

## Instalação do Sistema Operacional FreeBSD

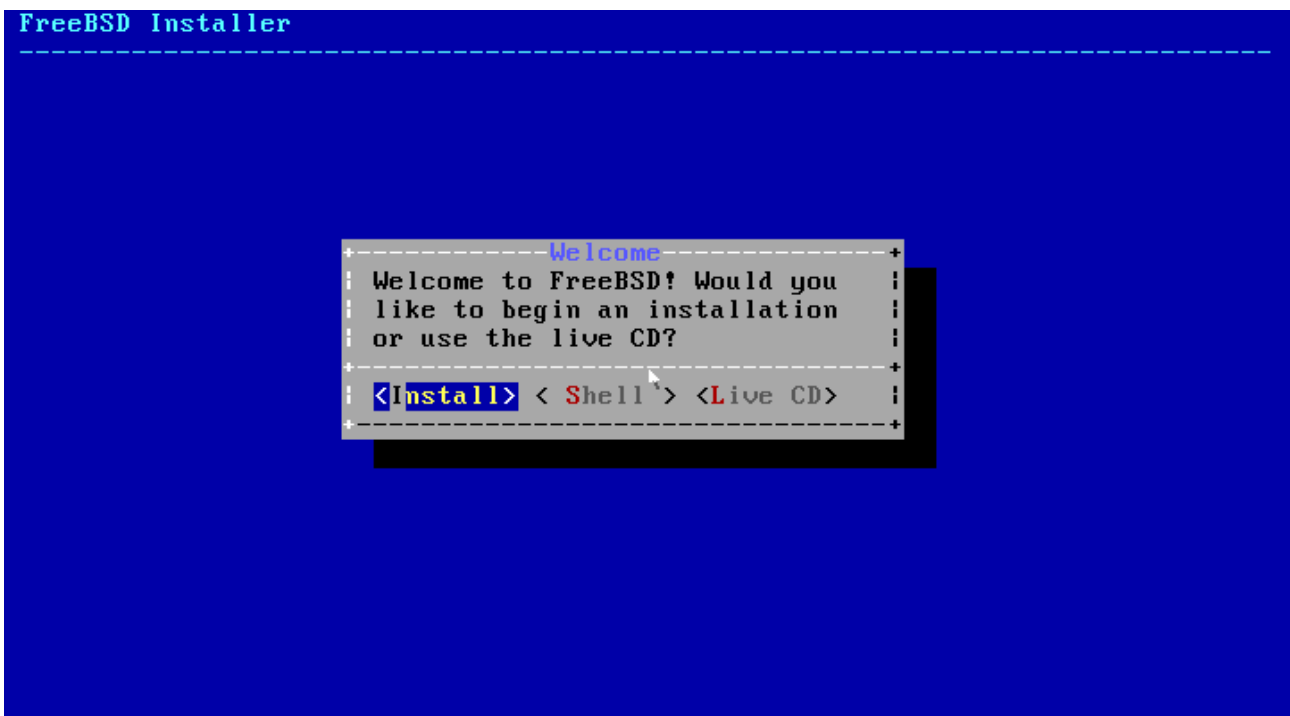
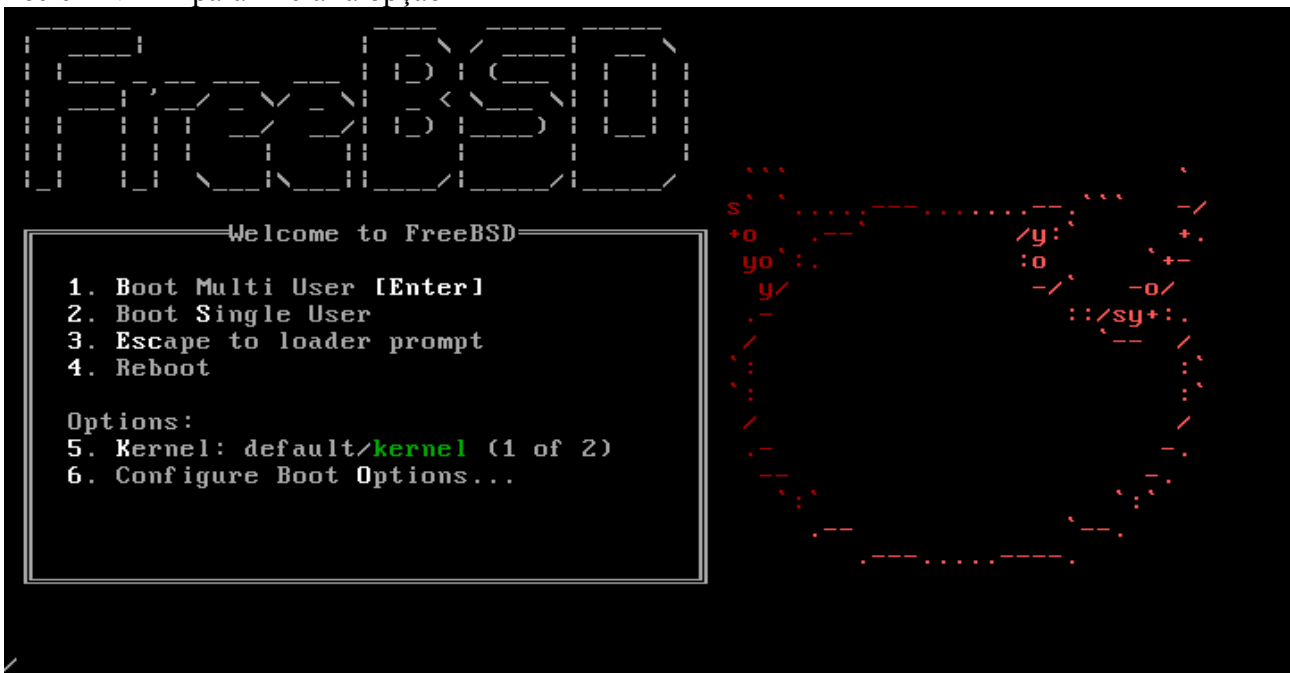
Autor: Reginaldo

Blog: <http://mundodacomputacaointegral.blogspot.com.br>

Neste howto é explicado a instalação do sistema operacional FreeBSD 10.2 RELEASE, usando imagem ISO “FreeBSD-10.2-RELEASE-i386-disc1.iso” e a configuração do servidor Apache, MySQL e PHP.

Após gravar a imagem ISO no CD, coloque o CD no leitor de CD/DVD e altere a BIOS para o boot via CD/DVD.

Tecla ENTER para iniciar a opção 1



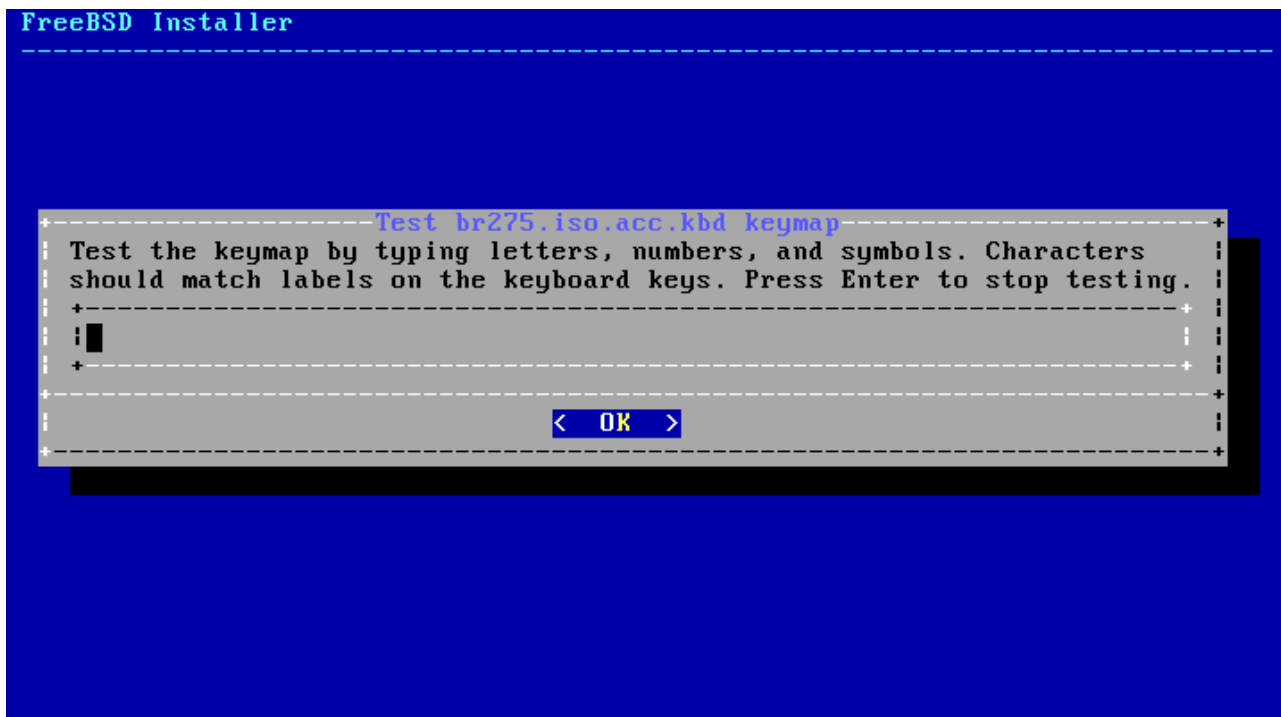
Selecione o modelo do seu teclado. No caso foi selecionado o modelo ABNT2

```
FreeBSD Installer
-----
Keymap Selection
The system console driver for FreeBSD defaults to standard "US"
keyboard map. Other keymaps can be chosen below.
+-----+
| ( ) Belgian ISO-8859-1 (accent keys) |
| ( ) Brazilian 275 Codepage 850      |
| ( ) Brazilian 275 ISO-8859-1        |
| ( ) Brazilian 275 ISO-8859-1 (accent keys) |
| ( ) Bulgarian (BDS)                 |
| ( ) Bulgarian (Phonetic)            |
| ( ) Central European ISO-8859-2     |
| ( ) Colemak ergonomic alternative    |
| ( ) Croatian ISO-8859-2             |
| ( ) Czech ISO-8859-2                |
| ( ) Czech ISO-8859-2 (QWERTZ, accent keys) |
| ( ) Danish Codepage 865             |
+-----+
|                                     | 18%
+-----+
| <Select>          <Cancel>         |
+-----+
| [Press arrows, TAB or ENTER]       |
+-----+
br275.iso.acc.kbd: Brazilian 275 ISO-8859-1 (accent keys)
```

