

BeamMap [Static][Menu]

1. The Idea

Have you ever tried to set up some NodeRed-Configuration? Or set up a Microham-Device with all its possibilities? You need to know a lot about raspberries, linux, drivers, routing... before you can start! And even better: If you “catch” an update, all can be screwed up and stops working - it’s not a matter of “if”, its a matter of “when”. At least you have to be a Operating-System-Expert...

This is where our hardware-software combination comes into play. No additional hardware like raspberries, no steep learning curve, no danger of system-updates while still being up-to-date. Easy to use, easy to configure, but flexible. Your choice: Start Easy and extent your configuration on demand. Step by step. Just a few clicks ahead...

2. The use case for BeamMap [static]

- The purpose of this BeamMap user interface is to show static antenna directions (For Rotators: View already prepared) on a map by clicking on a button or onto the BeamMap
- Since qro.cz or remoteSwitch.de hardware have an unique way of controlling, the user interface can control any hardware!
- To be most flexible, the menu can be configured to fit your needs. You even can create your own menus by modifying the provided presets.
- The displayed map can be centered to any location and easily modified (colors).
- You can have as many different views, Menus, user interfaces for the same controller as you want! From simple to complex - its in your hands!

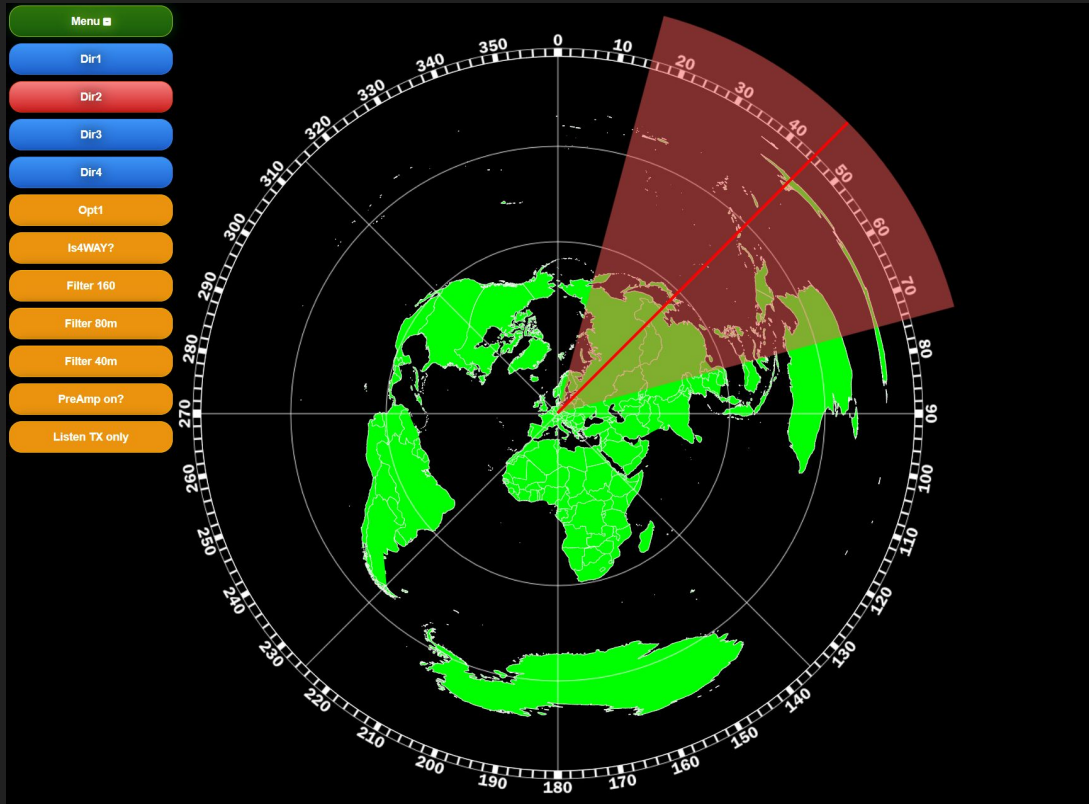
3. In this manual you will learn...

