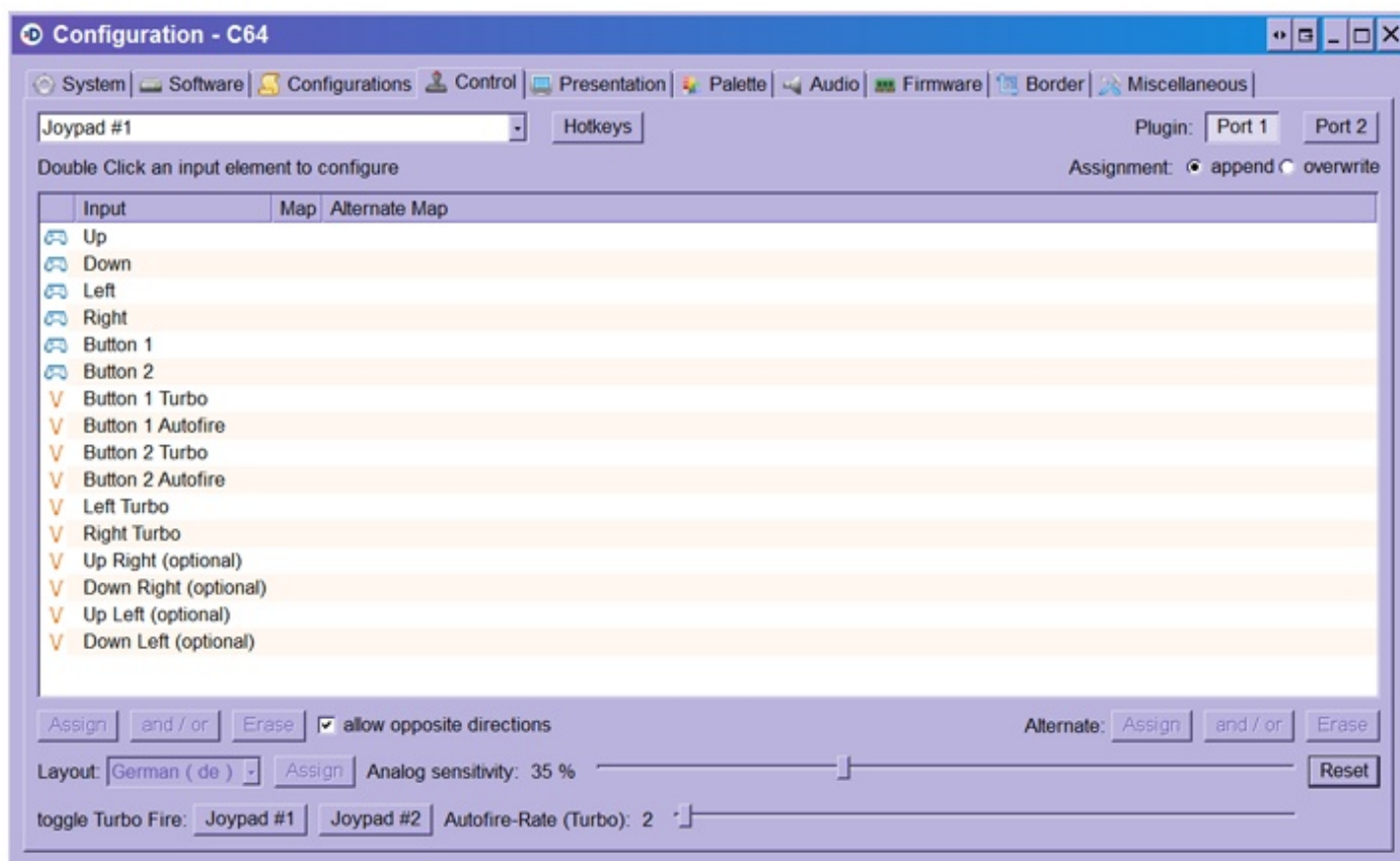
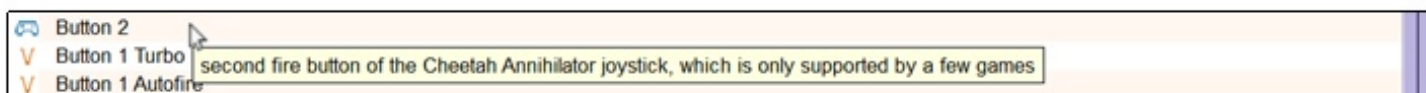


Assignable fields in Joypad menu and Autofire function

In Denise nearly all functions (hotkeys, keyboard-Keys, functions like disk-swapping e.g.) can be remapped everywhere by the user (on a controller-button, on another keyboard-key). This can also be done, with all steering directions, controller buttons and all other functions, that affect the joystick- or gamepad-control in the emulator. For this we must enter one of the two Joypad-menus in Denise.



