Lodging Link PTS
Installation & User's Guide

Version 1.2
Part # 2000345C

Lodging Link™ PTS

COMTROL
The Enterprise Connection

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TRADEMARK NOTICES

Third Edition, October 2006

GETTING STARTED

OVERVIEW

Lodging Link™ Protocol Translation Software (PTS) provides a universal protocol using Comtrol's proprietary Universal Hospitality Language Layer (UHLL) for seamless communication between Property Management Systems (PMS) and Guest Service Systems (GSS). Lodging Link PTS offers quick and simple integration of GSS devices such as call accounting, in-room Internet access, point-of-sale, in-room movie, keyless entry systems, and many more.

Lodging Link (LL) PTS runs as a service on your PC taking advantage of Microsoft Windows™ services technology, which allows long-running executable applications to run in the background in their own Windows sessions. Providing you with ease-of-use, the Lodging Link (LL) PTS Monitor application acts as a user interface from which you can configure and monitor service and device information.

Lodging Link PTS consists of two essential elements:

- The Lodging Link PTS software that is directly downloaded from the Comtrol Web site.
- A set of site-specific GSS interfaces delivered via Comtrol's Web site using an automated software delivery system.

✍ Initially, Lodging Link PTS is installed with a default interface image.

INSTALLATION REQUIREMENTS

System Requirements

- IBM Compatible PC
- NIC card
- At least 5 MB available hard-disk space
- Administrative privileges are required

Operating System Requirements:

LL PTS must run on one of the following:

- Windows 2000
- Microsoft Windows XP Professional or Home Edition
- Windows Server 2003

Communication Protocols

If you are installing Lodging Link PTS on the same machine as the PMS, and you are using the Comtrol Corporation UHLLShell ActiveX control or.dll for communication between Lodging Link PTS and the PMS, you must use the TCP-IP/Serial version of the control.

If you are installing Lodging Link PTS on a machine that the PMS is not resident on, then you may use either the TCP-IP/Serial control or the UDP/Serial control.

INSTALLING LODGING LINK PTS

To install Lodging Link PTS, you must first login to the Comtrol website at http://www.comtrol.com/hpd and follow the various links to download the LL PTS software as a zip file. After downloading the zip file, extract the contents, run the Setup.exe program, and follow the prompts to install Lodging Link PTS.

REVIEWING THE LL PTS MONITOR APPLICATION

The LL PTS Monitor application allows you to manage the LL PTS Service making obsolete the need to use the services applet in the Windows control panel. The LL PTS Monitor provides you with a single place to view system information, configure ports, monitor, log, and filter service message traffic as well as stop, start, and resume the LL PTS Service.

✍ The following steps are only accurate if you installed the Lodging Link PTS Service using the default installation settings.

Accessing the LL PTS Monitor

1. Click Start on the Taskbar. The Start menu displays.
2. Click Programs. The Program menu displays.
3. Select Lodging Link PTS.
4. Select LL PTS Monitor. The LL PTS Monitor displays.

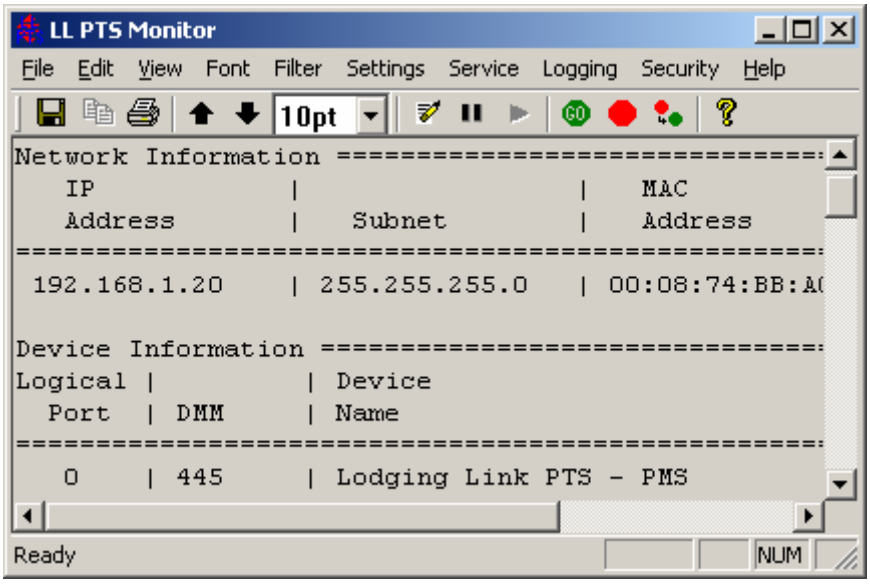

Figure 1: LL PTS Monitor window

Reviewing the Menus and Icons on the LL PTS Monitor window (Figure 1)

Field	Notes
Menu Bar	
File	• Use to save, print, and send Monitor information.
Edit	• Use to copy information.
View	• Use to clear, pause or resume the LL PTS Monitor application. • Use to toggle the Toolbar and Status Bar on and off.
Font	• Use to increase or decrease the size of the font displayed.
Filter	• Use to open the Filter Configuration window where you can configure data filtering windows.

Field	Notes
Settings	• Use to open the Configuration window where you can view and edit port configuration.
Service	• Use to start, stop, and restart the LL PTS Service.
Logging	• Use to open the Logging Configuration window where you can enable logging to a file.
Security	• Use to open the Password Management window where you can enable password protection.
Help	• Use to view information about the LL PTS Monitor.
Toolbar	
There are functions that are standard to all Windows applications.	
	• Use to save information.
	• Use to copy information.
	• Use to print information.
	• Use to increase font.
	• Use to decrease font.
	• Use drop-down arrow to select a specific font size.
	• Use to clear the LL PTS monitor display of information.
	• Use to pause data capture in the main display window.
	• Use to resume the display of information.
	• Use to start the LL PTS Service.
	• Use to stop the LL PTS Service.
	• Use to restart the LL PTS Service.
	• Use to display the Device, Version, and Image information.

