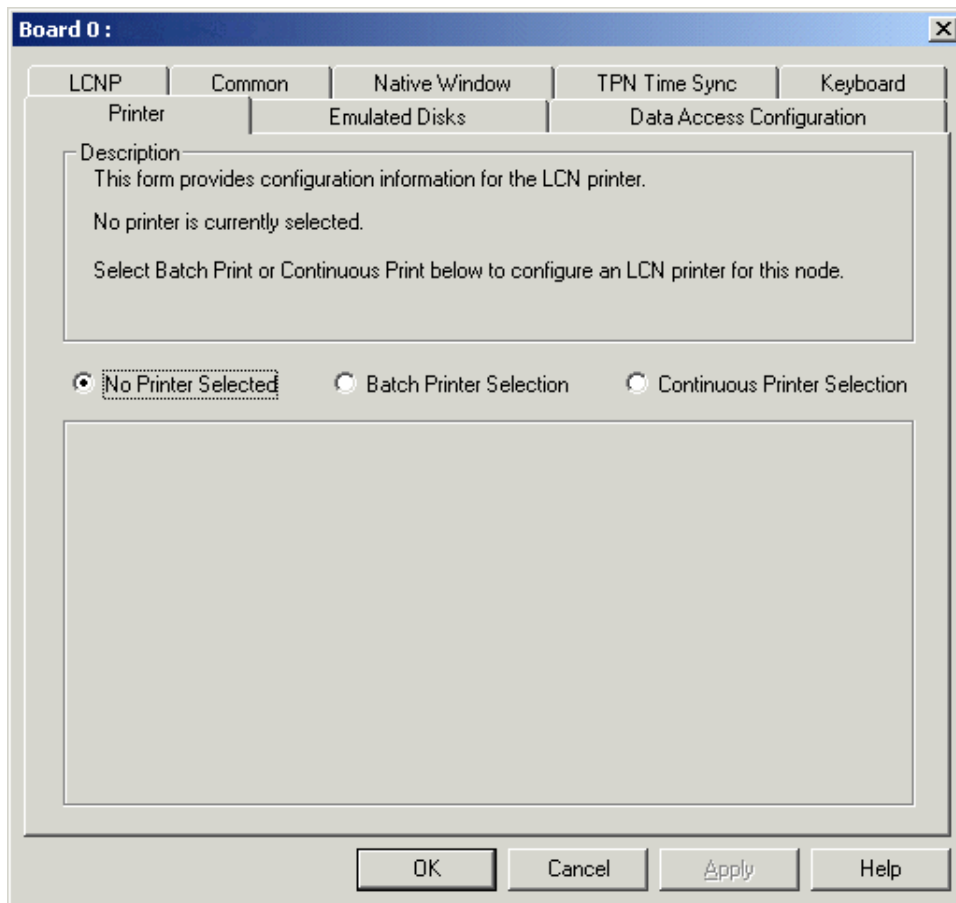
3.8.2 Overview of the Printer Page

The Printer Page settings allow you to configure printer, printer font and size, and real-time journal printing intervals.

For detailed instructions to configure the printer, refer to the subsection 'Configuring LCNP (Board 0) Settings' in the *TPS System Implementation Guide*.

3.8.3 Accessing the Printer Page

1. For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#) *Starting the Configuration Utility*.
2. Select the following:
Configure > [LCNP board name]
Where [LCNP board name] is 'Board 0' (the default name) or a customized name.
3. Select the **Printer** tab to display the following (ES-T example shown):



3.8.4 Printer Selection

The three printer configuration choices are described below:

- If the node will not connect to a printer, select the **No Printer Selected** radio button. Select this mode if the printer function of the Universal Station is not to be used. If this mode is selected and the TPN NCF has a printer configured for the node, then the Console Status display will indicate that the printer for this node is off-line.
- If the node will connect to a shared printer, select the **Batch Printer Selection** radio button. This mode allows selection of local or remote printers, and allows the selected printer to be shared with other applications and/or other nodes. Printed output from the station is collected until the configured time or line limit is reached, and printed as a 'batch'. In this mode, the true status of the printer is hidden by the Windows operating system, and will most often show as OK on the Native Window Console Status display, even when the printer is off-line or absent.
- If the node will connect to a dedicated printer, select the **Continuous Printer Selection** option button. This mode most closely emulates the printing behavior of the LCN Universal Station. In this mode, print output from the station is sent immediately to the printer, which is useful for printing alarms. The printer must be connected to a serial port of this node, and it may not be used across the network or shared with any other application on the connected node or on any other node. With TPS R360, the printer can be connected to an USB port.

To configure a dedicated printer to a serial/parallel/USB printer

1. Select the **Continuous Printer Selection** radio button. The following two options are available in the Model field:
 - ASPI Serial Printer
 - Generic Parallel Printer
2. Select **ASPI Serial Printer** as the Model to display the following:

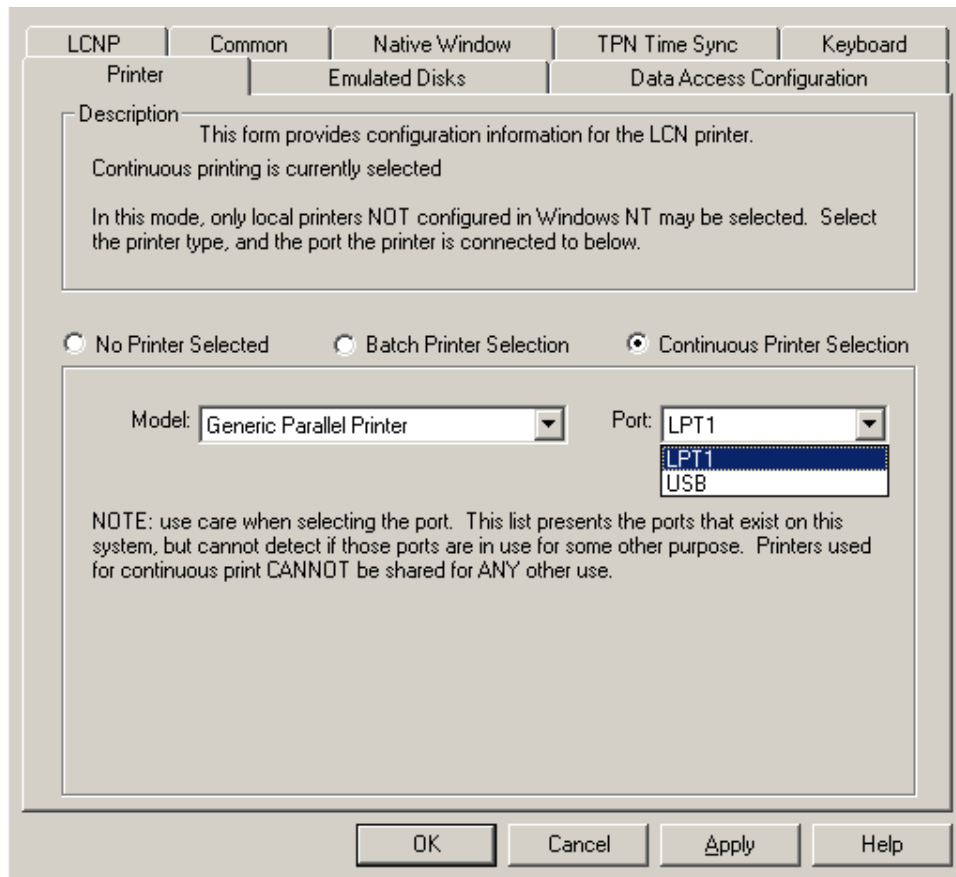
The screenshot shows a configuration window with the following elements:

- Tabbed interface: LCNP, Common, Native Window, TPN Time Sync, Keyboard. The 'Printer' tab is active.
- Sub-tabs: Emulated Disks, Data Access Configuration.
- Description box: "This form provides configuration information for the LCN printer. Continuous printing is currently selected. In this mode, only local printers NOT configured in Windows NT may be selected. Select the printer type, and the port the printer is connected to below."
- Radio buttons: No Printer Selected, Batch Printer Selection, Continuous Printer Selection.
- Model: ASPI Serial Printer (dropdown menu)
- Port: COM1 (dropdown menu)
- Note: "NOTE: use care when selecting the port. This list presents the ports that exist on this system, but cannot detect if those ports are in use for some other purpose. Printers used for continuous print CANNOT be shared for ANY other use."
- Buttons: OK, Cancel, Apply, Help.

Note: Some print filters may display a Protocol field. If so, set that selection to match the configuration of the printer.

