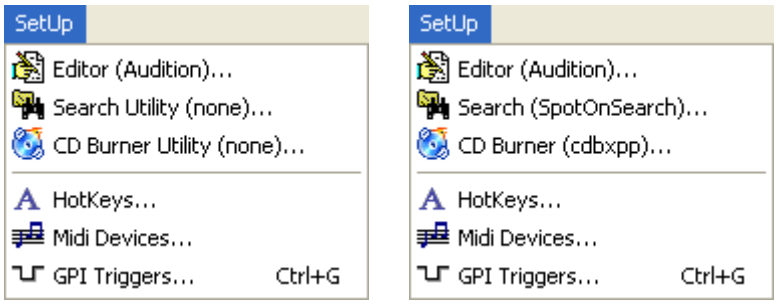
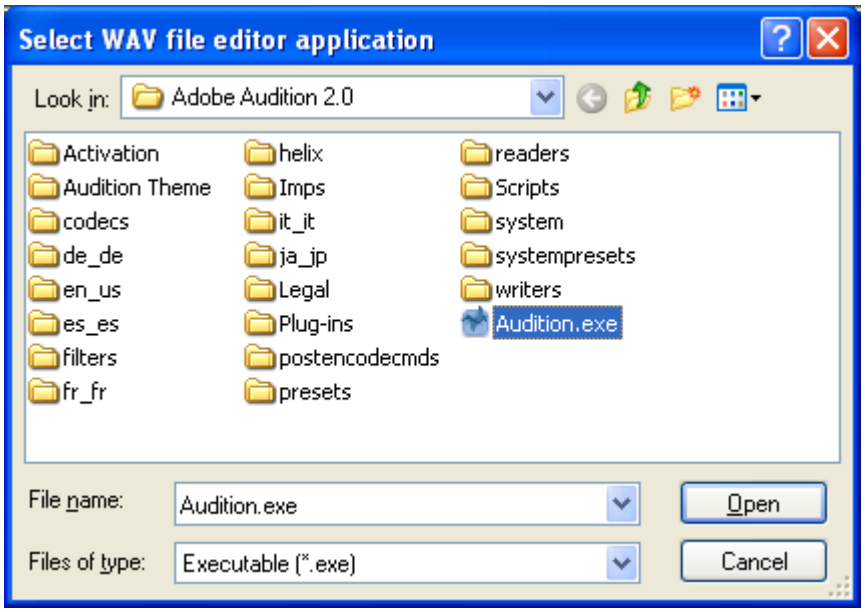
SetUp Menu

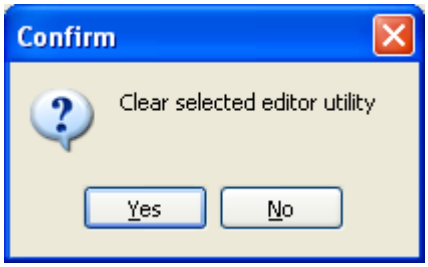


Editor

Opens a file selector dialog to select an external WAV file editor, the editor application can then be called via the Edit option in the Button Menu, the current editor name is shown in the menu item, a user selected editor is saved within the session file.

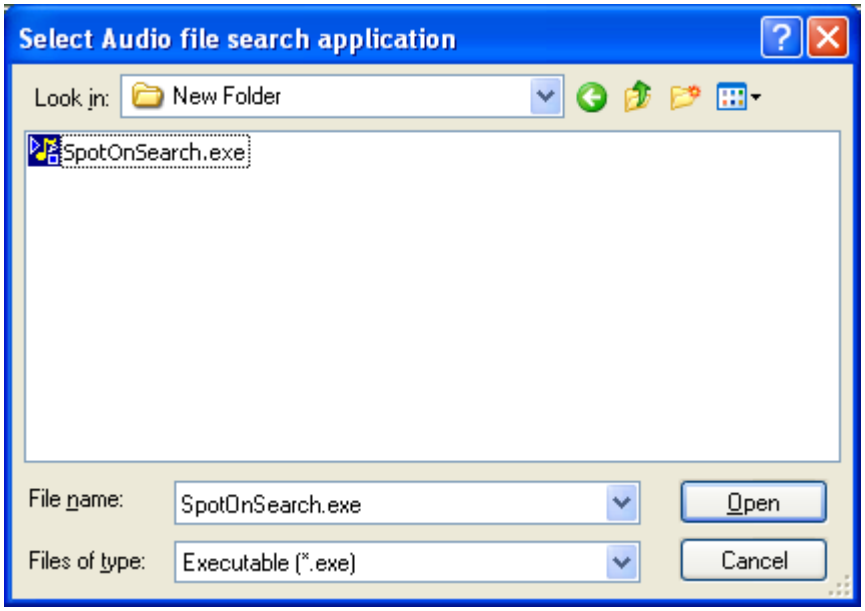


Selecting Cancel from the Editor select dialog will offer the option to clear the existing selection.

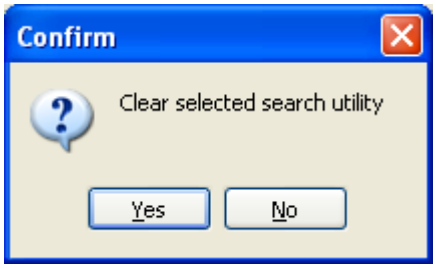


Search

Opens a file selector dialog to select an external file search utility, the utility can then be called via the Search option in the File Menu, the name of the current search utility is shown in the menu item. A utility SpotOnSearch is packaged with the SpotOn for this purpose.

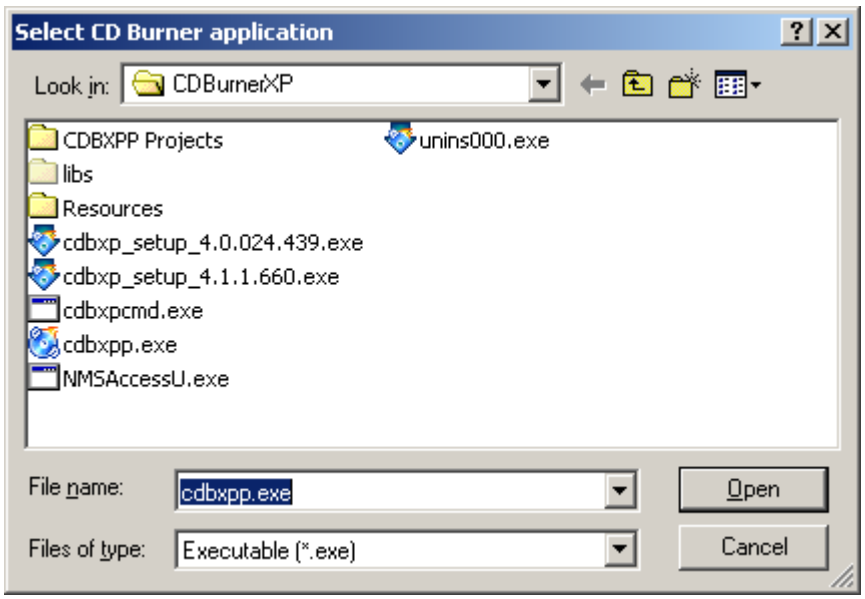


Selecting Cancel from the Search select dialog will offer the option to clear the existing selection.

