



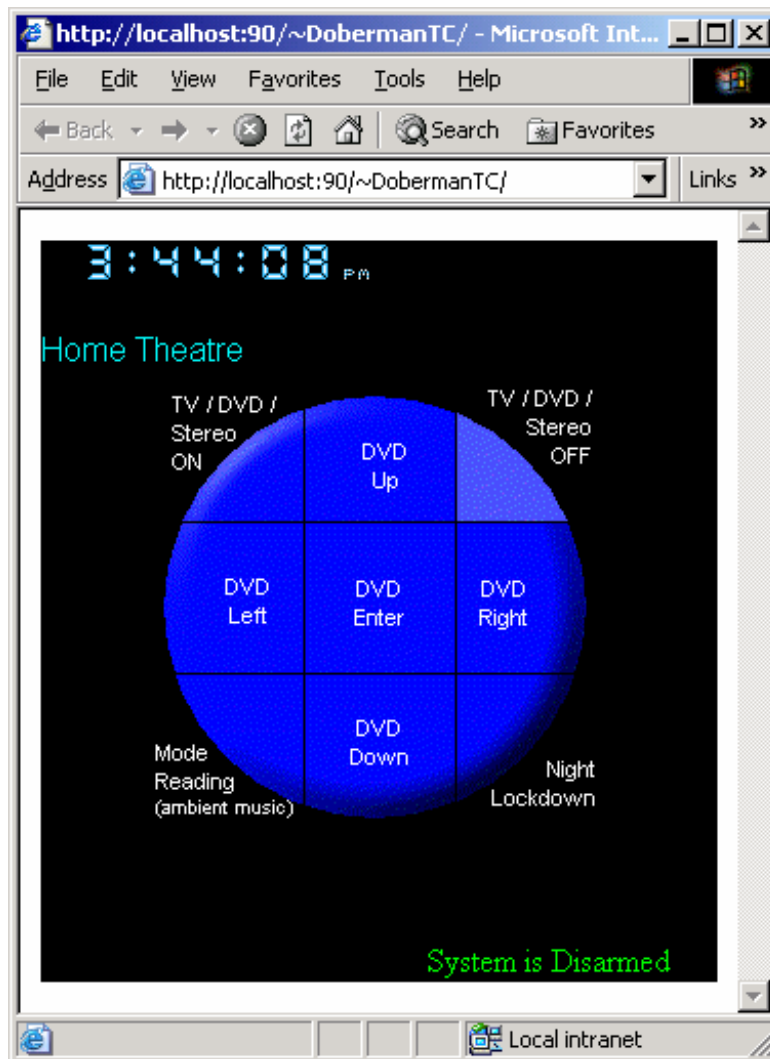
# HTML Macro Substitution Engine (Web Page Customization)

1.01

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## What is the HTML Macro Substitution Engine, or Doberman Touchscreen?

Touch Screen mode is special mode within the server that translates special tags in an html page before serving it. This allows for interactive web pages that contain Home Automation status information. These pages may include graphics and Java Script.



Doberman BMS Server includes a macro substitution engine within the Doberman realm.

In order to use the Doberman realm, place your website files in the folder name “Your Doberman Touchscreen web space” as specified in WebAccessLinks.html. This folder is normally called PlaceDobermanWebTouchscreenFilesHere.

To access the Doberman realm, follow the link provided in WebAccessLinks.html. The virtual folder is ~DobermanTC.

<http://192.168.1.2/~DobermanTC> (The default page is index.html)

When the server is asked to send any web page stored in the realm, it will first read the file and search for any macro substitutions.

All macro substitutions begin and end with a ‘^’. This text will be substituted with the result and then sent to the requesting web browser.

Since the result is standard HTML, the browser needs no knowledge of the Doberman BMS system. Furthermore, substitutions can take place in any part of the HTML text. This includes displayable text, link or image references, and even javascript.

