

FreeBSD 8.0 Installation



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Booting from Installation CD

```
CD Loader 1.2

Building the boot loader arguments
Looking up /BOOT/LOADER... Found
Relocating the loader and the BTX
Starting the BTX loader

BTX loader 1.00  BTX version is 1.02
Consoles: internal video/keyboard
BIOS CD is cd0
BIOS drive A: is disk0
BIOS drive C: is disk1
BIOS 638kB/260032kB available memory

FreeBSD/i386 bootstrap loader, Revision 1.1
(root@almeida.cse.buffalo.edu, Sat Nov 21 14:05:36 UTC 2009)
Loading /boot/defaults/loader.conf
/boot/kernel/kernel text=0x88d680 i
```

Welcome to FreeBSD!

1. Boot FreeBSD [default]
2. Boot FreeBSD with ACPI disabled
3. Boot FreeBSD in Safe Mode
4. Boot FreeBSD in single user mode
5. Boot FreeBSD with verbose logging
6. Escape to loader prompt
7. Reboot

Select option, [Enter] for default
or [Space] to pause timer 5 _

FreeBSD

Select Location



Choose your keyboard type

System Console Keymap

The default system console driver for FreeBSD (syscons) defaults to a standard "American" keyboard map. Users in other countries (or with different keyboard preferences) may wish to choose one of the other keymaps below.

Note that sysinstall itself only uses the part of the keyboard map which is required to generate the ANSI character subset, but your choice of keymap will also be saved for later (fuller) use.

↑(-)

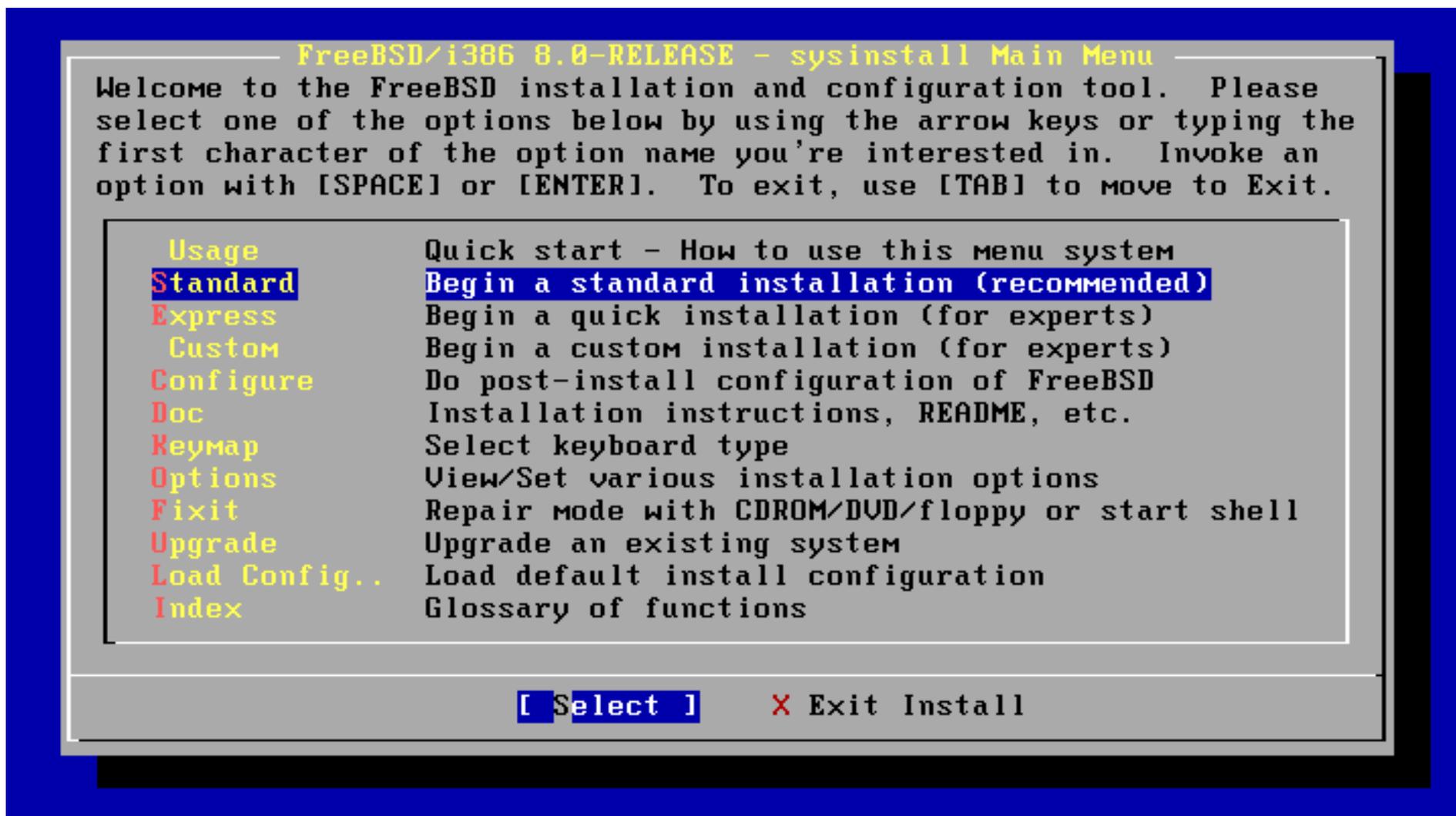
Ukrainian KOI8-U	Ukrainian KOI8-U keymap
Ukrainian KOI8-U+KOI8-R	Ukrainian KOI8-U+KOI8-R keymap (alter)
USA CapsLock->Ctrl	US standard (Caps as L-Control)
USA Dvorak	US Dvorak keymap
USA Dvorak (left)	US left handed Dvorak keymap
USA Dvorak (right)	US right handed Dvorak keymap
USA Emacs	US standard optimized for EMACS
USA ISO	US ISO keymap
USA UNIX	US traditional UNIX-workstation

[**OK**]

Cancel

[Choose a keyboard map]

Select Installation method



Read the message

Message

In the next menu, you will need to set up a DOS-style ("fdisk") partitioning scheme for your hard disk. If you simply wish to devote all disk space to FreeBSD (overwriting anything else that might be on the disk(s) selected) then use the (A)ll command to select the default partitioning scheme followed by a (Q)uit. If you wish to allocate only free space to FreeBSD, move to a partition marked "unused" and use the (C)reate command.

(100%)

[OK]

[Press enter or space]

Slicing your disk

```
Disk name:      da0                               fdisk Partition Editor
DISK Geometry: 783 cyls/255 heads/63 sectors = 12578895 sectors (6142MB)

Offset          Size(ST)          End          Name  PType          Desc  Subtype  Flags
-----
0              12582912         12582911    -     12            unused  0

The following
A = Use Entire Disk    G = set Drive Geometry    C = Create Slice
D = Delete Slice      Z = Toggle Size Units     S = Set Bootable    ; = Expert m.
T = Change Type       U = Undo All Changes      Q = Finish

Use F1 or ? to get more help, arrow keys to select.
```

Value Required

Please specify the size for new FreeBSD slice in blocks or append a trailing 'M' for megabytes (e.g. 20M).

Select partition type

```
Disk name: da0 FDISK Partition Editor
DISK Geometry: 783 cyls/255 heads/63 sectors = 12578895 sectors (6142MB)

Offset      Size(ST)      End      Name  PType      Desc  Subtype      Flags
-----
Value Required

Enter type of partition to create:

Pressing Enter will choose the default, a native FreeBSD
slice (type 165).  Other popular values are 6 for a
DOS FAT partition, 131 for a Linux ext2fs partition, or
130 for a Linux swap partition.

Note:  If you choose a non-FreeBSD partition type, it will not
be formatted or otherwise prepared, it will simply reserve space
for you to use another tool, such as DOS format, to later format
and actually use the partition.

The fo
A = Us
D = De
T = Ch

165

[ OK ]      Cancel

Use F1 or ? to get more help, arrow keys to select.
```

Final partition scheme

```
Disk name:      da0      FDISK Partition Editor
DISK Geometry: 783 cyls/255 heads/63 sectors = 12578895 sectors (6142MB)

Offset          Size(ST)          End          Name  PType          Desc  Subtype          Flags
      0             63             62           -     12          unused           0
      63      12578832      12578894      da0s1    8          freebsd         165    A
12578895          4017          12582911      -     12          unused           0

The following commands are supported (in upper or lower case):

A = Use Entire Disk      G = set Drive Geometry      C = Create Slice
D = Delete Slice         Z = Toggle Size Units       S = Set Bootable      ; = Expert m.
T = Change Type          U = Undo All Changes        Q = Finish

Use F1 or ? to get more help, arrow keys to select.
```

Configure bootloader

Install Boot Manager for drive da0?

FreeBSD comes with a boot manager that allows you to easily select between FreeBSD and any other operating systems on your machine at boot time. If you have more than one drive and want to boot from the second one, the boot manager will also make it possible to do so (limitations in the PC BIOS usually prevent this otherwise). If you will only have FreeBSD on the machine the boot manager is not needed and it slows down the boot while offering you the choice of which operating system to boot. If you do not want a boot manager, or wish to replace an existing one, select "standard". If you would prefer your Master Boot Record remain untouched then select "None".

NOTE: PC-DOS users will almost certainly require "None"!

Standard	Install a standard MBR (no boot manager)
BootMgr	Install the FreeBSD Boot Manager
None	Leave the Master Boot Record untouched

[**OK**]

Cancel

[Press F1 to read about drive setup]

Read the message

Message

Now you need to create BSD partitions inside of the fdisk partition(s) just created. If you have a reasonable amount of disk space (1GB or more) and don't have any special requirements, simply use the (A)uto command to allocate space automatically. If you have more specific needs or just don't care for the layout chosen by (A)uto, press F1 for more information on manual layout.

(100%)

[OK]

[Press enter or space]

Configure disk label (label = subpartition)

```
FreeBSD Disklabel Editor
Disk: da0      Partition name: da0s1      Free: 12578832 blocks (6142MB)
Part          Mount          Size Newfs      Part          Mount          Size Newfs
-----

```

Value Required

Please specify the partition size in blocks or append a trailing G for gigabytes, M for megabytes, or C for cylinders.
12578832 blocks (6142MB) are free.

[OK] Cancel

```
The following commands are valid here (upper or lower case):
C = Create          D = Delete        M = Mount pt.
N = Newfs Opts     Q = Finish       S = Toggle SoftUpdates   Z = Custom Newfs
T = Toggle Newfs   U = Undo         A = Auto Defaults       R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

Select partition type

```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 12578832 blocks (6142MB)
Part      Mount      Size Newfs  Part      Mount      Size Newfs
-----
Please choose a partition type
If you want to use this partition for swap space, select Swap.
If you want to put a filesystem on it, choose FS.
FS      A file system
Swap    A swap partition.
[ OK ]      Cancel
The following commands are valid here (upper or lower case):
C = Create      D = Delete      M = Mount pt.
N = Newfs Opts  Q = Finish      S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs U = Undo      A = Auto Defaults      R = Delete+Merge
Use F1 or ? to get more help, arrow keys to select.
```

Specify a mount point

```
FreeBSD Disklabel Editor
Disk: da0      Partition name: da0s1      Free: 12578832 blocks (6142MB)
Part          Mount          Size Newfs      Part          Mount          Size Newfs
-----

```

Value Required

Please specify a mount point for the partition

[OK] Cancel

```
The following commands are valid here (upper or lower case):
C = Create          D = Delete        M = Mount pt.
N = Newfs Opts     Q = Finish       S = Toggle SoftUpdates   Z = Custom Newfs
T = Toggle Newfs   U = Undo         A = Auto Defaults       R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

Result

```
FreeBSD Disklabel Editor
Disk: da0      Partition name: da0s1      Free: 11530256 blocks (5630MB)
Part      Mount      Size Newfs      Part      Mount      Size Newfs
-----
da0s1a    /            512MB UFS2      Y

```

The following commands are valid here (upper or lower case):
C = Create D = Delete M = Mount pt.
N = Newfs Opts Q = Finish S = Toggle SoftUpdates Z = Custom Newfs
T = Toggle Newfs U = Undo A = Auto Defaults R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.

Add another label for SWAP

```
FreeBSD Disklabel Editor
Disk: da0      Partition name: da0s1      Free: 11530256 blocks (5630MB)
Part      Mount      Size Newfs      Part      Mount      Size Newfs
-----      -----      -
da0s1a    /              512MB UFS2      Y

Value Required
Please specify the partition size in blocks or append a trailing G for
gigabytes, M for megabytes, or C for cylinders.
11530256 blocks (5630MB) are free.
300M
[ OK ]      Cancel

The following commands are valid here (upper or lower case):
C = Create      D = Delete      M = Mount pt.
N = Newfs Opts  Q = Finish      S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs  U = Undo      A = Auto Defaults      R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

Choose swap partition

```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 11530256 blocks (5630MB)
Part Mount Size Newfs Part Mount Size Newfs
---- -
da0s1a / 512MB UFS2 Y
Please choose a partition type
If you want to use this partition for swap space, select Swap.
If you want to put a filesystem on it, choose FS.
FS A file system
Swap A swap partition.
[ OK ] Cancel
The following commands are valid here (upper or lower case):
C = Create D = Delete M = Mount pt.
N = Newfs Opts Q = Finish S = Toggle SoftUpdates Z = Custom Newfs
T = Toggle Newfs U = Undo A = Auto Defaults R = Delete+Merge
Use F1 or ? to get more help, arrow keys to select.
```

Last disklabel (subpartition) scheme

```
FreeBSD Disklabel Editor
Disk: da0      Partition name: da0s1      Free: 0 blocks (0MB)

Part      Mount          Size Newfs    Part      Mount          Size Newfs
-----
da0s1a    /              512MB UFS2     Y
da0s1b    swap          300MB SWAP
da0s1d    /usr         2000MB UFS2+S   Y
da0s1e    /var         500MB UFS2+S   Y
da0s1f    /home       2830MB UFS2+S   Y

The following commands are valid here (upper or lower case):
C = Create          D = Delete      M = Mount pt.
N = Newfs Opts     Q = Finish     S = Toggle SoftUpdates   Z = Custom Newfs
T = Toggle Newfs   U = Undo       A = Auto Defaults        R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
█
```

Select software installation type

Choose Distributions

As a convenience, we provide several "canned" distribution sets. These select what we consider to be the most reasonable defaults for the type of system in question. If you would prefer to pick and choose the list of distributions yourself, simply select "Custom". You can also pick a canned distribution set and then fine-tune it with the Custom item.

Choose an item by pressing [SPACE] or [ENTER]. When finished, choose the Exit item or move to the OK button with [TAB].

<<< X Exit	Exit this menu (returning to previous)
A All	All system sources and binaries
R Reset	Reset selected distribution list to nothing
[] 4 Developer	Full sources, binaries and doc but no games
[] 5 Kern-Developer	Full binaries and doc, kernel sources only
[] 6 User	Average user - binaries and doc only
[] A Minimal	The smallest configuration possible
> > B Custom	Specify your own distribution set

[OK] Cancel

[Press F1 for more information on these options.]

Select kernel

Select the operating system kernels you wish to install.
Please check off those kernels you wish to install.

<<< X Exit	Exit this menu (returning to previous)
All	Select all of the below
Reset	Reset all of the below
[X] GENERIC	GENERIC kernel configuration

[OK]

Cancel

Select software group

Select the distributions you wish to install.
Please check off the distributions you wish to install. At the very minimum, this should be "base".

↑(-)

	Reset	Reset all of the below
<input checked="" type="checkbox"/>	base	Binary base distribution (required)
<input checked="" type="checkbox"/>	kernels	Binary kernel distributions (required)
<input type="checkbox"/>	dict	Spelling checker dictionary files
<input type="checkbox"/>	doc	FreeBSD Documentation set
<input type="checkbox"/>	docuser	Miscellaneous userland docs
<input type="checkbox"/>	games	Games (non-commercial)
<input checked="" type="checkbox"/>	info	GNU info files
<input checked="" type="checkbox"/>	man	System manual pages - recommended
<input type="checkbox"/>	catman	Preformatted system manual pages
<input type="checkbox"/>	proflibs	Profiled versions of the libraries
<input type="checkbox"/>	src	Sources for everything
<input type="checkbox"/>	ports	The FreeBSD Ports collection
<input checked="" type="checkbox"/>	local	Local additions collection

[**OK**]

Cancel

Back to previous menu

Choose Distributions

As a convenience, we provide several "canned" distribution sets. These select what we consider to be the most reasonable defaults for the type of system in question. If you would prefer to pick and choose the list of distributions yourself, simply select "Custom". You can also pick a canned distribution set and then fine-tune it with the Custom item.

Choose an item by pressing [SPACE] or [ENTER]. When finished, choose the Exit item or move to the OK button with [TAB].

<<< X Exit	Exit this menu (returning to previous)
All	All system sources and binaries
Reset	Reset selected distribution list to nothing
[] 4 Developer	Full sources, binaries and doc but no games
[] 5 Kern-Developer	Full binaries and doc, kernel sources only
[] 6 User	Average user - binaries and doc only
[] A Minimal	The smallest configuration possible
> > B Custom	Specify your own distribution set

[OK] Cancel

[Press F1 for more information on these options.]

Select installation source

Choose Installation Media

FreeBSD can be installed from a variety of different installation media, ranging from floppies to an Internet FTP server. If you're installing FreeBSD from a supported CD/DVD drive then this is generally the best media to use if you have no overriding reason for using other media.

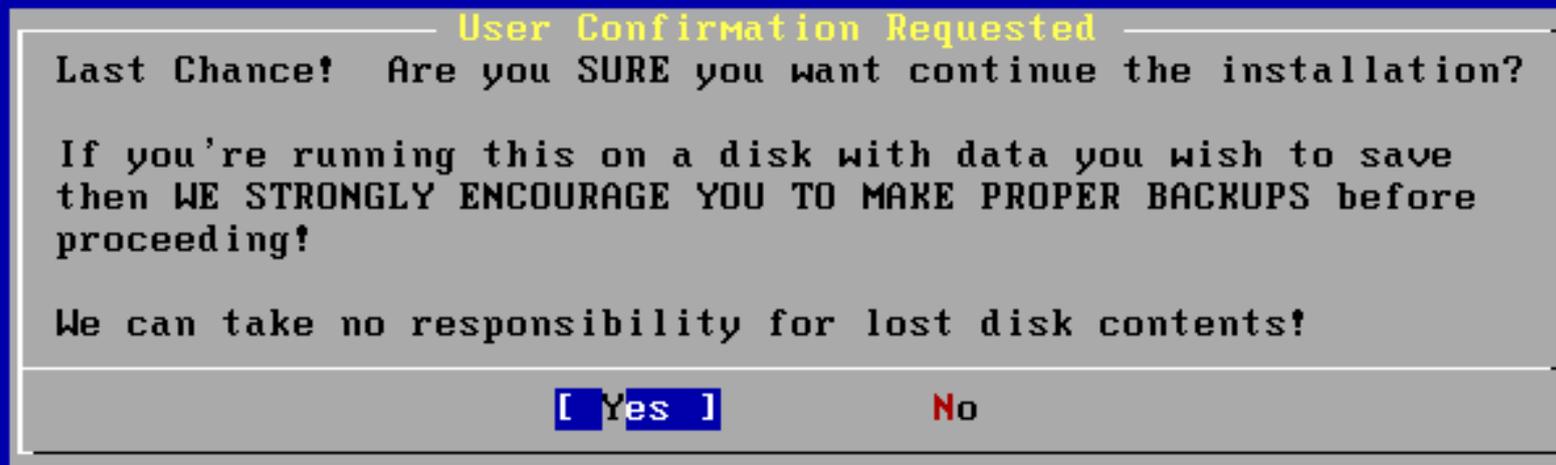
- | | |
|----------------------|---|
| 1 CD/DVD | Install from a FreeBSD CD/DVD |
| 2 FTP | Install from an FTP server |
| 3 FTP Passive | Install from an FTP server through a firewall |
| 4 HTTP | Install from an FTP server through a http proxy |
| 5 DOS | Install from a DOS partition |
| 6 NFS | Install over NFS |
| 7 File System | Install from an existing filesystem |
| 8 Floppy | Install from a floppy disk set |
| 9 USB | Install from a USB drive |
| X Options | Go to the Options screen |

[**OK**]

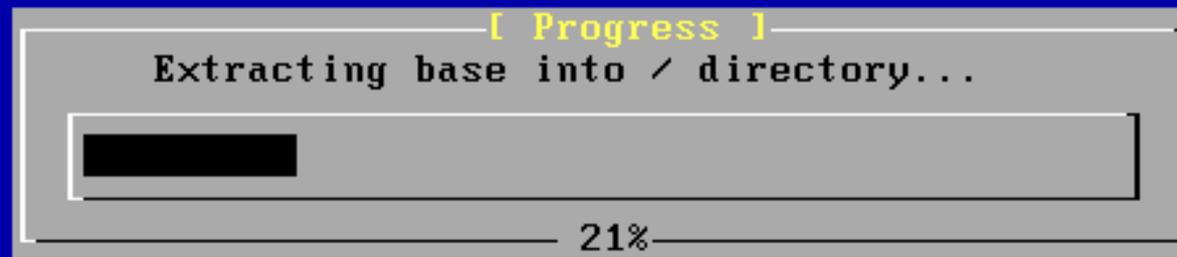
Cancel

[Press F1 for more information on the various media types]

Read the message



Progress bar...



9978880 bytes read from base dist, chunk 8 of 38 @ 1247.4 KBytes/sec.

FreeBSD has been installed!!