3. Select the correct Port for the printer.

Note: If the printer is currently configured as a shared Windows printer, then the printer's port will not be selectable. Use the Printer Control Panel to de-configure the printer, so it can be used as a continuous mode printer.
4. Click **OK** to complete LCNP board configuration. **OR**
5. Select the Generic Parallel Printer as the Model to display the following:



6. Select the correct **Port** for the printer.
7. Click **OK** to complete LCNP board configuration.

3.8.5 Printing a Real Time Journal (RTJ) from the Native Window

The letters RTJ appear in a pane in the Native Window status bar when a Batch Printer Selection is configured and there are events in the real-time journal queue that can be demand printed. You can print those event messages on demand or wait until one of the two criteria, Idle Flush Time or Queue Length, is met. If either no printer or a continuous mode printer is configured, the RTJ pane will never be enabled.

To demand print from the Native Window, select **Print RTJ** from the **File** menu.

You may also click the **RTJ** pane on the status bar shown below:



3.8.6 Printing the RTJ to a file

As an alternative to line-by-line printing, you may specify a pathname for periodic printing of the RTJ to a file. After clicking RTJ:

- Select **InputFileName**.
- Click **Browse** and navigate to an appropriate file location.

3.8.7 Configuring a Batch Printer as a Virtual Printer in Microsoft Windows 7 or later

When the current default printer is a virtual printer, such as PDF or Microsoft XPS Document Writer, Batch Print will not print, and the following error message is displayed on the Native window.

```
HARDWARE_DEVICE_TIMEOUT (7)
```

Batch Print is currently not designed to handle virtual printers on Microsoft Windows 7-based ES-T nodes compared to Microsoft XP-based GUS stations.

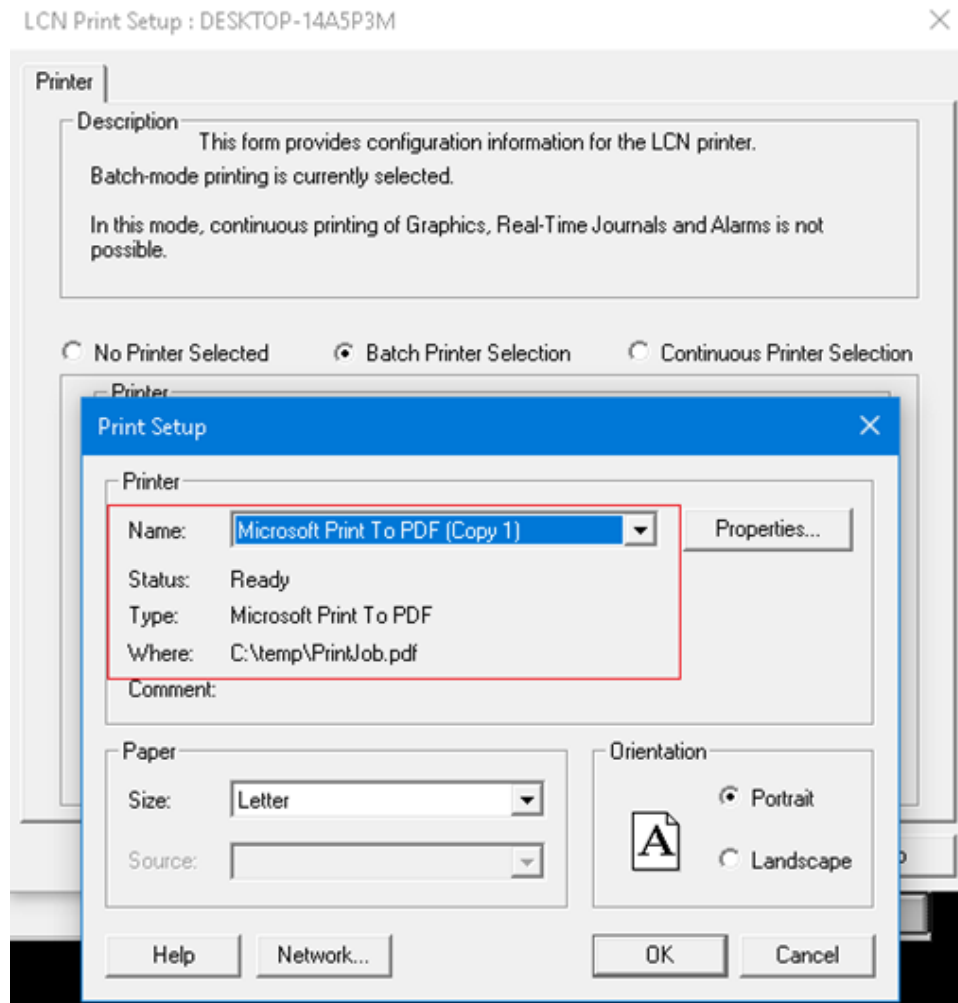
Due to improved security on Microsoft Windows 7 or later, Microsoft Windows services run in Session 0 isolation including the "TDC Emulators service" which is responsible for emulating TPS functionalities in Microsoft Windows. TDC service in session 0 having problems to interact with users running in other sessions can result in print operations failure.

If you configure a virtual printer (PDF/XPS printer), then for every print operation, a new file will be created (.pdf/.xps) and will prompt to select a location for saving the file.

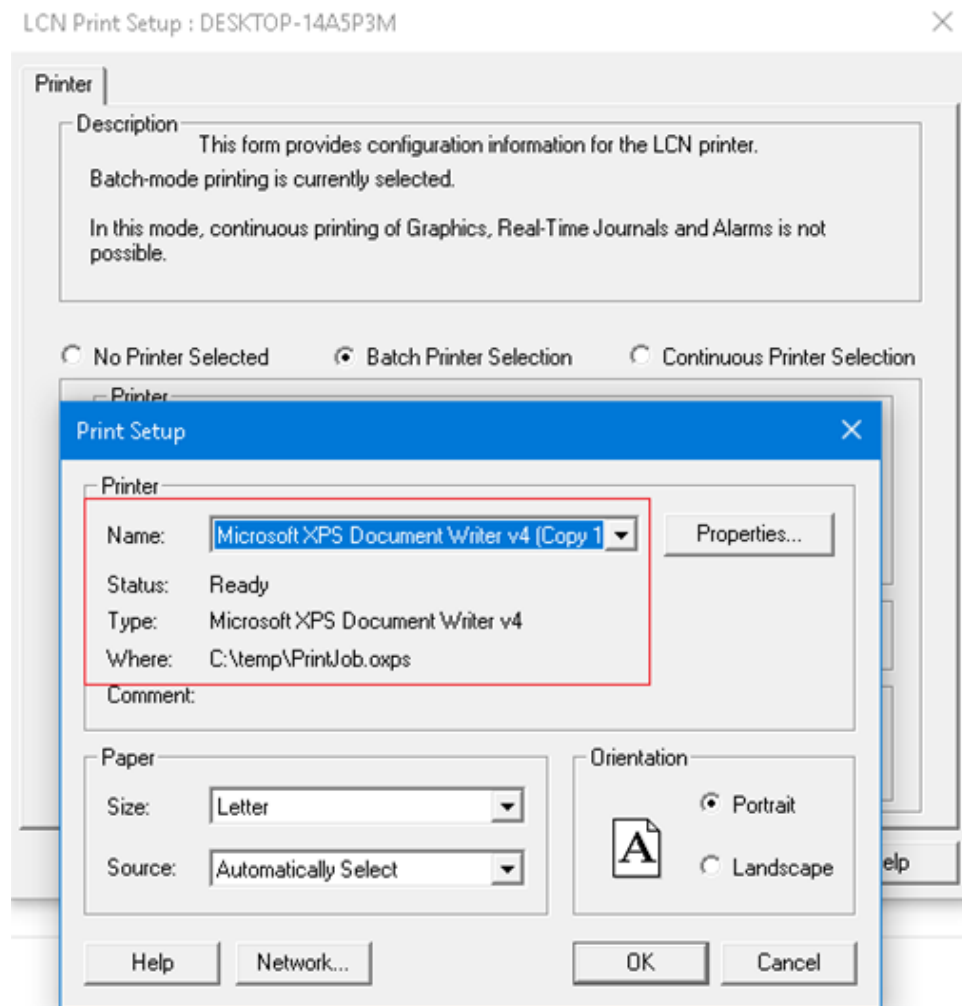
To use a virtual printer in Microsoft Windows 7 or later, perform the following procedure.

