CMDR Clicker's

Elite Dangerous Target Script

User Reference Guide

(v502 - Odyssey)

Contents

Introduction

PURPOSE: This document describes what my script includes, what it does, how to install and configure.
It is also meant as a reference for what the switches, buttons and axes do when my script is running.

My script package has been written for a dual purpose.
First, to enhance immersion and control within the game of Elite Dangerous.
Secondly, is to provide TARGET Script code examples to complement and extend beyond what is covered in the Fast Script Basics User Manual provided by Thrustmaster.

HISTORY: Inspiration for this script started with Aussiedoid's comprehensive Elite Dangerous script (v3.1.0). I then created my own script to mimic my old Saitek X-55 basic configuration. I have since learned and used the advanced abilities of TARGET Script to create a "smart" configuration and have studied and lifted ideas and methods from Aussiedroid and others including Elite Dangerous Forum members, CMDRs Touille, Darkcyde and others.

PHILOSOPHY: Whilst convenient, I tend not to use the HOTAS for non-HOTAS functions (eg I do not currently issue chat macros or fighter instructions etc via TARGET).

I've written the functions to suit my preferences, my play style and my hardware, however I have made a few concessions here to cater to users who may not use headlook via Opentrack or rudder pedals.

My HARDWARE: The script and supporting files are written and maintained to work with my current hardware setup. This includes a Thrustmaster Warthog HOTAS, Thrustmaster TFRP Pedals and Webcam via Opentrack. Keyboard and mouse usage is limited to only a few functions when flying or in SRV and solely used as input when on foot.

I have supplied a 'full" bind file which will work with or without the pedals. These bindings should just work 'out of the box'.

COMPATIBILITY: This script has been designed and tested to work with Elite Dangerous Horizons & Odyssey on Windows 10.

The script requires TARGET software v3.0.24.618_rev1, Joystick firmware v12 and Throttle firmware v23.

The console output is formatted for the GUI, so be careful changing the printf() formatting when using the editor as the GUI and editor use different fonts etc.

NOTE: The script uses extensive game state tracking via the status.json journal file which is created and updated whilst the game is running. If this file becomes unreadable or unavailable, the script will abort.

I hope you enjoy this script and that it suits your requirements and playstyle. I look forward to any feedback and suggestions you may have for improvement.
Fly dangerously commanders!
CMDR Clicker o7

Acknowledgements and credits

Fast Script Basics User Manual by Thrustmaster

Original script inspiration and functionality by Aussiedroid.
https://forums.frontier.co.uk/members/aussiedroid.21601/
https://forums.frontier.co.uk/threads/aussiedroids-enhanced-thrustmaster-warthog-script.293027/
https://github.com/Aussiedroid/AD-EDWarthogEnhancedScript

Contribution and ideas lifted from Touille and Darkcyde.
https://forums.frontier.co.uk/members/cmdr-touille.110127/
https://github.com/Touille/ED-Warthog-Target-Script

https://forums.frontier.co.uk/members/darkcyde.26482/

Analogue Slew Controller hardware upgrade – get rid of that crappy 'mouse nub' on the Throttle!
https://deltasimelectronics.com/products/thumbstick-slew-sensor-adapter

Last but not least, a lot of my learning came from assistance, directly or indirectly by several key people in particular;

On HOTAS/HOSAS/SIMPIT Discord (https://discord.gg/szqaJE7) …
@sYfte
@hon0
@dar|{cyde

Over on DCS World forums (https://forums.eagle.ru/) …
@ivanwfr https://forums.eagle.ru/member.php?u=82172
@Sgt Coyle https://forums.eagle.ru/member.php?u=88210
@Drakoz https://forums.eagle.ru/member.php?u=108387

Elite Dangerous Journal Guide

http://hosting.zaonce.net/community/journal/v37/Journal_Manual_v37.pdf

Script Package Contents

When publishing or sharing this script the following should be included in the zipped package;