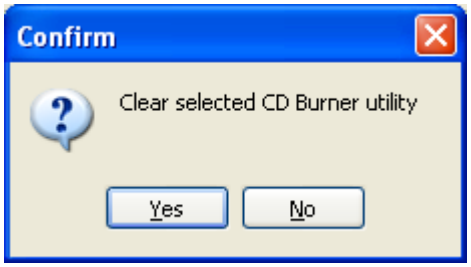


CD Burner

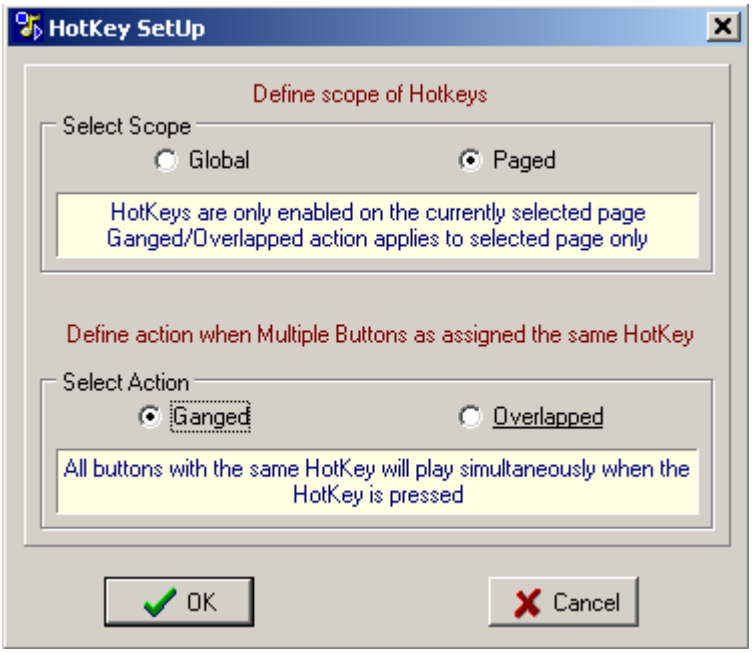
Opens a file selector dialog to select an external CD Burner utility. SpotOn is configured to use a third party CD burner utility "CDBurnerXP", the latest version of which can be found at http://www.cdburnerxp.se .The utility can then be called via Ctrl+B or the CD Burner option in the Global|Utilities menu, the name of the current utility is shown in the SetUp menu item shown above.



Selecting Cancel from the CD Burner select dialog will offer the option to clear the existing selection.



HotKeys



The action of pressing HotKeys can be handled in different ways.

The top selection in the setup dialog box Global/Paged defines the scope of the HotKeys, defining whether the HotKey press is restricted to act only on the currently selected page or applied to all pages globally.

The Ganged/Overlapped setting defines how buttons assigned to the same HotKey should act when the HotKey is pressed.

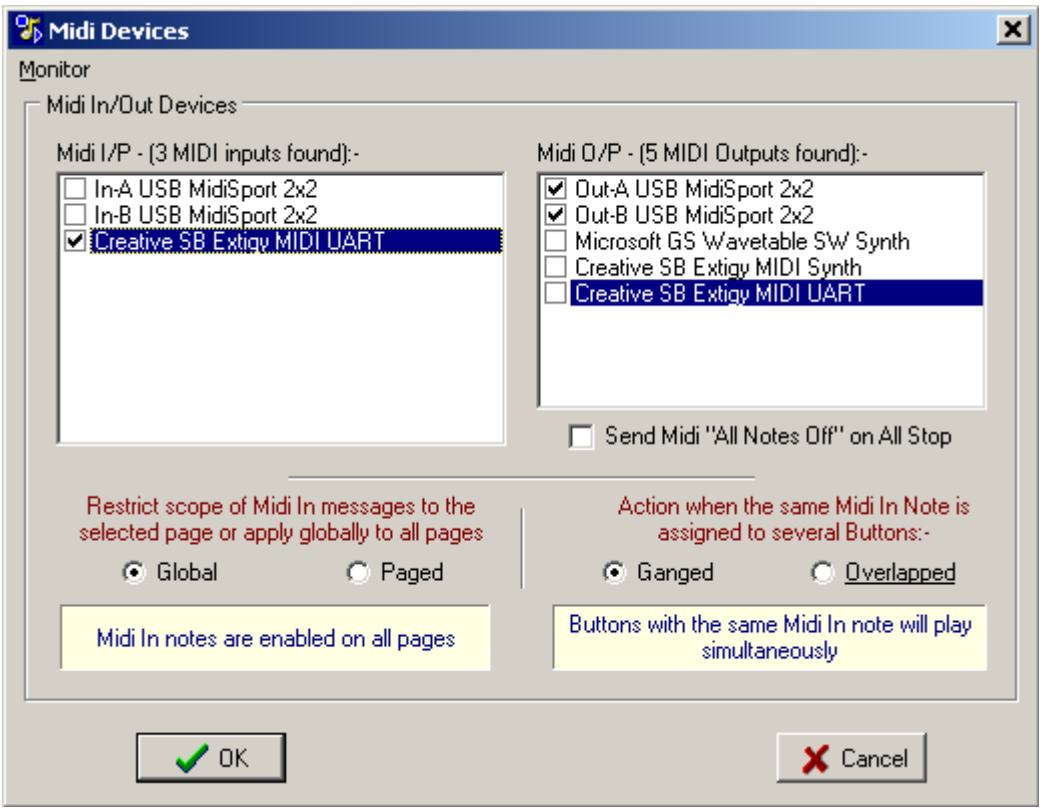
In Ganged mode all the buttons with the same HotKey will act together, alternatively in Overlapped mode the buttons with the same Hotkey will play in numerical sequence, starting with the first button not currently playing or with the least amount of time remaining if all buttons with the same HotKey are already playing.

Hotkey overlapped play action can also be triggered by a mouse left-click on a button, see Advanced Operation for further explanation

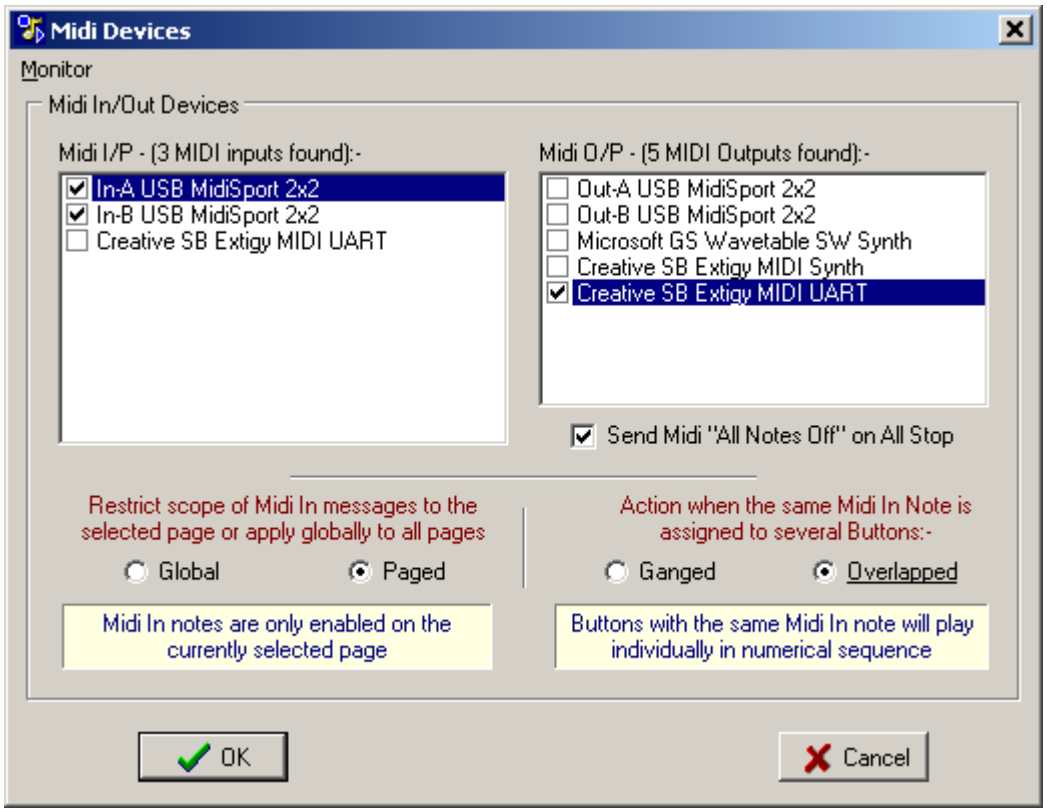
If the HotKeys are currently disabled then the message below will be shown.