```
----- Message -----  
Congratulations! You now have FreeBSD installed on your system.  
  
We will now move on to the final configuration questions.  
For any option you do not wish to configure, simply select  
No.  
  
If you wish to re-enter this utility after the system is up, you  
may do so by typing: /usr/sbin/sysinstall.  
  
----- (100%) -----  
[ OK ]  
----- [ Press enter or space ] -----
```

Configure network interface

User Confirmation Requested
Would you like to configure any Ethernet or SLIP/PPP network devices?
 Yes **No**

Select interface

Network interface information required

If you are using PPP over a serial device, as opposed to a direct ethernet connection, then you may first need to dial your Internet Service Provider using the ppp utility we provide for that purpose. If you're using SLIP over a serial device then the expectation is that you have a HARDWIRED connection.

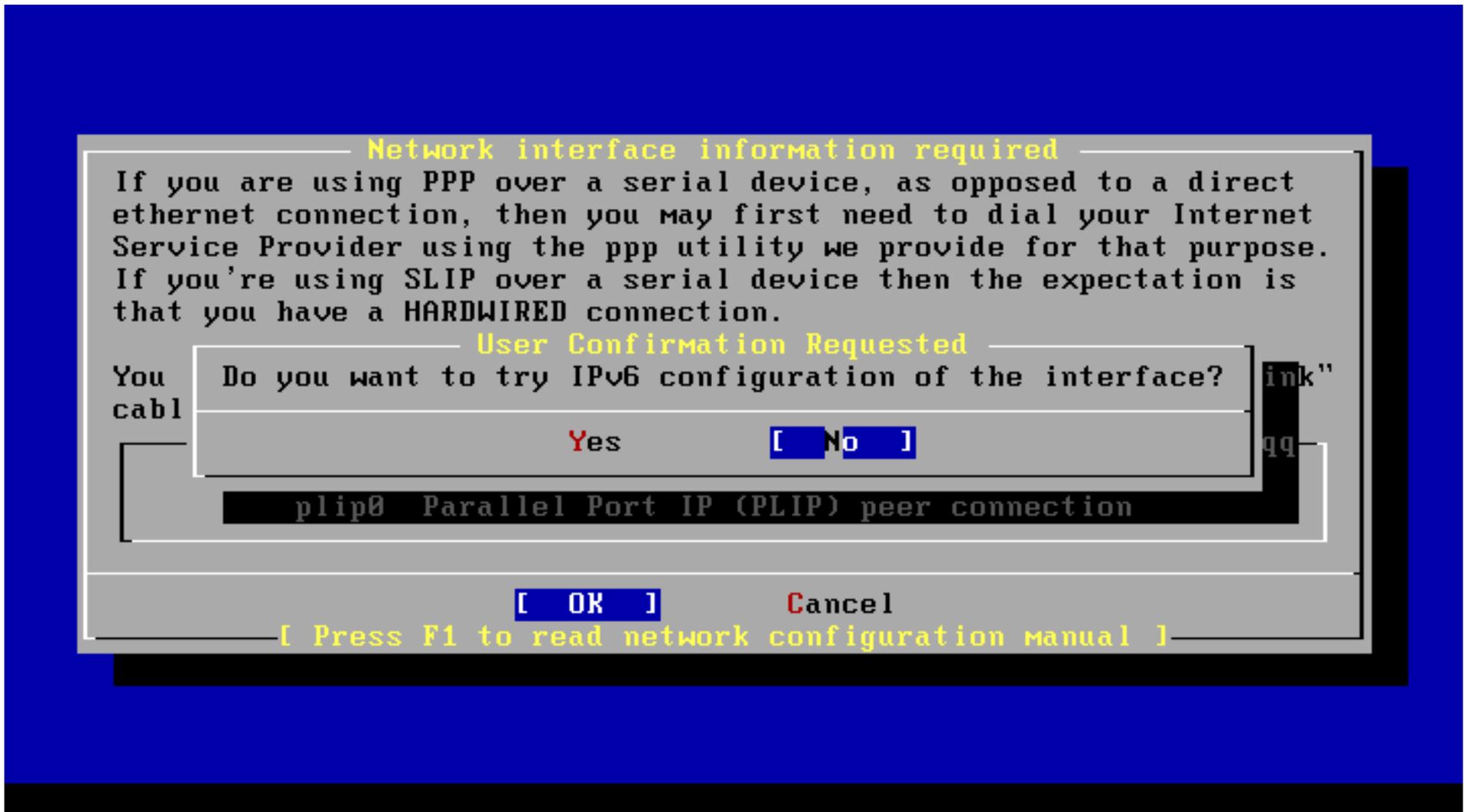
You can also install over a parallel port using a special "laplink" cable to another machine running FreeBSD.

em0	Intel(R) PRO/1000 Ethernet card
plip0	Parallel Port IP (PLIP) peer connection

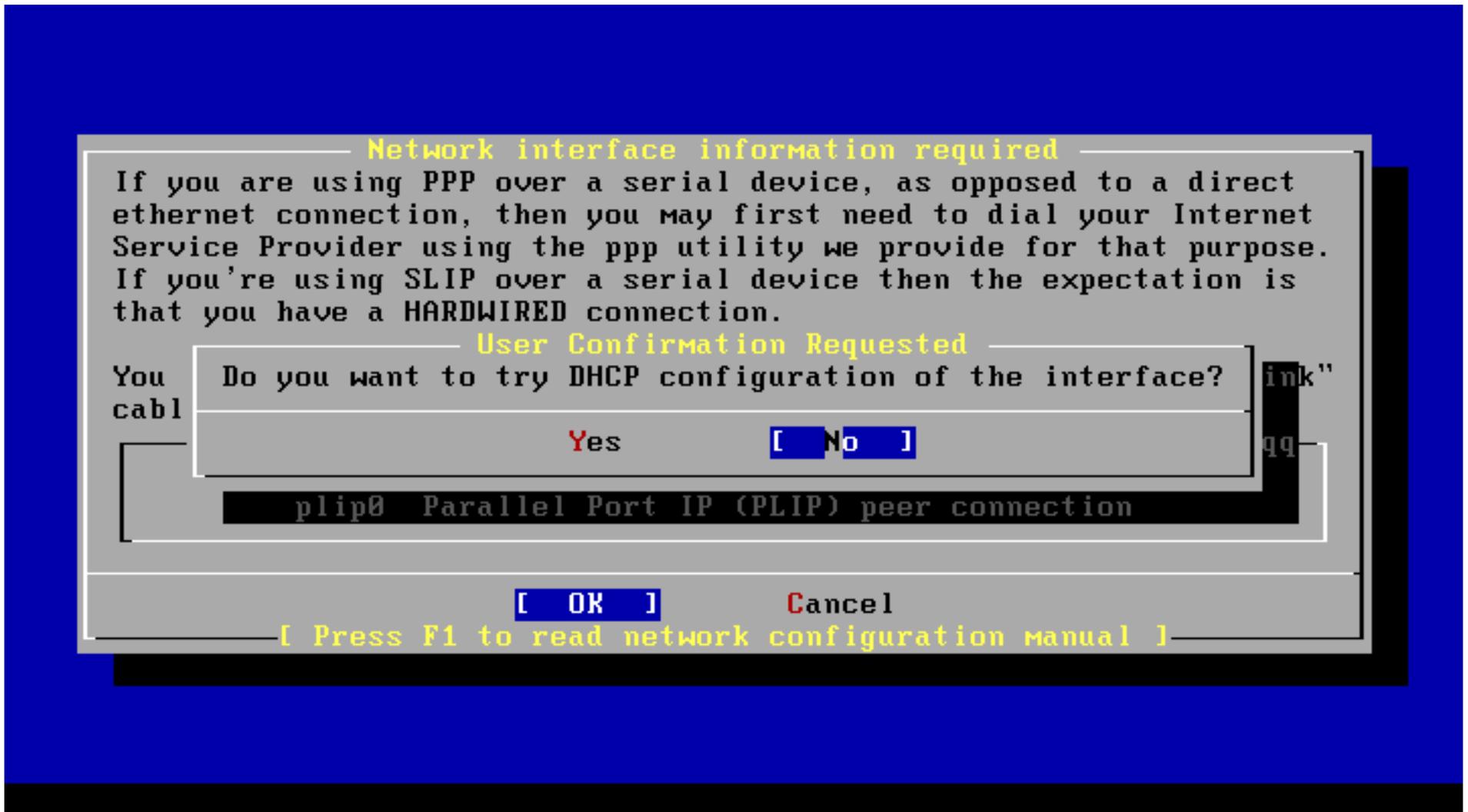
[**OK**] Cancel

[Press F1 to read network configuration manual]

Ipv6 enabled?



DHCP enabled?



Setup network parameters

Network Configuration

Host: Domain:

IPv4 Gateway: Name server:

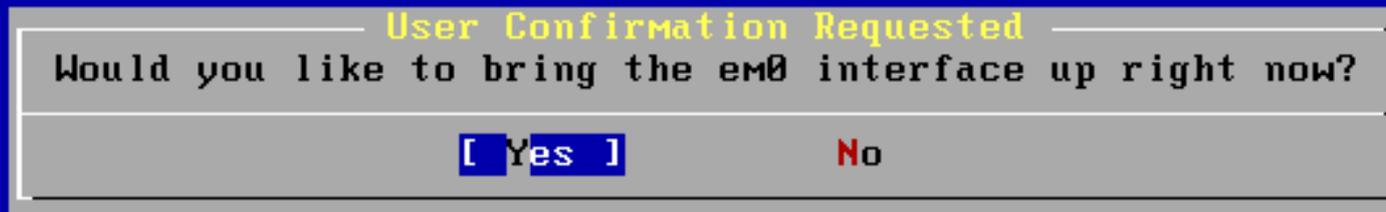
Configuration for Interface em0

IPv4 Address: Netmask:

Extra options to ifconfig (usually empty):

[Select this if you are happy with these settings]

Set the interface “UP”



This means activating the “packet forwarding”



Configure inetd?

User Confirmation Requested

Do you want to configure inetd and the network services that it provides?

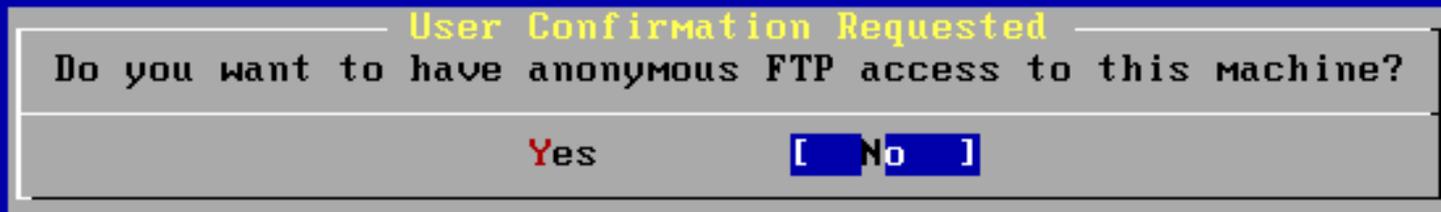
Yes

No

Enable SSH login?



Enable anonymous FTP?



Enable NFS service?

User Confirmation Requested

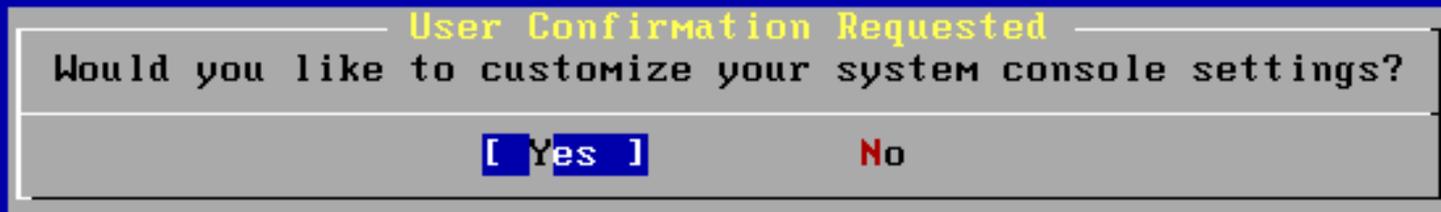
Do you want to configure this machine as an NFS server?

Yes **No**

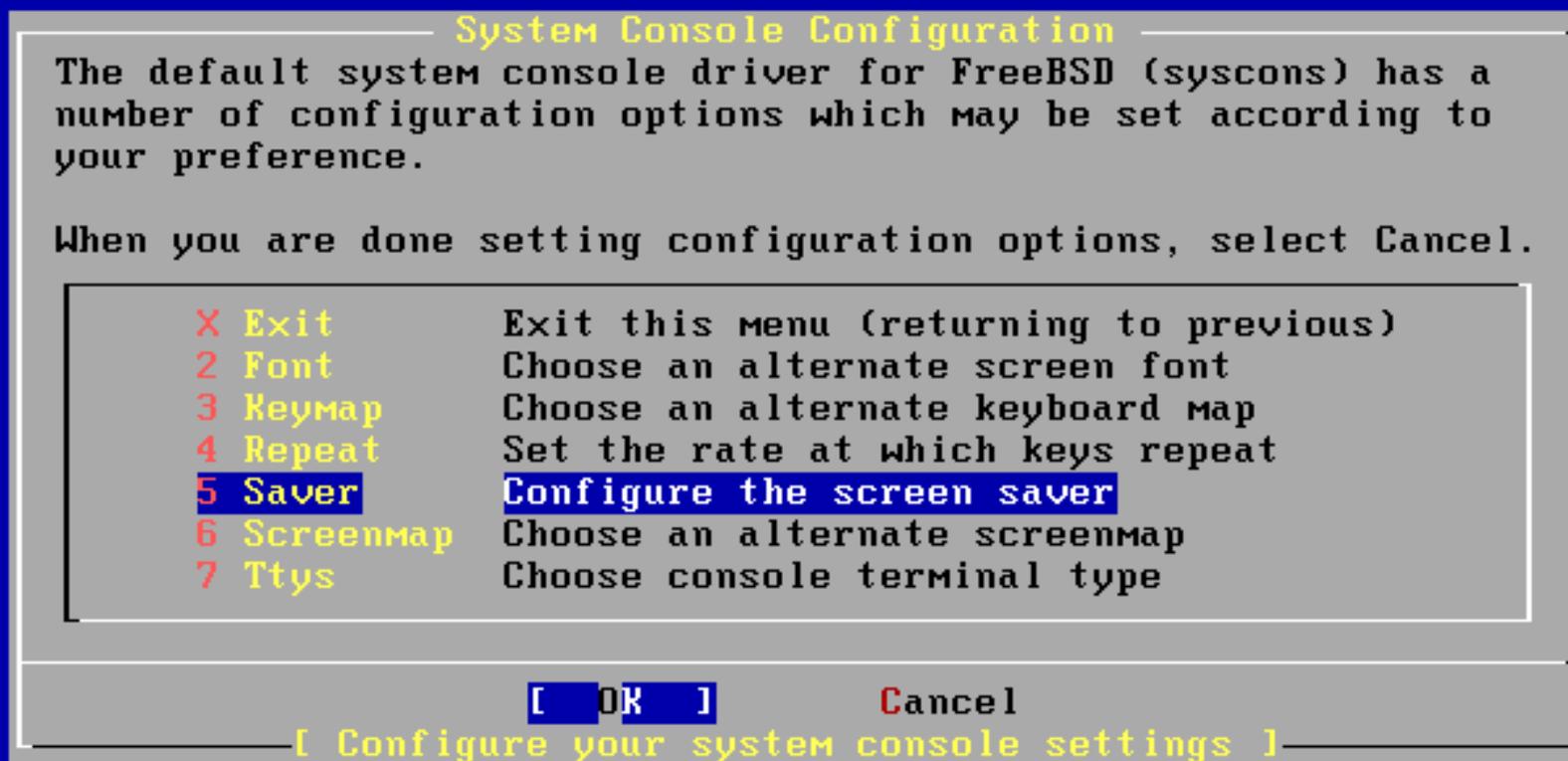
Enable ability to access NFS service?



Customize console?



Setup (text based) screensaver



The screensavers...

System Console Screen Saver

By default, the console driver will not attempt to do anything special with your screen when it's idle. If you expect to leave your monitor switched on and idle for long periods of time then you should probably enable one of these screen savers to prevent burn-in.

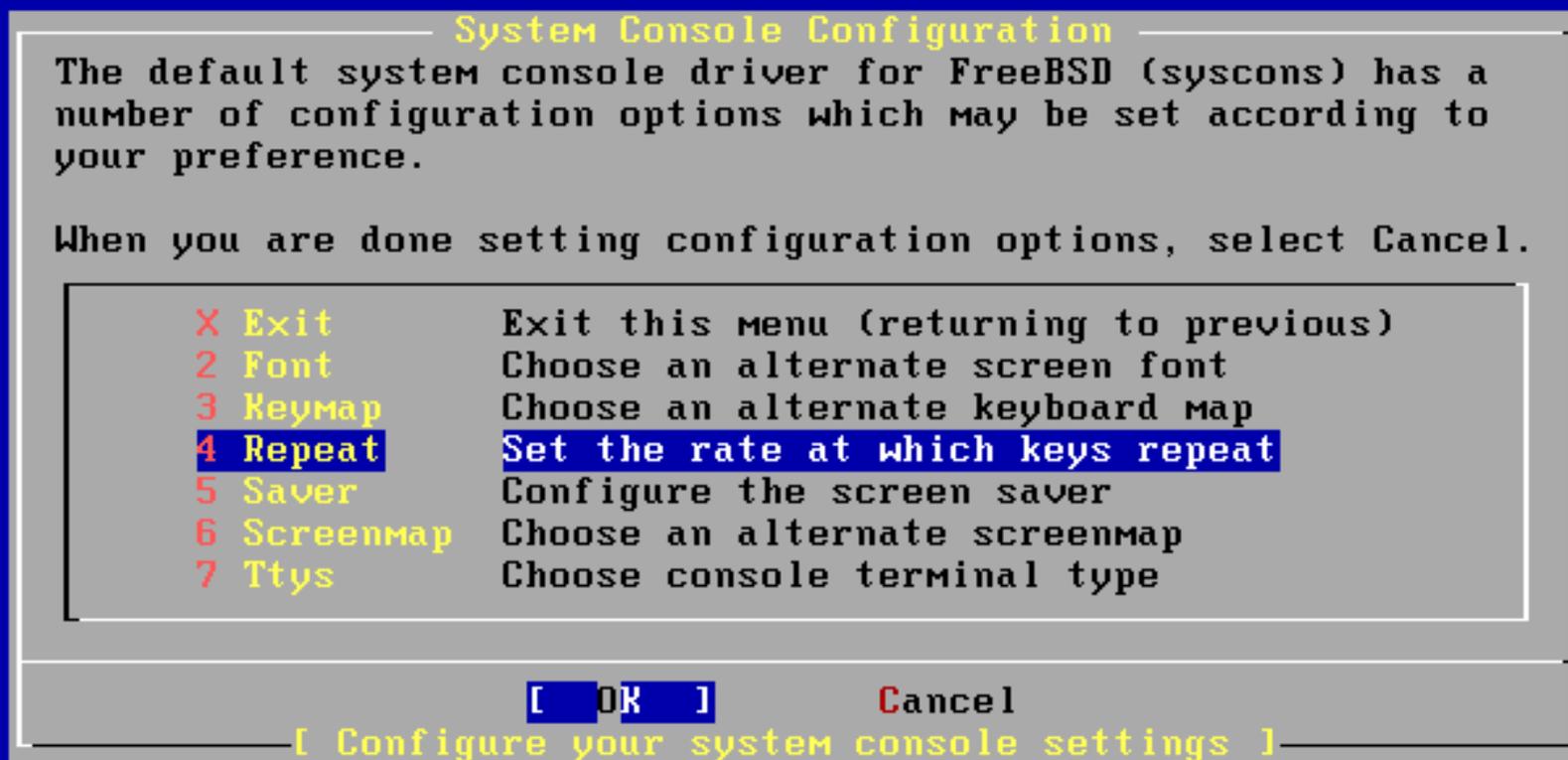
- | | |
|----------|---|
| 1 Blank | Simply blank the screen |
| 2 Daemon | "BSD Daemon" animated screen saver (text) |
| 3 Fade | Fade out effect screen saver |
| 4 Fire | Flames effect screen saver |
| 5 Green | "Green" power saving mode (if supported by monitor) |
| 6 Logo | "BSD Daemon" animated screen saver (graphics) |
| 7 Rain | Rain drops screen saver |
| 8 Snake | Draw a FreeBSD "snake" on your screen |
| 9 Star | A "twinkling stars" effect |
| Warp | A "stars warping" effect |
| Dragon | Dragon screensaver (graphics) |
| Timeout | Set the screen saver timeout interval |

[OK]

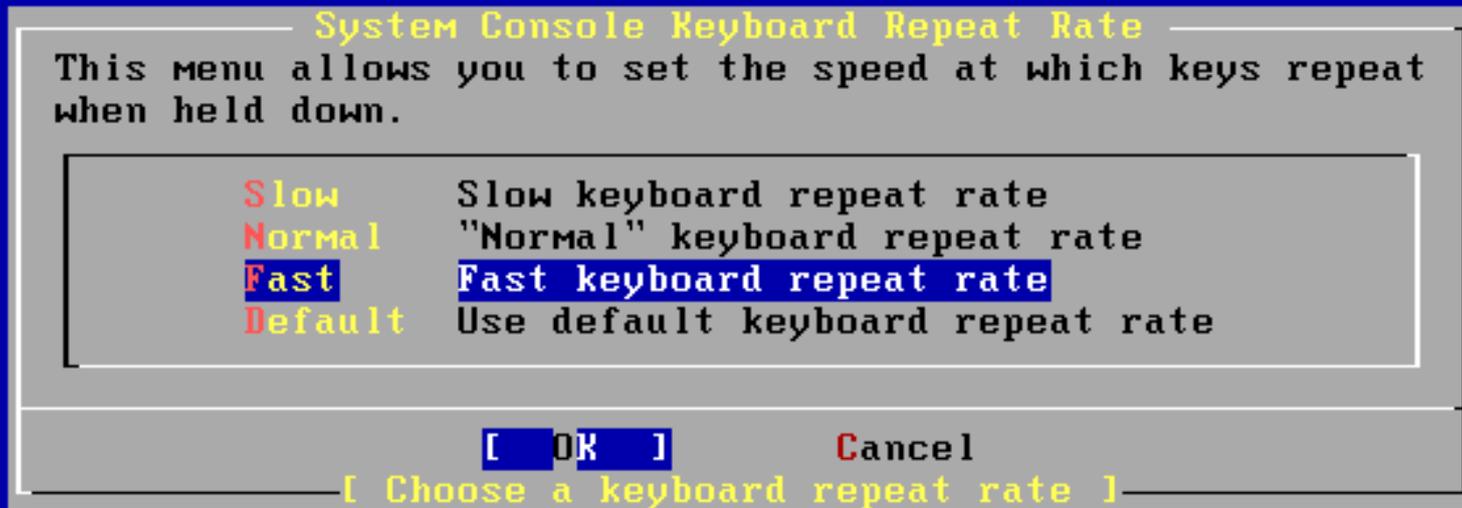
Cancel

[Choose a nifty-looking screen saver]

Configure repeat rate



I want that fast...



Back to menu..

System Console Configuration

The default system console driver for FreeBSD (syscons) has a number of configuration options which may be set according to your preference.

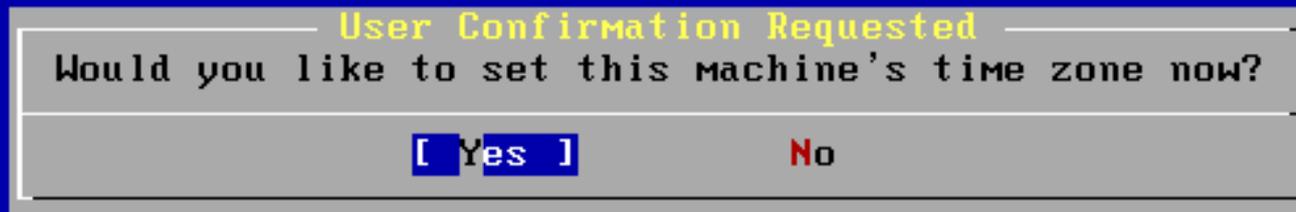
When you are done setting configuration options, select Cancel.

X Exit	Exit this menu (returning to previous)
2 Font	Choose an alternate screen font
3 Keymap	Choose an alternate keyboard map
4 Repeat	Set the rate at which keys repeat
5 Saver	Configure the screen saver
6 Screenmap	Choose an alternate screenmap
7 Ttys	Choose console terminal type

[OK] **Cancel**

[Configure your system console settings]

Setup timezone



Is your server using UTC?

Select local or UTC (Greenwich Mean Time) clock

Is this machine's CMOS clock set to UTC? If it is set to local time, or you don't know, please choose NO here!

