

# SC Joystick Mapper

## Quick Reference Guide V 2.10

20150104 – Cassini

ChangeLog: see ReadMe.txt

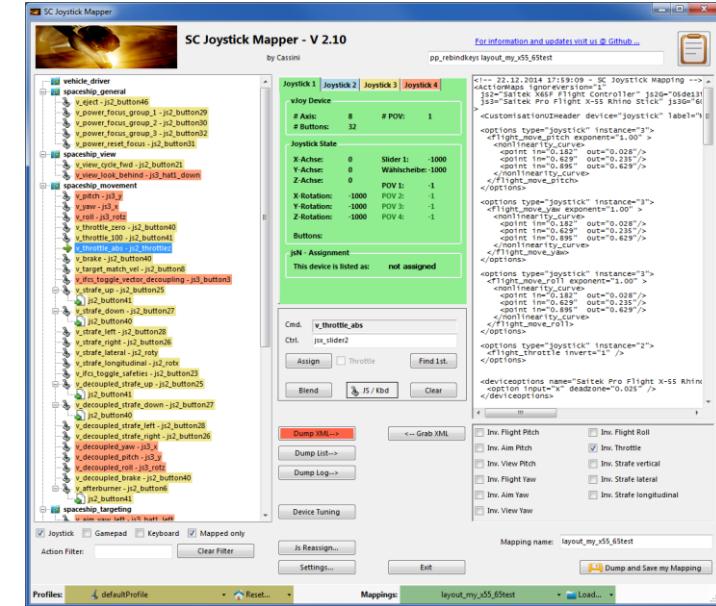
### Disclaimer:

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 2.10:

- With AC 1.0 a lot has changed in mapping:  
old options (pilot\_something) are renamed and re-ordered  
→ copy the file and manually delete those from the map before loading.  
Or delete them in the XML window and then “Save” it under a new name  
then Load the newly created mapping file (it should no longer contain options parts)
- Now you may re-create the options via Tuning and Invert checkboxes
- Further cross device mappings have to be deleted as they are not supported in AC1.0  
they will show up in pink or gray in the tree and must be Cleared manually  
Use the new sub-actions (page 29) to have multiple assignments.
- 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 + V2.5 refinement
- Page 17 V2.3 new features + V2.4 refinement
- Page 18 V2.5 new features
- Page 19 V2.7 new features
- Page 24 V2.8 new features
- Page 29 V2.10 new features
- Last Page Common Workflows - Cheat sheet

# Workflow (see also last page)

- Connect the game control 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:

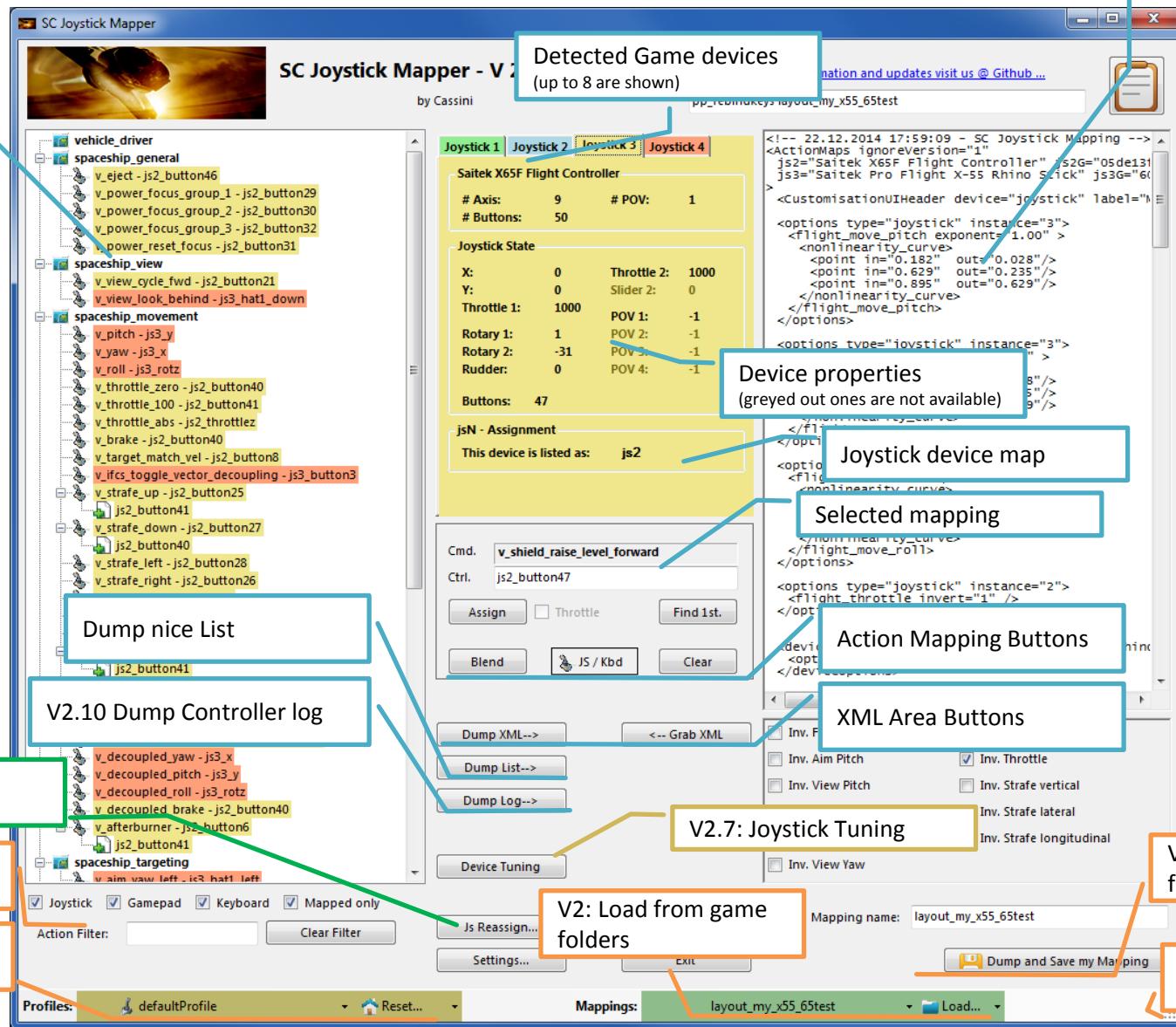
- `v_target_missile_lock_selected`
- `v_weapon_launch_missile`

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...

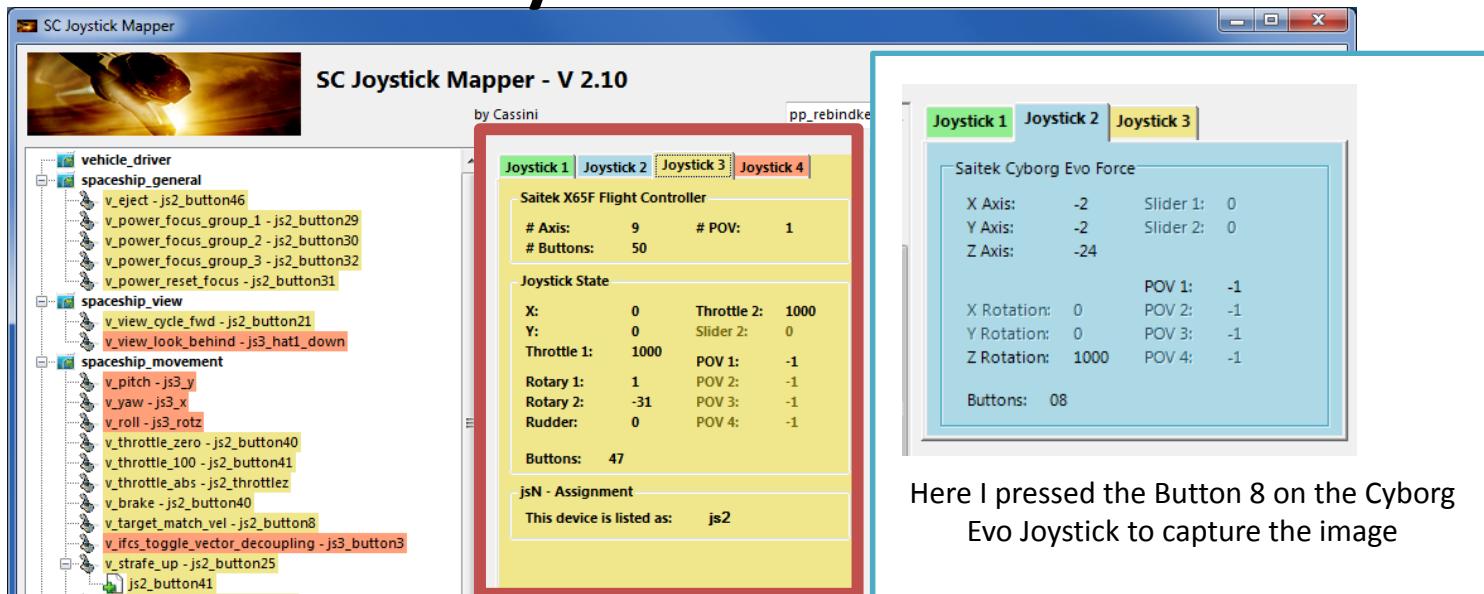
# The GUI ...