Midi Devices

The Midi In and Out ports are set using the dialog box below, these are set globally and are not saved in the individual session data files.



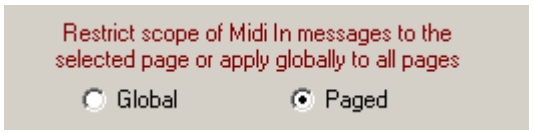
One or more Midi In devices can be selected along with multiple Midi out devices.



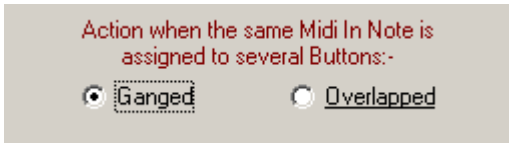
If either the Midi In or Midi Out options are disabled then a message will be shown at the bottom of the dialog box

There is also an option to send the Midi message "All Notes Off" to all Midi Out channels when Escape or All Stop buttons are pressed

The action of the Midi In notes can be restricted to act only on the currently selected page by selecting Paged option as shown below. Midi In notes can be set to act across all pages by selecting the Global option.



When more than one button is assigned the same Midi note the buttons can be played in one of two ways, Ganged or Overlapped (duplicate hotkey assignments operate in a similar way).

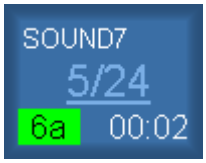


In Ganged mode all buttons with the same Midi In note will play when that Midi In message is received.

Alternatively in Overlapped mode each button with the same Midi In note will play individually on each successive Midi In message. The order in which the buttons are played is numeric starting with the first button not already playing.

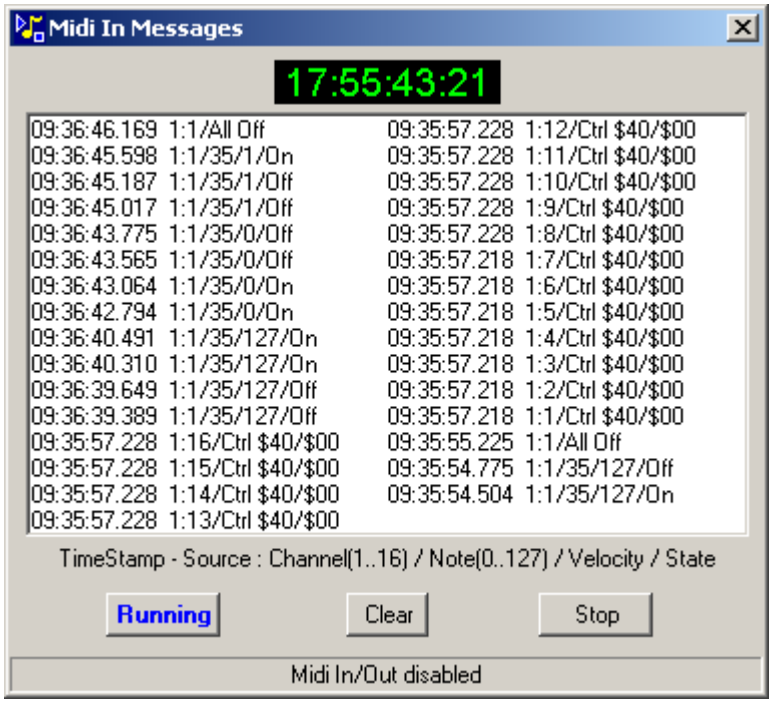
The Overlapped mode is suited to effects that need to be repeated but have a long reverberation time, just stopping and restarting the audio would be incorrect, so in Overlapped mode the previous effect is left running whilst a new copy of the effect is played out.

The Midi Note text displayed on the buttons will be underlined if it forms part of an overlapped sequence.



See Advanced Operation for further explanation

Selecting the Monitor menu item from the Midi devices window displays a listing the timestamped incoming midi messages. If Midi timecode is detected it will be shown at the top of the window in green text, if no Midi timecode is present the text will be in red. Midi timecode is also displayed in the Data Rate panel on the main window status bar.



The most recent Midi messages are shown at the top of the list, the Run and Stop buttons control the logging of the messages, clear will delete all entries in the list.

GPI Triggers

External GPIs can be used via the computer game port to trigger playing of buttons see GPI Assignments this menu item can access via the Ctrl+G keyboard shortcut