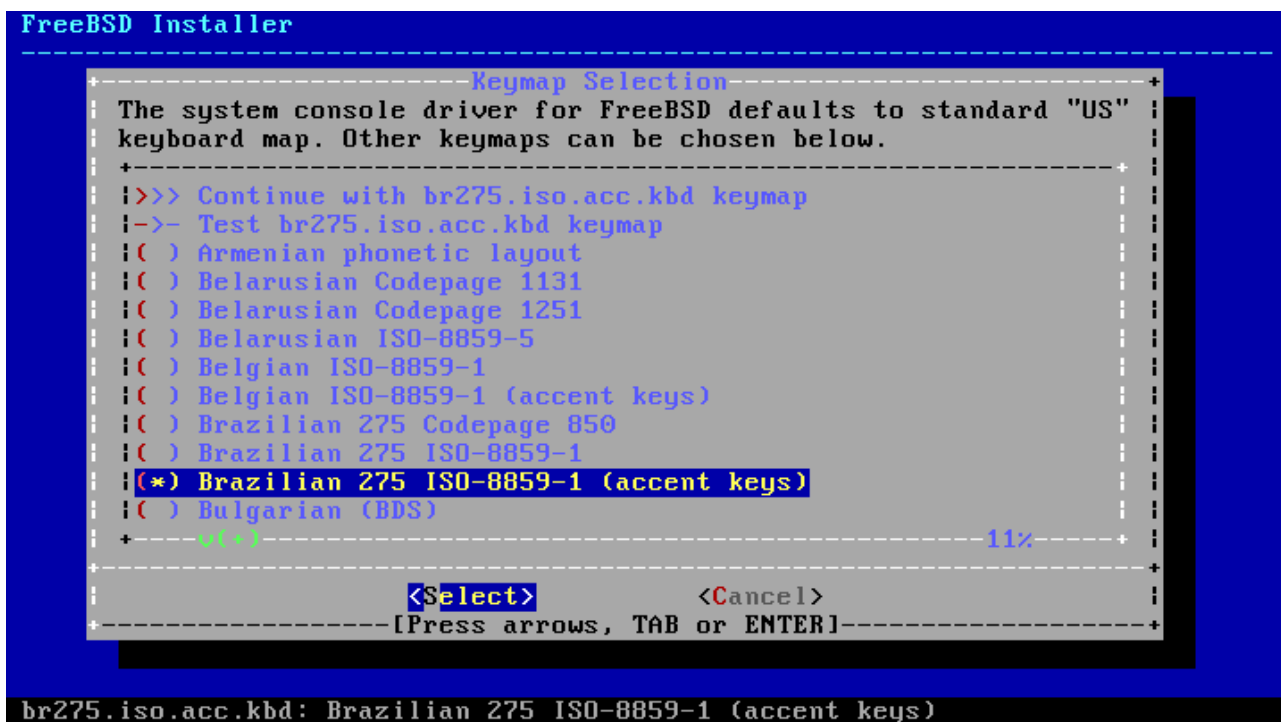
Se desejar, selecione Test para fazer o teste do teclado.

```
FreeBSD Installer
-----
Keymap Selection
The system console driver for FreeBSD defaults to standard "US"
keyboard map. Other keymaps can be chosen below.
+-----+
| >>> Continue with br275.iso.acc.kbd keymap |
| ->- Test br275.iso.acc.kbd keymap         |
| ( ) Armenian phonetic layout             |
| ( ) Belarusian Codepage 1131            |
| ( ) Belarusian Codepage 1251           |
| ( ) Belarusian ISO-8859-5              |
| ( ) Belgian ISO-8859-1                 |
| ( ) Belgian ISO-8859-1 (accent keys)    |
| ( ) Brazilian 275 Codepage 850         |
| ( ) Brazilian 275 ISO-8859-1          |
| (*) Brazilian 275 ISO-8859-1 (accent keys) |
| ( ) Bulgarian (BDS)                   |
+-----+
|                                     | 11%
+-----+
| <Select>          <Cancel>         |
+-----+
| [Press arrows, TAB or ENTER]       |
+-----+
Test the currently selected keymap
```

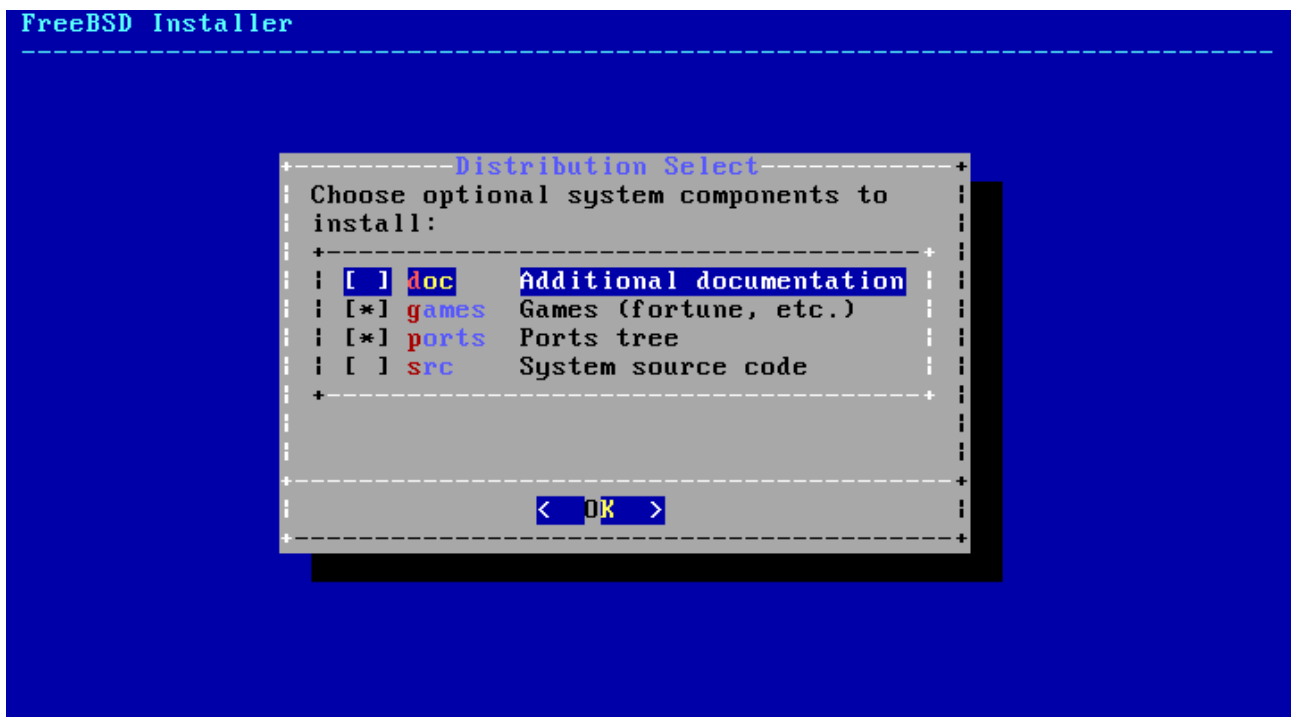
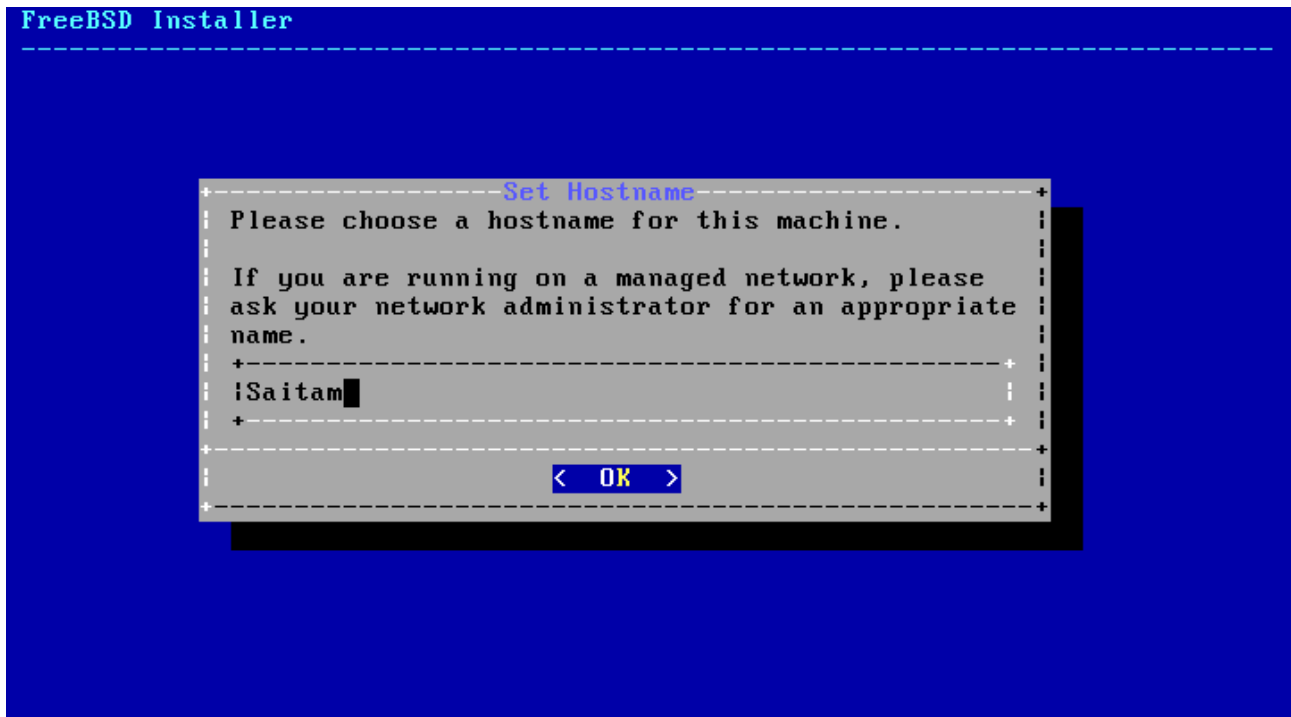
Faça o teste do seu teclado.



