

# SC Joystick Mapper

## Quick Reference Guide V 2.3

20140831 – Cassini

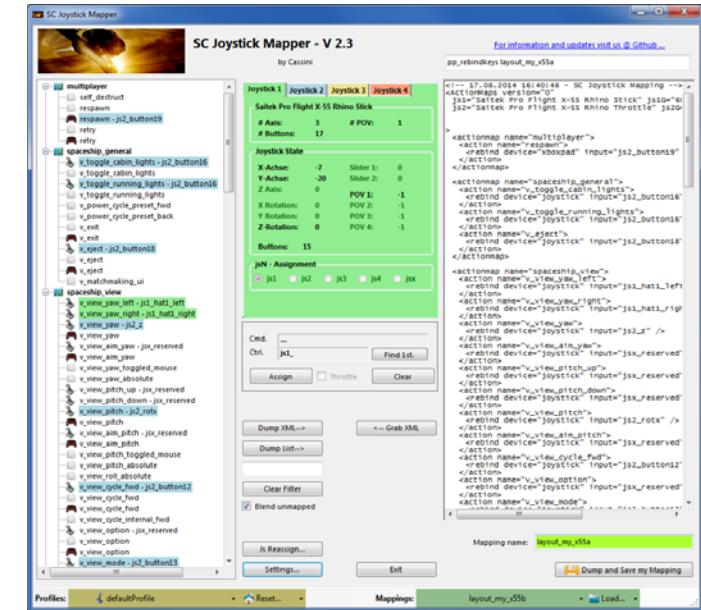
ChangeLog: see ReadMe.txt

### Disclaimer:

Usual stuff – no warranty whatsoever..  
Freeware – made for the SC community

Hope it helps and does not suck.

Have fun in the verse ...



# Updating from V 2.x to V 2.3:

- Check the jsN assignment and maybe de-assign unused devices  
See the new ‘js Reassign’ feature on page 17.  
Note: You may need to do this twice for each of the “VJoy virtual joystick” devices.
- If you encounter an error or crash then read on...
- You will find ‘log4net.config.OFF’ in the distribution zip.  
Rename it to ‘log4net.config’ and run the program.  
Then look for a file named ‘trace.log’ in the program folder and send  
this to [cassini@burri-web.org](mailto:cassini@burri-web.org) along with a description of the  
problem and your system  
i.e. OS, CPU, Graphics card, Joystick(s)  
we may then finally solve the issue ...

# Contents

- Page 2 Version Upgrade and Issue Handling
- Page 3 Contents (this one...)
- Page 4..10 General GUI and how to's
- Page 11..14 V2.0 new features
- Page 15 V2.1 new features
- Page 16 V2.2 new features
- Page 17 V2.3 new features
- Last Page Common Workflows - Cheat sheet

# Workflow

- Connect the joystick devices to the PC
- Start from scratch or load an existing map from a file
- Make or refine mappings
- Save the new map to an XML file
- Use it in the game: e.g. `pp_rebindkeys C:\maps\layout_my_joystick`
- **V 2.0: You may load and save the map directly from your game folders so next time you just use `pp_rebindkeys layout_my_joystick`**

Note: the predefined actions are the ones found in the AC game default profile – it is likely that some of them will not work at all as the game is not finished. There is no proper description for which one does what – you may get help in SC Forums.

As I had my issues with missiles here a finding..

To reallocate the missile fire command you should map the following 2 actions to the same joystick button:

- `v_target_missile_lock_selected`
- `v_weapon_launch_missile`

BTW: if you copy e.g. “`pp_rebindkeys C:\maps\layout_my_joystick`” from notepad you may use Ctrl-V to paste it in-game into the console – saves you some typing...

# The GUI ...

Action tree and mappings

Detected Joystick devices  
(up to 8 are shown)

XML dump of the mappings used

V2.1: Blend unmapped option

V2: filter the action tree

V2.3: Js Reassignment

V2: New Reset with options

Dump nice List

Joystick properties  
(greyed out ones are not available)