GPI Assignments

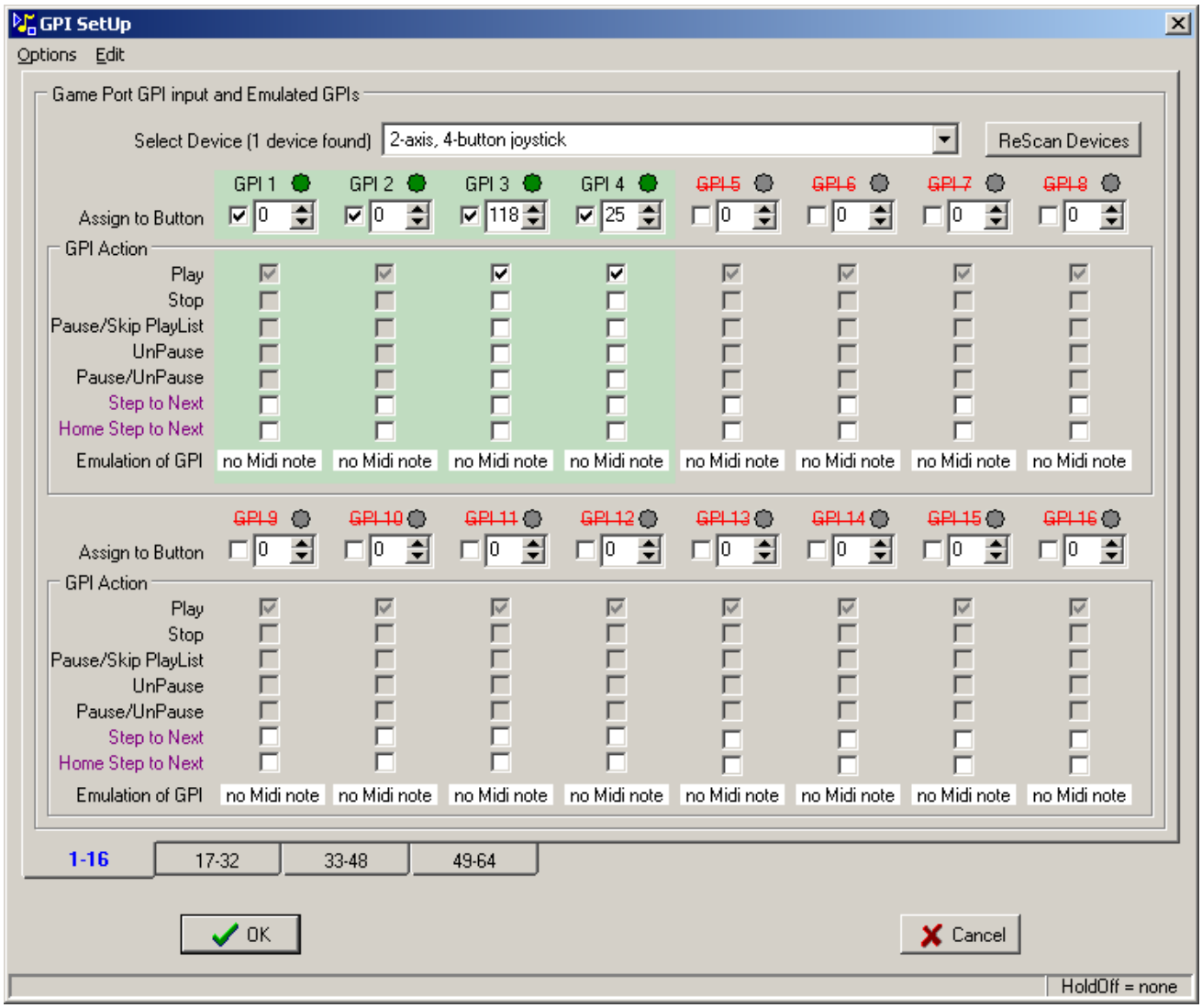
SpotOn accepts inputs from up to 64 GPIs (General Purpose Interfaces), the first four of these are most simply implemented via the PC Game Port using the joystick button connections. A USB joystick can also be used, however some internal wiring modifications to the joystick will be required to extract the switch contacts.

Any joysticks detected as being connected to the computer when SpotOn was run will be shown in the drop down list.

A PC Game Port card can be used to provide GPI inputs 1..4, with GPIs 5..64 typically triggered by Hotkey, Midi or time based emulation of GPIs - see later.

Joystick Selection

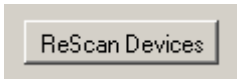
In the image below only one joystick was found and it has 4 buttons that can be used, these are assigned to GPI 1..4, "LEDs" for the remaining GPIs are shown in grey.



The area with a green background indicates that only GPI 1..4 can be 'real' GPIs from a game port card, the other GPIs will be emulated in some way.

If more than one joystick device was detected then they will appear in the drop down list

If the configuration of the GPI devices has changed the list can be refreshed by clicking on the ReScan Devices button which will clear the selection and fill the list with the devices currently connected.

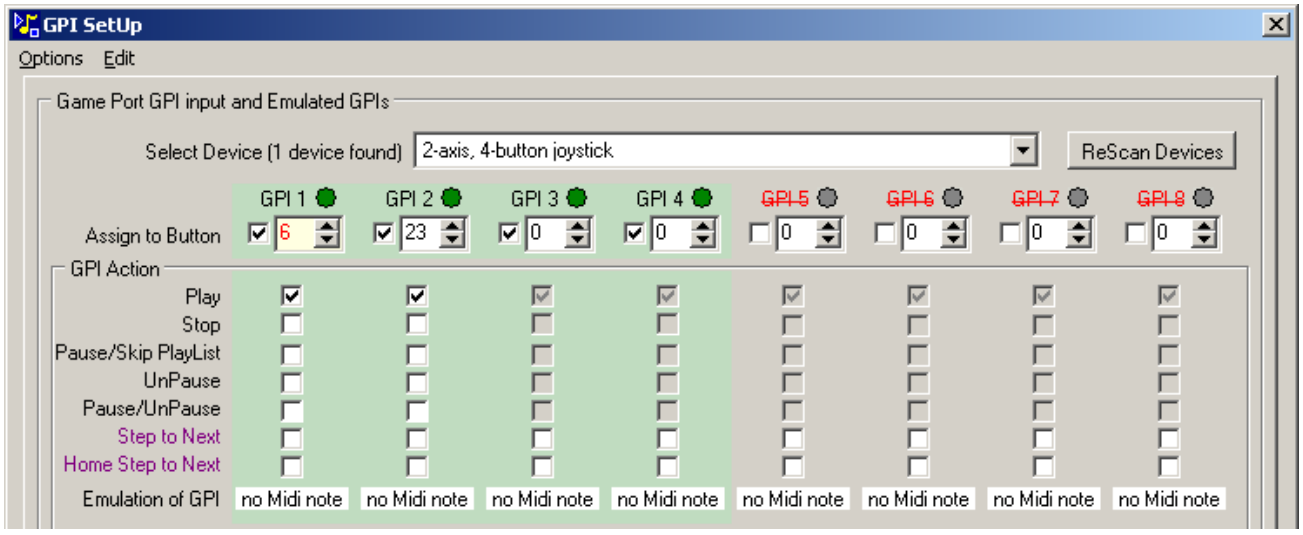


If a GPI device (joystick) is disconnected whilst in use then the display will show something like this

If GPIs are enabled the status bar of the main window will also indicate a disconnected device by flashing the GPI panel black/white

Disconnecting the GPI lead from the computer whilst SpotOn has it selected is not recommended, the GPI device should be deselected before it is unplugged, see GPI wiring suggestions.

The next image shows the result when a 4 button joystick is detected, the red text in the GPI 1 box indicates that value (button number) has been changed since the dialog box was opened and hence is not a true mimic of the actual GPI assignment



The checkboxes immediately to the left of the GPI button number allow the GPI to be enabled/disabled, in the disabled mode the display is as shown below.

The devices connected to the game port are only checked when SpotOn starts up, if there are any changes to the attached devices then the ReScan Devices button must be clicked or SpotOn restarted before they are registered.

The choice of joystick device is applied globally and is not saved in the individual session data files.

If the GPI In triggers are disabled via the GPI In On/Off menu option then the message below will be shown.

Button to GPI Assignment

The up/down nudge buttons associated with the GPI channels assign the button that will be controlled when the GPI becomes active, a button value of zero disables that GPI channel from controlling a specific button.

Under the nudge buttons are seven rows of checkboxes - Play, Stop, Pause, UnPause, Pause/UnPause, Step to Next and Home Step to Next.

Row 1 is the default action of Playing a track when the GPI becomes active.

Row 2 can be set to Stop a track when the GPI becomes active.

Row 3 can be set to temporarily Pause a track when the GPI becomes active, the Pause action is not available when the button has an active PlayList so this item will trigger a Skip PlayList item operation

Row 4 similarly will release the Pause and continue playing the track from the point it was paused.