Initial Startup Information displayed in the LL PTS Monitor (Figure 1)

Field	Notes
Network Information	
Upon initial startup, the LL PTS Monitor displays the following information pertaining to the PC running the LL PTS Service: • IP Address • Subnet • Mac Address	
Device Information (Also displayed in About LL PTS Monitor window)	
The Monitor displays the device information pertaining to each specific device. For example: 5, 114, Micros POS.	
Logical Port	• The logical port number associated with a specific device.
DMM	• The device, manufacturer, and model (DMM) number representing the device.
Device Name	• Name of the specific device.
Version Information (Also displayed in About LL PTS Monitor window)	
The LL PTS Monitor displays the following information for each component of the LL PTS Service: • Component name • Version number	
Image Information (Also displayed in About LL PTS Monitor window)	
The LL PTS Monitor displays the following information for each image: • Image Name • Image Number • Creation Date • Image Size • Image Type • License Key	
OS Information	
The LL PTS Monitor displays the following operating system information pertaining to the PC running the LL PTS Service: • OS Name • Date	
Port Information	
The LL PTS Monitor displays the following port configuration information: • Logical Port • Physical Port • Baud, Data, Parity, Stop • IP Address • Port	
Service Information	
The Monitor displays one of the following as the status of the LL PTS Service: • Stopped • Running • Not Installed Note: The display of the status of the LL PTS Service is only refreshed/updated by closing and reopening the LL PTS Monitor application.	

CONFIGURING PORTS

VIEWING PORT PROPERTIES

You can view the logical port's settings and the available physical ports under Settings in the Configuration window.

Viewing Port Properties

1. Access the LL PTS Monitor.
2. Select Settings on the menu bar. The Configuration option displays.
3. Click Configuration. The Configuration window displays.

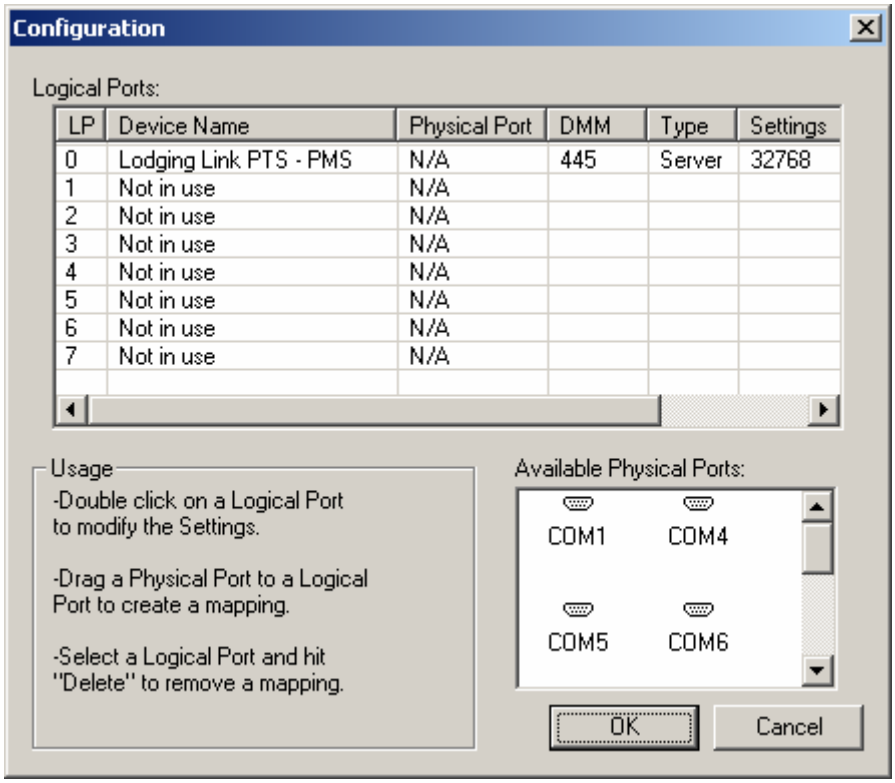

Figure 2: Settings Configuration window

Reviewing the Settings Configuration window (Figure 2)

Field	Notes
Logical Ports	
LP	• This field displays the logical port number.
Device Name	• This field displays the device associated with the logical port.
Physical Port	• This field displays the physical port mapped to the logical port.
DMM	• The device, manufacturer, and model (DMM) number representing the device.
Type	• This field displays the type of logical port which is one of the following: Serial, UDP, TCP Client, or TCP Server.
Settings	• The Settings Pane displays options according to one of the following 4 Port Types:
	Serial
	• **Baud rate**. Use the drop-down arrow to display a list of baud rates from which to select.
	• **Parity**. Use the drop-down arrow to display and select from the following: Even, Mark, None, Odd, Space.
	• **Data bits**. Use the drop-down arrow to display and select 7 or 8.
	• **Stop bits**. Use the drop-down arrow to display and select 1 or 2.
	• **Flow Control.** Select a radio button representing: None, Software, or Hardware.
	UPD
	• **IP Address**. Enter the IP address of the UDP port.
	• **Port**. Enter the port number**.**
	TCP Client
	• **IP Address**. Enter the IP address of the TCP Client port.
	• **Port**. Enter the port number.
	TCP Server
	• **Port**. Enter the port number**.**
Usage	
This pane briefly describes the actions you can take in the Configuration Window: • Modify settings • Create a mapping • Delete a mapping	
Available Physical Ports	
This pane displays the physical ports on the PC that are currently available for mapping to a logical port that has a port type of serial.	
Action Buttons	
The OK and Cancel buttons are standard Windows buttons to execute or cancel the configuration.	

