

BEO5/6 CONFIGURATION GUIDE

BEO4 or BEO6: that is the question
*This Guide helps you to get the best out of both
worlds.*

A short guide to solve common problems encountered using the Beo5/6
configuration tool.

hfat (BEO WORLD member)

31.03.2012



BE05/6 CONFIGURATION GUIDE

BE04 or BE06: that is the question This Guide helps you to get the best out of both worlds.

From the first time I saw the Beo5 I was enthusiastic about it. But the circumstance that I have to engage my dealer to configure it for me, with no option to do it myself, kept me from buying one. Thank to BeoWorld I found a way to do the configuration myself. Now I'm happy owner of a Beo6. During the migration from version 4.11 to version 5.12 I took the opportunity to take a closer look at the tool. This guide summarizes my experiences gathered during this process.

As BeoWorld helped me in many situations with profound knowledge and a lot helpful information I want to share my findings with all the other BeoWorlders.

Some people regard Beo5/6 as useless because never get accustomed to the usage of the soft buttons. They prefer using Beo4 as you can "feel" the buttons and there is no need to look at the screen searching for the button to be pressed.

On the other hand using Beo4 in the dark is a pain, if you need to activate list-functions. You need to know by hard the position of your "soft keys" in the list-menu. If you miscount – unpredictable results may occur.

This guide shows how you can use the B&O ConfigTool to customize the Beo5/6 to get the best out of both concepts. The first chapter explains some basic concepts that need to be clarified, before you start building your configuration. Fine tuning your configuration is one of the most important steps in building the configurations. Regrettably most dealers do not investigate time in this step, leading to almost unfeasible configurations. This beats Beo5/6 under its value. In my opinion B&O should think about, giving this tool to customers, who are interested optimizing their configurations on their own.

This guide refers to version 5.11 of the configuration tool. Although not tested, it is likely to work with version 4.11 as well.

The chapters Step 1 to Step 5 guide you through the compilation of your configuration.

Chapter 6 explains how the tool generates the configuration and which elements the configuration exists of.

Chapter 7 gives some hints about fine tuning your configuration. The following chapters 8 and 9 explain testing and downloading the created configuration.

The succeeding chapter "Advanced Fine Tuning" explains methods of compiling and customizing your configuration that go beyond using the configuration tool itself.

The last chapter includes a complex, real life integration example, utilizing the methods shown in this guide.

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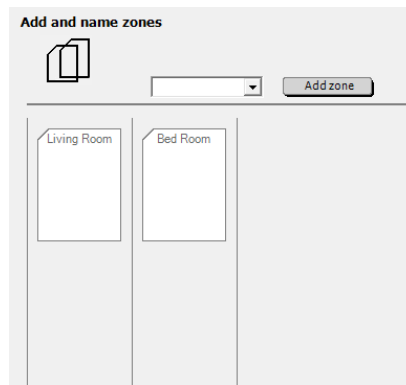
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BEFORE YOU START CONFIGURING...

What is a “zone”?

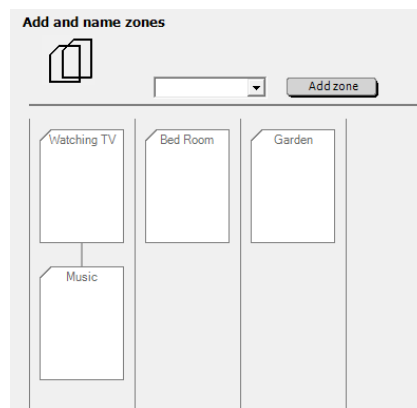
The Beo5/Beo6 is designed to operate all equipments in your house with one configuration. Typically a zone represents a room.



Example: One zone per room

Within one zone you can handle one single device or a set of integrated devices - Typically a Video Master and an Audio Master.

Sometimes there are more than just one, not integrated, devices receiving an IR-signal in a room. In this case the room is divided into zones. All zones in a room share all accessories.



Example: Two zones in one room

In every zone you have individual “scene settings”, where you can have individual speaker and picture configurations.

What are Product Options for?

These Product Options are not an invention of the Beo5/6 configuration tool, but are a configuration methodology of the Masterlink system, as can be seen in the following picture [Option Settings (reference Source ML-Handbook, page 12)].

Option 0 = No IR reception
Option 1 = Two IR-eyes in the same main room
Option 2 = One IR-eye in the main room
**Option 4 = Link room product connected to one or two main room
products in the same room**
Option 5 = Two IR-eyes in the same link room
Option 6 = One IR-eye in the link room

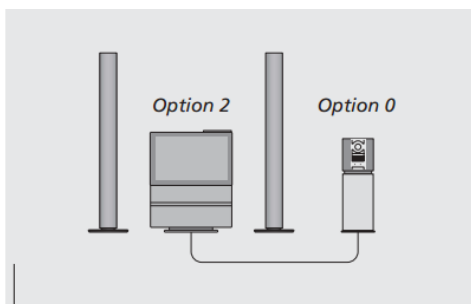
These Options determine how your devices respond to IR commands and how sources are shared between them. Options are divided into V.Opt for video products, A.Opt for audio products and L.Opt for link products. Options can be set with a Beo4 remote controller or with the Beo5/6.

As a consequence, these options determine how and if you can link sources from masterlinked systems. This is the reason, why the configuration tool needs to know the settings of your equipment, to be able to generate the correct IR codes.

UNDERSTANDING OPTIONS AND ML-CONNECTIONS

This chapter is a summary of typical scenarios encountered in ML-Systems and explains the consequences to Beo6 configurations.

Fully Integrated Audio/Video System



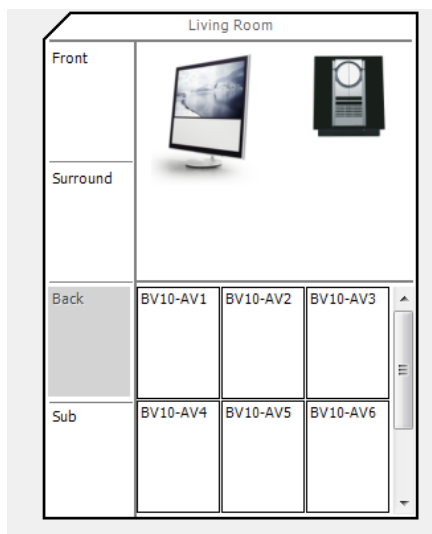
A fully integrated Audio/Video system.

Both audio and video systems are in one room

Speakers are connected to video system

Audio system has no speakers connected

Systems are connected via ML



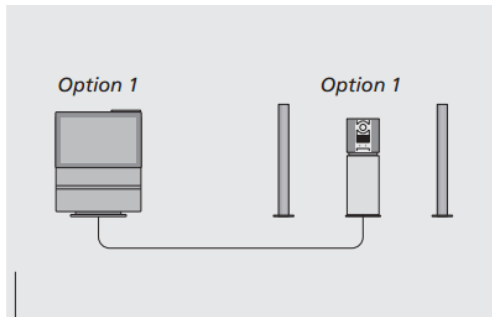
Add video product AND audio product to

ONE zone

The config tool defaults both options correctly to

Option 2 for video and option 0 for audio system

Individual Audio/Video System in One Room



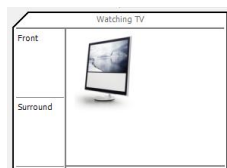
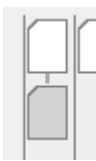
Both audio and video systems are in one room

Systems are connected via ML

Video system has speakers connected

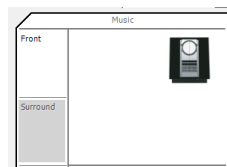
Audio system has speakers connected

An Audio/Video integrated system set up in *one* room.



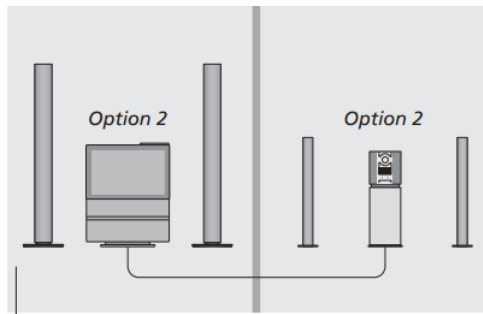
Create TWO zones in ONE room

The config tool defaults correctly to Option 1



The config tool defaults correctly to Option 1

Individual Audio/Video System in different Rooms



An Audio/Video integrated system set up in two rooms.

Audio and video systems are in different rooms

Systems are connected via ML

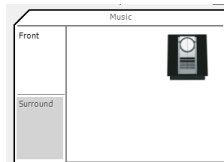
Video system has speakers connected

Audio system has speakers connected



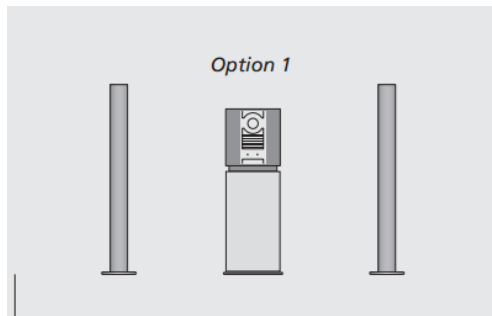
Create TWO zones in TWO rooms

The config tool defaults correctly to Option 2



The config tool defaults correctly to Option 2

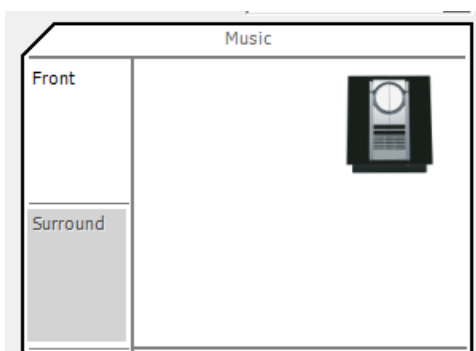
A Stand-alone Audio/Video System with NO ML-System



Speakers are connected to Audio/Video-system

NO ML connection

The BeoSound 3000 as a stand-alone system.



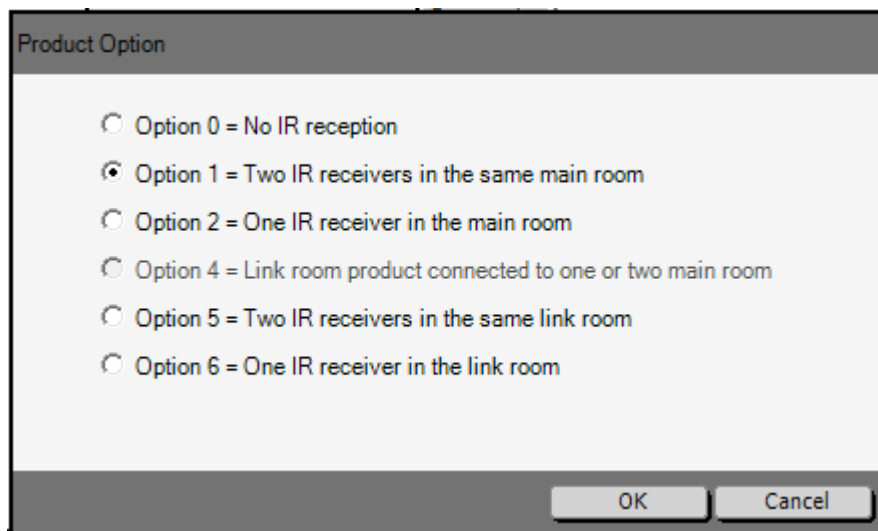
This scenario is not handled correctly by the

Config tool. Eg.:

BeoSound 1: the tool defaults to option 0

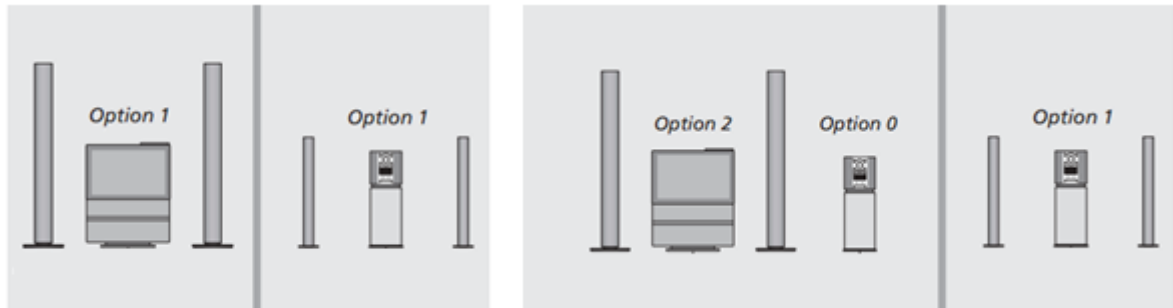
BeoSound 8: the tool defaults to option 1

You need to set the option manually by right-clicking the product icon, and selecting the desired option 1 within the upcoming dialog.



A Stand-alone System WITHIN a ML-System

When using a Stand-alone system together with ML you have to account for additional considerations, not covered my ML-handbook. The following illustrations show option settings following the instructions found in the ML-handbook.



In fact these settings work in real world when using the devices with your remote. But unfortunately they will not work, when using the config tool, as the tool cannot handle these situations. Chapter “Advanced Fine Tuning” explains how to deal with this situation.