- ...how to customize the BeamMap to your needs
- ...how to center the BeamMap to your location wherever you are
- ...how to change the look and feel of the BeamMap or having a BackgroundImage
- ...how to use the EasyAssistant to change the settings
- ...how to change the Names of the Buttons in your Menu
- ...how to add your own Buttons to the Menu
- ...how to add Headlines to the Menu to separate your sections
- ...how to add ON/OFF-Buttons to the Menu
- ...how to change the Basic settings like IP,Fontsizes, MenuHeight/Width,...
- ...how to store your settings (Link,Cookie), Import, Use Cookies or Dominator
- ...how to do advanced JSONEditing using the JSONEditor (optional)

4. Content

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5. The user interface - BeamMap [static]



User interface BeamMap [static] to show static antenna directions and switching on/off in a most flexible way.

Menu can be configured to your needs.

Info:

More BeamMap [static] information can be found [here](#)

6. Split into chapters

(A) Configure your BeamMap here (Center, Colors, etc.):

Your Latitude:	50
Your Longitude:	10
Template-Colorset Nr.:	0
Background-Color Beammap:	
Border-Color beammap:	
Border-Color Countries:	
Color of Countries:	
Legend _0_...100:	
Legend-Hue:	
Color of Cross:	
Background-Color:	
Zoom-Level (default: 139):	

A

A: Customize the beammap itself (Center, Template-Colorsets, Colors, Zoomlevel)

(B) Configure your left Menu here (Button Names, create your own Menu):

```
[{"name": "Ant1", "deg": 0, "pin": 0, "beamImageUri": "b60", "hue": 0, "opa": 1, "Group": 1}, {"name": "Ant2", "deg": 90, "pin": 1, "beamImageUri": "b60", "hue": 0, "opa": 1, "Group": 1}, {"name": "Headline", "deg": -2}, {"name": "Ant3", "deg": 180, "pin": 2, "beamImageUri": "b60", "hue": 0, "opa": 1, "Group": 2}, {"name": "Ant4", "deg": 270, "pin": 3, "beamImageUri": "b60", "hue": 0, "opa": 1, "Group": 2}
```

B

B: Customize the left button menu (change templates, change labels, create own your own menu)

Load content into the editor default Load selected Button Config Use EasyAssistant Check: Device is NOT connected

Choose a Device-Configuration:

Static Directions Load selected Device into Device-Configuration

(C) Customize basic settings (IP, BankNr,...)

```
{"setid": "1", "Instance": "staticdirections", "name": "MyAnt", "ip": "impero.local.59", "banknr": 0, "firstRelay": 0, "ForceHttp": 0, "SocketTimeout": 2000, "MWidth": 260, "MHeight": 50, "MFont": "Arial, sans-serif", "MFontSize": 12, "MTextColor": "black", "MBackgroundColor": "white", "MBorder": "1px solid black", "MBorderRadius": 5, "MShadow": "2px 2px 4px #ccc", "MTextColor": "black", "MBackgroundColor": "white", "MBorder": "1px solid black", "MBorderRadius": 5, "MShadow": "2px 2px 4px #ccc"}
```

C

C: Customize basic settings (IP, BankNr., Starting at...Relay, HttpMode, WS - Timeout, Menu - Widths, Menu-FontSize)

Load Device-Configuration into the editor Use EasyAssistant

Import Data from a URL: Load from URL

Import from available Cookie-List: MyAnt LOAD data from selected cookie DELETE selected cookie

D

D: Page handling (Loading (old) URLs into the form, using cookies, opening the user interface, the dominator system)

OPEN BeamMap SET cookies and OPEN BeamMap Use DOMINATOR to OPEN BeamMap COPY LINK into your clipboard Reload

7. Chap. A - The BeamMap 1|2

(A) Configure your BeamMap here (Center,

<u>Your Latitude:</u>	1	<input type="text" value="50"/>
<u>Your Longitude:</u>	2	<input type="text" value="10"/>
Template-Colorset Nr.:	3	<input type="text" value="1"/>
Background-Color Beammap:	4	<input type="text"/>
Border-Color beammap:	5	<input type="text"/>
Border-Color Countries:	6	<input type="text"/>
Color of Countries:	7	<input type="text"/>
Legend _0..._100:	8	<input type="text"/>
Legend-Hue:	9	<input type="text"/>
Color of Cross:	10	<input type="text"/>
Background-Color:	11	<input type="text"/>
Zoom-Level (default: 139):		<input type="text"/>

- (1) Use [GeoLatLon](#) to find your position
- (2) Try out a different Colorset (0...7) :p

...continued on next slides

...see x|y|... to catch up with the numbers here

Hint:

Colors (3...10) are in hex or color names. Please use an [online color picker](#) to select a color. Insert color in the field (e.g. #ff00ff, red, blue, ...)