1. From the **Start** menu, click **Devices and Printers**.
2. Click **Add Printer**. A pop-up window appears.
3. At the bottom of the window, click **The printer that I want isn't listed**.
4. Choose **Add a local printer or network printer with manual settings**.
5. Click **Create a new port**, and then click **Local Port** next to **Type of Port**.
6. In the **Port Name** dialog box, type the path and file name as shown in the following examples:
For Microsoft XPS Document Writer - "C:\Temp\PrintJob.xps"
For Microsoft Print to PDF - "C:\Temp\PrintJob.pdf"
7. Click **Next**.
8. Select **Microsoft** from the **Manufacturer** drop-down list.
9. Select **Microsoft Print to PDF** or **Microsoft XPS Document Writer** from the **Printers** drop-down list.
10. Click **OK** to close the dialog box.
11. Open the LCN Print Setup page through Configuration Utility or Native Window.
12. In the **Printer** tab, select the **Batch Printer Selection** option and click **Print Setup**.

- For Microsoft Print to PDF:



- For Microsoft XPS Document Writer:



- From the Native Window, go to **Engineering Menu > Command Processor** and initiate a print job.

Note: If the file is already created, it will overwrite the existing file. Make sure to save or backup old data or file before giving a new or next print command.

3.9 TPN Time Sync Page

3.9.1 Usage of the TPN Time Sync Page

The TPN Time Sync dialog page allows you to configure values required for synchronizing TPN time to TPS time. This function is available only if the Time Sync option is enabled on the **Common** page. TPN Time Sync can be implemented in Experion nodes and systems that are at the following minimum release levels: GUS R330 and APP R211.

Verify that LCNP4- GPS boards are installed in Experion nodes that have been designated as CLOCK NODE 1 and CLOCK NODE 2 clock sources in the NCF.CF file.

3.9.2 Overview of the TPN Time Sync Page

The **TPN Time Sync** page allows you to:

- Enable Auto Adjust for Daylight Savings.
- Enable TPS to TPN Time Synchronization, including specifying the Synchronization Interval and Dead Band Limit.
- Enable Gradual Adjustment, including the Gradual Adjust Limit and the Cutoff Synchronization Limit.

3.9.3 Accessing the TPN Time Sync Page

1. Select Board n (n = board number) from the **Configure** drop-down menu.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)
2. Select the **TPN Time Sync** tab to display the following:

The screenshot shows a configuration window titled "GUS06 : TP516". It has several tabs: "Printer", "Emulated Disks", "Data Access Configuration", "LCNP", "Common", "Native Window", "TPN Time Sync", and "Keyboard". The "TPN Time Sync" tab is selected. Below the tabs is a "Description" box containing the text: "This form provides configuration information for Synchronizing TPN time to the time on the TPS nodes. If the LCNP version does not support Time Sync these configuration options are disabled." Below the description are two checkboxes: "Enable Auto Adjust for Daylight Savings" (unchecked) and "Enable TPS to TPN Time Synchronization" (checked). Below these are four input fields: "Synchronization Interval (Sec)" with value 3600, "Dead Band Limit (Sec)" with value 2, "Gradual Adjust Limit (Sec)" with value 10, and "Cutoff Synchronization Limit (Sec)" with value 99999. There is also a checkbox for "Enable Gradual Adjustment" which is checked. At the bottom of the window are buttons for "OK", "Cancel", "Apply", and "Help".

Any change to a TPN Time Synchronization configuration setting will execute the function immediately based on the new configuration settings, and continue on a periodic basis as configured in the synchronization interval.

3.9.4 Enable Auto Adjust for Daylight Savings

If selected, TPN time will automatically be adjusted to Daylight Savings Time (DST). This change is immediate even if the **Enable Gradual Adjustment** option is selected. The change of the DST setting is an abrupt change and may cause loss of history data based on CLOCK NODE 1 being set backward or forward. The DST adjustment occurs when Windows Date/Time properties initiates a DST change.

When a DST change occurs at CLOCK NODE 1, the node immediately changes the TPN time to the TPS time and eliminates any gradual adjustment that was in effect.

During this process, the **Enable Gradual Adjustment** option will be ineffective even if it is checked.

If the **Enable Auto Adjust for Daylight Savings option** is not selected and a DST event occurs, the Time Sync function will continue to synchronize the TPN time at a fixed offset value that is equal to the DST adjustment value configured in Windows Date/Time properties.

This fixed offset value remains in effect until the user clicks on the **Set TPN to TPS time** button on the LCNP Status display, or the TPN Time Sync function detects a change in the TPN time that is approximately equal to the DST adjustment, as configured in the Windows Date/Time properties. The difference in time must be within 5 minutes of the DST adjustment value.

The **Enable Auto Adjust for Daylight Savings** selection is independent of the **Enable TPS to TPN Time Synchronization** checkbox.

3.9.5 Enable TPS to TPN Time Synchronization

If selected and this node is CLOCK NODE 1, TPN and TPS times will be checked at the time interval specified in the **Synchronization Interval** option. If there is a discrepancy between TPN and TPS times that is greater than the **Dead Band Limit**, TPN time will be adjusted to TPS time according to the adjustment options selected. By default, the **Enable TPS to TPN Time Synchronization** box is unchecked.

With TPS R420, the time synchronization is enabled when the TPN node is a Master clock node and the option for time synchronization is selected. For example, in a TPS domain, (which includes GUS/APP/EST/ESVT/ACET and a Domain Controller), all the Windows nodes are configured to get the time from the Domain Controller.

If one of the T-nodes is made as a TPN Clock Master and the time synchronization is enabled, then all the TPN nodes will listen to the T-node.

If the Clock Mastership is switched to another TPN node, then the time synchronization to the T-node does not happen. As a result, the Windows nodes and the TPN nodes do not follow the same time source. All the Windows nodes will continue to follow the Domain Controller and all the TPN nodes will listen to the new Master.

Synchronization Interval Setting

This setting is the amount of time (in seconds) between comparisons of TPN and TPS times. You can enter the **Synchronization Interval** in seconds when **Enable TPS to TPN Time Synchronization** is selected. When CLOCK NODE 1 is loaded with its personality, then the time correction calculation occurs at the interval specified in **Synchronization Interval**. The configurable adjustment range is 1-99999 seconds, and the default value is set at 3600 seconds (1 hr). During this time interval, if the time difference exceeds the **Dead Band Limit**, the Master clock node starts adjusting TPN time gradually to synchronize it with TPS time.

If the time difference exceeds the **Cutoff Synchronization Limit** value, the time difference should be reduced manually by one of the following methods:

- Changing the time abruptly through the **Set TPN to TPS Time** button on the LCNP Status display of CLOCK NODE 1 to reactivate the time synchronization mechanism.
- Changing the time abruptly by changing the TPN time using the Native Window targets so that the time is within the cutoff value. The next scheduled execution of the TPN Time Sync function will adjust the TPN time to be closer to the TPS time.

The user must have Engineer keylevel access to perform the task.

Dead Band Limit Setting

If the difference between TPN time and TPS time falls within the specified **Dead Band Limit** (1- 10 seconds), then no action will be taken by the Time Synchronization function. An exception is when the difference is within the dead band and gradual adjustment is in effect, then gradual adjustment will continue when possible to further reduce the time difference. The default value for the **Dead Band Limit** is 2 seconds. The **Dead Band Limit** value cannot be greater than the **Gradual Adjust Limit** value (when **Enable Gradual Adjustment** has been selected) or the **Cutoff Synchronization Limit** value (when **Enable Gradual Adjustment** has not been selected).

If the difference between TPN time and TPS time exceeds the **Dead Band Limit**, then the function will initiate a gradual adjustment as specified by the **Enable Gradual Adjustment** settings.

3.9.6 Enable Gradual Adjustment

If selected, adjustments to the TPN time will be made gradually according to the time specified by the **Gradual Adjust Limit (Sec)** value. It is recommended that this option be selected to avoid loss of historized data. If the **Enable Gradual Adjustment** box is unchecked, then the time changes will occur immediately.

Gradual adjustment is possible only if the CLOCK NODE 1 / CLOCK NODE 2 TPS nodes have the LCNP4- GPS board installed.

Gradual Adjust Limit Setting

This option is in effect when the time difference between the TPS time and TPN time exceeds the **Dead Band Limit** value but is less than the **Gradual Adjust Limit** value. An exception is when the difference is within the dead band when gradual adjustment is already in effect, then gradual adjustment will continue when possible to further reduce the time difference. The range of the **Gradual Adjust Limit** value is 1- 99999 seconds. The default value for this option is 10 seconds.

The **Gradual Adjust Limit** value cannot be less than the **Dead Band Limit** value, and cannot be greater than the **Cutoff Synchronization Limit**.