The fields Up/Down/Left/Right and Button1 are clear anyway, no further explanation for them necessary. But here we have more fields and some of the ones, that are maybe not clear at first sight, are explained to the user, by a help text, when he moves the mouse-pointer over them, such as "button 2" for example.



Although there are only about two handfuls of games, that use this second (PotX) button of the "Cheetah Annihilator" joystick, in some of them, it offers a clear advantage in gameplay. One example is the game "Paradroid Redux". If you start this game from the intro, via firebutton-2, then the takeover-function is on this second button and the player don't always have to stop his movement and hold fire firebutton-1 for about two seconds, to get into this takeover-mode. That's a clear advantage in battles against stronger robots in this game. Try it out.

Then we also have the two fields "Left Turbo" and "Right Turbo" in this menu. With this fields you have a shaking (jiggle) mode, that can be used in games like "Activision Decathlon", "Track & Field" or "Daley Thompson's Decathlon", to simulate the left-right jiggling, that the player otherwise must do manually. This function was integrated, because joysticks often break, as a result of jiggling manually too much and because, in addition to the question of how fast a player can jiggle and fill the speedometer, in many disciplines of these shaker games, other things are also important, than just the question of how fast is the jiggling, such as, to get the best possible approach to the throw- or take-off line, or to hit the optimal angle with the length of the button-press. So it makes also fun, to play such games, without the need of jiggling yourself. And you protect your joysticks, when this emulator function simulates it. In Games like "Activision Decathlon" or "Track & Field" it should be good enough, to map only one of the two "Turbo directions" on a controller-direction or -button, to fill the speedometer. But you can try around and see, what's best. With the Autofire-Slider, also the jiggling-speed can be adjusted.

The Autofire-function with it's two Autofire-modes

Denise has two different auto-fire modes integrated, that you might already know, from some of the joysticks from the 80s. Some had a switchable Autofire, that only works as long, as the player presses and holds a joystick button manually. Other joysticks had a self-firing Autofire, which the user turns only on, but for which he didn't have to press and hold a button manually. But if the user does this, while this self-firing Autofire is on, he can override this Autofire, which then allows things like Megashot, charging of a shot-indicator, or even other functions in certain games.

Both are described by the yellow help text when the user moves the mouse pointer over the fields "Button 1 Turbo" or "Button 1 Autofire". Here are some examples of use:

Autofire-Typ 1 (Button 1 Turbo)

(1)

The user has a 1-button controller (for example one of his old C64 original-joysticks from the 80s), connected to his computer via a joystick adapter and he now wants to use a Autofire, which only fires, as long, as he keeps his only firebutton pressed.

You just go to the "Button 1 Fire" field and map your fire button into it. That's all. This only firebutton, which before was mapped to the field "Button 1" will then automatically disappear there and appear in this "Button 1 Fire" field (no need to delete the field "Button 1" manually in such cases, the emulator does this automatically when the same button is mapped in more than one of these Button-fields). Then you have a continous fire on your firebutton, which shoots as long, as you hold down this button manually.

(2)

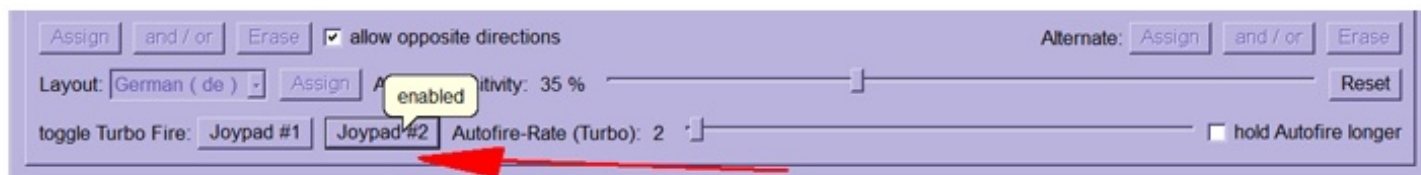
If you want to use this type of Autofire on a multi-button controller (joystick/gamepad), then you can also map this to another button on your controller, while the normal firebutton stays, where it was before. Then you have both at the same time on the controller, a button, that only fires once, when pressed and also another one, that has a continuous-fire on it, when pressed and held down. This is of course the most convenient way, as there were also some joysticks back then, that allowed things like these, like for example the "Competition Pro Star" joystick, which had a continuous-fire on it's little left triangle-button and the normal fire on the big round firebutton.