But in any case you are forced to use Opt 5, as the config tool will otherwise generate an erroneous configuration in the “AV...” submenu of video sources. This behavior corresponds to the latest product strategy for B&O stand-alone products, shipping BeoSound 8 and BeoLit 12 with factory setting of option 5.

STEP 1 - STARTING YOUR CONFIGURATION



Creating a new Configuration

First you enter the number of your configuration. This number is intended to be identical to the serial number of your Beo5/6. In fact when you have your Beo5/6 connected, and no configuration exists, it will be created automatically. For testing configurations you can enter any number you like (in offline mode).

Loading an existing Configuration

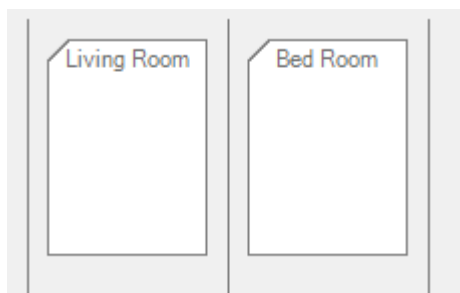
To load an existing configuration, double-click the configuration number listed on the left side, and select "load". The tool will load the configuration stored in the "configuration.xml". Additionally you may switch to a previously stored version, by right-clicking the configuration.

STEP 2 - CREATING ZONES



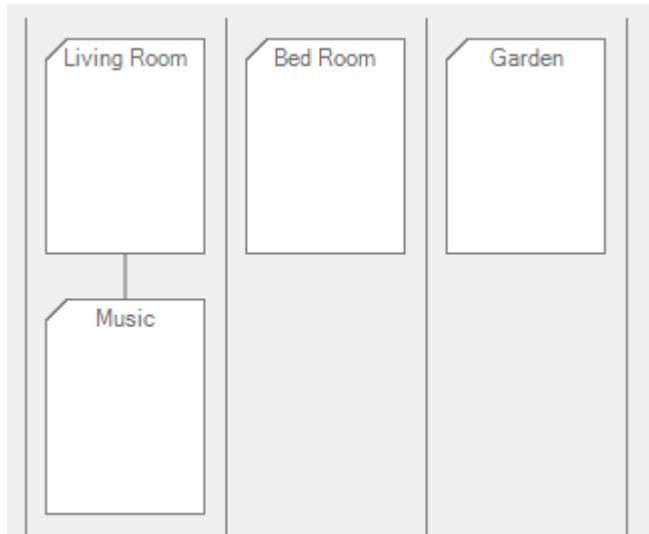
To create a zone you simply type the desired name into the input field or select an existing name and click add. The tool will automatically create a new room with one zone. Before adding your zones please refer to chapter "Understanding Options and ML-Connections"

One zone per room



You can use one zone per room, if you there is only one device receiving IR-signals in the room. This means only one device or an integrated Audio-/Video-System.

Multiple zones in a “room”



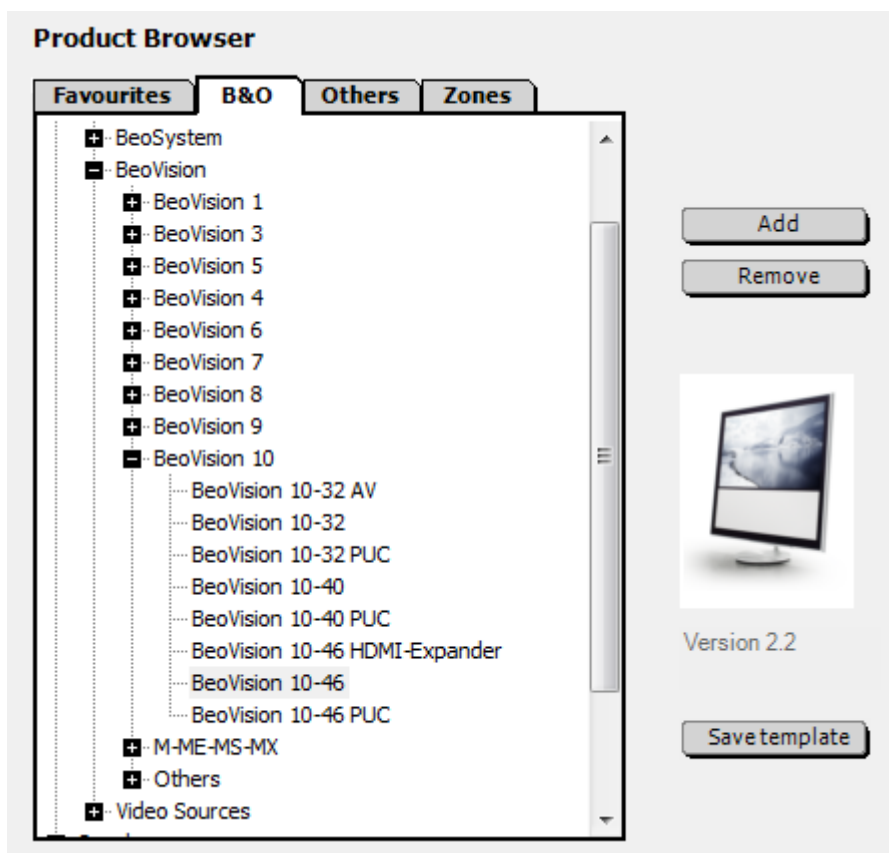
You need to create two zones in a room, if there are two devices receiving IR-signals in a room. A typical scenario is, if you have two devices with individual speakers connected.

STEP 3 - ADDING PRODUCT- AND SOURCE-DEVICES

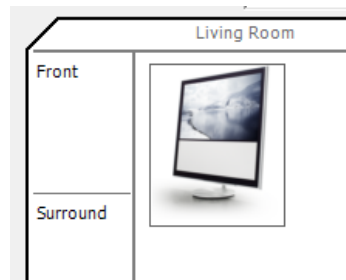


Adding Products

Select your product from the product browser shown on the left side of the “Choose Products” page....



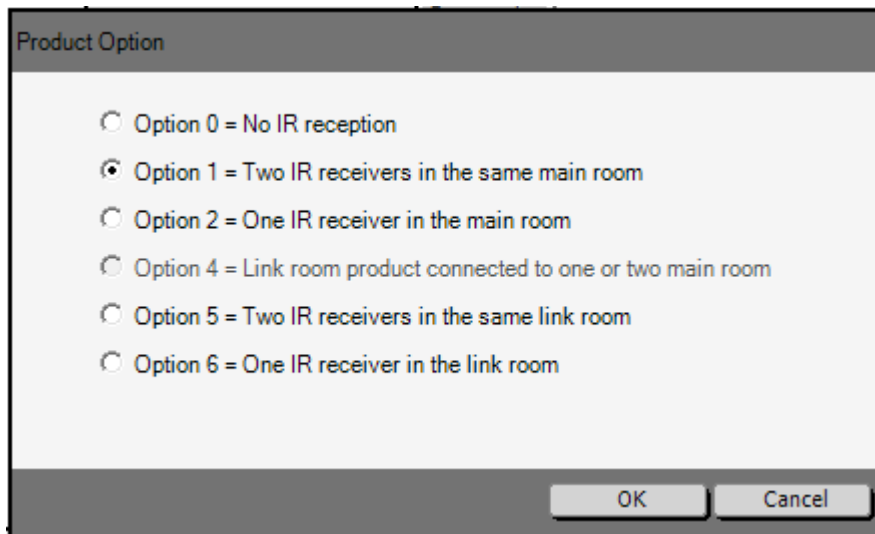
...and click add, or simply double click the desired device. The device will show up on the right side of the page.



The tool will select a default option setting, depending on your zone configuration. In most cases these settings are correct, sometimes they are not. Please refer to chapter

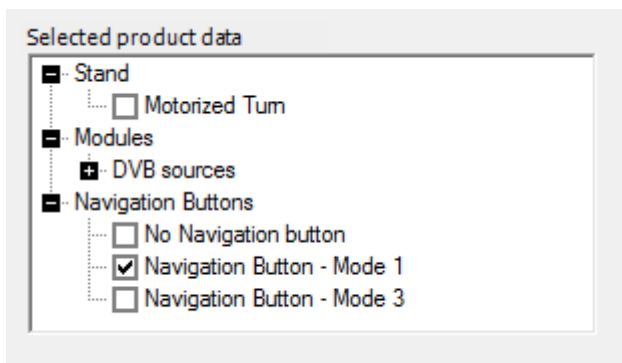
“Understanding Options and ML-Connections”. If not set correctly by the tool, you can correct them right-clicking the product icon and selecting “Set Product Option”.

Select the desired option within the upcoming dialog.



Product Configuration Options

Some Products offer some options to choose from. Typically these are optional modules built into your system or activated features of your system. In this case an option box is displayed underneath the product box.



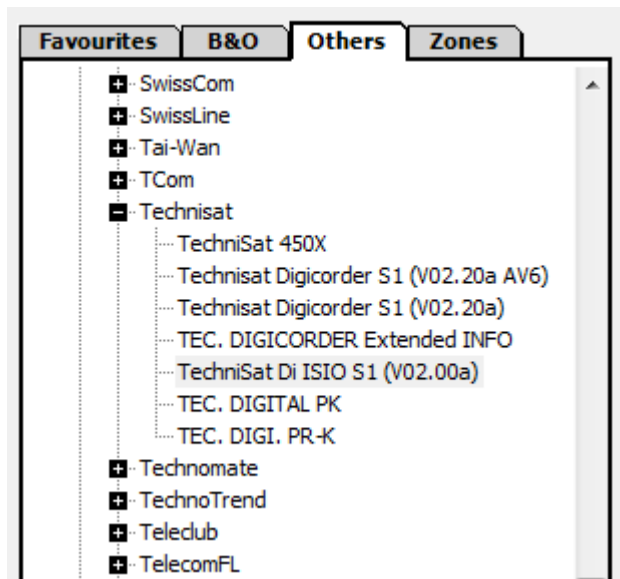
Select the options needed to correspond to your current setup.

Adding Speakers

After adding Video- and/or Audio-Master you need to add the speakers connected to your devices. This is needed to enable the tool to generate the correct speaker settings pages.

Source Devices

Proceed with adding your source devices. Select the “Others”-Tab and search for your device. If your device is controlled by a PUC-configuration on your video master, you will find your device in the PUC sources list.



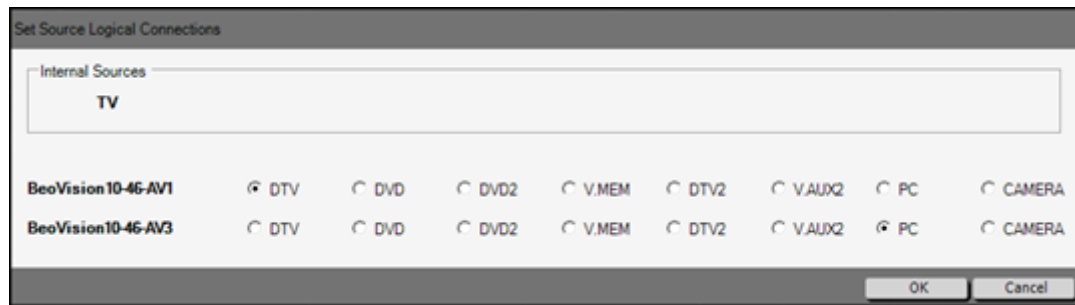
The tool will select the best matching connector of your video master and assign logical source command. If you have more than one source device, you may need to try different sequences of adding the sources to match your existing setup.



If the default settings generated by the config tool are not satisfactory, you can change, right-clicking the source icon.

Logical Source Selection

Selecting “Set Logical Source Connection” brings up the following screen.



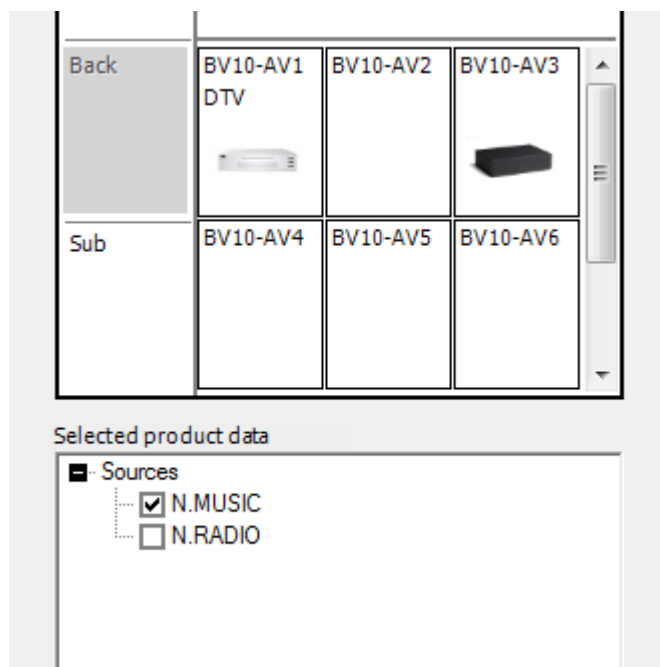
All logical sources supported by your video master are shown in each line of connected sources. Select the options **matching** your **video master's** configuration.