Action tree and mappings

XML dump of the mappings used



# The Joystick Area...



The tabs represent the game 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 2.4: you will see the actual Js assignment - or 'not assigned' – see page 17

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!**

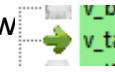
However no damage is done! This mapping is only valid until you exit the game or type `pp_rebindkeys` without a name

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

**v\_pitch - js3\_y** then means that the action `v_pitch` (joystick per default) is rebound to the joystick 3 (orange) 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.

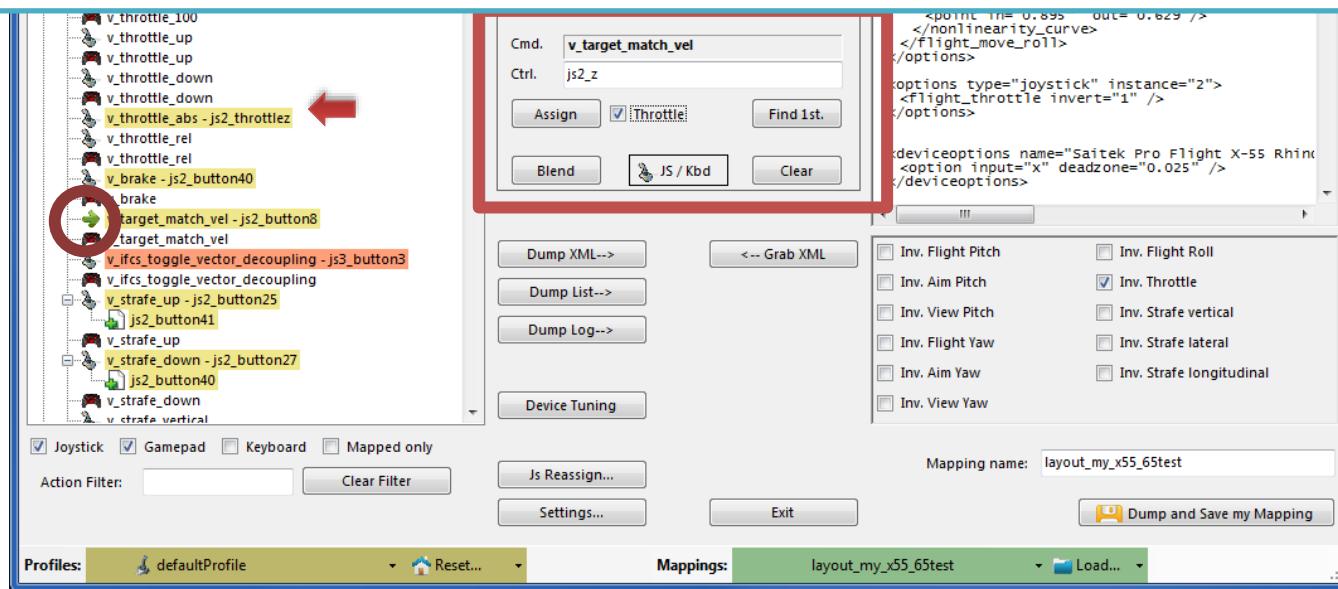
Once you have a mapping that should be used, hit the "Assign" button.

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 js2\_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. (js2\_z or if checked as shown js2\_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 hierarchy of mappings, including nodes like 'js2\_button40', 'v\_decoupled\_stafe\_left - js2\_button28', and 'spaceship\_targeting'. On the right, the XML Area contains the dumped XML code. Below these are several buttons: 'Dump XML-->', '<-- Grab XML', 'Dump Log-->', 'Device Tuning', 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. At the bottom, there are tabs for 'Profiles' (set to 'defaultProfile') and 'Mappings' (set to 'layout\_my\_x55\_65test'), along with 'Reset...', 'Load...', and other control buttons.

```
<!-- 22.12.2014 17:59:09 - SC Joystick Mapping -->
<ActionMaps ignoreVersion="1"
js2="Saitek X65F Flight Controller" js2G="05de13f"
js3="Saitek Pro Flight X-55 Rhino Stick" js3G="60">
<<CustomisationUIHeader device="joystick" label="My X55 Test" />
<options type="joystick" instance="3">
<flight_move_pitch exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_pitch>
</options>

<options type="joystick" instance="3">
<flight_move_yaw exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_yaw>
</options>

<options type="joystick" instance="3">
<flight_move_roll exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_roll>
</options>

<options type="joystick" instance="2">
<flight_throttle invert="1" />
</options>

<deviceoptions name="Saitek Pro Flight X-55 Rhino Stick">
<option input="x" deadzone="0.025" />
</deviceoptions>
```

# 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.

The screenshot shows the SC Joystick Mapper application interface. At the top, there's a status bar with tabs for 'Profiles' (set to 'defaultProfile'), 'Mappings' (set to 'layout\_my\_x55\_65test'), and 'Device Tuning'. Below the status bar is a toolbar with buttons for 'Dump XML-->', 'Dump List-->', 'Grab XML--<', 'Device Tuning', 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. There are also checkboxes for 'Joystick' (checked), 'Gamepad' (checked), 'Keyboard' (unchecked), and 'Mapped only' (unchecked). A 'Profiles' dropdown shows 'defaultProfile' and a 'Reset...' button. The main window contains a tree view of joystick mappings and a list of mapped actions. On the right side, there's a large text area titled 'p\_rebindkeys layout\_my\_x55\_65test' containing the XML dump. A red box highlights the 'Dump List-->' button in the toolbar and the XML text area. Another red box highlights the 'Save As...' dialog box from the file menu, which shows the file 'T2Mapping.txt' selected for saving.

For information and updates visit us @ GitHub ...

p\_rebindkeys layout\_my\_x55\_65test

```
-- 22.12.2014 23:49:58 - SC Joystick Mapping --
-- js2 = Saitek X65F Flight Controller
-- js3 = Saitek Pro Flight X-55 Rhino Stick

*** vehicle_driver
v_eject - js2_button4
v_power_focus_group_1 - js2_button2
v_power_focus_group_2 - js2_button3
v_power_focus_group_3 - js2_button3
v_power_reset_focus - js2_button3

*** spaceship_general
v_pitch - js3_y
v_yaw - js3_x
v_roll - js3_rtz
v_throttle_zero - js2_button4
v_throttle_100 - js2_button4
v_throttle_abs - js2_button4
v_brake - js2_button4
v_target_match_vel - js2_button8
v_ifcs_toggle_vector_decoupling - js3_button3
v_strafe_up - js2_button2
v_strafe_up - js2_button2
v_strafe_down - js2_button2
v_strafe_down - js2_button2
v_strafe_left - js2_button2
v_strafe_right - js2_button2
v_strafe_lateral - js2_rqty
v_streife_longitudinal - js2_rotx
v_ifcs_toggle_safeties - js2_button2
v_decoupled_strafe_up - js2_button2
v_decoupled_strafe_up - js2_button4
v_decoupled_strafe_down - js2_button2
v_decoupled_strafe_down - js2_button4
v_decoupled_strafe_left - js2_button2
v_decoupled_strafe_right - js2_button2
v_decoupled_yaw - js3_x
v_decoupled_pitch - js3_y
v_decoupled_roll - js3_rtz
v_decoupled_brake - js2_button4
```

Speichern unter

Name Änderungsdatum Typ Größe

AC 0.8 Notes.txt 10.06.2014 23:05 Notepad++ Docu... 1

starcitizen\_joystick\_mapping.txt 06.06.2014 19:13 Notepad++ Docu... 6

T2Mapping.txt 14.06.2014 00:16 Notepad++ Docu... 4

Speichern Dateityp: Text files (\*.txt)

1st. ar

Dump XML--> Dump List--> Grab XML--<

Device Tuning Js Reassign... Settings... Exit

Profiles: defaultProfile Reset... Mappings: layout\_my\_x55\_65test Load... 10

Inv. Flight Pitch Inv. Flight Roll
Inv. Aim Pitch Inv. Throttle
Inv. View Pitch Inv. Strafe vertical
Inv. Flight Yaw Inv. Strafe lateral
Inv. Aim Yaw Inv. Strafe longitudinal
Inv. View Yaw

Mapping name: layout\_my\_x55\_65test

Dump and Save my Mapping

# V2 – Features - 1

You may filter the action tree now

Start typing and the tree is reduced to the actions and controls that contain the characters typed

e.g. I typed 'thr' to see my throttles only  
Try button and you get all your assigned buttons only etc.

Click 'Clear Filter' to get back to the complete list again.

Note: this will not change, remove or modify any of your mappings, it just reduces the tree to the ones you are interested in.

