



# Motorola LOADer

## “MOTLOAD”

# What is Motload?

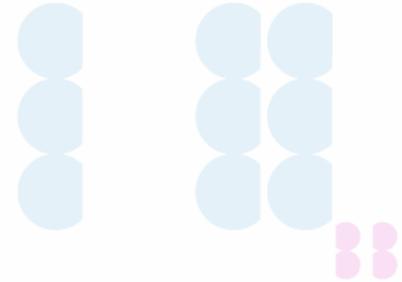
**Basic Board Configuration**

**Booting Operating Systems**

**Basic Utilities for Managing the Board**

**Debugging**

**Diagnostics**



# Command Structure

## Unix Like Command Structure

### Two Types of Commands

Utilities

Tests

### Most Commands Have Shortcuts

versions can be shorten to ver

### Commands are now case sensitive

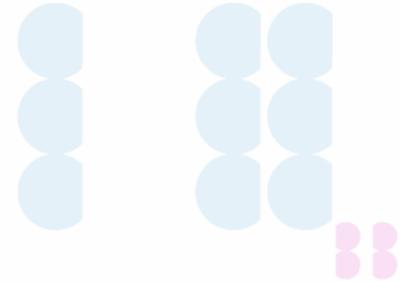
*bdtempshow* does not match *bdTempShow*

Similar naming command name structure as VxWorks

### Help Facility Available

*help* will list all commands and tests

*help* of a command will list specific information on  
command



# Command Example

*flashProgram* [-d] [-i] [-n] [-o] [-s] [-v]

-d Ps : Flash Memory Device Name (Default = /dev/flash0)

-i 0 : Disable Interactive Confirmation

-n Ph : Number of Bytes to Program (Default = \$00100000)

-o Ph : Offset Address of Flash Memory (Default = \$00000000)

-s Ph: Source Address (Default = User Down Load Area)

-v 0: Verbose Mode

MVME3100> *flashProgram* -d/dev/flash0 -o0010000 -n00100000



# Command Line Buffer

**ESC to Access Command Line History**  
**K and J will Scroll Up and Down to Command**  
**Pseudo VI commands to edit**

L to move right in the line

J to move right in the line

I to insert characters

X to remove

Esc to stop edit

**Commands can be Grouped with “;”**



# Use of Global Environment Variables (GEV)

Configuration Information Organized Through GEV

GEV Values Stored in NVRAM

*gevEdit* Creates and Edits Variables

```
MVME3100> gevEdit mot-/dev/enet1-cipa
```

(Blank line terminates input.)

```
123.111.32.90
```

*gevDelete* Removes Variables

*gevShow* Displays Variables

*gevInit* Removes Existing GEV and Prepares NVRAM to Store New Ones



# Show Commands

**version** – Revision of Motload

**devShow** – Devices Available to MOTLOAD

**flashShow** – Show All Flash Devices and  
Addresses

**netShow** – Display Network Devices Including  
Link Status

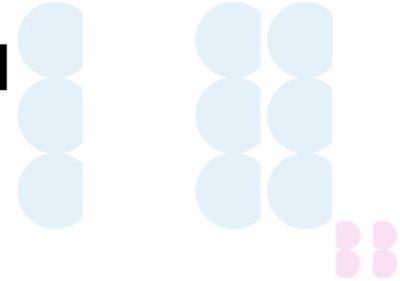
**pciShow** – Displays Configuration Registers of  
Each Device and Bridge

**pciDump** – Display Complete Configuration  
Register of Specified Device



# VPD Commands

## Virtual Product Data Configures the Board Values Programmed Through VPD



Processor Clock Speed

SRAM Device Configuration

Flash Device Configuration

***vpdShow*** – Display VPD Data

***vpdEdit*** – Edit VPD Data

***sromRead*** – Read the VPD SROM

***sromWrite*** – Write the VPD SROM

***sromRead* and *sromWrite* Useful for Block Backup and Update of VPD**



# Network Commands

**netStats - Display Network Interface Statistics**

**tftpGet - TFTP Download of File to Memory**

Used When Downloading VxWorks Boot Rom Image

**tftpPut - TFTP Download of Memory to File**

Useful for Transferring Data from RAM to a Host

**ping – Ping Another Network Device**

**netBoot – Perform a Network Boot of a Program**

**Data Transfers without Specifying Memory**

**Location Default to User Download Buffer**



# Other Useful Commands

## Memory Display Commands

mdb, mdh, mdw : Memory Display  
Bytes/Halfwords/Words

mmb mmh mmw : Memory Modify  
Bytes/Halfwords/Words

bsb bsh bsw : Block Search Byte/Halfword/Word

## flashProgram – Program Either Bank of Flash

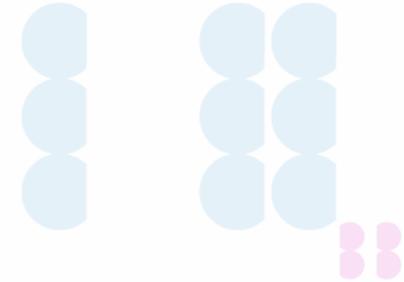
Will use it to load VxWorks Bootrom Image into  
Soldered Flash

**set – Set the RTC and start the clock**

**time – Display the Time Stored in the RTC**

**reset – Reset the Board**

**vmeCfg – Configure the VMEbus Interface**



# Autoboot Differences

**No Longer an ENV Command**  
**mot-script-boot Global Environment Variable Defines**  
**Boot Procedure**

diskBoot – Boot from Media

Hard Disk

Floppy

CDROM

netBoot – Boot from the Network

**mot-script-delay – Add Delay Prior to Boot**

**mot-boot-path - Device and File Boot Path**

**gevEdit Used to Add Variables**

**Command Line Arguments can be Used**



# Tests

## Tests can be Run In Foreground or Background

Foreground : Tests run sequentially

Background: Tests are run concurrently

Concurrent tests started by ending command with  
“&”

***taskActive*** and ***testStatus*** Commands

***errorDisplay*** – Display the Test Error Log

***testSuiteMake*** will Create A Suite of Tests to  
Execute

***testSuite*** executes the Suite of Tests