Row 5 allows a single GPI to alternately Pause and UnPause a track

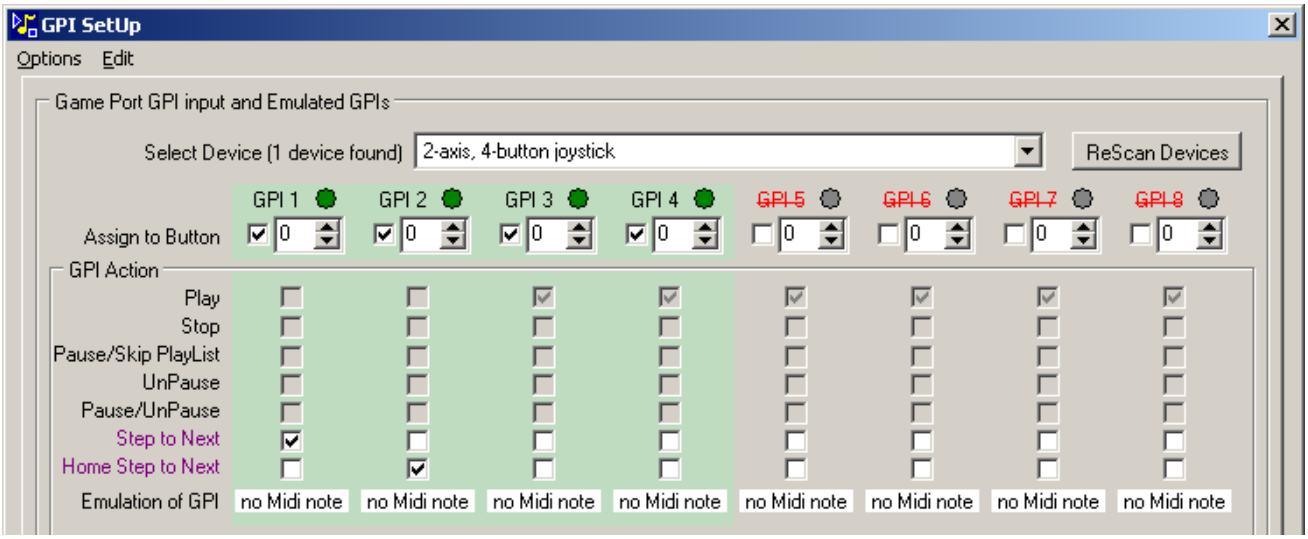
Row 6 enables the Step to Next Track function see Options|Step To Next Track, if selected the GPI will issue a Play command to successive buttons each time it becomes active, (an option to skip over muted buttons is available under Options menu).

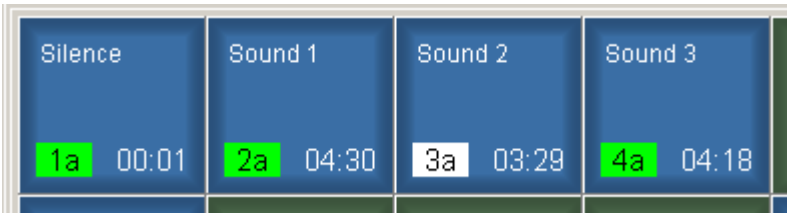
Row 7 of checkboxes provides the facility to reset the Step to Next operation by forcing the next button to be played to be the top left button on the current page, equivalent to pressing the Home key on the keyboard.

Note that when both Step to Next and Home Step to Next are checked SpotOn will first Home the selection to the top left button and then play that track and step to the next button.

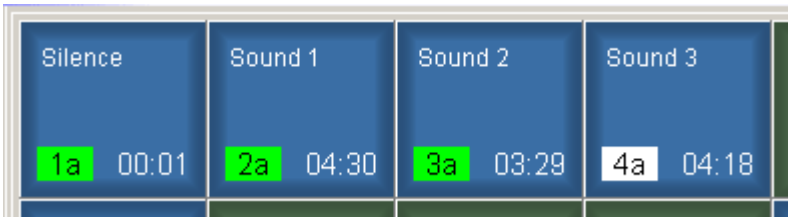
In the example below GPI 1 will play successive buttons and GPI 2 will reset the next button to be the top left button.

Selecting any Step to Next checkbox will automatically set the GPI button value to zero.

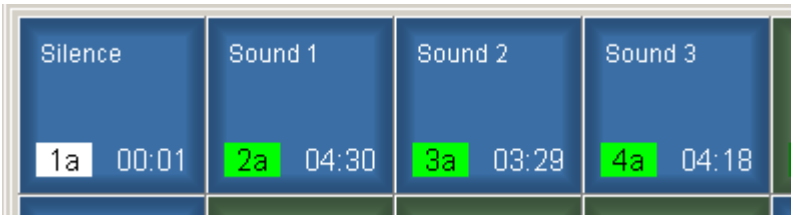




In this case if GPI 1 is asserted "Sound 2" will play and then SpotOn will step to button 4 ready to play "Sound 3"

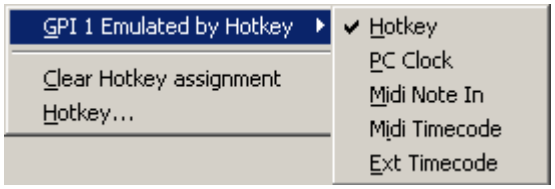


If GPI 2 is now asserted the Step to Next sequence will be reset to select button 1 which could well be a silent button that stopped all others, allowing the sequence to be reset at any time.



Emulation of GPI

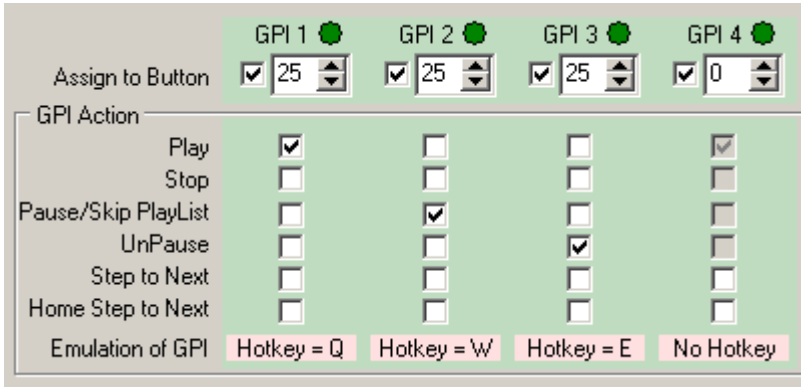
Using the emulation selection boxes, a match to Hotkey, PC clock time, incoming Midi note, Midi timecode or a source of SMPTE timecode can be used instead of an external GPI to trigger the GPI action, right-click the selection box for options



Emulation of GPI by Hotkey

Assign the Hotkey to the GPI by pressing the appropriate keyboard key

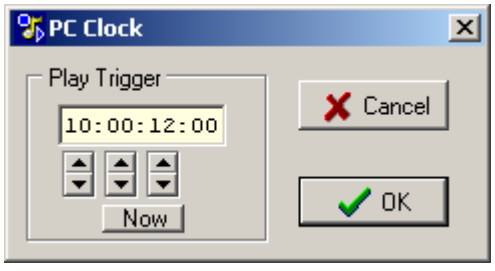
The image below shows Hotkeys Q, W, E assigned to GPIs 1..3