EDITING PORT PROPERTIES

You can connect your GSS devices and the PMS to Lodging Link using a UDP Ethernet or TCP/IP Client Server established via the Ethernet port on the PC or a serial connection that connects to an available serial port on the PC. Upon the initial installation of Lodging Link PTS, all ports are configured as TCP/IP Server by default. You must reconfigure the ports in the Settings for logical port (#) window to match your specific PMS and GSS connection types.

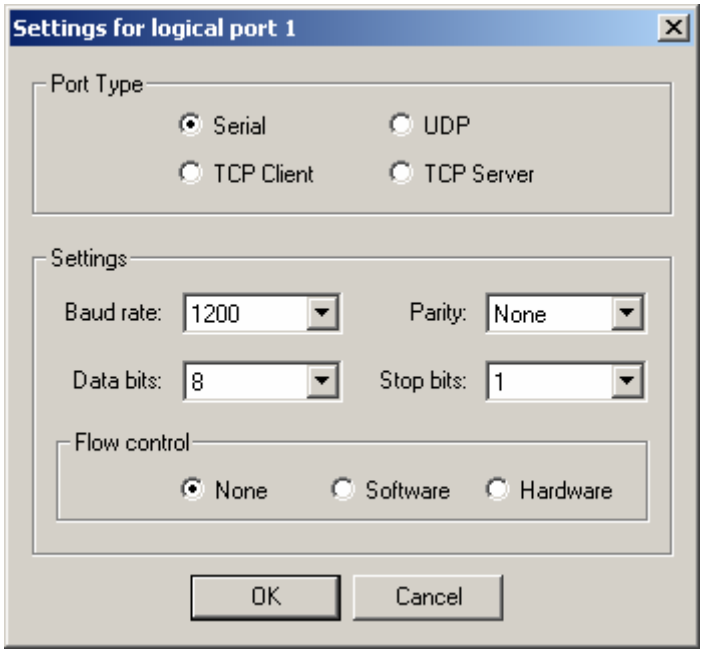

Figure 3: Settings for logical port (#) window

Editing Port Properties

1. Access the LL PTS Monitor.
2. Select Settings on the menu bar. The Configuration option displays.
3. Click Configuration. The Settings Configuration window displays.
4. Double-click on the Logical Port you want to edit. The Settings for Logical Port (#) window displays.
5. Select Serial, UDP, TCP Client, or TCP Server in the Port Type pane to change the Port Type. The Settings pane displays available options according to the Port Type you selected.

Before you can complete the change of a logical port setting to a Serial Port Type you must map a physical port to it in the Configuration window. See Mapping Physical Ports to Logical Serial Ports.

Directly proceed to the Settings pane if you want to edit the settings without changing the Port Type.

6. Edit the fields in the Settings pane as applicable (desired).
7. Click OK. The Configuration window displays.
8. Click OK. The Restart Service dialog box displays.
9. Click Yes. The LL PTS Service restarts and saves your changes.

If the Service is not running when you make the changes, the Restart Service dialog box will not display. If the LL PTS Service is running when you edit the port properties, the changes will not take effect until it has been restarted.

Cancelling a Serial Port Type

If you double-click on a logical port number to change the port type, change the type to Serial in the Setting for logical port (#) window, and then click OK, your change has already been committed. If you attempt to cancel this change when the Configuration window displays you will receive the Invalid Port Mappings warning:

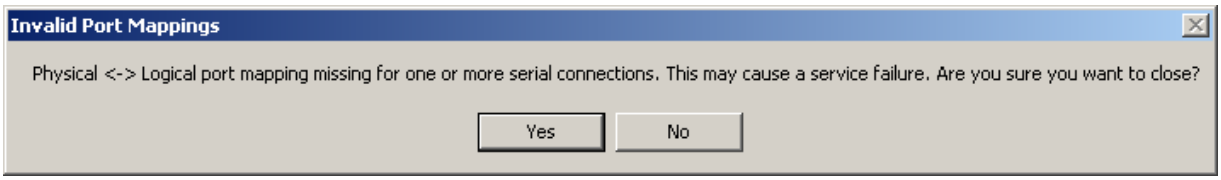

Figure 4: Invalid Port Mappings dialog box

Mapping Physical Ports to Logical Serial Ports

The Configuration window displays the available physical ports on the PC that are currently available for mapping to a logical port. Before you can complete the change of a logical port setting to a Serial Port Type, you must map a physical port to it in the Configuration window. If you fail to do so, a warning dialog box displays alerting you to the fact that you have not mapped a physical port to the logical port you designated as a Serial Port Type.

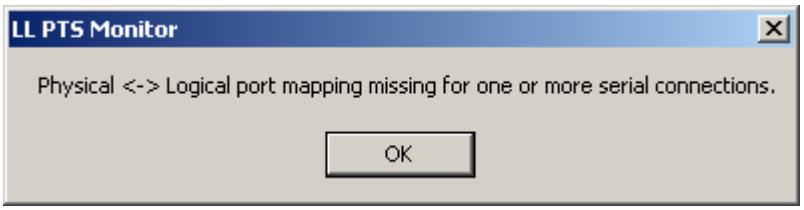

Figure 5: LL PTS Monitor warning dialog box

If the Service is not running when you make the changes, the Restart Service dialog box will not display. If the LL PTS Service is running when you edit the port properties, the Restart Service dialog box will display and the changes will not take effect until it has been restarted.

Mapping Physical Ports to Serial Ports

1. Access the LL PTS Monitor.
2. Select Settings on the menu bar. The Configuration option displays.
3. Click Configuration. The Settings Configuration window displays.
4. Click and hold down your mouse on the Physical Port that you want to map in the Available Physical Ports pane.
5. Drag the Physical Port to the desired logical port location and release your mouse. The port displays the new mapping in the Physical Port field.
6. Click OK. The Restart Service window displays.
7. Click Yes. The LL PTS Service restarts and saves your changes.