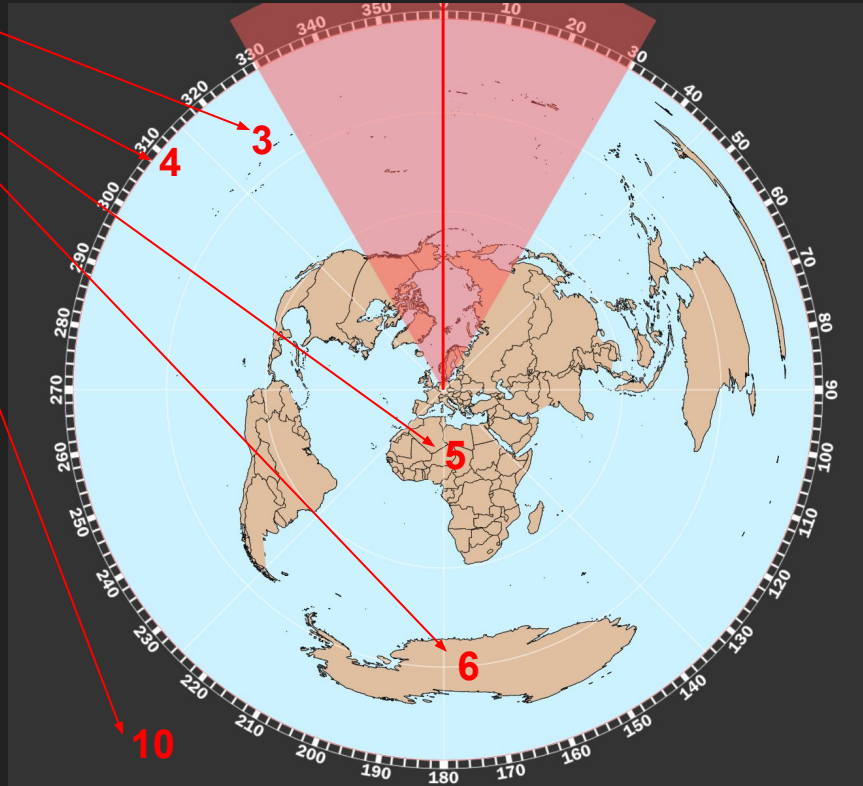
If nothing is changed (empty), it takes default values.

To see your changes in affect: Click "OPEN Page with FULL URL" button on the left-bottom of the page

8. Chap. A - The BeamMap 3|4|5|6|10

Background-Color Beammap:	#ccf2ff
Border-Color beammap:	red
Border-Color Countries:	#000000
Color of Countries:	#dfbf9f
Legend _0..._100:	
Legend-Hue:	
Color of Cross:	
Background-Color:	#333333

- (3) Globe background
- (4) Thin red globe line
- (5) Country border
- (6) Country color
- (10) Main background



9. Chap. A - The BeamMap 7|8|9

Legend_0..._100:

legend_100

Legend-Hue:

255

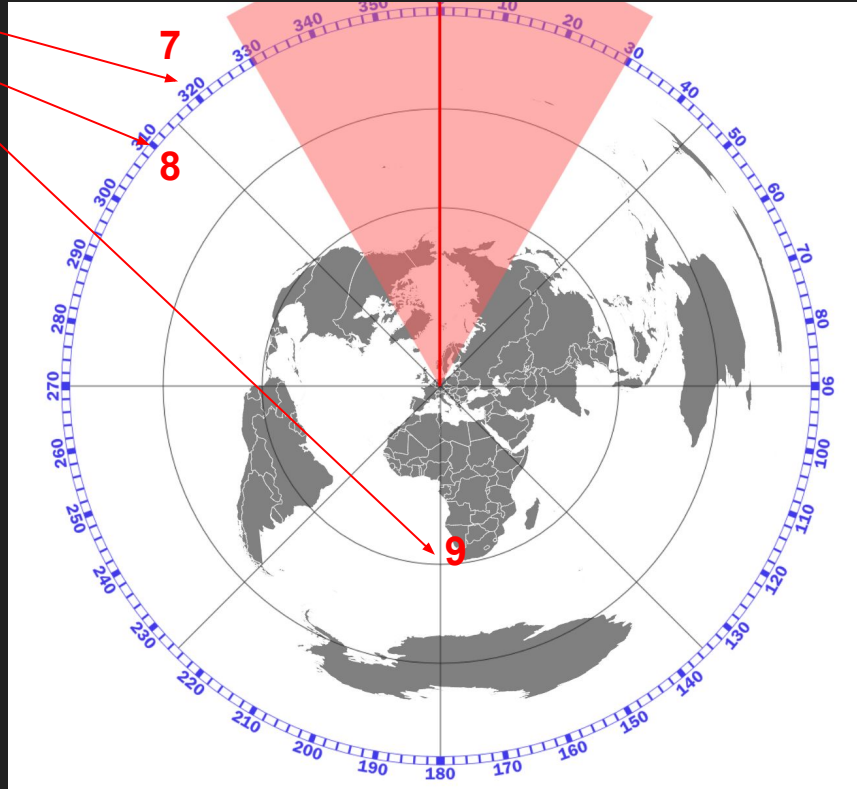
Color of Cross:

cross_100

(7) Legend = Numbers 0...360
from legend_0 => white
to legend_100 => black
in steps of 10 (_10,_20,...)

(8) Hue is from 0...255 means
coloring the Legend in colors
(hue-system). Try :p

(9) The angle and bearings cross
from cross_0 => white
to cross_100 => black
in steps of 10 (_10,_20,...)



10. Chap. A - The BeamMap Background-Image

Background-Color:

10

url('bgd4c.jp

Special easter-egg:

If you want to have an image as

your background:

url('<location-url>')

Location-url is where your image

lays in the internet.

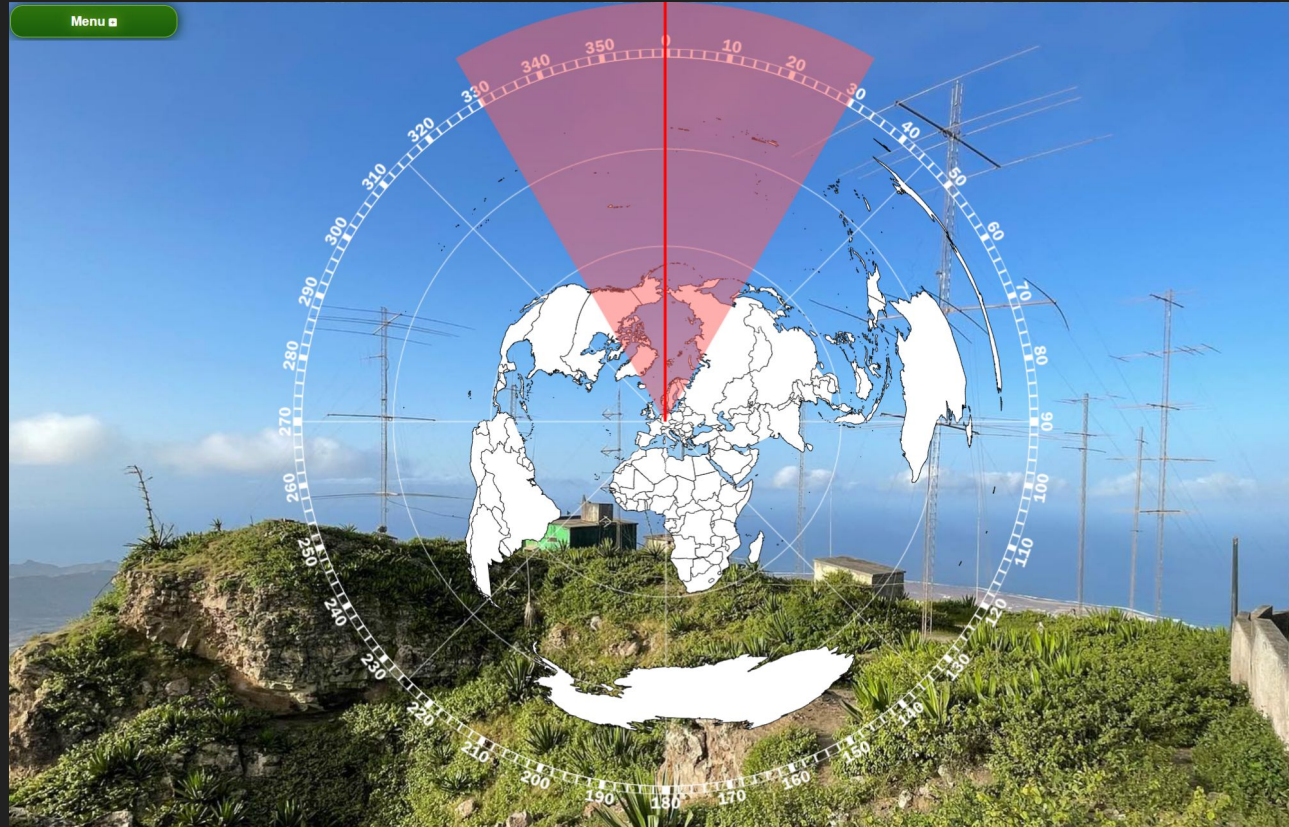
Example:

url('http://www.nyc.com/1.jpg')

Hint:

The ' is shift+# or ASCII39

(alt+0039)



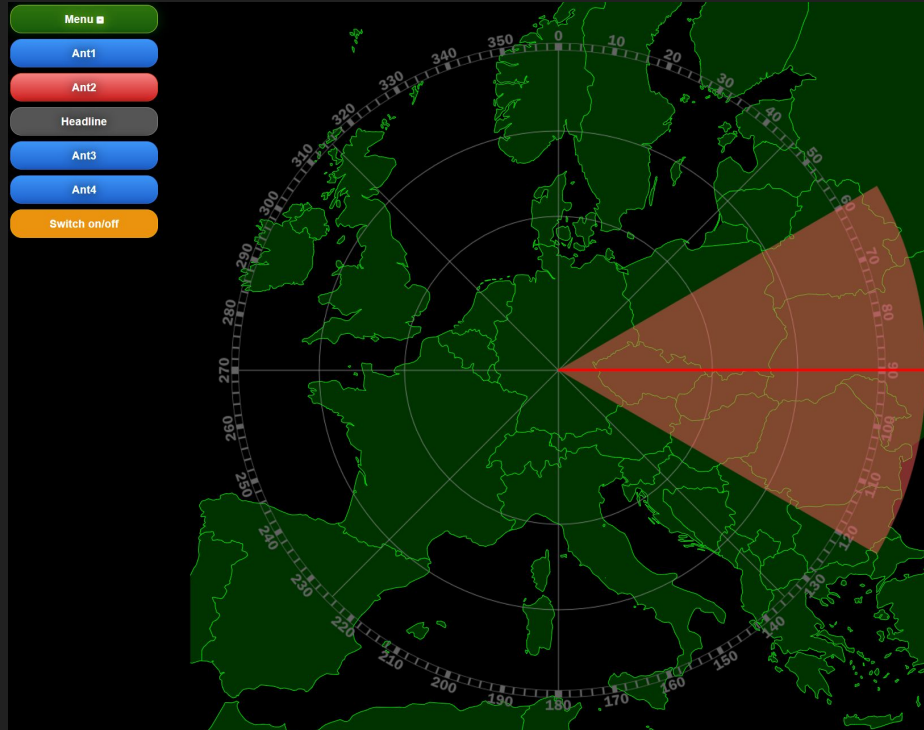
11. Chap. A - Zoom-Level

Zoom-Level (default: 139): **11** 2000

If you want to use a more zoomed view for your BeamMap, raise the Zoom-Level.