Yes

[No]

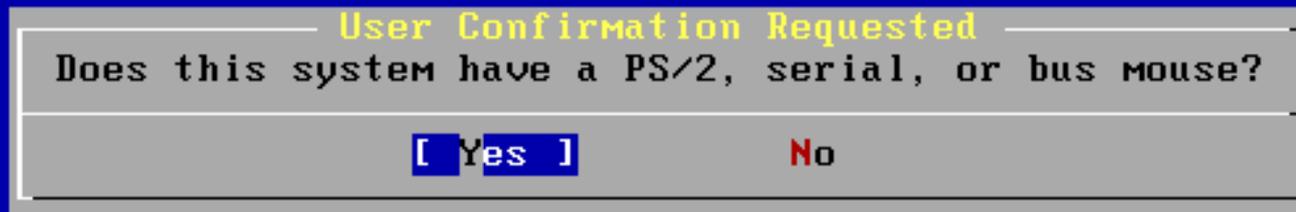
Select timezone region



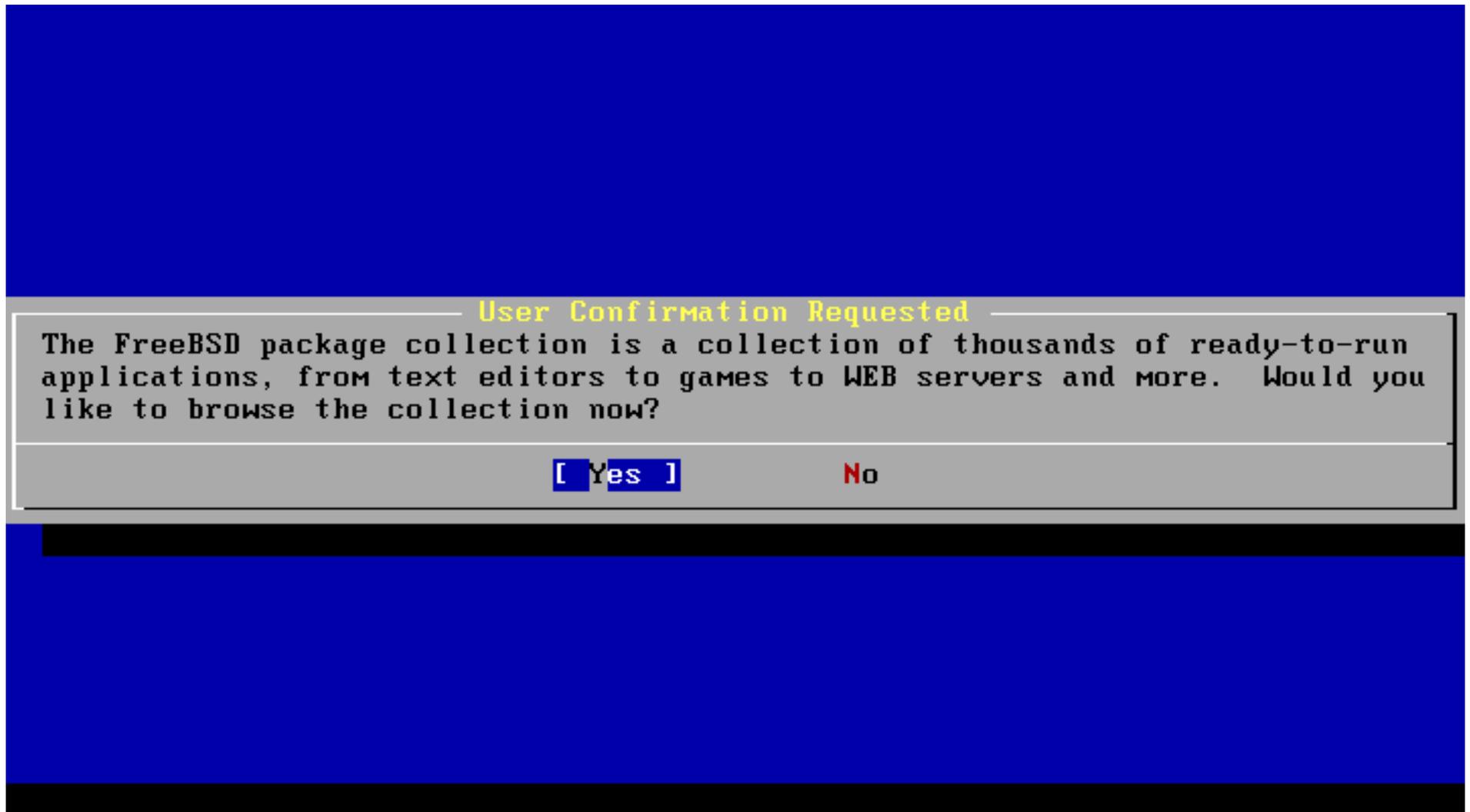
More precise...



Do you have mouse?



Install packages from ports collection?



Select category

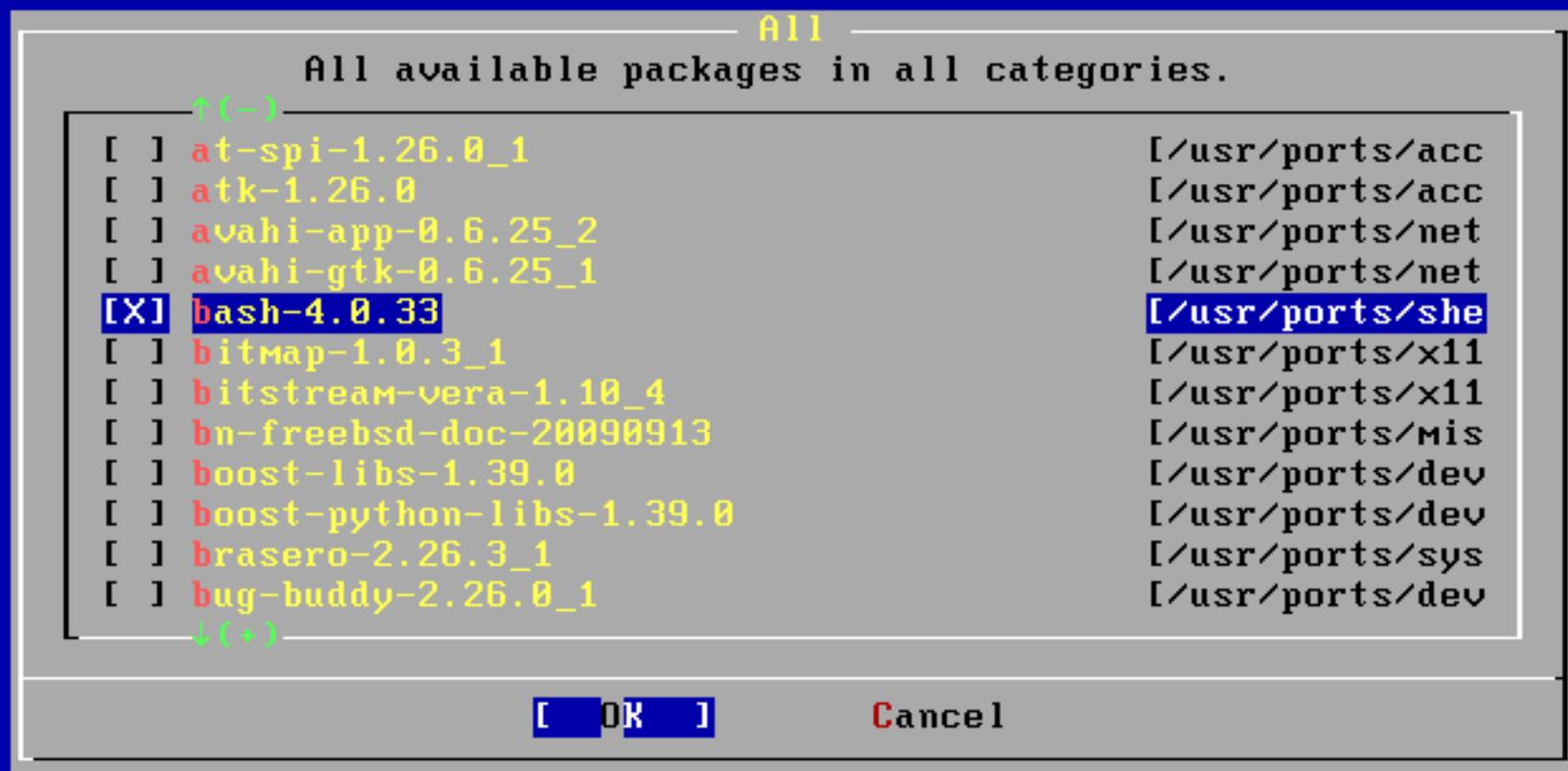
Package Selection

To mark a package, move to it and press SPACE. If the package is already marked, it will be unmarked or deleted (if installed). Items marked with a 'D' are dependencies which will be auto-loaded. To search for a package by name, press ESC. To select a category, press RETURN. NOTE: The All category selection creates a very large submenu! If you select it, please be patient while it comes up.

All	All available packages in all categories.
accessibility	Ports to help disabled users.
afterstep	Ports to support the AfterStep window manager.
archivers	Utilities for archiving and unarchiving data.
astro	Applications related to astronomy.
audio	Audio utilities - most require a supported sound card.
COMMS	Communications utilities.
converters	Format conversion utilities.
databases	Database software.
deskutils	Various Desktop utilities.
devel	Software development utilities and libraries.
dns	Domain Name Service tools.
↓(→)	

[OK] Install

Select available package



The GNU Project's Bourne Again Shell

Back to menu

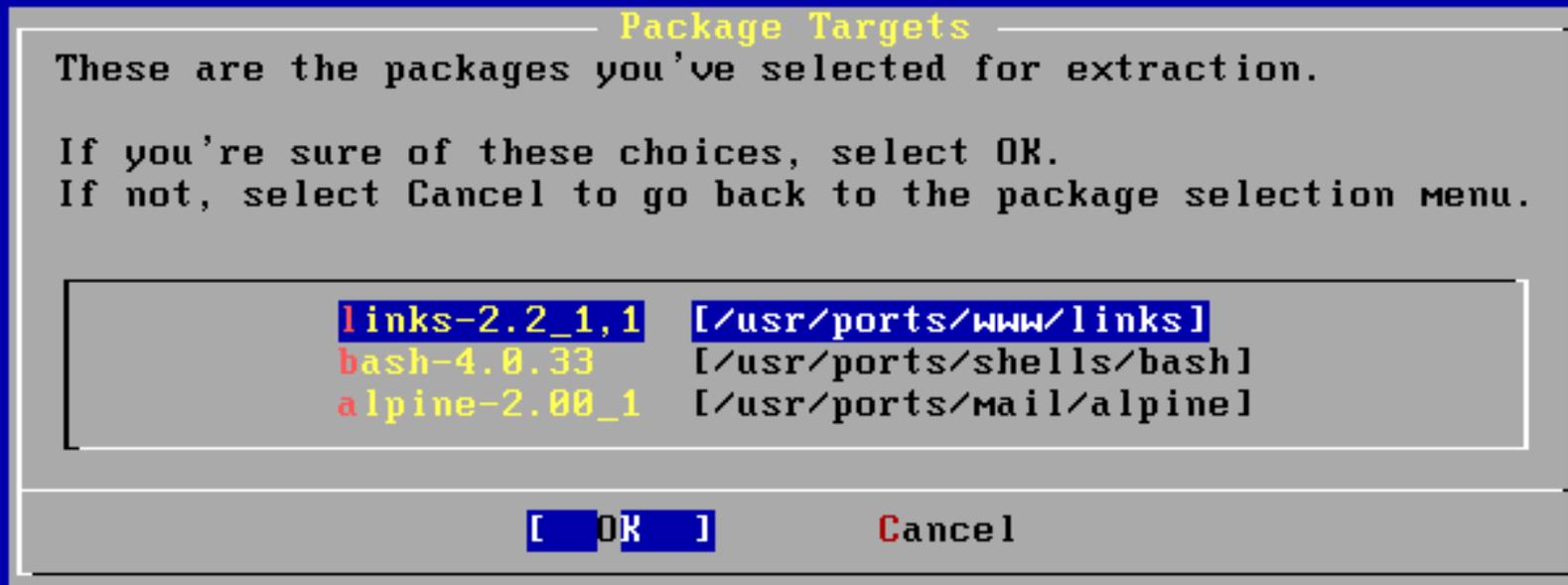
Package Selection

To mark a package, move to it and press SPACE. If the package is already marked, it will be unmarked or deleted (if installed). Items marked with a 'D' are dependencies which will be auto-loaded. To search for a package by name, press ESC. To select a category, press RETURN. NOTE: The All category selection creates a very large submenu! If you select it, please be patient while it comes up.

All	All available packages in all categories.
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archivers	Utilities for archiving and unarchiving data.
astro	Applications related to astronomy.
audio	Audio utilities - most require a supported sound card.
COMMS	Communications utilities.
converters	Format conversion utilities.
databases	Database software.
deskutils	Various Desktop utilities.
devel	Software development utilities and libraries.
dns	Domain Name Service tools.
↓(→)	

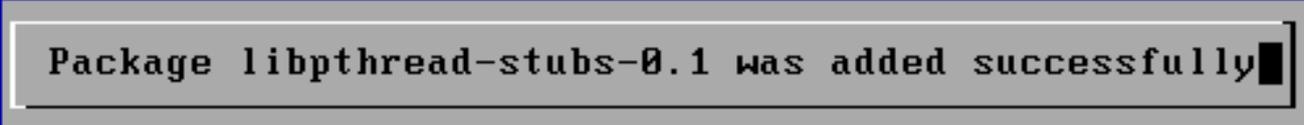
OK [Install]

Confirmation..



Lynx-like text WWW browser

installation



Package libpthread-stubs-0.1 was added successfully

User management

User Confirmation Requested

Would you like to add any initial user accounts to the system?
Adding at least one account for yourself at this stage is suggested
since working as the "root" user is dangerous (it is easy to do
things which adversely affect the entire system).

[Yes]

No

Add group



Add group

User and Group Management

Add a new group

Group name: GID:

Group members:

[Select this if you are happy with these settings]

Add new user

User and Group Management

Add a new user

Login ID:	UID:	Group:
<input type="text" value="stu01"/>	<input type="text" value="1001"/>	<input type="text" value="tgroup"/>
Password:	Confirm Password:	
<input type="text" value="*****"/>	<input type="text" value="*****"/>	
Full name:	Member groups:	
<input type="text" value="student01"/>	<input type="text"/>	
Home directory:	Login shell:	
<input type="text" value="/home/stu01"/>	<input type="text" value="/bin/sh"/>	

[Select this if you are happy with these settings]

Add new user parameters

User and Group Management

Add a new user

Login ID:	UID:	Group:
<input type="text" value="stu02"/>	<input type="text" value="1002"/>	<input type="text" value="tgroup"/>
Password:	Confirm Password:	
<input type="text" value="*****"/>	<input type="text" value="*****"/>	
Full name:	Member groups:	
<input type="text" value="student02"/>	<input type="text" value="wheel"/>	
Home directory:	Login shell:	
<input type="text" value="/home/stu02"/>	<input type="text" value="/bin/sh"/>	

[Select this if you are happy with these settings]

Back to menu



Define root password



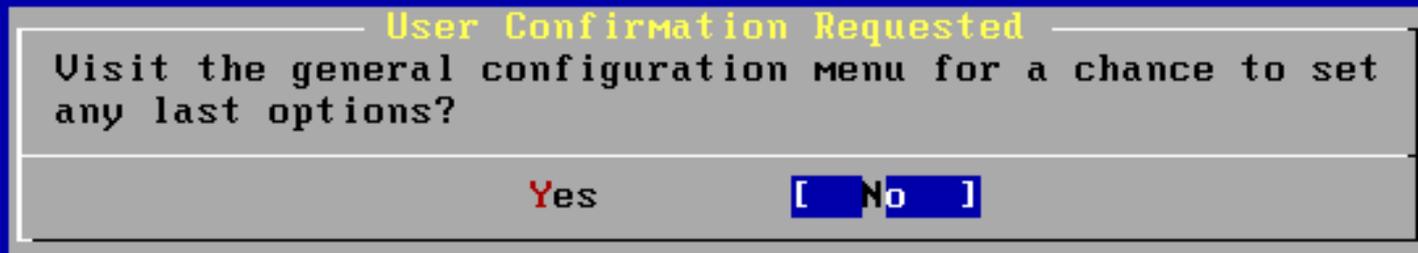
You type the password



And type the password again..