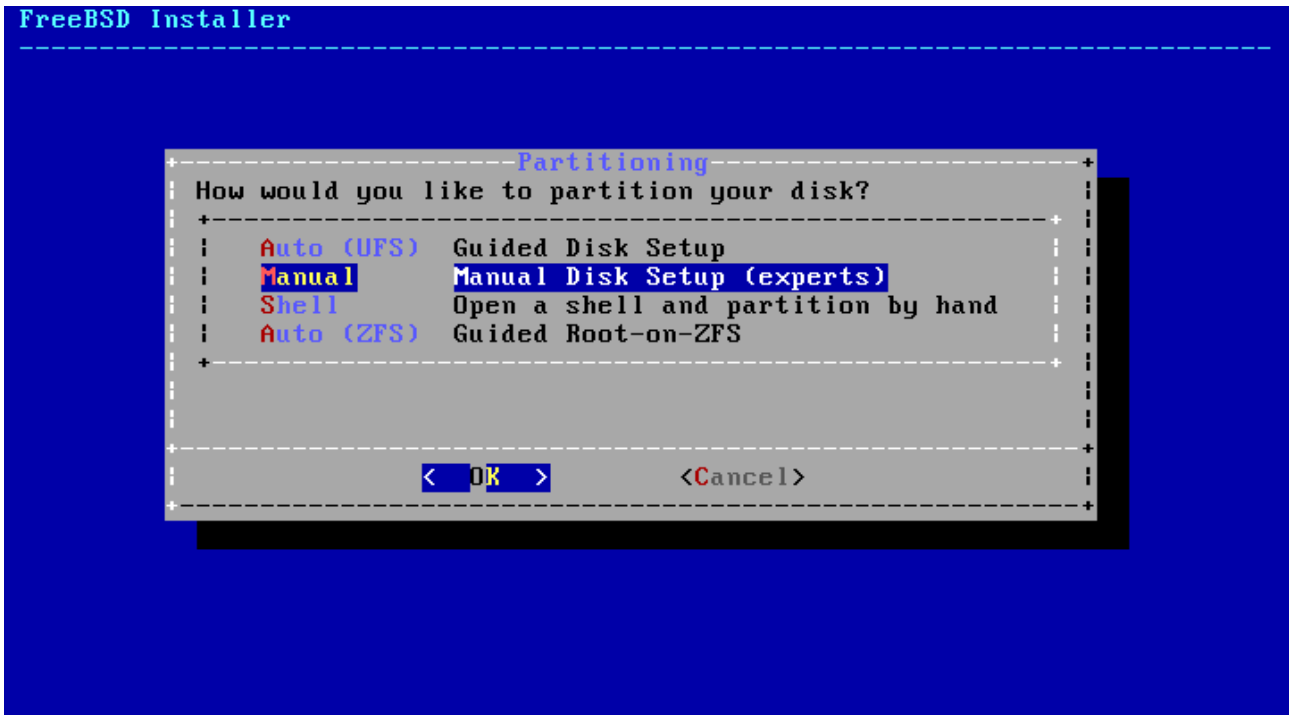
Teclado selecionado



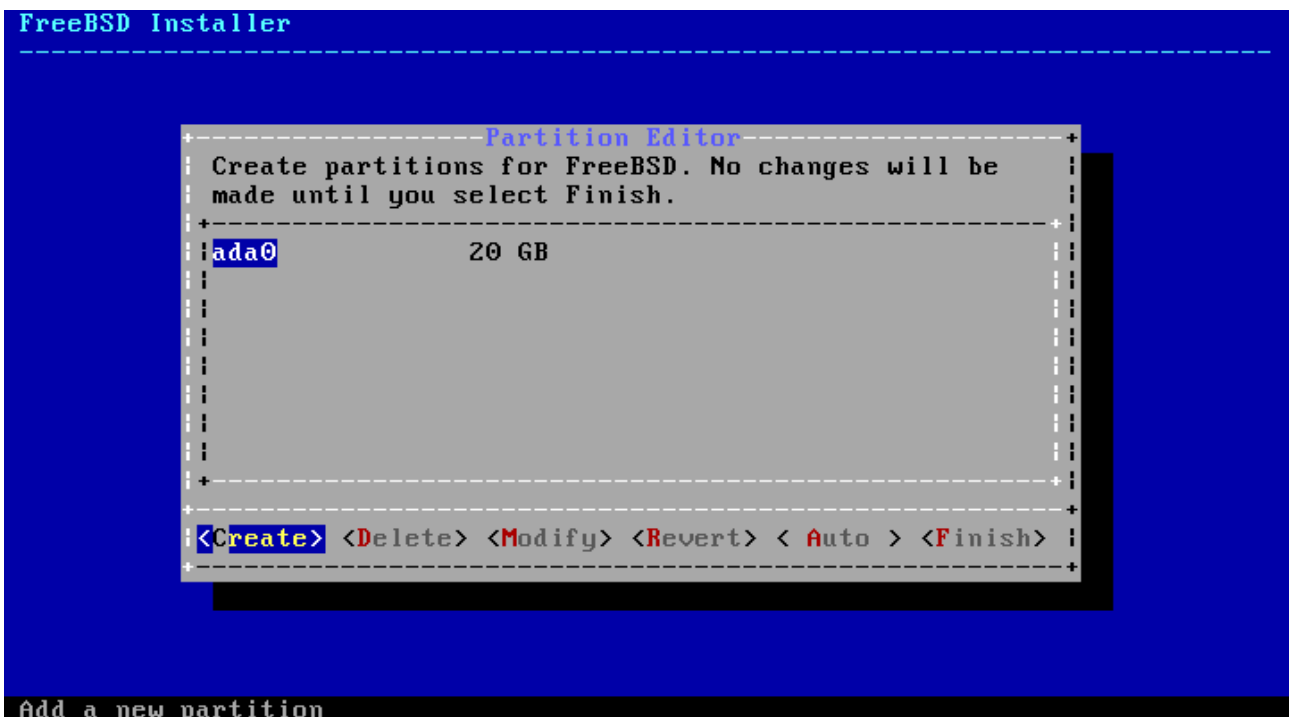
Escolha um nome para o hostname (nome do servidor). No caso foi escolhido Saitam.



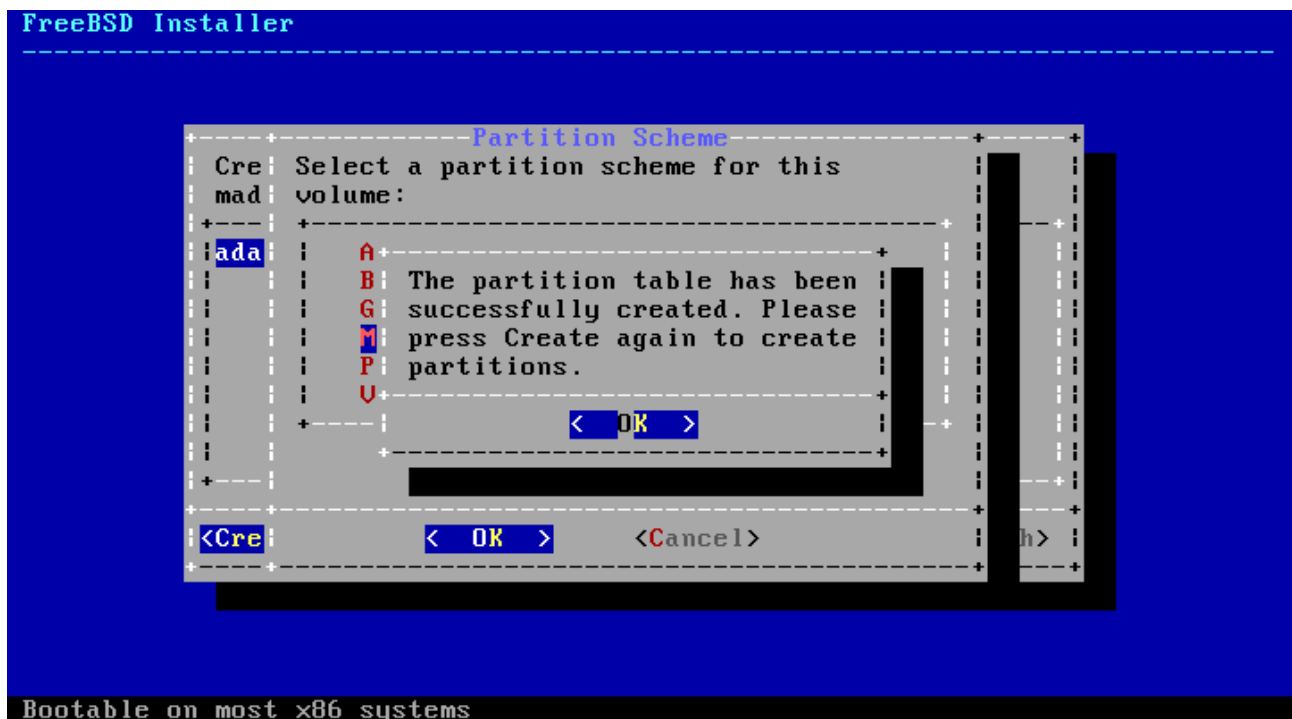
Selecione Manual para fazer o particionamento do HD de forma manual.



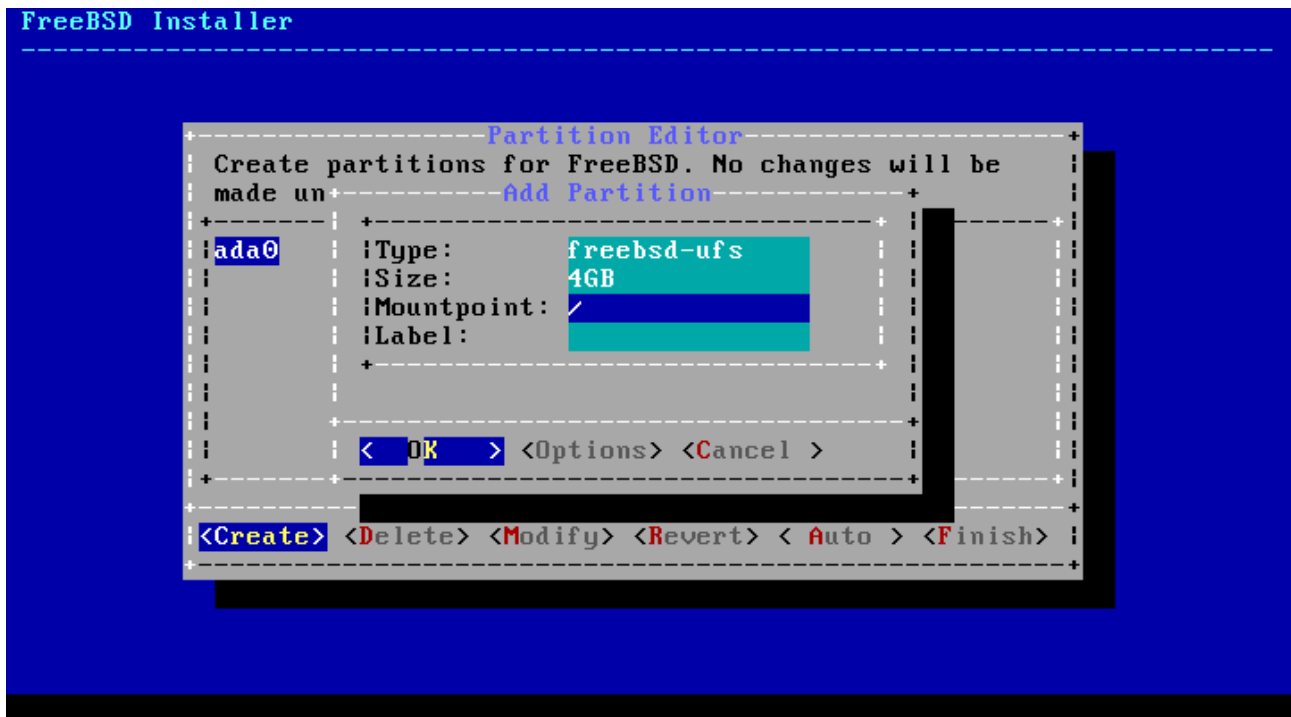
Selecione Create



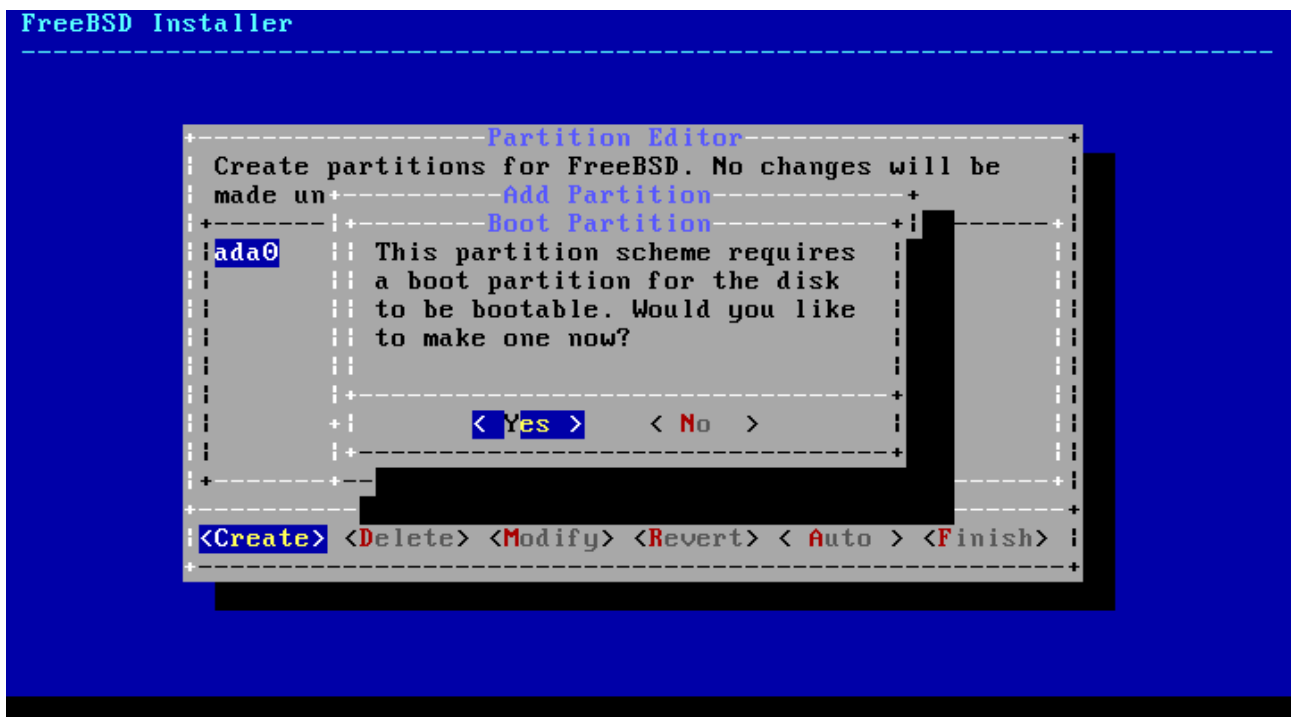
Selecione o tipo desejado para tabela de partição.