Joystick device map

Selected mapping

Action Mapping Buttons

XML Area Buttons

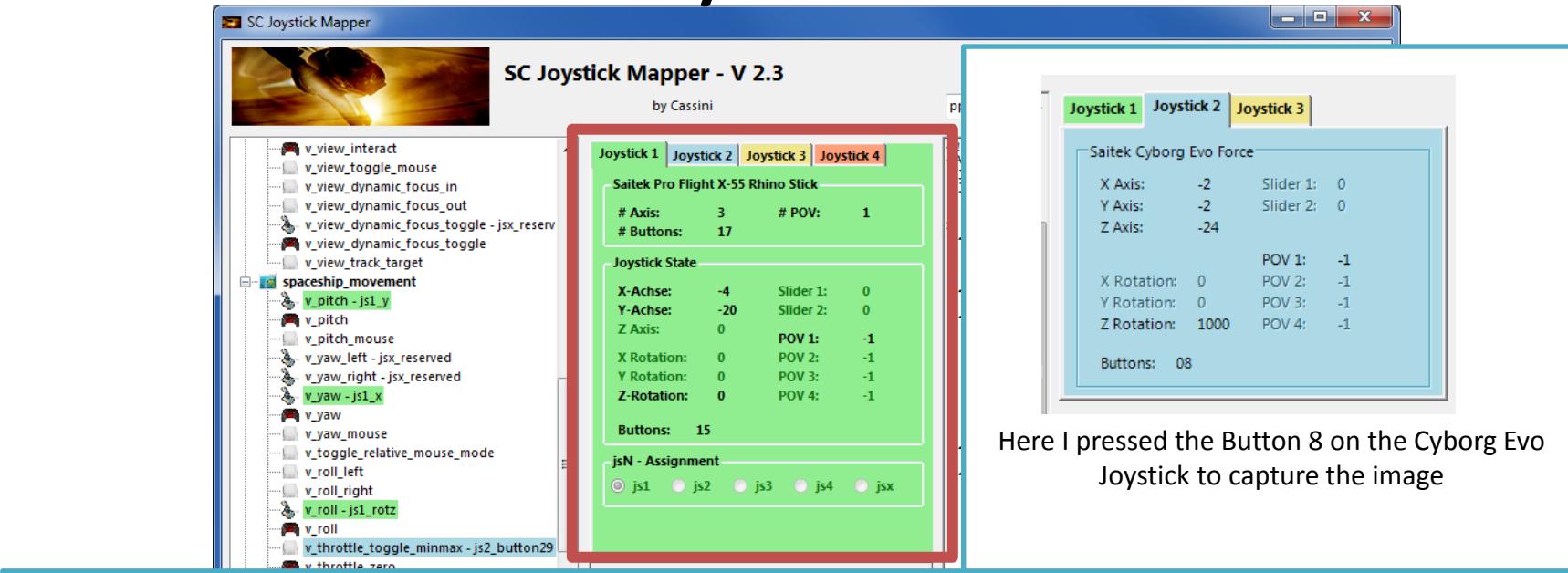
V2: Load from game folders

V2: Save into game folders

V2: Resize the window

V2.3 Update here

# The Joystick Area...



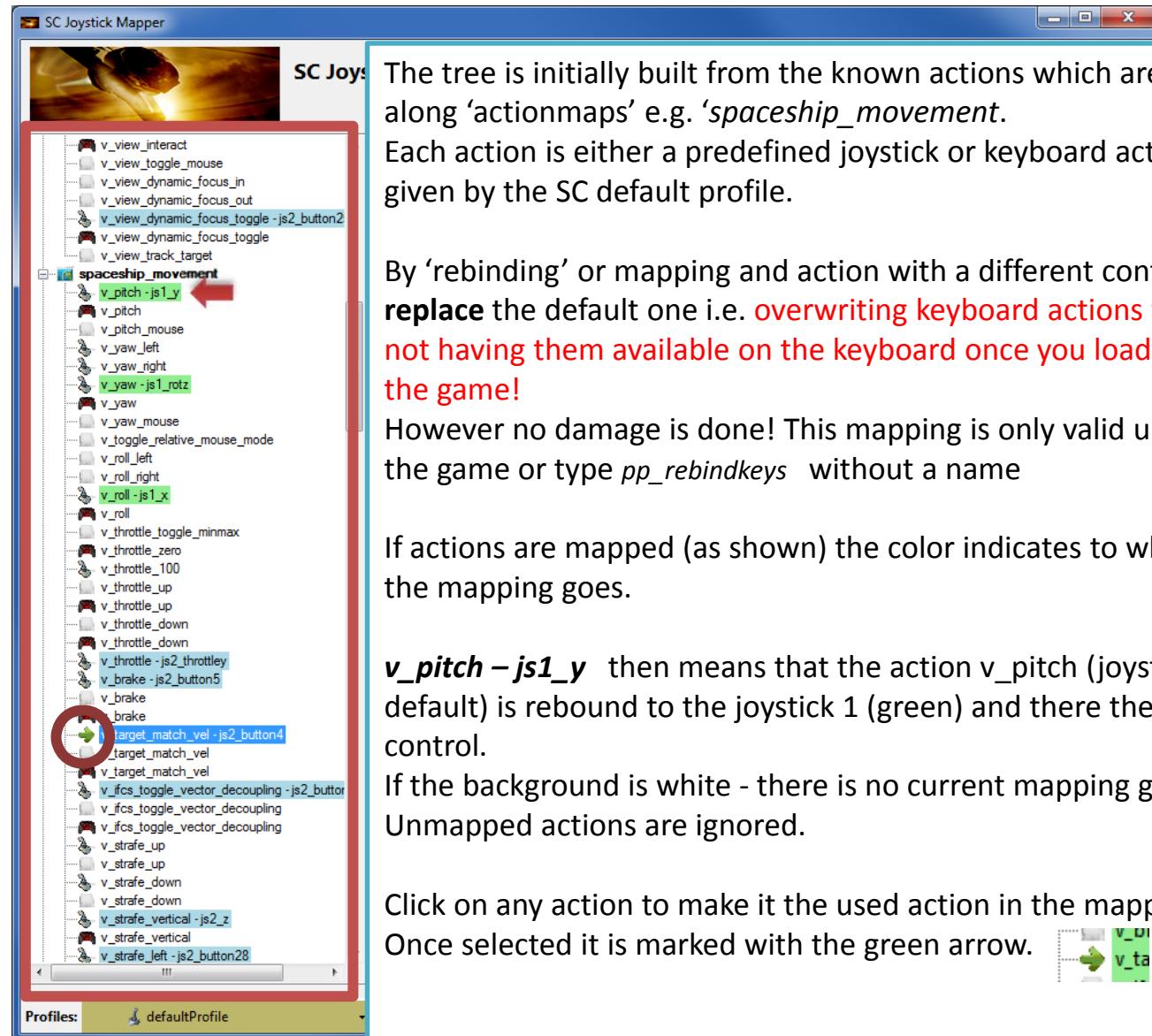
The tabs represent the joystick devices found connected to the PC also the number 1..8 shows the order the PC reports them which is crucial to the mapping as this will result in the default js\_1, js\_2 .. Names used to build the command name. The elements are the ones the joystick seems to support – greyed ones are not available for this device.

