lp6dutil Utility for DOS

Version 9.3a4

Introduction

The lp6dutil utility for DOS includes options for performing routine diagnostic tasks and for viewing many different kinds of information for your host bus adapter.

All lp6dutil tasks can be performed using the graphical user interface (GUI) screen menus. All screens require navigation and selection using the keyboard.

Some lp6dutil tasks can be performed using the command line. These include downloading images, setting up and running diagnostics, and resetting the adapter.

Information in view-only screens is typically presented in hex format.

Starting lp6dutil

Note: You cannot start lp6dutil at the screens command prompt.

1. Boot up your system with DOS.
2. From the directory where the lp6dutil.exe file resides, enter the following command:

   ```
   lp6dutil
   ```

Note: For debugging, activate the lp6dutil utility without restarting the adapter by entering the following command: lp6dutil /nr

An Introduction screen is displayed with the menu bar near the top and the lp> prompt near the bottom of the screen:

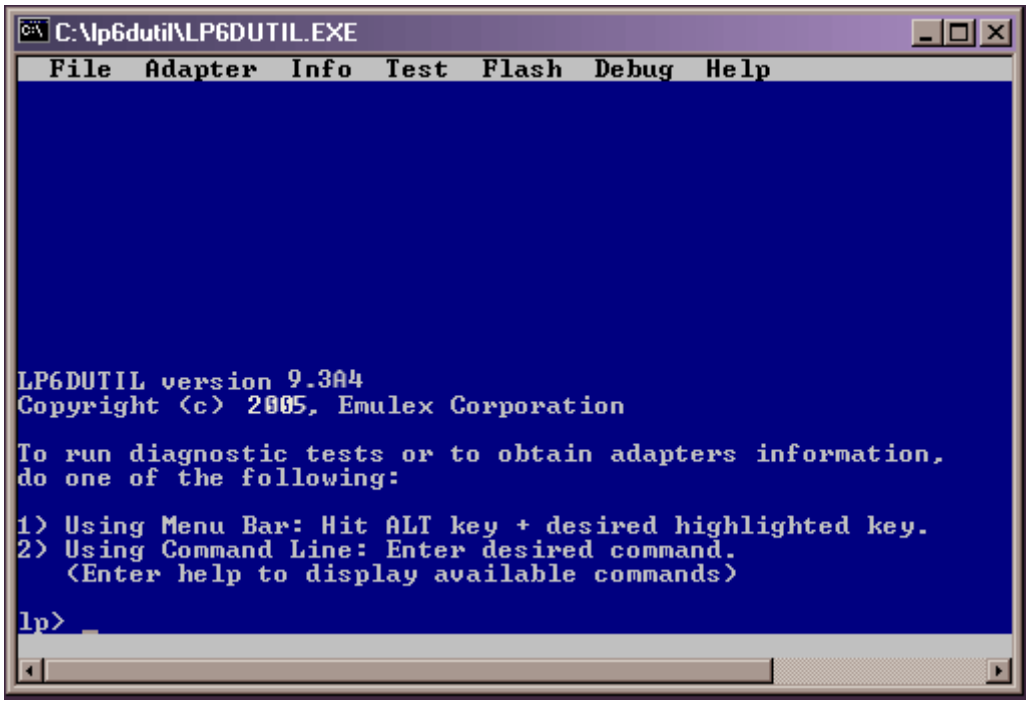

Figure 1: The Introduction Screen

Using the Menu Bar

- To select a menu bar function, press and hold down the ALT key and press the letter that is highlighted in the function title. A menu is displayed. For example, if you hold down the ALT key and press L, the Flash menu is displayed.
- To move through items within a menu, press the up and down arrow keys. You can also press the letter that is highlighted for that menu item. In the following example, press D to open the Download Image screen.

Figure 2: The Flash Menu

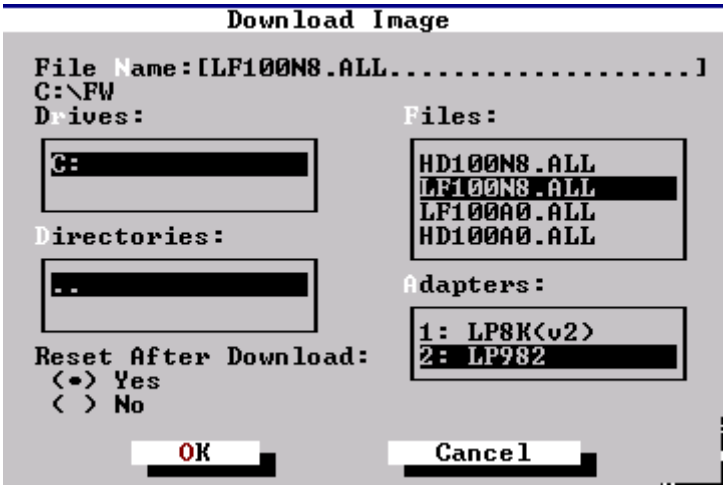

Figure 3: The Download Image Screen

Navigation Tips

- To move from box to box (or area to area) within a screen, tab to move to the right, and hold down the Shift key and tab to move to the left. If the box title has a highlighted letter, hold down the ALT key and press the letter to move into the box.
- To move through items within a box or area, press the up and down arrow keys.
    - ( ) round brackets next to an item indicate that one choice must be selected. There is typically a default option selected. Use the up and down arrow keys to move through choices and select a different choice.
    - [ ] square brackets near or next to an item indicate an optional choice. Tab to the item list. Use the spacebar to select/clear an item. Sometimes optional choices are not active unless a specific required choice is selected.
- Boxes within various screens may contain a vertical scroll bar on the right side of the box. This indicates that the box contains additional information that exceeds the display capabilities of the box. Click on the scroll bar to view additional information or selections.

- To "select" a button, hold down the ALT key and press the letter in red, or tab to the button and press the Enter key. If an option does not contain a red letter, tab to that button and press the Enter key.

Note: Remember to press Enter after selecting an item in a screen. If you do not press Enter, the selection is not made.

- Close a screen within lp6dutil by pressing the ESC key.

Using the Command Line

At the lp> prompt, enter the desired command with the correct syntax, then press the Enter key.

- To view all available help commands, type:

  ```
  help
  ```

- To view the syntax for a command, enter help followed by the command name.For example, type:

  ```
  help download
  ```

  The syntax for the download command is displayed:

  ```
  Syntax: download <n=adapter> <i=imagepath>
  ```

  or

  ```
  Syntax: download <a=adaptertype> <i=imagepath>
  ```

- The syntax requires one space between the command name and the first argument, and a space between additional arguments.
- There is no space before or after the equal sign within an argument.
- To exit lp6dutil, type:

  ```
  exit
  ```

  The DOS prompt is displayed.

Commands and Syntax

Note: Internal Loopback and SRAM tests are not supported for the LP1005DC-CM2.

Table 1: Commands and Syntax

Command	Syntax	Description
@	@ <command-file>	Executes commands in a script file. The @ sign is followed by the pathname of the script file. Example: @a:\script1.txt
enableboot	enableboot <n=adapter> <i=index>	Enables the selected BootBIOS on the HBA specified by its number.
logfile	logfile <l=filename>	Creates a log file using the specified file name.
exit	exit	Terminates the lp6dutil session and passes control to DOS.
jumper	jumper <n=adapter> <s=selection> <r=region>	Changes the state of the HBA soft jumpers, which can be used in place of the physical jumpers on the adapter.0 for none, 1 for hardware default, 2 for soft jumper alternate region: 6 or 7 (used only for selection 2, soft jumper).
pciloopback	pciloopback <n=adapter/all> <r=repeat-count> <o=option>	Runs the pciloopback test. This test requires that the loopback plug be in place. You can run this test on one HBA or on all HBAs in the system. Options: o=1 for stop, o=2 for repeat, and o=3 for ignore.
disableboot	disableboot <n=adapter>	Disables the current BootBIOS on the HBA specified by its number.
extloopback	extloopback <n=adapter/all> <r=repeat-count> <o=option>	Runs the external loopback test. This test requires that the loopback plug be in place. You can run this test on one HBA or on all HBAs in the system. Options: o=1 for stop, o=2 for repeat, and o=3 for ignore
listhba	listhba	Lists installed HBAs in the system (HBA #, WWN, functional FW, HBA type and mailbox error (if any).
reset	reset <n=adapter/all> <s=custom/standard reset>	Resets one or all adapters in the system. s=1 is a custom reset, skips the post test in restart, s=0 performs a standard reset
repeat	repeat <script>	This command is used at the end of a script file to repeat a series of commands from the beginning of the script file.

Table 1: Commands and Syntax

Command	Syntax	Description
download	download <a=adapter name> <i=firmware image filename>	Downloads the specified firmware image to all HBAs of the same name.
download	download <n=adapter number> <i=firmware image filename>	Downloads the specified firmware image file to the one HBA, as specified by its number.
help	help <command>	Lists the syntax for the specified command.
listboot	listboot <n=adapter>	Lists all of the BootBIOS programs with indexes (base 1) and the code names that are currently loaded in the flash of the HBA specified by its number.
vpd	vpd n=<adapter number>	This command displays the VPD contents of the adapter specified by its number.

