



Iputil Utility Reference Manual

Version 1.5a3 for Solaris

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Introduction

The LightPulse Utility (lputil) is loaded automatically when the driver utilities kit is installed.

Start the utility by entering the complete path to lputil. The path reflects the default installation path. If the installation path changed, you will need to adjust the command appropriately.

```
/usr/sbin/lpfc/  
lputil
```

List Adapters

When you start the LightPulse Utility (lputil), all adapters are listed with information such as the host adapter number, instance number (i.e. lpfc0), board model type, whether it is a standard or non-standard device and whether the adapter is ready to use.

From the Main menu, enter 1, List Adapters.

MAIN MENU

- 1. List Adapters
- 2. Adapter Information
- 3. Firmware Maintenance
- 4. Reset Adapter
- 5. Persistent Binding

- 0. Exit

Enter choice => 1

View Adapter Information

The LightPulse Utility (lputil) allows you to view information for a selected adapter. Once you start lputil, the Main menu opens:

MAIN MENU

1. List Adapters
 2. Adapter Information
 3. Firmware Maintenance
 4. Reset Adapter
 5. Persistent Binding

 0. Exit
- Enter choice => 2

Select choice #2. If you have multiple adapters, a list displays, you select an adapter and the Adapter Information Menu opens. If you have only one adapter, the Adapter Information Menu opens for that adapter.

ADAPTER INFORMATION MENU

1. PCI Configuration Parameters
 2. Adapter Revision Levels
 3. Wakeup Parameters
 4. IEEE Address
 5. Loop Map
 6. Status and Counters
 7. Link Status
 8. Configuration Parameters

 0. Return to Main Menu
- Enter choice =>

PCI Configuration Parameters - Displays parameters from the PCI configuration space on the adapter. Examples of this information include vendor ID, device ID, base addresses, ROM address, header type, subclass and base class.

Adapter Revision Levels - Displays firmware revision levels, including kernel and overlay version information.

Wakeup Parameters - Displays BIOS status and version, as well as SLI (service level interface).

IEEE Address - Displays the adapter board address.

Loop Map - If you are currently using arbitrated loop topology, this menu option displays information about your connected devices, such as AL_PA and D_ID.

Status and Counters - Tracks such activities as link failure, loss synch and elastic overlay.

Configuration Parameters - Displays parameters such as link failure count, loss sync count and timeout.

Update Firmware

Prerequisites:

- The driver for Solaris is installed properly.
- The driver utilities kit (including lputil, which is used in this procedure) has been installed properly.
- The firmware file has been downloaded to a local drive.

Caution If you are using lputil to update firmware on an LP10000DC, LP10000, LP1050DC, LP1050 or LP9802DC HBA, you must use lputil version 1.5a3 or later. For any other HBA, you can use lputil version 1.4a4 or later.

Firmware versions differ between adapter versions. Make sure you have downloaded the appropriate firmware for your adapter.

Load Firmware

1. Start the utility by entering the complete path to lputil. The path in the example reflects the default installation path. If the installation path was modified, adjust the command appropriately.

```
/usr/sbin/lpfc/  
lputil
```

2. From the Main menu, enter 3, Firmware Maintenance.
3. If prompted, choose the HBA that is being updated.
4. Enter 1, Load Firmware Image.
5. Enter the full path to the firmware file. The firmware is transferred to flash ROM.

If you are updating the firmware on a dual-channel HBA, repeat steps 3 through 5 to update the firmware on the second port.

If you loaded a firmware package containing boot code, refer to the boot code Update Manual to load and enable boot code.

Reset the Adapter

The LightPulse Utility (lputil) is loaded automatically when the driver utilities kit is installed and allows you to reset the adapter using lputil. Start lputil (see Introduction for start up instructions).

Once you start the utility, the Main menu displays:

```
MAIN MENU

1. List Adapters
2. Adapter Information
3. Firmware Maintenance
4. Reset Adapter
5. Persistent Binding
0. Exit

Enter choice => 4
```

Select 4, Reset Adapter. Resetting the adapter runs self tests and reestablishes links (causes discovery of devices). Once the adapter has successfully reset, the Main Menu displays.

If you have multiple adapters, a list displays and you select the adapter you want to reset.

Caution Do not reset your adapter while copying or writing files. This could result in data loss or corruption. We recommend contacting Emulex Technical Support before resetting your adapter.

Set Up Persistent Binding

Persistent binding allows you to permanently assign a system SCSI target ID to a specific Fibre Channel (FC) device even though the device's ID on the FC loop (D_ID) may be different each time the FC loop initializes. This capability is useful in multi-server environments that share a device. You can simplify system management by having multiple servers use the same SCSI target ID when referring to the shared FC device.

To start the lputil utility, type:

```
/usr/sbin/lpfc/  
lputil
```

The Main menu opens:

MAIN MENU

1. List Adapters
2. Adapter Information
3. Firmware Maintenance
4. Reset Adapter
5. Persistent Binding
0. Exit

Enter choice => 5

Select choice #5. The Persistent Binding menu opens:

PERSISTENT BINDINGS MENU

1. Display Current Bindings
2. Display All Nodes
3. Duplicate Adapter Bindings
4. Bind Target Manually
5. Bind Automapped Targets
6. Delete Bindings

0. Return to Main Menu

Enter choice => 4

Use this menu to view bindings and nodes, establish new bindings, or delete bindings.

1. To establish new bindings, select option => 4.
2. Select an adapter.
3. Select a binding method.

Note In a fabric environment, the D_ID may change when the system is rebooted. We suggest binding to the Node Name or Port Name in a fabric environment.

1. By Node Name
 2. By Port Name
 3. By D_ID
 0. Cancel
4. Enter the Node Name, Port Name, or D_ID, depending on binding method.
 5. Enter the target number => 0.