V 2.3: you will see the actual Js assignment but it is not enabled to change it here.

The SC-Device to Joystick Mapping is a separate window accessed by hitting the 'Js Reassign' button.

Just hit any button, Axis and see how things are changing.

# The Action Tree ...



The tree is initially built from the known actions which are grouped along 'actionmaps' e.g. '*spaceship\_movement*'.

Each action is either a predefined joystick or keyboard action – this is given by the SC default profile.

By 'rebinding' or mapping an action with a different control one does **replace** the default one i.e. **overwriting keyboard actions will result in not having them available on the keyboard once you load the map in the game!**

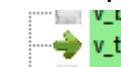
However no damage is done! This mapping is only valid until you exit the game or type `pp_rebindkeys` without a name

If actions are mapped (as shown) the color indicates to which joystick the mapping goes.

**v\_pitch - js1\_y** then means that the action `v_pitch` (joystick per default) is rebound to the joystick 1 (green) and there the Y-axis control.

If the background is white - there is no current mapping given.  
Unmapped actions are ignored.

Click on any action to make it the used action in the mapping area.  
Once selected it is marked with the green arrow.



# The Mapping Area...

Whenever you click on an action in the Action Tree it is copied into Cmd. and can be mapped to a Control.

The Control (Ctrl.) is the last joystick item you activated on the currently shown joystick tab.

I.e. if you want to map it for a control on the second joystick you have to select the "Joystick 2" Tab first.

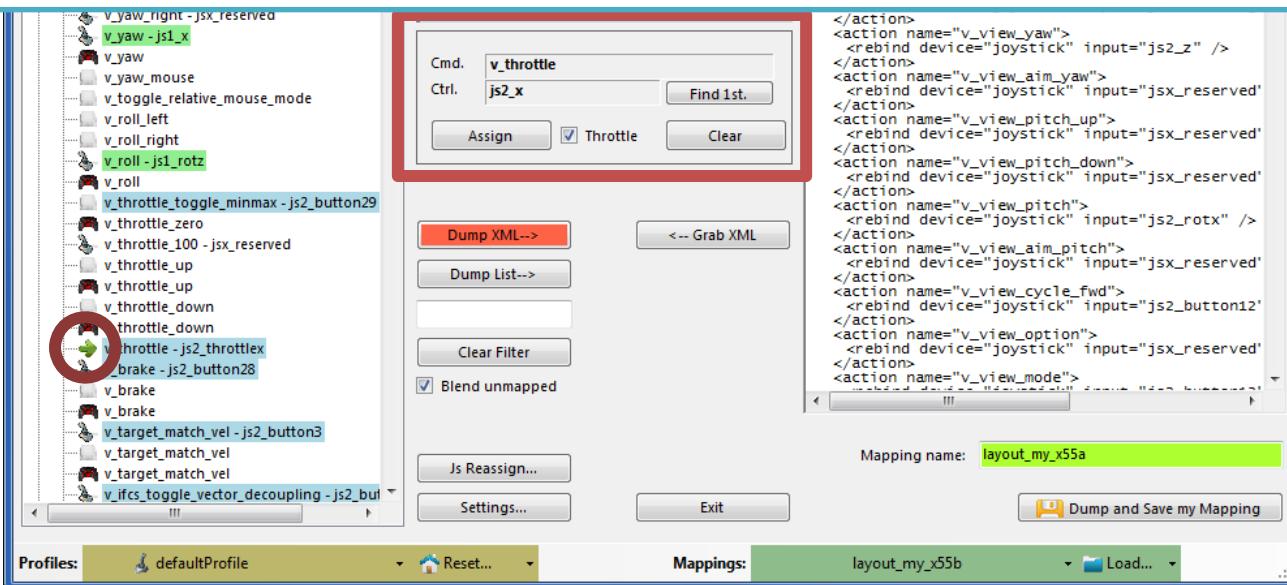
Once you have a mapping that should be used, hit the "Assign" button.

The new mapping will be shown in the Action Tree – where it gets the back color of the joystick it is assigned to.

**V2:** To make any axis a Throttle axis – check the 'Throttle' box ! It is often the Z-Axis but the Rhino has it e.g. on js2\_y.  
If you do so the control assigned in changed to a throttle control (here js1\_throttlez)

To clear a mapping – select it in the ActionTree and Click "Clear" - it gets a neutral color and no control in the ActionTree – it is now unmapped.

You may use "Find 1<sup>st</sup>" to find the first action where the currently shown Ctrl. (js1\_z or if checked as shown js1\_throttlez) is mapped.