Example:
Zoom-Level set to 2000 for VHF

(using Template Colorset: 1)



11. Chap. B - The Menu configuration

(B) Configure your left Menu here (Button Names, create your own Menu):

```
[[{"name": "Ant1", "deg": 0, "pin": 0, "beamImageUrl": "b60", "hue": 0, "opa": 1, "Group": 1}, {"name": "Ant2", "deg": 90, "pin": 1, "beamImageUrl": "b60", "hue": 0, "opa": 1, "Group": 1}, {"name": "Headline", "deg": -2}, {"name": "Ant3", "deg": 40, "pin": 2, "beamImageUrl": "b60", "hue": 0, "opa": 1, "Group": 2}, {"name": "Ant4", "deg": 270, "pin": 3, "beamImageUrl": "b60", "hue": 0, "opa": 1, "Group": 2}]]
```

Load content into the editor

default

Load selected Button Config

Use EasyAssistant

6

1

2

3

In general there are several ways to customize things (here: Menu/Buttons) from easy to advanced: use a preset (1), use the EasyAssistant (3), use the [JSON](#)-Editor (6), modify the [JSON](#) on your own.

In this manual we will concentrate on the easy parts and just show the advanced parts. So you never will get lost. Just skip the JSON-Stuff or keep it for later :)

- (1) current selected Menu-Preset. Choose the one who fits best
- (2) to load a preset after selecting your desired preset
- (3) opens the EasyAssist to customize Menu/Buttons (or create your own)
- (4) Textarea with the data. Used to generate the OPEN Page-Link
- (5) Drag to make the textarea more bigger
- (6) Load the Data into the JSON-Editor (advanced)

To see your changes in affect: Click **“OPEN Page with FULL URL”** button on the left-bottom of the page

12. Chap. B - Menu-Presets



To use a preset, just select the desired preset. You can find a overview of how the preset look [here](#)

If you selected your preset, press “Load selected Button Config” (2). The Textarea (4) will update.

We will use the “default” preset for detailed explanations, but feel free to try out also other presets.

Info: On all EasyControllers, the first 8 are grouped by firmware (“only one can be on in a group”). So you need to group them in the menu, too. Not all presets might work. If you want to have your FW changed, contact us!

Tip: It's more easy to configure everything on a PC. Then copy the generated link into an email to spread and persist the link. Open this email on your desired device (smartphone, tablet,..). You can create as many different “links” (or configs) as u want!

To see your changes in affect: Click “OPEN Page with FULL URL” button on the left-bottom of the page

13. Chap. B - EasyAssistant Overview



When opening the EasyAssistant by button, you can see the preset. Now you can modify it. From just changing the name of a button till creating a completely new menu.

And you cannot screw something up. Just close the overlay (“write back”(5)), press “Load selected Button Config”, open the EasyAssistant and start again!

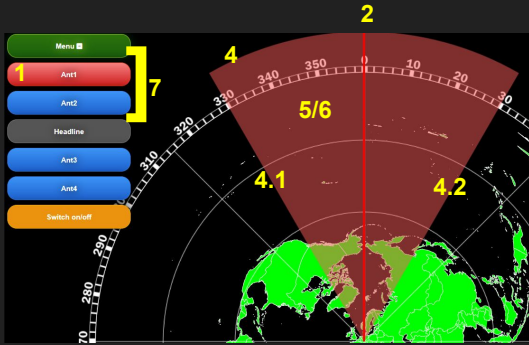
- (1) A “antenna” DirectionButton (to choose an antenna)
- (2) To delete an entry (deletes the one above it)
- (3) A headline entry (to make it look more nice)
- (4) A simple on/off entry (to switch something on/off, e.g. Ext.Relay)
- (5) Add different type of buttons to the END of the current menu (1,3,4)
- (6) there might be a scrollbar :P
- (7) write it back and close the overlay

In case of trouble, you always can press F5 (reload page) and all is like default again. To apply changes or just to close the overlay press “write back”

14. Chap. B - EasyAssistant “DirectionButton”

1	name	Ant1
2	deg	0
3	pin	0
4	FromTo	315,45
5	beamImageUrl	b60
6	hue	0
7	opa	1
8	Group	1

delete above entry



- (1) Displayed name in the button
- (2) Deg.Value where the needle should point to
- (3) The pin/relay to switch (must be unique!) when selected

(4) FromTo (4.1|4.2) - If you click onto the BeamMap, between deg.-range this antenna is selected. In our Example, Ant1 will be selected if you click on the BeamMap between 315 and 45 deg. If you want to exclude an Antenna leave the field empty. Take care all antennas have a **(non overlapping, but seamless)** range defined! If the system cannot find a matching antenna, the first DirectionButton will be selected as default!
Other Examples: 10,70 or 170,190 or 220,315...