Translated file extensions are:

- \*.html
- \*.htm
- \*.txt
- \*.xml

**All Links and substitutions are case sensitive.**

## Status Evaluation

These substitutions evaluate the security subsystem status and replaces with one of the two supplied text strings.

`^evalStatus&<value>?"string true":"string false"^^`

If the status evaluates true, the text is substituted with the first string.

If the status evaluates false, the text is substituted with the second string.

<value> may be:

Armed	System is armed
Disarmed	System is disarmed
MotionLock	MotionLock is active
Door	Door is open
Fire	Fire alarm sensed
Flood	Flood alarm sensed
Motion	Motion sensed
Temp	Temperature alarm sensed
TimeOut	System waiting for unlock code before sounding alarm
Alarm	System in alarm mode
Battery	System on battery backup

Example:

`<b> The security system ^evalStatus&Armed?"locked and":"is <i>not</i>"^ enabled  
</b><br>`

If the security system is not armed, this would return to the browser:

`<b> The security system is <i>not</i> enabled </b><br>`

## Evaluation Expression

These substitutions evaluate based on an “on” or “off” condition and replaces with one of the two supplied text strings. Please note: a dimmer will evaluate anything below 50% as “off” and above as “on”.

```
^evalAddr&<address or name>?"string true":"string false"^^
```

If the status evaluates true or above 49%, the text is substituted with the first string.

If the status evaluates false or below 50%, the text is substituted with the second string.

Names are from a ‘Named Device’, while the address is encoded as such:

Daddress|Zu

D is the device lookup from the table below (either 1 character, or 3 character, beginning with ‘\’.)

address is the IP, machine name, or “LocalDbrServer” for most devices.

Z is the Zone. In X10, this is A-P. For other types, check zone table below..

U is the unit within the zone. In X10, this is 1-16.

Example:

B5 on an X10 CM11a (‘a’), connected to the server would be coded as:

aLocalDbrServer|B5

Full string would be:

```
^evalAddr&aLocalDbrServer|B5?"Light on":"Light off"^^
```

Where B5 on a PowerLinc IP (00) at the cottage (IP 192.168.1.2) might be:

\00192.168.1.2|B5

## Format Expression

These substitutions evaluate based on internal representations and format.

`^format&<address or name>^`

If the status evaluates 100% or On, the text is substituted is “On”.

If the status evaluates 0% or Off, the text is substituted is “Off”.

If the status evaluates anything else, the text is substituted is the values followed by a %, such as “5%”

Names are from a ‘Named Device’, while the address is encoded as such:

`Daddress|Zu`

D is the three character lookup from the table below.

address is the IP, machine name, or “LocalDbrServer” for most devices.

Z is the Zone. In X10, this is A-P. For other types, check zone table below..

U is the unit within the zone. In X10, this is 1-16.

Example:

B5 on an X10 CM11a (‘a’), connected to the server would be coded as:

`aLocalDbrServer|B5`

Full string would be:

`^format&aLocalDbrServer|B5^`

## Value Expression

These substitutions evaluate based on the actual value for the device, without formatting.

`^value&<address or name>^`

For dimmer values, this returns 0 to 100. For On/Off devices, the return is 0 or 100. For other devices, the return depends on the hardware, and could be temperature in degrees, humidity in R.H. or other value.

Names are from a 'Named Device', while the address is encoded as such:

`Daddress|Zu`

D is the three character lookup from the table below.

address is the IP, machine name, or "LocalDbrServer" for most devices.

Z is the Zone. In X10, this is A-P. For other types, check zone table below..

U is the unit within the zone. In X10, this is 1-16.

Example:

B5 on an X10 CM11a ('a'), connected to the server would be coded as:

`aLocalDbrServer|B5`

Full string would be:

`^value&aLocalDbrServer|B5^`

## Changing Device Settings via Web Page

The Doberman realm also allows you to send changes to a device via normal HTML. These changes do not require forms or any scripting and are accomplished via building page references.