- The readme file
- The license file
- This reference manual
- Script code files (*.tmc, *.tmh, *.ttm)
- Voice.exe (users can find this on github and check out the source if they wish)
- sounder.exe (users can find this on github via the same author as voice.exe)
- sample wav files used by the script
- TTS Voice registry scraps to assist with installing extra Microsoft Voices
- Windows batch file (SAMPLE_Launcher.cmd) to use to launch Elite Dangerous, my TARGET script and supporting apps)
- The Elite Dangerous .bind files created to support this script
- The image files created to summarise the Joystick and Throttle button assignments
- The image files created to summarise keyboard key utilisation
- The change log for this version

Installation

a. Copy the preferred .bind file in the package's 'Bindings' folder to your Elite Dangerous bind file folder. This is usually at …
"c:\users\%username%\AppData\Local\Frontier Developments\Elite Dangerous\Options \Bindings"
As 'AppData' can usually be hidden you may need to unhide it via the folder view options in Windows if navigating via the windows explorer. Or, you should be able to cut/paste/edit the path above into a run box or address bar

NOTE: You should use the bind file in Bindings\Full folder within the zip package even if you don't have a TFRP Pedal controller

b. Unzip the script files anywhere on your disk that you can easily find/get to
Example used in this document is c:\Thrustmaster\ED_TargetScript
Substitute this with your path (within this doc) if you decide to save to somewhere else.
c. Copy voice.exe and sounder to c:\Thrustmaster\ED_TargetScript\ and set correct path in the ED_UserSettings.tmh file for both VoicePath and VoiceCMD variables
d. Copy Sounds folder to c:\Thrustmaster\ED_TargetScript\sounds\ and set correct path in ED_UserSettings file
e. Print out and study the image files provided in the 'Maps' folder.
f. Before you run the script open the ED_UserSettings.tmh file in notepad (I recommend using Notepad++) and ensure;

- the path definitions for 'StatusFile', 'MyStatusFile', 'VoicePath' , 'SoundPath' and 'WAVPath' are all correct
- Set 'DefaultVoice' to a Microsoft TTS voice installed on your PC
(enter "voice –l" at a cmd prompt where you copied voice.exe to list available TTS voices)
- Set 'VoiceCMD' to include your preferred voice.exe command line switches
- Set 'EnableTFRPRudder' to = 0 if you do not have this rudder controller

g. The Preferred method of running the script is via a Windows batch file.
SAMPLE_Launcher.cmd batch file is included in this package and is best copied to wherever you copied the scripts to in "step b" above.
I recommend you create a shortcut to this batch file on your desktop and run it as administrator. Please read the comments in this batch file for more information
h. The script MUST be running before you start the game.
i. When you run the game for the first time, go to Options | Controls and select the .bind file profile included in the zip package. (example: "Clicker-Warthog-v501")
j. If you do not have a TFRP Rudder controller you will need to correct the bindings for the following in game functions;

- Ship yaw
- SRV Steering
- Camera yaw, FSS Camera yaw & SAA (DSS) Third-Person yaw

Features

- Automatic detection of compatible Thrustmaster joystick bases, flight sticks, rudders and throttles;
    - Warthog base with F16 or F18 flight stick
    - AVA base with F16 or F18 flight stick
    - Warthog Throttle
    - TFRP or TFRPHA rudder pedals.
- 2 separate, user selectable MapKey profiles
    - FULL – all the bells and whistles
    - BASIC – no macros, no function calls, just send basic keystrokes
- 3 additional firing modes for primary and secondary triggers including
    - Pulse Wave Scanner mode (fires a pulse every 7 seconds)
    - Discovery Scanner mode (holds trigger for 6.1 seconds)
    - Mining Laser Mode (press to fire, press to stop)
- 5 user customisable, change on the fly, curve profiles for Joystick, Rudder and Slew selectable via the autopilot switch
- FA-OFF automatically applies custom curves to joystick and rudder
- User customisable curve profiles for slew control and slider
- Slider curves (Radar tuning) automatically applied via flight mode tracking
- Advanced PIP Manager includes 6 PIP modes, all selectable on the fly
- Advanced Counter measures control includes single SCB, SCB with auto heatsink and 'Double Bank' (2 x SCB + 1x heatsink) modes
- Silent Running 'Strobe' feature to toggle silent running on/off every 2 seconds
- Text-To-Speech engine provides additional voice feedback
    - turn on/off on the fly
    - volume control on the fly
    - includes a training mode which speaks each switch/button function
    - user selectable default voice
    - use different voices for different functions (in script only)
- Sound effects engine to add extra feedback in game
- Advanced state processor, which reads status.json twice per second and detects when key flags are changed.
- Additional flags tracked, saved to file and loaded when required, automatically
- Comprehensive print to console messages by most functions
- On the fly LED ON/OFF plus brightness control.
- Status LEDs accurately synchronised with game states for 5 key ship systems
- Flashing base LEDs on game start and flashing status LEDs on state change
- User Setting to enable or disable flashing LEDs
- Accurate game start and stop detection
- Macros included for;
    - Docking request with auto PIPs to shields
    - Wing Beacon On/Off
    - Report Crimes On/Off
    - Deploy and Recover the SRV
    - Dismiss/Recall Ship