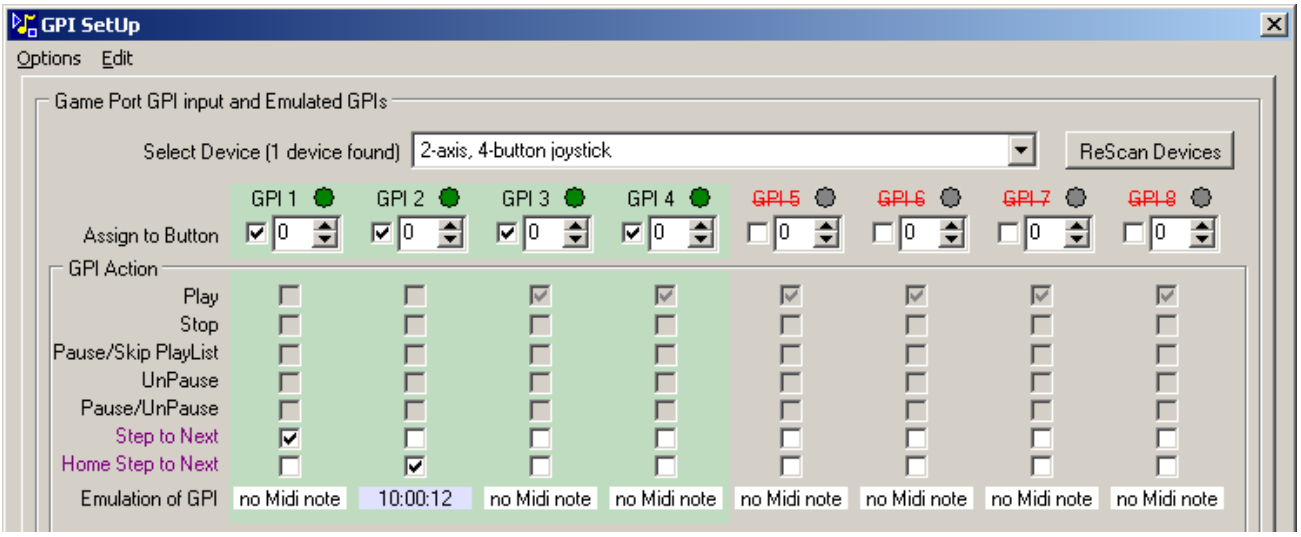
The same Hotkey can be assigned to button and to a GPI emulation

Emulation of GPI by PC Clock

The PC internal clock can also be used to trigger GPI actions

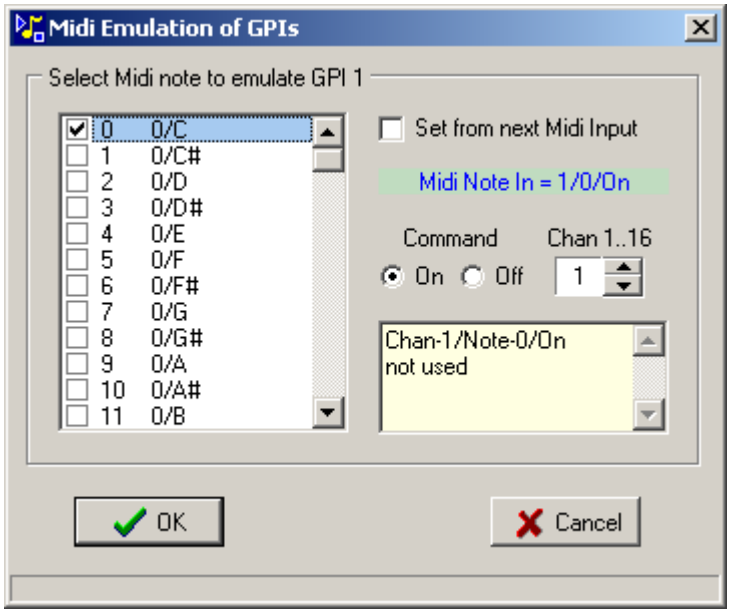


the precision of the time setting is restricted to 1 second for the PC clock source, the "Now" button is enabled in this mode to allow quick entry of the current time of day.



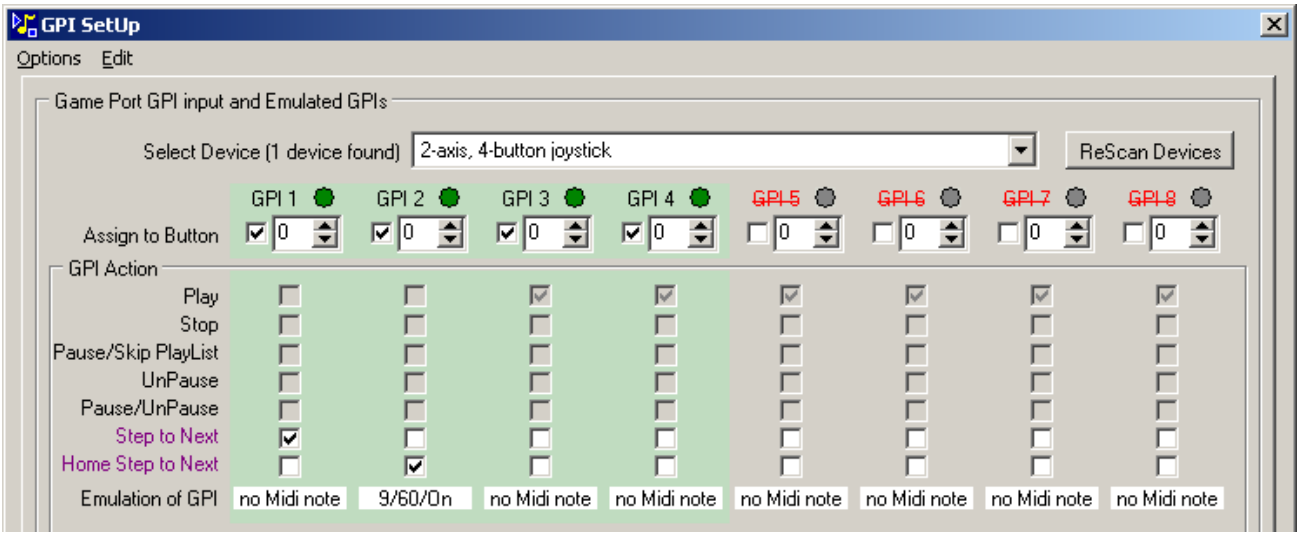
Emulation of GPI by Midi Note

Select Midi Note In to display a Midi Note dialog box.



The Midi note can be automatically assigned by checking the box shown below, this will set the Midi note from the next Midi note to be received by SpotOn.

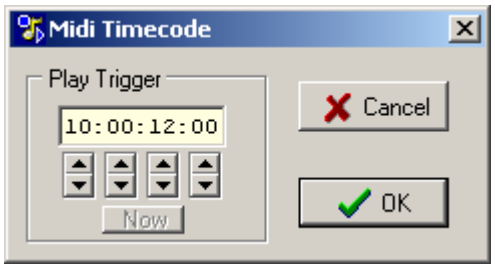
Here the Note On message for note 60 on channel 9 has been selected to emulate GPI 2