The screenshot shows the SC Joystick Mapper application window. On the left is a tree view of actions categorized under 'vehicle\_driver', 'spaceship\_general', 'spaceship\_view', 'spaceship\_movement', 'spaceship\_targeting', 'spaceship\_turret', 'spaceship\_weapons', 'spaceship\_missiles', 'spaceship\_defensive', 'spaceship\_auto\_weapons', 'spaceship\_radar', and 'spaceship\_hud'. Under 'spaceship\_movement', several actions related to throttle are listed, including 'v\_throttle\_zero - js2\_button40', 'v\_throttle\_zero', 'v\_throttle\_100 - js2\_button41', 'v\_throttle\_100', 'v\_throttle\_up', 'v\_throttle\_up', 'v\_throttle\_down', 'v\_throttle\_down', 'v\_throttle\_abs - js2\_throttlez', 'v\_throttle\_rel', and 'v\_throttle\_rel'. A specific action, 'v\_throttle\_abs - js2\_throttlez', is highlighted with a yellow selection bar. At the bottom of the tree view, there are checkboxes for 'Joystick' (checked), 'Gamepad' (checked), 'Keyboard' (unchecked), and 'Mapped only' (unchecked). An 'Action Filter' input field contains the text 'thr' with a 'Clear Filter' button next to it. To the right of the tree view, there are several buttons: 'Dump List-->', 'Dump Log-->', 'Device Tuning', 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. There is also a 'Mapping name:' input field containing 'layout\_my\_x55\_65test'. Below the tree view, there is a 'Profiles:' dropdown set to 'defaultProfile' and a 'Reset...' button. At the bottom, there is a 'Mappings:' dropdown set to 'layout\_my\_x55\_65test' and a 'Load...' button. A blue box highlights the 'Action Filter' field and the 'thr' text within it. A large blue box surrounds the central text area and the right-hand controls.

# V2 – Features - 2



## New working with profiles.

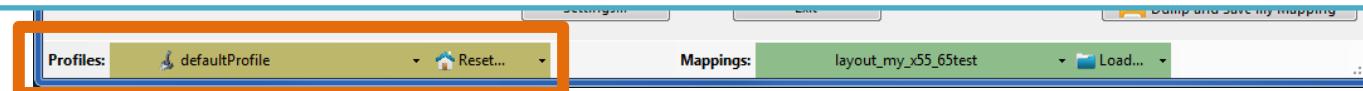
The program gets the actions from the real game asset – so you are always up to the actual values.

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...)



# V2 – Features - 3

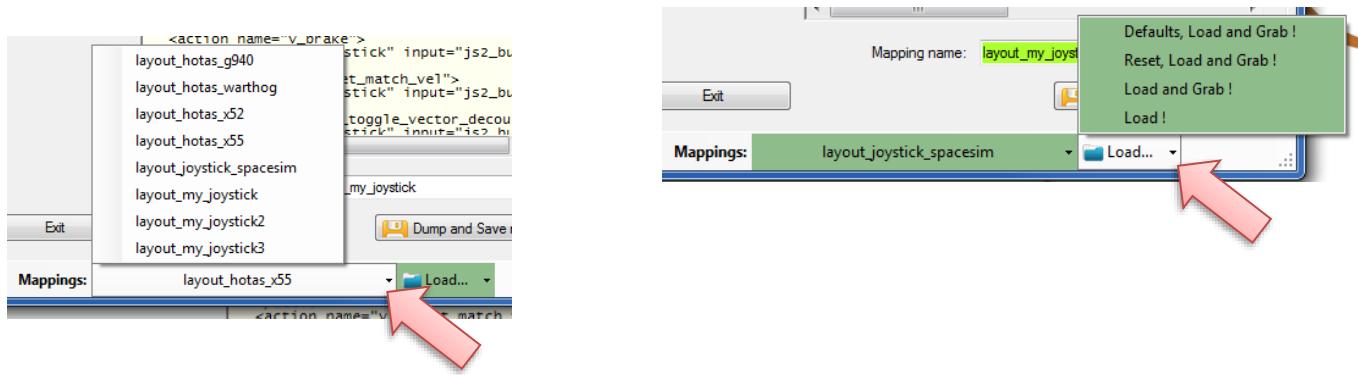
**New working with actionmaps (Maps, Mapping etc..)**

The program gets the actionsmaps from the real game asset – so you are always up to the actual values.  
(..\StarCitizen\CitizenClient\Data\Controls\Mappings)

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



Details of the screenshot:  
The application window title is "SC Joystick Mapper".  
A dropdown menu is open under the "Mappings:" label, showing options: "layout\_my\_joystick", "layout\_my\_joystick2", "layout\_my\_joystick3", "layout\_hotas\_g940", "layout\_hotas\_warthog", "layout\_hotas\_x52", "layout\_hotas\_x55", and "layout\_joystick\_spacesim".  
A red arrow points to the "Load..." option in the dropdown menu.  
A context menu is displayed at the top right of the application window, listing: "Defaults, Load and Grab!", "Reset, Load and Grab!", "Load and Grab!", and "Load!".  
A red arrow points to the "Load..." option in the context menu.  
At the bottom of the application window, there is a toolbar with buttons for "Profiles:", "defaultProfile", "Reset...", "Settings...", "Exit", "Dump and Save my Mapping", and a "Mappings:" dropdown set to "layout\_my\_x55\_65test". A red box highlights the "Mappings:" dropdown.

# V2 – Features - 4



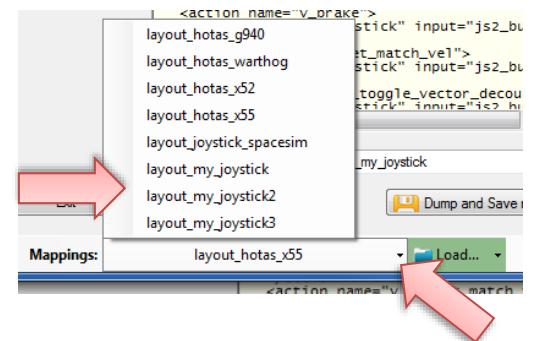
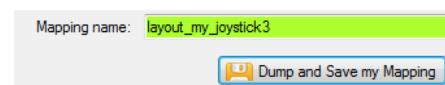
## New working with your own actionmaps

The program not only gets the actionsmaps from the real game asset – but also can save your maps there.  
(...\StarCitizen\CitizenClient\Data\Controls\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 ..

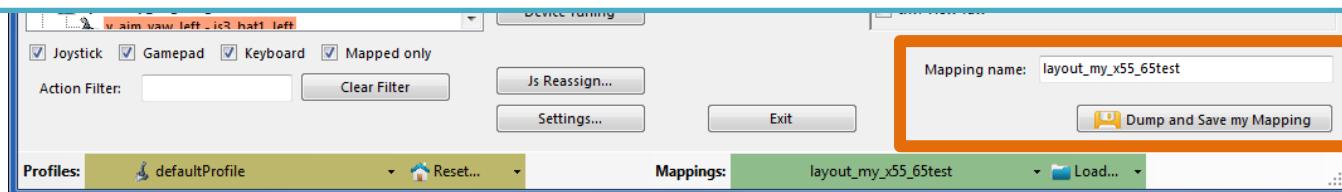
A successful Save will show the green flag



Your own maps will then show up like the game provided maps

pp\_rebindkeys layout\_my\_joystick should load it into the game

Note: For your convenience each Save also makes a copy of into your personal “My Documents\SCJMapper” folder – no work is lost if there is an update that cleans the Mappings folder.



# V2.1 – Features

New possibility to blend the unmapped joystick entries V2.8 is now in Settings

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

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

See also V2.8 new features on how to blend single items

### 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.

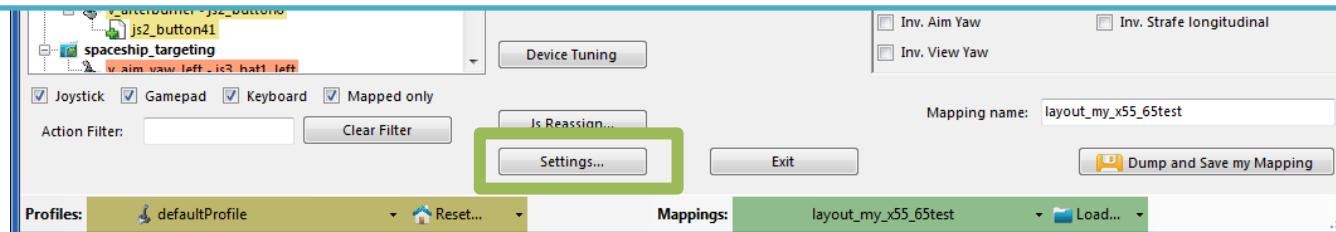
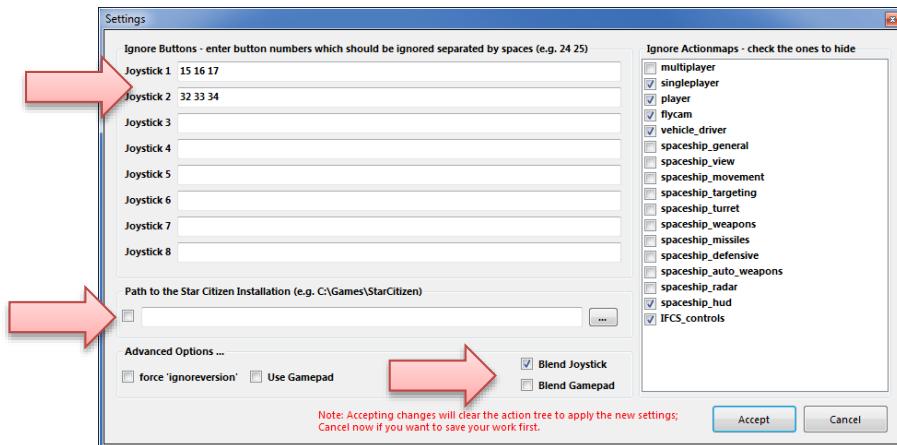
Just enter the button numbers to ignore separated by a Space.