```
New Password:  
Retype New Password: █
```

Notification..



Back to menu

FreeBSD/i386 8.0-RELEASE - sysinstall Main Menu

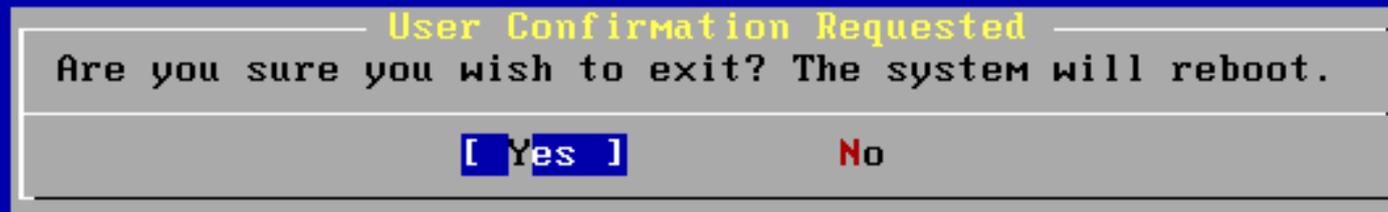
Welcome to the FreeBSD installation and configuration tool. Please select one of the options below by using the arrow keys or typing the first character of the option name you're interested in. Invoke an option with [SPACE] or [ENTER]. To exit, use [TAB] to move to Exit.

Usage	Quick start - How to use this menu system
Standard	Begin a standard installation (recommended)
Express	Begin a quick installation (for experts)
Custom	Begin a custom installation (for experts)
Configure	Do post-install configuration of FreeBSD
Doc	Installation instructions, README, etc.
Keymap	Select keyboard type
Options	View/Set various installation options
Fixit	Repair mode with CDROM/DVD/floppy or start shell
Upgrade	Upgrade an existing system
Load Config..	Load default install configuration
Index	Glossary of functions

Select

[X] Exit Install

Exit?



Remove the CD/other media



Menu after booting

Welcome to FreeBSD!

1. Boot FreeBSD [default]
2. Boot FreeBSD with ACPI disabled
3. Boot FreeBSD in Safe Mode
4. Boot FreeBSD in single user mode
5. Boot FreeBSD with verbose logging
6. Escape to loader prompt
7. Reboot

Select option, [Enter] for default
or [Space] to pause timer 3 _

FreeBSD

FreeBSD is ready to serve

```
The key's randomart image is:
+--[ RSA 2048]-----+
  |    *B+++o. o    |
  |   o+.oE . *    |
  |  . . . . o+    |
  | . . . . +.    |
  | S . . + .    |
  |   o            |
+-----+

Starting sshd.
em0: watchdog timeout -- resetting
Starting cron.
Starting background file system checks in 60 seconds.

Sat Apr  3 23:57:46 EST 2010

FreeBSD/i386 (hornet.glc.net) (ttyv0)

login: █
```

Login...?

```
FreeBSD 8.0-RELEASE (GENERIC) #0: Sat Nov 21 15:48:17 UTC 2009
```

```
Welcome to FreeBSD!
```

```
Before seeking technical support, please use the following resources:
```

- o Security advisories and updated errata information for all releases are at <http://www.FreeBSD.org/releases/> - always consult the ERRATA section for your release first as it's updated frequently.
- o The Handbook and FAQ documents are at <http://www.FreeBSD.org/> and, along with the mailing lists, can be searched by going to <http://www.FreeBSD.org/search/>. If the doc distribution has been installed, they're also available formatted in `/usr/share/doc`.

```
If you still have a question or problem, please take the output of 'uname -a', along with any relevant error messages, and email it as a question to the questions@FreeBSD.org mailing list. If you are unfamiliar with FreeBSD's directory layout, please refer to the hier(7) manual page. If you are not familiar with manual pages, type 'man man'.
```

```
You may also use sysinstall(8) to re-enter the installation and configuration utility. Edit /etc/motd to change this login announcement.
```

```
hornet# █
```

The screensaver



FreeBSD 8.0 Installation



Achmad Mardiansyah
GLC Learning Center
www.glclearningcenter.com

FreeBSD 8.0 Installation
GLC Learning Center

1

mengaktifkan fungsi forwarding atau tidak.
berguna jika anda memiliki lebih dari 1 network
interface, atau jika server anda berfungsi sebagai
router

Booting from Installation CD

```
CD Loader 1.2
Building the boot loader arguments
Looking up /BOOT/LOADER... Found
Relocating the loader and the BTX
Starting the BTX loader

BTX loader 1.00 BTX version is 1.02
Consoles: internal video/keyboard
BIOS CD is cd0
BIOS drive A: is disk0
BIOS drive C: is disk1
BIOS 638kB/260032kB available memory

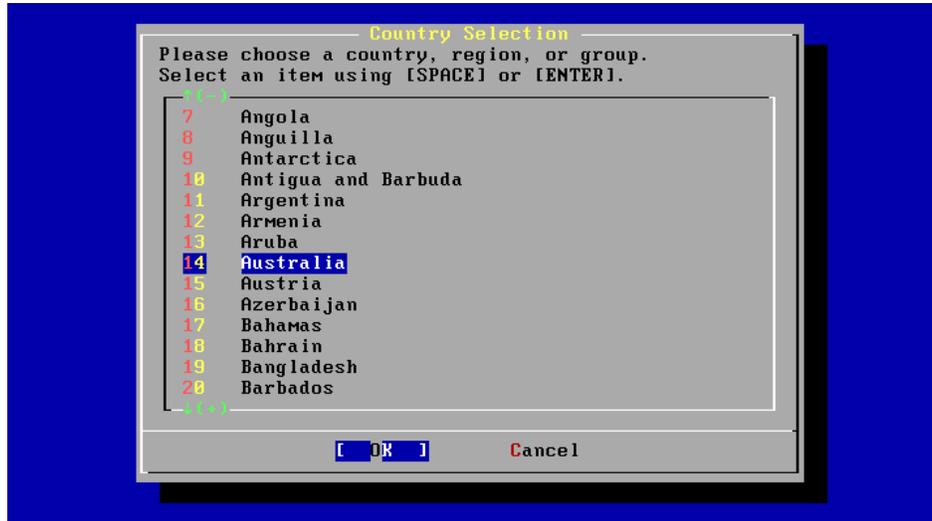
FreeBSD/i386 bootstrap loader, Revision 1.1
(root@almeida.cse.buffalo.edu, Sat Nov 21 14:05:36 UTC 2009)
Loading /boot/defaults/loader.conf
/boot/kernel/kernel text=0x88d680 i
```

booting dari CD, kernel freeBSD sedang di load

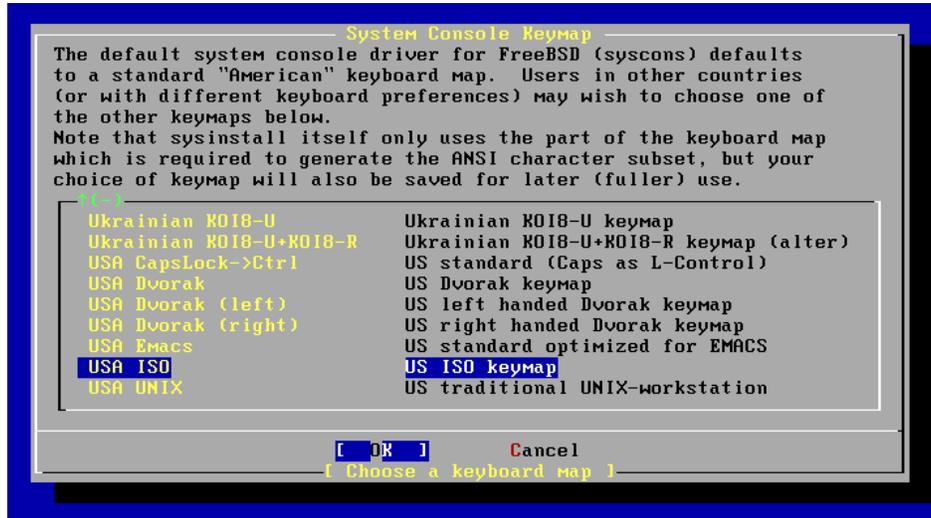
Click to add title



Select Location



Choose your keyboard type



Select Installation method

```
FreeBSD/i386 8.0-RELEASE - sysinstall Main Menu
Welcome to the FreeBSD installation and configuration tool. Please
select one of the options below by using the arrow keys or typing the
first character of the option name you're interested in. Invoke an
option with [SPACE] or [ENTER]. To exit, use [TAB] to move to Exit.

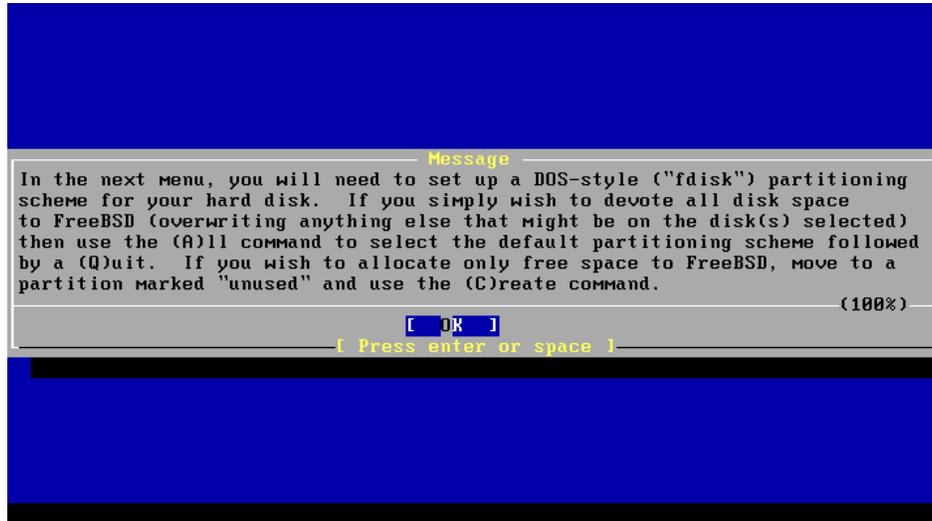
Usage      Quick start - How to use this menu system
Standard   Begin a standard installation (recommended)
Express    Begin a quick installation (for experts)
Custom     Begin a custom installation (for experts)
Configure  Do post-install configuration of FreeBSD
Doc        Installation instructions, README, etc.
Keymap     Select keyboard type
Options    View/Set various installation options
Fixit      Repair mode with CDROM/DVD/floppy or start shell
Upgrade    Upgrade an existing system
Load Config.. Load default install configuration
Index      Glossary of functions

[ Select ]  X Exit Install
```

Pilih metoda instalasi.

Untuk pemula, disarankan yang recommended

Read the message



Slicing your disk

```

Disk name: da0 FDISK Partition Editor
DISK Geometry: 783 cyls/255 heads/63 sectors = 12578895 sectors (6142MB)
Offset      Size(ST)      End      Name PType      Desc  Subtype  Flags
-----
0           12582912     12582911 -      12      unused  0

```

Value Required

Please specify the size for new FreeBSD slice in blocks
or append a trailing 'M' for megabytes (e.g. 20M).

```

The follow [ OK ] Cancel
A = Use Entire Disk  G = set Drive Geometry  C = Create Slice
D = Delete Slice     Z = Toggle Size Units   S = Set Bootable  ! = Expert m.
T = Change Type      U = Undo All Changes    Q = Finish

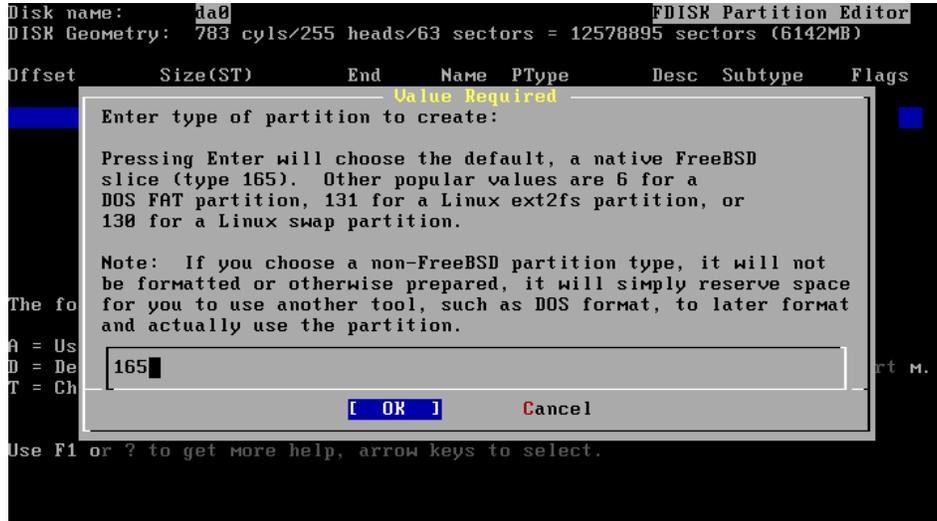
```

Use F1 or ? to get more help, arrow keys to select.

tahap ini disebut slicing. artinya membagi partisi.
partisi dalam istilah freeBSD disebut slice.
tekan 'c' untuk membuat partisi.

freeBSD hanya bisa diinstall di primary partition saja.

Select partition type



Final partition scheme

```
FDISK Partition Editor
Disk name: da0
DISK Geometry: 783 cyls/255 heads/63 sectors = 12578895 sectors (6142MB)

Offset      Size(ST)      End      Name  PType  Desc  Subtype  Flags
-----
0           63           62      -     12     unused 0
63         12578832     12578894 da0s1 8      freebsd 165  A
12578895   4017        12582911  -     12     unused 0

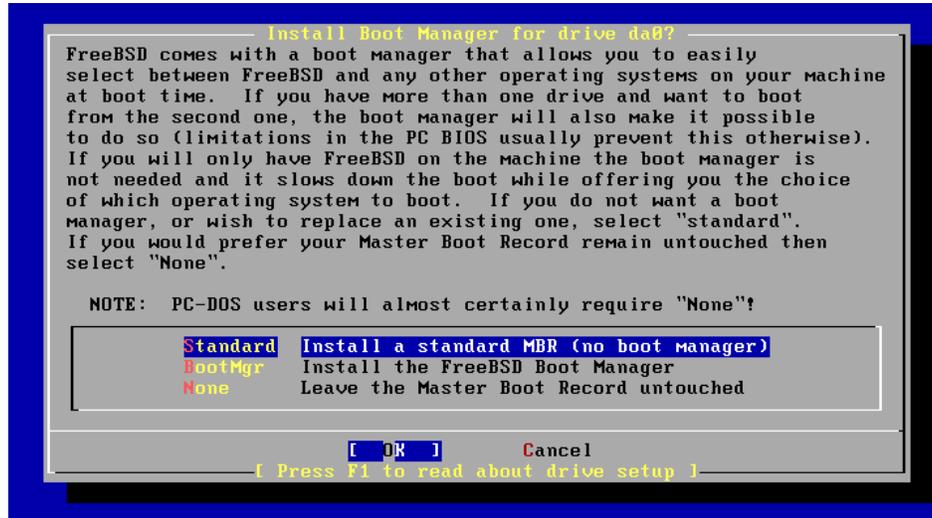
The following commands are supported (in upper or lower case):
A = Use Entire Disk   G = set Drive Geometry   C = Create Slice
D = Delete Slice      Z = Toggle Size Units    S = Set Bootable   ! = Expert m.
T = Change Type       U = Undo All Changes     Q = Finish