It is necessary that these options match your video master's connection configuration, as the IR-codes the Beo5/6 will send out when activating your source, are based on this information. Without this match you cannot proceed building your configuration.

Source Devices Product Options

Some sources offer configuration options, which make an option box appear, when the source icon is clicked.

In the following example BeoMedia 1 icon is clicked and the “Sources Option” is displayed.



Adding Accessories

The accessories are found on the “B&O”-Tab of the product browser. If you have Third-Party XMLs available you can add them to this section of the product browser. Accessories may instruct the Beo5/6 to send out NON-B&O IR-Codes.

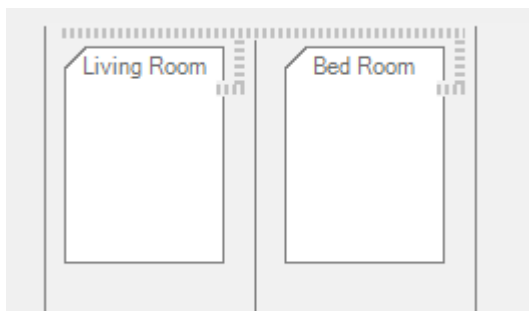
For more Information on Third-Party XMLs, please refer to the BeoWorld web site www.beoworld.org .

STEP 4 - MANAGING ML- CONNECTIONS



Adding and/or Removing ML-Connections

This configuration page shows the ML-connections based on the products added and their corresponding option settings. A Right-click on a zone-icon brings up the option “Add ML connection” or “Remove ML connection” respectively. Select the option to match your existing configuration.



It is necessary that these options match your video master’s connection configuration, as these settings influence the IR-codes your Beo5/6 will send out, when activating your source. Without this match you cannot proceed building your configuration.

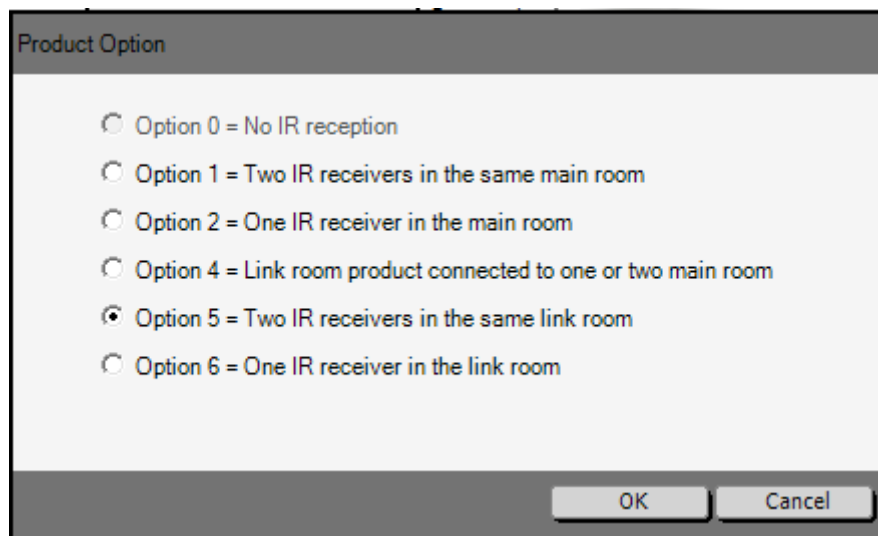
Sometimes you may receive the following message:



This means that there is a master in option 1 or 2 in the zone. So you need to adjust the option setting of your Audio-/Video-Master.

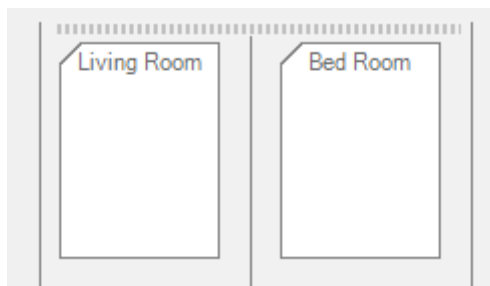
Adjusting Option Settings

To be able to remove a ML-connection from a zone, which does not exist in your setup, you need to set the corresponding product option to 5.

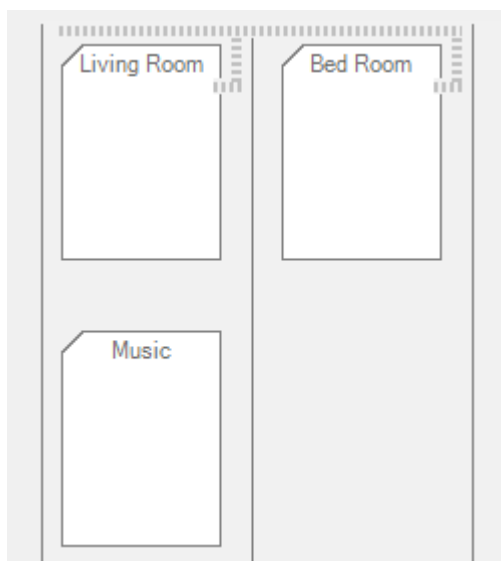


The following illustrations show some examples of ML-configurations.

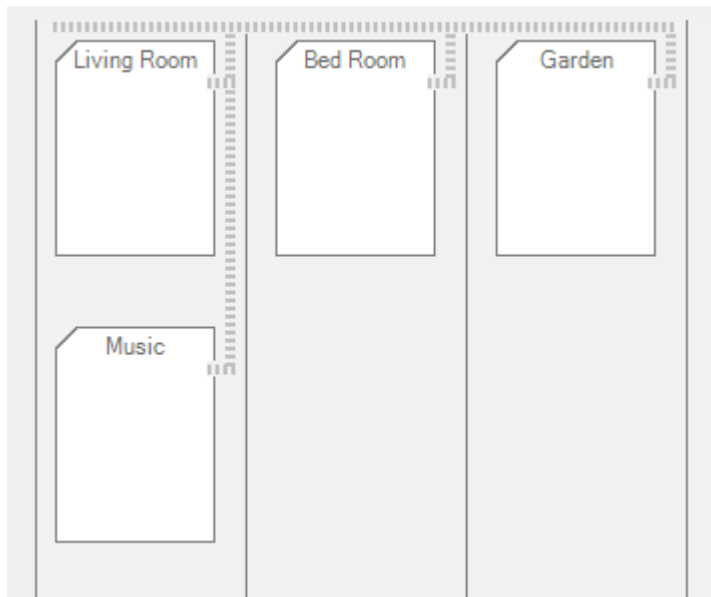
“Not connected” devices in two rooms:



Two “not connected” devices in one room, one of them connected to a second room:



Full connected ML-system:



Scenarios not supported by the tool

As mentioned above some scenarios including “Stand-alone” devices within an ML-System cannot be handled by the configuration tool. Please refer to paragraph “A Stand-alone System WITHIN a ML-System” in chapter “Understanding Options and ML-Connections”.

You can make it work by using advanced methods of fine tuning the configuration, which is explained in chapter “Customizing Product-Description-xml”.

STEP 5 - USING CHANNEL LOGOS

V.Opt, A.Opt, Beo4

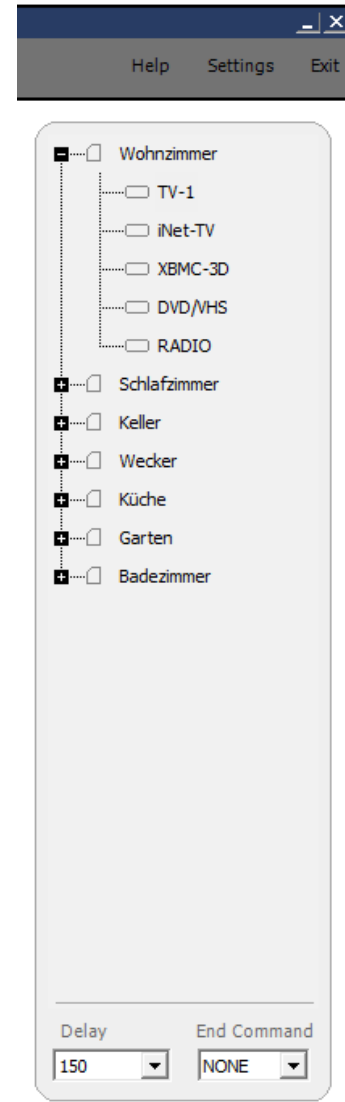


To the right side of the page, the tool shows a tree containing all zones, listing all devices supporting Channel lists.

Select or compile an individual list and assign it to a device.

For more information, please refer to the config tools

Users Guide.



STEP 6 - GENERATING THE CONFIGURATION



The configuration is generated

When you activate the “Edit”-page and at least one modification has been made on the preceding pages, a new configuration is generated. All information entered up to this point will influence the generated configuration:

- Zones
- Products and product options
- Added source devices and product options
- Logical Source Definition
- ML-Connections
- Logos

The product definitions supplied by the tool, will influence the generated configuration as well.

What does the configuration consist of?

The configuration consists of a number of linked pages representing all added sources and zones. The generated starting page contains a soft button per each zone. Every single page contains the information about available sources and/or functions and the IR-codes assigned to soft buttons and hard keys. Each page may be compiled by one to nine subpages, which you can scroll through, by clicking the touch screen.

Additionally a “scene” page is generated for each zone, which enables you to manage speaker and picture settings and other settings not dedicated to source handling. The page schema starts with a page containing soft-buttons for each zone and looks like this:

Zone Pages – one per each added zone having the zone name in title

- Scene page
 - Speaker Settings
 - Picture Settings
 - Audio Setup function
 - Speaker Balance
 - Zone switching functions
 - One Soft button per each added accessory (type scene)
 - Activating 3D/2D
- Digits Page
 - Soft buttons representing the digits 0..9
- Source selection sub-pages

Up to 8 sub-pages with soft-buttons representing each “visible” source in the ML-network starting in this zone

 - Soft buttons activating each source
 - Up to 8 Sub-pages representing the source’s available functions (PUC Go+n keys) plus a soft button activating “Channel list” pages in case channel logos are used in the source
 - B&O functions sub-page containing
 - AV-function to activate audio sources using the AV-prefix
 - Activating menu on the video master
 - P-in-P function button to activate P-in-P function
 - Activating Text function
 - Clock, etc...
 - AV-function button enabling selection of all local video sources, in case the video master doesn’t support P.Mute command
 - Link-function button enabling selection to manually link sources, in case the same sources exist in the zone
 - One Soft button per each added accessory (type source)

This is what the configuration, will look like. Colors will not be present on the first generated version of your configuration (this picture uses colors to help to understand the page schema more easily).



Is it possible to modify the configuration?

You may use the functions offered by the "Edit" page of the configuration tool, to modify the generated configuration. Apart from naming your sources it is likely that you will lose your modification, when the configuration will be re-generated. Modifications preserved are:

- Renaming of sources
- Colors and images of source buttons

STEP 7 - FINE TUNING THE CONFIGURATION

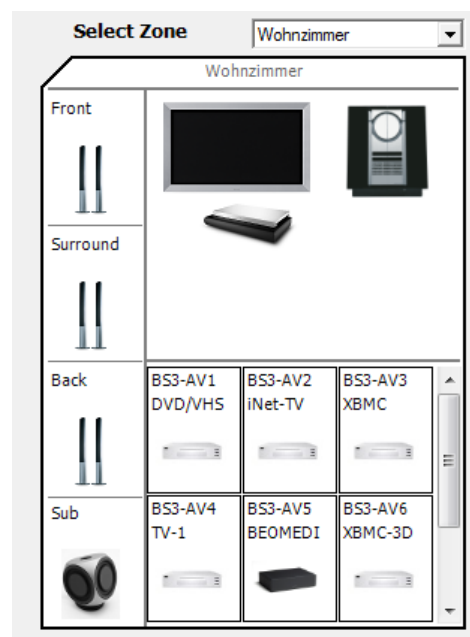
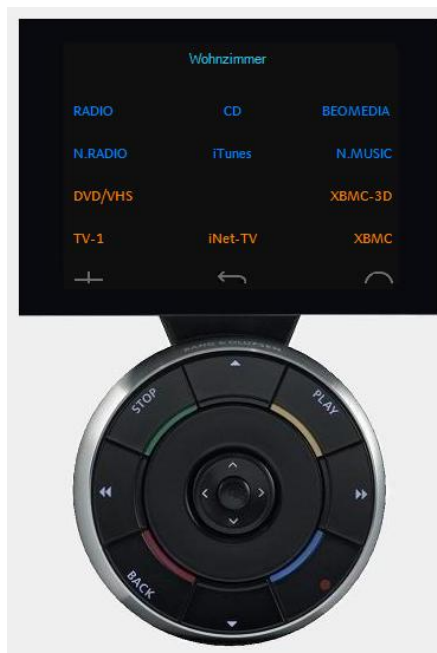


By fine tuning your configuration, you may increase usability of your Beo5/6 amazingly. This chapter shows some examples, what can be done. At some point you have to be creative investigating the functions and configuration option your systems and sources offers. Often you can assign frequently uses functions to hard keys and put rarely used functions to soft keys. Just keep in mind, that the hard keys of the Beo5/6 are just the same available on a Beo4 navi. The configurations tool gives you the option to reassign functions of your choice to theses keys, whereas Beo4 only has “hard wired” functions assigned to its keys.