Deleting the Mapping

1. Access the LL PTS Monitor.
2. Select Settings on the menu bar. The Configuration option displays.
3. Click Configuration. The Settings Configuration window displays.
4. Click on the logical port that has a mapping you want to remove.
5. Press your delete key. The physical port field is cleared and the port displays in the Available Physical Ports pane.
6. Click OK. The Restart Service window displays.

   If you do not map another physical port to this logical port or change the port type to something other than a Serial Port Type, the LL PTS Monitor warning dialog box displays alerting you that a physical port is no longer mapped to the Serial Port (see Figure 5).

7. Click Yes. The LL PTS Service restarts and saves your changes.

MONITORING SERVICE MESSAGE TRAFFIC

The LL PTS Monitor is designed for short term monitoring of the Service message traffic and only displays a maximum of 2000 lines of text. You can clear, copy, print, save, send and filter information using the LL PTS Monitor functions. You can also pause and resume the LL PTS Monitor; however, when it is paused, the PTS Service will continue to run and the data will no longer be recorded.

For long term monitoring options, see Logging Service Message Traffic.

Clearing Information

1. Access the LL PTS Monitor.
2. Click on the Toolbar. The current data displayed on the LL PTS Monitor is cleared.

Prior to clearing the data, you must save it if you need to keep a record of it.

Copying Information

1. Access the LL PTS Monitor.
2. Select the information you want to copy.
3. Click to copy information displayed in the LL PTS Monitor. This copies your selection to the Clipboard.
4. Paste it in an email message or a Word document.

Printing Information

1. Access the LL PTS Monitor.
2. Select the information you want to print.
3. Click on the Toolbar.

Saving Information

1. Access the LL PTS Monitor.
2. Click on the Toolbar. The Save As window displays.
3. Enter a file name in the File name field and click Save.

Sending Information

1. Access the LL PTS Monitor.
2. Click File on the menu bar. The drop-down File menu displays.
3. Select Send. A new message is created in your default email application and the information displayed in PTS Monitor is attached as a .txt file. If you have not saved the file, it is attached as untitled.txt.
4. Address your email and send the message.

FILTERING INFORMATION

The LL PTS Monitor allows you to filter data based on the device you want to monitor and/or keyword string. You can enter one or more DMM values representing the device(s) you want to monitor and a keyword string on which to base the filtering. When filtering on a keyword string, you can choose to display or not display debug/trace data if the keyword string is found. The entire keyword string must be found in the debug/trace information as an exact character match; however, the keyword string is not required to be case sensitive. Partial matches and/or individual token matches are not accepted.

When filtering is enabled, the LL PTS Monitor displays only those log entries from the DMM values listed and uses the keyword string to either include or exclude log items. If you do not enter any DMM values, then debug/trace data from all your DMMs displays in the Filter Results window. The Monitor also allows you to select whether or not to display system messages. Initially the Filter Results window will contain the results of applying the filter to the data displayed in the Monitor; however, as new information is received from the PTS Service, it displays in the Monitor window and in the Filter Results window if any of the information meets the filter criterion. Likewise, when you pause the display of new data in the LL PTS Monitor, you are also pausing the display of new data in the Filter Results window. A maximum of 8 Filter Results windows may be open at any given time, each displaying the results of different filter criterion applied to the data displayed in the LL PTS Monitor.

Filtering only affects the display of information in the PTS Monitor. It does not affect any data being logged to permanent storage by the PTS Service.

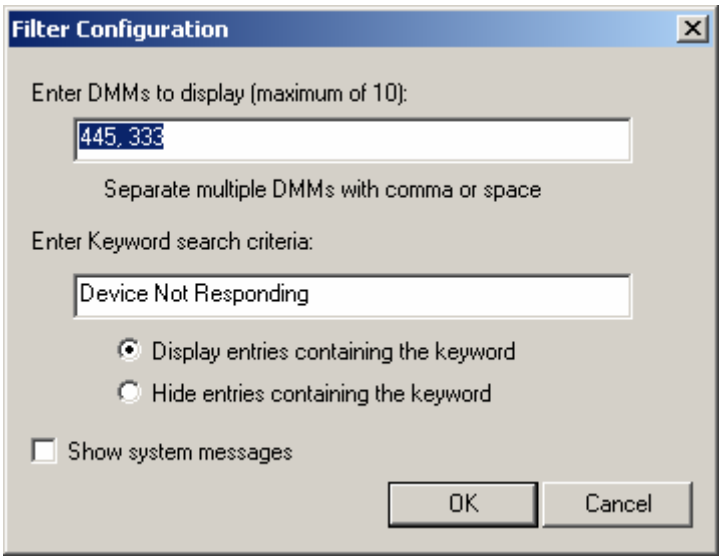

Figure 6: Filter Configuration window

Reviewing the Filter Configuration window (Figure 6)

Field	Notes
Enter DMMs to display (maximum of 10)	
• Enter the DMM numbers representing the devices you are monitoring. • Device numbers must be separated by a comma or a space. • A maximum of 10 DMM values can be entered with each separated by either a comma or a space. • Data entered in non-DMM format will be ignored, as will any DMM values after the first 10 entered. • If no DMM values are entered, information from ALL devices will be shown. • If one or more DMM values are entered, only information from those devices will be searched for the keyword value.	
Enter Keyword search criteria	
When filtering on a keyword string you can choose to display or not display debug/trace data if the keyword string is found. The entire keyword string must be found in the debug/trace data as an exact character match (case insensitive search). Partial matches are not accepted. Select one of the following options:	
	• Display entries containing the keyword string.
	• Hide entries containing the keyword.
Show system messages	
• Check or uncheck show system messages box to enable or disable this function. • System messages are not filtered on keywords; only information from devices will be searched for keyword matches.	
Action Buttons	
The OK and Cancel buttons are standard Windows buttons to execute or cancel the operation.	