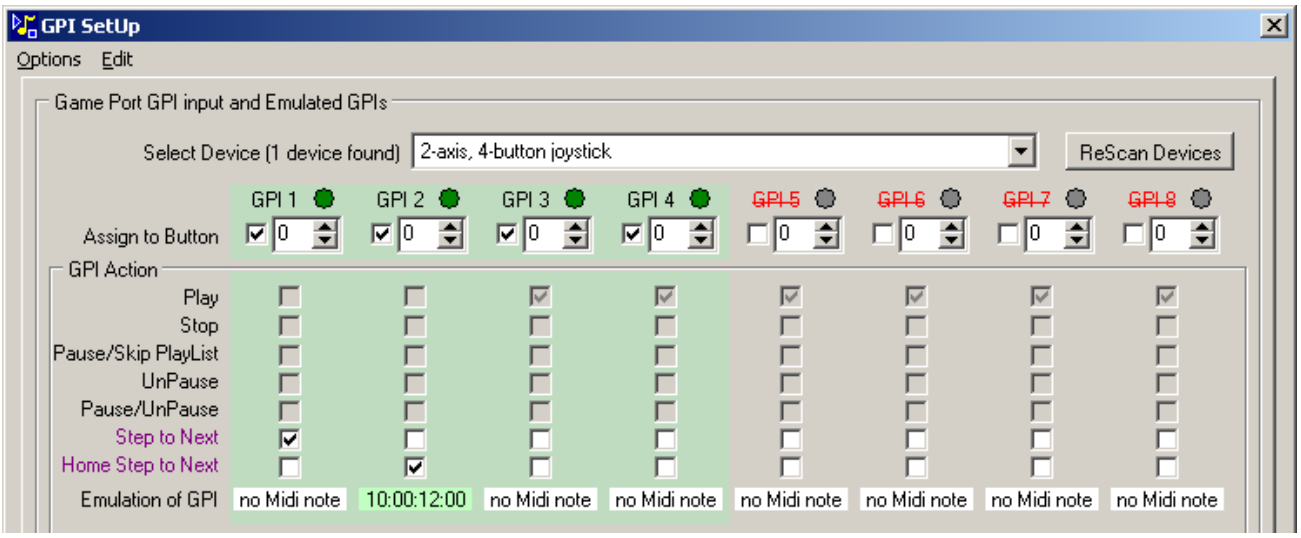


Now the selected Midi note will cause the GPI 2 action to be performed.

Emulation of GPI by Midi Timecode

The fourth option is to trigger from a Midi timecode stream

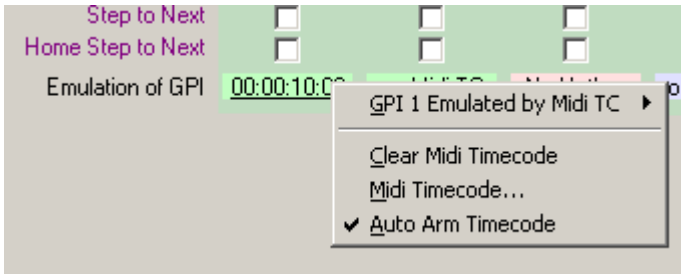




When any GPI with a time related trigger mode (PC Clock, Midi timecode or SMPTE timecode) is enabled and GPIs are enabled globally then the GPI In status panel background will flash to red whilst SpotOn is armed waiting for the time trigger.

Immediately after the time related GPI is triggered the associated GPI will be disabled to avoid subsequent false triggering.

As an alternative triggering mode the GPI can be rearmed when the detected timecode is earlier than that set as the trigger point, this is selected via the right-click pop menu item Auto Arm Timecode



To indicate the GPI is in the Auto Arm mode the Midi timecode value is shown underlined.

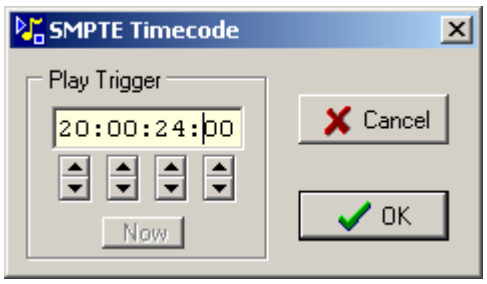
The Auto Arming function can be disabled for all GPIs via the Options|Auto Arm Ext/Midi Timecode GPIs main menu option.

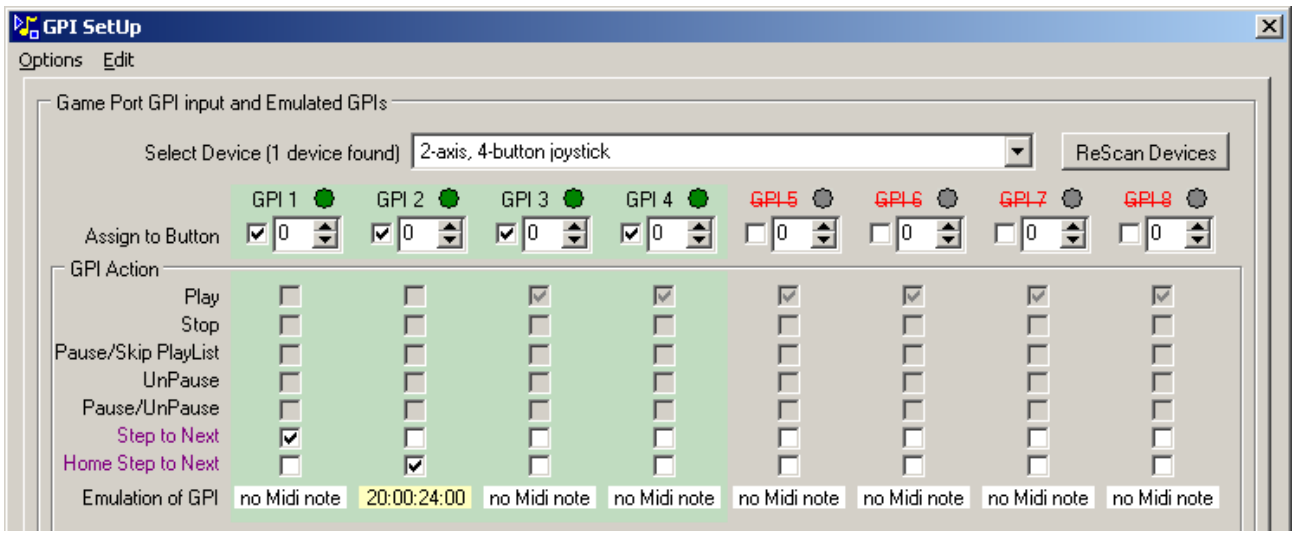
When the Auto Arming is disabled the associated popup menu item will be greyed out

Emulation of GPI by External SMPTE Timecode

SMPTE LTC timecode can be read by SpotOn and used to trigger a GPI in a similar way to Midi Timecode described above.

There is a Global enable for SMPTE timecode triggering in Options|Use SMPTE Timecode and a setup dialog accessed via Engineering|External Timecode

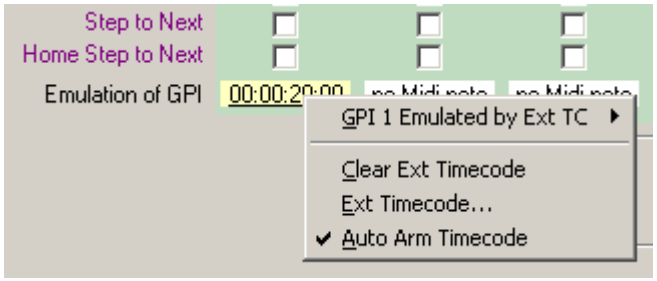




When any GPI with a time related trigger mode (PC Clock, Midi timecode or SMPTE timecode) is enabled and GPIs are enabled globally then the GPI In status panel background will flash to red whilst SpotOn is armed waiting for the time trigger.

Immediately after the time related GPI is triggered the associated GPI will be disabled to avoid subsequent false triggering.

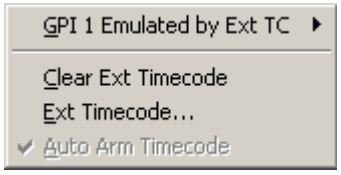
As an alternative triggering mode the GPI can be rearmed when the detected timecode is earlier than that set as the trigger point, this is selected via the right-click pop menu item Auto Arm Timecode



To indicate the GPI is in the Auto Arm mode the Midi timecode value is shown underlined.

