

```
-----  
: UGA Done  
: GDT Done  
: IDT Done  
: PMM Done  
: MBI Done  
: UMM Done  
: KBD Done  
: VFS Done  
: ATA Done  
-----
```

```
-----  
: The system has 128 MB of physical memory  
-----
```

```
-----  
Welcome to Chell, a barebones shell!
```

```
help: list available commands  
-----
```

```
user@hda>
```

user@hda>help

Available commands:

help		clear		colors
logo		multiboot		mem
ata		pci		

```
user@hda>logo
```

```
|-----|
| / \ / \ | / \ / \ | / \ / \ |
| / \ / \ | / \ / \ | / \ / \ |
| / \ / \ | / \ / \ | / \ / \ |
| / \ / \ | / \ / \ | / \ / \ |
|-----|
```

```
user@hda>colors
```

```
Hello world!
```

```
This is the second line!      Tab
```

```
Carriage return of Chars
```

```
Black on blue
```

```
Green on cyan
```

```
Red on magenta
```

```
Brown on light gray
```

```
Dark gray on light blue
```

```
Light green on light cyan
```

```
Light red on pink
```

```
Yellow on white
```

```
Formatted string: str_arg: 'ArgumentA', int_arg: '59', int_arg: '-12'
```

```
user@hda>
```

```
user@hda>pci
```

```
PCI device 0:0:0 : vendor=0x8086 : device=0x1237 : class=Bridge Device
```

```
PCI device 0:1:0 : vendor=0x8086 : device=0x7000 : class=Bridge Device
```

```
PCI device 0:1:1 : vendor=0x8086 : device=0x7010 : class=Mass Storage Controller
```

```
PCI device 0:1:2 : vendor=0x8086 : device=0x7000 : class=Bridge Device
```

```
PCI device 0:1:3 : vendor=0x8086 : device=0x7010 : class=Mass Storage Controller
```

```
PCI device 0:2:0 : vendor=0x1234 : device=0x1111 : class=Display Controller
```

```
PCI device 0:3:0 : vendor=0x8086 : device=0x100e : class=Network Controller
```

```
user@hda>
```

```
user@hda>multiboot
Multiboot magic number is correct: 0x2badb002
mem_lower: 639KB, mem_upper: 129920KB
boot_device: 0xe0ffffff
vide_mode_type: unknown graphics mode, vbe_mode: 3, cmdline: 65656
width: 80, height: 25, depth: 25
elf_sec: num: 9, size: 0x28, addr: 0x10138, shndx: 0x8
mmap_addr = 0x100a8, mmap_length = 0x90
  addr: 0x0, size: 654336 bytes, type: 0x1, end: 0x9fc00
  addr: 0x100000, size: 126MB, type: 0x1, end: 0x7fe0000
bootloader name: GRUB 2.02-2ubuntu8.12
multiboot_start: 0x106048, multiboot_end: 0x1060c0
kernel_top 0x12b000
user@hda>
```

```
user@hda>pwd
```

```
hda
```

```
user@hda>cd hdb
```

```
hdb does not exist
```

```
user@hda>cd hda
```

```
hda exists
```

```
user@hda>
```

user@hda>ls

file\_size=23 name=FILE TXT

file\_size=20060 name=PROC EXC

file\_size=23784 name=EDITOR

file\_size=34792 name=MPROC

file\_size=23820 name=PROC

user@hda>

user@hda>mem

Starting easy tests...

.....

Finished easy tests!

Starting hard tests...

.....

Finished hard tests!

Starting OOM tests...

OOM-init-Attempting to allocate 31 pages=

OOM-init-Successfully allocated 31 pages

OOM-Attempting to allocate 31615 pages

.....

Page fault! ( read-only reserved ) at 0x80000000

Supervisory process tried to read a non-present page entry

Page Fault -> Halting the system.