Filtering Monitor Information

1. Access the LL PTS Monitor.
2. Click the Filter menu and select Enable. The Filter Configuration window displays.
3. Enter the DMM values in the appropriate field to display information from one specific device or enter multiple DMM values to display information from multiple devices. If you leave the field blank, information from all devices will display.
4. Enter a keyword string in the Keyword text box to filter information based on finding a keyword in the data.
5. Choose to either show information containing the keyword or hide information containing the keyword by selecting either the Show or Hide radio button.
6. Select or de-select the Show System Messages checkbox to either show or hide system messages.
7. Click OK. A new Filter Results window displays.

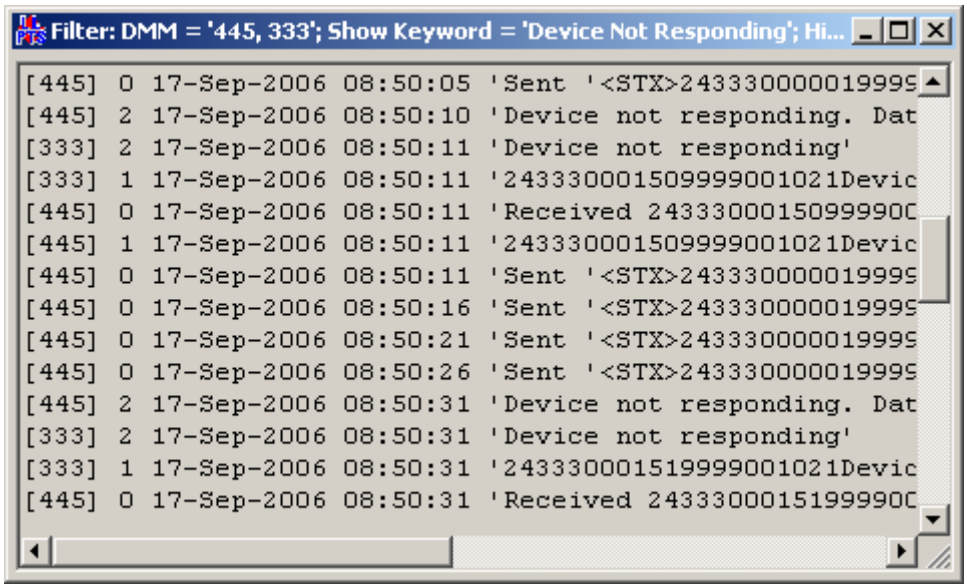

Figure 7: Filter Results window

PAUSING AND RESUMING THE LL PTS MONITOR

You may pause the LL PTS Monitor at any time. The Lodging Link PTS Service continues to run while the Monitor is paused, but data coming into it will not be displayed. Once you resume the Monitor, it will begin displaying data again from that point.

Pausing and Resuming the LL PTS Monitor

1. Access the LL PTS Monitor.
2. Click  on the Toolbar. The display of new information ceases.
3. Click  on the Toolbar. The display of new information resumes.

LOGGING MESSAGE TRAFFIC AND OTHER INFORMATION

The LL PTS Monitor allows you to enable logging of data to a file by the PTS Service providing you with an alternate method to gather information other than real time monitoring. This feature provides you with an on-going log file to ensure that when any abnormal conditions occur there is a log containing the trace data to help you determine the source of the problem. You can also use it to capture several days or weeks worth of data when an intermittent abnormal condition is discovered.

The logs are text files that can be viewed in any text editor to assist in trouble shooting issues with the product, connected GSS devices, and the PMS interface. When you enable logging through the LL PTS Monitor, the LL PTS Service logs all data to a text file located in the default directory C:\Program Files\Comtrol Corporation\Lodging Link PTS\Logs which was created upon installation of the PTS Service. You may also choose another location to store your log files such as a local folder or a network file share. When a maximum log file size is reached or a date cycle of your choosing is complete, the PTS Service will rename the log file and begin logging to a new file.

✍ Once logging is enabled, the LL PTS Service will continue to log the data until logging is disabled regardless of whether or not the Monitor application is running.

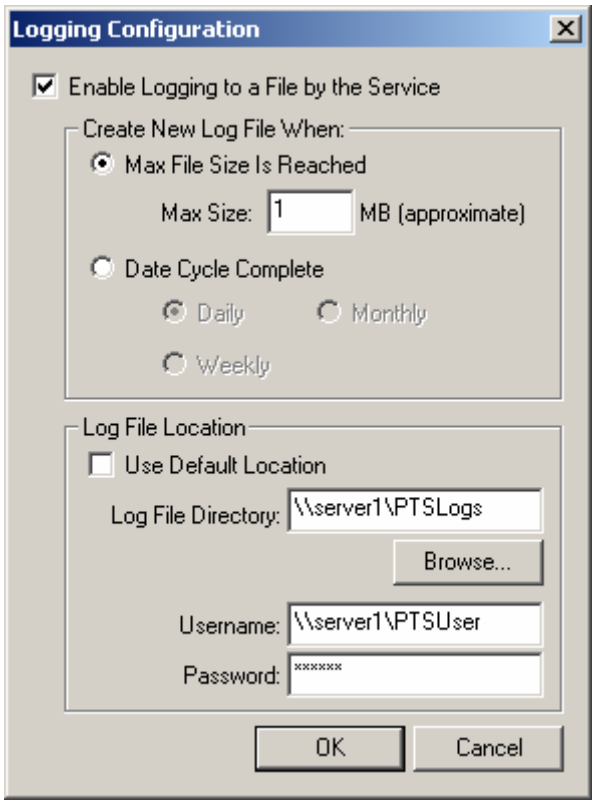

Figure 8: Logging Configuration window

Reviewing the Logging Configuration window (Figure 8)

