

# Instalando o Zoneminder no Debian

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Convenções utilizadas neste documento:

- O símbolo "#" significa que o comando deve ser executado como root;
- O símbolo "\$" significa que o comando deve ser realizado como usuário;
- O símbolo ">" é o prompt do MySQL.

Assumindo que o Apache, o MySQL, o PHP5 e a sua placa de captura estão instalados e funcionando em seu sistema, vamos instalar as dependências para o Zoneminder:

```
# apt-get install -y build-essential netpbm libssl-dev libjpeg62-dev libmime-perl libwww-perl libarchive-tar-perl libdate-manip-perl libarchive-zip-perl libmime-lite-perl libdbi-perl libdbd-mysql libdbd-mysql-perl libpcre3-dev php5-mysql libapache2-mod-auth-mysql libmysqlclient15-dev gnutls-bin ffmpeg pciutils libgnutls26
```

Instale as dependências do Perl:

```
# perl -MCPAN -e shell  
install CPAN  
install PHP::Serialization  
install Sys::Mmap  
exit
```

Agora, vamos fazer o download do Zoneminder:

```
$ wget http://www2.zoneminder.com/downloads/ZoneMinder-1.24.4.tar.gz  
$ tar -zxvf ZoneMinder-1.24.4.tar.gz
```

Vamos instalar usando o usuário e grupo do apache www-data e na pasta /var/www/zm:

```
$. /configure --with-webdir=/var/www/zm --with-cgidir=/usr/lib/cgi-bin --with-webuser=www-data --with-webgroup=www-data --with-libarch=lib --with-ffmpeg=/usr/local ZM_SSL_LIB=openssl  
$ make
```

Crie o banco de dados para o Zoneminder:

```
$ mysql -u root -p < db/zm_create.sql  
$ mysql -u root -p
```

Dê as permissões necessárias para o usuário do Zoneminder no MySQL:

```
> grant select,insert,update,delete on zm.* to zmuser@localhost identified by 'zmpass';  
> flush privileges;  
> quit
```

Instale o Zoneminder:

```
# make install
```

Edite o arquivo de configuração do Zoneminder e coloque o usuário e senha para acesso ao banco de dados criado anteriormente:

```
# vi /usr/local/etc/zm.conf
```

Vamos criar um script para inicializar e para o Zoneminder:

```
# vi /usr/local/zoneminder.sh
```

Coloque o conteúdo abaixo:

```
#!/bin/sh  
# description: Control ZoneMinder as a Service
```

```
prog=ZoneMinder  
ZM_PATH_BIN="/usr/bin"  
command=`which zmpkg.pl`
```

```
start() {
```

```

echo -n "Starting $prog: "
$command start
RETVAL=$?
[ $RETVAL = 0 ] && echo success
[ $RETVAL != 0 ] && echo failure
echo
[ $RETVAL = 0 ] && touch /var/lock/zm
return $RETVAL
}
stop() {
echo -n "Stopping $prog: "
#
# Why is this status check being done?
# as $command stop returns 1 if zoneminder
# is stopped, which will result in
# this returning 1, which will stuff
# dpkg when it tries to stop zoneminder before
# uninstalling . . .
#
result=`$command status`
if [ ! "$result" = "running" ]; then
echo "Zoneminder already stopped"
echo
RETVAL=0
else
$command stop
RETVAL=$?
[ $RETVAL = 0 ] && echo success
[ $RETVAL != 0 ] && echo failure
echo
[ $RETVAL = 0 ] && rm -f /var/lock/zm
fi
}
status() {
result=`$command status`
if [ "$result" = "running" ]; then
echo "ZoneMinder is running"
RETVAL=0
else
echo "ZoneMinder is stopped"
RETVAL=1
fi
}
case "$1" in
'start')
start
;;
'stop')
stop
;;
'restart' | 'force-reload')
stop
start
;;
'status')
status
;;
*)
echo "Usage: $0 { start | stop | restart | status }"
RETVAL=1
;;
esac
exit $RETVAL

```

Vamos instalar o *applet* java Cambozola para conferir qualidade a "streamings" JPEG. O arquivo "cambozola.jar" deve ser colocado no diretório web especificado no comando "./configure" e para que os usuários beneficiem-se deste recurso, eles devem possuir ambiente Java em suas máquinas ou seja, o lado cliente precisará do JRE instalado para que o navegador funcione adequadamente:

```
$ wget http://www.charliemouse.com/code/cambozola/cambozola-latest.tar.gz
```

```
$ tar xvfz cambozola-latest.tar.gz
```

```
# cp cambozola-0.92/dist/cambozola.jar /var/www/zm/
```

Modifique os atributos do arquivo copiado:

```
# chown www-data.www-data /var/www/zm/cambozola.jar
```

Agora, deve-se habilitar a opção ZM\_OPT\_CAMBOZOLA nas configurações do ZoneMinder.