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, 2.5 – 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.

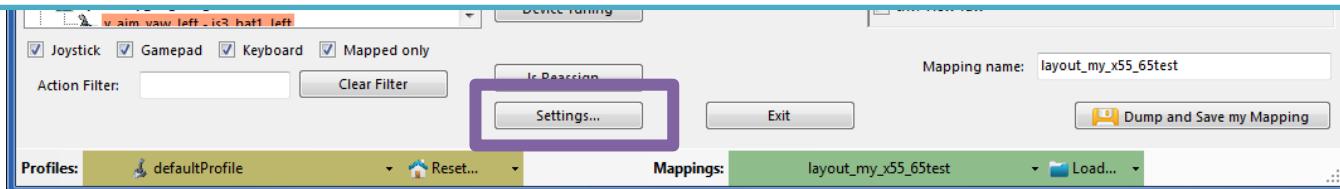
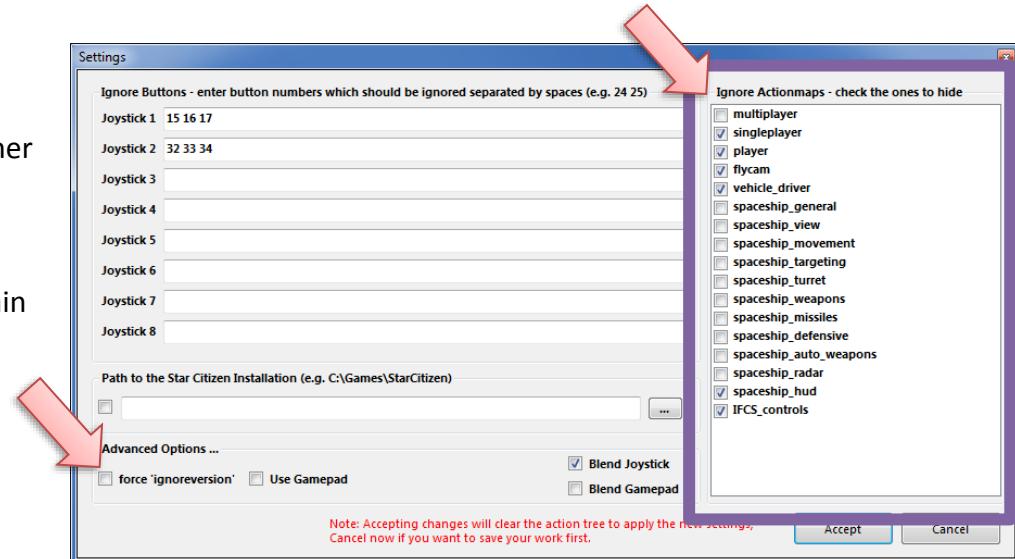
## V2.5 New option to force 'ignoreversion="1"

If you wish to use the *ignoreversion* attribute rather than any *version="n"* ..

The prog is able to handle it now. Either type e.g.  
*'version="0"* or *'ignoreversion="1"*

Into the ActionMaps Tag and the prog will maintain it as you typed it.

Or just force it to use *'ignoreversion="1"*  
by checking the box here



# V2.3, 2.4 – 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.

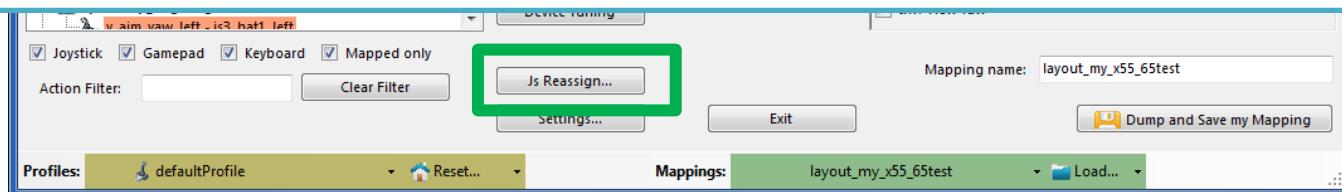
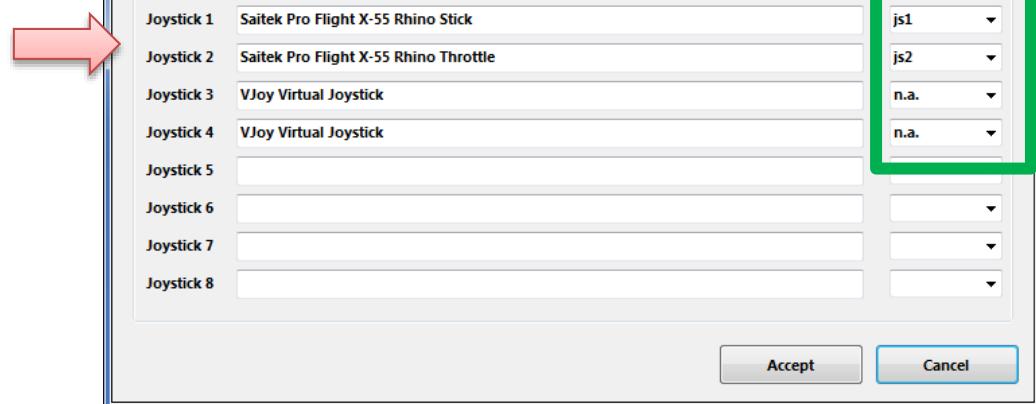
V2.4 allows to assign js1 .. Js8 now

Related SC console commands are:

i\_DumpDeviceInformation

pp\_ResortDevices joystick 1 2

pp\_rebindkeys export joystick  
pp\_rebindkeys export xboxpad



# V2.5 – Features

## New possibility – support for options

The prog will now maintain the following 3 XML tags

- <CustomisationUIHeader ...>
  - <options ...>
  - <deviceoptions ...>

See 2.7: for more new option handling

You may copy and paste or type whatever of those 3 tags you want to use – the program will maintain your typing and also read it from the mapping file when it is already there.

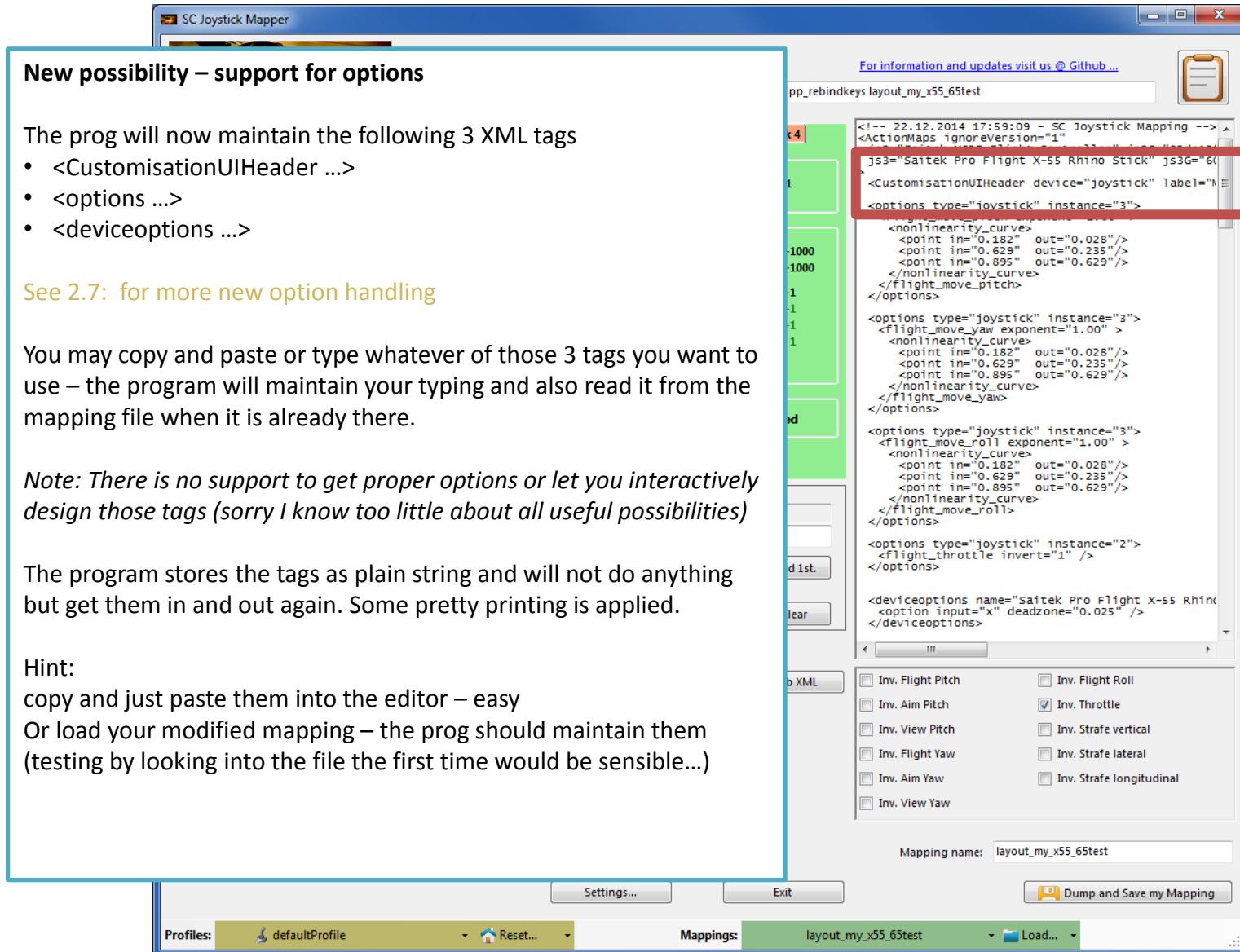
*Note: There is no support to get proper options or let you interactively design those tags (sorry I know too little about all useful possibilities)*

The program stores the tags as plain string and will not do anything but get them in and out again. Some pretty printing is applied.