Field	Notes
Enable Logging to a File by the Service	
To enable logging to a file in the Service, select the Enable checkbox. To disable logging to a file, deselect the Enable checkbox.	
Create New Log File When	
Max File Size is Reached	• Use to have the Service rename the log file when a maximum file size is reached. Enter the Maximum size you desire. You must enter a value in the range of 0.1 MB to 20 MB.
Date Cycle Complete	• Use to have the Service rename the log file when a date cycle has completed. You may select: • **Daily** – this causes the log file to be renamed at approximately midnight each day. • **Weekly** – this option causes the log file to be renamed at approximately midnight each Monday. • **Monthly** – this option causes the log file to be renamed at approximately midnight on the first of each month.
Log File Location	
To select a directory location other than the default location, deselect the Use Default Location checkbox.	
Log File Directory	• Path/location to store the log file.
Username	• Username necessary to access a network file share, if necessary.
Password	• Password necessary to access a network file share, if necessary.
Action Buttons	
The **Browse**, **OK**, and **Cancel** buttons are standard Windows buttons to execute or cancel the configuration.	

<u>Configuring Service Logging to a User Defined Local or Remote File Location</u>

1. Access the LL PTS Monitor.
2. Click Logging on the menu bar and select Configure. The Logging Configuration window displays.
3. Select the Enable Logging to a File by the Service checkbox if it is not selected.
4. Select either the Max File Size radio button or the Select the Date Cycle Complete radio button. If the Date Cycle feature is enabled, select Daily, Weekly, or Monthly to have the Service rename the log file when the date cycle is complete.
5. Deselect the Use Default Location checkbox if it is selected. The Log File Location pane is enabled.
6. Click the Browse button to locate the directory to which you want to save your log file and select it or enter a local path or a network file share. Enter user name and password, if necessary to access a network file share.

7. Click OK. The changes to the logging options will take effect immediately if the Service is running. If the Service is not running, the changes take effect the next time the Service is started. LL PTS Service uses the new log file location for all subsequent logging.

Please note that if you do not enter a directory location, the following LL PTS Monitor warning dialog box displays:

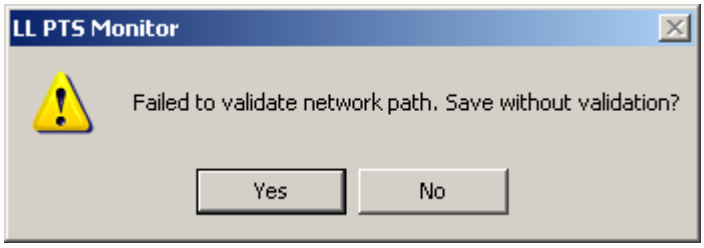

Figure 9: LL PTS Monitor warning dialog box

Configuring Service Logging to the Default Location

1. Access the LL PTS Monitor.
2. Click Logging on the menu bar and select Configure. The Logging Configuration window displays.
3. Select the Enable Logging to a File by the Service checkbox if it is not selected.
4. Select either the Max File Size radio button or the Select the Date Cycle Complete radio button. If the Date Cycle feature is enabled, select Daily, Weekly, or Monthly to have the Service rename the log file when the date cycle is complete.
5. Select the Use Default Location checkbox if it is deselected. The LL PTS Service logs all data to a text file located in C:\Program Files\Comtrol Corporation\Lodging Link PTS\Logs, which was created upon installation of the PTS Service.
6. Click OK. The changes to the logging options will take effect immediately if the Service is running. If the Service is not running, the changes take effect the next time the Service is started. LL PTS Service uses the new log file location for all subsequent logging.

MANAGING THE LODGING LINK PTS SERVICE

LL PTS Monitor allows you to manage the Lodging Link PTS Service. You can also manage the Service properties directly through an administrative function of Windows. Upon initial startup, the Lodging Link PTS Service will run automatically. Should you wish to stop or start it, you can do so from within the LL PTS Monitor application. This should only be necessary when making changes to the Service configuration or when instructed to do so by Comtrol technical support.

Stopping, Starting, Restarting the LL PTS Service

1. Access the LL PTS Monitor.
2. Click to stop the Service or
   click to start the Service or
   click to restart the Service.

Stopping the LL PTS Service will terminate communications between attached devices and the PMS. During normal operation the LL PTS Service only needs to be restarted to reload the Service configurations.

ENABLING SECURITY

You can secure specific options within the LL PTS Monitor application that are considered Administrative by requiring a password to access them. Enabling Security allows an application password to be set. Once this password is set, the Monitor application prompts for the password each time there is an attempt to access a protected option. The protected options are:

- Settings Configuration
- Service Management
- Logging Configuration
- Security Password Management

Enabling Password Protection

1. Access the LL PTS Monitor.
2. Click Security on the menu bar and select Password.
3. Select the Enable Password checkbox.
4. Enter a new password in the Set New Password field. Your password must be between 4 and 12 characters in length.
5. Re-enter the new password in the Re-enter New Password field.
6. Click OK.

Disabling Password Protection

1. Access the LL PTS Monitor.
2. Click Security on the menu bar and select Password. The Enter Password Dialog box displays.
3. Enter the password.
4. Click OK.
5. Deselect the Enable Password checkbox.
6. Click OK.

CONTACTING SUPPORT

With Comtrol's exceptional staff of technical personnel to assist you with support issues, you can count on a timely and accurate response. Contact a support representative via email at HPDsupport@comtrol.com or by phone at **480-609-1571 x19** between 8:30am and 4:30pm Arizona time.

Prior to contacting Comtrol Hospitality Product Technical Support, you must have specific information available to assist in solving your issue. A detailed log file displaying the problem is very helpful in troubleshooting. Your support representative can also help advise you on how to configure your log files for optimum information capture. You should also have your Network, Device, Version, Image, Port and Service information available when you contact support.