Unfortunately, most of the modifications you make in this step are not preserved when the configuration is re-generated after modifying information entered in the previous steps. To avoid this, you can use some of the “Advanced Fine Tuning” methods shown in the dedicated chapter.

Adjusting Sources on Source Selection Page

Changing a Name on the “Source Selection Page” or assigning an icon to a source, will permanently rename this source. You even will see the entered name in the “Choose Product” page of the configuration tool. If you are not going to use icons you may change the color of a button alternatively.



As long as you do not change the logical source assignment, your modification will stay intact, when a new version of the configuration is generated.

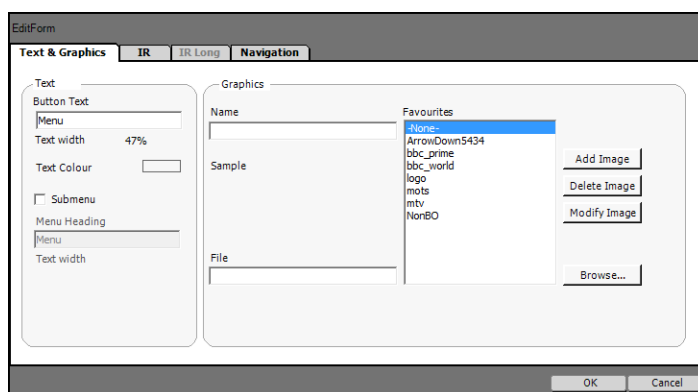
Modifying the Positions and Visibility of buttons

You can change the positions of buttons simply dragging and dropping them on the pages. Using the context menu you hide or show them. You may lose your modifications when the configuration is regenerated.

Modifying Button Text or Change it to Icons

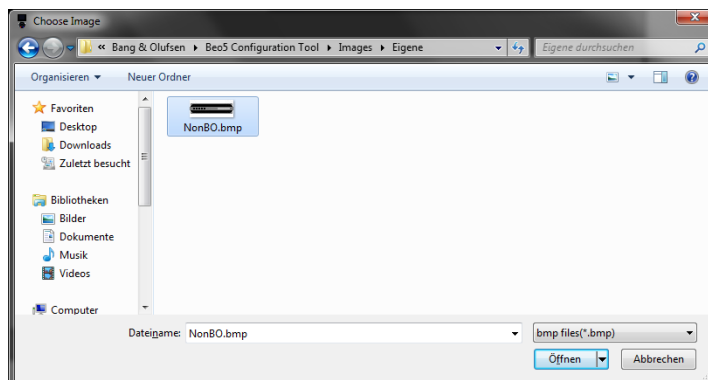
Within the properties dialogue available for all elements on a page you can change the display text of a button and assign a color of your choice.

You can even use images or icons instead of the button text, by activating the properties dialogue on a soft button.



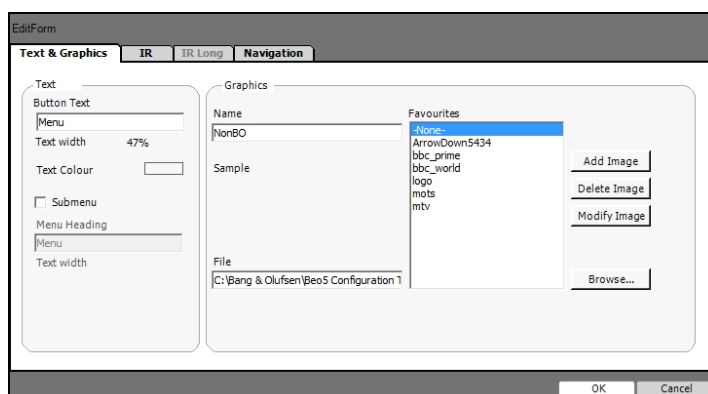
Click the Browse button...

and the Windows file selection dialog appears.



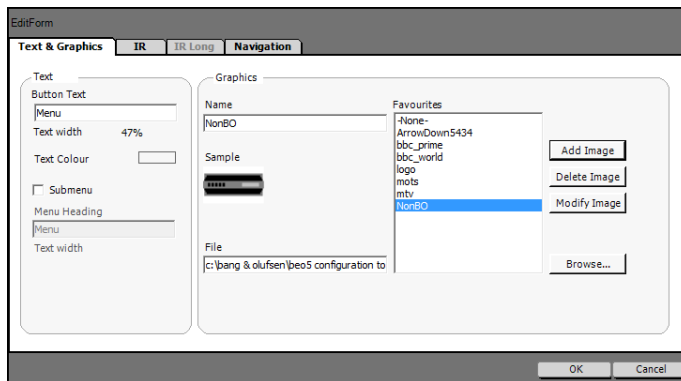
Select an image

and your selection appears in the file input box within the properties dialogue



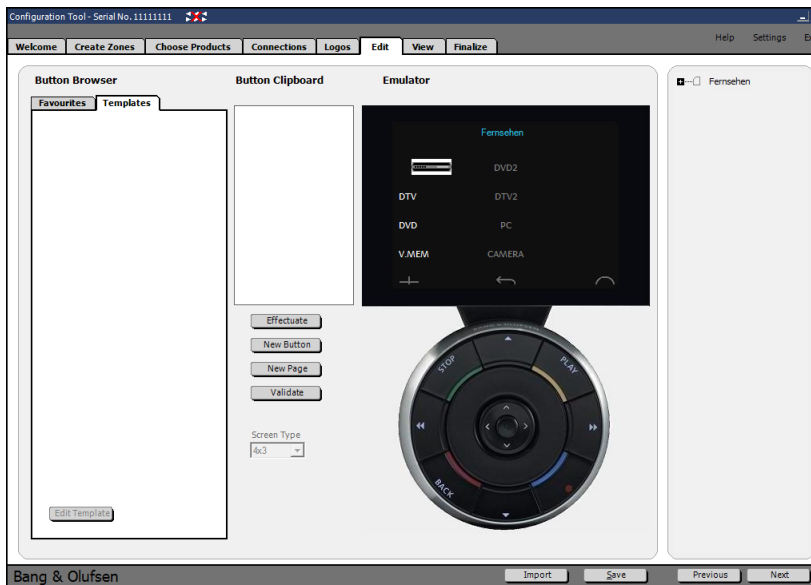
Click Add Image...

and the image is added to your image resources



Click the OK button to
close the properties
dialogue

and the image is assigned to your soft button



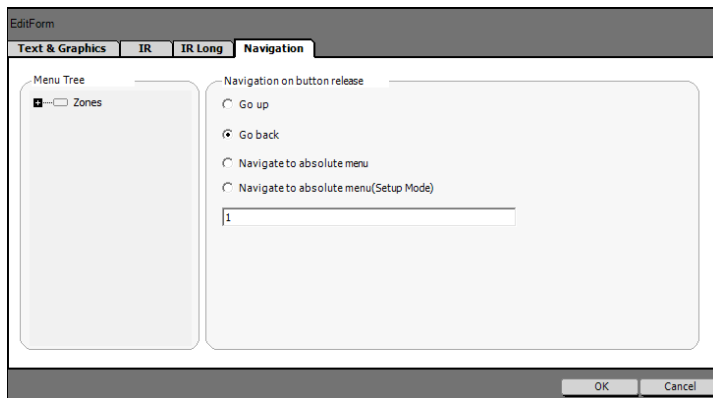
Modifying IR-Commands assigned to soft buttons and hard keys

Activating the properties dialog on an element you can modify the settings of soft buttons. Additionally you may modify the IR commands assigned to soft buttons and hard keys.

One of the biggest disadvantages of the Beo5/6 against the Beo4 is that you can't find the soft keys on the screen without looking at it. Whereas, using the Beo4, you can "feel" the buttons. Assigning frequently used PUC functions to hard keys can significantly improve the usability of Beo5/6. Many standard PUC controlled sources do not utilize all hard keys, but have them assigned to equivalent functions (Eg.: OK and Play button have the same effect). This gives the possibility to rearrange the assignment of functions to the hard keys. Unfortunately, you may lose your modifications when the configuration is regenerated.

Navigation Options assigned to buttons and hard keys

The “Edit”-dialogue offers the option to modify the navigation behavior of a button or hard key. You may set an option that determine, that when a button is pressed, the Beo5/6 automatically skips back or to another page.



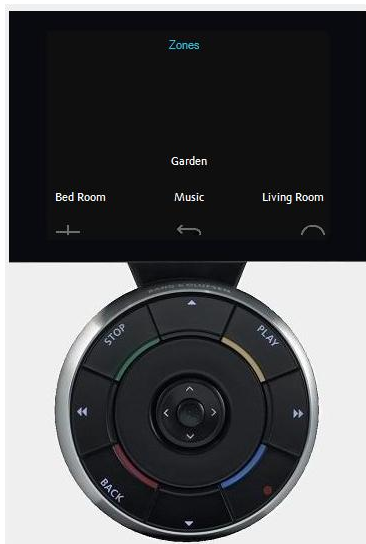
You have to keep in mind that Go back 1, will stay at the current position. Go back 2 will skip back one step.

“Enabling” Controlling the battery level

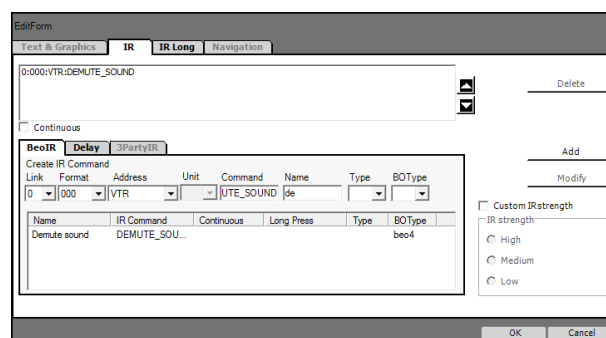
Holding down the “Stand-By” button and pressing the center button activates the Beo6 setup dialogue, where you can see information about the current battery level.

Unfortunately it is not quite easy to use this function, when you are currently using your system, as the first step of the procedure will shut it down.

A good idea is, to assign a “not-used” IR-code to the hard key “Stand-By” in the scene selection page.



Activate the properties dialogue on the standby hard key and assign “demute sound” to the key

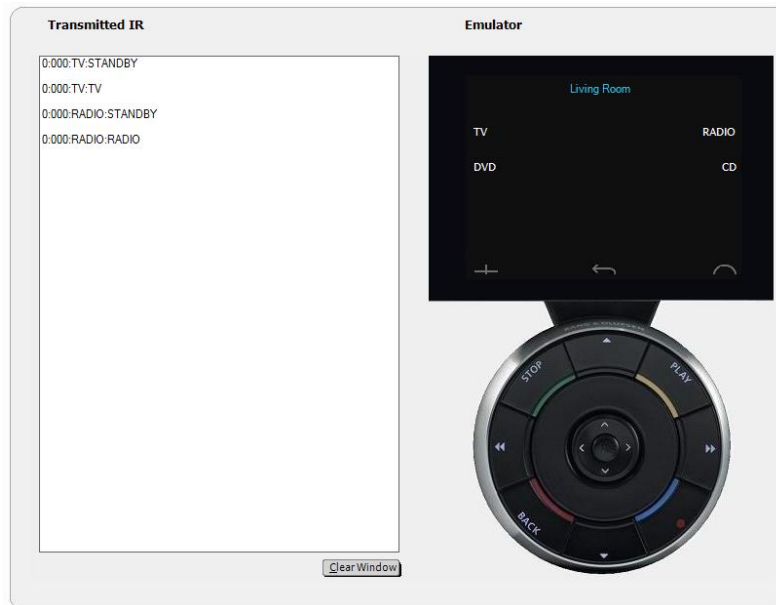


This modification will enable you to check battery level at any time (without leaving the room ☺). Simply switch to the start page containing the zone selection screen before activating the Beo6 setup dialogue.

STEP 8 – TESTING YOUR CONFIGURATION



When activating the “View” page of the configuration tool, the following screen will appear:



To the left side, there is a box showing the emitted IR commands running from top to bottom as you click on a button or hard key. Macros are displayed without a spacing line.

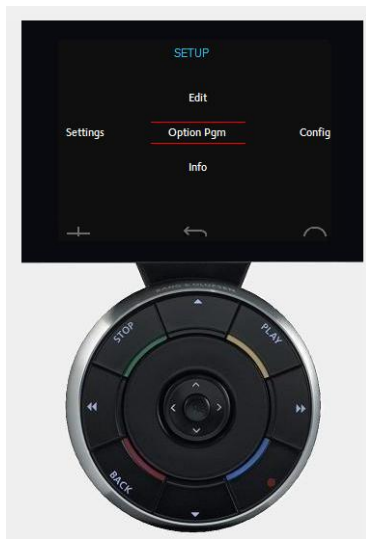
Testing your configuration

Using this page you can test the following aspects of your configuration:

- Button position/visibility
- Button navigation behavior
- IR Codes
Link-Mode, TV/VTR/Radio, Command
- Page links
- Scene pages

The function of this Beo5/6 simulation is quite the same as the real product offers. There may be some minor issues not covered by the simulation (mainly navigation functions).