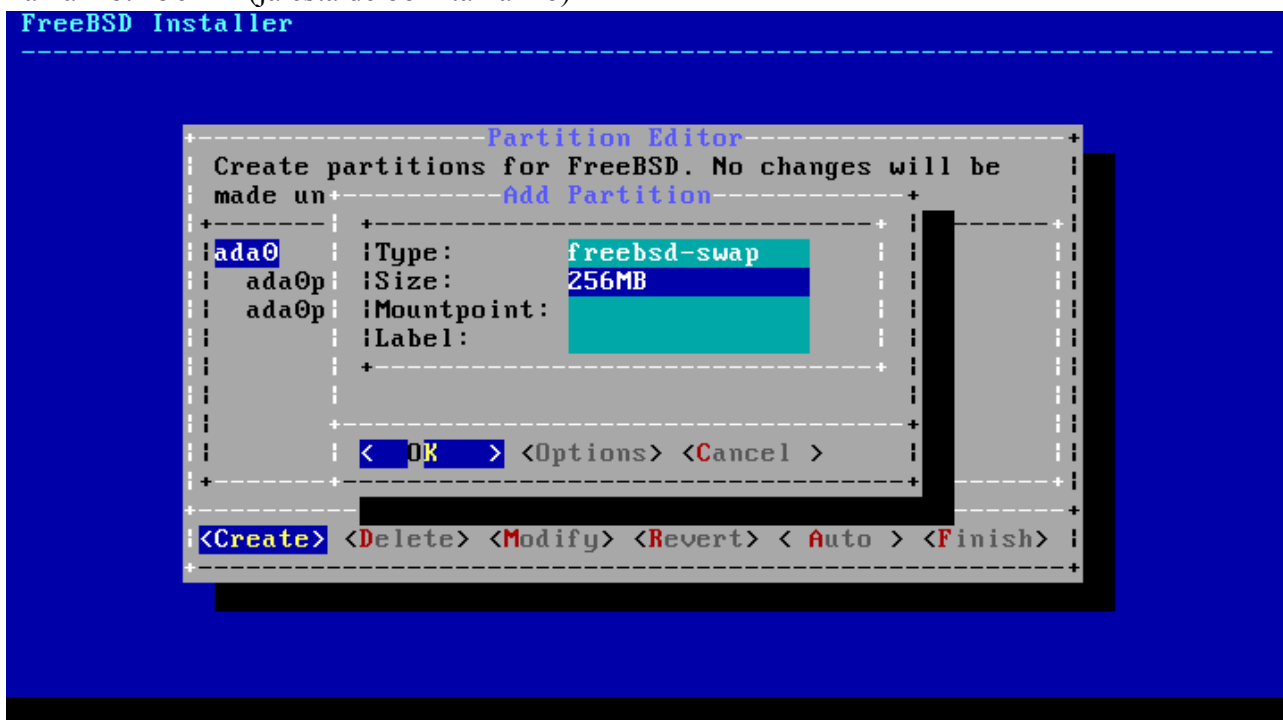
Criação da partição /. Seleccione Create.  
Type: (sistema de arquivos) : freebsd-ufs  
Tamanho: 4GB  
Montagem: /



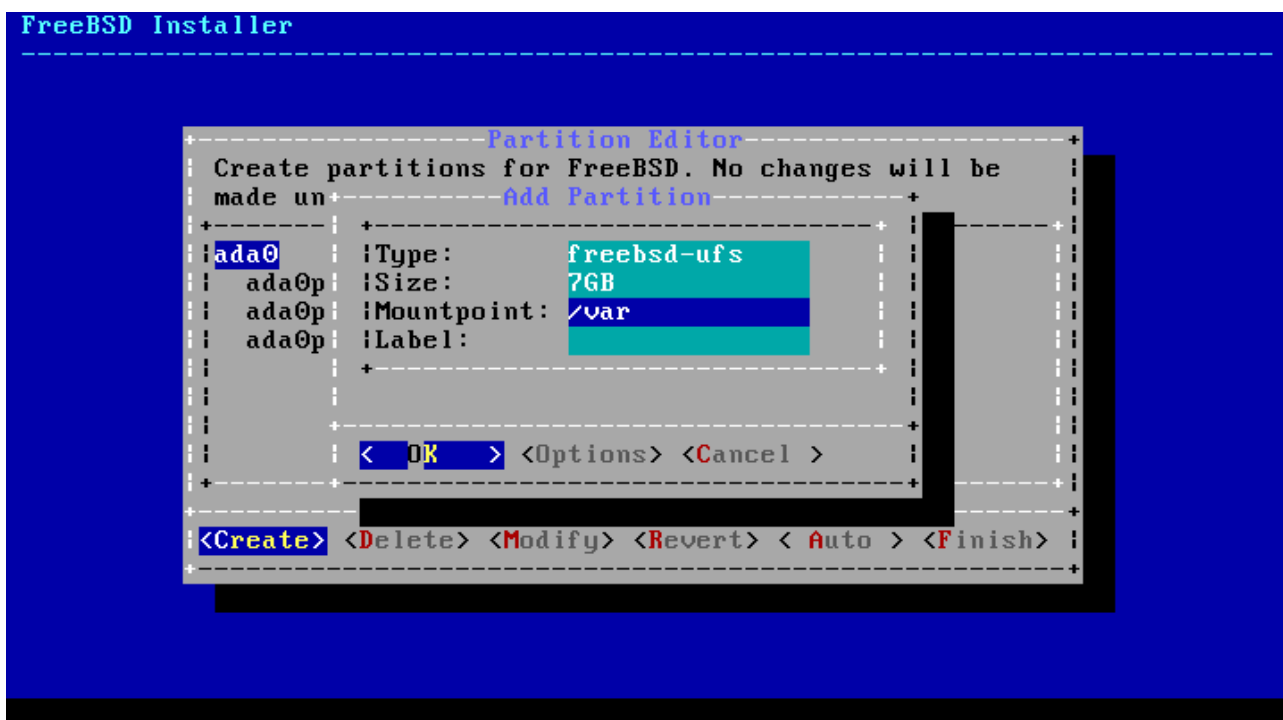
Se desejar adicionar /boot na mesma partição /. Seleccione Yes.



Criação da partição swapp. Selecione Create  
Type: freebsd-swap  
Tamanho: 256MB (já esta de bom tamanho)



Criação da partição /var. Selecione Create.  
Type: freebsd-ufs  
Tamanho: 7GB  
Montagem: /var



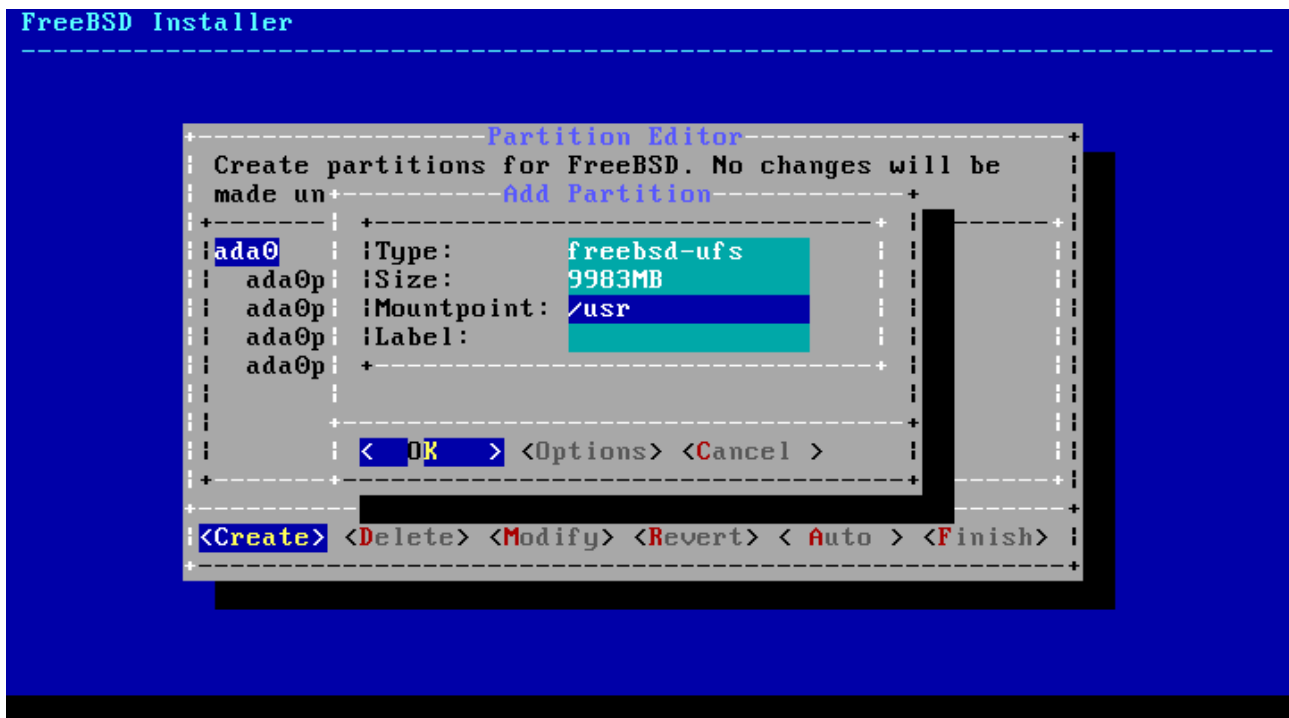


Criação da partição /usr

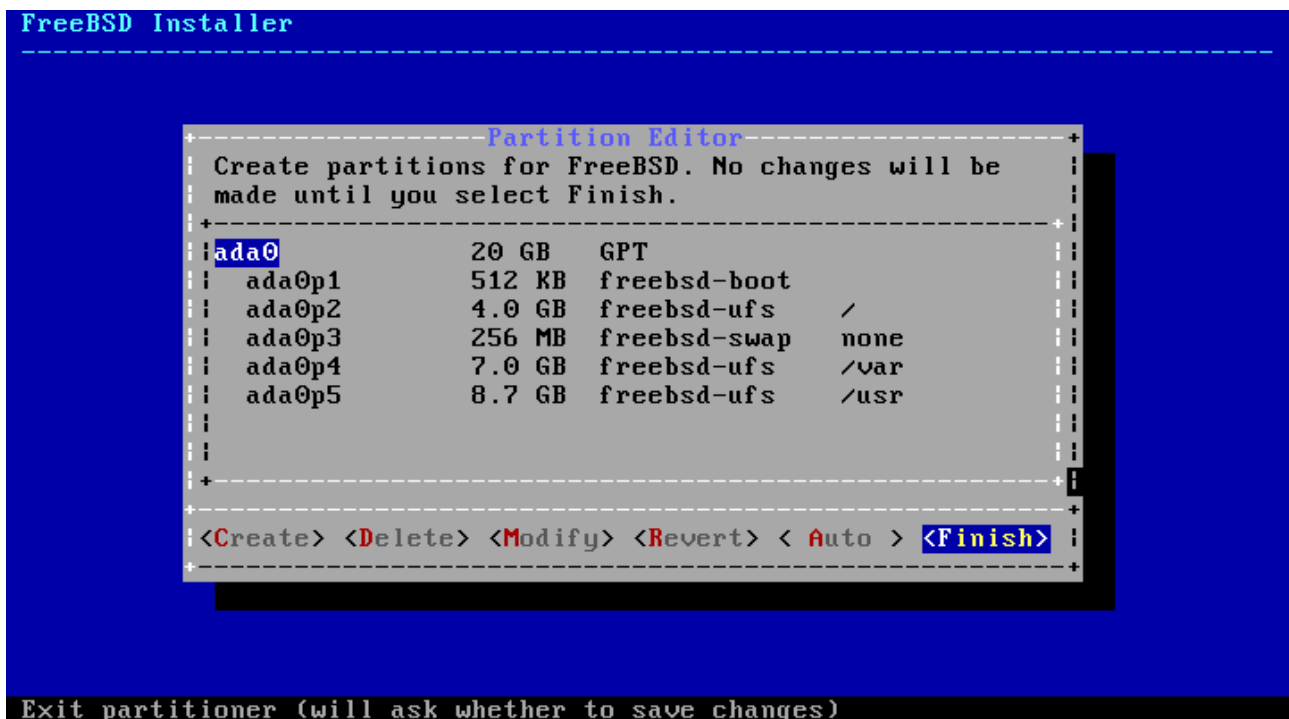
Type: freebsd-ufs

Tamanho: Se não for criar mais nenhuma outra partição, pode deixar o restante de espaço