If you have any questions regarding your product warranty or annual maintenance, please contact your Comtrol sales representative.

OBTAINING GSS IMAGES

Lodging Link PTS supports many Guest Service Systems (GSS). GSS images are obtained via the Comtrol Web site by accessing the link at: http://www.comtrol.com/index.asp?area=/buildwizard/intro.asp&query. Once you access this Web page, enter your login information, and click the Submit button. The Welcome to the Lodging Link Build Wizard page displays. This Wizard allows you to create an image for Lodging Link PTS using an interactive build process to provide you with the latest, up-to-the-minute choices of available GSS interfaces. Once you complete the step-by-step instructions, the Wizard submits your request to the build engine. When your specific image is ready to be retrieved, you will receive an email instructing you on how to download the file containing your new image.

TROUBLESHOOTING

FREQUENTLY ASKED QUESTIONS

Q. If data is coming through the interface from the device, why isn't the device receiving any data?

A. This may indicate a baud rate problem. Contact the device vendor or check the device documentation to obtain the correct baud rate. Also verify that the device was installed correctly using the device setup instructions.

Q. Why is the connection with the PMS not established?

A. Verify that the port settings and the IP address of the PMS are set correctly. Also verify that the port number is set to the same number that the PMS is using when it opens the connection.

Q. Why is Lodging Link PTS sending NAKs in response to data received from a device?

A. Confirm that the device was installed correctly using the device setup instructions and contact the vendor to verify that the device is sending the correct data format and checksum.

Q. Why isn't Lodging Link sending any data to a device?

A. First verify that the device is in a responding state. If Lodging Link determines that a device is not responding, it sends data up to three times before timing out. At this point, no further attempt to communicate is made until the device responds first. As always, confirm the baud rate and that the device was installed correctly.

COMMON SYSTEM MESSAGES

System Message	Description	Type
Begin complete packet timeout ID 'TimerID'	The packet data is being received but it has not yet been determined to be a complete packet; a timer is initialized and if the complete packet is not received before the timer expires the data will be cleared from the buffer.	DEBUG
Checking PMS connection	Lodging Link expected a response from the PMS and has not received it; Lodging Link then sends a UHLL (21) ARE YOU THERE message.	WARNING
Checksum failed, should be 'Checksum'	The checksum value received within a packet sent from a GSS device did not match the checksum that was calculated for that packet by Lodging Link; the packet will be cleared from the buffer.	DEBUG

System Message	Description	Type
Could not initialize base class application	The message router task was not successfully created; most likely caused by a coding problem, hardware fault, or out of memory condition.	ERROR
Could not initialize device 'Port'	There was an error when Lodging Link attempted to open the specified port.	ERROR
Could not initialize UHLL message list	The shared data block containing UHLL message information was not successfully created; most likely caused by a coding problem, hardware fault, or out of memory condition.	ERROR
Could not load shared router data module	The message router task's shared data block was not successfully created; most likely caused by a coding problem, hardware fault, or out of memory condition.	ERROR
Could not map shared router data module	The message router task's shared data block was not successfully created; most likely caused by a coding problem, hardware fault, or out of memory condition.	ERROR
Couldn't find DMM 'DMM' in router table	A UHLL message destined for the specified DMM was received by the message router, but there is no GSS device with that DMM in the Lodging Link system.	WARNING
Created shared router data module	The message router task's shared data block has been successfully created.	INFO
Data 'Data' cleared from buffer	The specified data (a partial packet or junk data) is being cleared from the buffer; this occurs when Lodging Link has timed out waiting for a complete packet.	DEBUG
Data packet 'PacketID' using timer 'TimerID'	A data packet has been created, and a timeout counter initialized (this is in preparation for the data packet to be sent to a GSS device).	DEBUG
Deinitialized device 'Port'	The interface has closed communication for the specific port in Lodging Link.	INFO
Device busy	A bid for line sequence has been sent to the GSS device and has been NAKed (possibly multiple times); Lodging Link is considering this device as unable to receive packets and will try sending the packet later.	WARNING
Device not responding	A packet has been sent to the GSS device (possibly several times) and the GSS device has not sent any packet back in response.	WARNING
Device Port attached	A device interface has successfully connected to the specified logical port.	INFO
Device Port detached	A device interface has successfully disconnected from the specified logical port.	INFO
Empty message waiting for TransID 'TransID'	A request UHLL message should be waiting for a response, but there was no request message; this indicates a coding problem.	WARNING

System Message	Description	Type
ENQ packet 'PacketID' using timer 'TimerID'	An ENQ packet has been created, and a timeout counter initialized (this is in preparation for the ENQ to be sent to a GSS device).	DEBUG
Initialized device 'Port'	The interface has opened the specified communication port in Lodging Link.	INFO
Invalid data format in packet 'Packet'	Although a complete packet was received, the format of data within the envelope is incorrect and the message cannot be processed.	DEBUG
Invalid message from device, message not processed	A message received from a GSS device was properly formatted, but is not a supported message in this interface.	ERROR
Invalid packet ID (outbound transaction level)	GSS Interface has created an invalid UHLL Packet ID (Message Number) (indicative of a coding error).	DEBUG
Invalid packet ID	Bad format for UHLL Packet ID (Message Number).	DEBUG
Invalid packet	A data packet has been sent to the GSS device and has been NAKed (possibly multiple times); Lodging Link assumes that NAKing of data indicates a badly formatted packet; the packet being sent is discarded.	WARNING
Killing timer 'TimerID' in EndCompletePacketTimeout()	Lodging Link has timed out while waiting for a complete packet; indicates the appropriate timer has been killed.	DEBUG
Killing timer 'TimerID' in EndDataResponseTimeout()	Lodging Link has timed out while waiting for a complete data packet after responding to an ENQ from a device with an ACK; indicates the appropriate timer has been killed.	DEBUG
Killing timer 'TimerID' in EndENQResponseTimeout()	Lodging Link has timed out while waiting for a line level response to an ENQ which was previously sent from Lodging Link to the device; indicates the appropriate timer has been killed.	DEBUG
Killing timer 'TimerID' in EndHeartbeatTimer()	Lodging Link has timed out while waiting for a response to a heartbeat message; indicates the appropriate timer has been killed.	DEBUG
Killing timer 'TimerID' in EndTimer()	Lodging Link has timed out waiting for a response to either a Data packet or an ENQ.	DEBUG
Message router PID is not available (AddLGSDevice)	The message router task is not ready to accept UHLL messages; most likely caused by a coding problem, hardware fault, or out of memory condition.	ERROR
Message router PID is not available (RemoveLGSDevice)	The message router task is not ready to accept UHLL messages; most likely caused by a coding problem, hardware fault, or out of memory condition.	ERROR