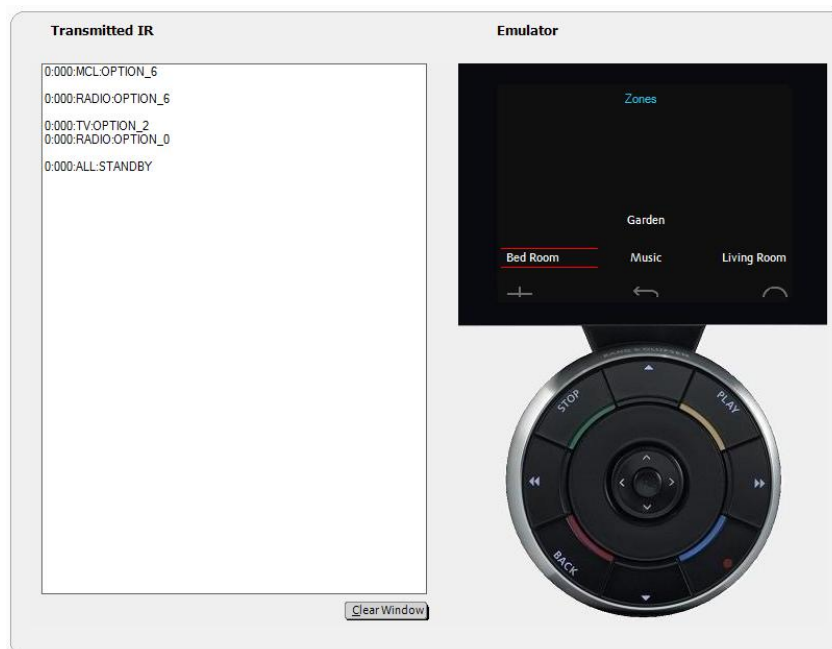
Testing the Option Programming of your installed Products



Hold down the CTRL-key of your keyboard

And click the Standby hard key.

The Beo5/6 simulation enters the setup mode. Click on “Option Pgm” and have a look at the box showing the IR codes, as you click on the zones.



You will see:

- The Beo5/6 sends out an Standby-All command entering the Option Programming page
- Sending out the V.Opt, A.Opt and L.Opt commands corresponding to the products available in the zones

STEP 9 - ACTIVATING YOUR CONFIGURATION



Downloading your Configuration to Beo5/6

After testing your configuration successfully skip to “Finalize” page and put your Beo5/6 into the docking station.

In the first step the tool generates a binary file, to be downloaded to your Beo5/6. After successfully generating the file, it is downloaded to your Beo5/6.

You could test the generation process already during editing you configuration by clicking the “Validate” button on the “Edit” page of the tool.

Option Programming your installed Products

As you might have changed the Option Settings of your system, you might need to go through the option programming process with your system. Otherwise your configuration may not work as expected, if the current options in your setup are not corresponding to the Beo5/6 configuration.

ADVANCED FINE TUNING

Why and How?

You may encounter situations, where the possibilities offered by the tool will not lead to a satisfactory result or effort building a configuration may be too high. These circumstances may be:

- You have a scenario currently not supported by the tool involving stand-alone systems within a ML-system
- Make it easier to re-generate a configuration, without the need of reentering your individual preferences
- Make it easier to build your configuration regarding source, AV- and Link-Pages These pages copied from the referenced source pages, as seen in chapter “What does the configuration consist of?” of Step 6.
- Work around erroneous product templates supplied with the tool.

These advanced fine tuning methods are done editing xml documents.

Which Tools can be used?

For users not familiar with editing XML-documents I suggest using Microsoft XMLNotepad 2007. You can download from Microsoft web site.

When you are familiar with editing XML-document, you may use Notepad++, as it is more powerful. Just google for sources, where you can download the freeware tool from.

Customizing Product-Description-xml”

Modifying xml-files describing video- and audio-products or video-sources is a very straightforward way. Although you have to deal with xml-files, you need not be an expert, to achieve amazing results.

By modifying these files, you can:

- Work around the issue regarding stand-alone sources within an ML-network
- Preserve source property modifications through any re-generation cycle of your configuration
- Ease your life regarding AV- and Link-pages generated by the tool

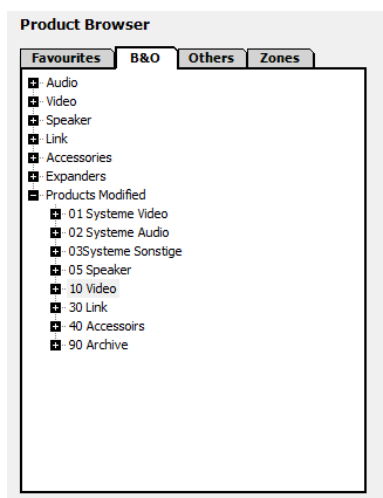
General Rules for Modifying Product-XMLs

NEVER modify any original version of a file supplied with the tool.

First of all create a subfolder with the name “70. Products Modified” within the configuration tool’s folder “Products”.

Then search for the product, you plan to adapt in the folder “Products” and its sub folders. It is very simple as you will see the same structure as shown in the configuration tool’s product browser (“Choose Product page).

Then copy the file into the folder “70. Products Modified”. Open the file in the XML-editor of your choice. This folder will be available in the configuration tool, containing all your products. You may structure this folder, dividing it into subfolder, just as you like.



Handling stand-alone sources within a ML-network

To be able to handle this scenario you need to “configure” a product having no ML-connection and is operating in option 5.

The original version, which is not working in this scenario, goes like this:

Tree View	XSL Output
xml	version="1.0" encoding="utf-8"
root	1.1
stVersion	
resource	
product	BeoSound3000
stName	BeoSound 3000
stCaption	BS3000
stMenuCaption	BeoSound3000
stImage	audio
stProductType	1
nPLMaster	0:1:2:5:6
stOptions	AUX
stAV	DIN
stAUXIN	1
nML	Front
stPL	
source	
source	
source	
source	
options	
scene	
monitors	

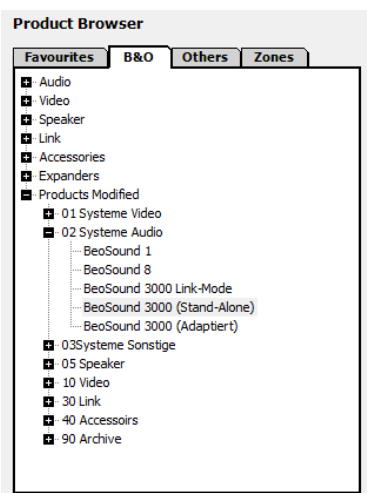
The relevant attributes are nPLMaster and stOptions, which you need to change to the following settings:

Tree View	XSL Output
xml	version="1.0" encoding="utf-8"
root	1.0
stVersion	
resource	
product	BeoSound3000
stName	BeoSound 3000 (Stand-Alone)
stCaption	BS3000
stMenuCaption	BeoSound3000
stImage	audio
stProductType	1
nPLMaster	0
stOptions	5:4:1:0
stAV	AUX
stAUXIN	DIN
stPL	Front
source	
source	
source	
source	
options	
scene	
monitors	

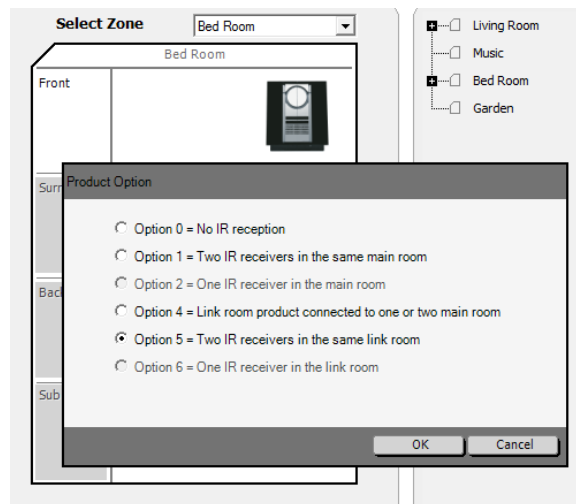
Set any name you like to stCaption (BeoSound 3000 (Stand-Alone)) is shown above.

nPLMaster needs „0“ and stOptions needs „5“. To allow flexible use of this customized product.xml, I suggest setting stOptions to “5:4:1:0”. The tool chooses the first listed option, when no special ML-scenario is discovered. This leads to a default value of “5” for this product.

Adding the newly created product from the product browser....



...will result in the following product

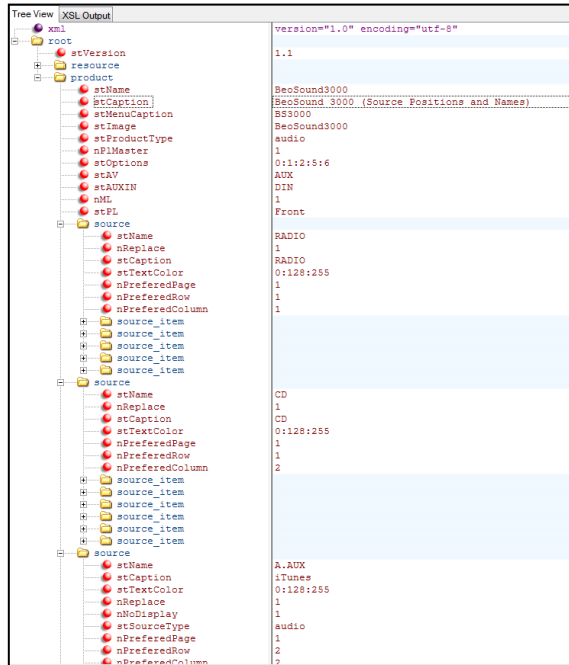


The configuration tool will handle this scenario correctly and generate the correct ML-connections, source pages and IR-commands.

It is a very simple modification and you can avoid a lot of troubles trying to outsmart the configuration tool in other ways.

Position and Names of sources

If the product description does not enforce a specific position for a source offered by the product, the tool will add one source after the other to the next free position of a screen. This is, in most cases, not very intuitive. You can specify your preferred position in the product xml directly.



This example modifies the positions of BeoSound 3000 sources for CD, Radio and A.Aux and renames A.Aux to iTunes. The Product name is set to “BeoSound 3000 Source Position and Names”

The relevant attributes are:

stCaption: The name of the Product shown in the product browser

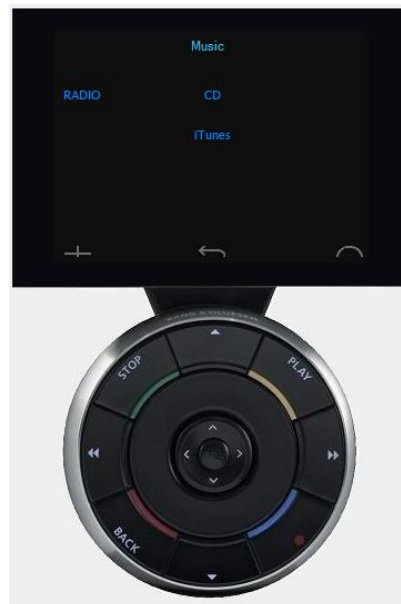
nPreferredPage: 1..9

nPreferredRow: 1..4 beginning from the top

nPreferredColumn: 1..3 beginning from the left.

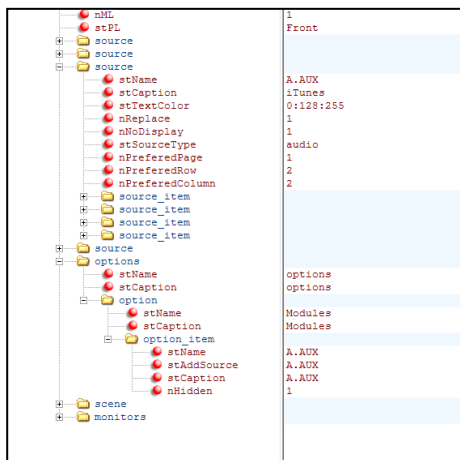
Optionally you may set stTextColor to a RGB-code. It can easily be retrieved from the advanced color choose dialog opened from the edit page.

The example will generate the following default source selection page:



Checking product options by default

Sometimes you may wish your product had some of the options it offers, automatically set or unset. This can be done, by modifying the options section of the product xml.



This example checks automatically the A.Aux source option of BeoSound 3000

The relevant attributes are:

stHidden on the option_item tag. If this attribute is not yet present than you need to add it (select context menu entry “Element/child” on option_item

stHidden: 1, will activate the checkbox automatically when adding the product. Additionally you need to delete the attribute nNoDisplay on the corresponding source, referenced by the attribute stAddSource (A.Aux) of the option_item. Otherwise checking the checkbox automatically has no effect

Of course, it works the other way round as well. But removing the attribute nHidden from an option_item, enforces you to add the attribute nNoDisplay=”1” to the corresponding source.

Customizing the Source-Description-XMLs

First find the XMLs, you want to change in the ThirdParty sub folder of the configurations tool's installation folder and copy it to your modified products folder (refer to chapter "General Rules for Modifying Product-XMLs").