Cutoff Synchronization Limit Setting

Time adjustments are not made if the time difference between TPN and TPS nodes exceeds the **Cutoff Synchronization Limit** value. The value range is 1- 99999 seconds. By default, the **Cutoff Synchronization Limit** is set to 99999 seconds (27.5 hours). The **Cutoff Synchronization Limit** cannot be less than the **Gradual Adjust Limit** or the **Dead Band Limit**.

If the time difference exceeds the **Cutoff Synchronization Limit** value, the time difference should be reduced manually by one of the following methods:

- Changing the time abruptly through the **Set TPN to TPS Time** button on the LCNP Status display of CLOCK NODE 1 to reactivate the time synchronization mechanism.
- Changing the time abruptly by changing the TPN time using the Native Window targets so that the time is within the cutoff value. The next scheduled execution of the TPN Time Sync function will adjust the TPN time to be closer to the TPS time.

The user must have Engineer keylevel access to perform the task.

After you enter the TPN Time Sync values in the CLOCK NODE 1 source, ensure that you enter the same values in the TPN Time Sync page of the CLOCK NODE 2 source.

DEVICES/SERVICES PAGE

4.1 Overview of the Devices/Services Page

The Devices/Services Page is used for configuring the automatic startup of Device Drivers and Services.

The default settings for the services and drivers are configured by the installation program.

4.2 Accessing the Devices/Services Page

1. Select the following to start the **Configuration Utility**.

Start > All Programs > Honeywell Experion PKS > System Management Configuration Utility.

Or

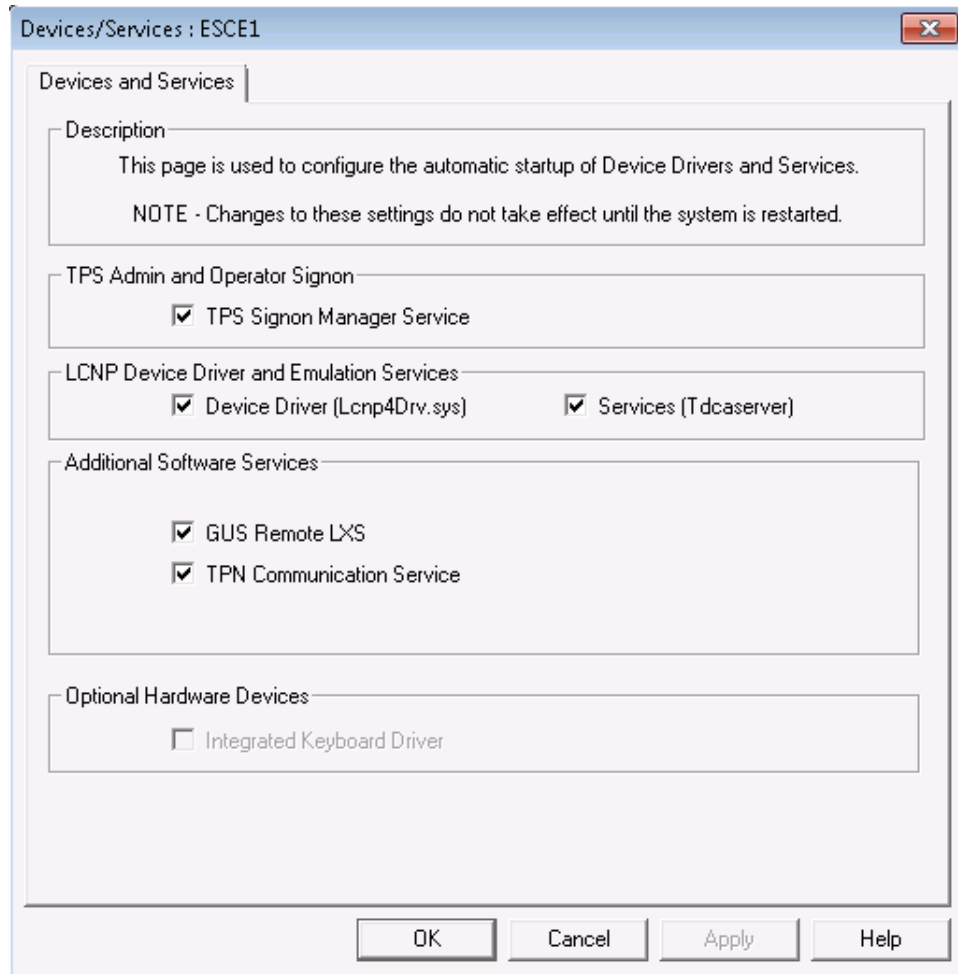
From the **System Management Display**, right-click the node of interest.

For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)

2. Select the following:

Configure>Devices/Services.

RESULT: The following is displayed.



4.3 TPS Admin and Operator Signon Options

TPS Signon Manager service	Select this box unless you are instructed by Honeywell to do otherwise.
-----------------------------------	---

4.4 LCNP Device Driver and Emulation Services Options

Device Driver (tdcaint.sys)	Select this box (if it is available) unless you are instructed by Honeywell to do otherwise.
Services (Tdcaserver)	Select this box (if it is available) unless you are instructed by Honeywell to do otherwise.

4.5 Time Synchronization Service Options

This optional function periodically sets the time to LCN time.

Clear this box (if it is available) unless you are instructed by Honeywell to do otherwise.

4.6 Additional Software Services Options

GUSRemote LXS	For TPS GUS and Network GUS nodes, this box is checked only if the GUS Remote Displays Server package has been installed. This box is grayed out unless the GUS Remote Displays Server package has been installed. The box is grayed out for the following nodes: <ul style="list-style-type: none"> • AM Replacement nodes • APP nodes • Standalone GUS nodes • US Replacement nodes
TPN Communication Service	With TPS R410, this option is used for running or stopping TPN Communication Service .

4.7 Optional Hardware Devices Options

Integrated Keyboard Driver	This box is selected for Experion Station - TPS with either of the following: <ul style="list-style-type: none"> • Integrated Keyboard option • Operator Entry Panel option on a Honeywell Icon Series Console This box is shaded on Experion APP and AM Replacement nodes.
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FILE TRANSFER PAGES

5.1 Reference to Other Documentation

For information on the GUS Remote Displays Client Page of the Configuration Utility, refer to the *GUS Remote Displays User's Guide*.

TPN COMMUNICATION SERVICE

6.1 Overview of the TPN Communication Service Page

With TPS R410, **TPN Communication Service** facilitates TPS-TPN status communication. This option is used for running or stopping **TPN Communication Service**. On the **Devices/Services** page, this option is selected by default. The HCI component composite state of the TPS node is propagated optionally when the HCI components fail.

6.2 Accessing the TPN Communication Service Page

1. Open the **Configuration Utility** as follows:

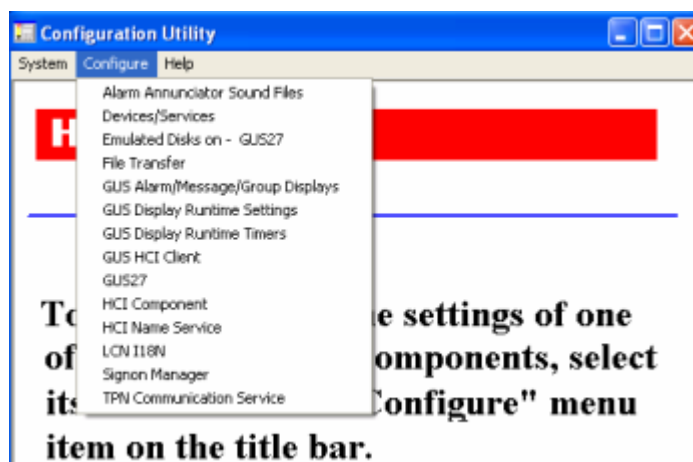
Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility.

ATTENTION

Running **TPN Communication Service** is mandatory for monitoring the HCI components from TPN.

The HCI component composite state of the TPS node is communicated to TPN through this service. The composite HCI status is reflected in the auxiliary status of the node.

RESULT: The following screen is displayed.



2. Choose **Configure > TPN Communication Service**.

RESULT: On clicking **TPN Communication Service**, the following dialog box is displayed.



3. To enable or disable the **HCI State Notification**, select or clear the check box provided on the **TPN Communication Service** screen.

ATTENTION

With the TPN Communication Service running, when the **HCI State Notification** option is selected, an LXS channel is allocated. This channel can be viewed in the CHANINFO schematic. The description of this channel is \$TPN_COMM_RQST_SRVR and is limited to 12 characters.

On clearing the **HCI State Notification** option, the LXS channel is de-allocated. The start up of TPN Communication Service is dependant on the **TPS Emulator** Service.