Agora abra no seu navegador favorito:

```
http://localhost/zm
```



The screenshot shows the ZoneMinder console interface. At the top, it displays "Sun 21st Aug, 12:46pm" and "ZoneMinder Console - Rodando - v1.24.4". Below this, it indicates "0 Monitors" and "Configurado para Baixa Larg/Banda". There is a table with columns: Nome, Função, Origem, Eventos, Hora, Dia, Semana, Mês, Archived, Zonas, Order, and Marcar. The table contains one row with all values set to 0. There are buttons for "Atualizar", "Adicionar Monitor", "Filters", "Editar", and "Deletar". In the top right corner, there is a link for "Opções" (Options).

Vamos fazer algumas configurações necessárias, se você quiser! Clique em "Opções" ou "Options" no canto superior direito:



This screenshot is identical to the previous one, but the "Opções" button in the top right corner is highlighted with a red rectangular box to draw attention to it.

Para mudar a linguagem do sistema para português do Brasil, na aba "Sistema" ou "System" em LANG\_DEFAULT coloque "pt\_br" e clique no botão "Save". É necessário reiniciar o Zoneminder.

## Opções

Nome	Descrição	Valor
LANG_DEFAULT	Default language used by web interface (?)	pt_br
OPT_USE_AUTH	Authenticate user logins to ZoneMinder (?)	<input type="checkbox"/>
AUTH_TYPE	What is used to authenticate ZoneMinder users (?)	<input checked="" type="radio"/> builtin <input type="radio"/> remote
AUTH_RELAY	Method used to relay authentication information (?)	<input checked="" type="radio"/> hashed <input type="radio"/> plain <input type="radio"/> none
AUTH_HASH_SECRET	Secret for encoding hashed authentication information (?)	...Change me to something unique...
AUTH_HASH_IPS	Include IP addresses in the authentication hash (?)	<input checked="" type="checkbox"/>
AUTH_HASH_LOGINS	Allow login by authentication hash (?)	<input type="checkbox"/>
OPT_FAST_DELETE	Delete only event database records for speed (?)	<input checked="" type="checkbox"/>
FILTER_RELOAD_DELAY	How often (in seconds) filters are reloaded in zmfilter (?)	300
FILTER_EXECUTE_INTERVAL	How often (in seconds) to run automatic saved filters (?)	60
MAX_RESTART_DELAY	Maximum delay (in seconds) for daemon restart attempts. (?)	600
WATCH_CHECK_INTERVAL	How often to check the capture daemons have not locked up (?)	10
WATCH_MAX_DELAY	The maximum delay allowed since the last captured image (?)	5
RUN_AUDIT	Run zmaudit to check data consistency (?)	<input checked="" type="checkbox"/>
AUDIT_CHECK_INTERVAL	How often to check database and filesystem consistency (?)	900
OPT_FRAME_SERVER	Should analysis farm out the writing of images to disk (?)	<input type="checkbox"/>
FRAME_SOCKET_SIZE	Specify the frame server socket buffer size if non-standard (?)	0
OPT_CONTROL	Support controllable (e.g. PTZ) cameras (?)	<input type="checkbox"/>
OPT_TRIGGERS	Interface external event triggers via socket or device files (?)	<input type="checkbox"/>
CHECK_FOR_UPDATES	Check with zoneminder.com for updated versions (?)	<input checked="" type="checkbox"/>
UPDATE_CHECK_PROXY	Proxy url if required to access zoneminder.com (?)	
SHM_KEY	Shared memory root key to use (?)	0x7a6d0000

Salvar Cancelar

Vamos ativar o Cambozola indo na aba "Imagens" e habilite OPT\_CAMBOZOLA.