    - Station services which can be set to auto on dock, or via switch
    - Launch+lift off+retract landing gear+25% throttle
    - Fast Game Mode switching (includes anti-clog code)
- Simple, logical target designator functions including system module targeting
- Speed brake function using timed landing gear deployment/retraction
- Advanced Super cruise / Hyper jump tracking with drop detection
- Joystick, Throttle and Keyboard Utilisation images for both BASIC and FULL profiles
- Fully documented and commented code
- Comprehensive Key Bind Sheet file detailing standard and combo keyboard keys
- Toggle Engine and Weapon colours on the fly
- 2x comprehensive custom key bind files included
- Extensive use of layers using Throttle Pinky and/or Joystick Pinky switches
- Audio reminders when Throttle Pinky modifier switch is not in the middle
- Training Mode which prints to console and speaks the function of all buttons and switches
- Registry Scraps to add extra TTS voices
- On the fly swapover of YAW and ROLL
- Huge amount of code cleanup, bug fixes and improvements
- ...and more!

Usage

All user configurable settings are in the ED_UserSettings.tmh file.
Avoid changing anything in ED_GlobalVars.tmh or ED_Defines.ttm files.

Feel free to use the ideas and methods for your own use in your own scripts and I encourage you to share these with other like-minded players.

This software uses the MIT license, which can be found at the root of this package/repository.

Intent

Most buttons and switches 'do something' other than just send a simple keystroke or a Direct-X (DX#) button or axis value to the game.

Likewise, most of the axes available have different profiles (behaviours) depending on a user setting, a specific combination of button presses, or, indeed one of many game states (read from status.json).

This guide is intended to describe what each button/switch does and how the different Joystick, Throttle, slider and Slew Control (mini stick) axes behave depending on situation or user definable configuration and in game actions.

This document is not intended to teach TARGET Script or walk you through my code. I will try to keep the scripting (code) description to an absolute minimum. Saying that, the script itself provides an excellent resource providing many comments that can help you if you wish to learn TARGET Script, or modify mine to suit your needs.

Console

The script will output to the Target Script GUI console the result of many commands. Whilst not required to play the game, you can use this feature to ensure you are hitting the correct switch/button or sequence.

Likewise, the script will output error messages to the console and speech engine when you select an invalid button. Example: trying to lower the landing gear when in super cruise

(…Usage continued)

Text-To-Speech (TTS)

I have included a voice feedback feature that uses a Text-To-Speech engine and Microsoft's Voice capability to add more immersion and feedback when you select certain actions.

Many of the console messages are also converted to speech.

For this to work, copy **voice.exe** to your script folder and correctly set the path inside the ED_UserSettings.tmh file.

The volume for the Text-To-Speech function can be changed on the fly and the feature can be turned off completely using specific HOTAS switch combinations.

Refer to the individual switch references in the below chapters for more detail.

This Text-To-Speech feature is usually straight forward…assuming Microsoft Speech services are enabled and you have at least one language pack installed (which you do, believe me!)

It can get a bit tricky … **IF** … you wish to use a voice not already installed on your PC.
More on that later.

I would suggest you first run voice.exe from the command line as follows:-

1) Open a command prompt at your script folder location
2) Type in 'voice -l' (lower case 'L') and hit enter

This will list any/all installed and available Microsoft TTS Voices installed on your PC.
If the list is empty, it means you do not have Microsoft Text To Speech feature enabled…refer to section below on customising voices.