Exiting lp6dutil

To exit lp6dutil:

1. Select the File Menu:

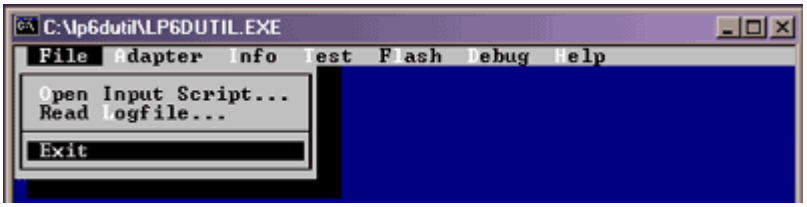

Figure 4: The File Menu

2. Press X. The lp6dutil session is terminated and control is returned to DOS.

Diagnostic Tasks

Create or Edit Script Files

Creating script files allow you to download images and run scripts from one file. You can download firmware and/or x86 BootBIOS images from the Input Script screen. However, you cannot run scripts from the Download Images screen.

Create or edit scripts using a text editor. Script files follow these rules:

- You can run scripts on one adapter in the system or on all adapters in the system.
- ***n*** represents the number of adapters and may equal either **a numberic value** or **all**.
- ***r*** represents the repeat count. You can cause the series of all commands in the script file to repeat indefinitely by adding the ***repeat*** command as the last line of the script file. If you include this command, press ***s*** to stop the scripts at any time.

- ***o*** represents the action option if an error is encountered. **1**= stop the test, **2**= repeat the test and **3**= ignore the error.

For your convenience, this sample script (samplescript.txt) is included in the same directory as lp6dutil:

```
download a=lp8000 i=c:\temp\dd381a3.awc;
reset n=1 s=0
;reset n=2 s=0
;reset n=all s=0
;pciloopback n=1 r=10 o=1
;pciloopback n=2 r=10 o=2
pciloopback n=all r=50 o=3
extloopback n=all r=40 o=3
```

Copy this sample script and modify it to fit your needs. Commented lines begin with a semicolon and are not executed.

Note: All script files end with .txt.

Run Script Files from the Menu Bar

Use the Select Input Script screen to select and run script files. The results are logged in an output file named lp6dlog.txt and are displayed in the Test Logfile screen.

1. After starting lp6dutil, select the File Menu:

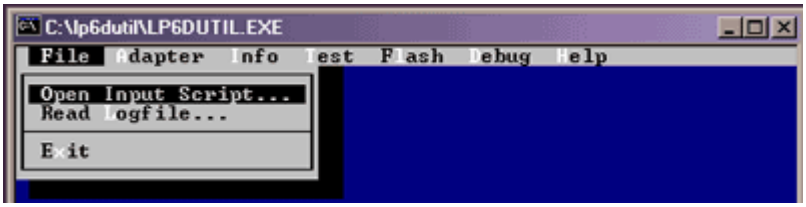

Figure 5: The File Menu

2. Press O. The Select Input Script screen is displayed:

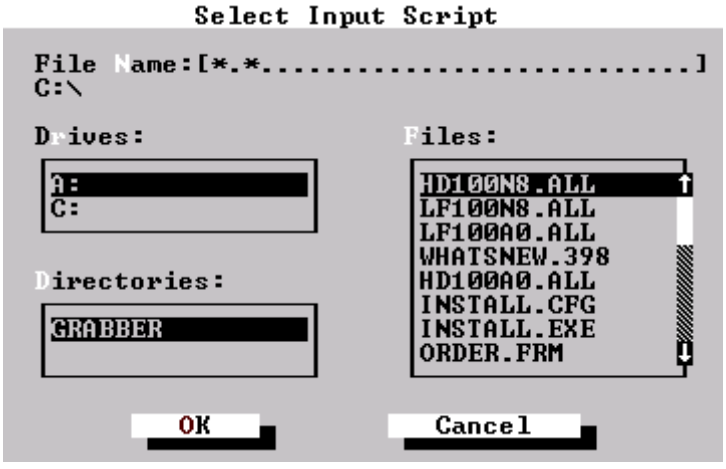

Figure 6: The Select Input Script Screen

3. Specify the location of the script file.

4. Select the OK button.
5. The Select Input Script screen is closed. All scripts listed in the file run. Results are logged in the output file.

   To close the screen without selecting an input script, select the Cancel button.

Run Script Files Using the Command Line

Use the @ command to run scripts files. In the following example, the script1.txt script residing on a:\ would run:

```
@a:\script1.txt
```

Note: Results (logfiles) may be viewed with a text editor by opening up the lp6dlog.txt file (always saved in c:\lp6dutil\lp6dlog.txt), or using the menu bar.You can change the name and location of the logfile using the command line.

View the Logfile

Once you have run input scripts, view the test results in the Test Logfile screen. These test results are logged in an output file named lp6dlog.txt. This file is automatically placed in the c:\lp6dutil directory. The system appends the lp6dlog.txt file as tests are run and results are logged.

To save the test results and ensure that future test results will be logged, copy and rename the lp6dlog.txt file. The lp6dlog.txt file has a limited scrolling buffer size of approximately 12 screens. Copying and renaming the .txt file helps you to avoid accumulating a large lp6dlog.txt file.

1. After starting lp6dutil, select the File Menu:

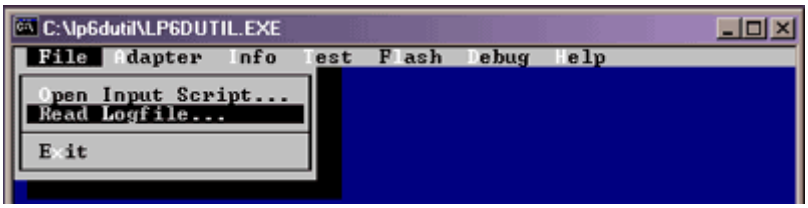

Figure 7: The File Menu

2. Press L. The Test Logfile screen is displayed. The example below contains tips for using the logfile, rather than an example of the logfile itself.

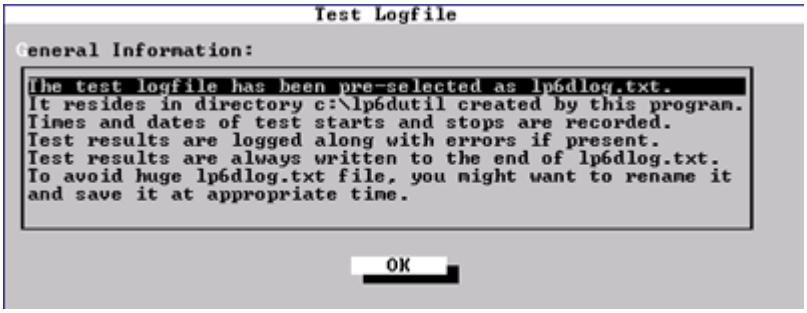

Figure 8: The Test Logfile Screen

All test results quickly scroll on screen. The most recent test results are displayed at the bottom. Use the up and down arrows on your keyboard to scroll through the test results.

3. Select the OK button. The screen is closed.

Note: Test results can always be viewed using your Text Editor. Once you copy and rename the logfile, you cannot view the file in the Test Logfile screen. Renamed logfiles must be viewed using your text editor.

Select Adapters to Test

1. After starting lp6dutil, select the Test Menu:

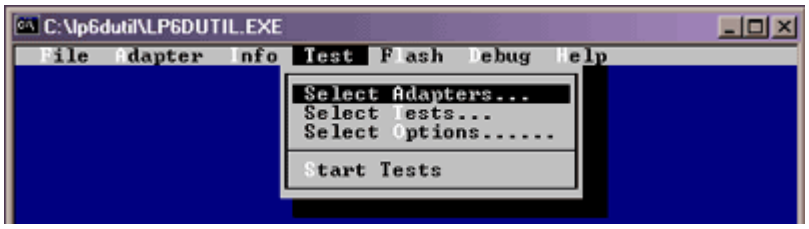

Figure 9: The Test Menu

2. Press A. The Select Adapters screen is displayed:

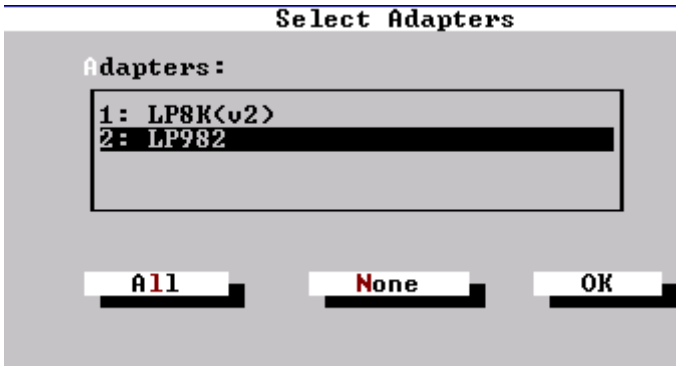

Figure 10: The Select Adapters Screen

3. Select the adapter or adapters you want to test.
    - To select one adapter, press the up and down arrow keys.
    - To select all adapters, select the All button.

    To close the screen without selecting any adapters, select the None button.
4. Select the OK button. The adapter or adapters are now selected and the screen is closed.

Select Tests

Note: Internal Loopback and SRAM tests are not supported for the LP1005DC-CM2.