## Opções

Nome	Descrição	Valor
COLOUR_JPEG_FILES	Colourise greyscale JPEG files (?)	<input checked="" type="checkbox"/>
ADD_JPEG_COMMENTS	Add jpeg timestamp annotations as file header comments (?)	<input type="checkbox"/>
JPEG_FILE_QUALITY	Set the JPEG quality setting for the saved event files (1-100) (?)	70
JPEG_ALARM_FILE_QUALITY	Set the JPEG quality setting for the saved event files during an alarm (1-100) (?)	0
JPEG_STREAM_QUALITY	Set the JPEG quality setting for the streamed 'live' images (1-100) (?)	70
MPEG_TIMED_FRAMES	Tag video frames with a timestamp for more realistic streaming (?)	<input checked="" type="checkbox"/>
MPEG_LIVE_FORMAT	What format 'live' video streams are played in (?)	swf
MPEG_REPLAY_FORMAT	What format 'replay' video streams are played in (?)	swf
RAND_STREAM	Add a random string to prevent caching of streams (?)	<input checked="" type="checkbox"/>
OPT_CAMBOZOLA	Is the (optional) cambozola java streaming client installed (?)	<input checked="" type="checkbox"/>
PATH_CAMBOZOLA	Web path to (optional) cambozola java streaming client (?)	cambozola.jar
RELOAD_CAMBOZOLA	After how many seconds should Cambozola be reloaded in live view (?)	0
OPT_FFMPEG	Is the ffmpeg video encoder/decoder installed (?)	<input checked="" type="checkbox"/>
PATH_FFMPEG	Path to (optional) ffmpeg mpeg encoder (?)	/usr/bin/ffmpeg
FFMPEG_INPUT_OPTIONS	Additional input options to ffmpeg (?)	
FFMPEG_OUTPUT_OPTIONS	Additional output options to ffmpeg (?)	-r 25
FFMPEG_FORMATS	Formats to allow for ffmpeg video generation (?)	mpg mpeg wmv asf avi* mov swf 3gp*

Salvar Cancelar

Na aba caminhos você edita onde deseja salvar os arquivos capturados:

## Opções

Nome	Descrição	Valor
DIR_EVENTS	Directory where events are stored (?)	events
USE_DEEP_STORAGE	Use a deep filesystem hierarchy for events (?)	<input checked="" type="checkbox"/>
DIR_IMAGES	Directory where the images that the ZoneMinder client generates are stored (?)	images
DIR_SOUNDS	Directory to the sounds that the ZoneMinder client can use (?)	sounds
PATH_ZMS	Web path to zms streaming server (?)	/cgi-bin/nph-zms
PATH_MAP	Path to the mapped memory files that that ZoneMinder can use (?)	/dev/shm
PATH_SOCKS	Path to the various Unix domain socket files that ZoneMinder uses (?)	/tmp/zm
PATH_LOGS	Path to the various logs that the ZoneMinder daemons generate (?)	/var/log/zm
PATH_SWAP	Path to location for temporary swap images used in streaming (?)	/tmp/zm

Salvar Cancelar

Adicione as câmeras que desejar, se já não estiver disponível na tela principal, clicando em “Adicionar Monitor”:

The screenshot shows the ZoneMinder console interface. At the top, there is a navigation bar with 'ZM - Console' and a plus sign. Below that, the status bar shows 'Sun 21st Aug, 12:46pm', 'ZoneMinder Console - Rodando - v1.24.4', and 'Carga: 0.00 / Disco: 4%'. The main content area displays '0 Monitors' and 'Configurado para Baixa Larg/Banda'. A table with columns for 'Nome', 'Função', 'Origem', 'Eventos', 'Hora', 'Dia', 'Semana', 'Mês', 'Archived', 'Zonas', 'Order', and 'Marcar' is visible. The 'Adicionar Monitor' button is highlighted with a red box.

Na aba “General”, na opção “Nome” coloque o nome de identificação da câmera:

The screenshot shows the 'Monitor - Monitor-1' configuration form. The 'General' tab is selected. The 'Nome' field is set to 'Camera 1'. Other fields include 'Tipo de Origem' (Local), 'Função' (Monitor), 'Habilitado' (checked), 'Linked Monitors' (empty), 'Maximo FPS' (empty), 'Alarm Maximum FPS' (empty), 'Referência de imagem Blend %ge' (7), and 'Acionadores' (Nada disponível). The 'Salvar' and 'Cancelar' buttons are at the bottom.

Na aba “Origem”, na opção “Device Path” coloque o caminho onde a câmera está identificada e abaixo coloque o tamanho em *pixels* que são capturados as imagens:

**Monitor - Monitor-1**

Probe Presets

General	Origem	Tempo	Buffers	Misc
Device Path	<input type="text" value="/dev/video0"/>			
Capture Method	Video For Linux version 2 ▼			
Largura de Captura (pixels)	<input type="text" value="320"/>			
Altura da Captura (pixels)	<input type="text" value="240"/>			
Preserve Aspect Ratio	<input type="checkbox"/>			
Orientação	Normal ▼			

 

Cliquem em "Salvar".

**Referências:**

<http://www.vivaolinux.com.br/artigos/impressora.php?codigo=8085>

<http://www.rmacd.com/howto/zoneminder-debian-lenny-install.php>

<http://www.hardware.com.br/tutoriais/sistema-vigilancia-zoneminder/>