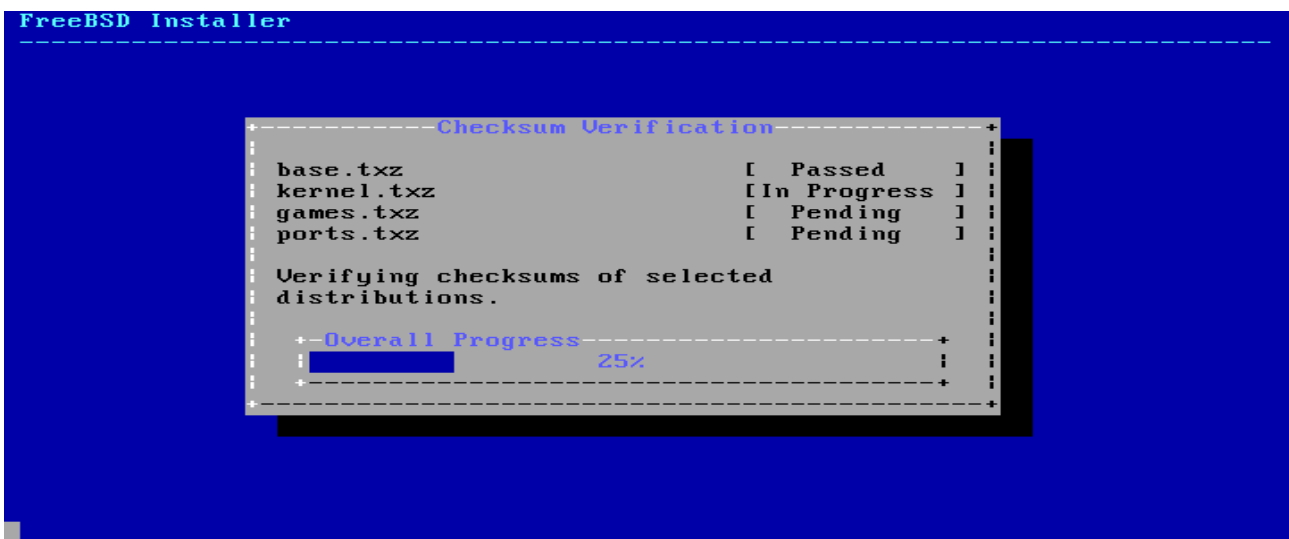
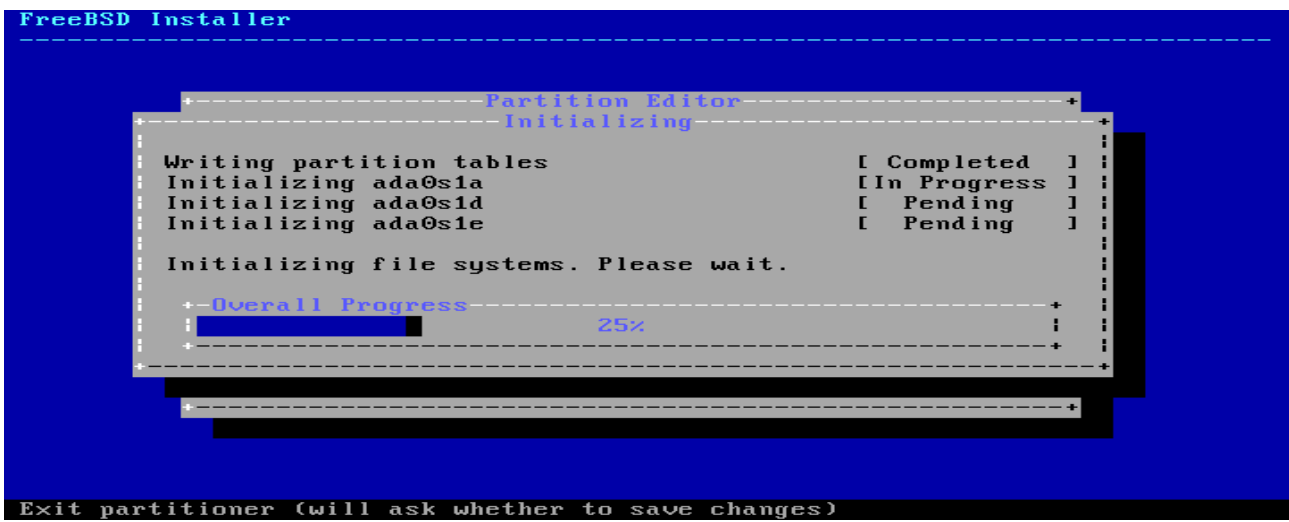
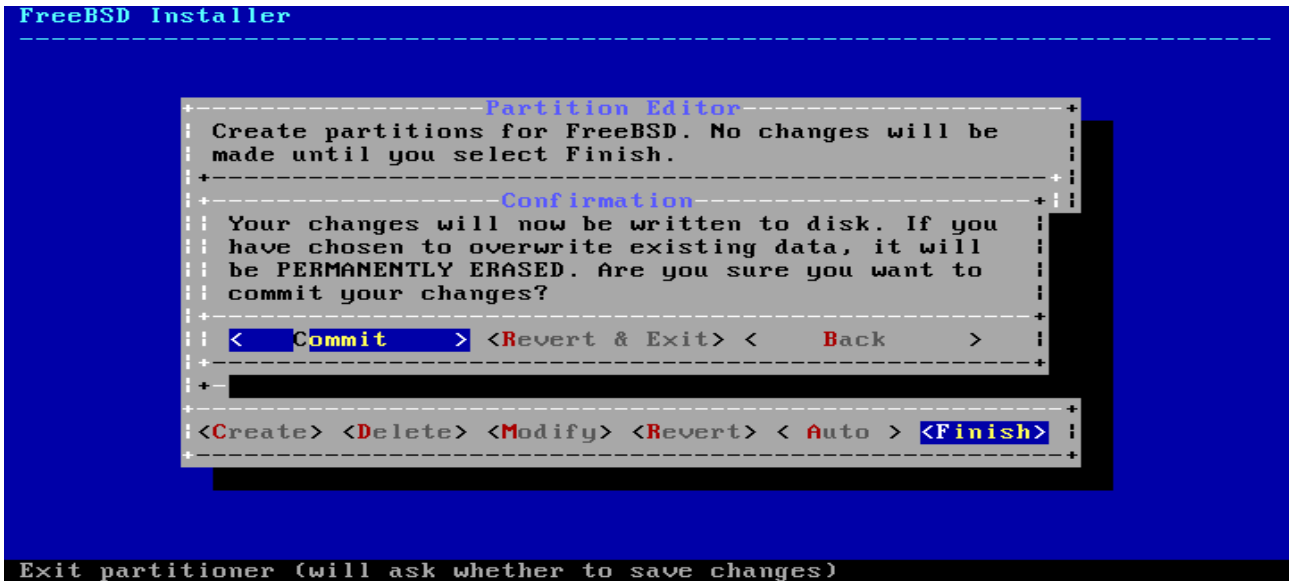
Montagem: /usr



Particionamento completo. Seleccione Finish.



Confirma seleccionando Commit.



FreeBSD Installer

```
----- Archive Extraction -----  
Extracting distribution files...  
base.txz      [ Done ]  
kernel.txz   [ Done ]  
games.txz    [ Done ]  
ports.txz... - [ 38% ]  
  
Overall Progress:  
-----  
[ 84% ]  
-----
```

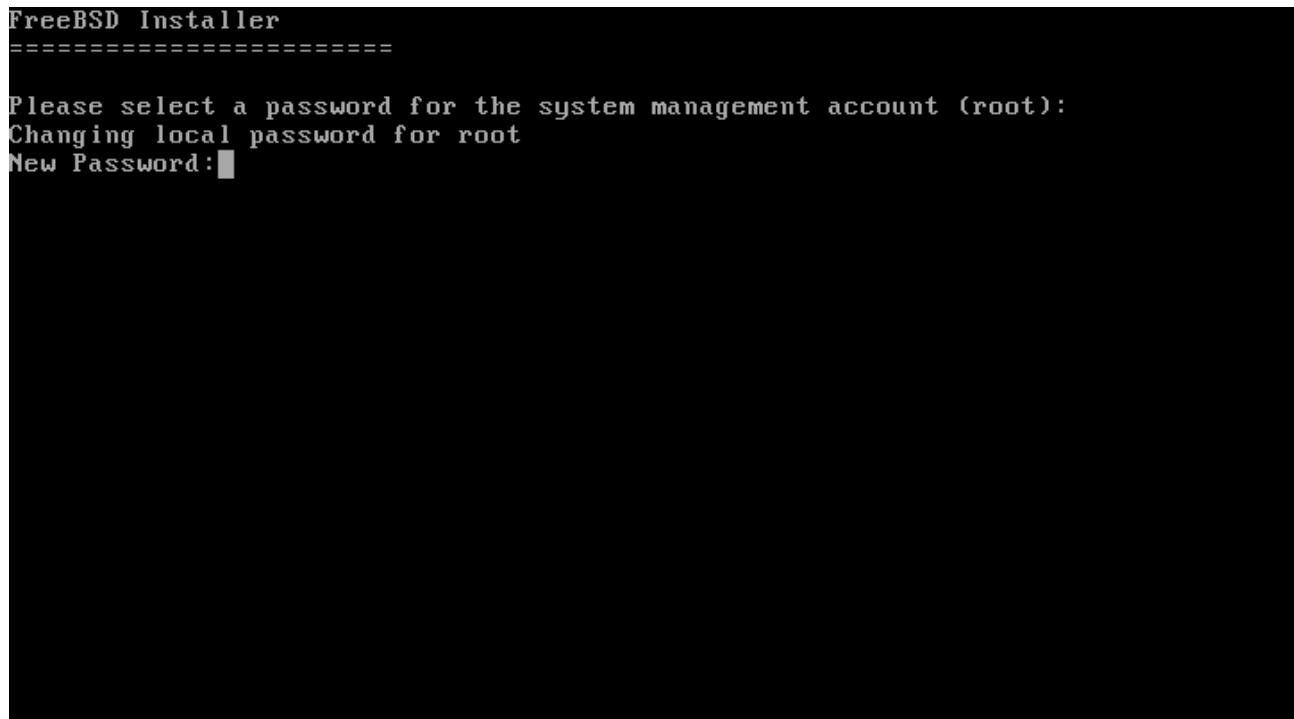
80603 files read @ 584.0 files/sec. [1/0 busy/wait]