1. After starting lp6dutil, select the Test Menu:

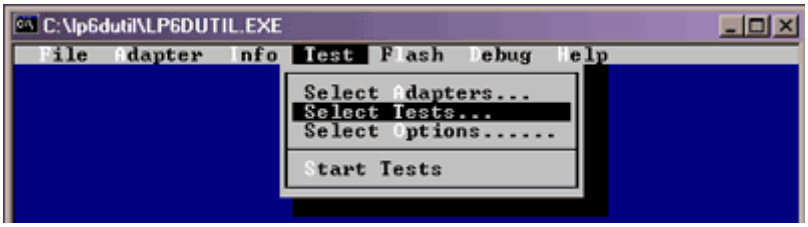

Figure 11: The Test Menu

2. Press T. The Select Tests screen is displayed:

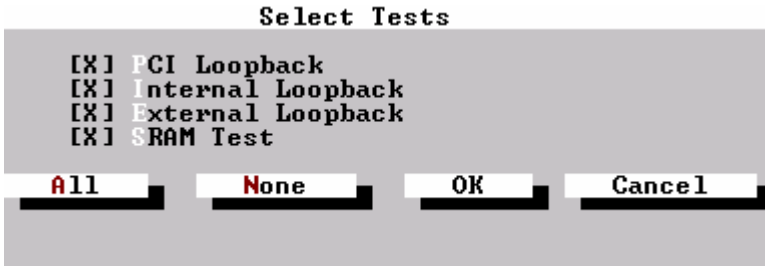

Figure 12: The Select Tests Screen

3. Select the test or tests you want to perform on the adapters selected in the Selected Adapters screen.
    - To move through the test list, press the Tab key.
    - To select a test, move to the [ ] field for the test and press the spacebar or the Enter key.
    - To select all tests within a box, select the All button.
    - To clear all tests (de-select all tests), select the None button.

    To close the screen without selecting any tests, select the Cancel button.
4. To confirm your options, select the OK button. Tests are now selected and the screen is closed.Configure and Start Tests

Configure and Start Test

Configure Tests

Note: Internal Loopback and SRAM tests are not supported for the LP1005DC-CM2.

1. After starting lp6dutil, select the Test Menu:

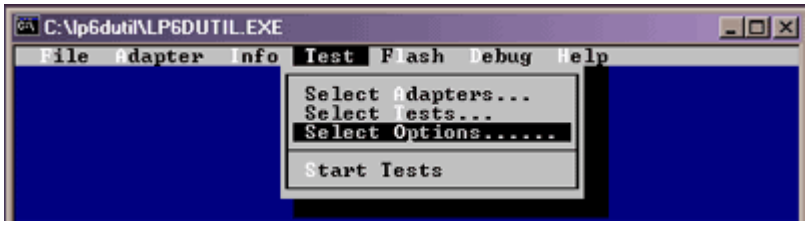

Figure 13: The Test Menu

2. Press O. The Configure Test Parameters screen is displayed:

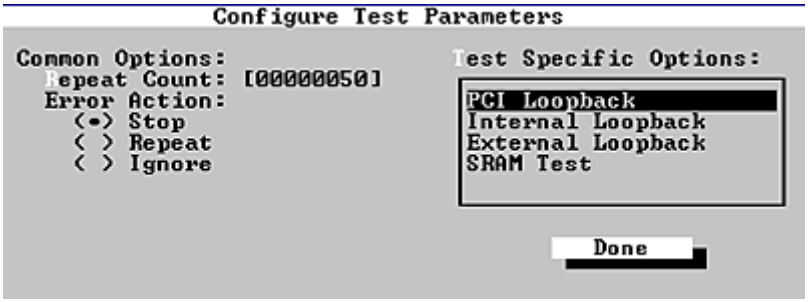

Figure 14: The Configure Test Parameters Screen

3. Select the test to configure. Tab until you select the Test Specific Options box. Use the up and down arrows keys to select the test you want to configure.
4. If you want the selected test to repeat if an error is encountered, specify a value in the Repeat Count field. The repeat count defaults to the last value entered in this field. To change this value, tab to the Repeat Count field and use the backspace key to clear the necessary fields. Enter the new value. To repeat the tests indefinitely, set the count to 0.
5. To change the error action, tab to the Error Action list. Use the up and down arrow keys to select an error action:
    - Stop - stops the test if the test encounters an error. This is the default error action.
    - Repeat - runs the failed test again.
    - Ignore - ignores the error.
6. To confirm your options, select the Done button.

    To cancel out of this screen, press the ESC key.

Start Tests

Note: Internal Loopback and SRAM tests are not supported for the LP1005DC-CM2.

1. Once you have configured the tests, select Start Tests from the Test Menu:

Figure 15: The Test Menu

2. The Test Results screen is displayed:

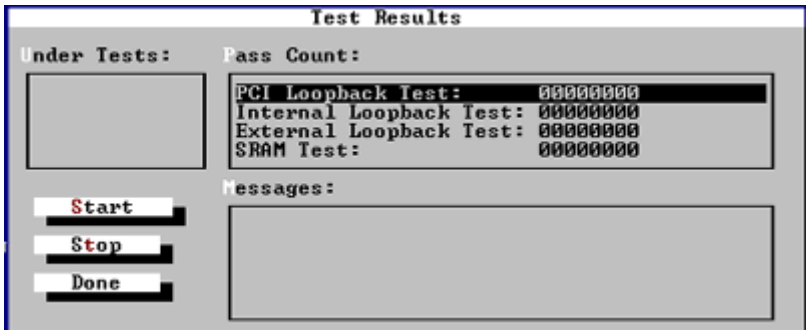

Figure 16: The Test Results Screen

3. Select the Start button. All tests will run on all adapters in the Under Tests box. As applicable, test result messages are displayed in the Messages box.

   When all tests are finished, select the Done button. The screen is closed.

   To interrupt a test while it is running, select the Stop button.

Set Up Adapter to Use Soft Jumpers

Use this optional screen to change the state of the adapter soft jumpers, which can be used in place of the physical jumpers on the adapter.

1. After starting lp6dutil, select the Flash menu:

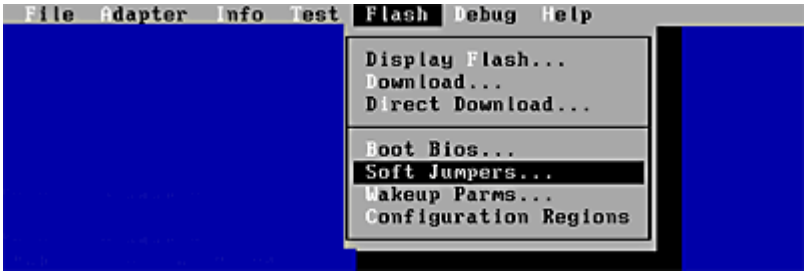

Figure 17: The Flash Menu

2. Press J. The Soft Jumpers screen is displayed:

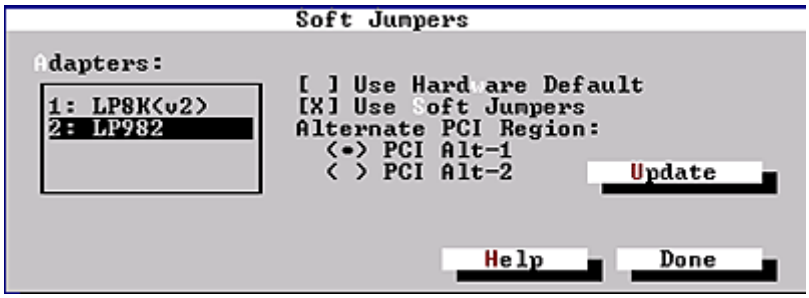

Figure 18: The Soft Jumpers Screen

3. Specify the adapter.
4. Specify Hardware Default or Soft Jumpers.

   To select an option, tab to the option and press the spacebar.

   To clear either of the options above, press the spacebar.

   If you select soft jumpers, you must select an Alternate PCI Region.

   - PCI Alt-1 represents Download 1 and Region 6 on the Configuration Regions screen.
   - PCI Alt-2 represents Download 2 and Region 7 on the Configuration Regions screen.
5. Select the Update button, then select the Done button. The information is updated on the host bus adapter and the screen is closed.

Set or Reset Status Word Mask

The Set/Reset Status Word Bits screen allows you to test the host bus adapter's behavior in different modes.