- (5) current used beamWidth-Image (see next slide)
- (6) you can change the color of the beamWidth-Image (0...255)
- (7) you can change the opacity 0 (transparent) to 1 (e.g. 0.3,0.5...)
- (8) All buttons with the same Group-Number belong together as a group

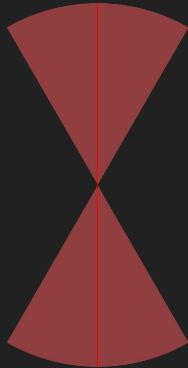
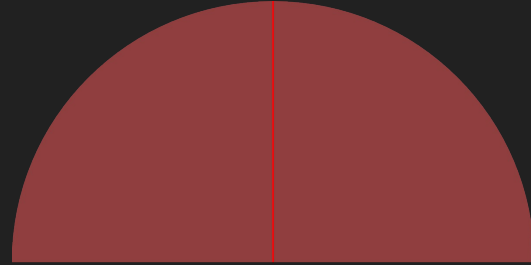
- (1) The color of a direction button is blue (not selected) or red (selected)

To see your changes in affect: Click “OPEN Page with FULL URL” button on the left-bottom of the page

15. Chap. B - EasyAssistant BeamwidthImage



One-Direction-BeamwidthImage
Naming-Convention: b<deg>
Valid values for deg: 20...180
Example: b20, b60, b120



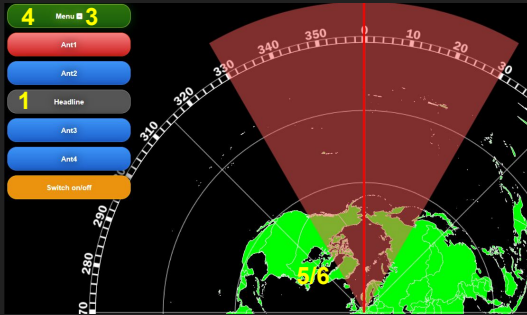
Bi-Direction-BeamwidthImage
Naming-Convention: bd<deg>
Valid values for deg: 60...120
Example: bd60, bd80, bd120



16. Chap. B - EasyAssistant “Headline”

1 name

2 deg



(1) Displayed name of the headline

(2) Deg.Value for headlines are always -2! (no need to change)

(1) The color of the headline is grey (non clickable)

Good to know:

(3) You can collapse/expand the menu using the white icon@menu

(4) You can drag and drop the complete menu dragging the green button

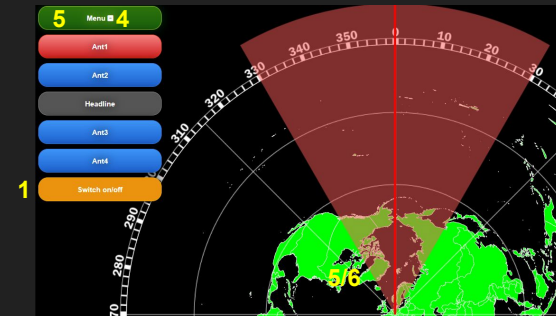
To see your changes in affect: Click “OPEN Page with FULL URL” button on the left-bottom of the page

17. Chap. B - EasyAssistant “ON/OFF-Switch”

1 name Switch on/off
2 deg -1
3 pin 4
delete above entry

- (1) Displayed name of the on/off-Button
- (2) Deg.Value for on/off-Button are always -1! (no need to change)
- (3) The pin/relay to switch (must be unique!) when selected

(1) The color of the button is orange (off) or red (on)



Good to know:

- (4) You can collapse/expand the menu using the white icon@menu
- (5) You can drag and drop the complete menu dragging the green button

To see your changes in affect: Click “OPEN Page with FULL URL” button on the left-bottom of the page

18. Chap. C - EasyAssistant “Device-Configuration”

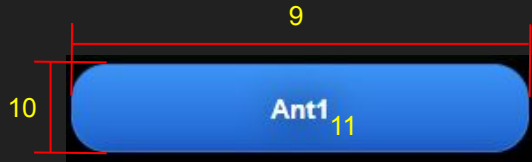
1	setId	1
2	Instance	staticdirections
3	name	MyAnt
4	ip	192.168.97.148:59
5	banknr	0
6	firstRelay	0
7	ForceHttp	0
8	SocketTimeout	2000
9	MWidth	260
10	MHeight	50
11	MFontSize	1

write back

Since there is just one “configuration”, we can look into the details now:

- (1) Id, no need to change!
- (2) It’s a staticdirections instance, no need to change!
- (3) Name of the instance (when using cookies, name must be unique)
- (4) Configured IP - change to your needs if necessary (always :59!)
- (5) When using a multi-bank/port device, which bank/port to control
- (6) Which pin should be the first pin to control (all others are rel. to this pin)
- (7) When encountering problems with websockets, force http mode (=>1)
- (8) When bad internet connection makes issues, increase this first (5000,8000)
- (9) Width of the total menu
- (10) Height of a menu button
- (11) Font size (in a relative unit). Increase to make the font larger (1.5,3,5,...)

Info: 9,10,11 are most useful when creating special Menus for smaller devices like smartphones or tablets. Or if you have big fingers :P Remember: You can create as many different user interfaces or menus for a device as you like. As long as the firmware is supporting this (EC: First 8 are grouped)



19. Chap. D - Import settings from URL and Cookie

Import Data from an URL: 1 Load from URL 2

Import from available Cookie-List: MyAnt 3 LOAD data from selected cookie 4 DELETE selected cookie 5

- (1) When you want to recall settings from a stored link, copy the link into this field and press (2)
- (2) Load all parameters in the link into their fields for editing or modification
- (3) When you set a [cookie](#) for storage, you can recall the settings
 - > Select your cookie (cookie-name = “name” attribute from C!) and press (4)
- (4) Load all data from the selected cookie
- (5) Delete the selected cookie

Tip: It's more easy to configure everything on a PC. Then copy the generated link into an email to spread and persist the link. Open this email on your desired device (smartphone, tablet,..). You can create as many different “links” (or configs) as u want! Cookies are bound to the device where they are set. With storing links e.g. in an email you are more flexible. But cookies makes things really handy.

20. Chap. D - OPEN BeamMap

1 OPEN BeamMap

2 SET cookies and OPEN BeamMap

3 Use DOMINATOR to OPEN BeamMap

4 COPY LINK into your clipboard

5 Reload

6 HELP

- (1) Collect all the settings (from their input fields), create the link and OPEN the BeamMap
- (2) Take the Name from Chap.B, collect all settings, write them into a cookie and OPEN the BeamMap
-> BeamMap is now using settings stored in the cookie
- (3) DOMINATOR was created to trick chrome browser. Use only if you encounter problems
- (4) Collect all the settings and store them as a link into your clipboard to recall it e.g. in emails
- (5) Reload the page. Same as "F5"
- (6) Open this Manual

In case of problems, please get in touch with us!

Tip: It's more easy to configure everything on a PC. Then copy the generated link into an email to spread and persist the link. Open this email on your desired device (smartphone, tablet,..). You can create as many different "links" (or configs) as u want! Cookies are bound to the device where they are set. With storing links e.g. in an email you are more flexible. But cookies makes things really handy.

21. Advanced - JSONEditor (optional)

Load content into the editor **1** Load Device-Configuration into the editor

```
>
└─ [ 4 items ]
  └─ 0 : {
    name : Ant1
    deg : 0
    pin : 0
    beamImageUrl : b60.png
    hue : 0
    opa : 1
    Group : 1
  }
  └─ 1 : {
    name : Ant2
    deg : 90
    pin : 1
    beamImageUrl : b60.png
    hue : 0
    opa : 1
    Group : 1
  }
  └─ 2 : {
    name : Ant3
    deg : 180
    pin : 2
    beamImageUrl : b60.png
    hue : 0
    opa : 1
    Group : 1
  }
  └─ 3 : {
    name : Ant4
    deg : 270
    pin : 3
    beamImageUrl : b60.png
    hue : 0
    opa : 1
    Group : 1
  }
}
```

2

Write changes back to {1} Buttons **3** Discard Edit **4**

If you don't like to use the EasyAssistant or you want to edit JSON in another way, you could use the JSONEditor ([Docs](#))

- (1) Open the editor
- (2) Make your changes
- (3) Write the settings back into their text area
- (4) or Discard Edit and close editor

And for sure: You can edit the JSON-Data in their Text-Area field directly :P