

Welcome to Doberman BMS DesktopPC Server Edition.

Users Guide

<http://www.GoldenCrater.com/automation>

The screenshot displays the 'Floorplans.dbr - Doberman' application window. The interface includes a menu bar (File, Edit, View, Video Database, Help) and a toolbar with icons for About, Help, Options, Select, Zoom +, Normal, Expand, Zoom -, Code, State, Label, Both, and Scan. Below the toolbar, the 'Doberman Security' title bar features 'Siren' and 'Timer' indicators. The main area shows a detailed floor plan of a house with rooms such as FIREPLACE, BREAKFAST (11'0" X 9'6"), FAMILY (12'10" X 13'10"), DINING ROOM (Unknown X 10'0"), LIVING ROOM (17'10" X 18'0"), GARAGE (18'0" X 20'0"), MASTER BEDROOM (13'4" X 14'0"), BEDROOM 3 (10'0" X 11'0"), BEDROOM 4 (Unknown X 9'0"), and BEDROOM 2 (15'0" X 10'0"). Numerous sensors are marked with 'Unknown' labels and green triangles. A small inset window in the bottom right corner shows a live video feed of an interior room, with the text 'Unregistered' and a timestamp '15:58:44 08/05/03'. The status bar at the bottom contains the text 'For Help, press F1' and 'Run epAssist 1st'.



Here is a step-by-step guide to setting up Doberman and configuring it for use.

We suggest you read through this manual before getting started, as more depth to the options becomes apparent further into the document.

While there looks to be a lot of work to set up Doberman, a half an hour should get you up and running. You can then add Actions and Lighting Effects at your leisure. To try Doberman, we suggest you start with adding up to 10 devices. Once you have things running, you can always go back and add the rest.

Requirements

- Intel Pentium class CPU at least 200 MHz
- A computer running Microsoft Windows 98SE or better.
- Connection to Internet/LAN
- 32 MB RAM.
- 10 MB free disk space

Installing

Download and launch [setup-Dbr.exe](#)

Once installed, launch Doberman from your start menu. You should be presented with the Step-by-Step Setup dialog. If you do not see this dialog, you can display this at any time through the Step-By-Step Setup entry in the Edit menu.



Step-by-Step Setup ✕


Welcome to Doberman BMS step-by-step setup. Home automation is complex and unique to each home, hardware configuration, and personal style.

While there is no way to create an automatic setup, this screen will assist you in completing the steps required to get your house up and running as quickly as possible.

All settings available through these screens are available in the Properties and other areas of the program. We suggest you visit each button from top-down to quickly access the most popular settings.

1. Floorplan Image	7. Security Features
2. Registration	8. Location
3. Access from web	9. Setup Hardware
4. Video Capture	10. Thermostat (HVAC)
5. Device Naming	11. Macro Wizards
6. Place on Floorplan	12. Web pages/Remote clients

DONE



Create your floorplans 800x600 16 million colors in PNG, BMP or JPG format. We suggest either PNG or BMP format. JPG is great for photos, but line art can get blotchy or blurry.



HINT

If you have a builder's sales brochure with a floorplan, try scanning them in Greyscale mode and then adjust the contrast to clean them up.

HINT

If you do not have a graphics package to supports PNG, you may wish to look at Paint Shop Pro by JASC which supports many formats, including PNG. Their product has a 30 day trial.



It is best to visit each of the twelve buttons in order, but it is not necessary to do so. You can return to any button at any time. Advanced configuration features are available by pressing the Options toolbar button.

Doberman treats the items on the floorplans as a separate layer from the actual automation system. Automation, macros, and security can run without any items on the floorplan. The floorplan provides status checking and adjustment from any of the interfaces such as PocketPC or smart phone.



Configuring your Home Layout

Addressing of Devices

Before we begin configuring your house for automation, you will need to understand how the Doberman system addresses devices.

Device addressing is achieved though selecting one item from each of the four drop lists that make up an address.

- Machine Address. Devices controlled by the server machine are addressed as either empty, or "LocalDbrServer" If you are controlling a web controllable system such as the PowerLincIP or HomeGenius through Doberman, you would enter the IP address of that controller. This drop list also allows you to type in the address if you cannot locate it in the list. The next time you use this drop list, the address will be remembered.
- Device Type. This is where you tell Doberman how to talk to the controller. A machine may have more than one controller installed, such as an X10 CM11 Computer Interface and an Aprilaire 8870 Thermostat.
- Group / Zone or House Code. Most systems group their devices into House Codes or other groupings. X10 has house codes from 'A' to 'P'
- Unit or Node. Again, depending on the system. X10 uses unit codes from '1' to '16'.

All four components are required to address a particular device.



The screenshot shows a form titled "Select Device" with four dropdown menus. The first dropdown is set to "LocalDbrServer", the second to "CM11a", the third to "A", and the fourth to "1". A fifth dropdown menu is open, showing "On" and "Off" options, with "On" selected.



In Device Naming, you may choose a friendly name for a device address. Once named, you may choose this name from the dropdown on floorplans, Action Spiders, or use it in GCSScript or Web pages.