FreeBSD Installer

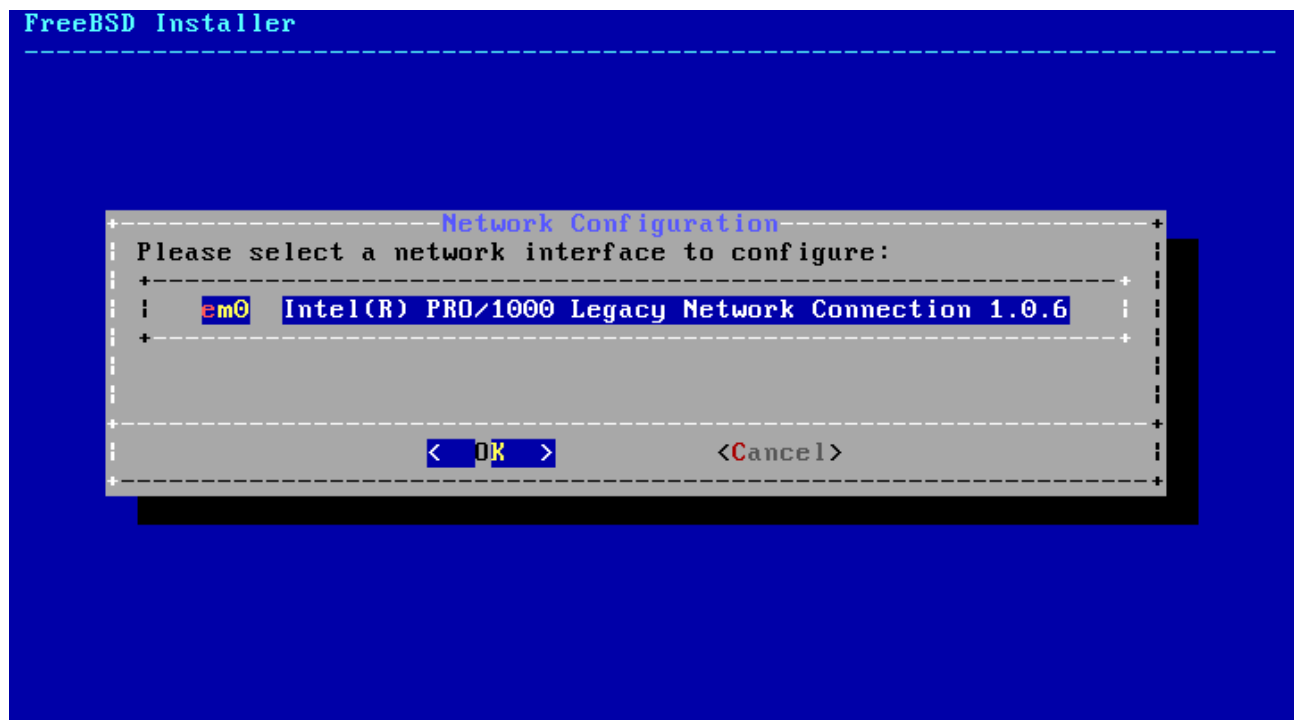
```
----- Archive Extraction -----  
Extracting distribution files...  
base.txz      [ Done ]  
kernel.txz   [ Done ]  
games.txz    [ Done ]  
ports.txz    [ 100% ]  
  
Overall Progress:  
-----  
[ 100% ]  
-----
```

175365 files read @ 644.0 files/sec. [1/0 busy/wait]

Crie um password para o root (Administrador do sistema FreeBSD).



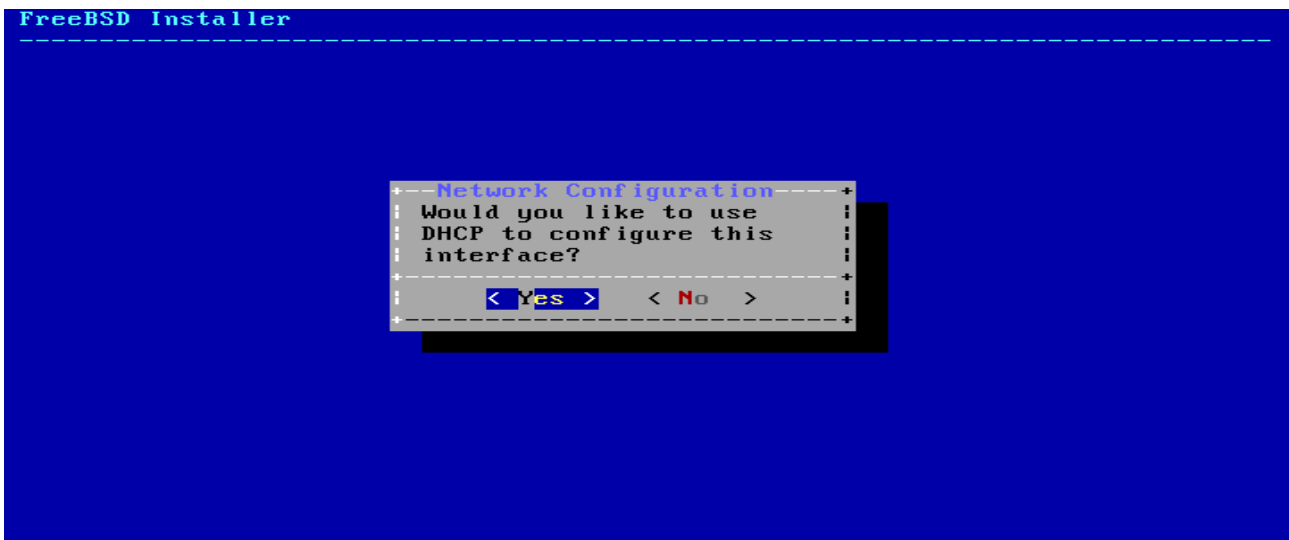
Nessa etapa, sua placa de rede pode ser diferente, selecione OK.



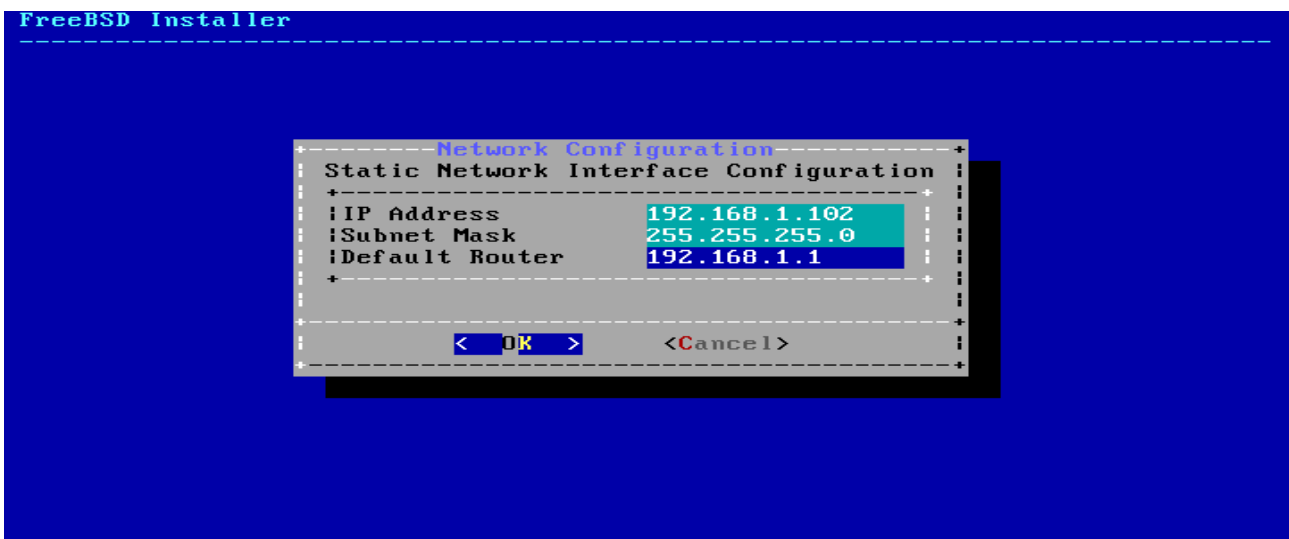
Selecione Yes para configurar o IP na versão IPv4.



Se desejar usar o endereço IP atribuído por DHCP do seu roteador, selecione Yes, mas como nesse caso é um servidor, então é recomendado usar IP fixo. No caso selecione No.



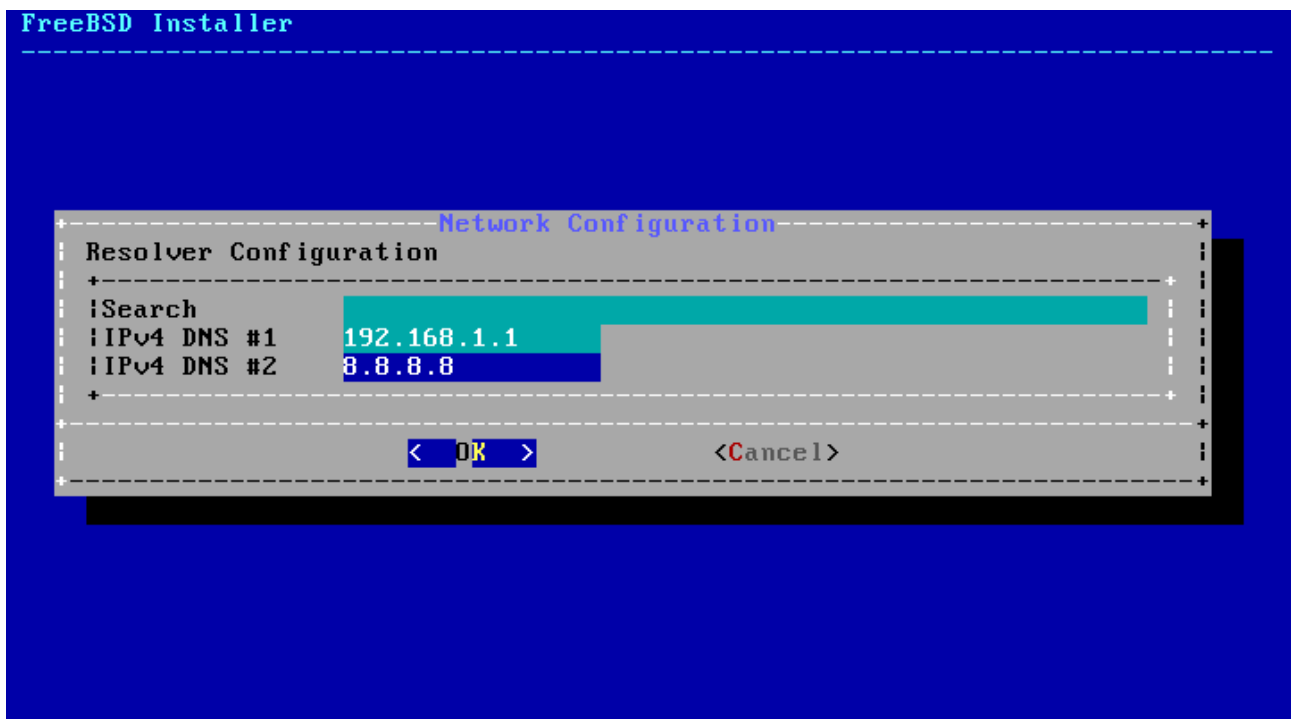
Configura o endereço IP de acordo com sua rede.