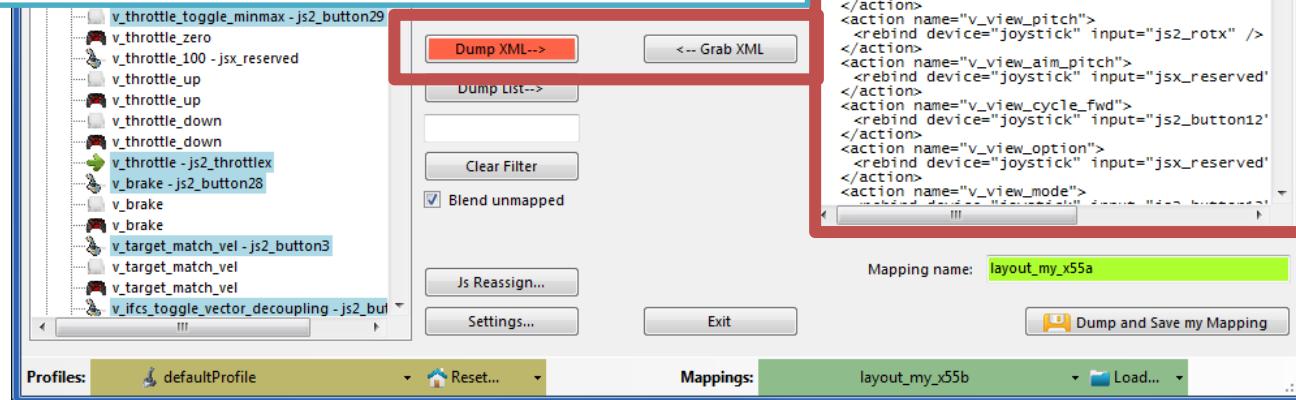


# The XML Area...

Mappings are sent to the game using XML formatted files.  
The XML Area is where you may find the mapping after hitting the ‘Dump’ button.  
Rightclick opens a menu where you may choose from:  
Copy, Paste, PasteAll, Select All, Open..., Save As...  
  
The usage is rather common here. Once you dumped the mapping you want to “Save” it as “filename.xml” somewhere.  
  
To refine any mapping “Open” the file – the content is shown in the XML Area, then “Grab” it into the ActionTree.  
Once the refinement is finished – again Save it to a file.

Load and Save much easier ... read V2 Feature pages

Note: only use properly formatted ActionMaps here. The program may just break if it encounters something unexpected!