Configuring the System

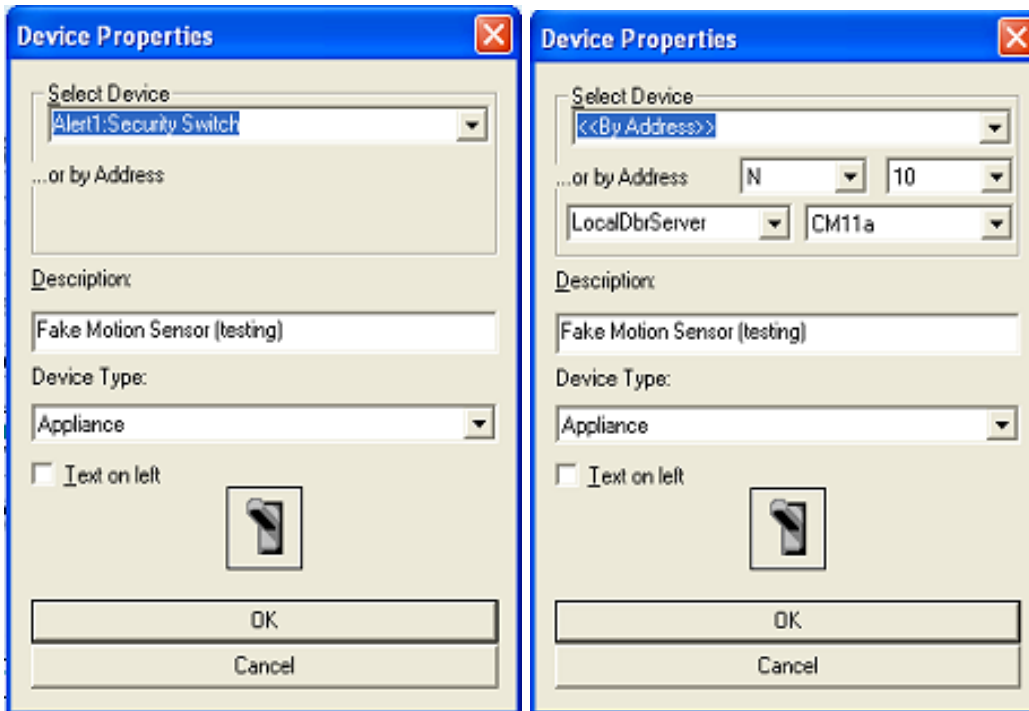
- Launch Doberman Security & Automation and choose the Options toolbar button.
- If you do not see this dialog, you can display this at any time through the Step-By-Step Setup entry in the Edit menu.
- Step 1, choose your floorplan. This will be copied and displayed on your system.
- Step 2, enter your registration code. If you are a subscriber, enter that code in screen.
- Step 3, when accessing from the web, you will need a server port, user name and password. You will also need to name your system.
- If you are using a video capture card, or a USB camera, enable it in step 4.
- Step 5 allows you to name your devices for easier programming and reference. You do not need to name all devices, as you can still access any device via the full addressing scheme.
- Step 6, place the items on the floorplan. The toolbar docked on the left-hand side contains a green triangle to place items; as well as a moving and selection tool; circle, square, and line drawing.


Placing devices on to your blueprint

- From the Edit menu, choose Blueprints
- Select the green triangle in the blueprint toolbar 
- Click on the floorplan every place you wish to create a sensor marker.
- Choose the Select toolbar icon 

Double click on each icon you placed on the blueprint and configure it with the proper address and type.





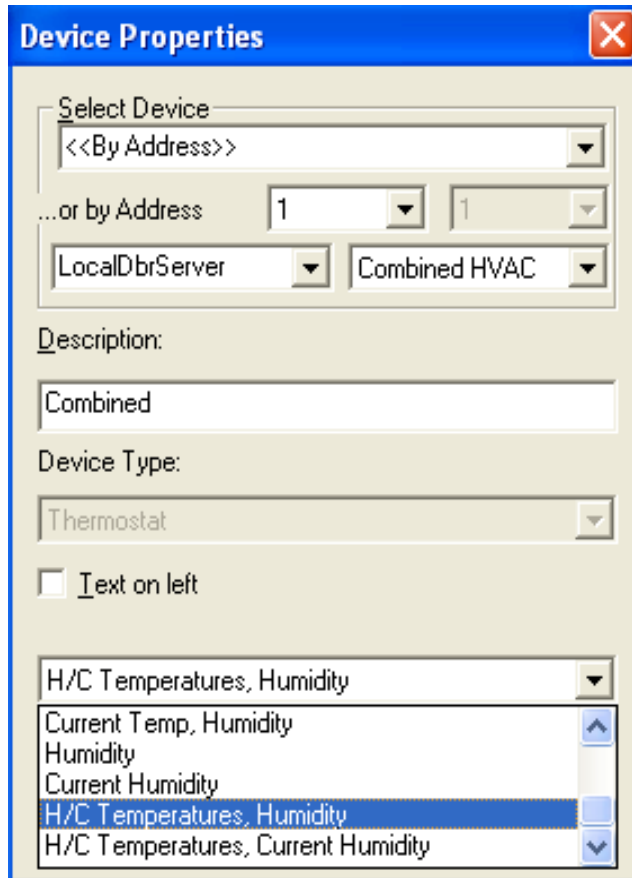
To delete an object, simply select it and choose the delete icon on the toolbar .

* Note, the type does not have to match sensor types for alarms. It is common in X10 to have a motion sensor directly control a light, and so the motion sensor and light will have the same address.

HINT

HVAC systems allow you to choose how the controller is displayed. Since some controllers allow for separate heat/cool setpoints, or have a 'setback' feature, choose the type that best describes the abilities of your controller.