The initial composite status (on resetting LCNP) of the HCI components is reflected in the auxiliary status of the node after 2 minutes approximately. This delay allows the HCI components to return to their steady/normal state.

GUS GROUP DISPLAYS PAGE

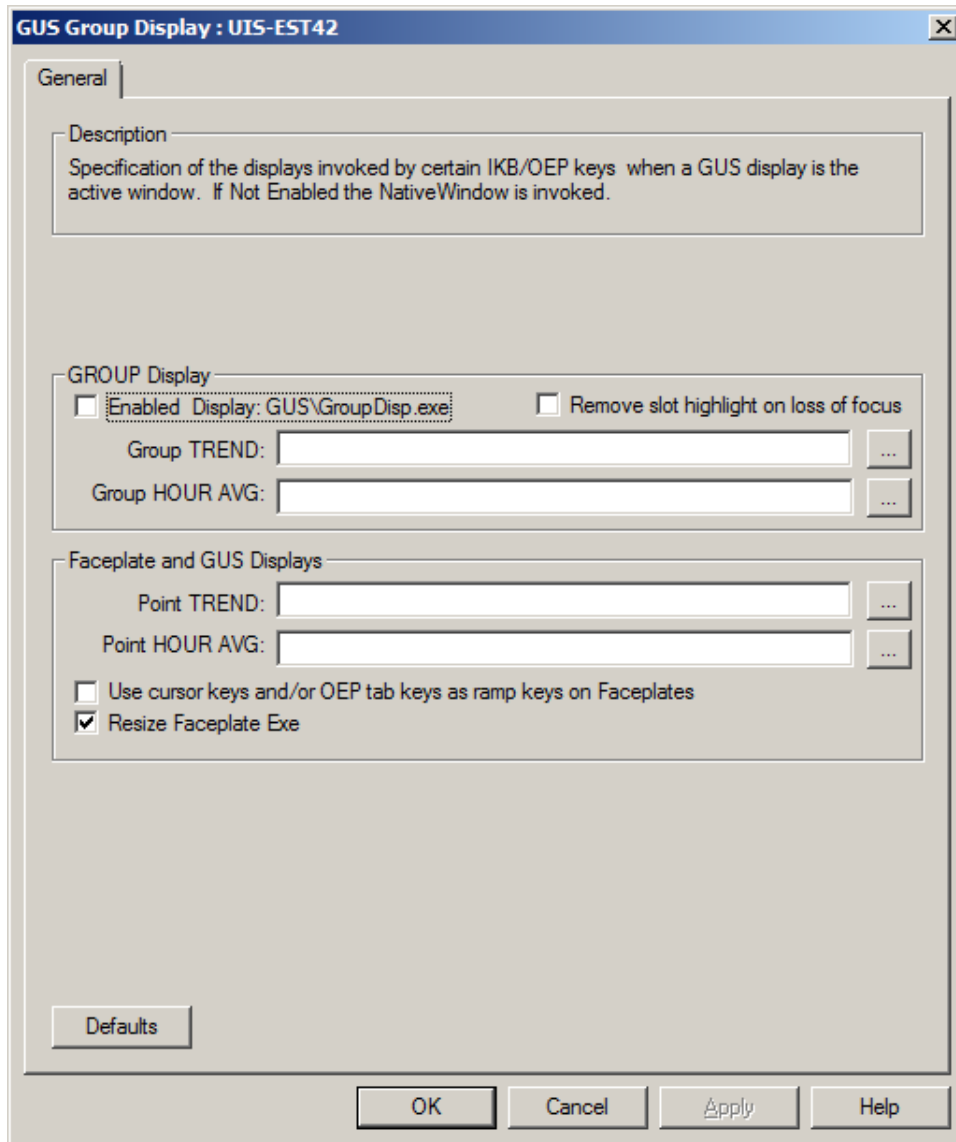
7.1 Overview of the GUS Group Displays Page

The GUS Group Displays Page is used for configuring the GUS Group displays.

The GUS Alarm Summary is not supported on Experion nodes.

7.2 Accessing the GUS Group Displays Page

1. For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)
2. Select the following:
Configure > GUS Group Displays.
RESULT: The following is displayed.



7.3 Group Display

Check the **Remove slot highlight on loss of focus** box if you want an operator- selected tag in a GUS Group Display to be deselected when its window no longer has focus.

Check the **Group Display - Enabled** box if you want **GUS Group Displays** to be invoked by keyboard actions or GUS scripting interaction, instead of the standard Native Window Group displays.

If not blank, the Group Trend and Group Hour Avg identify the GUS display that will be invoked when the IKB/OEP TREND or HOUR AVG is pressed while the GUS Group Display has focus. The invocation will include the current Group Number as the DisplayParameter.

The Group Display is a standalone executable that still must be enabled if you wish to replace its Native Window counterpart.

7.4 Faceplate Keyboard Configuration

The Point Trend and Point Hour Avg identify the path of a GUS display that will be invoked when the IKB/OEP TREND or HOUR AVG is pressed while the Faceplate.exe or a GUS Display has focus.

- The invocation includes the current point name as the DisplayParameter.
- If a faceplate has focus, its tagname will be the current point.
- If an AlarmWindow with a selected alarm has focus, that point will be the current point.
- Otherwise, the current point will be (in order of preference) the PMK entity, \$CZ_ENTY or \$AL_ENTY.

Check the **Use Cursor Keys and/or OEP Tab Keys as Ramp Keys** if the node has an Honeywell Icon Series Console Operator Entry Panel (OEP) and you want to allow the OEP tab keys to be used as ramp keys.

Check the **Resize Faceplate Exe** to resize the faceplate.

GUS DISPLAY RUNTIME SETTINGS PAGE

8.1 Overview of the GUS Display Runtime Settings

The GUS Display Runtime Settings Page is used for configuring a number of different GUS display runtime parameters.

8.2 Configuring GUS Displays for Runtime

1. For ES-T nodes select:

Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.

Or,

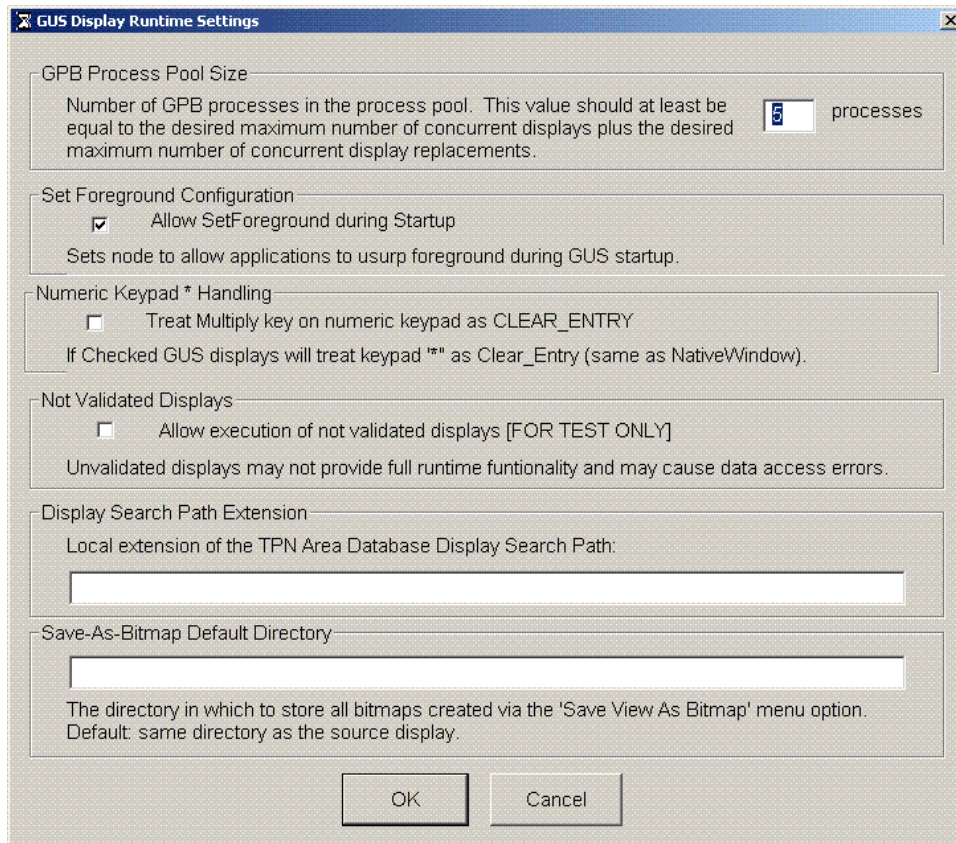
From the System Management Display, right-click the node of interest.