The screenshot shows the SC Joystick Mapper interface. On the left, the ActionTree displays a hierarchical list of joystick mappings. In the center, a modal dialog box is open with options like 'Dump XML-->', 'Dump List-->', 'Clear Filter', 'Blend unmapped' (with a checked checkbox), 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. The right side of the screen shows the XML code for the mapping, with the mapping name 'layout\_my\_x55a' highlighted at the bottom. A red box highlights the XML code area.

```
pp_rebindkeys layout_my_x55a

<!-- 17.08.2014 16:40:48 - SC Joystick Mapping --&gt;
ActionMaps version="0"
js1="Saitek Pro Flight X-55 Rhino Stick" js1G="60"
js2="Saitek Pro Flight X-55 Rhino Throttle" js2G="60"

&lt;actionmap name="multiplayer"&gt;
&lt;action name="respawn"&gt;
&lt;rebind device="xboxpad" input="js2_button19"&gt;
&lt;/action&gt;
&lt;/actionmap&gt;

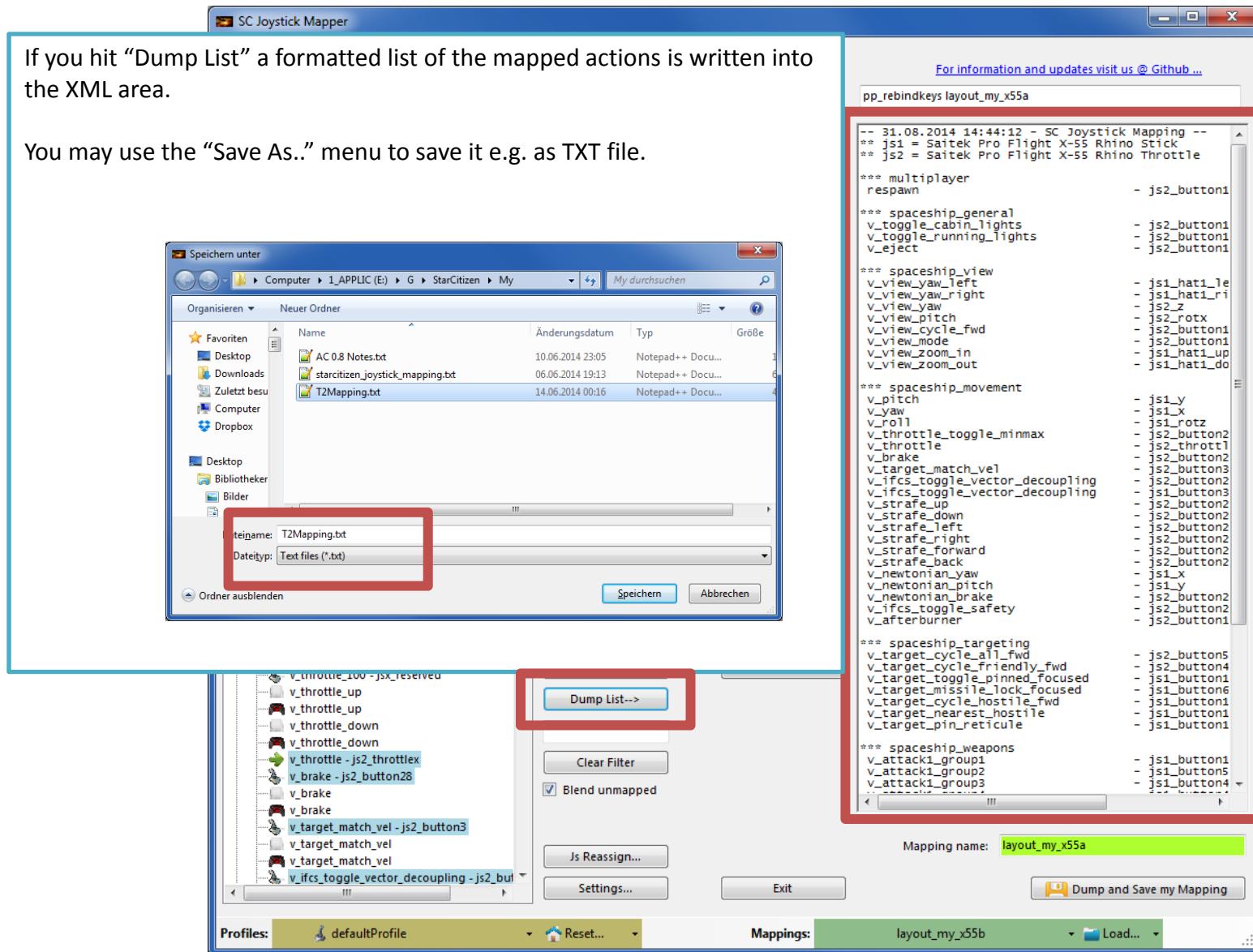
&lt;actionmap name="spaceship_general"&gt;
&lt;action name="v_toggle_cabin_lights"&gt;
&lt;rebind device="joystick" input="js2_button16"&gt;
&lt;/action&gt;
&lt;action name="v_toggle_running_lights"&gt;
&lt;rebind device="joystick" input="js2_button16"&gt;
&lt;/action&gt;
&lt;action name="v_eject"&gt;
&lt;rebind device="joystick" input="js2_button18"&gt;
&lt;/action&gt;
&lt;/actionmap&gt;

&lt;actionmap name="spaceship_view"&gt;
&lt;action name="v_view_yaw_left"&gt;
&lt;rebind device="joystick" input="js1_hat1_left"&gt;
&lt;/action&gt;
&lt;action name="v_view_yaw_right"&gt;
&lt;rebind device="joystick" input="js1_hat1_right"&gt;
&lt;/action&gt;
&lt;action name="v_view_yaw"&gt;
&lt;rebind device="joystick" input="js2_z" /&gt;
&lt;/action&gt;
&lt;action name="v_view_aim_yaw"&gt;
&lt;rebind device="joystick" input="jsx_reserved" /&gt;
&lt;/action&gt;
&lt;action name="v_view_pitch_up"&gt;
&lt;rebind device="joystick" input="jsx_reserved" /&gt;
&lt;/action&gt;
&lt;action name="v_view_pitch_down"&gt;
&lt;rebind device="joystick" input="jsx_reserved" /&gt;
&lt;/action&gt;
&lt;action name="v_view_pitch"&gt;
&lt;rebind device="joystick" input="js2_rotx" /&gt;
&lt;/action&gt;
&lt;action name="v_view_aim_pitch"&gt;
&lt;rebind device="joystick" input="jsx_reserved" /&gt;
&lt;/action&gt;
&lt;action name="v_view_cycle_fwd"&gt;
&lt;rebind device="joystick" input="js2_button12"&gt;
&lt;/action&gt;
&lt;action name="v_view_option"&gt;
&lt;rebind device="joystick" input="jsx_reserved" /&gt;
&lt;/action&gt;
&lt;action name="v_view_mode"&gt;
&lt;rebind device="joystick" input="jsx_reserved" /&gt;
&lt;/action&gt;
&lt;/actionmap&gt;</pre>
```