Autofire-Typ 2 (Button 1 Autofire) - the real Autofire

There are several ways, to use this type of Autofire.

(3)

If you are using a 1-button controller again, it's recommended, to either activate and deactivate this type of Autofire directly in the Denise menu (it always begins, when you give focus to the emulator-window)



or to map the activation of this autofire to a keyboard key, for example like this:

Input	Map	Alternate Map
Up	Ль.Axis.Y.Lo	
Down	Ль.Axis.Y.Hi	
Left	Ль.Axis.X.Lo	
Right	Ль.Axis.X.Hi	
Button 1	Ль.Button.0	
Button 2		
Button 1 Turbo		
Button 1 Autofire	Keyboard.Strg and Keyboard.1	
Button 2 Turbo		
Button 2 Autofire		

Because the only firebutton on the controller, is needed here, to guarantee possible special functions of some games, such as the already mentioned megashot and so on.

(4)

If you are using a multi-button controller and you want to use this Autofire-type, then you have a lot of possibilities, because you can directly map also this fire-type on another button of your controller. Then you have a switch, directly on your joystick, like this one here, that you can see in the screenshots of these old classic joystick models:



It's even possible, to recreate exactly all the functions of some of the good old classic joysticks, on a modern joystick, if you map all the functions to the individual buttons accordingly.

Here is an example of how all the functions of a "Competition Pro Star" joystick of the time can be mapped to today's "USB Competition Pro Extra - Anniversary" in Denise, so that it can then be operated in exactly the same way as the old classic joystick.

Joypad #1		Hotkeys		Plugin: Port 1 Port 2	
Double Click an input element to configure					
Assignment: ☒ append ☐ overwrite					
Input	Map	Alternate Map			
Up	Speedlink Competition Pro.Axis.Y.Lo				
Down	Speedlink Competition Pro.Axis.Y.Hi				
Left	Speedlink Competition Pro.Axis.X.Lo				
Right	Speedlink Competition Pro.Axis.X.Hi				
Button 1	Speedlink Competition Pro.Button.0	Speedlink Competition Pro.Button.1			
Button 2					
Button 1 Turbo	Speedlink Competition Pro.Button.2				
Button 1 Autofire	Speedlink Competition Pro.Button.3				
Button 2 Turbo					
Button 2 Autofire					
Left Turbo					
Right Turbo					
Up Right (optional)					
Down Right (optional)					
Up Left (optional)					
Down Left (optional)					

When we have mapped the four firebuttons of the "USB Competition Pro" this way, it results in this:

Competition Pro USB - Anniversary Edition

normal firebutton
(can override the self-firing autofire, when player presses and holds button)

also normal firebutton
(in this example we also have normal fire on this button again, but it's recommended, to use this button for other functions then, like for example to map "SPACE BAR" on it, cause alot of shooters on the C64 have a function on SPACE, like "calling the drone" or something like that)

turbo firebutton
(autofire as long as player holds this button down)

button to activate or deactivate the self-firing, the real Autofire
(can be superimposed by a manuell press on the normal firebutton. this switch here, has the same function then, like this switch here, on a Competition Pro Star)

own Autofire of this joystick-model, which we don't need at all, in this case

this Autofire also has one big disadvantage. When activated it runs on all the four buttons, which then makes the buttons 2, 3 and 4 hard to use in different shooters on the C64. Because if you map other functions to these three buttons then in the emulator and you turn on this Autofire, then also these other mapped functions, for example "SPACE" (calling the drone) runs with Autofire, which means, they were turned-on, turned-off, turned-on, off ... and so on. This then can mean "you call the drone, then you send the drone away, then you call it again, you send away again" and so on. Because of this, it's better, to leave out this joystick's own continuous-fire and we use the one of the Denise emulator, which can be better adapted to different games.

Many different assignment options are possible here. For many shooters, it's also advisable, to map the SPACE key directly to an easily accessible button on the controller, as this key is used in many shooters on the C64.

Even all kinds of Hotkeys can be mapped directly to a button on the controller, this can also be a function like "changing the disk side" for example. There are many options to try out.

And of course, such an assignment can then be saved in a separate configuration-file, so that you only have to make more complex assignments once and then save them via the "Configuration" menu in Denise. You can give a specially assigned name and load such configurations again at any time. Button-mappings are of course also saved in these files.