Use F1 or ? to get more help, arrow keys to select.
```

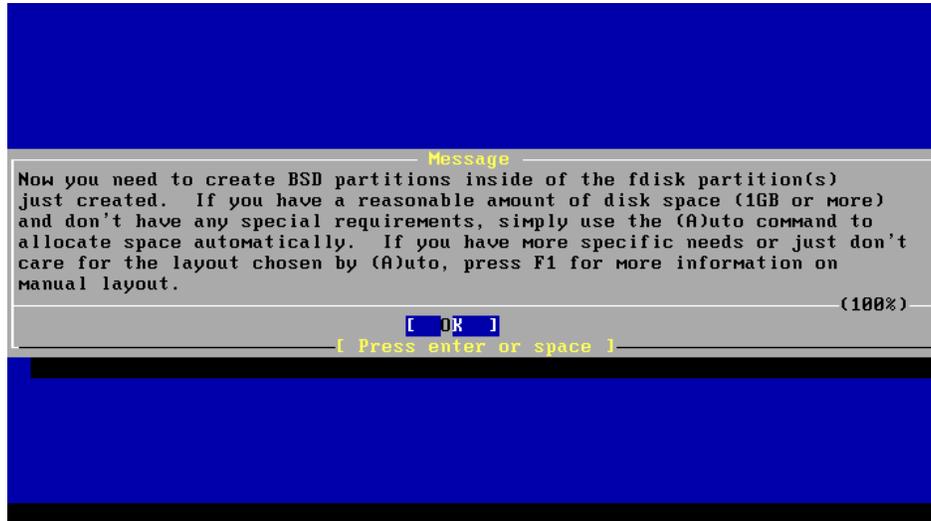
hasil akhir slice. saya membuat a partisi yang besarnya sama dengan besar harddisk. dengan kata lain, saya mengalokasikan harddisk untuk freebsd.

partisi yang saya buat ini, nantinya akan dibuat lagi partisi yang lebih kecil didalamnya (subpartisi). subpartisi ini dalam istilah freebsd disebut label.

Configure bootloader



Read the message



peringatan & pemberitahuan.
tolong dibaca, jangan cuman tekan tombol doang

Configure disk label (label = subpartition)

```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 12578832 blocks (6142MB)
Part      Mount      Size Newfs  Part      Mount      Size Newfs
-----
Value Required
Please specify the partition size in blocks or append a trailing G for
gigabytes, M for megabytes, or C for cylinders.
12578832 blocks (6142MB) are free.
512M
[ OK ] Cancel
The following commands are valid here (upper or lower case):
C = Create      D = Delete      M = Mount pt.
N = Newfs Opts  Q = Finish      S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs U = Undo      A = Auto Defaults      R = Delete+Merge
Use F1 or ? to get more help, arrow keys to select.
```

sekarang sampai pada tahap labelling, yaitu membuat subpartisi dari partisi yang sudah kita definisikan sebelumnya.

tekan c untuk membuat label baru.

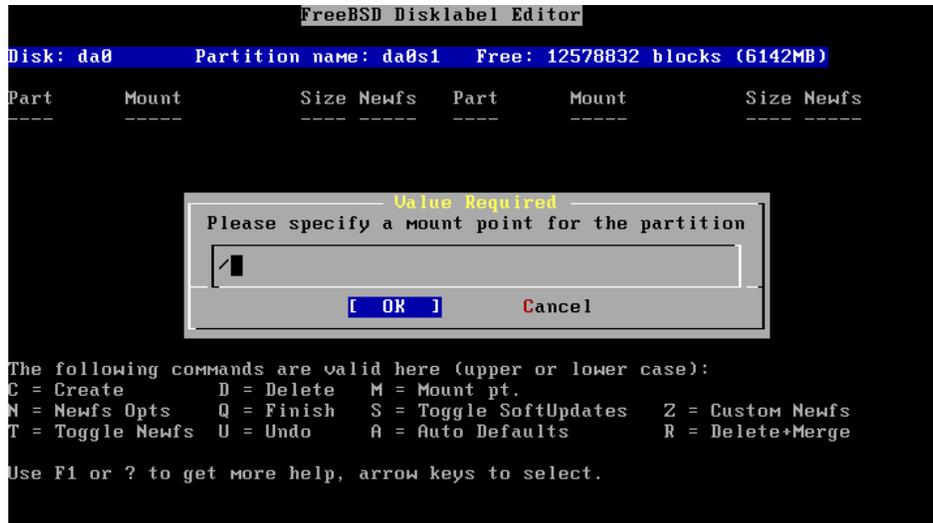
Select partition type



pilih tipe label:

- FS (file system, tempat naruh data)
- SWAP (tempat temporary RAM)

Specify a mount point



Result

```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 11530256 blocks (5630MB)
Part      Mount      Size Newfs  Part      Mount      Size Newfs
-----
da0s1a    /           512MB UFS2     Y

```

The following commands are valid here (upper or lower case):
C = Create D = Delete M = Mount pt.
N = Newfs Opts Q = Finish S = Toggle SoftUpdates Z = Custom Newfs
T = Toggle Newfs U = Undo A = Auto Defaults R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.

Add another label for SWAP

```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 11530256 blocks (5630MB)
Part      Mount      Size Newfs  Part      Mount      Size Newfs
-----
da0s1a    /           512MB UFS2     Y

```

Value Required

Please specify the partition size in blocks or append a trailing G for gigabytes, M for megabytes, or C for cylinders.
11530256 blocks (5630MB) are free.

[OK] Cancel

```
The following commands are valid here (upper or lower case):
C = Create      D = Delete     M = Mount pt.
N = Newfs Opts  Q = Finish     S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs U = Undo       A = Auto Defaults      R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

Choose swap partition

```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 11530256 blocks (5630MB)
Part      Mount      Size Newfs  Part      Mount      Size Newfs
-----
da0s1a    /           512MB UFS2     Y

```

Please choose a partition type

If you want to use this partition for swap space, select Swap.
If you want to put a filesystem on it, choose FS.

FS	A file system
Swap	A swap partition.

[OK] Cancel

```
The following commands are valid here (upper or lower case):
C = Create      D = Delete     M = Mount pt.
N = Newfs Opts  Q = Finish     S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs U = Undo       A = Auto Defaults      R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

Last disklabel (subpartition) scheme

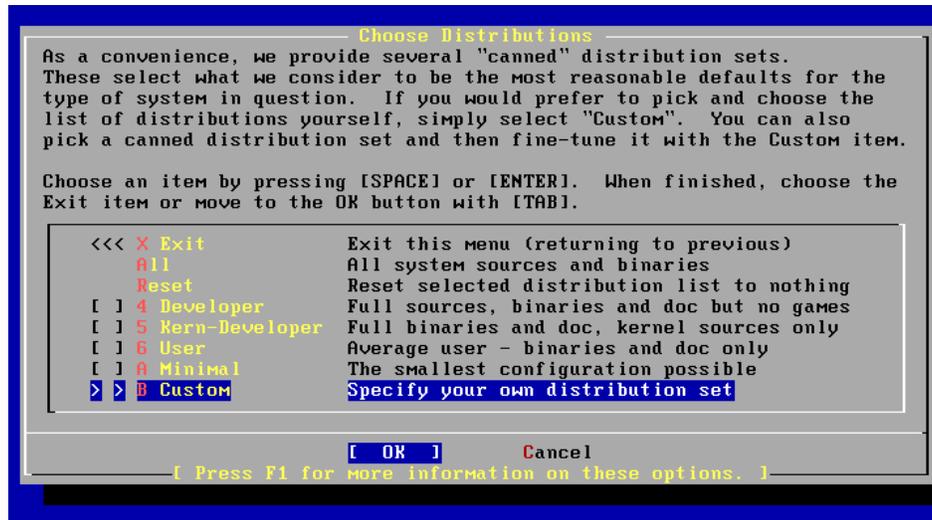
```
FreeBSD Disklabel Editor
Disk: da0 Partition name: da0s1 Free: 0 blocks (0MB)
Part      Mount      Size Newfs  Part      Mount      Size Newfs
-----
da0s1a    /           512MB UFS2   Y
da0s1b    swap        300MB SWAP
da0s1d    /usr        2000MB UFS2+S Y
da0s1e    /var        500MB  UFS2+S Y
da0s1f    /home       2830MB UFS2+S Y

The following commands are valid here (upper or lower case):
C = Create      D = Delete     M = Mount pt.
N = Newfs Opts  Q = Finish     S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs U = Undo       A = Auto Defaults      R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

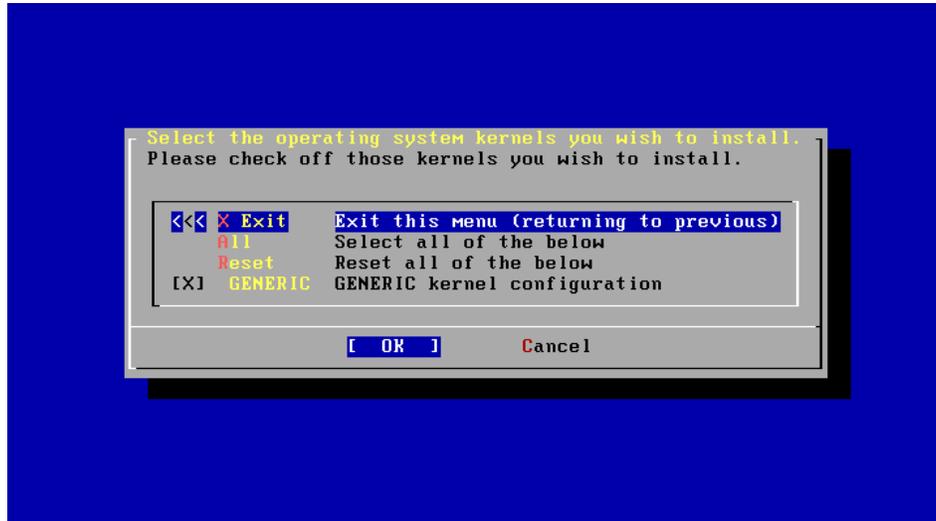
hasil akhir proses labelling.
pastikan tidak ada freespace.

Select software installation type

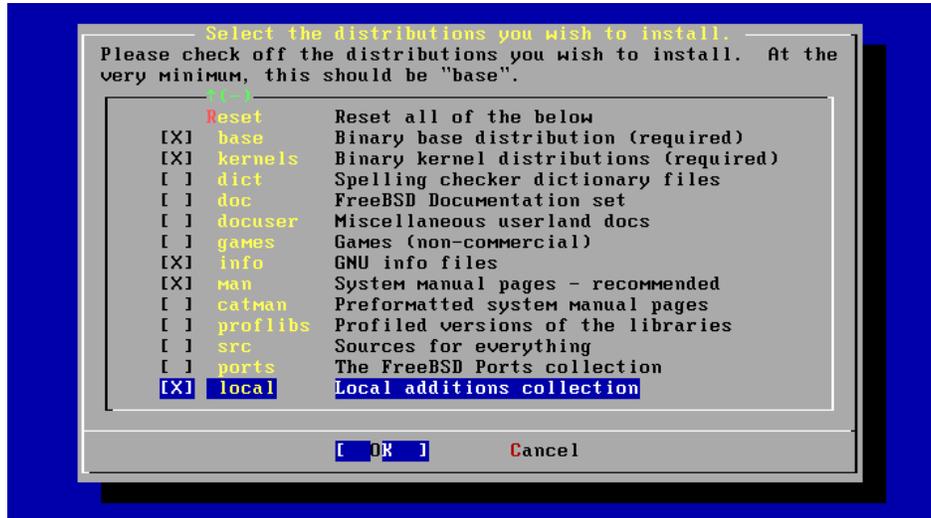


proses memilih group/cluster paket yang akan diinstall.
pilih custom

Select kernel



Select software group



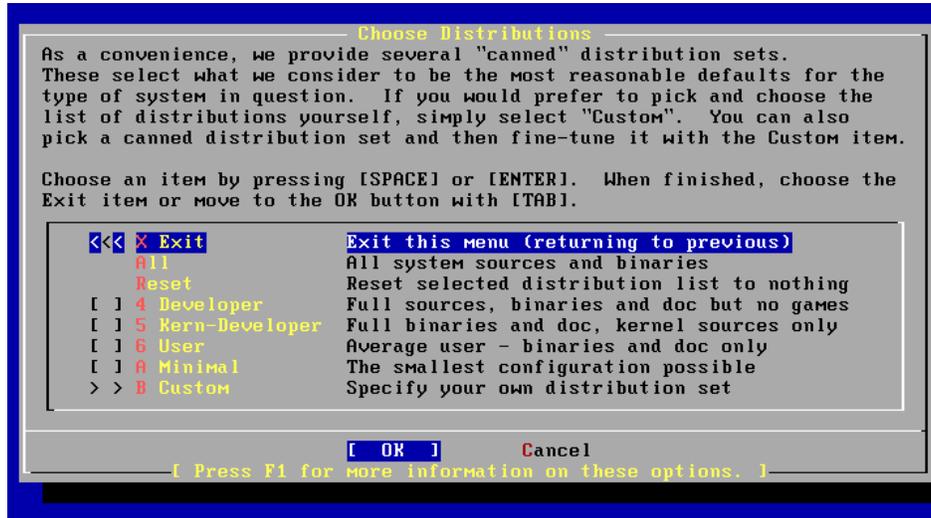
group paket yang akan diinstall.

freebsd mengkategorikan paket dalam 2 bagian:

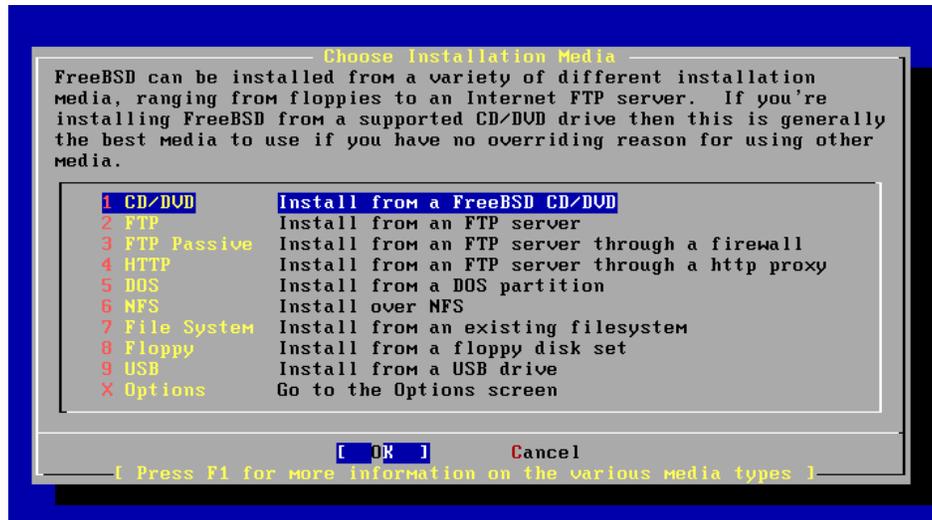
- base
- external

jika anda memilih lokal, maka artinya anda akan menginstall paket dari group external. paket ini akan diinstall pada bagian akhir proses instalasi dengan menu tersendiri.

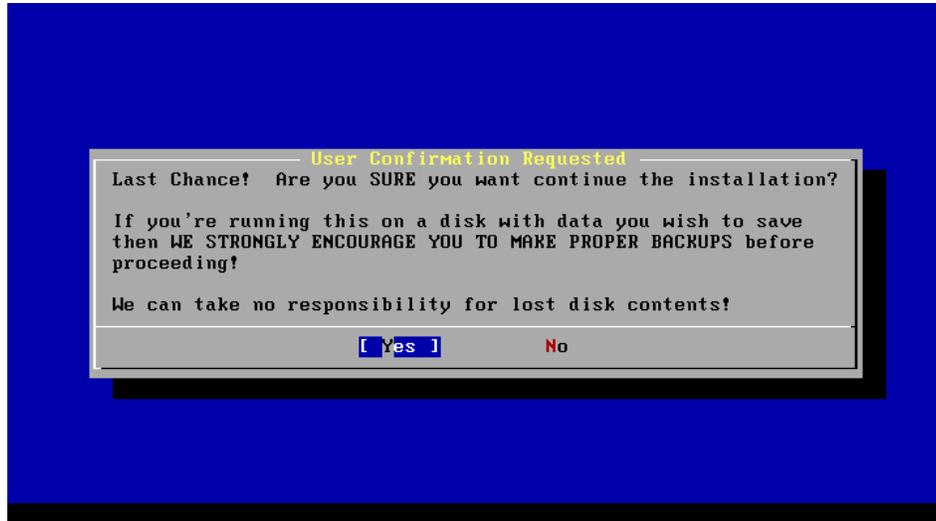
Back to previous menu



Select installation source



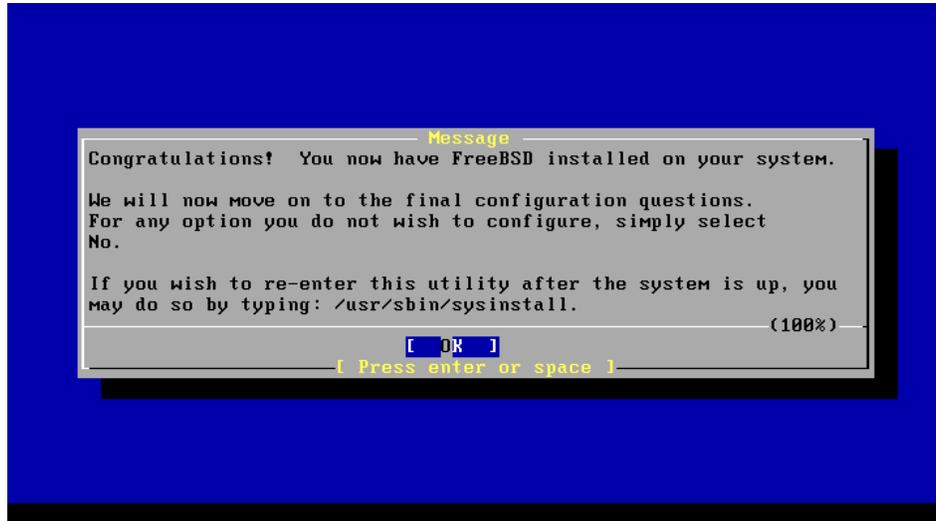
Read the message



Progress bar...