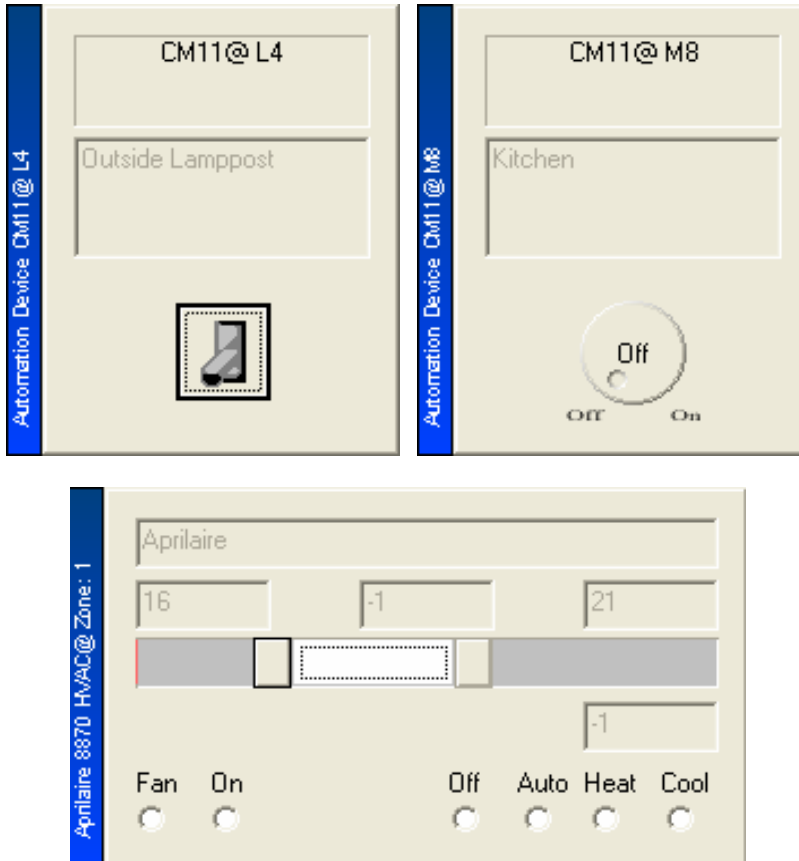




When finished, click the DONE button on the floating window (if you entered from Step-by-Step) otherwise, choose Edit..Blueprints again to dismiss the Blueprint toolbar and save your changes.



You can now double click on a marker (when Select is chosen on the toolbar) to directly control the device using the switch marker, dimmer knob, or Thermostat. You may need to dismiss the popup to have the device activate.



Enabling the security features

Step 7 enables the security subsystem.

The Delays tab allows you to configure the length of time the alarm sounds for, and other features.

Doberman has several levels of security. Disarmed where opening doors and motion will not trigger a security alarm (but can trigger other macros.) Fully armed will trigger the alarm state if tripped by either a door or a motion sensor and is useful when there is nobody in the house. MotionLock secures the door sensors, but motion sensors will automatically turn on lights to alert you to a presence, or simply light the path as you make your way from one part of the house to another.

Keep in mind that just because a device being used by the security system, does not preclude it from being used for other purposes. You may have a door security sensor on the front door that also triggers a 'light on' macro from dusk to dawn regardless of the security state.

The Passcodes tab allows you to enter a series of codes to arm or disarm your security system. While you can select codes by named device, the system will convert these to direct address codes.

To program the disarm (unlock) sequence, highlight the Unlock radio button. Then using the Select Device dropdowns, choose, for example, CM11a A 1 Off and press Set. A string will appear in the edit control (`{aLocalDbrServer|A1}[off]-`)