For detailed instructions to start the Configuration Utility refer to section [Starting the Configuration Utility](#) *Starting the Configuration Utility*.

2. Select the following:

Configure > GUS Display Runtime Settings.

RESULT: The following page is displayed.



35097.bmp

3. Enter the number of process into the **GPB Process Pool Size** data input port. Note that the GPB Process Pool Size \geq (max. # of concurrent displays) + (max. # of current display replacements). Refer to the section GPB Process Pool Size in the *GUS Remote Displays User's Guide* for more information on the Process Pool.
4. Click (check) the [Set Foreground Configuration](#) check box to enable scripts to transfer the focus to another window when any user logs on.
5. Click (check) Numeric- Keypad * Handling check box to allow GUS faceplate/Group and GUS change Zone to invoke the numeric- keypad * key to clear the data entry port (same as CLR ENTR key in the OEP).
If you press the numeric- keypad * key without selecting [Numeric- Keypad * Handling](#), the INVALID ENTRY error message appears.
6. Click (check) the [Not Validated Displays](#) check box if you want to allow displays that are not validated to run.
7. Enter a secondary search path for GUS displays into the **Display Search Path Extension** data input port.
8. Enter the pathname to a new directory into the [Save- As- Bitmap Default Directory](#) data input port.
9. Click **OK** to complete the GUS Display Runtime configuration procedure.

8.2.1 Set Foreground Configuration

With Experion R400, remove all references 'to enablesetforeground.exe' from the node start-up scripts or operator.bat file.

On Experion nodes, this behavior is enabled during the installation of the node.

8.2.2 Numeric- Keypad * Handling

With GUS R350 and later, the numeric- keypad * key in the IKB and in the OEP can be used as a CLR ENTR key to clear the entry ports in GUS faceplate/Group and GUS change Zone. This feature is similar to the one available for the Native Window.

8.2.3 Display Search Path Extension

The primary area database search path for GUS displays (.pct files) is defined in the NCF. The system software always uses this search path first to try to locate GUS display files.

Entering a search path to a Drive and Directory on your GUS into the **Display Search Path Extension** data entry port provides another (secondary) area where GUS display files can be kept.

When this parameter is 'blank,' which is the default value, the system software will use only the primary area database search path to try to locate GUS display files.

8.2.4 Not Validated Displays

After a GUS display is built, the normal, recommended procedure is to validate it before it is run. This display validation function verifies that the data references in scripts and objects dynamics are correct and binds references in the display to the data to allow successful and efficient access during display execution. A display can run with validation errors, but runtime errors may occur if data cannot be accessed during execution due to invalid data references.

Setting the **Not Validated Displays** checkbox allows invalidated displays to run and should be used only for testing.

The default value for this checkbox is 'unchecked,' which means that all displays will be checked before they are run to see if they have been validated. If an invalidated display is found, an error message will be displayed.

8.2.5 Save- As- Bitmap Default Directory

The GUS Display Builder provides the File menu command 'Save View as Bitmap' which enables users to save the current GUS display as a standard MS Windows bitmap file (.bmp, 24- bit TrueColor).

Entering a pathname into the **Save- As- Bitmap Default Directory** data entry port specifies where these GUS display bitmap files are to be saved when the Save View as Bitmap command is executed.

When this parameter is 'blank' (the default value), GUS display bitmap files will be saved to the directory where the GUS display file (.pct) is stored.

Here is an example of a valid pathname.



Save-As-Bitmap Default Directory

C:\inez\subdir2\subdir2-2

The directory in which to store all bitmaps created via the 'Save View As Bitmap' menu option.
Default: same directory as the source display.

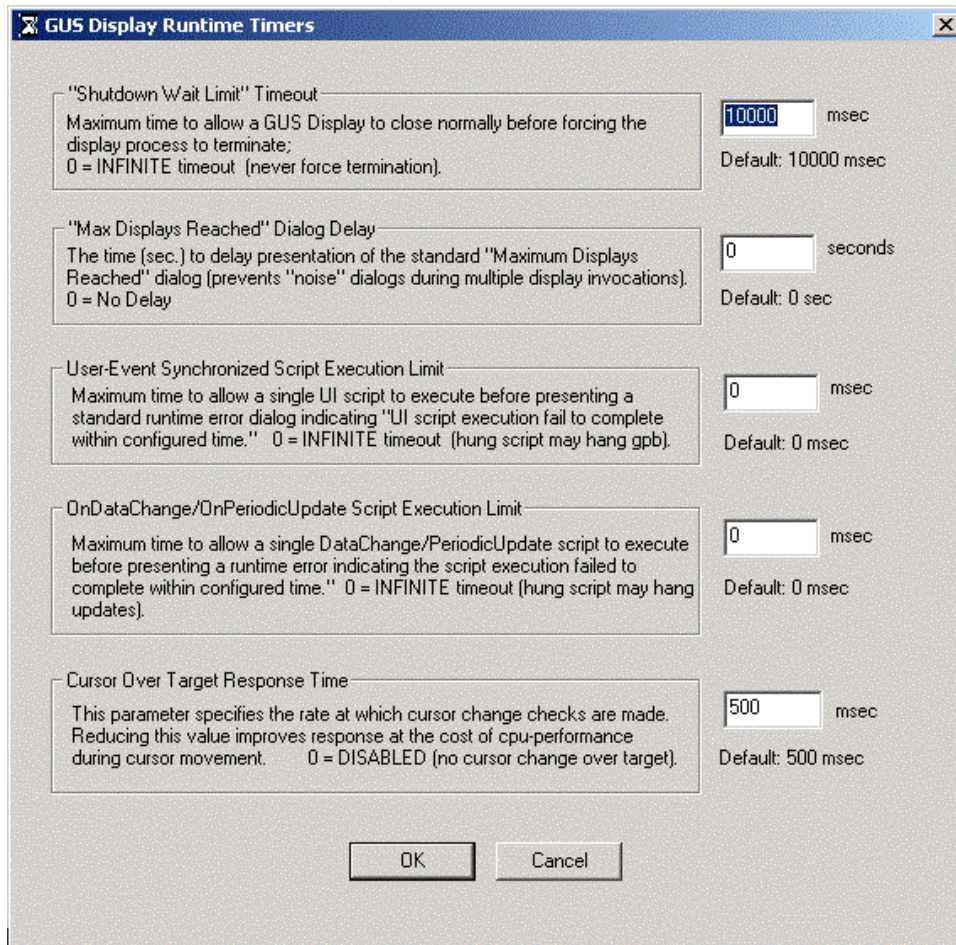
GUS DISPLAY RUNTIME TIMERS PAGE

9.1 Overview of the GUS Display Runtime Timers Page

The GUS Display Runtime Timers Page is used for configuring values for a number of different timing parameters associated with GUS displays.

9.2 Configuring GUS Display Runtime Timers

1. For ES-T and Experion APP nodes select;
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#).
2. Select the following:
Configure > GUS Display Limits.
RESULT: The following page will be displayed.



35112.bmp

3. Enter the time (in msec) into the 'Shutdown Wait Limit' Timeout data input port.
4. Enter the time (in sec) into the 'Max Displays Reached' Dialog Delay data input port.
5. Enter the time (in msec) into the User- Event Synchronized Script Execution Limit data input port.
6. Enter the time (in msec) into the onDataChange/OnPeriodicUpdate Script Execution Limit data input port.
7. Enter the time (in msec) into the Cursor Over Target Response Time data input port.
8. Click **OK** to complete the GUS Display Limits configuration procedure.

9.2.1 Shutdown Wait Limit Timeout

The Shutdown Wait Limit applies to GUS displays that use the `OnDisplayShutDown` subroutine. It should be used to allow displays enough time for pending scripts to run to completion but shut down if a script gets into an extremely long or infinite loop.

Refer to the *OnDisplayShutDown* section in the Display Authoring Tutorial manual for additional information.

When a GUS display is shutting down, pending scripts are allowed to run to completion. If a display script gets into an infinite loop, the display may not be able to close. This will affect the ability to invoke new GUS displays, which can cause a variety of problems.