**Hint:**

copy and just paste them into the editor – easy

Or load your modified mapping – the prog should maintain them (testing by looking into the file the first time would be sensible...)



# V2.7 – Features - 1

## New possibility – Device Tuning Window

The prog will now maintain the following 2 XML tags

- <options ...>
- <deviceoptions ...>

To get the Options done – click the “Joystick Tuning” button.

A Window opens – will be shown on the next page.

It supports:

Deadzone, Sensitivity, Invert, either Exponent or NonLinearCurve independently for all 3- Yaw, Pitch, Roll axes.

Options saved with SCJMapper will be read and applied, due to the various option formats however it may not be able to just read any options out there.

**Note: Best start the first time with a mapping without options !!**

V2.8 supports also Gamepads

The screenshot shows the SC Joystick Mapper application window. A yellow box highlights the 'Device Tuning' button in the bottom center of the main interface. To the right, a large yellow box highlights the 'Device Tuning' window itself. This window displays XML code for joystick tuning. At the bottom of the window, there is a list of checkboxes for various axis mappings, and a 'Mapping name:' dropdown set to 'layout\_my\_x55\_65test'. A 'Dump and Save my Mapping' button is located at the bottom right of the window. The background of the main window shows a list of mapped controls and a sidebar with filter options.

```
<!-- 22.12.2014 17:59:09 --> SC Joystick Mapping
<ActionMaps ignoreversion="1"
js2="Saitek X65F Flight Controller" js2G="05de13f"
js3="Saitek Pro Flight X-55 Rhino Stick" js3G="60">
<CustomisationHeader device="joystick" label="My X-55 Test">
<options type="joystick" instance="3">
<flight_move_pitch exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_pitch>
</options>
<options type="joystick" instance="3">
<flight_move_yaw exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_yaw>
</options>
<options type="joystick" instance="3">
<flight_move_roll exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_roll>
</options>
<options type="joystick" instance="2">
<flight_throttle invert="1" />
</options>
<deviceoptions name="Saitek Pro Flight X-55 Rhino Stick">
<option input="x" deadzone="0.025" />
</deviceoptions>
```

This screenshot shows the main interface of the SC Joystick Mapper. A yellow box highlights the 'Device Tuning' button in the bottom center. The left side of the interface shows a tree view of mapped controls, including 'v\_decoupled\_roll - js3\_rotz', 'v\_decoupled\_brake - js2\_button40', 'v\_afterburner - js2\_button6', 'js2\_button41', 'spaceship\_targeting', and 'v\_aim\_yaw\_left - ic3\_hat1\_left'. Below this tree view are several checkboxes: 'Joystick' (checked), 'Gamepad' (checked), 'Keyboard' (checked), and 'Mapped only'. There are also 'Action Filter:' and 'Clear Filter' buttons. On the right side, there are buttons for 'Dump Log-->', 'Device Tuning' (highlighted), 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. At the bottom, there are 'Profiles:' dropdowns for 'defaultProfile' and 'Reset...', and 'Mappings:' dropdowns for 'layout\_my\_x55\_65test' and 'Load...'. The status bar at the bottom right shows the page number '19'.

19

# V2.7 – Features - 2

**Joystick Tuning**

The screenshot shows the 'Joystick Tuning' window with three main sections:

- Actual mapping for the axis:** Shows the mapping equations and parameters for Yaw, Pitch, and Roll.
- Live View:** A window showing a starry space scene with a ship.
- Tuning parameters of the axis:** Shows the Deadzone, Sensitivity, and Exponent values for each axis.
- Tuning parameters of the active axis:** Shows the Deadzone, Sensitivity, and Exponent values for the currently selected axis (Yaw).
- Joystick IN-> OUT map:** A graph showing the mapping from joystick input (IN) to output (OUT). It includes a grid for defining points and a curve fitting the data.
- Turnspeed [seconds per full turn]:** A slider for setting turnspeed.
- Damping - how fast will a movement stop (1=fast):** A slider for setting damping.
- Speed/Damping Presets – Estimates, guesses...** Buttons for selecting different skybox options.
- Changing Skies:** Buttons for selecting different skybox options.
- Done:** A button to finish the tuning process.
- Finish 20:** A button labeled 'Finish 20'.

**Activate an axis:** Buttons for Yaw, Pitch, and Roll.

**Live IN – OUT values scaled 0 .. 1:** Displays current IN and OUT values for Y-Axis, P-Axis, and R-Axis.

# V2.7 – Features - 3

**How to...**

There is one active axis – the color frame of the chart indicates the active one (here blue = Yaw) 1

Parameters can be manipulated for the active axis only. 2

Switch the active one by clicking the Yaw, Pitch, Roll Option (bottom, left) 2

Activating a tuning parameter will activate too 3

Parameters must be ‘checked’ to be used 3

e.g. Deadzone and NonLinearCurve (Pt1..3) are checked for Yaw 3

Each axis has its own set of parameters

Active and Checked (Enabled) parameters can be changed. 3

Deadzone is a simple slider from 0.0 to 0.15 (try it out in the live view) 3

All other parameters are handled by first choosing it (e.g. Point 1) 4

Changing the value by first left click and hold into the chart area, then moving the mouse up-down and left-right to adjust – then release the mouse button. 4

Point 1 is usually the leftmost orange marker 5

If you wish to copy the Curve Points to all other axis – click the Copy button 6

Sensitivity and Exponent will only go with up-down movement of the mouse 6

**Yaw** v\_yaw - js1\_x

- Invert
- Deadzone 0.025
- Sensitivity 1.00
- Exponent 1.00
- Pt1 0.336 0.043
- Pt2 0.651 0.236
- Pt3 0.880 0.703

**Pitch** v\_pitch - js1\_y

- Invert
- Deadzone 0.025
- Sensitivity 1.00
- Exponent 1.00
- Pt1 0.336 0.043
- Pt2 0.651 0.236
- Pt3 0.880 0.703

**Roll** v\_roll - js1\_rotz

- Invert
- Deadzone 0.050
- Sensitivity 1.00
- Exponent 1.47
- Pt1 0.250 0.250
- Pt2 0.500 0.500
- Pt3 0.750 0.750

**1**

**2**

**3**

**4**

**5**

**6**

**Yaw -->**

Deadzone 0.025

Sensitivity: 1.00

Exponent: 1.00

Point 1: 0.336 0.043

Point 2: 0.651 0.236

Point 3: 0.880 0.703

**IN(x)** OUT(y)

0.336	0.043
0.651	0.236
0.880	0.703

**Copy to all axis**

L Y-Axis: 0.00 0.00      R-Axis: 0.00 0.00  
i P-Axis: 0.00 0.00      e R-Axis: 0.00 0.00

**1**

**2**

**3**

**4**

**5**

**6**

sec per 360° turn 4

damping 6

**Out there 1** **Canyon** **Highway**  
**Skybox.dds** **Shiodome** **Big Sight**

**Done**

**1**

**2**

**3**

**4**

**5**

**6**

# V2.7 – Features - 4

Joystick Tuning

...

Here Roll (Green) is active and Exponent is chosen to be changed. By click, hold and moving down – the exponent was changed from 1.47 to 2.83  
The curve represents IN vs OUT of the joystick

If you move the joystick the ‘Live’ fields will report what’s going on:

Sometimes it is helpful to just disable one direction of the movement  
Check OFF for any axis (it just disables it for the Live View)

1      2      3

1      2      3

Done

22

# V2.7 – Features - 5

Once back from Tuning...

With “Dump” or “Dump and Save” you will get the new Tuning values into the XML area – if you don’t want to apply the new settings, just hit “Grab” to restart with the settings from the XML area.

With “Dump” the prog will maintain the parameters using the following 2 XML tags

- <options ...>
- <deviceoptions ...> (Deadzone only)

One set for each axis

Note: the program will automatically apply Exponent=“1” if the Exponent is not used – if not set to 1 the game will use something like 2.3 and reshape any setting to an unexpected outcome...

If you have a 2 monitor setup – you may want to try to have the tuning window open while running AC – the joystick input is then applied to both applications – getting into the console will let you the mouse to interact with the tuning window, create a new tuned map and you may apply it immediately via console rebind to try it out  
(You may need a fast computer – but then AC needs this anyhow...)