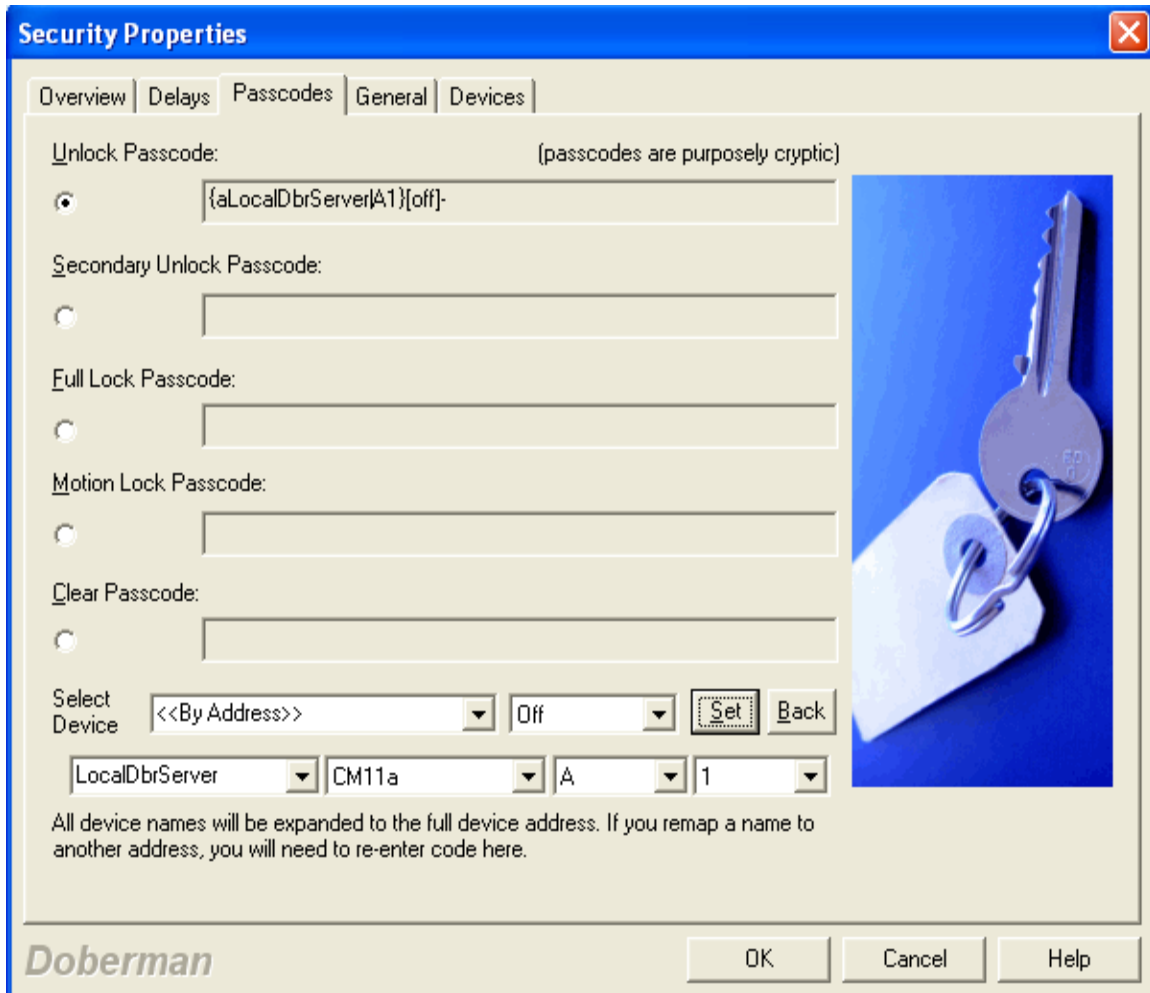
Highlight the FullLock radio button and select LocalDbrServer CM11a A 1 On (remember to click Set.)

Finally enter LocalDbrServer CM11a B 1 On for MotionLock.

- To arm the system (where motion sensors will trigger an alarm) press **A1 On** using a remote controller.
- Where only door sensors trigger an alarm (and motion will turn on lights) press **A2 On**.
- To disarm, press **A1 Off**.

* While using X10 devices, we suggest no more than two (2) entries per passcode, as you must wait 1 second between button presses.





In the General tab, you may enter the email addresses alarms are sent to. For this configuration, turn on "No Delay.." (Once an intrusion is sensed, the sirens start.) Also, in the first email address box, enter you own.

Configuring Security, Fire and other alert Sensors

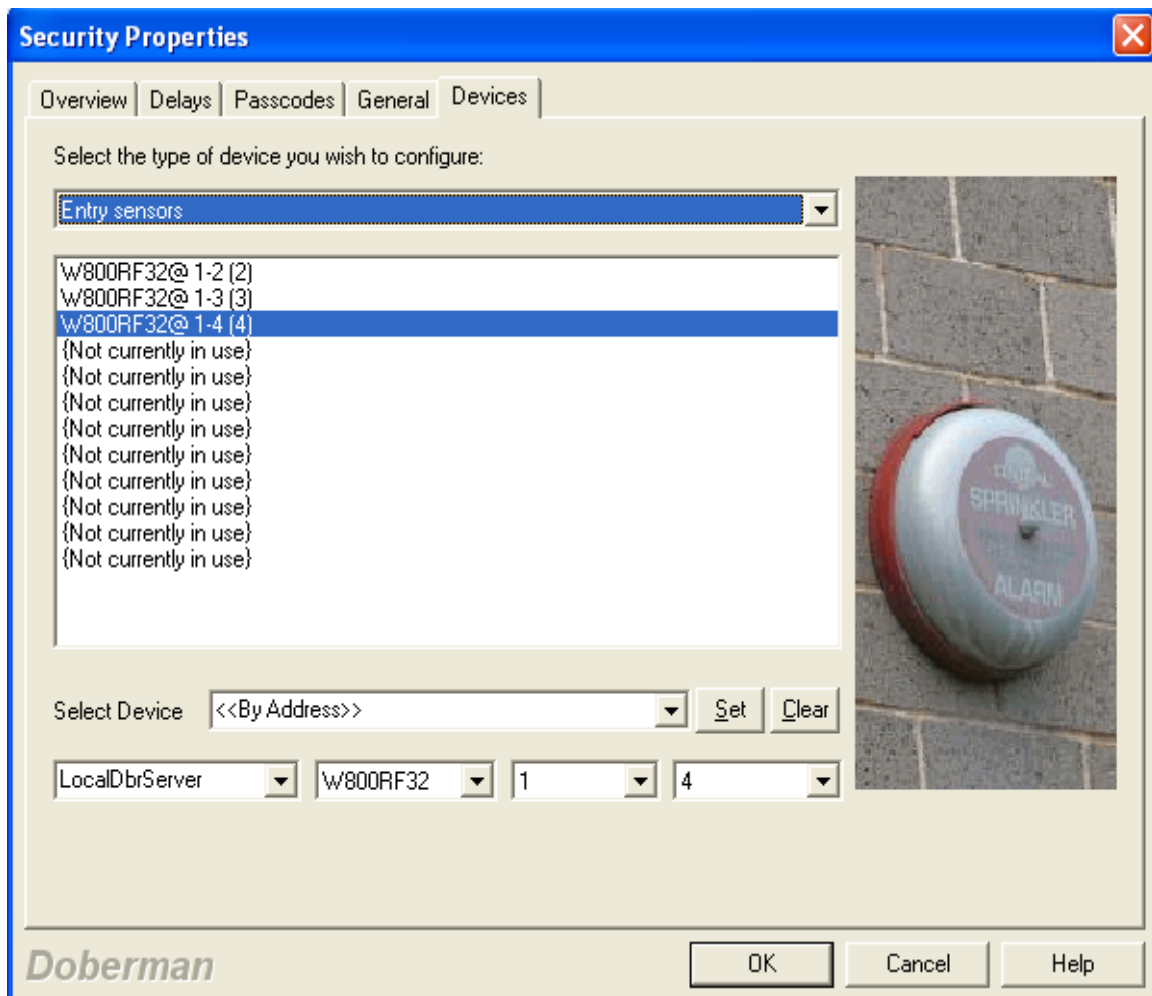
Doberman has several devices that it automatically can control in certain situations. These are configured in the Devices tab.