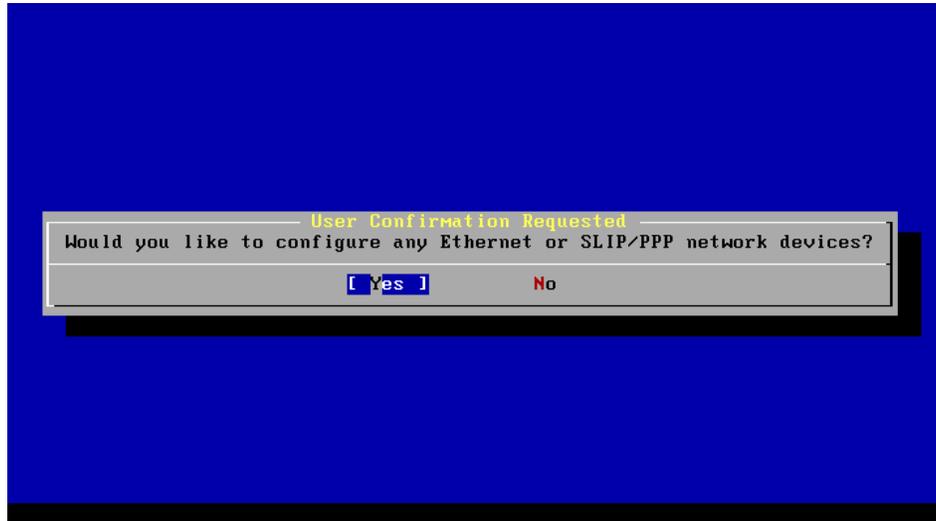


FreeBSD has been installed!!

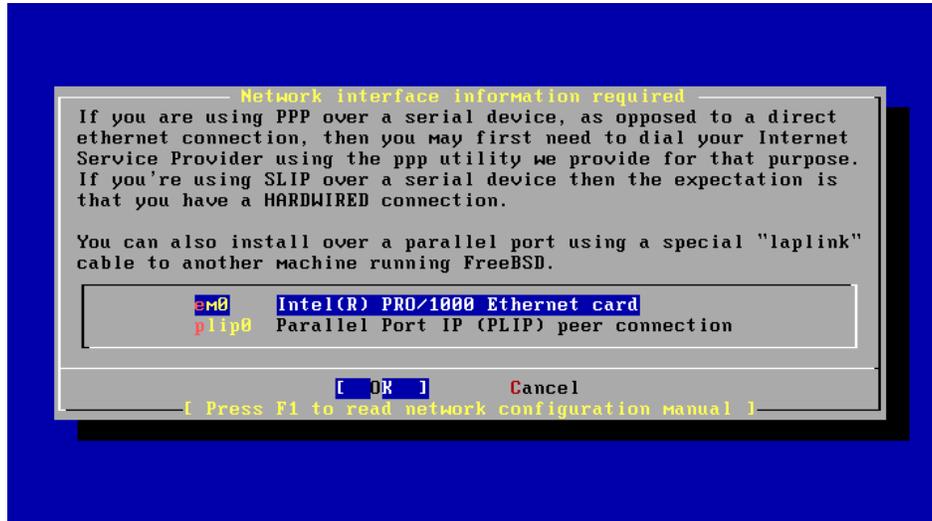


Now it's time to configure

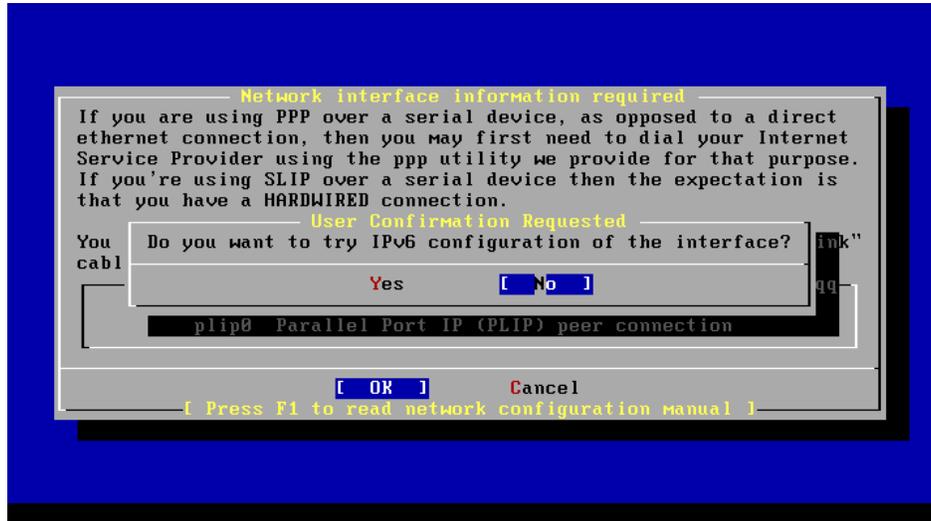
Configure network interface



Select interface

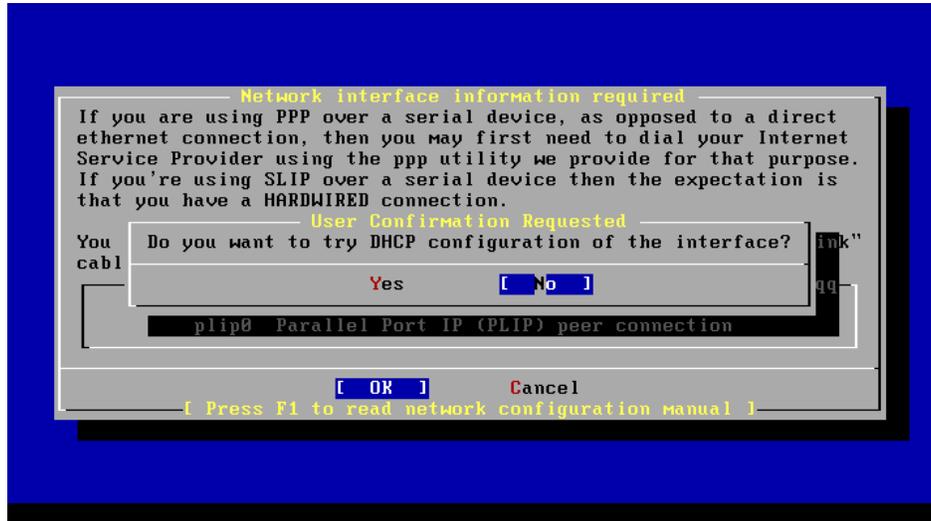


Ipv6 enabled?



apakah akan mengaktifkan ipv6?

DHCP enabled?



apakah akan mengkonfigurasi IP via DHCP?

Setup network parameters

Network Configuration

Host: Domain:

IPv4 Gateway: Name server:

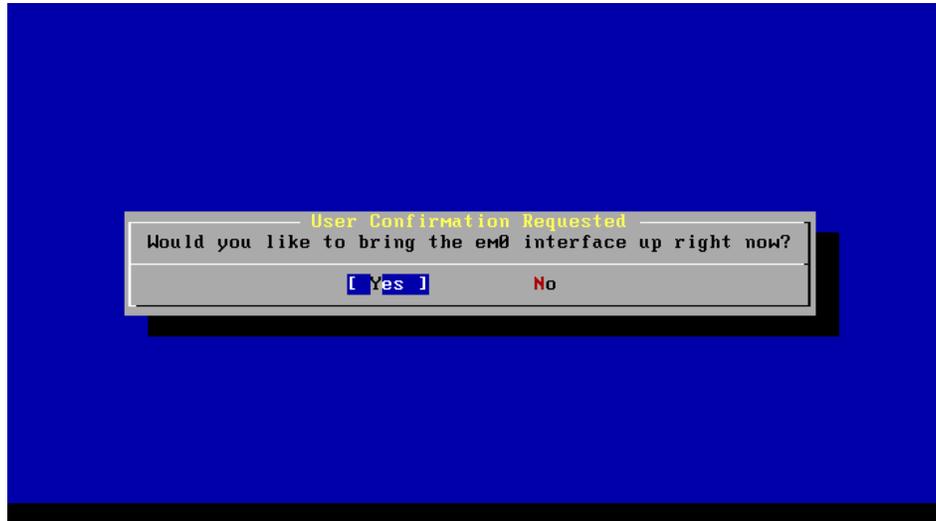
Configuration for Interface em0

IPv4 Address: Netmask:

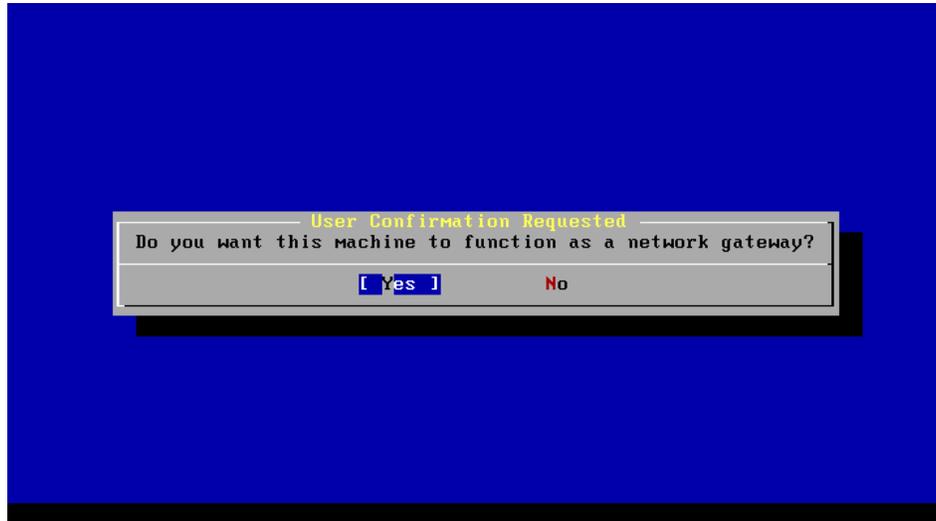
Extra options to ifconfig (usually empty):

Select this if you are happy with these settings

Set the interface "UP"

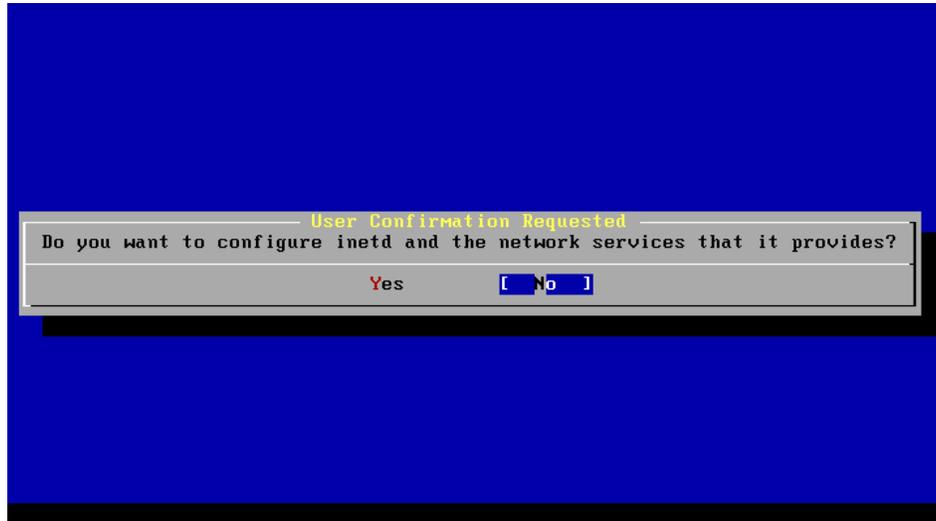


This means activating the “packet forwarding”



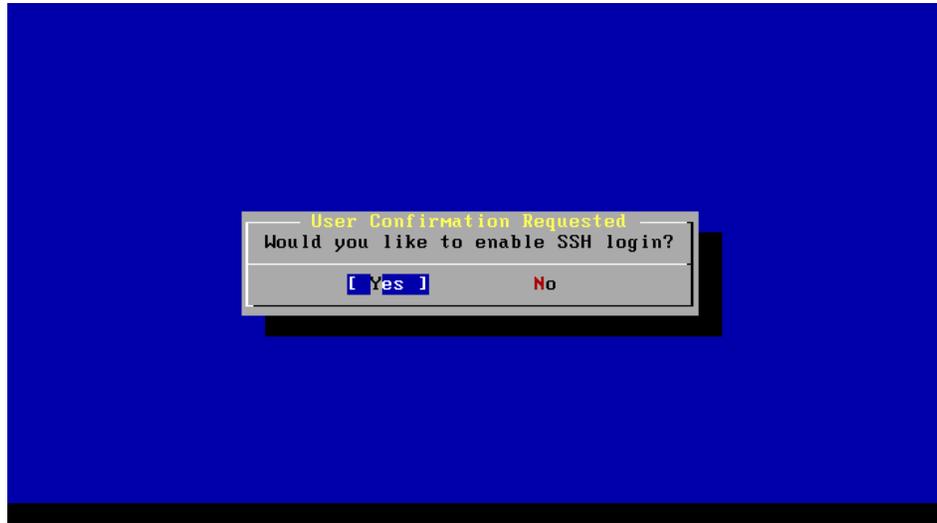
mengaktifkan fungsi forwarding atau tidak.
berguna jika anda memiliki lebih dari 1 network
interface, atau jika server anda berfungsi sebagai
router

Configure inetd?

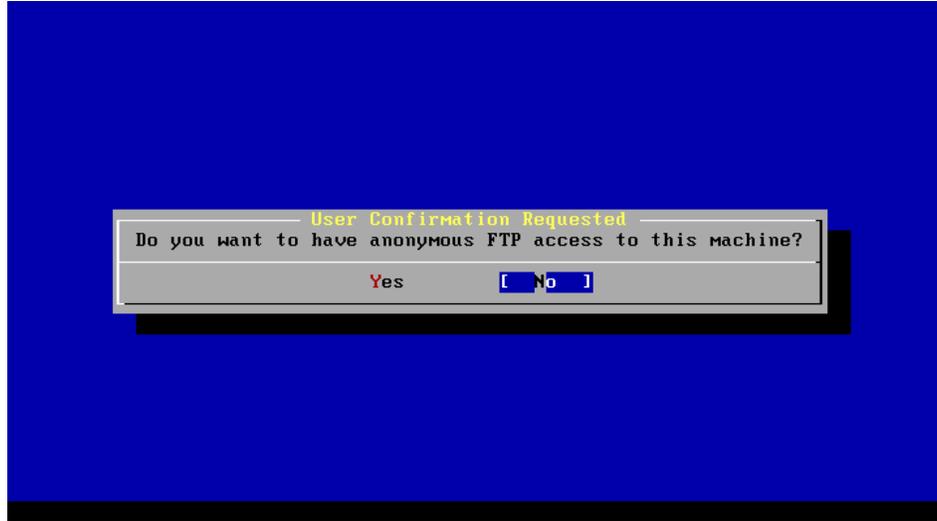


apakah ingin mengaktifkan network services via inetd?
atas alasan keamanan, services yang ada akan
diaktifkan manual.

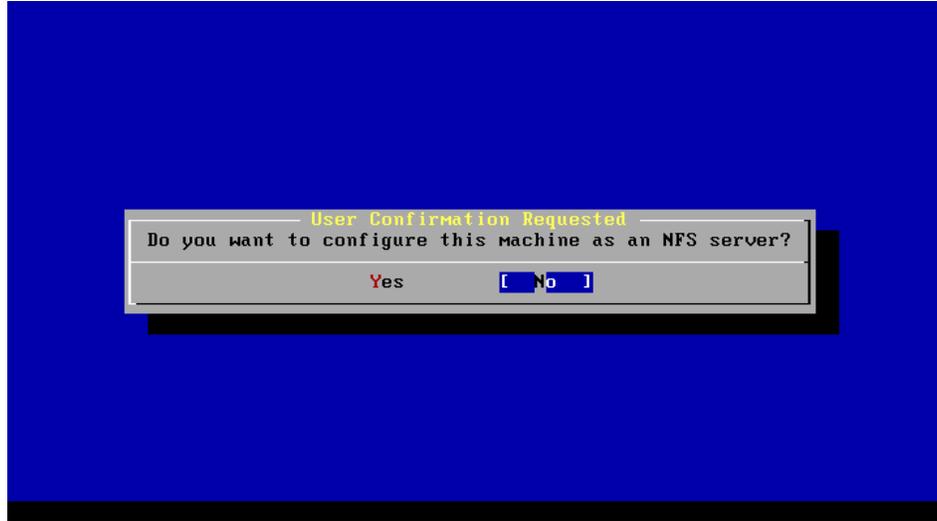
Enable SSH login?



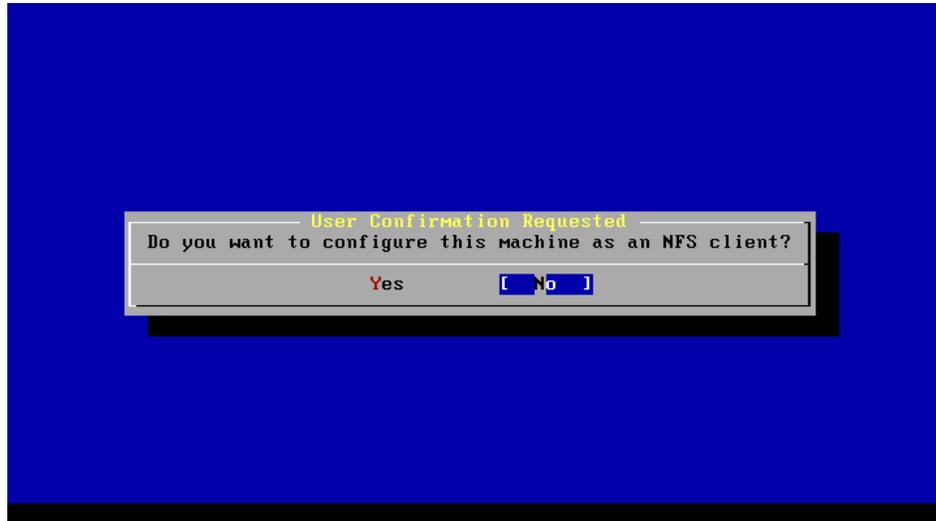
Enable anonymous FTP?



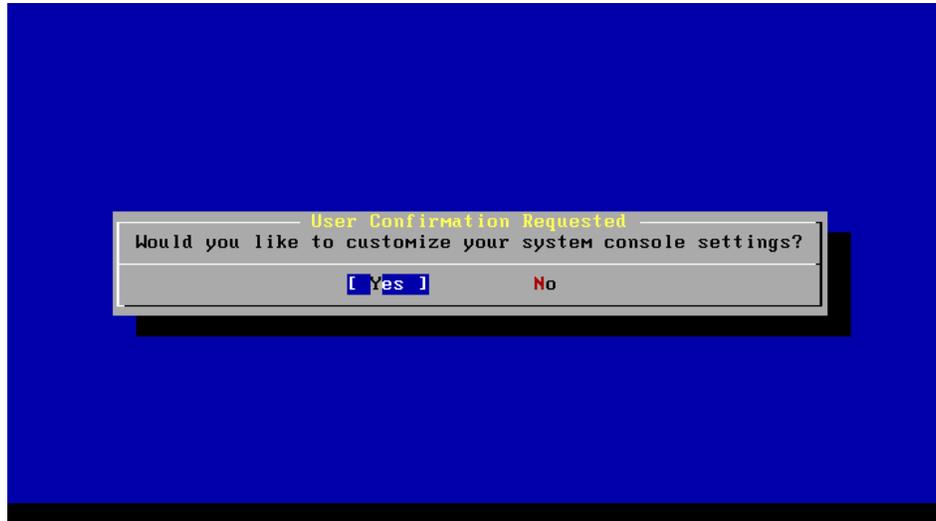
Enable NFS service?