The screenshot shows the SC Joystick Mapper application window. The main area displays an XML configuration for a Saitek Pro Flight X-55 Rhino Stick. The XML code includes sections for options (like flight move pitch, yaw, roll) and deviceoptions (deadzone). A red arrow points to the XML code. Below the XML is a list of mapped controls with checkboxes:

Inv. Flight Pitch	<input type="checkbox"/> Inv. Flight Roll
<input type="checkbox"/> Inv. Aim Pitch	<input checked="" type="checkbox"/> Inv. Throttle
<input type="checkbox"/> Inv. View Pitch	<input type="checkbox"/> Inv. Strafe vertical
<input type="checkbox"/> Inv. Flight Yaw	<input type="checkbox"/> Inv. Strafe lateral
<input type="checkbox"/> Inv. Aim Yaw	<input type="checkbox"/> Inv. Strafe longitudinal
<input type="checkbox"/> Inv. View Yaw	

At the bottom, there are buttons for 'Dump and Save my Mapping' and other application controls.

# V2.8 – Features - 1

New possibility – Use Keyboard assignments

The prog will now recognize keyboard assignments.

Switch to Keyboard mode by pressing the JS/Kbd Button  
-> the Icon changes to a Key and the Ctrl. Field gets lavender color.

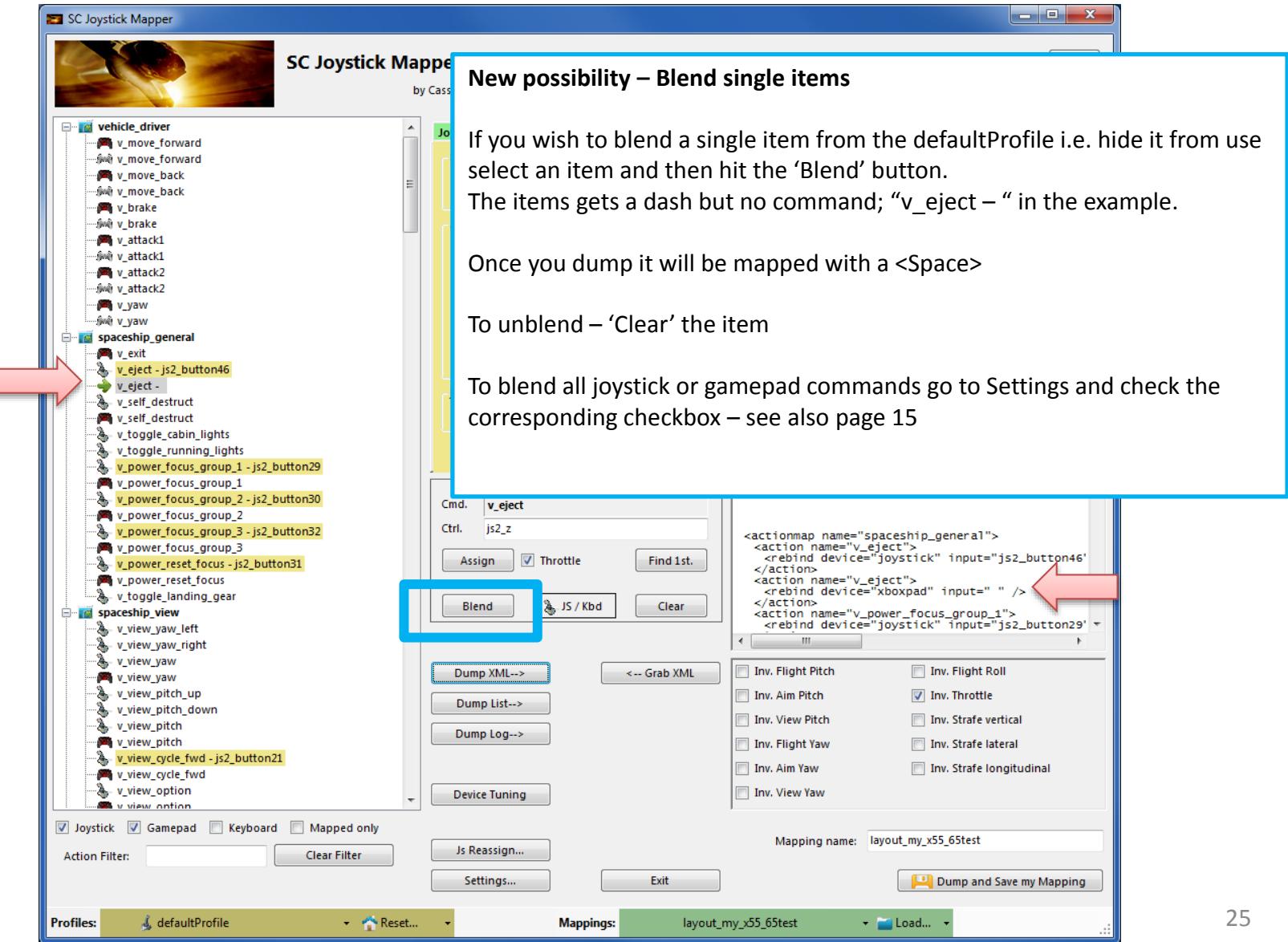
**Note: keyboard entries are accepted when the Ctrl. Field has the focus**

Now you may press any key or key+modifier until it fits the need.  
Then hit 'Assign' to map the command as usual.

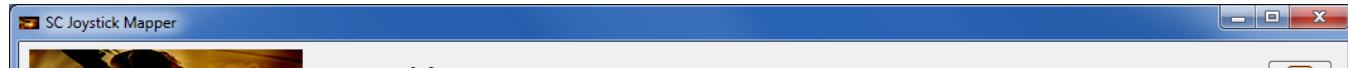
To get back to Game Control input – hit the JS/Kbd button and the entry mode gets back.

The screenshot shows the SC Joystick Mapper application window. On the left, there is a tree view of joystick mappings, with several items highlighted in yellow. In the center, there are two mapping panels. The top panel shows a command 'v\_target\_match\_vel' assigned to 'lshift+ctrl+c'. The bottom panel shows a command 'v\_shield\_raise\_level\_forward' assigned to 'jsx\_slider2'. Both panels have 'JS / Kbd' buttons, with the bottom one being highlighted with a blue rectangle. On the right side of the window, there is a large text area displaying XML configuration code for the joystick mappings. At the bottom, there are various buttons like 'Dump XML-->', 'Dump List-->', 'Dump Log-->', 'Device Tuning', 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. There are also checkboxes for 'Joystick', 'Gamepad', 'Keyboard', and 'Mapped only', along with an 'Action Filter' input field and a 'Clear Filter' button. The bottom navigation bar includes 'Profiles:' with 'defaultProfile', 'Reset...', 'Mappings:' with 'layout\_my\_x55\_65test', 'Load...', and other buttons for saving and exiting.

## V2.8 – Features - 2



# V2.8 – Features - 3



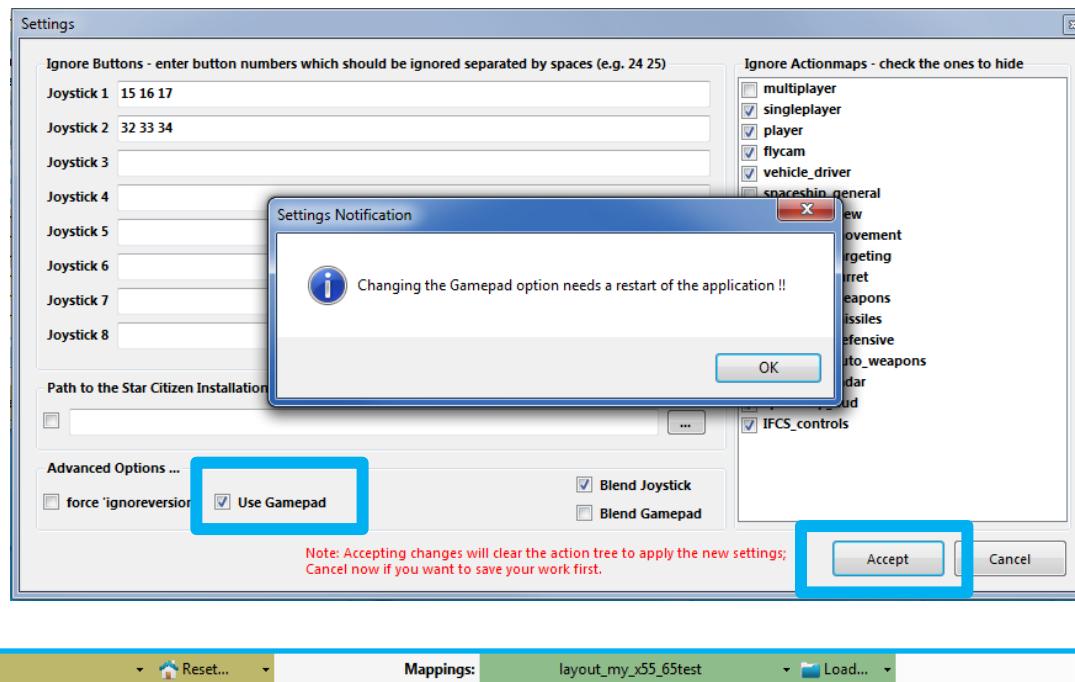
## New feature – Use Gamepad assignments

The prog will now recognize gamepad assignments.

To enable the use of gamepads as “xboxpad” go to ‘Settings’ and check the ‘Use Gamepad’ checkbox.  
THIS IS DISABLED per default to maintain backwards compatibility.