1. After starting lp6dutil, select the Adapter Menu:

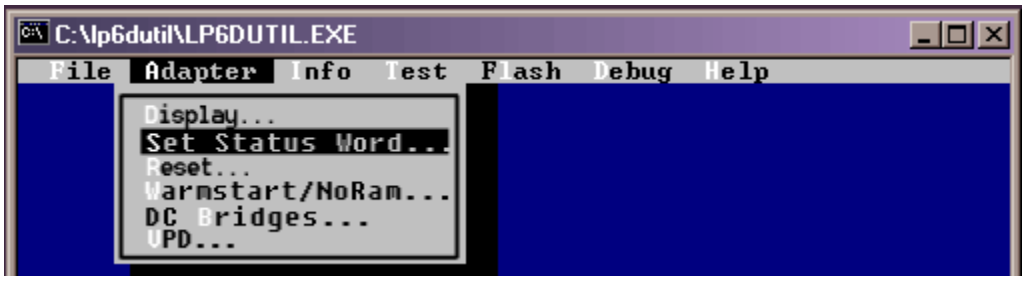

Figure 19: The Adapter Menu

2. Press S. The Set/Reset Status Word Bits screen is displayed:

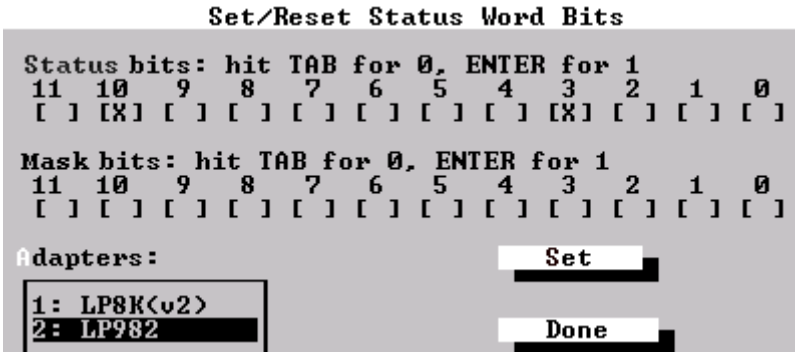

Figure 20: The Set/Reset Status Word Bits Screen

3. Select the adapter to test. The default is adapter #1.
4. Select status and mask bits. Tab to the bit and press the spacebar to select. Press the spacebar again to clear. To close the screen without changes, select the Done button.
5. Select the Set button, then select the Done button. The bits you have selected are set and the screen is closed.

Reset the Adapter

1. After starting lp6dutil, select the Adapter Menu:

Figure 21: The Adapter Menu

2. Press R. The Reset Adapter screen is displayed:

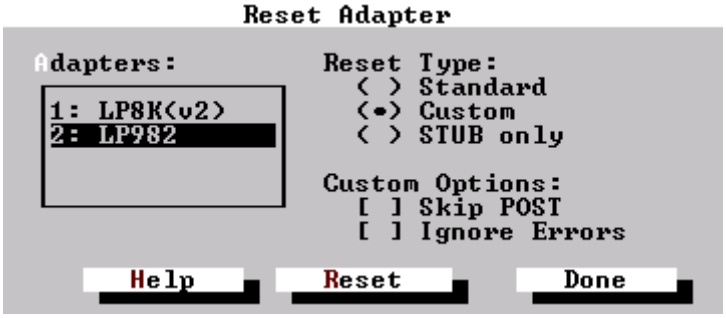

Figure 22: The Reset Adapter Screen

3. Select the adapter to reset. The default is adapter #1.
4. Specify the type of reset:

- Standard is a normal reset.
- Custom allows you to reset the HBA with one or both of the custom options selected.
- STUB only resets the functional firmware.

If you select a custom or STUB only reset, the Custom Options area becomes active and allows you to specify to Skip POST and/or Ignore Errors. Select one or both options by pressing the spacebar to select. Press the spacebar again to clear.

5. Select the Reset button. "Resetting" is briefly displayed.
6. Select the Done button. The screen is closed.

Note: You can also reset the adapter using the command line.

Reset the Adapter Using the Command Line

You may reset one adapter or all adapters using the command line.

You may set up the reset to skip the post test while performing a restart. The option is represented by an ‘s’ in the command line. For this option, 1=yes and 0=no.

The following example resets all adapters without skipping the post test.

```
reset n=all s=0
```

Perform a Warmstart

1. After starting lp6dutil, select the Adapter Menu:

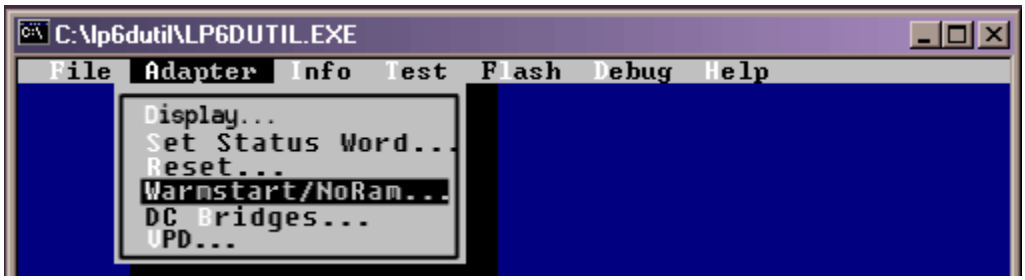

Figure 23: The Adapter Menu

2. Press W. The Warmstart Adapter screen is displayed:

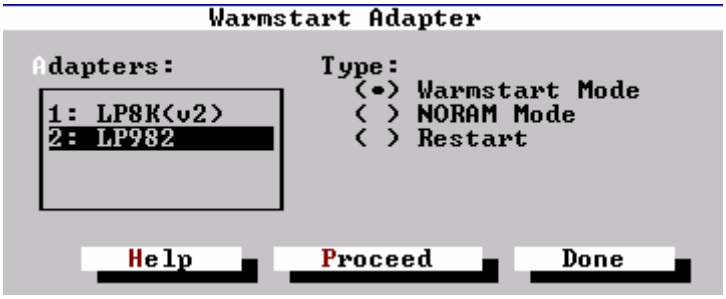

Figure 24: The Warmstart Adapter Screen

3. Specify a type of warmstart:
    - Warmstart Mode accesses the RAM.
    - NORAM Mode does not access RAM.
    - Restart causes the adapter to start in warmstart mode and then restart normally.
4. Proceed with the warmstart.
5. Select the Done button to close the screen.

View and Maintain the Flash Load List

The Flash Load List screen enables you to view the images that have been installed on the host bus adapter. This screen also allows you to delete images from the host bus adapter.

Viewing the Flash Load List

1. After starting lp6dutil, select the Flash Menu:

Figure 25: The Flash Menu

2. Press F. The Flash Load List screen is displayed:

Figure 26: The Flash Load List Screen

   Information is displayed for the selected adapter.
3. Select the Done button to close the screen.

Deleting an Image from the Host Bus Adapter

1. Once you have displayed the Flash Load List, select an adapter. Image names display in the Images box for the highlighted adapter model.
2. Select the image you want to delete.
3. Select the Delete button.

A warning screen is displayed. On the warning screen, select the Delete button to delete the file, or the Cancel button to close the warning screen and cancel the delete.The image selected in the Images box is deleted.

4. Select the Done button to close the screen.

Debug Tasks

Dump Memory

1. After starting lp6dutil, select the Debug Menu:

Figure 27: The Debug Menu

2. Press D. A warning screen is displayed:

Figure 28: The Warning Screen

3. On the Warning screen, select the OK button.To close the Warning screen without dumping memory, select the Cancel button.
4. The Dump Memory screen is displayed:

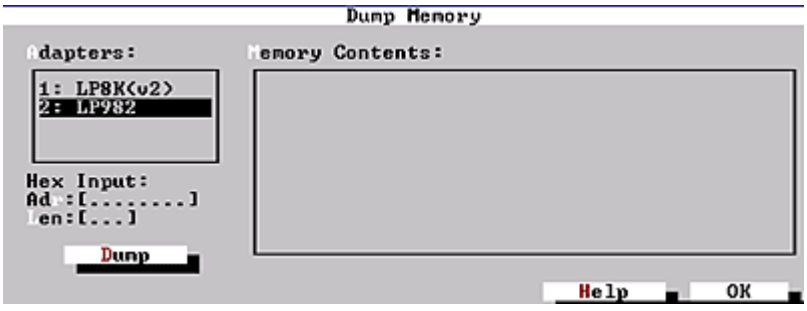

Figure 29: The Dump Memory Screen

5. Select an adapter in the Adapters box.
6. Enter values in the Hex Input area to set up the memory dump:
    - The Adr field represents the starting address.

- The Len field represents the number of bytes.

7. Select the Dump button. The memory contents are displayed.
8. Select the OK button to close the screen.

Run Program

The Run Program screen allows you to run firmware test programs, provided the firmware test images have been downloaded. The test results are also displayed in this screen.

1. After starting lp6dutil, select the Debug Menu:

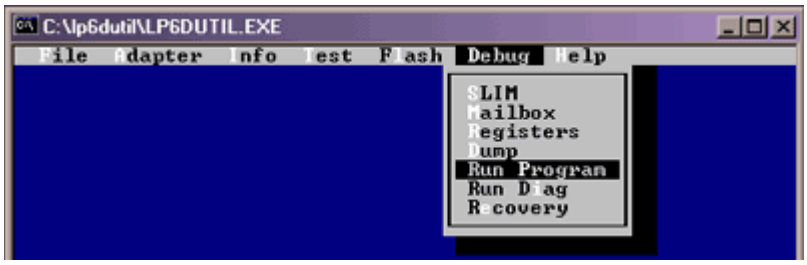

Figure 30: The Debug Menu

2. Press P. The Run Program screen is displayed:

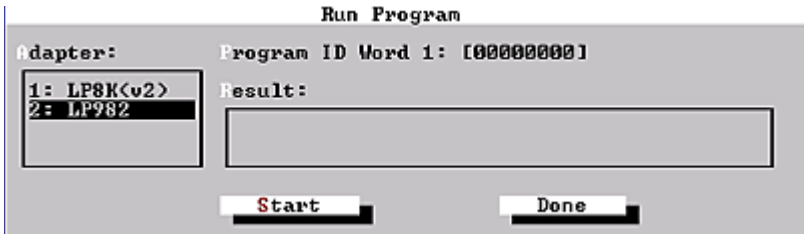

Figure 31: The Run Program Screen

3. Select an adapter in the Adapter box.
4. Tab to the Program ID Word 1 field. Use the backspace key to clear the necessary fields. Enter the firmware test program name.
5. Select the Start button. Test results display in the Result box.
6. Select the Done button to close the screen.

