

# BNCS Router Grid Control

Qt Custom Control

Written by Dave Yates

© Copyright BBC Technology 2004

## Description

This is an interim solution to router control smart button – it is not truly a super-smart as it hasn't got (and can't easily have) the full range of display options e.g. grid, popup grid from button/label etc.

The way sources and destinations are mapped onto buttons is the model devised for some of the earliest “mappable” BNCS routing systems and is not necessarily ideal for BNCSI.

It is still however a useful control!

This control can be used as a grid of source buttons, or as a grid of destination buttons with the router tallies displayed.

There are other options which allow a few additional labels to be displayed. The source for these labels is configurable to be either router databases or simple infodriver slots.

## Button Mapping

Buttons are mapped to router subscribers using an “upper” BNCS database (DB 2-9).

An example ini file section is shown here:

```
[Database_8]
0001=4,0,11,12,13,14,15,16,17,18,19,20,
0002=3,2,1,5,6,7,8,9,10,0,0,12,11,
```

It is definable within the control which database of which is used and what index is used to select a comma delimited list of numbers. The list of numbers is then split and used to populate the array of buttons.

If a grid control is configured to have 16 buttons and set to look at entry 0001 above and set to show destination names then the top left button will show the destination 4 name, the top right button destination 12. The second row will start on the left with the destination 13 name etc. etc. There is only 12 numbers in this list so buttons 13-16 will be disabled (along with button 2 which is zero).

## Settings

You can pass any of the following settings to this control in the format:

<parameter>=<value>

Default values (those when a new button is created or when a reset command issued) are shown in **bold**.

Parameter	Value	Notes
reset		Used to reset all the parameters of this control back to their default state
columns	<b>3</b>	The number of columns of buttons for this grid control
rows	<b>3</b>	The number of rows of buttons for this grid control
page	<b>1</b>	The page to select (added to the pageoffset value to determine the index within the database to use for this entry)
pageoffset	<b>0</b>	The page to select (added to the page value to determine the index within the database to use for this entry)
mapdb	<b>8</b>	The BNCS database number (2-9) to use for the button mapping information. In theory you could use database 0/1 but these are limited to 16 characters.
namesdb	<b>0</b>	Which database to use to get the names from (0-9). The default is "0" – sources.
device	<b>0</b>	The BNCS device number of the router to control. This device number is used for both the names displayed and the button mapping information
notify.pressed	<b>false</b>	Whether to send notification messages for the relevant events.
notify.released	<b>true</b>	
notify.name	<b>true</b>	Note: a tally notification is only sent if the tally label is selected as one of the multibuttons
notify.tally	<b>true</b>	
notify.index	<b>false</b>	

stylesheet.selected stylesheet.deselected stylesheet.tally stylesheet.label	<b>sourcegrid_selected</b> <b>sourcegrid_deselected</b>  <b>sourcegrid_tally</b>  <b>sourcegrid_label</b>	The stylesheets used for the various components of this button – there is no option to directly set the stylesheet of individual labels.  It is suggested that you try and use the default entries.
show.tally  show.label.1  show.label.2  show.label.3  show.label.4	<b>false</b>	Which of the additional buttons above and below the main button are displayed.  This requires the multibutton option to be set to true
multibutton	<b>false</b>	Whether the additional buttons above and below the main button are displayed
tally_source	<b>tally</b>	Where to get the information from to display on the “tally” label (this requires this option to have been enabled).  The options are:  tally – the source tally db0 name that is routed to this destination  tally_db2 – the source tally db2 name that is routed to this destination  infodriver – the contents of an infodriver slot the index of which is the same as the router index mapped to this button  button_db2 – the database 2 entry of the button name
label_source	<b>infodriver</b>	Where to get the information from to display in the label(s) beneath the button.  The options are:  infodriver – the contents of an infodriver slot the index of which is the same as the router index mapped to this button. There is a single infodriver slot for all

		the labels and the information is comma delimited.  tally_db3456 – the database 3-6 entries for the tally source  button_db3456 – the database 3-6 for the same index that's mapped to this button
tally_infodriver	<b>0</b>	The infodriver device number to use for the tally label display if infodriver is selected as the tally source
label_infodriver	<b>0</b>	The infodriver device number to use for the tally label display if infodriver is selected as the label source
sizepolicy	<b>setminimum</b>  asdesigned  shrinktofit	How to deal with text that doesn't fit on a button.  See the bnccs_control documentation for more information.
button.<buttonId>=released		A script may emulate the pressing of a button.  The button is of the format: button_xxx where the xxx is the button number starting from 1 at top left and continuing in horizontal rows to bottom right.

## Notifications

Notifications are also in the format:

<parameter> = <value>

Parameter	Value	Notes
button.<id>	pressed <b>released</b>	The notifications are only made if they are enabled in the settings above.  Pressed has to be specifically <i>enabled</i> .  Released has to be specifically <i>disabled</i> .

name	<router name>	router name is the value that appears on the depress-able button
index	<router index>	index of the name that appears on the depress-able button
tally	<tally name>	The value that appears on the tally of the button. This notification can occur when the currently selected button is changed or when the tally to the currently selected button changes