**Note:** now you have to restart the program

See next page how this then looks like



# V2.8 – Features - 4

**SC Joystick Mapper - V 2.8**

by Cassini

For information and updates visit us @ GitHub ...

pp\_rebindkeys layout\_my\_x55gpad

**New possibility – Use Gamepad assignments**

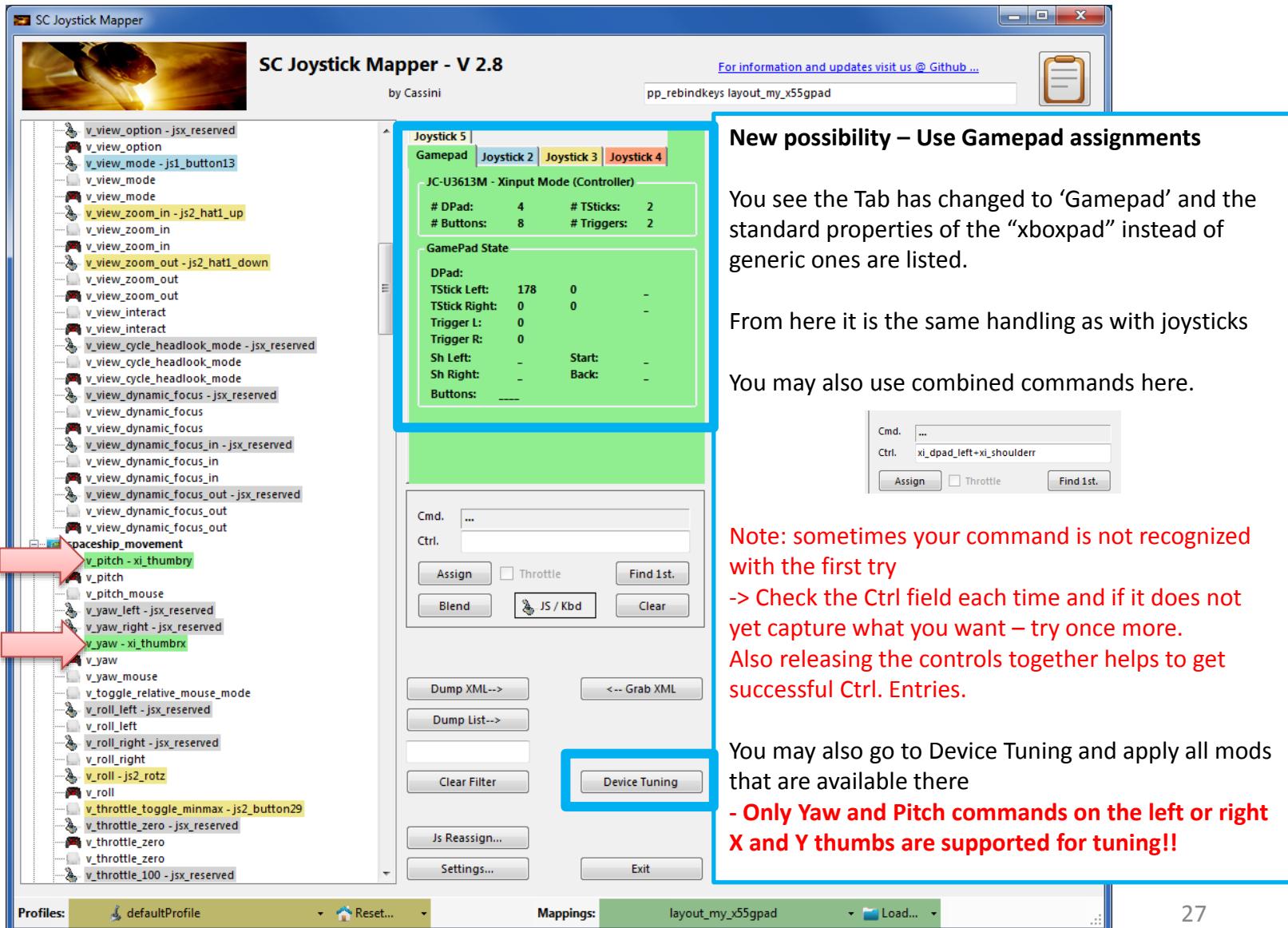
You see the Tab has changed to ‘Gamepad’ and the standard properties of the “xboxpad” instead of generic ones are listed.

From here it is the same handling as with joysticks

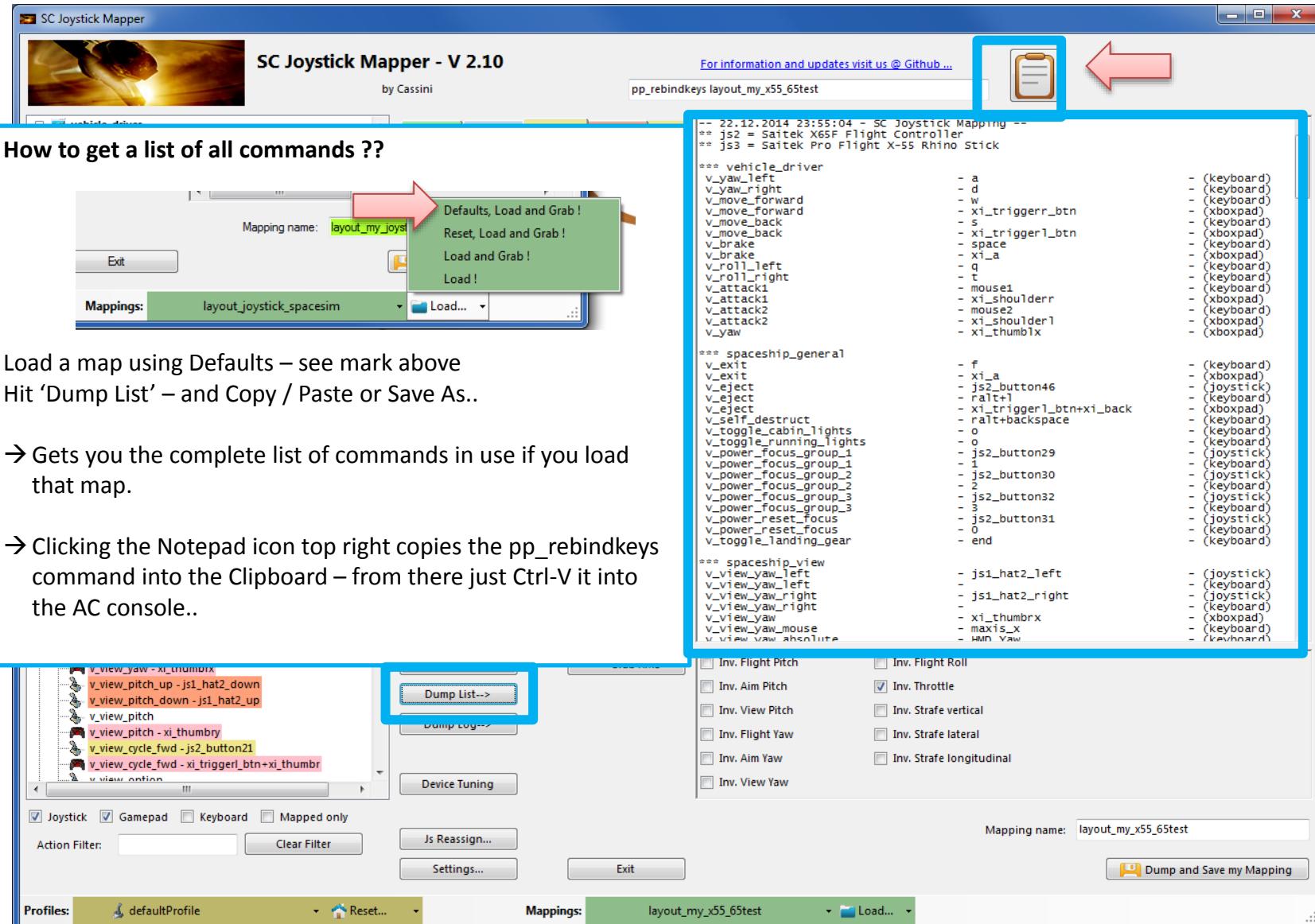
You may also use combined commands here.

Note: sometimes your command is not recognized with the first try  
-> Check the Ctrl field each time and if it does not yet capture what you want – try once more.  
Also releasing the controls together helps to get successful Ctrl. Entries.