- Passcode acknowledge (blinks when a lock/unlock code is recognized)
- Waiting for Passcode (lights when entry is sensed and waiting for unlock code before setting off alarm)
- Motion Sensors



- Entry Sensors (these sensors are always treated as an alarm if the system is armed)
- Panic Buttons (will sound alarm regardless of armed status)
- Flash During Alert (call attention to your house)
- On during Motionlock (if motion is sensed while motion lock is armed, these devices will turn on for you -- automatic night light)
- Other types of on/off sensors for different alarm types.

Choose the type of sensor in the dropdown. Choose a position in the listbox, and then select and Set the device as you did for the passcodes. If you wish a light to blink once to let you know the system is armed, choose it here. Also, configure your motion sensors now.



Configuring for the Automation Hardware

Step 9 of the Step-by-Step allows you to configure the Doberman system to communicate with the hardware you own.

Some devices that are IP (internet) based need no configuration and are activated by simply being referenced in a macro, floorplans, for security. PowerLinc IP and Home Genius are of this type.

Some USB devices are 'discovered' on their own. PowerLinc USB falls into this category.

Most other devices are serial (COM port) based, and typically need only the COM port number to be selected.

More complex systems may require a configuration process, such as a RCS X10 thermostat will require setting the house code, etc. Typically there is a release note specific for each of these systems.

Step 10 allows for configuration of the HVAC components. The Heating, Ventilation and Air Conditioning (HVAC) is a very powerful subsystem in Doberman. Taking the time to configure this system can increase comfort levels and save energy costs for years to come.

- The Virtual Humidistat accepts the input humidity from one device and will control up to two relay type devices – a humidifier and a dehumidifier.
- A Combined controller allows two separate hardware devices to work as one. In this case, a controllable thermostat and a controllable humidistat can be displayed and controlled as one device.
- Outside Air Enthalpy Control is a logic only subsystem (there is no display or control) designed to save heating and cooling costs. Simply put, it accepts temperature and humidity inputs for both inside and outside the building. It then calculates whether it requires more energy to condition the inside or outside air to the present temperature and humidity settings and will control an outside damper to that effect.
- Outside Conditions via GCSScript creates a virtual outdoor temperature/humidity sensor that is updated every 15 minutes by running the embedded GCSScript. Using the powerful scripting language, the results are returned via a simple XML. A programmer can write GCSScript to lowload and parse data from a web site, or execute a program written in Perl, CGI, or VB and await and parse the response. Or, it could simply load and handle a text file output from another program. The [?] button provides more detail.
- Automatic Humidity Control loads an XML file upon startup. This file contains outside temperature and inside humidity pairings. As the outside temperature changes, this code adjusts the inside humidistat to the correct setting. As it gets colder outside, you want as much humidity inside as possible, without frost building on the windows.



Your Video Library

Before we get started on creating Actions (using the Wizard and Action Spiders) you might wish to enter your video and DVD library under the Video Database menu. You can enter by hand, or try typing in the UPC (barcode) and we'll see what information we can find on the web, or use a DigitalConvergence CueCat barcode scanner, if you have one around. You don't even need the driver disk.

While you're at it, choose Edit..Update System Time to have Doberman synchronize your system with an atomic clock (over the internet.)



Wizards

Of course, you can create Action Spiders, and GCSScript, but simple, common tasks and timers should have a simple way to configure.

Lighting Effect Wizard

Lighting Effects bind several lights together into one common group with a common trigger. A Dimmer Group is a group of lights that all dim and brighten together. A pushbutton group binds a single button to several lighting levels, cycling through those levels. Mood Cycle Group allows a group of devices to cycle through a pre-defined configuration, such as dimming lights, turning on the TV and lowering a screen.

These macros will not appear in the regular Action Spider listings, but may be modified by re-entering this wizard.

Example for creating a Dimmer Group.

- In the first page of the wizard, choose <<Create New>>
- Provide a name in the next page (2 Lights on 1 Switch)
- Choose Dimmer Group
- Choose the trigger (the switch that will control the others.) We choose D1.
- Add D2 and D3 to the final page and choose Finish

Now, when you press the D1 On button, D2 and D3 will turn on. Both D2 and D3 (as well as D1, if connected) will turn on/off and dim together as one unit. D2 and D3 can still be controlled separately.