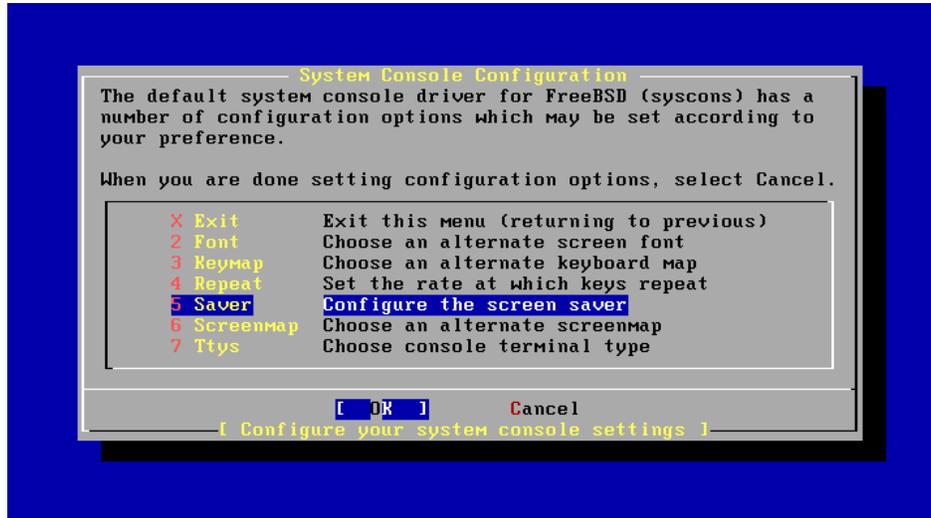
Enable ability to access NFS service?



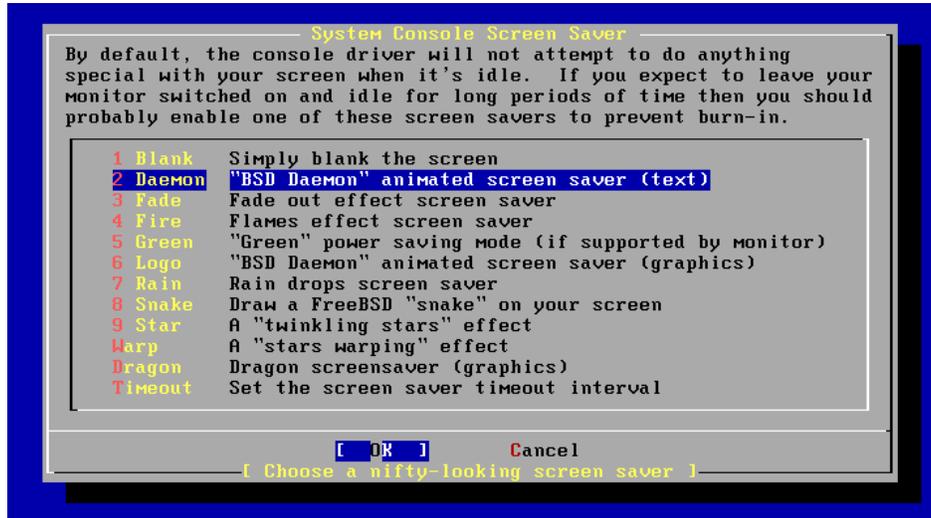
Customize console?



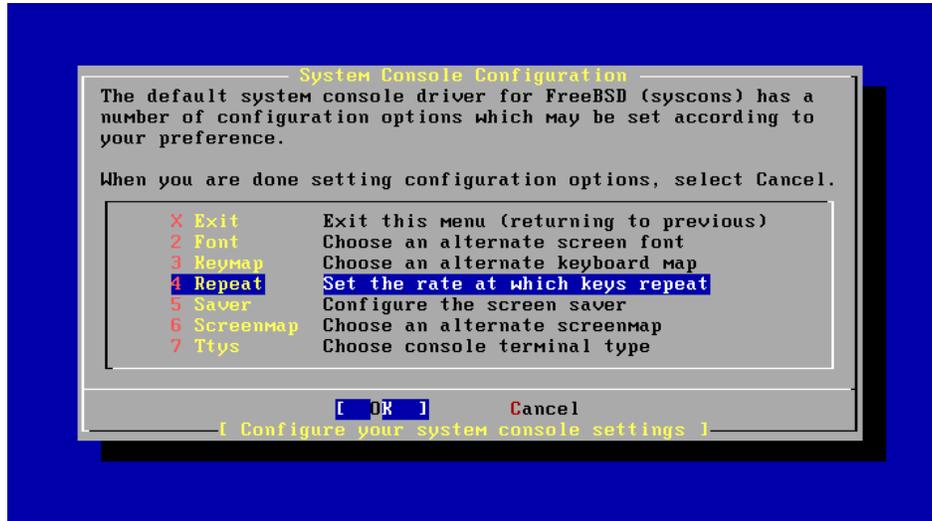
Setup (text based) screensaver



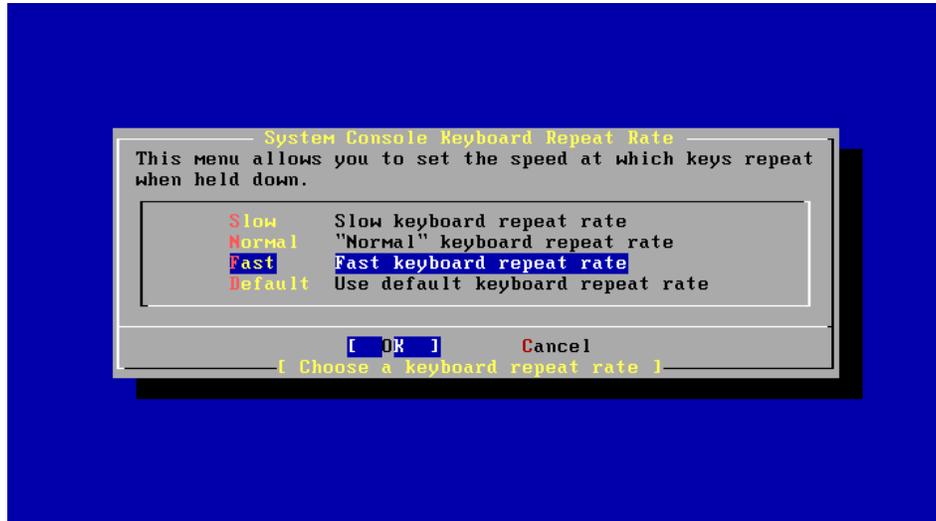
The screensavers...



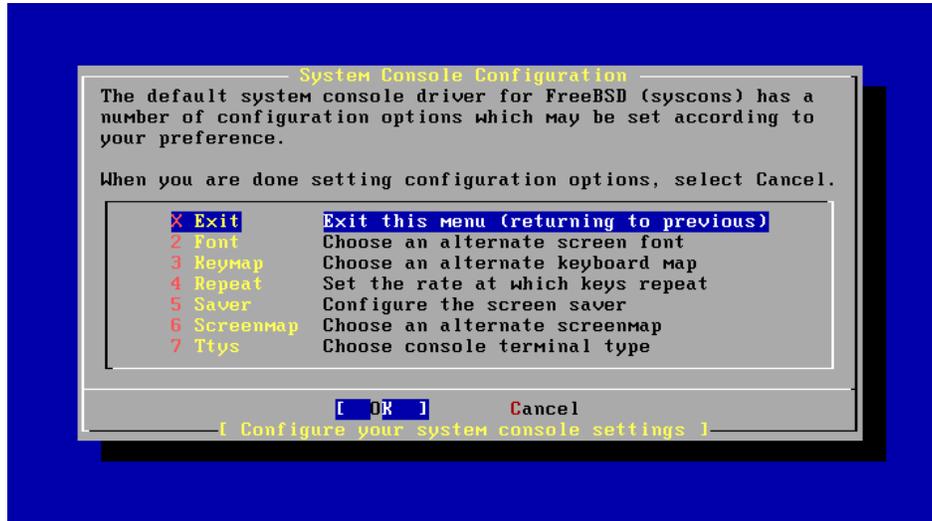
Configure repeat rate



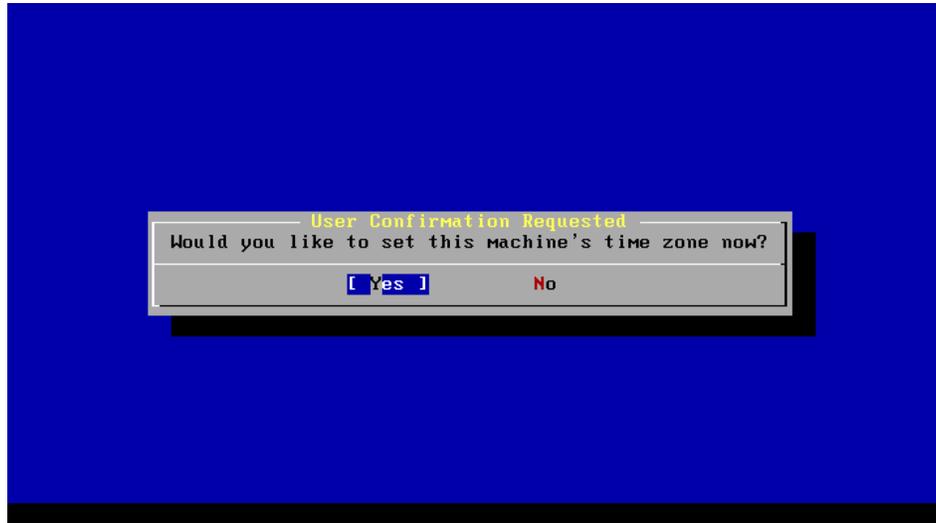
I want that fast...



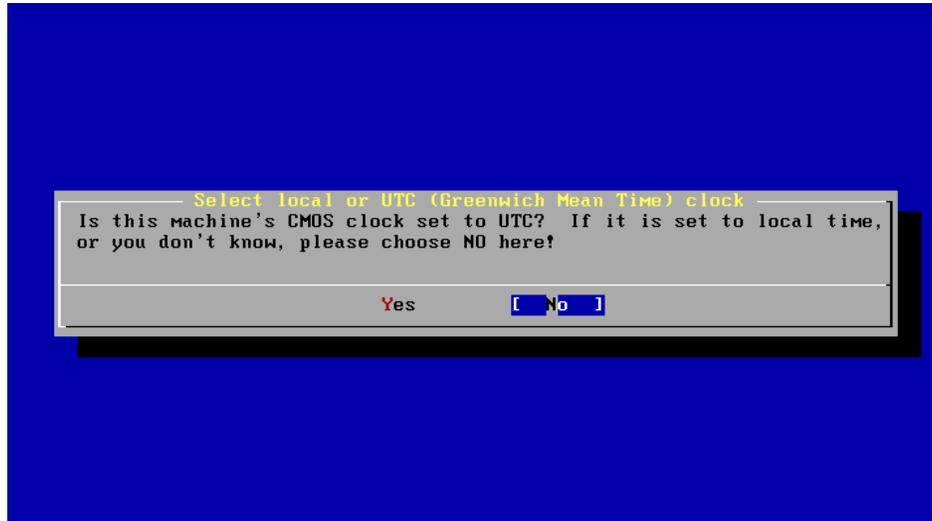
Back to menu..



Setup timezone



Is your server using UTC?



FreeBSD 8.0 Installation
GLC Learning Center

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apakah ingin menggunakan waktu UTC?

UTC maksudnya adalah GMT.

jika punya server banyak dan tersebar di beberapa negara, sebaiknya semua server tsb dijadikan satu timezone untuk mempermudah administrasi.

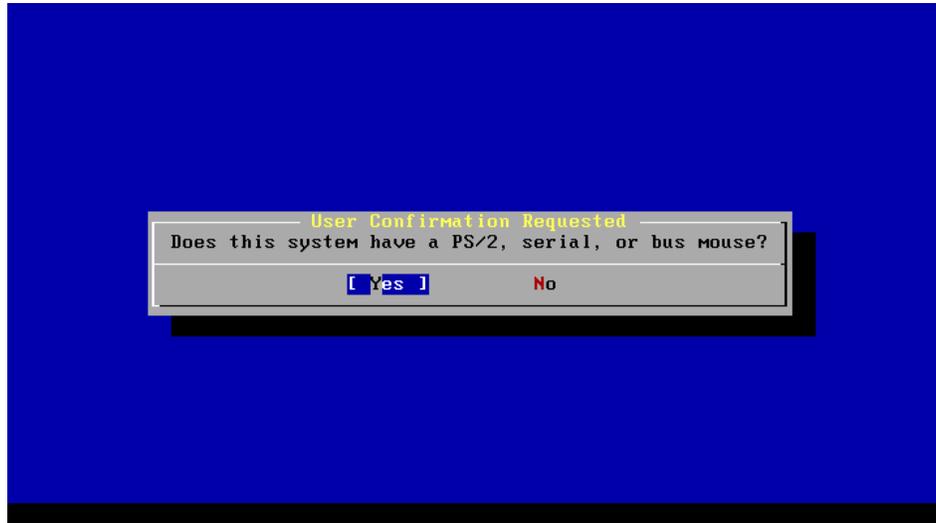
Select timezone region



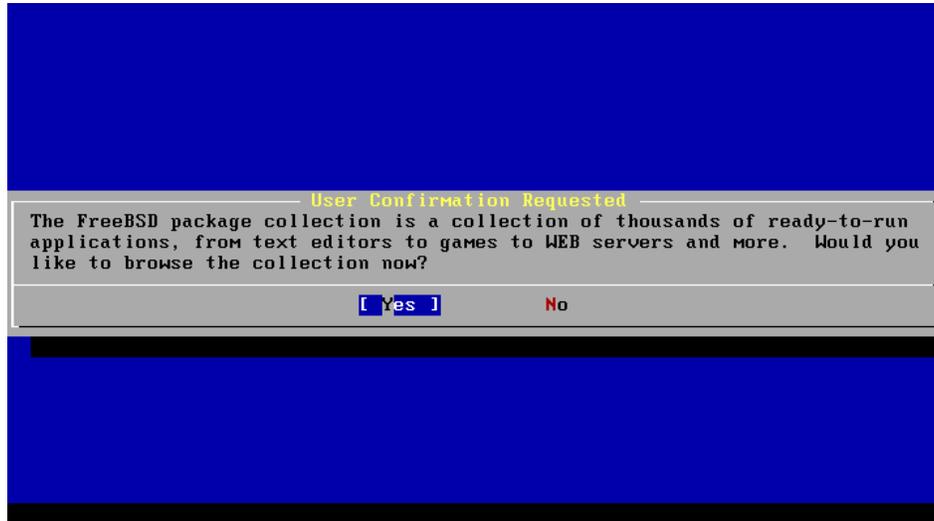
More precise...



Do you have mouse?



Install packages from ports collection?



Select category

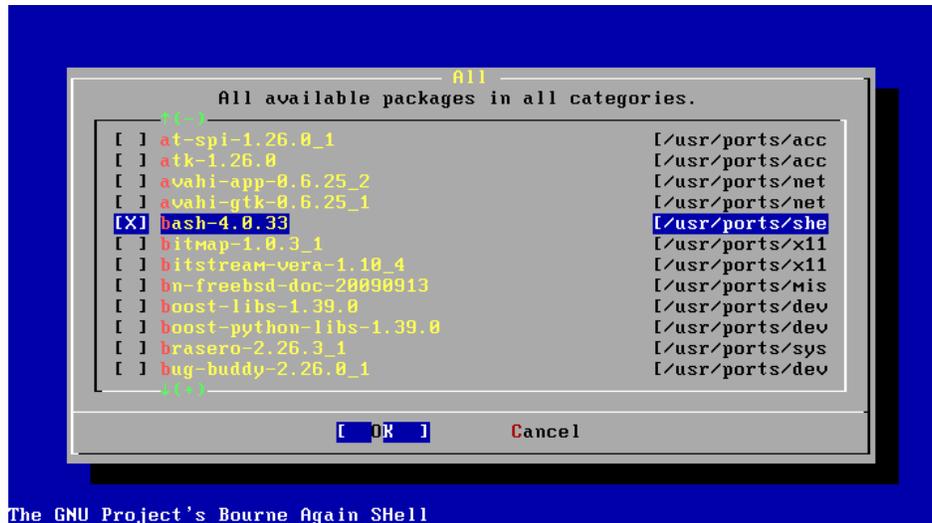
Package Selection

To mark a package, move to it and press SPACE. If the package is already marked, it will be unmarked or deleted (if installed). Items marked with a 'D' are dependencies which will be auto-loaded. To search for a package by name, press ESC. To select a category, press RETURN. NOTE: The All category selection creates a very large submenu! If you select it, please be patient while it comes up.

all	All available packages in all categories.
accessibility	Ports to help disabled users.
afterstep	Ports to support the AfterStep window manager.
archivers	Utilities for archiving and unarchiving data.
astro	Applications related to astronomy.
audio	Audio utilities - most require a supported sound card.
comms	Communications utilities.
converters	Format conversion utilities.
databases	Database software.
deskutils	Various Desktop utilities.
devel	Software development utilities and libraries.
dns	Domain Name Service tools.
misc	

[OK] Install

Select available package



- pilih software external yang akan diinstall.
paket yang dianggap penting:
- bash (this to provide bash shell)
 - alpine (as email client)

Back to menu

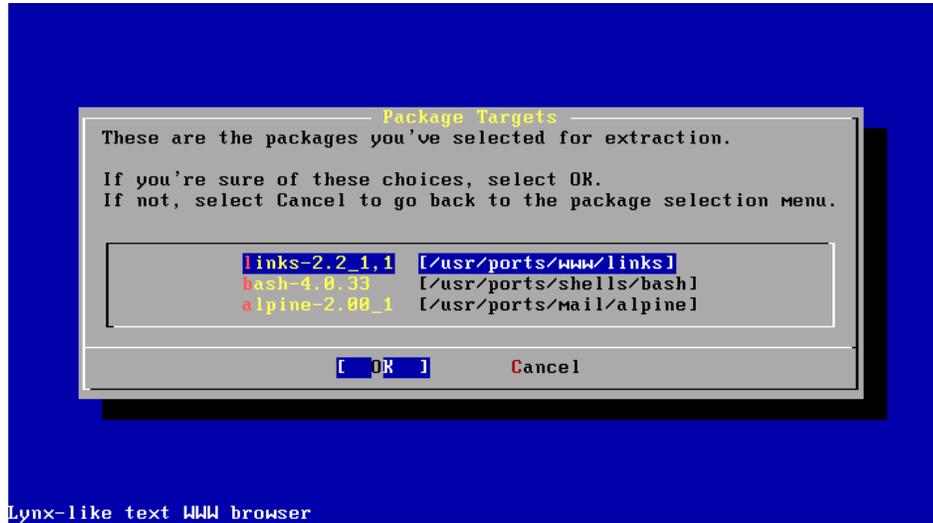
Package Selection

To mark a package, move to it and press SPACE. If the package is already marked, it will be unmarked or deleted (if installed). Items marked with a 'D' are dependencies which will be auto-loaded. To search for a package by name, press ESC. To select a category, press RETURN. NOTE: The All category selection creates a very large submenu! If you select it, please be patient while it comes up.