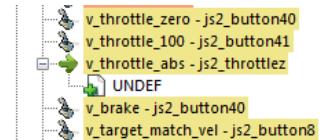
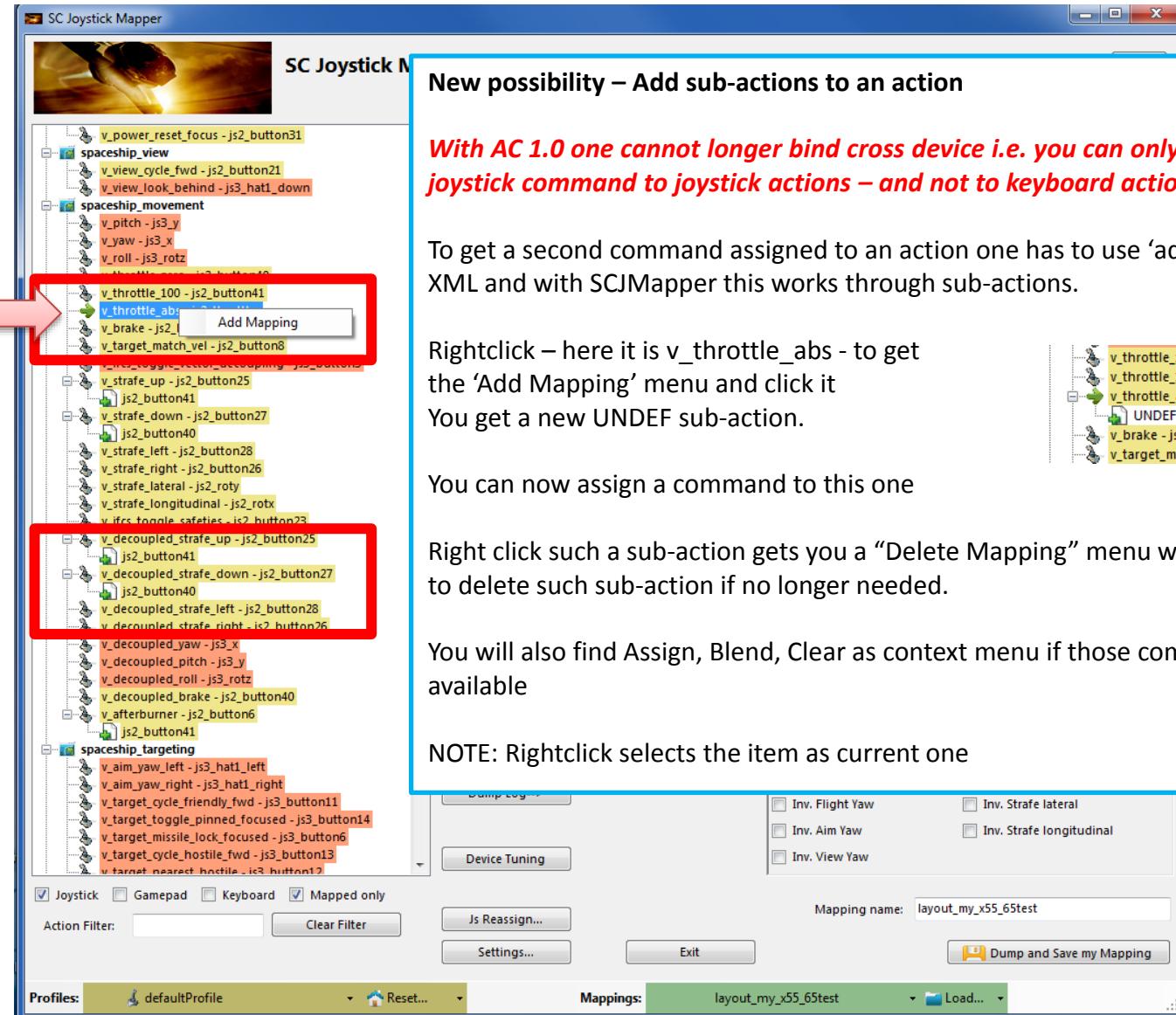
You may also go to Device Tuning and apply all mods that are available there  
**- Only Yaw and Pitch commands on the left or right X and Y thumbs are supported for tuning!!**



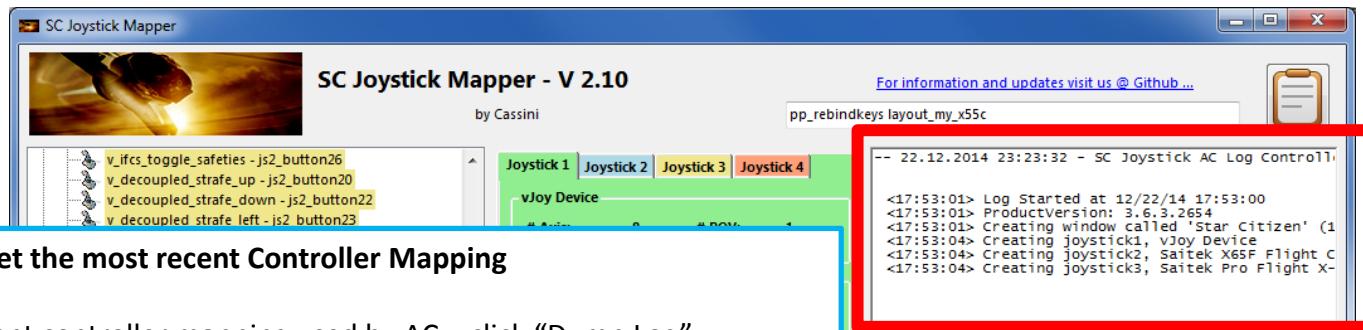
## V2.8 – Hints...



# V2.10 – Features - 1



# V2.10 – Features - 2



## New possibility – Get the most recent Controller Mapping

To get the most recent controller mapping used by AC – click “Dump Log”

It will read from the game log file and extract as shown to the right.

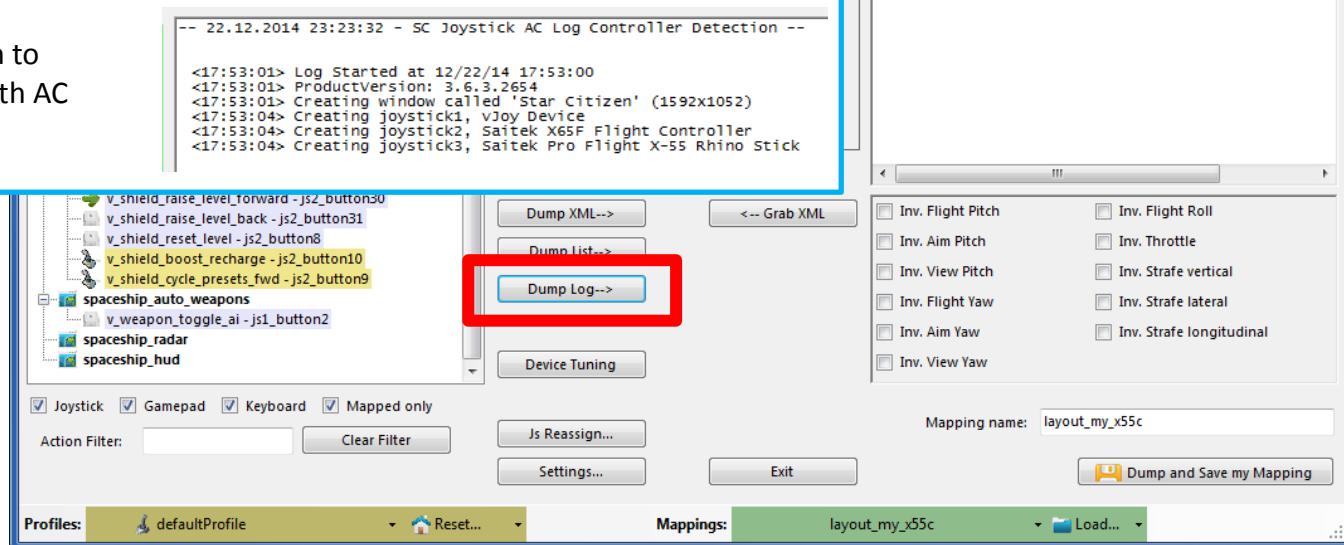
Here it means that the device

‘vJoy Device’ is joystick1 aka js1 - that is the green one above

‘Saitek X65F ...’ is joystick2 aka js2

‘Saitek Pro ...’ is joystick3 aka js3

Now use Js Reassign to  
get them aligned with AC



# V2.10 – Features - 3

**New possibility – Invert commands**

**With AC 1.0 one cannot longer Invert each command individually but one can only use the options XML for this purpose.**

Just check the desired Inversion and then Dump XML  
This will create an entry similar to the one below

```
</options>
<options type="joystick" instance="2">
<flight_throttle invert="1" />
</options>
```

Note: When I tried – all worked but the throttle one did not ... (may be an AC1.0 issue)

The screenshot shows the SC Joystick Mapper application interface. On the left, there's a tree view of mapped controls like 'v\_decoupled\_stafe\_right - js2\_button26', 'v\_decoupled\_yaw - js3\_x', etc. Below the tree are checkboxes for 'Joystick', 'Gamepad', 'Keyboard', and 'Mapped only'. At the bottom, there are buttons for 'Profiles' (set to 'defaultProfile'), 'Reset...', 'Mappings' (set to 'layout\_my\_x55\_65test'), and 'Load...'. On the right, there's a large text area displaying an XML configuration file. A red box highlights a section of checkboxes under the heading 'Inv.':

Inv. Flight Pitch	Inv. Flight Roll
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inv. Aim Pitch	Inv. Throttle
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inv. View Pitch	Inv. Strafe vertical
<input type="checkbox"/>	<input type="checkbox"/>
Inv. Flight Yaw	Inv. Strafe lateral
<input type="checkbox"/>	<input type="checkbox"/>
Inv. Aim Yaw	Inv. Strafe longitudinal
<input type="checkbox"/>	<input type="checkbox"/>
Inv. View Yaw	

Below this table, there's a 'Mapping name:' field containing 'layout\_my\_x55\_65test' and a 'Dump and Save my Mapping' button.

# SCJMapper V 2 – Common Workflows