Auto-Off Wizard, Timer Wizard, Thermostat Wizard

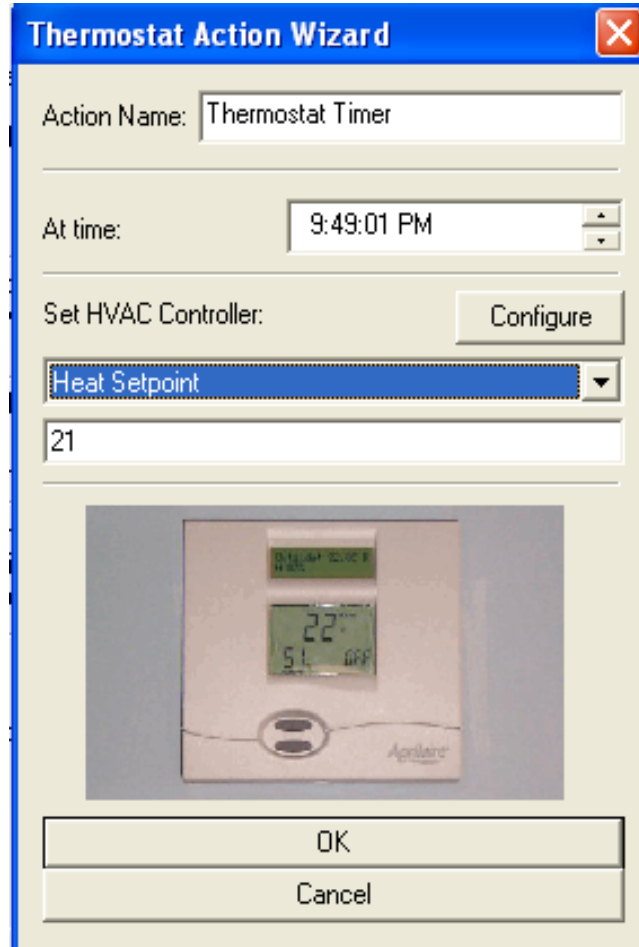
These wizards, found under the Edit..Macros and Wizards have been created to assist in creating some of the most common macros you will use. The macros created by these wizards can then be found and modified inside the "Action Spider" interface.

The Auto-Off wizard will create a macro that will automatically turn off any device at a specified time, or then another device triggers it. Useful for creating 'one touch' buttons that turn off any lights accidentally left on. You may also create macros that automatically turn off deck, garden, pool lights at 11:00pm so they aren't accidentally left on.

The Timer Wizard is probably the most commonly use wizard in Doberman. This wizard simply creates macros to run lights in place of a mechanical timer. Choices are dusk, dawn, and specified time. Remember this is often only a starting point for a more complex macro, once modified in the "Action Spider" interface.

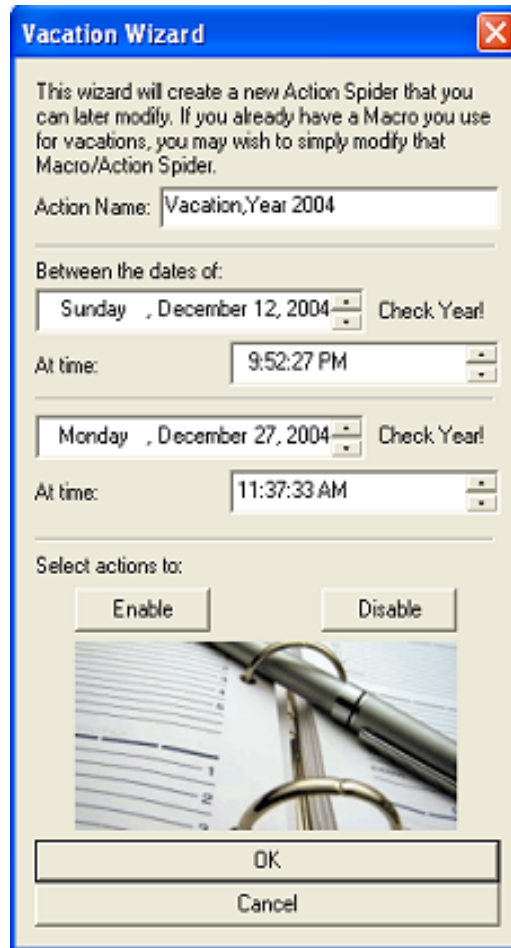


The Thermostat Wizard allows you to quickly add those timed setback features found in many thermostats. Of course, once you begin modifying you can even have macros only run when devices are in certain states. Allowing home office workers to have the setback run only when the house is unoccupied or choose different temperatures at different times of the year.



Vacation Wizard

The Vacation Wizard assists in producing a macro that will, between a set of dates and times, place the system into 'vacation mode'. This is accomplished by listing macros that are to be enabled (automatic lights) and disabled (normal furnace operations) during these times.



Vacation Wizard

This wizard will create a new Action Spider that you can later modify. If you already have a Macro you use for vacations, you may wish to simply modify that Macro/Action Spider.

Action Name:

Between the dates of:


Check Year!

At time:

Check Year!

At time:

Select actions to:



Any macro still enabled can query the status via the Named Device "State:Vacation".



Actions (macros)

Choose Action Spider from the Edit..Macros and Wizards menu.

The Action Spider interface is a graphical drag and drop interface to allow anyone to quickly build the automatic features expected of an Automated House.

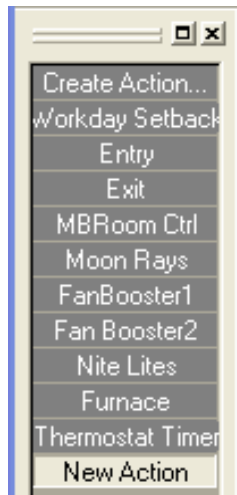
HINT

Check out the different Wizards available which may help create a starting point for your macro.