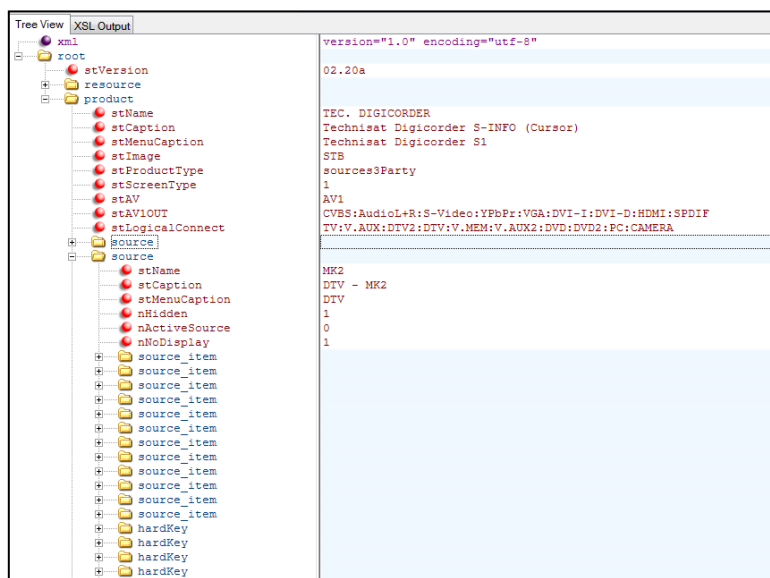
Products supporting "Cursor Mode" operations contain two source sections within their XML document:

- source "ThirdParty" representing non-cursor-mode operation
- source "MK2" representing cursor-mode operation

The solution B&O decided to use isn't very straight forward, because all functions are defined twice and only one cursor mode (mode 1) is supported. So all modifications you decide to make, have to be done in both source sections.

Adapting the function soft buttons of a source

You can adapt the display of soft buttons representing the PUC functions of a source just the same way as you can do with source selection buttons generated from the product xml.



There is one important difference to the options shown in the preceding chapters describing source selection buttons, concerning the following attributes:

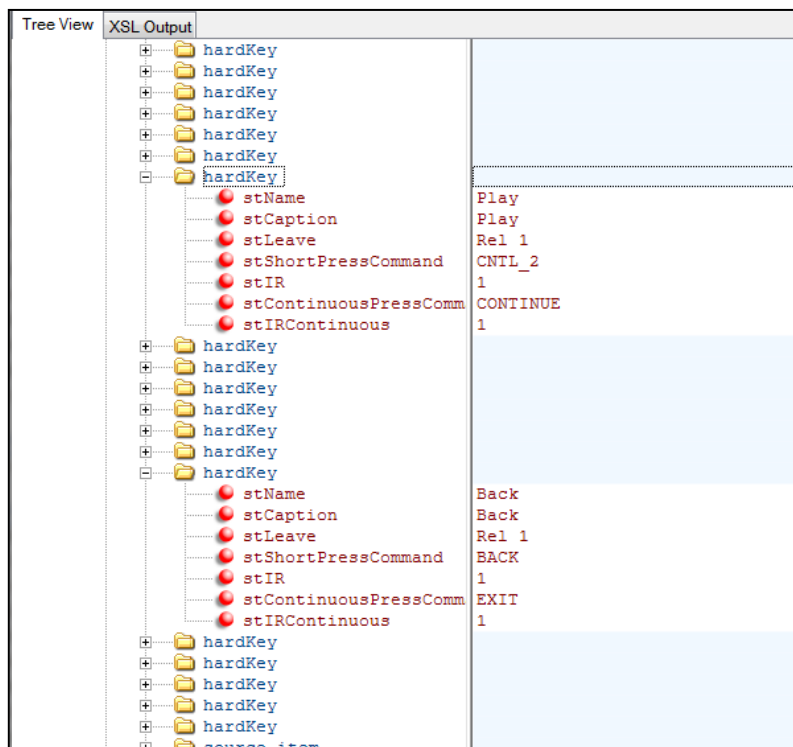
- nPreferredPage: 1..9
- nPreferredRow: 1..4 beginning from the top
- nPreferredColumn: **0..2** beginning from the left

In some rare situations it may be useful to additionally modify the IR-command assigned to a function button. For details, please refer to the next paragraph.

Adapting the IR-commands assigned to hard keys

One of the biggest disadvantages of the Beo5/6 against the Beo4 is that you can't find the soft keys on the screen without looking at it. Whereas, using the Beo4, you can "feel" the buttons. Assigning PUC functions to hard keys can significantly improve the usability of Beo5/6.

You can reassign IR commands to specific hard keys to be used with a source by modifying the hard key description within the source xml. Please keep in mind that you have eventually to make the modification in both source sections of the product.



Find the hard key you want to modify in the XML within the tree. The attribute stName identifies the hard key and may not be altered.

You may modify the stShortPressCommand attribute to your needs. In the example shown above CNTL_2 is assigned to the Play hard key, as in the original configuration, it has the same effect as the center button (for Technisat DigiCorder). Reassigning a frequently used PUC-function (Info), improves usability significantly.

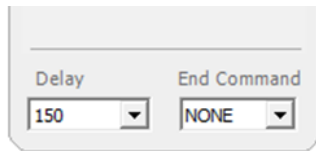
The IR-commands to enter can easily be discovered using the edit page of the configuration tool. If you want to enter a macro as a value to the attribute you simply separate them by "+". To include delays, use the format "Delay: x ms", where x represents the milliseconds you want Beo5/6 to wait before emitting the next command.

An example goes like this: "CIFFER_3+Delay: 100ms+PLAY"

Modifying “Channel-List-xml”

Specifying your End command

Some PUCs require you to press Play+Play to respond immediately to your request, without having to wait some time, before your command will be executed. Unfortunately the tool doesn't you allow to enter this command in the channel list editor.



Only “Select” and “Play” can be selected from the list.

If you want to use EndCommand “Play+Play”, You have to modify manually the channel list xml.

Select your channel list form the path “Bang & Olufsen\Beo5 Configuration Tool\Channels\Templates” and make a copy to be modified.

For each channel you will find a source_item in the xml:

A screenshot of an XML editor. The left pane shows a tree view of an XML document. The root element is 'xml', which contains 'root'. Under 'root' are 'stVersion' (1.0), 'nCurrentScreenPositionType' (1), and 'resource'. Under 'resource' is 'channel'. Under 'channel' are 'stName' (TV Channels), 'stProductType' (TVChannel), 'stImage' (logo), 'stMenuCaption' (Custom), and 'source_subItem'. The right pane shows the XSL Output for the selected 'source_subItem' element, listing various attributes and their values, including 'stShortPressCommand' set to 'CIFFER_1+Delay: 150ms+PLAY'.

The attributes controlling the IR code generation for the channel selection are:

- nChannelNumber (the number to be sent)
- stChannelDelay (the delay between individual IR commands)
- stEndCommand (the IR command, to be sent after the last digit of the channel number)

Although you enter the information stChannelDelay and stEndCommand only once within the configuration tool, it is present an all individual channel source_items. You will need to use the XML-editors replace function to make the multiple modifications easily.

Automatic Back Navigation on Channel Selection

Maybe you wish to automatically return to your source function page, once you selected a channel on the screen. In this case you need to modify the `stLeave` attribute of the channel `source_items`.

Tree View	XSL Output
xml	version="1.0" encoding="utf-8"
root	
stVersion	1.0
nCurrentScreenPositionType	1
resource	
channel	
stName	TV Channels
stProductType	TVChannel
stImage	logo
stMenuCaption	Custom
source_subItem	
stName	TV Channels\Channel 1
stCaption	ORF1
stMenuCaption	Channel
stLeave	REL 1
stIR	2
nChannelNumber	1
stImage	Orf1
nPreferredRow	1
nPreferredColumn	1
nPriority	0
nPreferredPage	1
stShortPressCommand	CIFFER_1+Delay: 150ms+PLAY
nWidth	98
nPrimary	0
stChannelDelay	150
stEndCommand	PLAY
source_subItem	
source_subItem	
source_subItem	
source_subItem	
source_subItem	
source_subItem	
source_subItem	
source_subItem	

Modify the attribute `stLeave` from original value "Rel 1" to "Rel 2" applying the same procedure as described in preceding paragraph.

Modifying Config Tool's configuration files

General Rules for Modifying Config Tool's configuration files

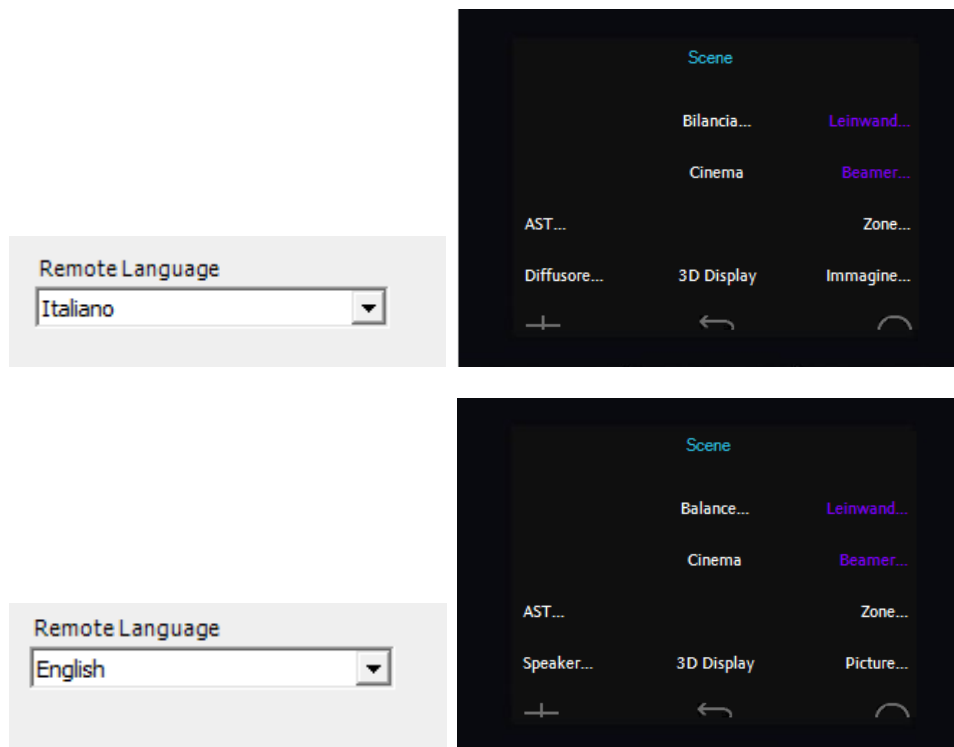
NEVER modify any original version of a file supplied with the tool.

First make a backup copy of all files you intent to modify and place them in a separate folder outside the tool's installation folder. As the tool searches for its configuration files at a fixed location, you need to place the modified files at the same places (after having stored backup version at a safe place).

EVERY modification you make influences ALL products and ALL configurations. So you need to consider carefully your modifications.

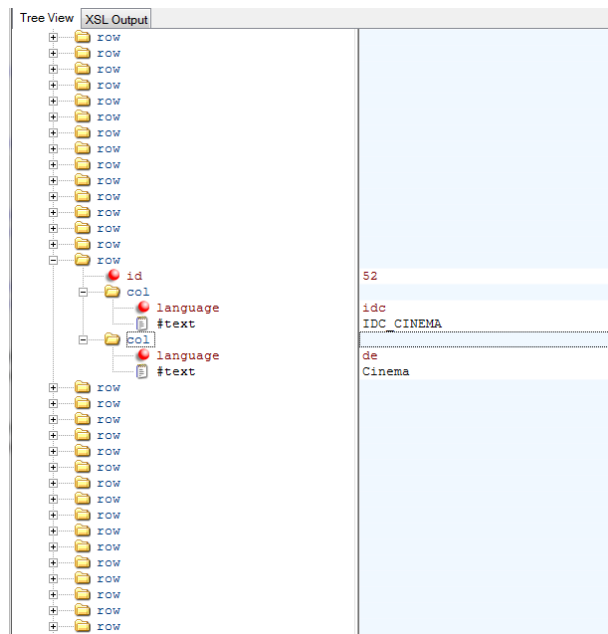
Language Settings

If you want to modify the text of soft buttons representing B&O functions on the corresponding B&O function page, you cannot use the stCaption attribute, as its value is ignored on those elements, when the configuration is generated. The tool generates a text based on the language setting, you select on the welcome page.



This language information is stored in the “RemoteDictionary” files stored in the language folder within the tool’s installation folder. The settings are stored in separate files per language. Select the file of the language you have selected on the welcome page. Eg.: RemoteDictionary-de.xml for the translations to German.

The structure of the file is very intuitive:



Every row consists of two “col” entries. The first one holds the ID of the text token. The second one holds the translation.