Run Diagnostics

- Four standard tests can be run using the Test Menu (see the Select Tests and Configure and Start Test topics under Diagnostic Tasks). The Run Diags screen allows you to run customized tests that must be downloaded to the host bus adapter (HBA). Instructions for creating customized tests is beyond the scope of this manual.
- To download custom tests, use the same procedure for downloading other files and images. See the Update Files and Images topic under Update FC Boot.

The Run Diags screen allows you to run up to five tests at one time.

1. After starting lp6dutil, select the Debug Menu:

Figure 32: The Debug Menu

2. Press I. The Run Diags screen is displayed:

Figure 33: The Run Diags Screen

3. Select an adapter in the Adapter box.
4. Specify values in the Select Common Parameters area. To change a value, tab to that field, then press the Backspace key to clear the field.
    - Repeat Count -
        - 0 = Test will loop indefinitely until the test is manually stopped.
        - X = X equals the number of times you want test or tests to be repeated. If more than one test is specified, you cannot stop a test until all tests are complete.
    - Display Option - A binary code that determines what, if any message information will be printed in ASCII format to a serial port.
        - 00 = No information is printed.
        - 1F = All information is printed.
        - 03 = Minimal information is printed.
    - Request Type -
        - 1 = Only one test can be run.
        - 2 = Multiple tests (up to five) can be run.
    - Entry Count - Number of tests to be run.

- Error Action -
  - Stop = Test is stopped if an error is encountered.
  - Ignore = Errors are ignored during testing.
  - Repeat = If an error is encountered, the test is rerun.
  - Loop = If an error is encountered, all tests are rerun.
- Select Parameters for - This field allows you to access a Parameters Selection screen for the selected test. If multiple tests are downloaded, a down arrow is displayed on the right side of this box. A separate Parameters Selection screen is displayed for each test.

Parameters Selection screen -

a. Enter values in this screen for the following custom test parameters:
   - Version
   - Program ID
   - Revision Compability
   - Subtest 3
   - Subtest 2
   - Subtest 1
   - Subtest Selection

b. Select the OK button on the Parameters Selection screen to set up the test. The screen is closed.

5. On the Run Diags screen, select the Start button. Results display in the Test Results box. If multiple tests have run, a vertical scroll bar is displayed on the right side of the box. This indicates that the box contains additional test results that exceed the display capabilities of the box. Click on the scroll bar to view additional test results.
6. Select the Done button to close the screen.

Try to Recover Adapter

If an adapter cannot be reset, the Try to Recover screen allows you to attempt recovery.

1. After starting lp6dutil, select the Debug Menu:

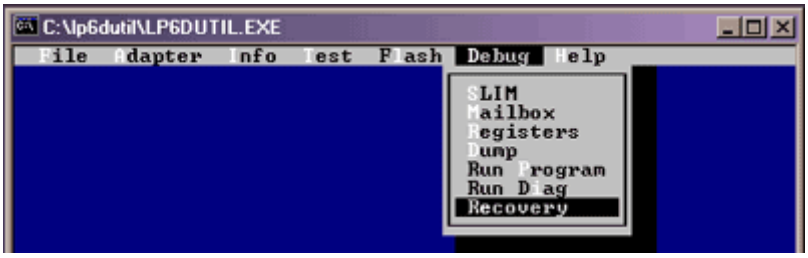

Figure 34: The Debug Menu

2. Press E. All adapters that are active in the system are displayed in the Try to Recover screen:

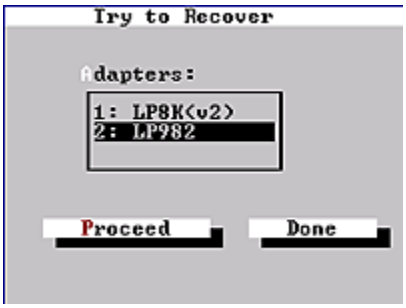

Figure 35: TThe ry To Recover Screen

3. Select an adapter to recover.
4. Select the Proceed button to attempt recovery.
5. Select the Done button to close the screen.

View Information

Display Adapter Information

Display information for installed host bus adapters.

1. After starting lp6dutil, select the Adapter menu:

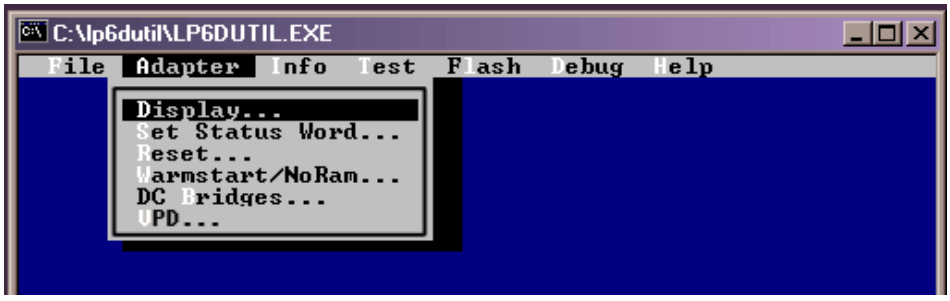

Figure 36: The Adapter Menu

2. 2. Press D. The Installed Adapter Parameters screen is displayed.

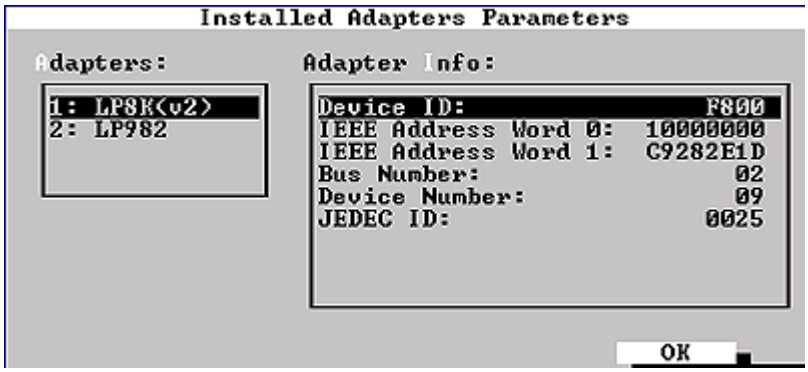

Figure 37: The Installed Adapter Parameters Screen

3. Select an adapter in the Adapters box. Information is displayed in the Adapter Info box. This information is view-only.
4. Select the OK button to close the screen.

Note: You can also display adapter information using the command line.

Display Adapters at the Command Line

You can view a list of adapters installed in your system, with adapter number (base 1), WWN, firmware version, adapter type, and, if applicable, any mailbox error.

To display the list of installed adapters, type:

```
listhba
```

The following type of information is displayed:

```
adapter 1:      C920a4B3        Functional FW:    1005DC
                                DS3.92a2
adapter 2:      WWN err.        !!! ReadRev Error 1005DC
                                !!!
```

Note: On an HS20 Blade you can 1 HBA, but 2 ports. (Appears as a 1005DC) On an HS40 Blade, you can have 2 HBAs or 2 ports. (Appears as 2 1005DCs).

View DC Bridge Information

1. After starting lp6dutil, select the Adapter Menu:

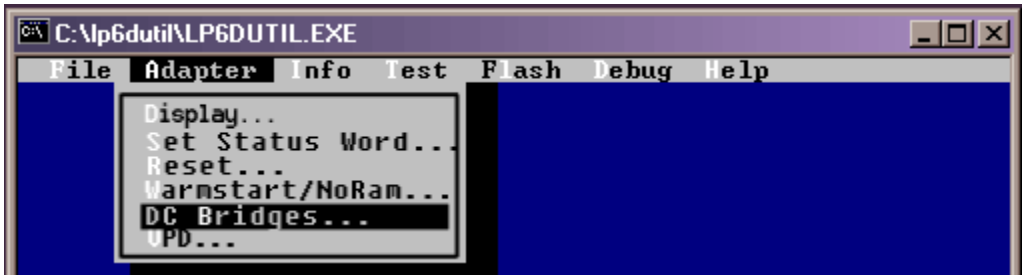

Figure 38: The Adapter Menu

2. Press B. The Dual Channel Bridges screen is displayed.

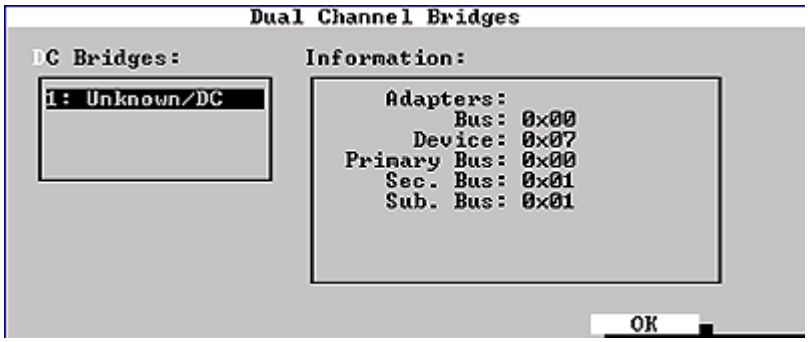

Figure 39: The Dual Channel Bridges Screen

3. Select an adapter in the Adapters box. Adapter information is displayed in the Information box.
4. Select the OK button to close the screen.