HINT

Device states do not have to be associated with a real device. For instance, if Doberman sees **CM11 A5 On**, it will remember that state, even if there is no device associated with **A5**.

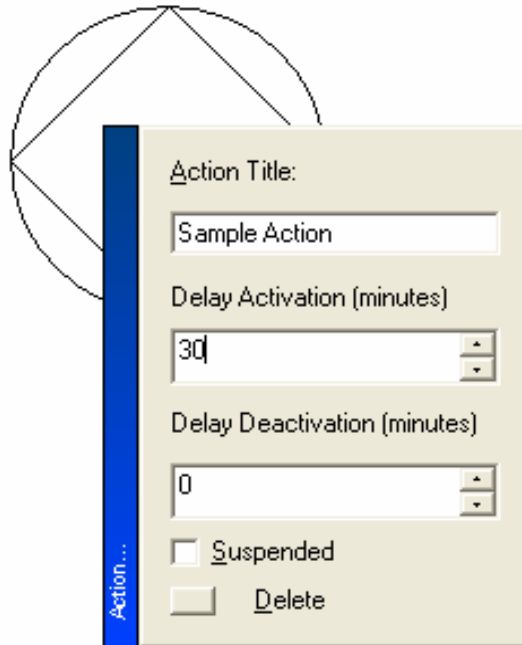
- Click "Create Action"



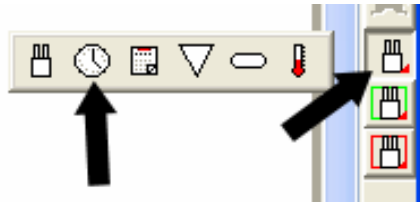
-
- Click the New Action created.
- Right click inside the circle



- Change the title and set the Delay Activation to 30 minutes.



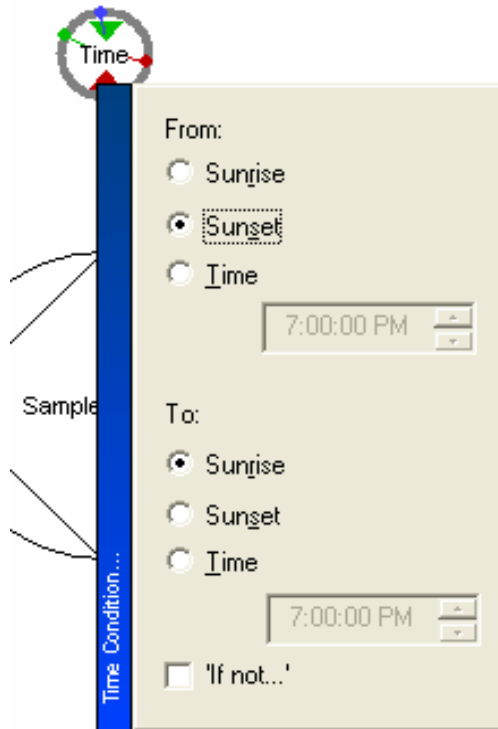
-
- Click and hold the item toolbar until a sub-toolbar appears
- Continue holding, and drag to select the new item
- Choose the clock toolbar icon



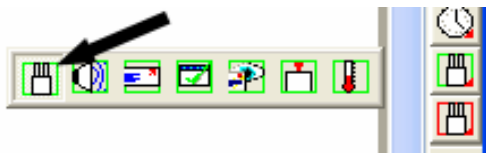
-
- Click above the action body to place the symbol
- Click the action body to attach the symbol



- Right click on the Time symbol and set the properties to From: Sunset To: Sunrise



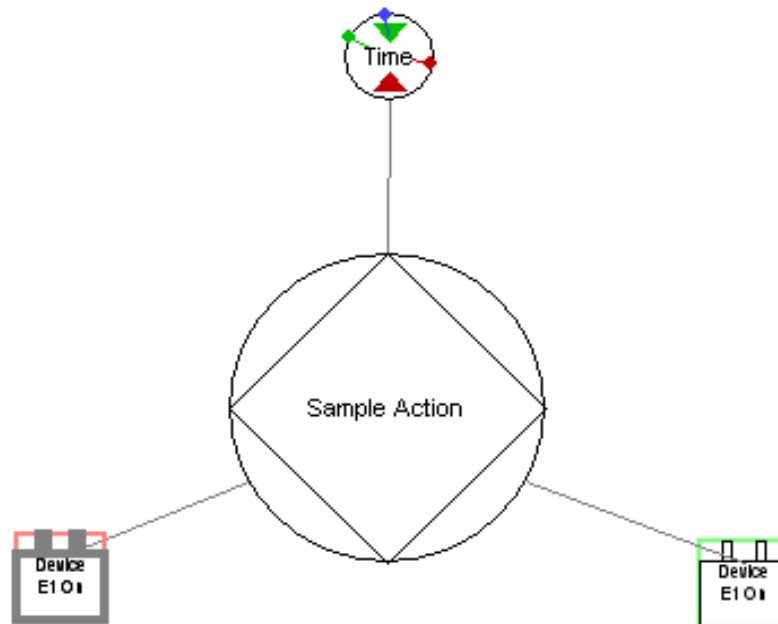
- Choose the green device icon



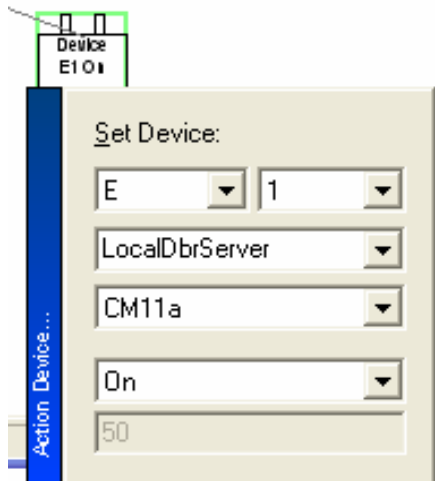
- Click below and to the right of the action body to place the symbol
- Choose the red device icon