The Auto Arming function can be disabled for all GPIs via the Options|Auto Arm Ext/Midi Timecode GPIs main menu option.

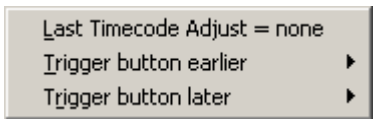
When the Auto Arming is disabled the associated popup menu item will be greyed out



SMPTE timecode nudge:-

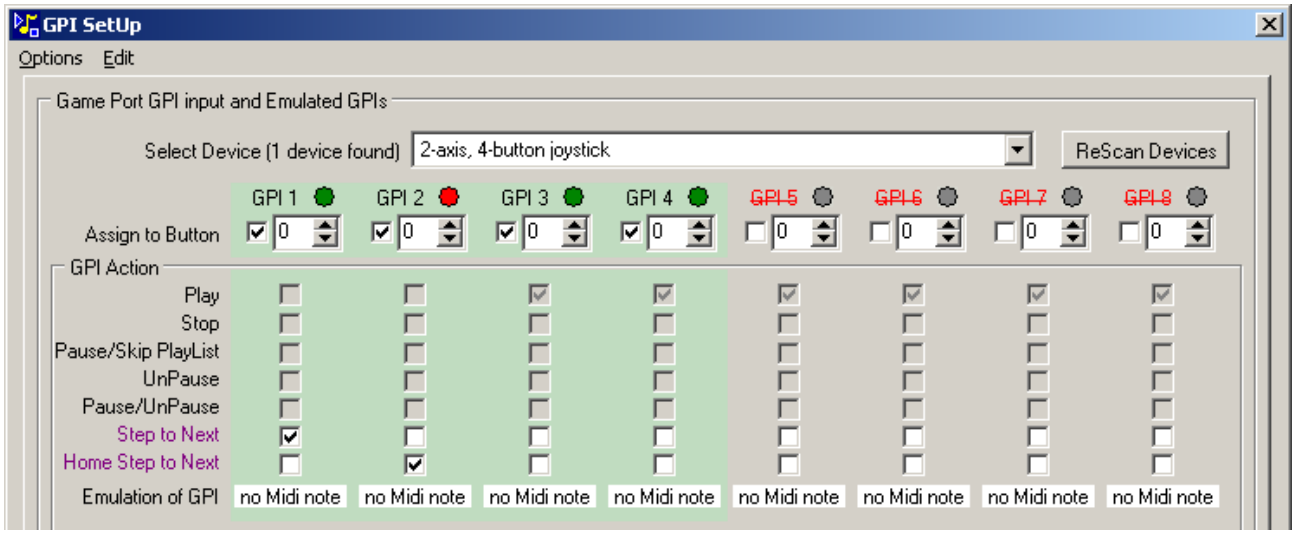
A hotkey shortcut is available to nudge the SMPTE timecode settings by shift+right clicking on the GPI In panel on the status bar.

The popup menu shows the last adjustment made along with options to nudge the trigger point earlier or later



GPI Indication

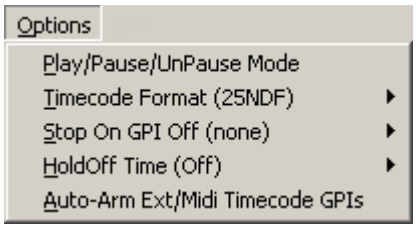
When a GPI channel is active then the LED will change to show red



The GPIs can be globally enabled/disabled via the main menu Options|Use GPI In item and also by clicking the main window status bar panel

The text in the main window status panel briefly flashes red when an incoming GPI is detected

Menus-Options



Play/Pause/UnPause

Checking the Play/Pause/UnPause option will change the default Pause/UnPause action to be Play/Pause/UnPause and the screen legends will follow accordingly.

When Pause/UnPause is selected as a GPI action, successive GPI pulses will alternately Pause and UnPause a playing track, however if the track is neither Playing or Paused then the GPI is ignored.

With Play/Pause/UnPause checked in addition to the action described above the track will begin Playing if a GPI pulse is detected when the track is stopped i.e. not Paused and not Playing.

So the sequence of events could be GPI pulse 1 = Play, GPI pulse 2 = Pause, GPI pulse 3 = UnPause.

Timecode Format

The timecode received by SpotOn either via Midi or external SMPTE inputs and used to trigger GPIs can be one of a variety of frame rates:-

24NDF	24Hz non-drop frame
25NDF	25Hz non-drop frame
30NDF	30Hz non-drop frame
29.97DF	29.97Hz drop frame

Selecting the appropriate format changes the timecode display and editing dialog boxes.

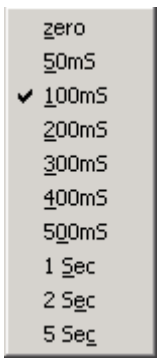
Stop on GPI Off

Normally the assertion/closure/forcing low of the GPI input is the only transition recognised and will Play the assigned button, if the menu option StoponGPIOff is selected then the off transition of the GPI is also detected and will Stop playout of the assigned button. GPI 1..4 can be individually set to react to the GPI off state.

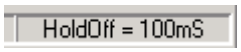
HoldOff

As it is likely that the source of the GPI signal will be a manually operated switch, there is the chance that the switch contacts will bounce so sending unwanted signals. To avoid this there is a selectable HoldOff period under menu Options|HoldOff Time

The range of HoldOff is 0..5 seconds



The currently selected HoldOff period is shown in the right hand panel of the status bar and applies to all GPI channels



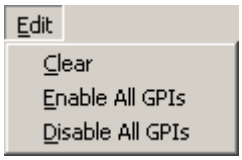
AutoArm

Auto-Arm Midi timecode GPIs - this is a master enable for all the GPIs emulated by Midi timecode, a warning will be shown in the lower part of the window when this option is active.

When this option is checked, any GPI set to trigger from a Midi timecode and individually AutoArmed, will be re-armed when the timecode value detected is earlier than the trigger timecode.

This mode allows multiple passes without the need to arm/enable the GPIs on each pass.

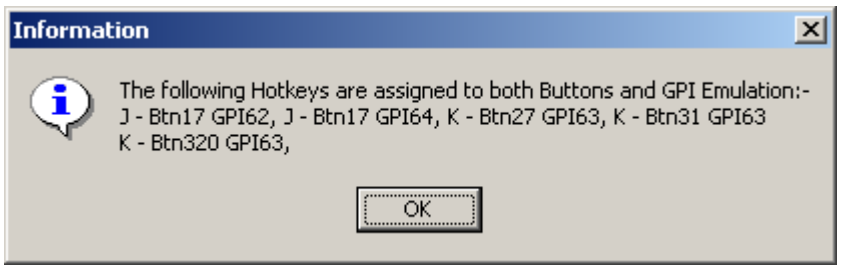
Menus-Edit



The Edit menu contains three items:-

a, clear all the GPI button assignments
b, set all GPIs enabled
c, set all GPIs disabled

On exiting the GPI Setup dialog a message box will appear warning of any Hotkeys that are assigned directly to Buttons and also selected as GPI emulation triggers.



Display

If the main menu Display|Show GPI In Icons option is checked then buttons assigned a GPI will have a diamond shape on the centre left of the button image.

This diamond shape will have an internal + sign if more than one GPI is controlling a specific button