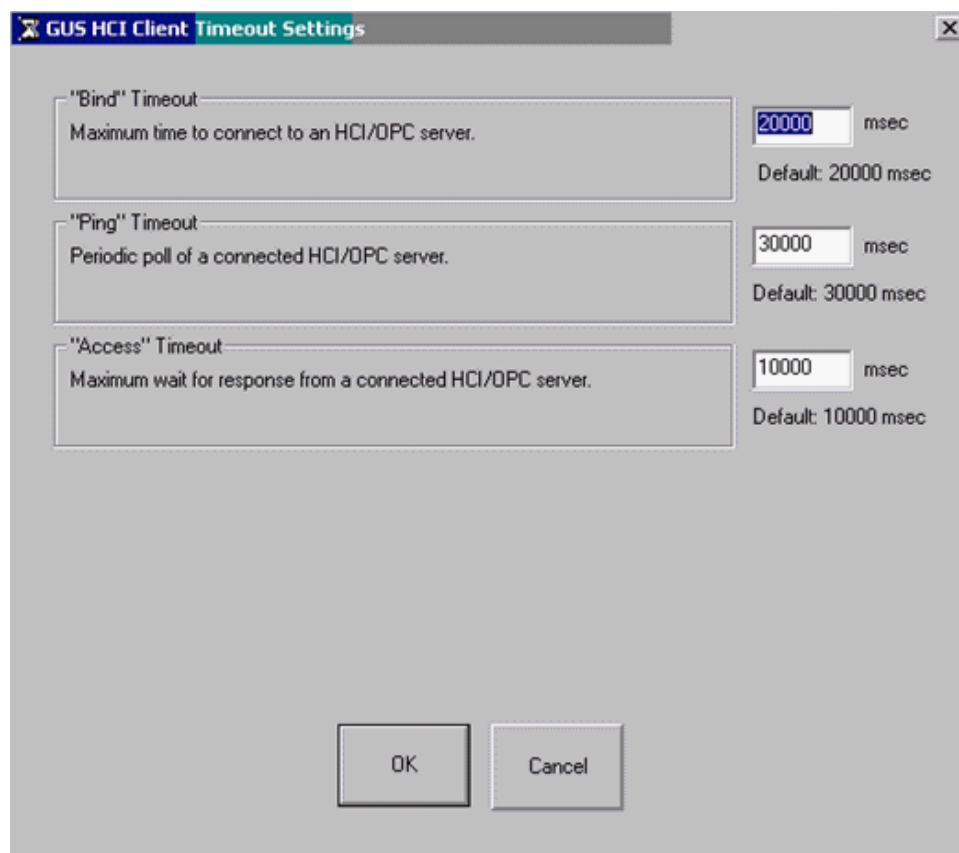
Entering a time into the 'Shutdown Wait Limit' Timeout data entry port will force all GUS displays to close normally, avoiding the delay associated with an infinite or a potentially very long loop.

When this parameter is '0,' an 'infinite' timeout is assumed, and this means that GUS displays will never be forced to terminate.

GUS HCI CLIENT PAGE

10.1 Configuration Instructions

Refer to Timeouts in the *HCI/OPC Data Access User's Guide* for configuration information.



GUS REMOTE DISPLAYS CLIENT PAGE

11.1 Reference to Other Documentation

For information on the GUS Remote Displays Client Page of the Configuration Utility, refer to the *GUS Remote Displays User's Guide*.

GUS REMOTE DISPLAYS SERVER PAGE

12.1 Reference to Related Documentation

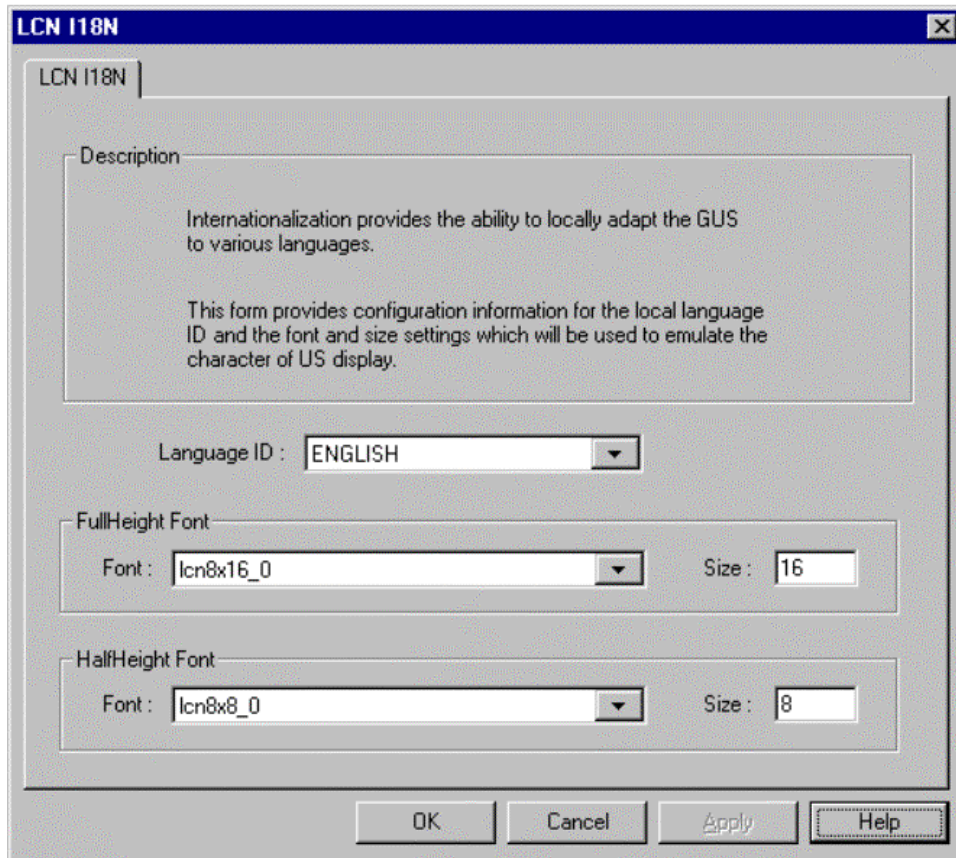
For information on the GUS Remote Displays Server Page of the Configuration Utility, refer to the *GUS Remote Displays User's Guide*.

13.1 Overview of LCN I18N Page

The LCN I18N Page is used for configuring the different language fonts used by the Native Window.

13.2 Accessing the LCN I18N Page

1. For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)
2. Select the following:
Configure > LCN I18N.
RESULT: The following is displayed:



13.3 Selecting Fonts

Typically, FullHeight Font Size is set to 16 points, and HalfHeight Font Size is set to 8. A smaller size may have to be selected if the text does not fit within the box at run time. The default FullHeight and HalfHeight fonts are 'lcn8x16.fon' and 'lcn8x8.fon'. They are installed in the following directory:

Program Files\Honeywell\TPS\NativeWindow\Fonts

LCNstd.ttf and LCNhalf.ttf are direct replacements for the lcn8x16_0.fon and lcn8x8_0.fon fonts. They are usable with all screen resolutions and are the preferred font for screens set to 1024x768 or less. On high resolution screens (1600x1200) the light weight of the font (necessary for clarity at 640x480) makes parts of some characters appear dimmer than may be desired.

LCN hires.ttf and LCN hiresHalf.ttf are designed specifically for use on high resolution monitors (set at 1280x1024 or 1600x1200). These are heavier fonts with more curvatures than the LCNstd.ttf and LCNHalf.ttf. As a result, the characters may appear to be ragged at some sizes on lower resolution screens.

All of these fonts are monospace, sans serif. When used outside of the NativeWindow, a font size of 10 for LCNstd.ttf and LCN hires.ttf matches the character size of lcn8x16_0.fon, and a font size of 7 for LCNhalf.ttf and LCN hiresHalf.ttf matches the character size of lcn8x8_0.fon. The LCN fonts include the ASCII characters (0- 127) set plus the Kanji characters (encoded as 128- 191).

CAUTION

The Native Window will not be able to display text if you select a language and the selected fonts do not support the language.

13.4 Increasing the Font Size in the Native Window

To properly increase the font size of the Native Window, use the procedure described in the section *Increasing the Font Size for the Native Window* in the *TPS System Implementation Guide*.

SIGNON MANAGER PAGE

14.1 Overview of Signon Manager Page

This page is used for configuring the **Signon Manager**.