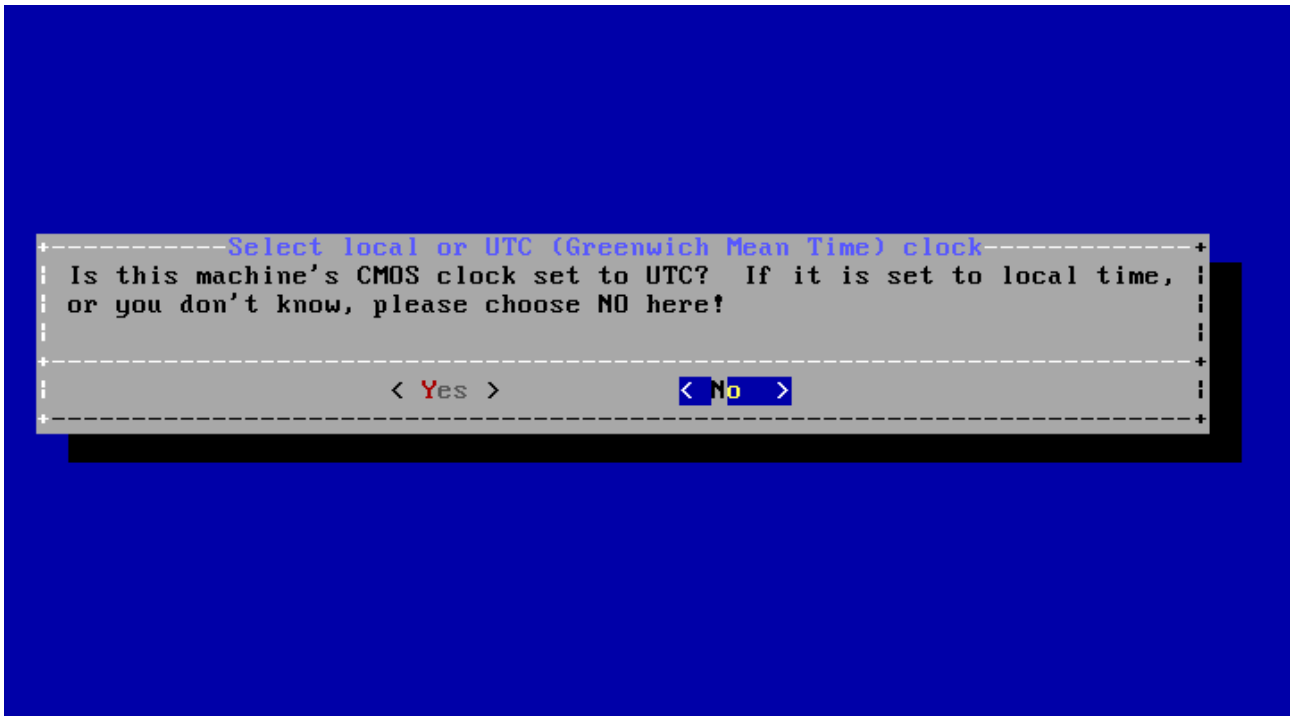
Se desejar configurar endereço IP na versão IPv6, selecione Yes. No caso foi selecionado No.



Digite os endereços DNS. No caso foi utilizado o gateway como primário e do Google como secundário.



Selecione No.



Selecione sua região do país.



Selecione o seu país.

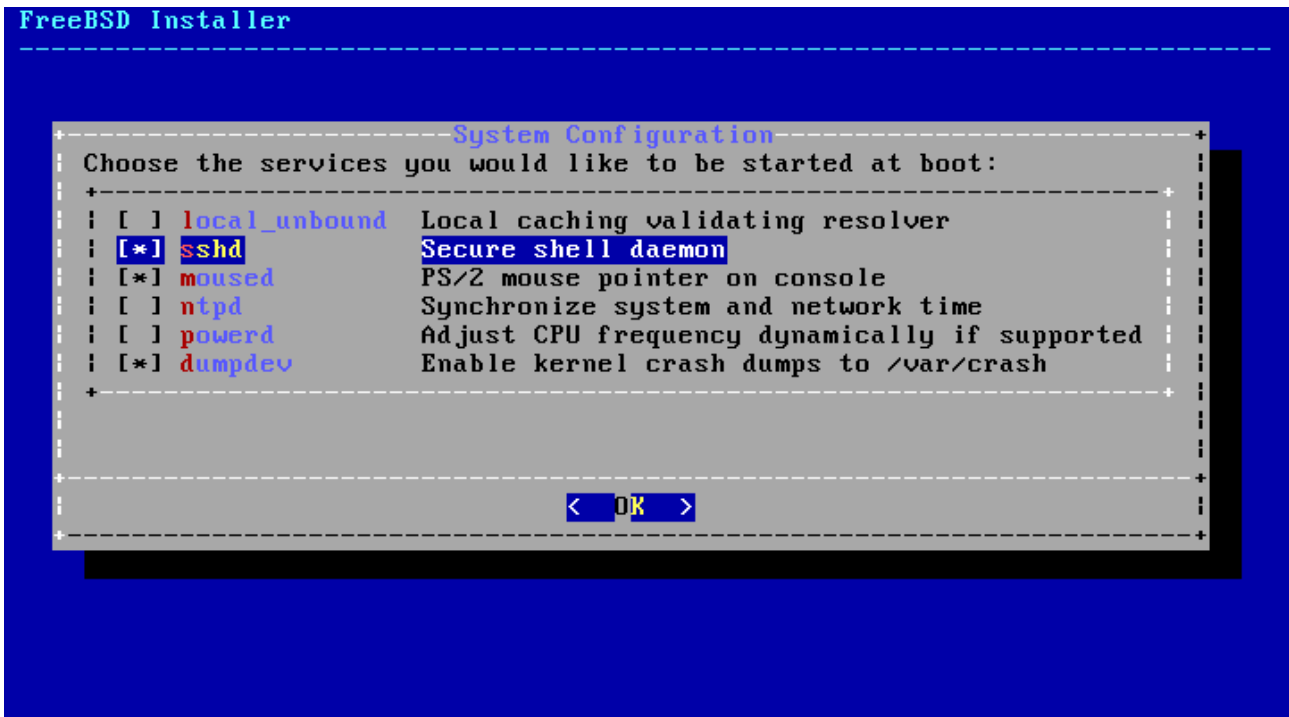


Selecione de acordo com o fuso horário do seu estado.

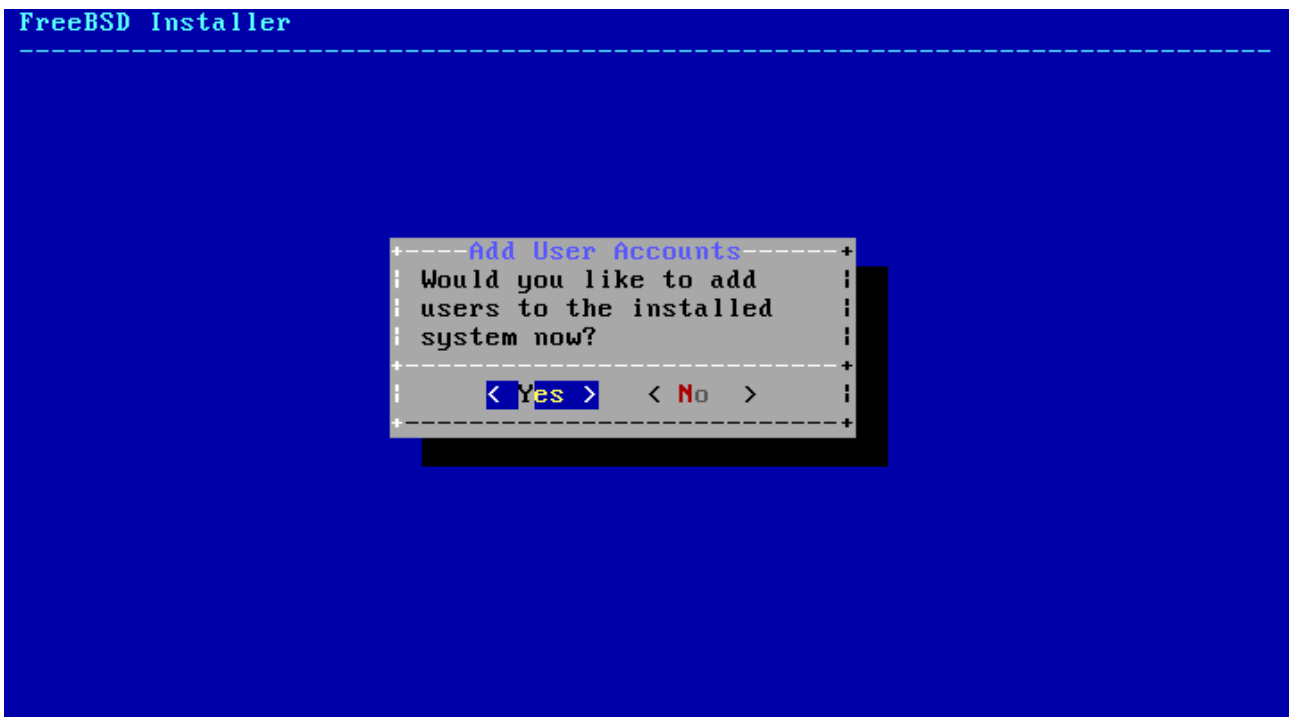




Selecione os serviços que deseja inicializar no boot do sistema.



Selecione Yes para criar um usuário regular.





Seleção Reboot e retire o CD do leitor.



Primeiro boot do SO FreeBSD



Como é servidor, o ambiente gráfico é desnecessário.

```
Updating motd:.  
Mounting late file systems:.  
Configuring syscons: blanktime.  
Performing sanity check on sshd configuration.  
Starting sshd.  
Starting sendmail_submit.  
Jan 30 14:30:39 Saitam sm-mta[607]: My unqualified host name (Saitam) unknown; sleeping for retry  
Jan 30 14:31:39 Saitam sm-mta[607]: unable to qualify my own domain name (Saitam) -- using short name  
Starting sendmail_msp_queue.  
Jan 30 14:31:40 Saitam sm-msp-queue[610]: My unqualified host name (Saitam) unknown; sleeping for retry  
  
Jan 30 14:32:40 Saitam sm-msp-queue[610]: unable to qualify my own domain name (Saitam) -- using short name  
Starting cron.  
Starting default moused.  
Starting background file system checks in 60 seconds.  
  
Sat Jan 30 14:32:41 BRST 2016  
  
FreeBSD/i386 (Saitam) (ttyv0)  
  
login: █
```

Logado no sistema como root.


```
Password:  
Jan 30 14:33:14 Saitam login: ROOT LOGIN (root) ON ttyv0  
Last login: Sat Jan 30 14:23:21 on ttyv0  
FreeBSD 10.2-RELEASE (GENERIC) #0 r286666: Wed Aug 12 19:31:38 UTC 2015  
  
Welcome to FreeBSD!  
  
Release Notes, Errata: https://www.FreeBSD.org/releases/  
Security Advisories: https://www.FreeBSD.org/security/  
FreeBSD Handbook: https://www.FreeBSD.org/handbook/  
FreeBSD FAQ: https://www.FreeBSD.org/faq/  
Questions List: https://lists.FreeBSD.org/mailman/listinfo/freebsd-questions/  
FreeBSD Forums: https://forums.FreeBSD.org/  
  
Documents installed with the system are in the /usr/local/share/doc/freebsd/ directory, or can be installed later with: pkg install en-freebsd-doc  
For other languages, replace "en" with a language code like de or fr.  
  
Show the version of FreeBSD installed: freebsd-version ; uname -a  
Please include that output and any error messages when posting questions.  
Introduction to manual pages: man man  
FreeBSD directory layout: man hier  
  
Edit /etc/motd to change this login announcement.  
root@Saitam:~ # █
```

## Instalação do FAMP = FreeBSD+Apache+MySQL+PHP

Após realizar a instalação do FreeBSD, o objetivo deste howto é explicar os procedimentos de instalação do servidor web para desenvolvimento PHP com SGBD MySQL.