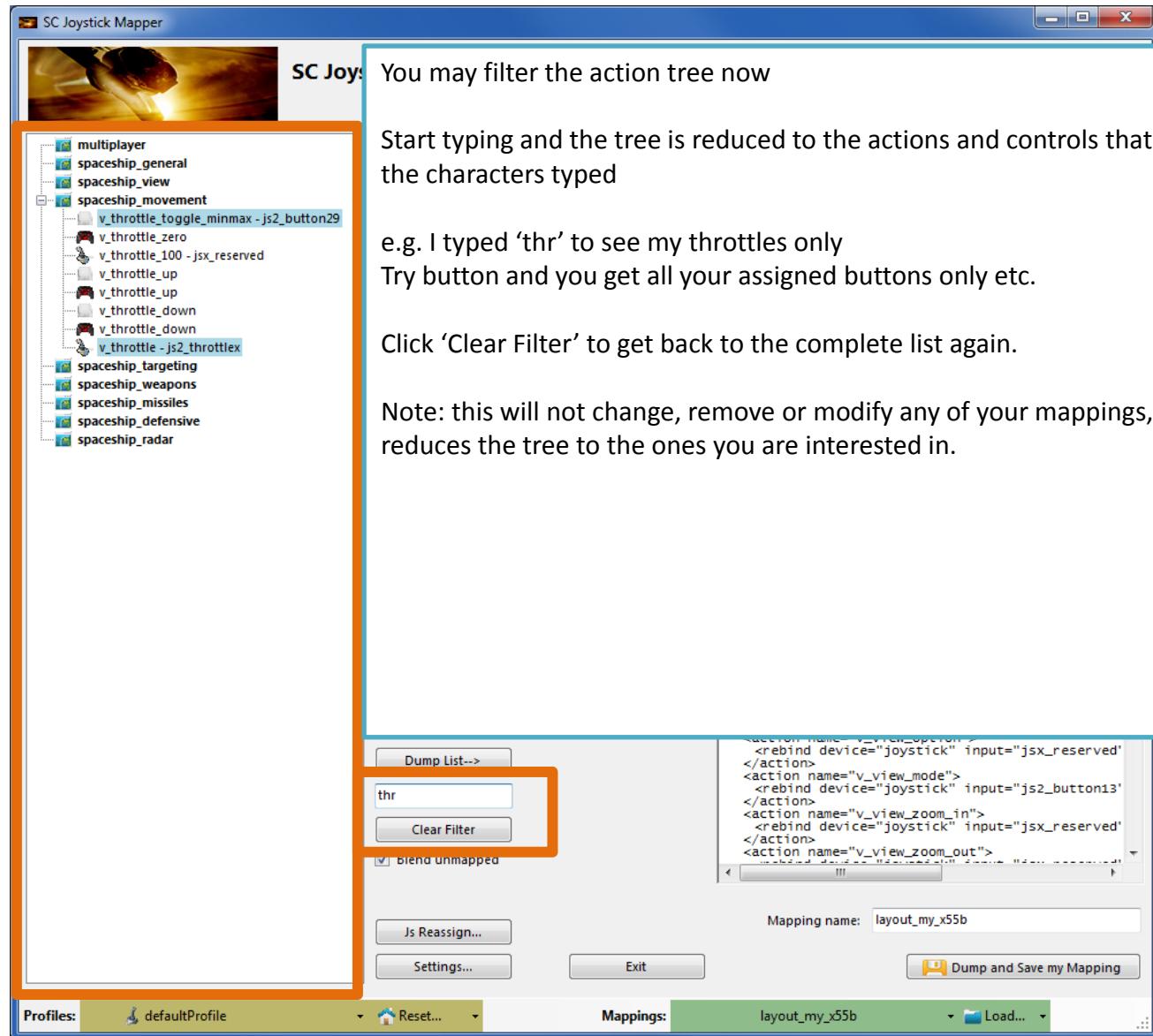
# The XML Area...

If you hit "Dump List" a formatted list of the mapped actions is written into the XML area.

You may use the "Save As.." menu to save it e.g. as TXT file.



# V2 – Features - 1



# V2 – Features - 2

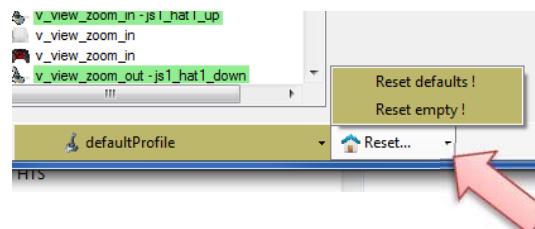


## New working with profiles.

The program gets the actions from the real game asset – so you are always up to the actual values.

From here you may Reset the action list to the following

- RESET EMPTY reverts to just an action list without any mappings
- RESET DEFAULTS loads the Joystick actions mapped with what CIG is providing



Note: as CIG is providing a number of defaultProfiles you may chose one of those – however using the **defaultProfile** is usually the best option

(This may be work in progress by CIG...)

Profiles: **defaultProfile**

Reset...

Mappings:

layout\_my\_x55b

Load...

# V2 – Features - 3

**New working with actionmaps (Maps, Mapping etc..)**

The program gets the actionsmaps from the real game asset – so you are always up to the actual values.  
(...\StarCi ti zen\Ci ti zenCl ient\Data\Controls\Mappi ngs)

From here you may first chose a map, then ‘Load’ the actionmap – this will overwrite you XML window in any case

- LOAD loads the map into the XML window only
- LOAD and GRAB loads the map into the XML window and clicks Grab i.e. merges the existing mapping with the one loaded
- RESET, LOAD and GRAB first Reset (empty) the action list (all mappings cleared) then it loads and grabs the new map
- DEFAULT, LOAD and GRAB first Reset (defaults) the action list then it loads and grabs the new map and merges them with the defaults

See last page for some common workflows  
And how to handle them easily

The screenshot shows the SC Joystick Mapper application window. In the center, there's a list of action maps: layout\_hotas\_g40, layout\_hotas\_warthog, layout\_hotas\_x52, layout\_hotas\_x55, layout\_joystick\_spacesim, layout\_my\_joystick, layout\_my\_joystick2, and layout\_my\_joystick3. Below this list is a 'Mappings:' dropdown menu with 'layout\_hotas\_x55' selected. A context menu is open over the 'layout\_my\_joystick' entry, listing options: 'Defaults, Load and Grab !', 'Reset, Load and Grab !', 'Load and Grab !', and 'Load !'. A red arrow points from the bottom right towards the 'Load...' option in the context menu. At the bottom of the application window, there are tabs for 'Profiles' (selected), 'defaultProfile', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. The 'Mappings:' tab is also present at the bottom.