View VPD Information

1. After starting lp6dutil, select the Adapter Menu:

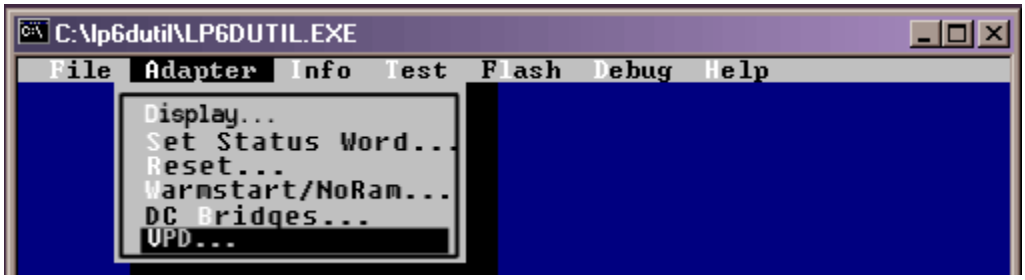

Figure 40: The Adapter Menu

2. Press V. The Adapters VPD (vital product data) screen is displayed.

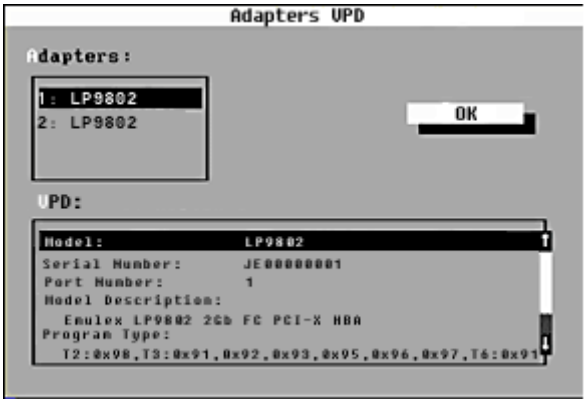

Figure 41: The Dual Channel Bridges Screen

3. Select an adapter in the Adapters box. The adapter's VPD information is displayed in the VPD box.
4. Select the OK button to close the screen.

View PCI Information

1. After starting lp6dutil, select the Info Menu:

Figure 42: The Info Menu

2. Press I. The PCI Parameters screen is displayed:

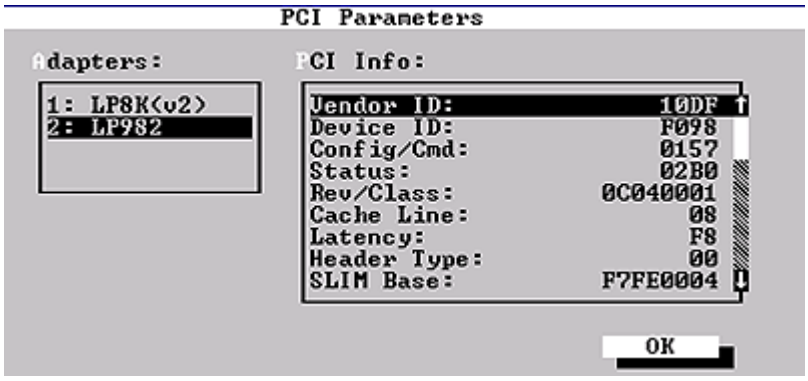

Figure 43: The PCI Parameters Screen

3. Select an adapter in the Adapters box. Information is displayed in the PCI Info box.
4. Select the OK button to close the screen.

View Revision Information

1. After starting lp6dutil, select the Info Menu:

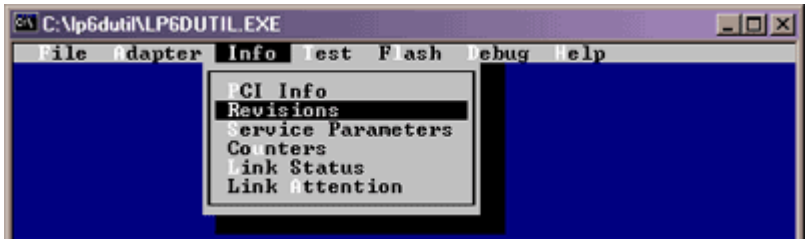

Figure 44: The Info Menu

2. Press R. The Revisions Info screen is displayed:

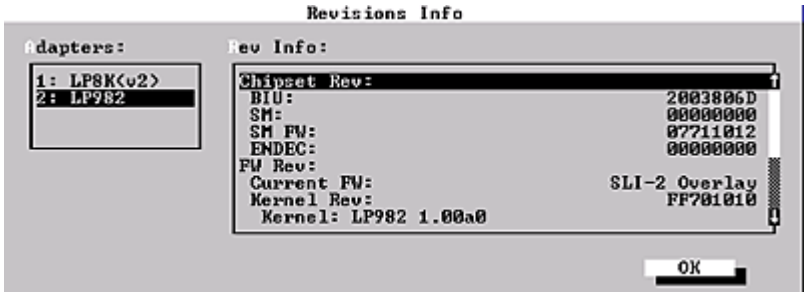

Figure 45: The Revisions Info Screen

3. Select an adapter in the Adapters box. Information is displayed in the Rev Info box.
4. Select the OK button to close the screen.

View Service Parameters

1. After starting lp6dutil, select the Info Menu:

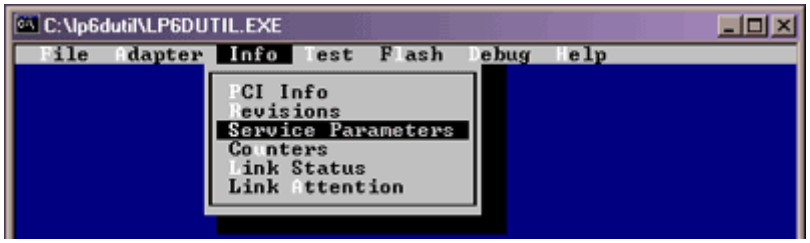

Figure 46: The Info Menu

2. Press S. The Service Parameters screen is displayed:

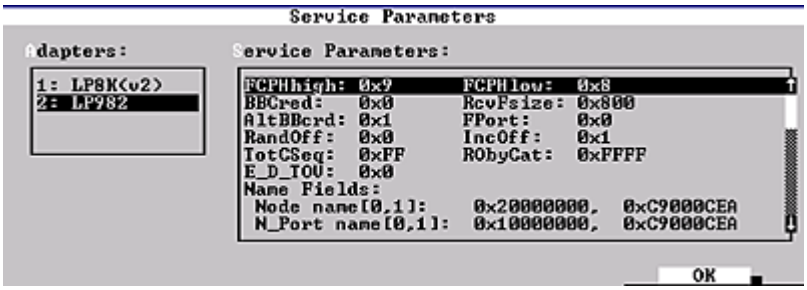

Figure 47: The Service Parameters Screen

3. Select an adapter in the Adapters box. Information is displayed in the Service Parameters box.
4. Select the OK button to close the screen.

View Counter Information

1. After starting lp6dutil, select the Info Menu:

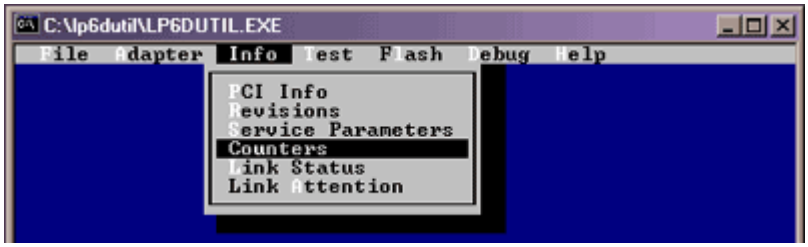

Figure 48: The Info Menu

2. Press C. The Counters Display screen appears.

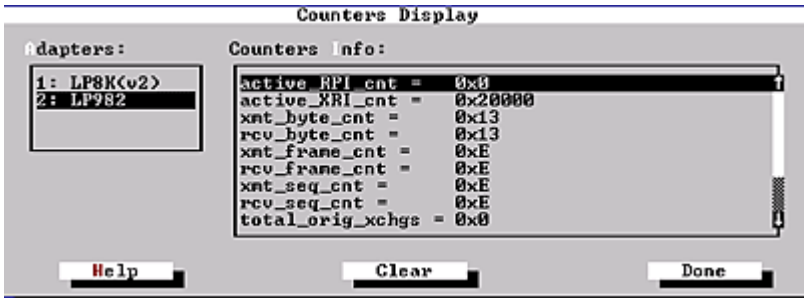

Figure 49: The Counters Display Screen

3. Select an adapter in the Adapters box. Information is displayed in the Counters Info box.
4. To set the counters to zero for all fields, select Clear.
5. Select the Done button to close the screen.