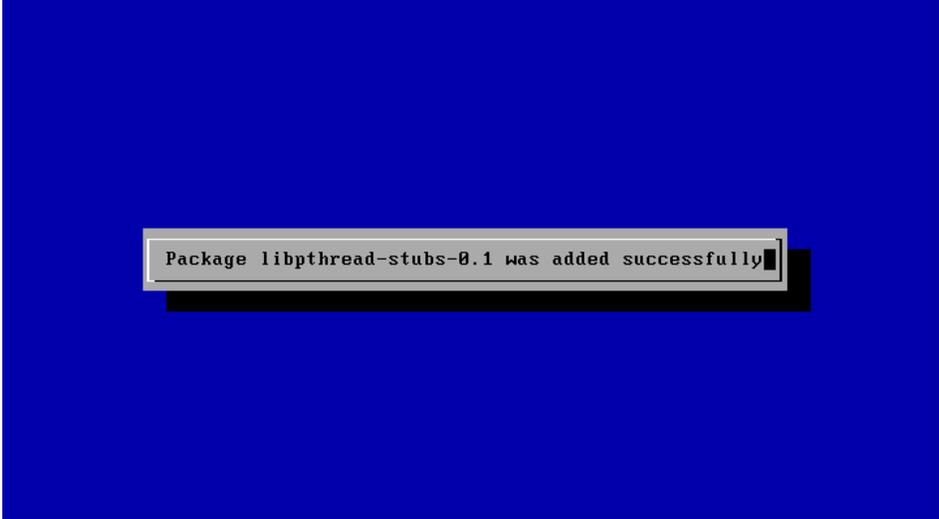
all	All available packages in all categories.
accessibility	Ports to help disabled users.
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archivers	Utilities for archiving and unarchiving data.
astro	Applications related to astronomy.
audio	Audio utilities - most require a supported sound card.
comms	Communications utilities.
converters	Format conversion utilities.
databases	Database software.
deskutils	Various Desktop utilities.
devel	Software development utilities and libraries.
dns	Domain Name Service tools.
misc	

OK **[I]nstall**

Confirmation..

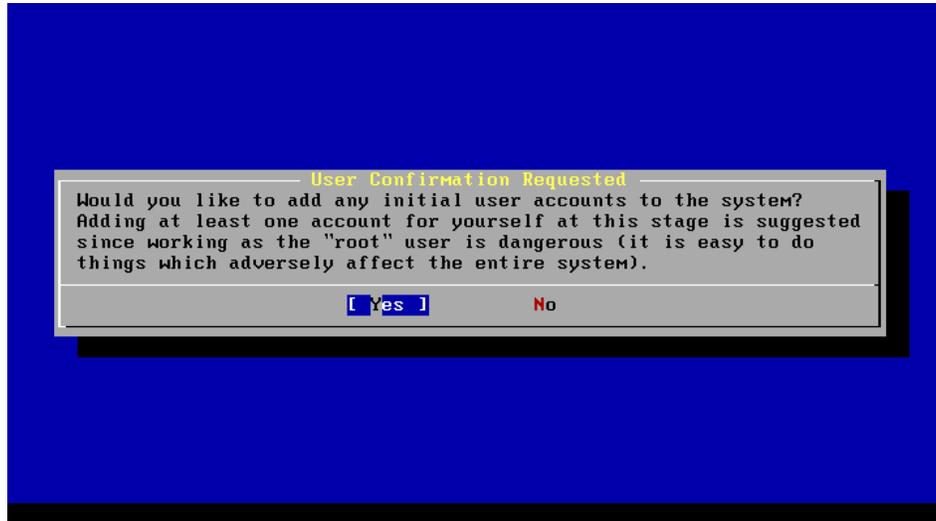


installation

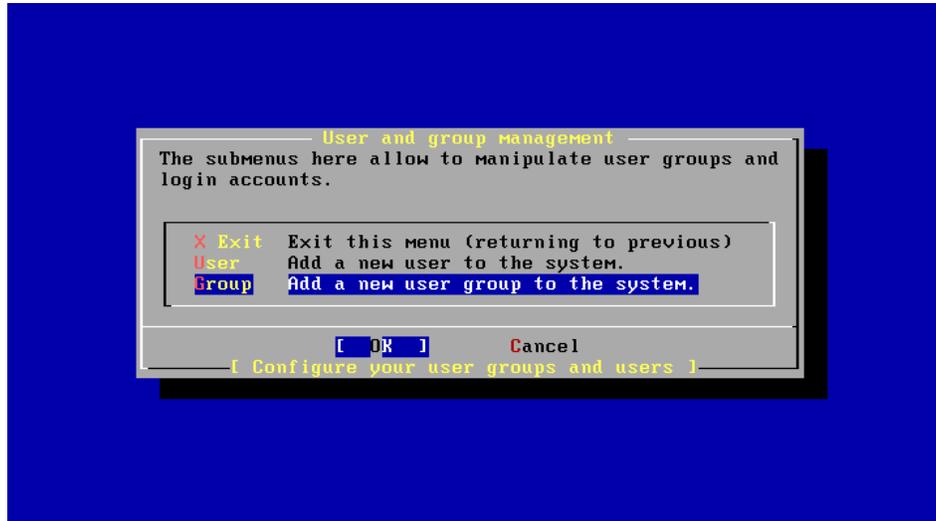
A screenshot of a terminal window with a blue background. A white rectangular box highlights the text "Package libpthread-stubs-0.1 was added successfully" followed by a cursor. The box is slightly offset to the right and bottom, creating a shadow effect.

```
Package libpthread-stubs-0.1 was added successfully
```

User management



Add group



Add group

The screenshot shows a terminal window titled "User and Group Management" with a sub-dialog titled "Add a new group". The dialog contains the following fields and controls:

- Group name:** A text input field containing "studentgroup".
- GID:** A text input field containing "1001".
- Group members:** An empty text input field.
- Buttons:** A blue "[OK]" button and a red "CANCEL" button.

At the bottom of the dialog, there is a yellow highlighted instruction: "Select this if you are happy with these settings".

buat group dengan nama "studentgroup"
beberapa user akan dimasukkan dalam group agar
mempermudah administrasi
Sehingga kita dapat membuat policy yang group-
based

Add new user

User and Group Management
Add a new user

Login ID:	UID:	Group:
<input type="text" value="stu01"/>	<input type="text" value="1001"/>	<input type="text" value="tgroup"/>
Password:	Confirm Password:	
<input type="text" value="*****"/>	<input type="text" value="*****"/>	
Full name:	Member groups:	
<input type="text" value="student01"/>	<input type="text"/>	
Home directory:	Login shell:	
<input type="text" value="/home/stu01"/>	<input type="text" value="/bin/sh"/>	

Select this if you are happy with these settings

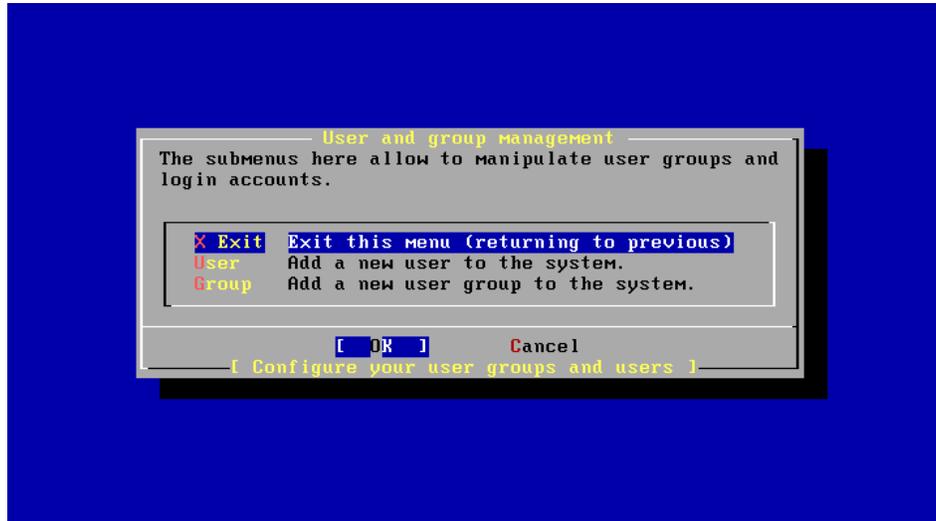
Add new user parameters

User and Group Management
Add a new user

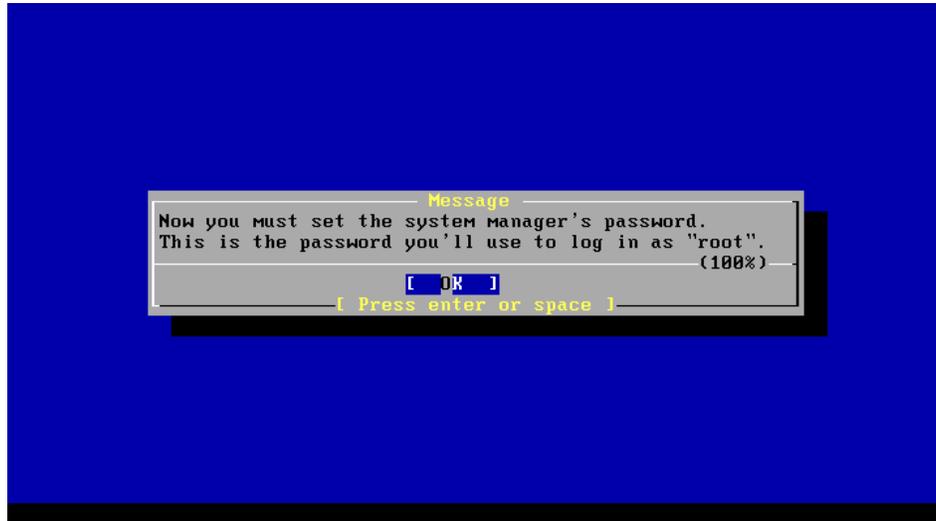
Login ID:	UID:	Group:
<input type="text" value="stu02"/>	<input type="text" value="1002"/>	<input type="text" value="tgroup"/>
Password:	Confirm Password:	
<input type="text" value="*****"/>	<input type="text" value="*****"/>	
Full name:	Member groups:	
<input type="text" value="student02"/>	<input type="text" value="wheel"/>	
Home directory:	Login shell:	
<input type="text" value="/home/stu02"/>	<input type="text" value="/bin/sh"/>	

Select this if you are happy with these settings

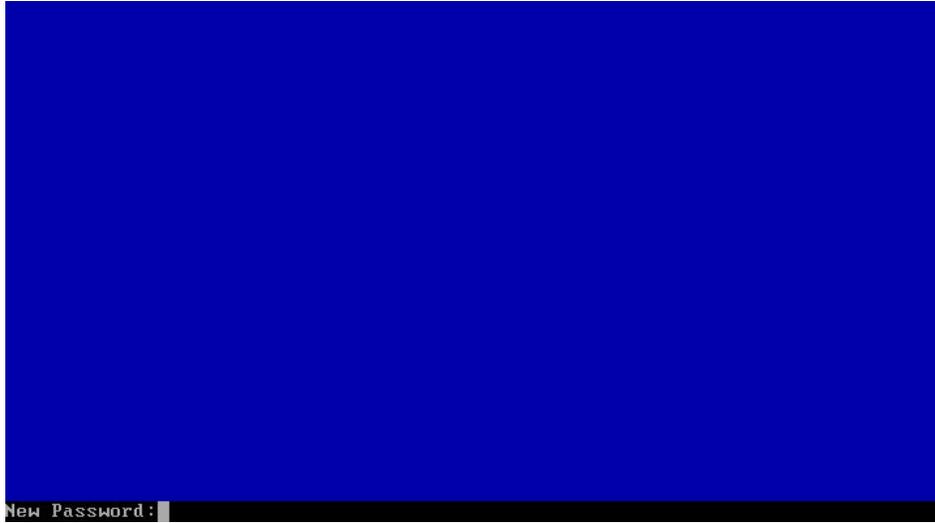
Back to menu



Define root password



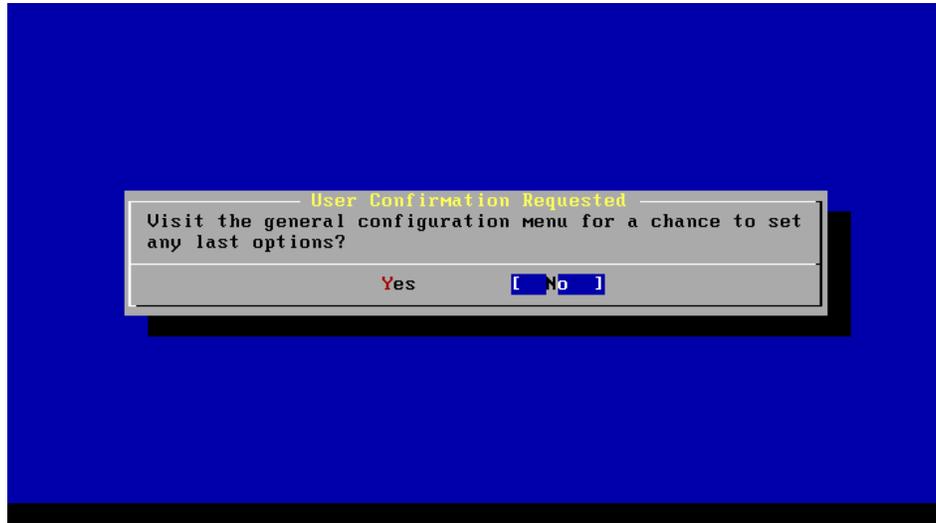
You type the password



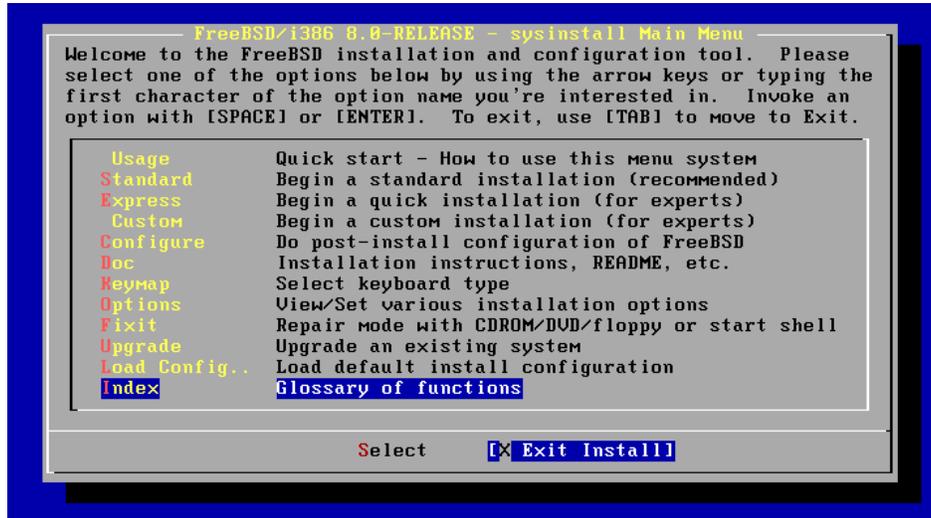
And type the password again..



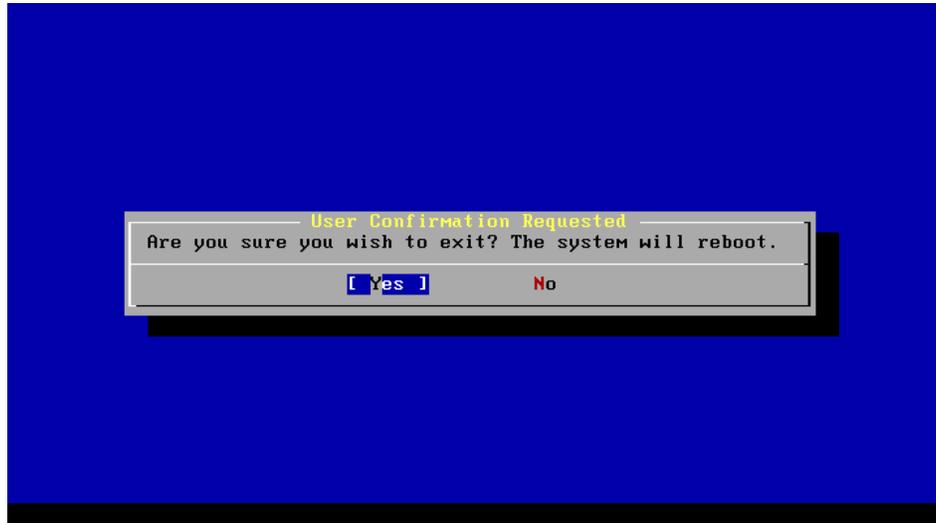
Notification..



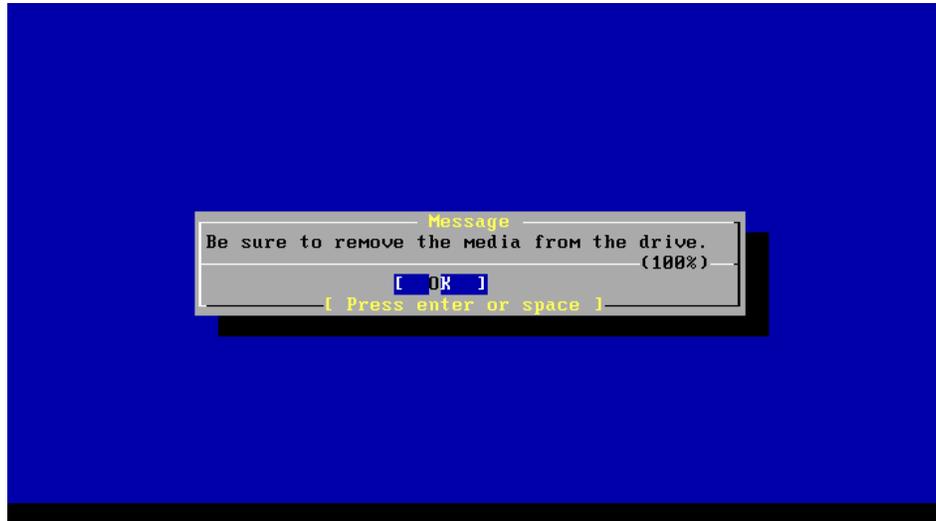
Back to menu



Exit?



Remove the CD/other media



Menu after booting



FreeBSD is ready to serve

```
The key's randomart image is:
+--[ RSA 2048]-----+
|      *B**+o. o  |
|      o+.oE . *  |
|      . . . . o+ |
|      . . . +.   |
|      S   + .    |
|      o          |
|                  |
+-----+
Starting sshd.
em0: watchdog timeout -- resetting
Starting cron.
Starting background file system checks in 60 seconds.

Sat Apr  3 23:57:46 EST 2010
FreeBSD/i386 (hornet.glc.net) (ttyv0)
login: █
```

Login...?

```
FreeBSD 8.0-RELEASE (GENERIC) #0: Sat Nov 21 15:48:17 UTC 2009
Welcome to FreeBSD!

Before seeking technical support, please use the following resources:

o Security advisories and updated errata information for all releases are
  at http://www.FreeBSD.org/releases/ - always consult the ERRATA section
  for your release first as it's updated frequently.

o The Handbook and FAQ documents are at http://www.FreeBSD.org/ and,
  along with the mailing lists, can be searched by going to
  http://www.FreeBSD.org/search/. If the doc distribution has
  been installed, they're also available formatted in /usr/share/doc.

If you still have a question or problem, please take the output of
'uname -a', along with any relevant error messages, and email it
as a question to the questions@FreeBSD.org mailing list. If you are
unfamiliar with FreeBSD's directory layout, please refer to the hier(7)
manual page. If you are not familiar with manual pages, type 'man man'.

You may also use sysinstall(8) to re-enter the installation and
configuration utility. Edit /etc/motd to change this login announcement.

hornet#
```

The screensaver