# V2 – Features - 4

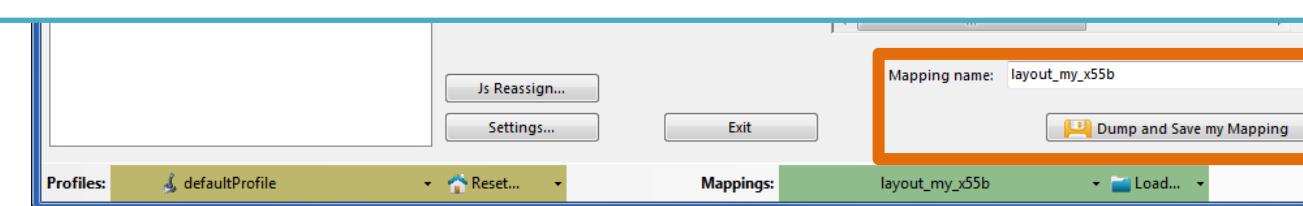
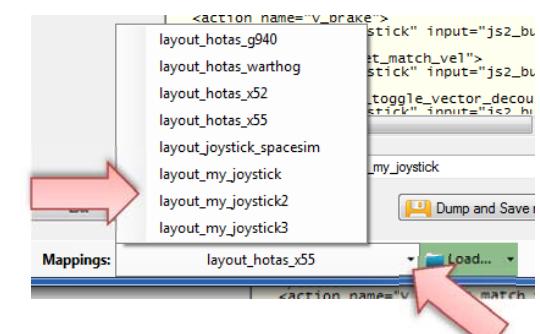
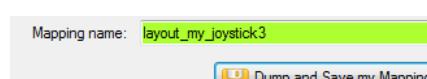
**New working with your own actionmaps**

The program not only gets the actionsmaps from the real game asset – but also can save your maps there.  
(..\StarCitizen\Content\Control\s\Mappings)

1. Type a name (limitations see note)
2. Hit the button – it will then Dump and Save your map into the game folder (well asking you to overwrite it if it exists)

NOTE: your map name has always to start with 'layout\_my\_' to prevent modifying CIGs own actionmaps  
Lowercase only, no spaces, tabs allowed else you see the red flag ..

A successful Save will show the green flag



# V2.1 – Features

## New possibility to blend the unmapped joystick entries

If you wish to hide all the joystick actions that you don't use – to make sure they are not active – check “Blend unmapped”

The program will then map all unmapped actions with ‘jsx\_reserved’ preventing any profile settings on the joystick.  
This is fully reversible – just uncheck the option and Dump the contents again.

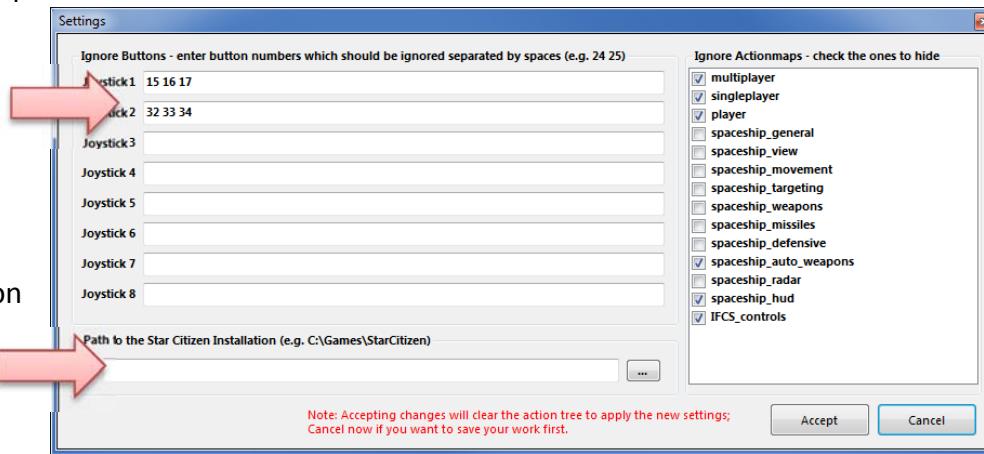
## New Settings window

As many are concerned about steady ON buttons that might interfere with assigning the proper control to an action we included a setting to IGNORE specific buttons.

Just enter the button numbers to ignore separated by a Space.

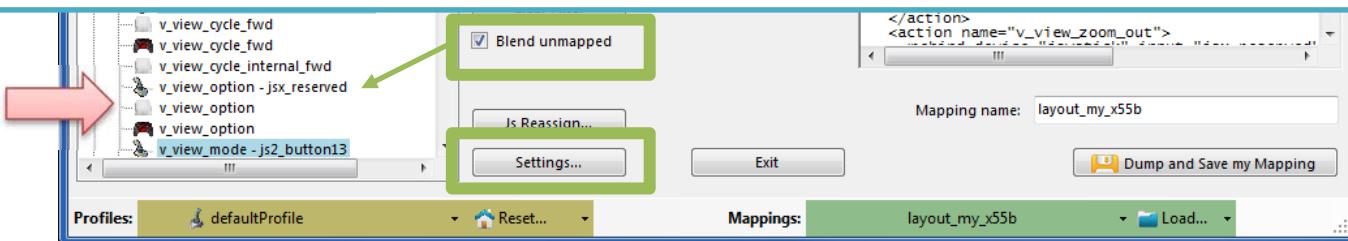
Make sure you enter the numbers for the right Joystick.

Numbers are the same as in the main window.



There is also way to override the programs own detection of the Star Citizen install folder.

Make sure to use the Checkbox if you want to override!