View Link Status Information

1. After starting lp6dutil, select the Info Menu:

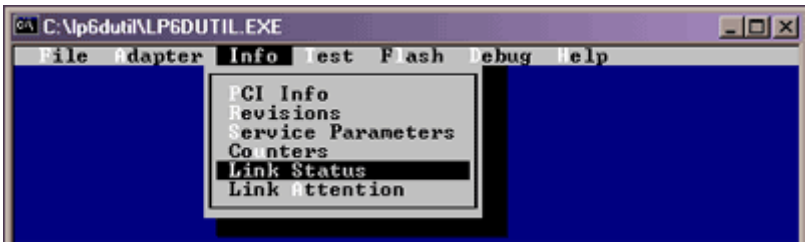

Figure 50: The Info Menu

2. Press L. The Link Status screen is displayed.

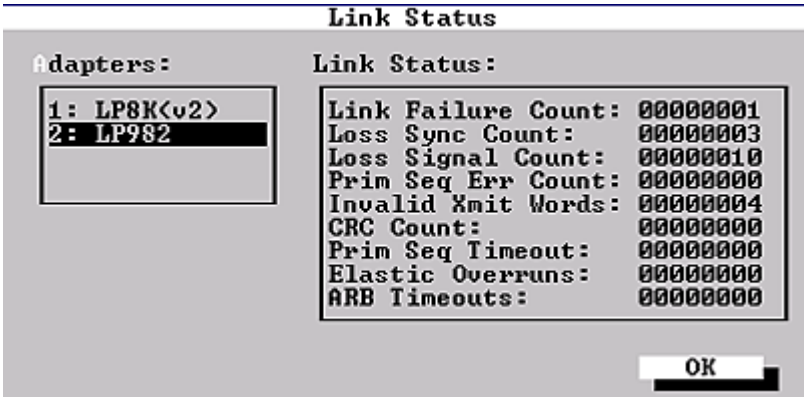

Figure 51: The Link Status Screen

3. Select an adapter in the Adapters box. Information is displayed in the Link Status box.
4. Select the OK button to close the screen.

View Link Attention Data

1. After starting lp6dutil, select the Info Menu:

Figure 52: The Info Menu

2. Press A. The Link Attention Data screen is displayed. Event information is displayed:

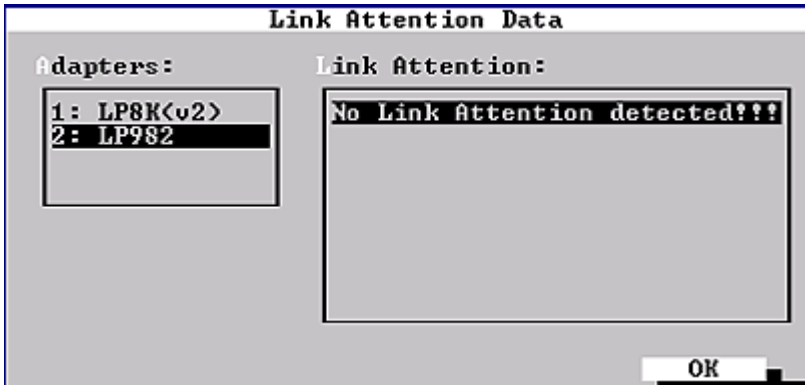

Figure 53: The Link Attention Data Screen

3. Select an adapter in the Adapters box. Information is displayed in the Link Attention box.
4. Select the OK button to close the screen.

View Wakeup Parameters

1. After starting lp6dutil, select the Flash Menu:

Figure 54: The Flash Menu

2. Press W. The Wakeup Parameters screen is displayed:

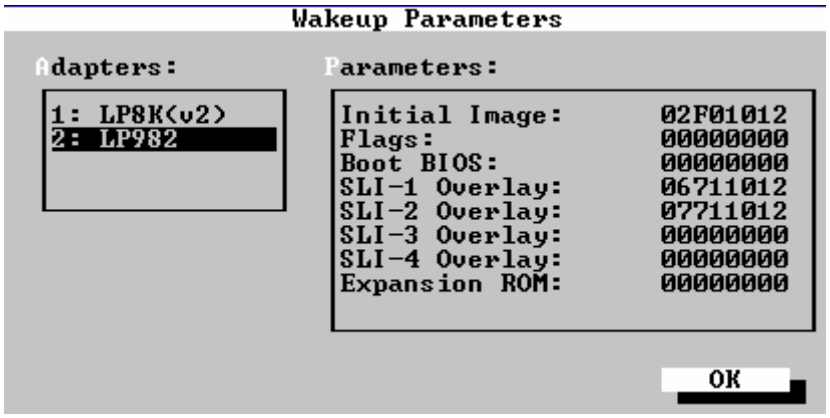

Figure 55: The Wakeup Parameters Screen

3. Select an adapter in the Adapters box. Information is displayed in the Parameters box.
4. Select the OK button to close the screen.

View and Maintain Configuration Region

Viewing Configuration Region Information

1. After starting lp6dutil, select the Flash Menu:

Figure 56: The Flash Menu

2. Press C. The Configuration Regions screen is displayed:

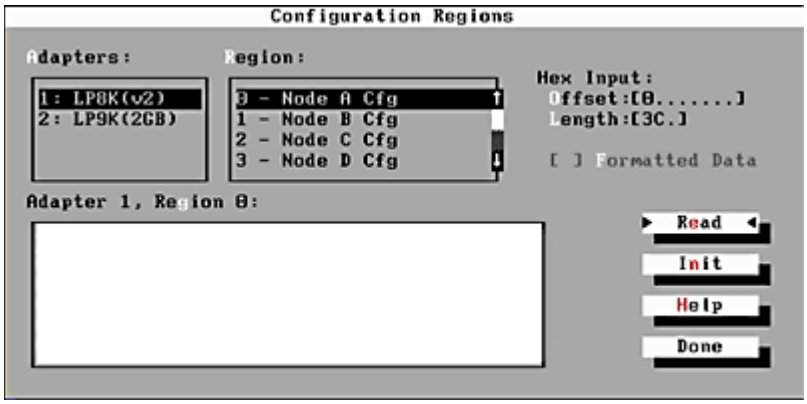

Figure 57: The Configuration Regions Screen

3. Select the adapter and corresponding region.

   Region Specifics -

   - Region 1 represents Node A configuration
   - Region 2 represents Node B configuration
   - Region 3 represents Node C configuration
   - Region 4 represents the wakeup parameters
   - Region 5 represents the default PCI configuration
   - Region 6 represents the download 1 (on the Soft Jumpers screen, PCI Alt-1)
   - Region 7 represents the download 2 (on the Soft Jumpers screen, PCI Alt-2)

   Use the Cleanup button to clear the first 4 bytes of the specified Configuration region in Flash so that this region can be programmed.

4. Enter values in the Hex Input area to specify the configuration region:
   - The Offset field represents the starting byte at which information is displayed. An offset of 0 means information is displayed at the beginning of the region. This value is displayed based on your last session. You may change this value.
   - The Length field represents how many bits are displayed.

   For example, if you set the Offset value to 100 and the Length field to 100, information is displayed from byte 100 and the next 100 bytes are displayed for the selected region.
5. Select the Read button. Region Information is displayed in the Region Data box.

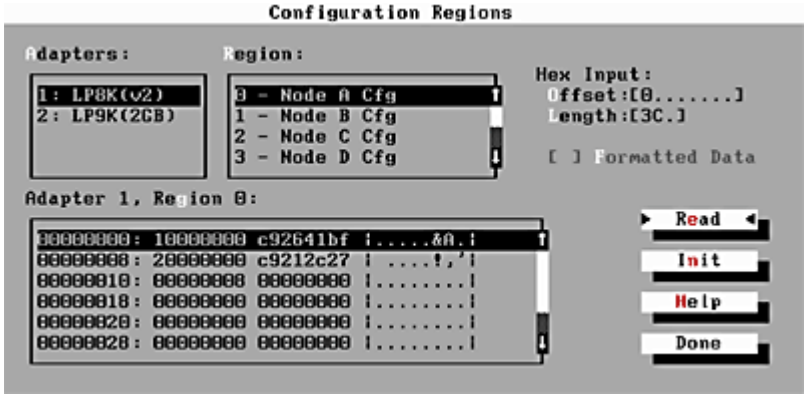

Figure 58: The Configuration Regions Screen

6. Select the Done button to close the screen, or proceed to initializing or cleaning a region.

Initializing a Region or Cleaning a Configuration

1. Once you have viewed configuration region information and determined that you want to initialize a region or clean a configuration, make sure the adapter and region are selected in the Configuration Regions screen.