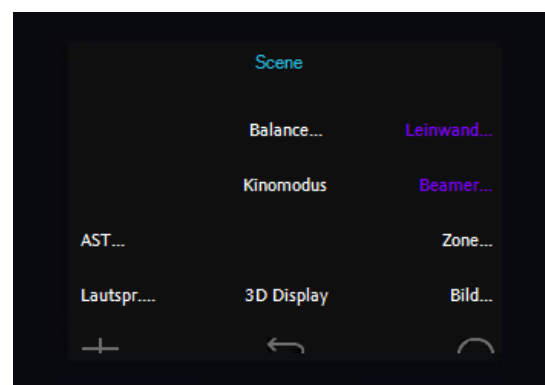
The IDC-names of the tokens are very intuitive. You will not encounter problems finding the desired token. As the structure is very simple and easier to search for items you may want to use notepad++, even if you are not very familiar with xml:

```

RemoteDictionary-de.xml
184 <col language="idc">IDC_PICTURE</col>
185 <col language="de">Bild</col>
186 </row>
187 <row id="47">
188 <col language="idc">IDC_STANDARD</col>
189 <col language="de">Standard</col>
190 </row>
191 <row id="48">
192 <col language="idc">IDC_WIDE</col>
193 <col language="de">Breitbild</col>
194 </row>
195 <row id="49">
196 <col language="idc">IDC_VARIATION</col>
197 <col language="de">Variante</col>
198 </row>
199 <row id="50">
200 <col language="idc">IDC_P_MUTE</col>
201 <col language="de">Bild ein/aus</col>
202 </row>
203 <row id="51">
204 <col language="idc">IDC_FORMAT_</col>
205 <col language="de">Format #</col>
206 </row>
207 <row id="52">
208 <col language="idc">IDC_CINEMA</col>
209 <col language="de">Kinomodus</col>
210 </row>
211 <row id="53">
212 <col language="idc">IDC_A_SETUP</col>
213 <col language="de">Andiosetup</col>
214 </row>
215 <row id="54">
216 <col language="idc">IDC_BASS</col>
217 <col language="de">Bässe</col>
218 </row>

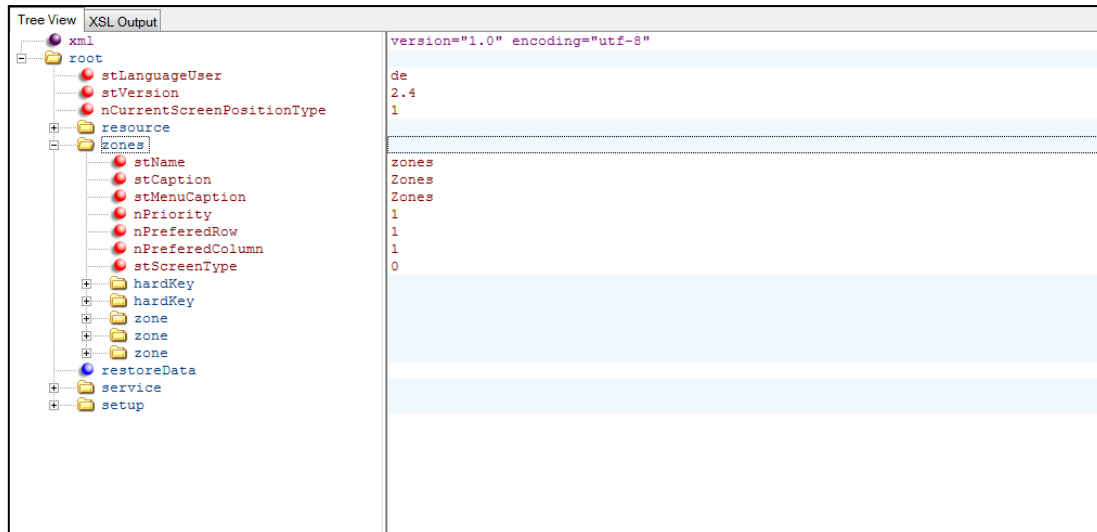
```

Modifying the IDC_CINEMA line to “Kinomodus” results in following scene page



Modifying “Configuration.xml”

The configuration tool generates a “configuration.xml” file, which holds the information of your configuration. Based on this file, a binary file is generated and downloaded to the Beo5/6.



Expert users, who are familiar with the structure of the file, may modify the content. The structure is quite straight forward and easy to investigate, though not following standard guidelines of structuring xml-documents. As often B&O has defines its own standards.

You have to keep in mind, that you will lose your modification not only when a new version of the configuration is generated, but also when using the properties dialogue on an element, depending on the modifications you made. So this type of fine tuning is very one-way. It should be used only in case you have to work around any issue of the configuration, you cannot solve using the configuration tool

REAL LIFE EXAMPLE

This example shows how a configuration is built using the methods shown above. The only modifications done with the tool are setting the colors on the zone selection buttons in the start page.

The Zones and their products

Room 1

Wohnzimmer (Living room): BeoSystem 3 MKIII (Opt 2) + BeoSound 3000 (Opt 0)

Room 2

Schlafzimmer (Bed room): BeoSystem 2 (Opt 4)

Wecker (Alarm clock): Beo Sound Overture (Stand-Alone Opt.5)

Room 3

Keller (Fitness room): BeoVision Avant (Opt. 6)

Room 4

Badezimmer (Bath room) BeoLab 3500 (Opt. 6)

Room 5

Küche (Kitchen): BeoSound 1 (Opt. 5)

Room 6

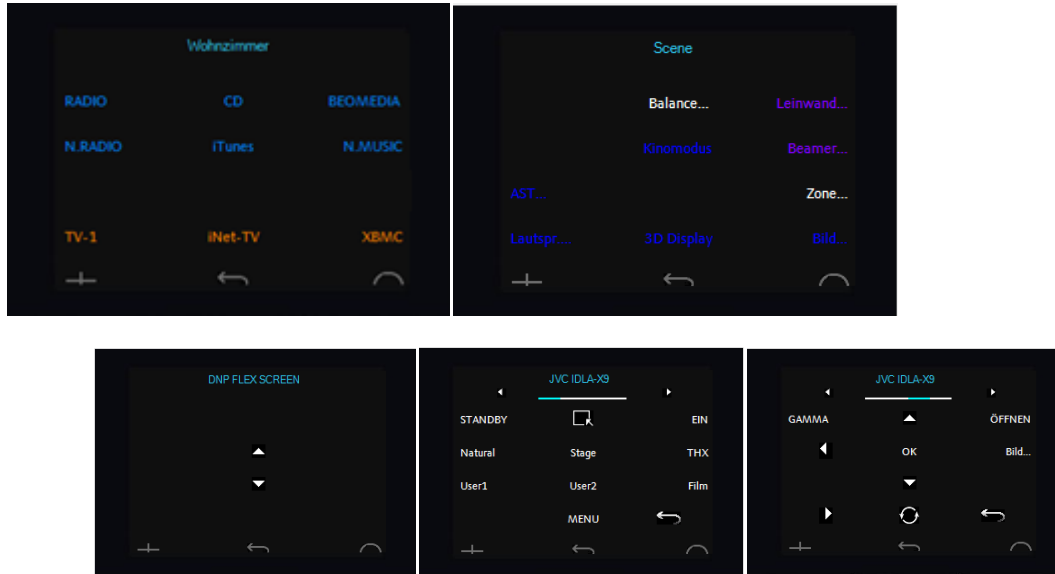
Garten (Garden) BeoLit 12 (Opt. 5)



Living Room

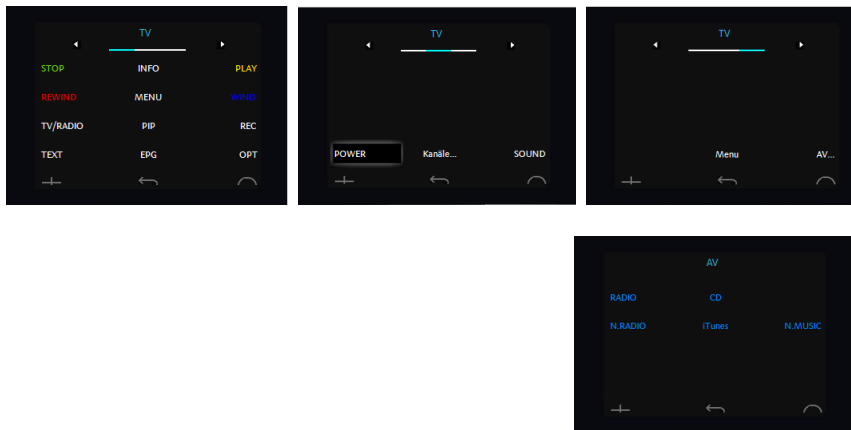
The BeoSystem 3 and BeoSound 3000 product templates were modified adapting the positions, names and colors of the supplied sources. Unused B&O features were removed. Product XMLs for the accessories JVC-Beamer and the DNP screen were generated with Lintronic and manually reformatted to utilize hard keys and rearrange buttons.

Source Selection Page and Scene Page



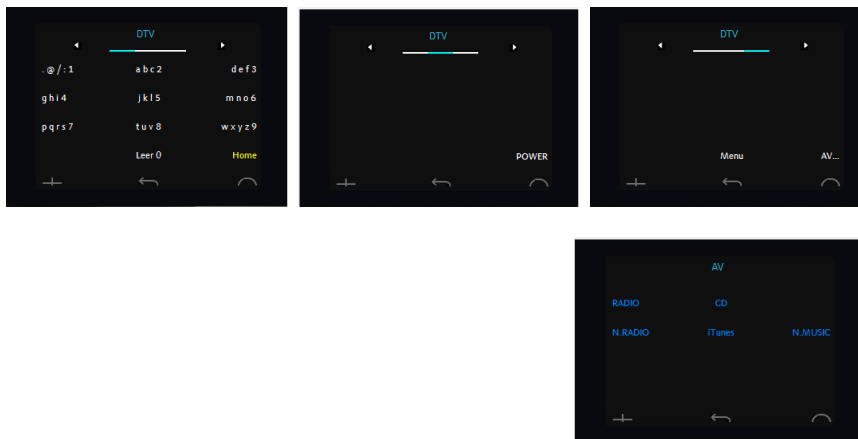
Source TV-1

Source xml based on Technisat DigiCorder



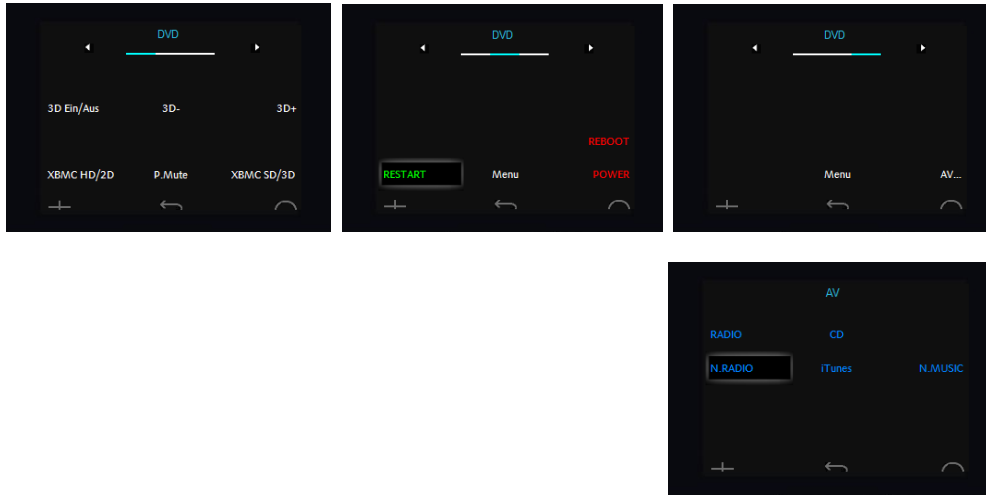
Source INet-TV

Source xml built from scratch as device is not in PUC list (controlled via SCART connected Lintronic box)



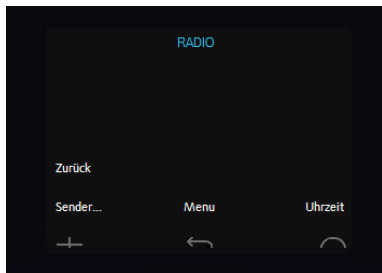
Source XBMC

Source xml built from scratch as device was not in PUC list (controlled via SCART connected Lintronic box). In the meantime you find the Microsoft 1039 MCE controller in the PUC list, so I will probably change to PUC (with some modifications, as you may guess ☺).



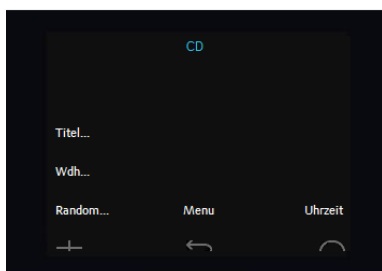
Source Radio

BeoSound 3000 integrated with BeoSystem 3, unmodified product definition.



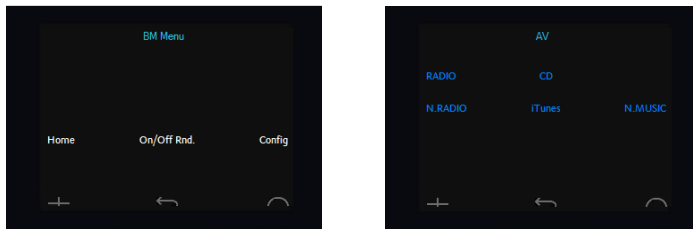
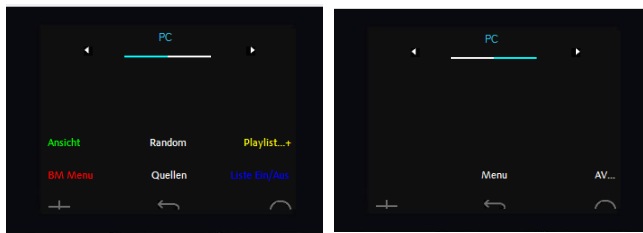
Source CD

BeoSound 3000 integrated with BeoSystem 3, unmodified product definition.