Primeiramente, atualizaremos o sistema como segue.

```
root@Saitam:~ # freebsd-update fetch
```



```
root@Saitam:~ # freebsd-update install
```



## Instalação do Apache

```
root@Saitam:~ # pkg install apache24
```

```
root@Saitam:~ # pkg install apache24
Updating FreeBSD repository catalogue...
FreeBSD repository is up-to-date.
All repositories are up-to-date.
The following 9 package(s) will be affected (of 0 checked):
```

```
New packages to be INSTALLED:
  apache24: 2.4.18
  expat: 2.1.0_3
  apr: 1.5.2.1.5.4
  gdbm: 1.11_2
  indexinfo: 0.2.4
  gettext-runtime: 0.19.6
  db5: 5.3.28_3
  perl5: 5.20.3_8
  pcre: 8.37_4
```

```
The process will require 121 MiB more space.
30 MiB to be downloaded.
```

```
Proceed with this action? [y/N]: y
```

## Habilitar o Apache

```
root@Saitam:~ # sysrc apache24_enable=yes
```

```
root@Saitam:~ # sysrc apache24_enable=yes  
apache24_enable: -> yes  
root@Saitam:~ # service apache24 start
```

```
root@Saitam:~ # sysrc apache24_enable=yes  
apache24_enable: -> yes  
root@Saitam:~ # service apache24 start  
Performing sanity check on apache24 configuration:  
Syntax OK  
Starting apache24.  
root@Saitam:~ #
```

## Instalação do MySQL

```
root@Saitam:~ # pkg install mysql155-server
```

```
root@Saitam:~ # pkg install mysql155-server
Updating FreeBSD repository catalogue...
FreeBSD repository is up-to-date.
All repositories are up-to-date.
The following 2 package(s) will be affected (of 0 checked):

New packages to be INSTALLED:
  mysql155-server: 5.5.46
  mysql155-client: 5.5.46

The process will require 97 MiB more space.
8 MiB to be downloaded.

Proceed with this action? [y/N]: y
```



## Criação da senha de root do MySQL

```
root@Saitam:~ # mysql_secure_installation
```

```
By default, a MySQL installation has an anonymous user, allowing anyone to log into MySQL without having to have a user account created for them. This is intended only for testing, and to make the installation go a bit smoother. You should remove them before moving into a production environment.
```

```
Remove anonymous users? [Y/n] y  
... Success!
```

```
Normally, root should only be allowed to connect from 'localhost'. This ensures that someone cannot guess at the root password from the network.
```

```
Disallow root login remotely? [Y/n] y  
... Success!
```

```
By default, MySQL comes with a database named 'test' that anyone can access. This is also intended only for testing, and should be removed before moving into a production environment.
```

```
Remove test database and access to it? [Y/n] y  
- Dropping test database...  
... Success!  
- Removing privileges on test database...  
... Success!
```

```
Reloading the privilege tables will ensure that all changes made so far will take effect immediately.
```

```
Reload privilege tables now? [Y/n] y  
... Success!
```

```
All done! If you've completed all of the above steps, your MySQL installation should now be secure.
```

```
Thanks for using MySQL!
```

## Instalação do PHP

```
root@Saitam:~ # pkg install mod_php56 php56-mysql php56-mysqli
```

```
root@Saitam:~ # pkg install mod_php56 php56-mysql php56-mysqli
Updating FreeBSD repository catalogue...
FreeBSD repository is up-to-date.
All repositories are up-to-date.
The following 4 package(s) will be affected (of 0 checked):

New packages to be INSTALLED:
  mod_php56: 5.6.17
  php56-mysql: 5.6.17
  php56-mysqli: 5.6.17
  php56: 5.6.17

The process will require 19 MiB more space.
3 MiB to be downloaded.

Proceed with this action? [y/N]: Y
```

## Opcional: Pacotes Curl e GMP (lib para trabalhar com BigInt)

```
root@Saitam:~ # pkg install php56-curl php56-gmp
```

```
root@Saitam:~ # pkg install php56-curl php56-gmp
Updating FreeBSD repository catalogue...
FreeBSD repository is up-to-date.
All repositories are up-to-date.
The following 3 package(s) will be affected (of 0 checked):

New packages to be INSTALLED:
  php56-curl: 5.6.17
  php56-gmp: 5.6.17
  curl: 7.46.0_1

The process will require 4 MiB more space.
1 MiB to be downloaded.

Proceed with this action? [y/N]: y
```

## Editor Vim

```
root@Saitam:~ # pkg install vim
```

## Ajustes no Apache e PHP

```
root@Saitam:~ # cp /usr/local/etc/php.ini-production /usr/local/etc/php.ini
root@Saitam:~ # rehash
root@Saitam:~ # █
```

```
root@Saitam:~ # vim /usr/local/etc/apache24/httpd.conf █
```

Adicione index.php na linha 278 antes de index.html

```
267 #
268 # Controls who can get stuff from this server.
269 #
270     Require all granted
271 </Directory>
272
273 #
274 # DirectoryIndex: sets the file that Apache will serve if a directory
275 # is requested.
276 #
277 <IfModule dir_module>
278     DirectoryIndex index.php index.html
279 </IfModule>
280
281 #
282 # The following lines prevent .htaccess and .htpasswd files from being
283 # viewed by Web clients.
284 #
285 <Files ".ht*">
286     Require all denied
287 </Files>
288
289 #
290 # ErrorLog: The location of the error log file.
-- INSERT --
```

278,40

53%

Adicionar as linhas 524 e 525

```
502 # Various default settings
503 #Include etc/apache24/extra/httpd-default.conf
504
505 # Configure mod_proxy_html to understand HTML4/XHTML1
506 <IfModule proxy_html_module>
507 Include etc/apache24/extra/proxy-html.conf
508 </IfModule>
509
510 # Secure (SSL/TLS) connections
511 #Include etc/apache24/extra/httpd-ssl.conf
512 #
513 # Note: The following must must be present to support
514 #       starting without SSL on platforms with no /dev/random equivalent
515 #       but a statically compiled-in mod_ssl.
516 #
517 <IfModule ssl_module>
518 SSLRandomSeed startup builtin
519 SSLRandomSeed connect builtin
520 </IfModule>
521
522 Include etc/apache24/Includes/*.conf
523
524 AddType application/x-httpd-php .php
525 AddType application/x-httpd-php-source .phps
:~
```

Reinicie o serviço do Apache

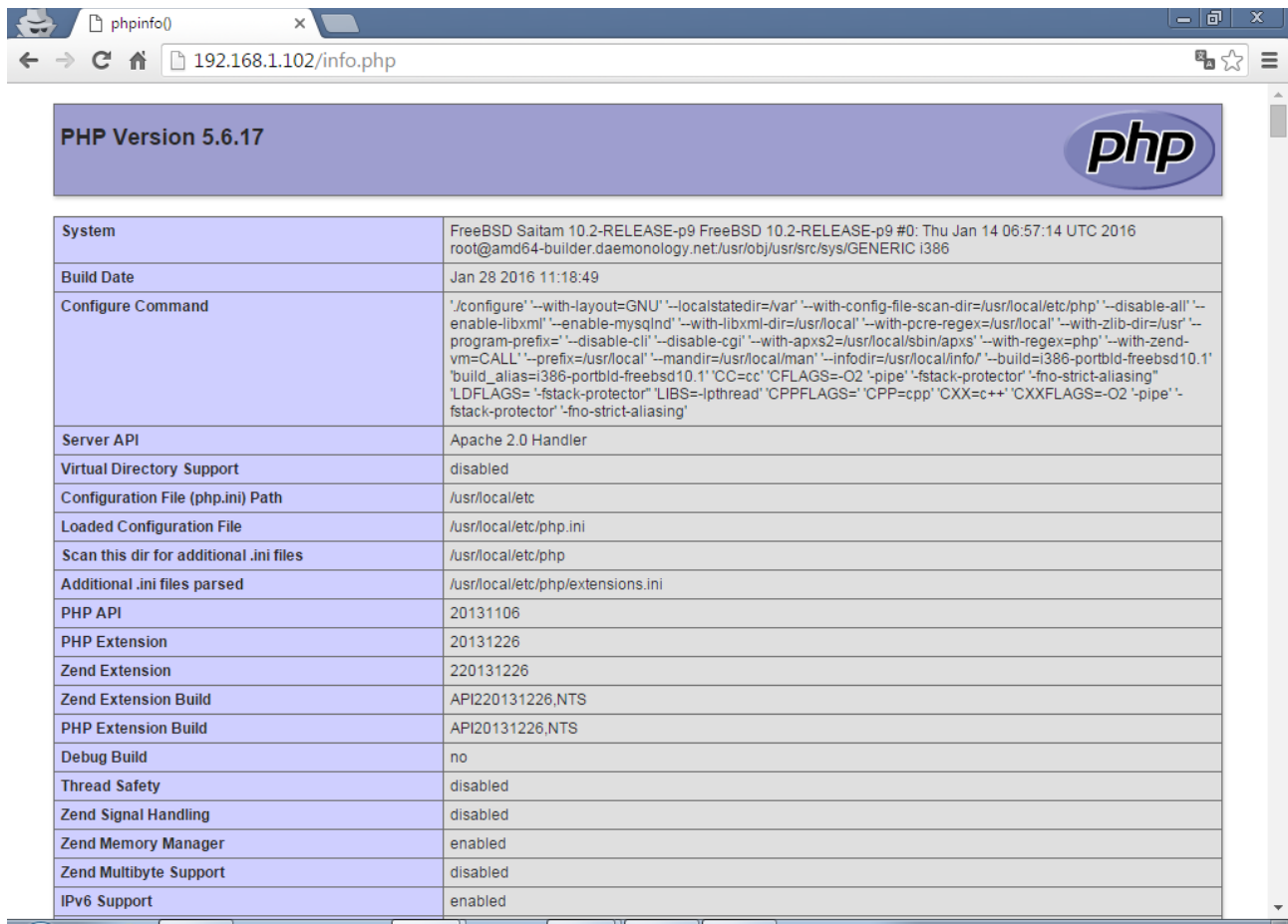
```
root@Saitam:~ # service apache24 restart
Performing sanity check on apache24 configuration:
Syntax OK
Stopping apache24.
Waiting for PIDS: 729.
Performing sanity check on apache24 configuration:
Syntax OK
Starting apache24.
root@Saitam:~ # █
```

Teste do PHP

Crie um arquivo info.php no */usr/local/www/apache24/data*

```
<?php
    phpinfo();
?>
```

Teste de outra máquina da rede. No browser <http://IPSERVIDOR/info.php>



PHP Version 5.6.17

System	FreeBSD Saitam 10.2-RELEASE-p9 FreeBSD 10.2-RELEASE-p9 #0: Thu Jan 14 06:57:14 UTC 2016 root@amd64-builder.daemonology.net/usr/obj/usr/src/sys/GENERIC i386
Build Date	Jan 28 2016 11:18:49
Configure Command	./configure '--with-layout=GNU' '--localstatedir=/var' '--with-config-file-scan-dir=/usr/local/etc/php' '--disable-all' '--enable-libxml' '--enable-mysqldb' '--with-libxml-dir=/usr/local' '--with-pcre-regex=/usr/local' '--with-zlib-dir=/usr' '--program-prefix=' '--disable-cli' '--disable-cgi' '--with-apxs2=/usr/local/sbin/apxs' '--with-regex=php' '--with-zend-vm=CALL' '--prefix=/usr/local' '--mandir=/usr/local/man' '--infodir=/usr/local/info' '--build=i386-portbsd-freebsd10.1' 'build_alias=i386-portbsd-freebsd10.1' 'CC=cc' 'CFLAGS=-O2 -pipe' 'fstack-protector' '-fno-strict-aliasing' 'LDFLAGS= -fstack-protector' 'LIBS=-lpthread' 'CPPFLAGS= ' 'CPP=cpp' 'CXX=c++' 'CXXFLAGS=-O2 -pipe' '-fstack-protector' '-fno-strict-aliasing'
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/usr/local/etc
Loaded Configuration File	/usr/local/etc/php.ini
Scan this dir for additional .ini files	/usr/local/etc/php
Additional .ini files parsed	/usr/local/etc/php/extensions.ini
PHP API	20131106
PHP Extension	20131226
Zend Extension	220131226
Zend Extension Build	API20131226.NTS
PHP Extension Build	API20131226.NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	disabled
Zend Memory Manager	enabled
Zend Multibyte Support	disabled
IPv6 Support	enabled

Pronto, temos o servidor web Apache com PHP e MySQL configurado.

## Referência sobre FreeBSD

[https://www.freebsd.org/doc/en\\_US.ISO8859-1/books/handbook/book.html](https://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/book.html)