   On the Configuration Regions screen, select the Init button. The Init Region screen is displayed:

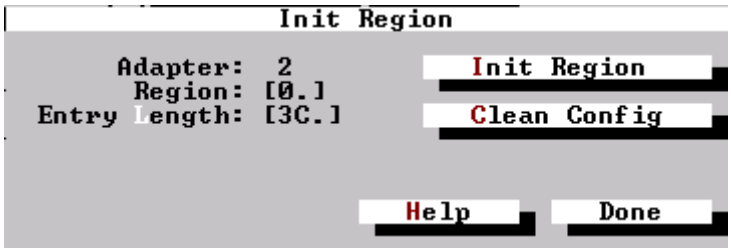

Figure 59: The Init Region Screen

2. To initialize, select the Init Region button.
3. Once the configuration is initialized, you can clean the configuration. Select the Clean Config button.
4. Select the Done button to close the screen.

View SLIM Memory

1. After starting lp6dutil, select the Debug Menu:

Figure 60: The Debug Menu

2. Press S. The SLIM Memory screen is displayed:

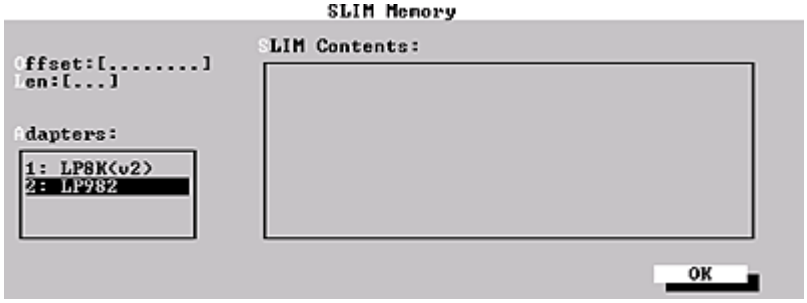

Figure 61: The SLIM Memory Screen

3. Select an adapter in the Adapters box.
4. Enter values to specify the how SLIM memory is to be displayed:
    - The Offset field represents the starting byte at which information is displayed. An offset of 0 means information is displayed at the beginning of SLIM. This value is displayed based on your last session. You may change this value.
    - The Length field represents how many bits will display.

    Information is displayed in the SLIM Contents box.
5. Select the OK button to close the screen.

View Mailbox

1. After starting lp6dutil, select the Debug Menu:

Figure 62: The Debug Menu

2. Press M. The Read Mailbox screen is displayed:

Figure 63: The Read Mailbox

3. Select an adapter in the Adapter box. Information is displayed in the Mailbox Contents box.
4. Select the OK button to close the screen.

View the Registers

1. After starting lp6dutil, select the Debug Menu:

Figure 64: The Debug Menu

2. Press R. The Registers screen is displayed:

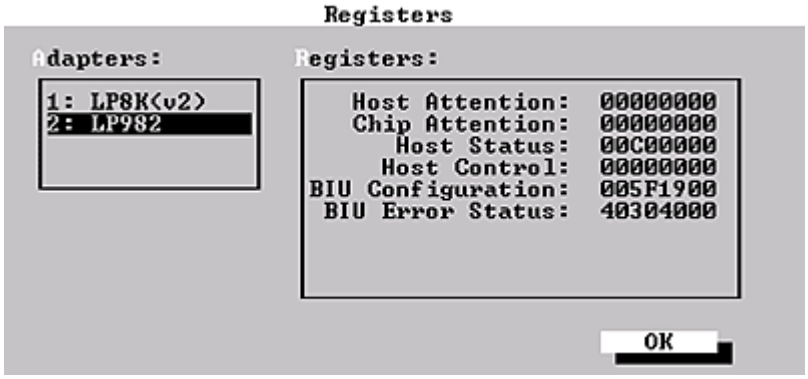

Figure 65: Registers Screen

Select an adapter in the Adapters box. Information is displayed in the Registers box.

- Host attention corresponds to 31 bits that describe information that the HBA provides to the host. For example, the HBA informs the host when a current mailbox command is finished.
- Chip attention (also known as port attention) corresponds to how the utility gets the HBA's attention. For the example, the utility informs the HBA when a pending Mailbox Attention command has an error.
- Host status corresponds to errors and events.
- Host control corresponds to the driver utility.

3. Select the OK button to close the screen.

Update FC Boot

Change the BootBIOS State

The Change Boot BIOS State screen is used to enable or disable BootBIOS (if x86 BootBIOS is installed).

1. After starting lp6dutil, select the Flash Menu:

Figure 66: The Flash Menu

2. Press B. The Change Boot BIOS State screen is displayed:

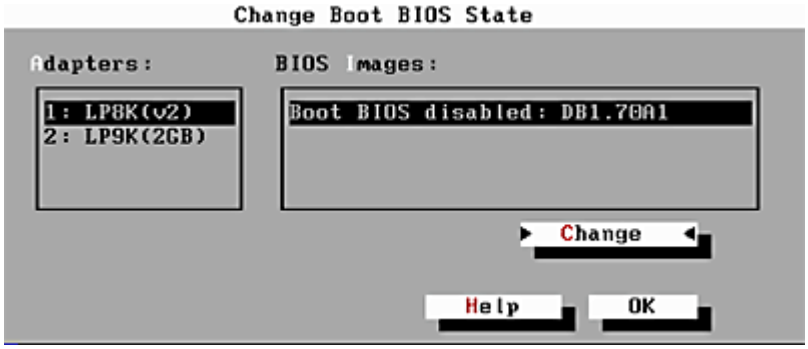

Figure 67: The Change Boot BIOS State Screen

3. Select an adapter in the Adapters box.
4. Specify the x86 BootBIOS image in the BIOS image list.
5. Select the Change button. The BootBIOS is enabled or disabled for the selected adapter. In the following example, the BootBIOS is enabled:

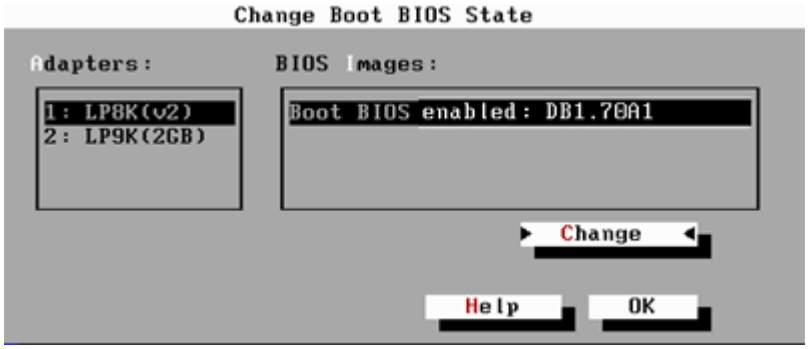

Figure 68: Change Boot BIOS State Screen

6. Select the OK button to close the screen.

Note: The Change Boot BIOS State screen is used to toggle the BIOS message. You will also need to enable x86 BootBIOS using the BIOS utility.

Note: You can also toggle the BIOS messsage from the command line.

Load and Update Firmware, Test, EFI and BIOS Files

The DOS utility, lp6dutil, allows you to load and update files and images to one or more host bus adapters using the menu bar. You can also load and update files using the utility that was loaded with your driver.

1. After starting lp6dutil, select the Flash Menu:

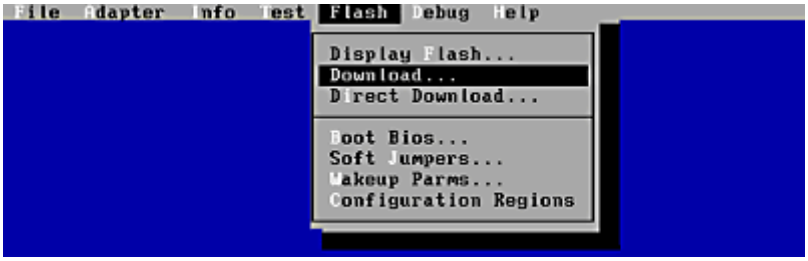

Figure 69: The Flash Menu

2. Press D. The Download Image screen is displayed.

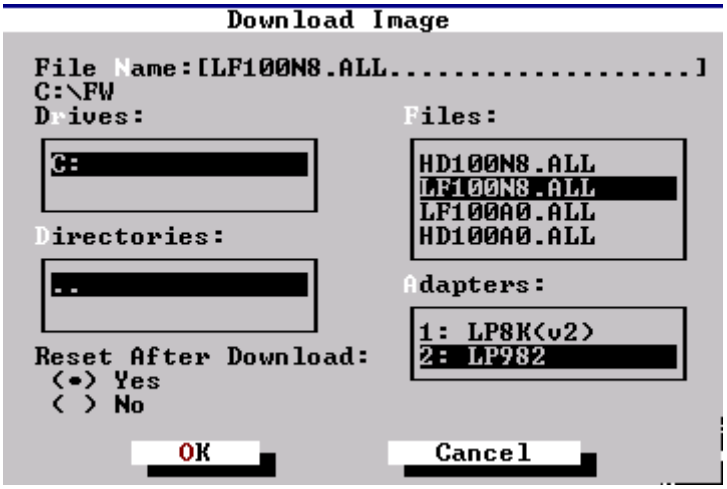

Figure 70: The Download Image Screen

3. Specify the location of the image file and the adapter to be updated.
4. Specify the Reset After Download setting.
    - Defaults to Yes. If you are updating a single file to one HBA, keep the default setting.
    - If you are updating several HBAs or several files to one HBA, select No.
5. Select the OK button. The screen closes and the load process begins. Various steps of the download process display along with the results of the download (success or error).