System Message	Description	Type
No device waiting for message with TransID 'TransID'	A UHLL response message was received by the message router with the specified transaction ID, but no request message could be found; this can be caused by incorrect device behavior, incorrect coding, or a timeout period expiring which causes the request message to be purged from memory.	WARNING
No ENQ packet to resend	ENQ timer has expired and the original ENQ packet is unavailable. (Indicative of a coding problem).	DEBUG
No messages waiting for device 'Port'	A UHLL message was received by the message router but was not in the appropriate list (indicative of a coding problem).	DEBUG
No outstanding data packet with ID %ld to resend	Waiting data response timer fires and no ACK/NAK received, but no data in queue to resend (indicative of a coding problem).	DEBUG
No outstanding data packet with ID 'PacketID' (ACK)	Received data after sending an ACK to an ENQ, but there's no running timer with the ID associated with the inbound data.	DEBUG
No outstanding data packet with ID 'PacketID' (NAK)	Received data after sending an NAK to an ENQ, but there's no running timer with the ID associated with the inbound data.	DEBUG
No outstanding ENQ packet to resend	Waiting ENQ response timer fires and no response received to ENQ, but no ENQ in queue to resend (indicative of a coding problem).	DEBUG
No outstanding packet for timer ID 'TimerID'	Lodging Link has timed out waiting for a response from a GSS device but has no packet associated with this timer.	DEBUG
No packet to resend	A NAK reply received or time out waiting data response occurred but the corresponding packet to re-send has been inadvertently cleared from the outbound queue (indicative of a coding problem).	DEBUG
No packet to send	An LGS Device somehow has entered the "Send Outbound Data" routine (after being notified that data is waiting to go out) but notices that there is no actual data that needs sending in the queue (indicative of a coding problem).	DEBUG
No packet waiting for timer 'TimerID'	The waiting data response timer, with the specified TimerID, has fired but the transaction manager has no packet associated with the timer; the timer is ignored.	DEBUG
No timer for ACK packet (inbound waiting ENQ response)	Timer not properly initialized or OS has run out of available timer resources.	DEBUG

System Message	Description	Type
No timer for ACK packet with ID 'PacketID' (inbound wait data response)	Received an ACK in response to data but there's no running timer with the ID associated with the inbound ACK.	DEBUG
No timer for ENQ packet (inbound waiting ENQ response)	Timer not properly initialized or OS has run out of available timer resources.	DEBUG
No timer for ENQ packet with ID 'PacketID' (inbound waiting data response)	Received an ENQ in response to data, but there's no running timer with the ID associated with the inbound ENQ.	DEBUG
No timer for NAK packet (inbound waiting ENQ response):	Timer not properly initialized or OS has run out of available timer resources.	DEBUG
No timer for NAK packet with ID 'PacketID' (inbound waiting data response)	Received a NAK in response to data, but there's no running timer with the ID associated with the inbound NAK.	DEBUG
Received data while waiting for ENQ response	Received a Data packet while awaiting a line level response to an ENQ.	DEBUG
Received Message from router	A device interface has received a UHLL message.	DEBUG
Received message type 'MessageType'	A device interface has received the specified UHLL message type.	DEBUG
Received packet 'Packet' from port	An entire packet was received from a GSS device and Lodging Link will attempt to process it.	DEBUG
Received PTISIG_DEVICE_GO	A GSS interface has received confirmation that the start up sequence has finished and communication with the GSS device may begin.	DEBUG
Received PTISIG_DEVICE_INITIALIZE	The GSS device driver has received the watchdog's initialization signal.	DEBUG
Sending packet out while waiting for data	Lodging Link was expecting a data packet from the GSS device but instead received a line level Bid for Line and is replying to it.	DEBUG
Sent 'Message' to DMM 'DMM' (unsolicited)	The specified message was sent to the specified DMM from the message router.	DEBUG
Sent 'Packet' to port	A data packet was sent to a GSS device (or in the event that this message is traced from the PMS DMM in the Lodging Link interface, this message is indicative of a packet being sent from the Lodging Link PMS interface to the actual PMS device).	DEBUG
State mismatch in OnTimeoutWaitingForDataResponse()	The waiting data response timer has fired but the transaction manager is not waiting for a data response; the timer is ignored.	DEBUG
State mismatch in OnTimeoutWaitingForENQResponse()	The waiting bid for line response timer has fired but the transaction manager is not waiting for a bid for line response; the timer is ignored.	DEBUG
Timed out waiting for complete packet	A complete packet was not received within the GSS device driver's specified time frame.	DEBUG

System Message	Description	Type
Unknown processing state	Internal coding error that has caused the device's processing state to have a value which was never expected.	DEBUG
Unknown transaction state	Internal coding error that has caused the device's transaction state to have a value which was never expected.	DEBUG

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