- Click below and to the left of the action body to place the symbol



-
- Right click on the green symbol and set the device to E1 On. Dismiss the popup.



-
- Right click on the red symbol and set the device to E1 Off. Dismiss the popup.



You have now created an Action that will turn on Light E1 30 minutes after dusk and turns it off at dawn.

The green icons are executed when the condition(s) are true (between dusk and dawn) and red is executed when false. We inserted a 30 minute delay before execution.

Choose Edit...Action Spider to save your actions.

Close Doberman and save your changes.

Your Actions and Lighting Effects will still execute as long as Doberman Server is running.

A special note about Date Condition:

This condition works in several modes. With 'Repeat' disabled, this condition is true between these two dates and times. Repeat enabled will allow to macro the trigger on and off on a sequence, such as every 2nd Friday.

The Every year checkbox updates the year field every year after the 'Until' time has passed. Allowing for seasonal macros such as Christmas Lights from Dec 1 to Jan 15, every year.

From:
Sunday, December 12, 2004
9:52:24 PM
 Repeat
Every
Is Between
 Until
Thursday, January 01, 2004
1:01:01 AM
 Every Year
 'If not...'



Advanced Server Configuration

The Doberman Server can be configured to serve more directories and realms. You may wish to create areas for your answering machine files, music collection, or anything else you might want to access over the web.

In ServerDirectories.ini, you will find a simple INI style layout:

Set Directories in [General] to the number of directories you wish to configure, then in each [Dir#], configure the settings.

The sample installed with Doberman shows how '/Phone' and '/Music' might be configured. However, in [General], the Directories=0, so no directories are active.

```
[General]
Directories=2
DNSLookup=0

[Dir1]
Alias=/Phone
Path=c:\program files\doberman\AnsweringMachine
DefaultFile=index.htm
DirectoryListing=1
AllowScript=0
Username=phone
Password=password
Realm=Phone

[Dir2]
Alias=/Music
Path=c:\program files\doberman\Media
DefaultFile=index.htm
DirectoryListing=1
AllowScript=0
Username=mp3
Password=password
Realm=Music
```



Your Home via the Web

To access your house from the web, Doberman BMS has included a DobermanTC realm. Any web pages in this realm can contain embedded substitutions that are evaluated before the page is sent to the client. This allows you to create a flexible website and complex or simple as suits your needs.

epAssist Assistant Page - Microsoft Internet Explorer

Address: http://192.168.01.24:90/~TestServer/AssistantReply.eax

Refresh Compose Email

Hello, how can I assist you?

show doberman status

Go!

08/27/03 22:06:02 Web Request223805

Doberman Status

Security System Status: Disarmed
Motion ACTIVATED

Living Room Motion (Clear) [v]
Outside Lamppost (On) [v] On [v]
Go

Nursery Nitelite (23%) [v] On [v]
Go

Aptaire (Auto:18) [v] Heat +1 Deg [v]
Go

Current status for all devices monitored by Doberman Security & Automation

Floor plan diagram showing sensor locations and statuses:

- PREFACE: N10 Sensed
- PANTRY: M5 Unknown
- BREAKFAST: N14 Unknown
- MASTER BEDROOM: N10 On, Zone-1 Auto:18, Zone-1 0% H, N5 Unknown
- Other sensors: N10 On, M5 Unknown, N10 On, A1 On, A3 On

[See separate document.](#)



Your Home via Client 'Touchscreens'

Doberman has been designed with remote clients in mind. You may purchase licenses separately for these thin client devices (software only, device must support internet connectivity.)

Windows 9X, NT, 200, XP

The screenshot displays a home automation interface. On the left, a floor plan shows various rooms: Kitchen (11'0" X 10'0"), Dining Room (10'0"), Living Room (17'10" X 10'0"), and Foyer. Controls include 'Clear', 'Multi', 'Off', 'Heat:21', and 'Unknown'. A 'Foyer Light CM11@ M6 State Only' control is shown in a pop-up window. The right side features a blue sky background with a clock and a weather forecast section with four icons and their corresponding data:

Current	Today	Tomorrow	Forecast
1C (-6C)	7C/7C	12C/-3C	-2C/-8C
RH:93%	POP:90%	POP:60%	POP:20%

At the bottom left, a timestamp reads '16:22:54 01/23/05'. Text at the bottom of the interface reads: 'Doberman BMS Desktop Client Demonstration Skin (c) 2005, Golden Crater Software'. The text 'Automation TV and News' is visible in the center-right area.

Version 4.0 supporting full multi-screen layout customization, news, weather, sports, stocks, and TV listings.



PocketPC 3.0, 2002, 2003



Microsoft Smartphone 2002, 2003 and Nokia Series 60



Check back for availability for other platforms.

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