Source BeoMedia

Based on BeoMedia 1 product XML. Buttons are renamed and an on-screen menu page was added



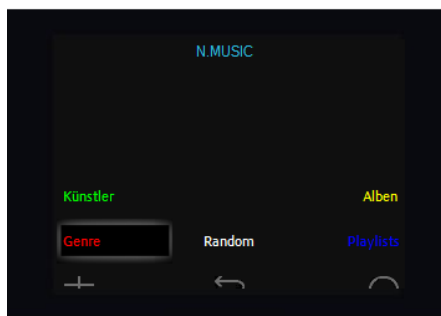
Source N.Radio

Based on BeoMedia 1 product XML. Buttons are renamed, as the original captions were wrong



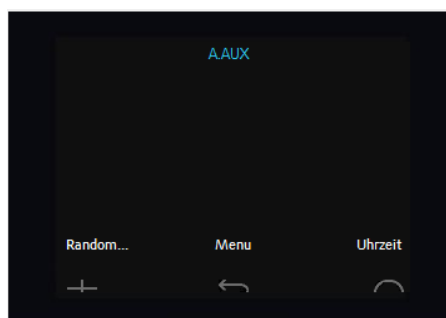
Source N.Music

Based on BeoMedia 1 product XML. Buttons are renamed, as the original captions were wrong



Source iTunes

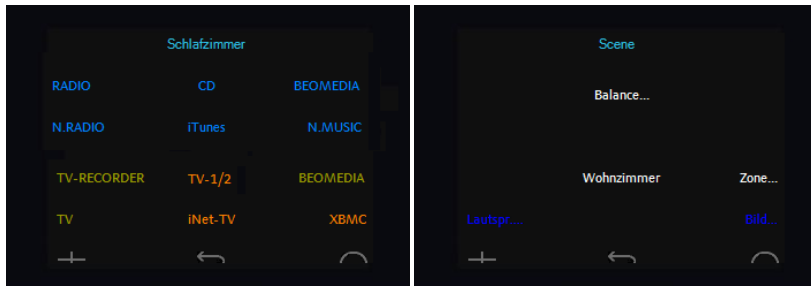
BeoSound 3000 integrated with BeoSystem 3, unmodified product definition.



Bed Room

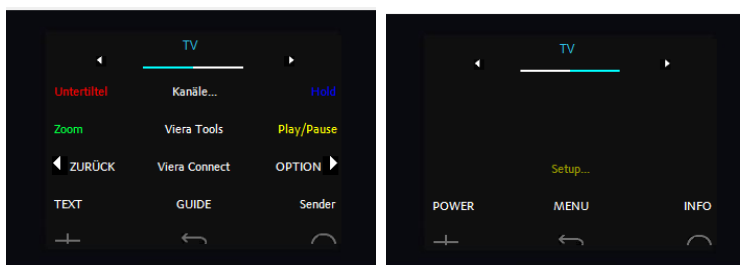
Custom made product xml ad source xml for Panasonic VT 30 (TV) and Samsung D6900S (TV-Recorder). The other sources are Link-Sources automatically placed on the source selection page.

Source Selection Page and Scene Page



Source TV

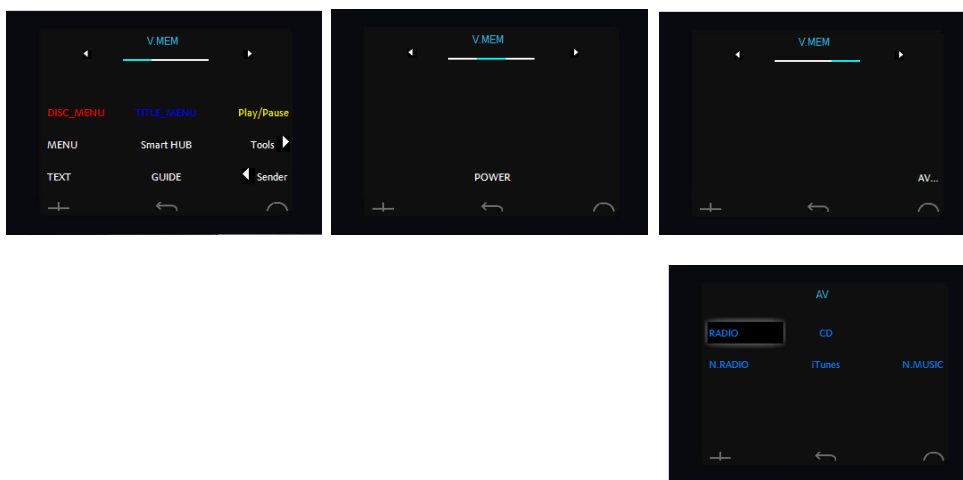
Product XML built from scratch for Panasonic VT30.



(Setup activates BS2 Setup screen, Menu opens VT30 menu)

Source TV-Recorder

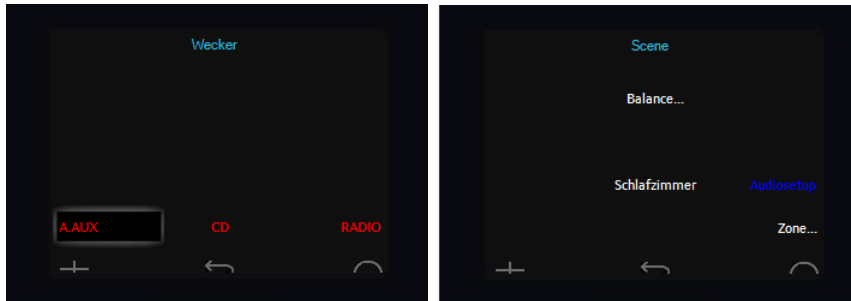
Product XML built from scratch for Samsung D6900s controlled by Lintronic box, as it is not in STBC for BS2.



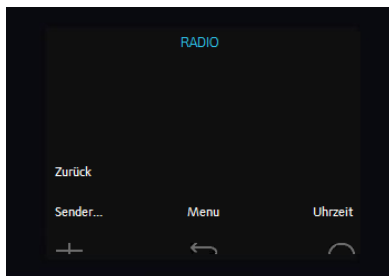
Alarm Clock

The BeoSound 3000 product xml was adapted by removing ML connection and forcing option 5. Button positions, colors and B&O functions are modified as well.

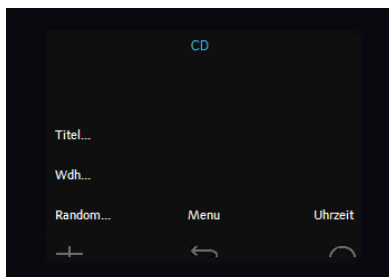
Source Selection Page and Scene Page



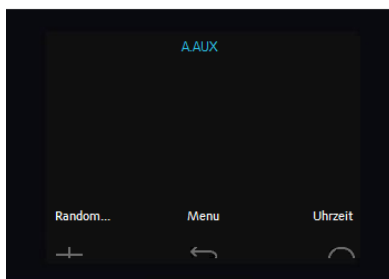
Source Radio



Source CD



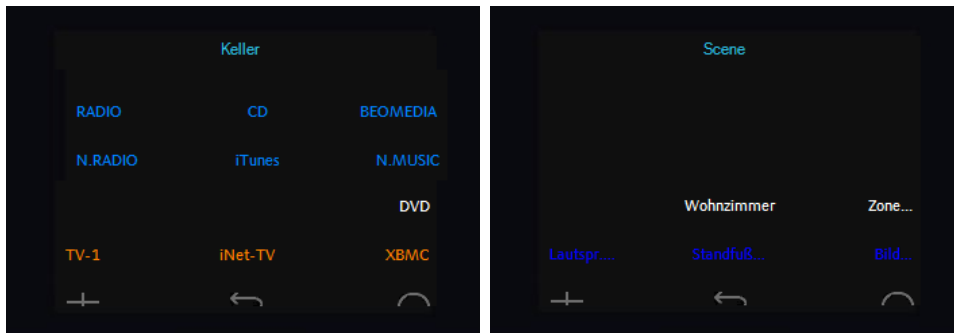
Source A.Aux



Fitness Room

Adapted BeoVision Avant 32 DVD product xml, with an AV-sources suppressed and local TV source removed. No local attached sources, only link sources available.

Source Selection Page and Scene Page



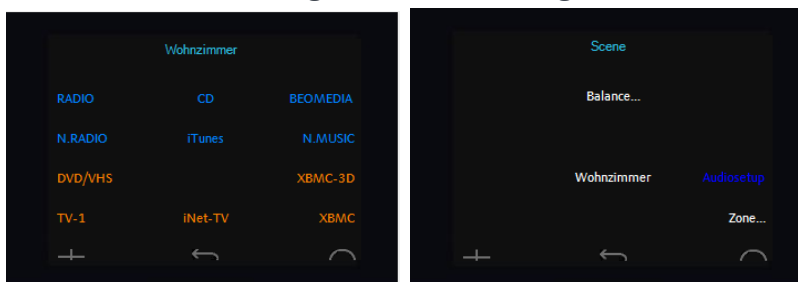
Sources

As all sources are link-sources, they appear exactly like in the zone “living room”.

Bathroom

Standard BeoLab 3500 product xml

Source Selection Page and Scene Page



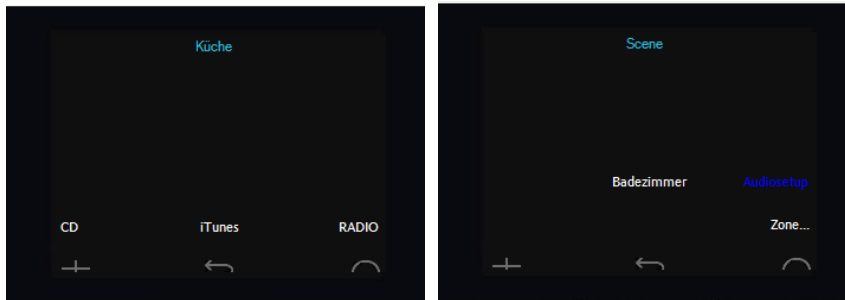
Sources

As all sources are link-sources, they appear exactly like in the zone “living room”.

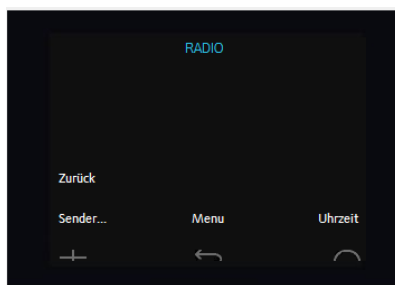
Kitchen

Adapted BeoSound 1 product xml, button positions and captions are modified.

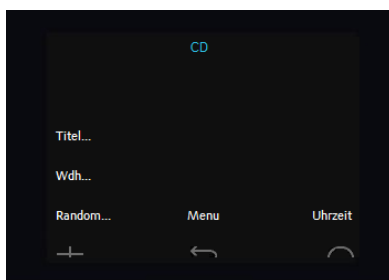
Source Selection Page and Scene Page



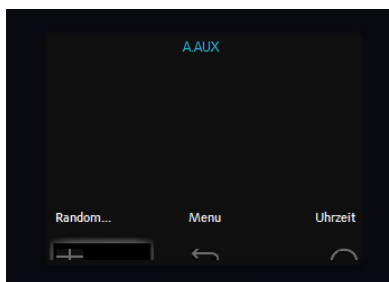
Source Radio



Source CD



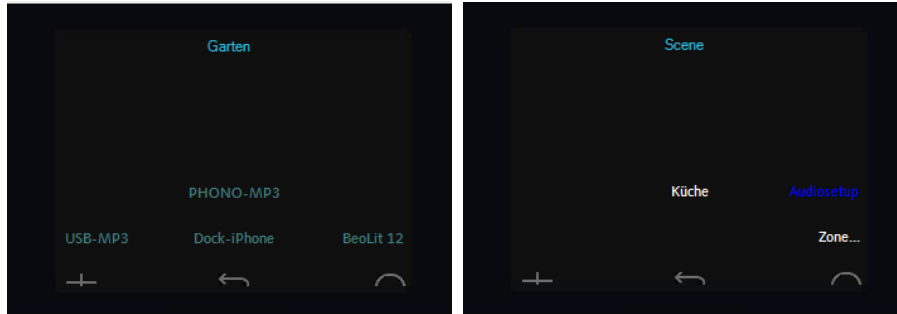
Source iTunes



Garden

Product xml built from scratch as BeoLit12 isn't available yet in the product database.
Options for selecting the additional sources connected to BeoLit12.

Source Selection Page and Scene Page



Sources

All of the sources do not offer specific functions, as BeoLit12 is controlled by iPhone using AirPlay.