There are six web pages that are part of the realm. When the server sees a request for any of these pages, it looks for the device address to change, and since these pages really don't exist, a new web page to return.

For example:

A light named "FrontDoor"

```
<a href="DeviceOn.lnk&FrontDoor?MainMenu.html">Turn Front Door light on</a>
```

Selecting the link would turn on the light associated with the device name "FrontDoor" and then display the MainMenu.html web page. Device can be either a Named Device, or a full device address.

```
<a href="DeviceOn.lnk&aLocalDbrServer|A5? Menu.html">Turn A5 on</a>
```

You are not limited to the HREF tag. Java code, JavaScript, or even Flash can request these actions via HTTP GET.

### **DeviceOn.Ink&Device?Page**

Turn on 'Device', display 'Page'.

`<a href="DeviceOn.Ink&aLocalDbrServer|A1?MainMenu.html">Turn hall light ON</a>`

### **DeviceOff.Ink&Device?Page**

Turn off 'Device', display 'Page'.

`<a href="DeviceOffInk&FrontDoor?MainMenu.html">Turn Front Door light off</a>`

### **DeviceDim.Ink&Device?Page**

Turn send a single DIM to 'Device', display 'Page'.

`<a href="DeviceDim.Ink&FrontDoor?MainMenu.html"> Dim Front Door light </a>`

### **DeviceBright.Ink&Device?Page**

Turn send a single BRIGHT 'Device', display 'Page'.

`<a href="DeviceBright.Ink&FrontDoor?MainMenu.html">Brighten Front Door light</a>`

### **DeviceSet.Ink&Device?Page:Value**

Set 'Device' to specific Value, display 'Page'.

`<a href="DeviceSet.Ink&FrontDoor?MainMenu.html:50">`

`Set Front Door light to 50% </a>`

### **HVAC.Ink&Device?Page:Value**

Set HVAC 'Device' to specific Value, display 'Page'.

`<a href="HVAC.Ink&Temperature?MainMenu.html:72">`



## Further Customization

### FavIcon.ico

Registered users may further customize their web experience with the FavIcon.ico.

Some web browsers, will request the server's favicon.ico when a favorite or bookmark is created to a web page. It may also display it in the address bar.

If you place a valid icon (.ICO) file with the name FavIcon.ico into the Doberman folder, your custom icon will be transmitted in place of the system icon. This can allow you to locate your system's web pages more easily in your list of favorites.

### Security video capture

You may also insert your security video capture into a web page by requesting the following file:

`http://<<serverIP:serverport>>/~<<System Name>>/SecurityCamCapture.bmp`

This file is not part of the Doberman realm, but part of the system realm. You may be asked again for your username and password.

Example:

```

```

Device	Protocol (case sensitive)
CM11	a
MAX Serial	b
CM17	c
CP290	d
GAPI Buttons	e
HomeGenius	f
Reserved	g
Reserved	h
Reserved	i
Reserved	j
Alert Zone	k
Variable Zone	l
Reserved	m
Reserved	n
RCS X10 Thermostat	o
RCS Serial Thermostat	p
RP Thermostat (Aprilaire)	q
HomeGenius Thermostat (RCS)	r
Virtual Humidistat	s
Virtual Combined Thermo/Humid	t
Virtual CGI Temp/Humid Sensor	u
EDT i-LiNE	v
Rain8	w
W800RF32 (Security)	x
W800RF32 (X10)	y
Reserved	z
PowerLincIP	\00
PowerLinc USB	\01
PowerLinc II	\02

Zone Number	Address Character for Zone
1	A
2	B
3	C
4	D
5	E
6	F
7	G
8	H
9	I
10	J
11	K
12	L
13	M
14	N
15	O
16	P
17	Q
18	R
19	S
20	T
21	U
22	V
23	W
24	X
25	Y
26	Z