

# MisterHouse

Home Automation Framework

Amaze your Friends!  
Annoy your Family!  
Waste Countless hours!

# 1. What is MisterHouse?

MisterHouse is an open source home automation program. It's fun, it's free, and it's entirely geeky. Written in [Perl](#), it fires events based on time, [web](#), socket, voice, and serial data. It currently runs on Windows 95/98/NT/2k/XP and on most Unix based platforms, including Linux and Mac OSX.

Misterhouse was created by Bruce Winter, and is now run as a SourceForge project with many official developers, and many users contributing code and ideas.

# 2. OK, this sounds cool. Where can I get it?

You can get Misterhouse from the official web site [www.misterhouse.net](http://www.misterhouse.net) (links to sf.net) or from the svn repository if you want to live on the bleeding edge. To get it from subversion, use the following command:

```
svn co https://misterhouse.svn.sourceforge.net/svnroot/misterhouse/trunk trunk
```

This will copy the current version from the MisterHouse subversion repository into a directory called 'trunk'. Name the target directory whatever you want.

Also, you can get the current tarball and sound files from the CD that is available during the meeting.

# 3. Enough talk. Show me how to make this *do* something!

Quick Start:

Obtain MisterHouse (MH) files.

Create a home dir (base directory) for all the MH files (/usr/local/mrh is what I use)

cd to the directory

untar /svn copy the MH files to a directory named trunk-8-14

Verify you are in the base dir and run the command 'mkdir code data data/web data/rrd data/email data/tv data/phone sounds web'. This will create the user directories you will maintain for your MH installation.

Now, run 'touch mh.private.ini'

Type 'export mh\_parms=/usr/local/mrh/mh.private.ini'.

cd trunk/bin and run './mh'. It will either start MH, or give you some informative error messages.

The most common problem will be not having perl-tk loaded. Bring up your favorite editor (which of course is xemacs) and edit the empty mh.private.ini. Add the line:

```
tk=0
```

Save the file, and try it again. You should see and maybe even hear MH start up.

Point your browser to <http://127.0.0.1:8080> and you will see the default web page interface to MH.

## 4. Front-ends

TK

Web

'house' cmd script

IM (AIM, IRC, Jabber)

## 5. Speak to me! Or, configuring speech (*man, will you be sorry!*)

**Festival:** Install festival and the default voices.

Try one of the following:

```
echo 'Hello from Festival' | ./festival --tts
```

```
./festival --server &
```

```
echo '(SayText "Hello from the festival client")' | festival_client
```

If one of these work, edit your mh.private.ini and add the lines:

```
voice_text=festival
```

```
voice_text_festival=/usr/bin/festival
```

**Flite:** Install flite

Try `flite -t "this is a test"`

If this works, add to your mh.private.ini:

```
voice_text=flite
```

```
voice_text_flite=/usr/bin/flite
```

**Cepstral:** The best voice for Linux is not free, but is actually very reasonably priced. The high quality voices are \$30 each, and the others are as low as \$10.

Purchase and install the voice or voices for Cepstral.

Add to your mh.private.ini:

```
voice_text=swift
```

```
voice_text_swift=/opt/swift/bin/swift
```

Which ever one of these options you choose, MH will now chatter. And chatter. And chatter.

## 6. Too much information...

### Weather

Forecast and current conditions

Via the web page, enable internet\_weather.pl. Follow the directions for setting the config parameters. 'read internet weather conditions' and 'read the internet forecast' will produce the desired information. Note, the forecast is for a week. Make sure you want to hear this!

Chance of Rain

Enable 'chance\_of\_rain.pl'

'when will it rain' will get the current forecast'

### AP News Headlines

enable 'news\_ap\_breaking.pl' . Enabling this will also create a trigger to get the news. Run it, then tell MH 'What is the news'. Make sure you have a bit of time until you run out the speech buffer.

### On This Day

Enable 'news\_ontoday.pl'. Run the trigger to retrieve the information. Look at the web page for the info. Interesting trivia.

### Comics

Enable 'comic\_dailystrips.pl'. Look at the code or web page to modify the ini file to get the strips you want. Run the trigger and look at the webpage to see if it worked.

### TV

This is a little complicated to set up initially, but MH will remind you when your favorite shows are starting. The lines I have in my mh.private.ini are:

```
tv_provider_name=DISH New York - New York
```

```
tv_hours=02,06,10,14,18,20,21,22
```

```
tv_channels_keep="2-13,55,100-140,300-320,502-530"
```

```
tv_channel_min=2
```

```
tv_channel_max=530
```

```
favorite_tv_shows=^House$,^CSI,^NCIS,^Good.Eats,^Numb3rs,^Eureka$,^Jericho
```

```
favorite_tv_channels=2-530
```

The TV stuff is currently not working as the company that was supplying the free listings has stopped making them available, but folks are working towards a free or low-cost alternative. <http://www.schedulesdirect.org/>

## **Stocks**

MH will let you know when you can quit your job, or have to find a second. Set the stock symbols into the ini file like so:

```
stocks=AAPL AMD BKS CSCO GME.B GPRO INTL JNJ MSFT SNE
```

One of the settings when you enable 'stocks.pl' will be what percentage to report on. The stocks line above can also be done from the web page, as can most of the settings for the modules.

## **Email**

MH will monitor email accounts and let you know when you have new mail, and who it is from. Enable 'internet\_mail.pl' and set the information that it requires.

## **LOWEST GAS PRICES**

I wrote this script when the price of gas hit \$2.00/gallon. It's a simple http scraper that looks on a web page for the lowest gas price based on your zip code. Code is on CD. copy the 'gas.pl' file to your code dir. reload/restart MH. 'get the lowest gas stations' and 'show the lowest gas stations' will do the expected.

## 7. Control the World!

### **X-10**

Anything that plugs in, you can control. Lights, appliances, even your electric water heater! For about \$40, you can control your non-inground sprinklers! There is an 8-zone X-10 sprinkler controller for about \$100 (wgl designs – see below), which will give you full control via MH for your sprinklers.

### **Motion Sensors**

Indoor or outdoor sensors. Can also sense light and dark, but takes an extra unit number. I drive 'macros' with the motion sensors, non-X-10 codes that MH sees, and does the things I expect, like turning on the hall light in the middle of the night when it sees something walking, and then dims the light down to about 25%. A timer is set, and after 2 minutes of no motion (timer gets reset back to 2 minutes with each motion), the light turns off.

## 8. Home Security System

<http://www.wgl designs.com/> has the best 'all house code' receiver, the W800RF32A. Hears all standard X-10 unit signals, and the X-10 security signals without the X-10 security console.

Wireless door/window sensors are less than \$10 each. Batteries last me over a year with heavy use.

The above is an actual screenshot of my floorplan. The door icons are door/window sensors, the light icons are either lamp or appliance X-10 modules. The temperatures are actual temperatures from my one-wire sensors.



Property

	<b>Living Room</b> 	<b>Bedroom</b>  :77
	<b>Kitchen</b> 	<b>Bedroom2</b> 
<b>Attic</b> :70	<b>Basement</b> 	
<b>Garage</b> :0:0	<b>Backyard</b> :64	

Done