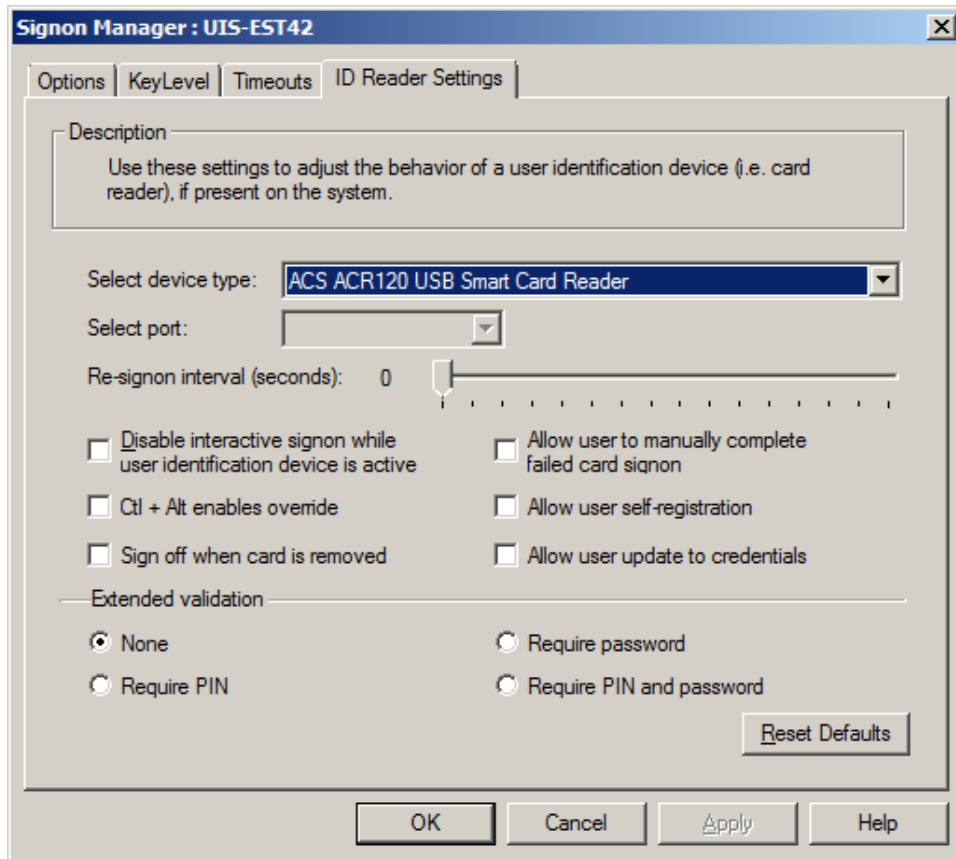
The Signon Manager is used for tracking which user is logged on to a node and to allow Honeywell applications to validate that users have permission to perform certain operations.

For detailed instructions to configure Signon Manager, refer to the section *Configuring Signon Manager* in the *TPS System Implementation Guide*.

For information of how to use Signon Manager, refer to the section *Interfacing with Signon Manager* in the *TPS System Operations Guide*.

14.2 Accessing the Signon Manager Page

1. For ES-T and Experion APP nodes select:
Choose **Start > All Programs > Honeywell Experion PKS > System Management > Configuration Utility**.
Or,
From the System Management Display, right-click the node of interest.
For detailed instructions to start the Configuration Utility, refer to section [Starting the Configuration Utility](#)
2. Select the following:
Configure > Signon Manager.
RESULT: The following is displayed.



The TPS KeyLevel is available for GUS and with limited functionality for Experion Station - TPS. See *KEYLEVEL Access* in the *Integrated Experion-TPS User's Guide* for more information.

14.3 Signon Manager Options

Options Tab	
Behavior - Auto hide (default=on)	When this option is on, the Signon Manager window is hidden with only a thin strip visible. Signon Manager can be invoked by moving the mouse pointer over the thin strip. When this option is off, a small window indicating the currently signed on user remains on- screen at all times, unless covered by a higher priority window.
Signon Display Colors (default = blue text on light blue background)	This option allows the user to make the 'current user' window either more or less obvious, depending on site preference. The following options are provided to change the colors of the window: <ol style="list-style-type: none"> 1. Select Windows dialog colors 2. Select Windows taskbar colors 3. Select the Text and/or Background buttons. Each button displays the standard Windows color selection dialog box.
KeyLevel Tab	
Trust keylevel changes from IKB (default=	When this option is on, LCN keylevel changes originating from a physical keyswitch are used, even if the currently signed on user is not authorized at this level. For sites not using the physical keyswitch, this option is not used. For sites that do use the

on)	physical keyswitch, this option allows a quick keylevel change without the delay of entering a user id and password.
Treat physical key OPR position as ViewOnly (default= off)	The Treat physical key OPR position as ViewOnly checkbox determines whether GUS displays will respond to a change when the IKB key is switched to OPR or VIEW. For the Native Window, this behavior is controlled by the NCF.
Automatically raise keylevel to maximum allowed for SignOn user (default = off)	When this option is on, TPS applications that are Signon Manager- aware (Native Window and GUS displays) automatically raise the LCN keylevel for a new signon to the highest keylevel allowed for the new user. When this option is <i>not</i> set, TPS applications will not automatically raise the keylevel for a new signon, but will always lower the key setting if the new user is not authorized at the current level.
Default Workstation Keylock (default = View Only)	This option allows a site to decide what the default keylevel will be for a workstation. This default keylevel is set whenever a Windows login or logout occurs. The default provides the starting point for the key setting for a workstation at the time a user logs onto the machine. If the auto- raise option above is enabled, this setting is of little concern.
Timeouts Tab	
Sign users off if there is no activity (default= off)	When this option is on, the users are signed off if the period of inactivity exceeds the configured limit.
Sign override users off (default= off)	When this option is on, the override users are signed off if the period of inactivity exceeds the configured limit. Select the option User may select the timeout of up to option to specify a limit for user selectable timeout.
Timeout Warning	The following configurable options are available for timeout warning. A warning is raised before the configured number of seconds before actually signing off a timed out user. Select Show user interface if hidden to display the user interface if it is hidden at the time of warning. Select the Play sound to configure a sound file that needs to be played during a timeout warning.
ID Reader Settings	
Select device type	Selecting the card reader from the drop-down list attempts to attach the card reader to Signon Manager. If '<none>' is selected, the card reader is detached from the Signon Manager.
Select port	
Re-signon interval (seconds)	If the same card is used for signing in again within the specified interval, the system does not prompt for sign in. The range of this interval is 0 to 300 seconds.
Disable interactive signon while user identification device is active	When this option is selected, the Signon Manager does not allow manual signon while a device is present. When this option is not selected, the Signon Manager allows manual signon whether device is present or not.
Ctrl + Alt enables override	When this option is selected, If the ctrl and alt keys are pressed together at the time of badge entry and if there is a current signon, the new signon is treated as an override. When this option is not selected, All signon events replace any prior signon (no override except manual entry).

Sign off when card is removed	When this option is selected, the Signon Manager is automatically signed off when a card is removed. When this option is not selected, signoff is manual (GUI button) or by timeout only.
Allow user to manually complete failed card signon	When this option is selected, if the signon based on the credentials from the card does not succeed, the user is allowed to enter a password. This allows use of a card after the user's password is changed if the card has not been updated yet when this option is not selected, if the signon based on credentials from the card does not succeed, the signon attempt fails.
Allow user self-registration	When the option is selected, If the smart card does not contain any credentials, the user is prompted for user id, password, and possibly PIN. Those credentials are used for attempting a signon. If the signon succeeds, the credentials are written to the smart card if it is still in the reader. 'Allow user to manually complete failed card signon' is always selected when this option is selected. When this option is not selected, Based on 'Allow user to manually complete failed card signon', signon may or may not be completed, and credentials are not saved. Note: If this option is selected, the 'Allow user to manually complete failed card signon' option is automatically selected.
Allow user update to credentials	When this option is selected, <ul style="list-style-type: none"> • If the card contains credentials which do not successfully sign in, and • the user subsequently provides credentials that successfully signs in, the credentials on the card are updated. 'Allow user to manually complete failed card signon' is always selected when this option is selected. When this option is not selected, Based on 'Allow user to manually complete failed card signon', signon may or may not be completed, but credentials are not saved. Note: if this option is selected, the 'Allow user to manually complete failed card signon' option is automatically selected.
Extended validation	<ul style="list-style-type: none"> • None - no manual entry is required • Require password - the credentials password is ignored and the user is prompted for a password • Require PIN - the credentials on the card must include a non-empty PIN which must match the PIN the user is prompted for • Require PIN and password - combination of the prior two options Notes: <ul style="list-style-type: none"> • If the PIN option is not selected, any PIN registered on the card is ignored and not required at signon. • If the PIN option is selected, and the card used does not have a registered PIN, the signon fails, even if the PIN in the validation dialog is left blank. • When prompted for both PIN and password, they are entered into a single dialog (that is, there will not be multiple prompts).

15.1 Reference to Additional Documentation

For more information on the HCI Components Page of the Configuration Utility, refer to the *System Management Configuration Guide*.

HCI NAME SERVICE PAGE

16.1 Reference to Additional Information

For more information on the HCI Name Service page of the Configuration Utility, refer to the *System Management Configuration Guide*.

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