# V2.2 – Features

## New possibility to ignore unwanted actionmaps

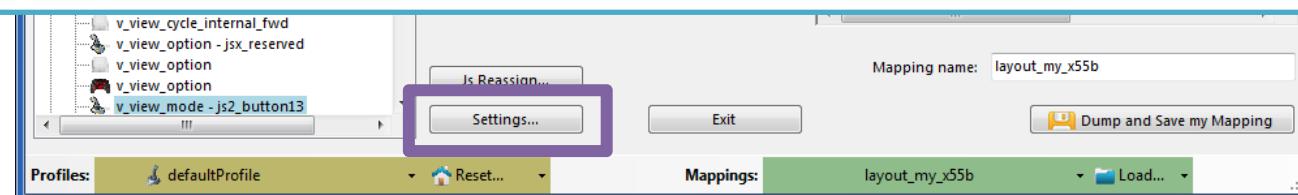
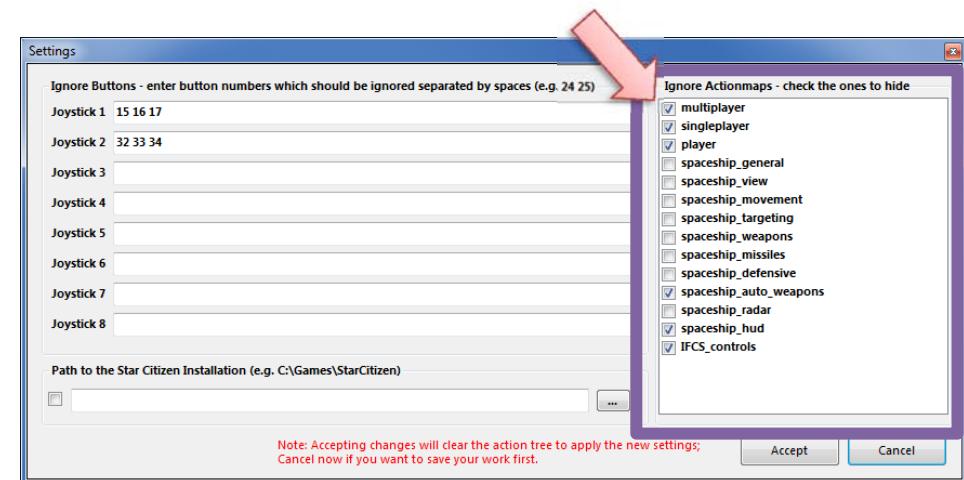
If you wish to ignore some maps to unclutter the GUI

If you wish to use the default ignored new actionmaps *multiplayer*, *singleplayer*, *player*

The program will ignore all actionmaps that are **checked**

In the example *multiplayer*, *singleplayer*, *player* and *IFCS\_controls* are completely ignored and will not show up.

Just uncheck any to use it again.



# V2.3 – Features

New possibility to (re) assign the joystick devices to the wanted js - number

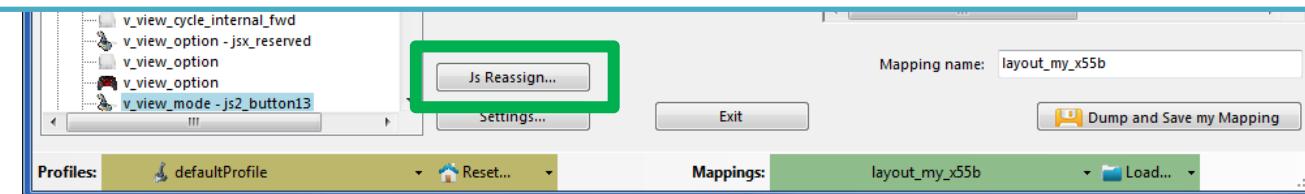
Go here if you wish to assign a device to a particular js – number or to re-assign the devices to other numbers. Per default the devices found are assigned along the sequence 1..8 but SC may remap them so here is the place to fix this without having to go through all commands and reassign them.

Notes: The color of the assigned items will not change as it is still the same device but js1 will become js2 for example. You can leave this dialog with “Accept” only if each device is either assigned to a unique number or to n.a. (not assigned) otherwise an error pops to ask you to fix it or Cancel.

Related SC console commands are:

i \_DumpDeviceInformation  
pp\_ResortDevices joystick 1 2

The screenshot shows the SC Joystick Mapper application window. In the center, a modal dialog titled 'Reassign Joystick Numbers' is displayed. This dialog lists eight joysticks with their current assignments: Joystick 1 (Saitek Pro Flight X-55 Rhino Stick), Joystick 2 (Saitek Pro Flight X-55 Rhino Throttle), Joystick 3 (VJoy Virtual Joystick), and Joystick 4 (VJoy Virtual Joystick). The assignments for Joystick 5 through 8 are empty. To the right of the list are four dropdown menus, each with options 'js1', 'js2', 'n.a.', and another 'n.a.'. The 'js1' and 'js2' options are highlighted with a green box. At the bottom of the dialog are 'Accept' and 'Cancel' buttons. A red arrow points from the text 'i \_DumpDeviceInformation' to the 'Accept' button. Below the dialog, the main SC Joystick Mapper interface is visible, featuring a tree view of profiles, a toolbar with buttons like 'Js Reassign...', and a status bar showing 'Profiles: defaultProfile' and 'Mappings: layout\_my\_x55b'.



# SCJMapper V 2 – Common Workflows