Assuming you do have at least one voice installed you can test by typing in **voice "Hello"** and hit enter. This will say the text in the quotes using your PC's default voice.

Assuming the test above went well, let's open ED_UserSettings.tmh and go to the 'Text To Speech' section.

a) Make sure 'EnableVoice' is set to 1 (or 'ENABLED')
b) Make sure the 'VoicePath' alias is correct
c) Make sure there is an alias for the voices installed in your PC (plenty of examples listed)
d) Set 'DefaultVoice' to one of the installed aliases

Example: if the list you got shows 'Hazel', go ahead and set 'DefaultVoice = &Hazel;'

All going well, 'Hazel' will greet you when the game starts.

If you wish to use non-standard or not-installed voices here is a very basic rundown on what you need to do.

(…Usage – Text-To-Speech … continued)

First, open 'Speech Settings' on your PC, select 'Language', then under 'Preferred Languages" add whichever languages you want to take advantage of.

Next, when prompted to confirm which features to install….make sure "speech" is enabled and go ahead and install.

Now, for the fun part (sic)…

By default, Microsoft Windows 10 does not enable all language voices to be accessible to all applications.

So, after installing the pack and restarting your PC, check if the TTS Voice is available via **'voice –l'**…if your new TTS voice shows up, you are good to go…if it does not show up in the list, follow this web based tutorial for those voices you wish to make available to voice.exe…

https://www.ghacks.net/2018/08/11/unlock-all-windows-10-tts-voices-system-wide-to-get-more-of-them/

…it looks complicated at first, but is actually pretty simple…just take your time and in no time you'll unlock the voice you want to use with this script.

Do not forget to go back, create an alias for the voice, and set 'DefaultVoice' accordingly.

This version of my script only uses one voice. I have included the ability to use different or multiple voices for future planned functionality.

If you head over to the Elite Dangerous forums and send me a PM asking nicely, I'll happily send you a copy of the reg scraps for any of the voices I list in my code!

Elite Dangerous Configuration

Additional configuration items I have set in game;

Options | Controls
(included in the bind files – here as a short reference for note)

- Throttle Axis Range = Forward Only
- Fwd Only Throttle Reverse Button Mode = Toggle
- Flight assist button mode = Toggle
- Rotational Correction = Toggle
- Firing Deploys Hard points = OFF
- Silent Running Button Mode = Toggle
- Cargo Scoop Button Mode = Toggle
- Microphone Mute Button Mode = Toggle
- Mute Button Mode = Toggle
- Microphone State Mode = Toggle
- Enable Context Menu = OFF
- UI Focus Mode = Cycle
- Autofocus on Text Input = OFF
- Looking at * Panel = Does Nothing
- Show CQC Score Screen Button Mode = Toggle
- Head look Button Mode = Toggle
- Centre when Head look Inactive = ON
- Head look Smoothing = ON
- Drive Assist Button Mode = Toggle
- Handbrake Button Mode = Toggle
- Drive Throttle Axis Range = Forward Only
- Drive Throttle Reverse Button Mode = Toggle
- Free Camera Throttle Axis Range = Forward Only
- DSS Front/Back Button Mode = Toggle

Options | Sound | Voice Volume | Ship Voice Volume (all 'ON' unless stated below)

- Power & Temperature
  - Silent Running Engaged = OFF
  - Silent Running Disengaged = OFF
- Landing & Docking
  - Landing Gear Deployed = OFF
  - Landing Gear Retracted = OFF

Script Startup

When the script starts it goes through and excludes hardware that won't work with the script.

If you have any of the excluded hardware connected they won't do anything once the script is running.

The script checks for compatible connected hardware and will declare what it found within the console.

NOTE: If no compatible Joystick or Throttle is found, the script will abort. The abort error will be displayed on the console.

Once these initial checks are performed an initialization routine is performed and the console will display a game waiting to load state.

"main returned 0" is a TARGET console output to indicate everything is running as expected and is waiting for input.

If the game is not running, the script will be in "TRAINING MODE" (refer MapKey Profiles and Training Mode on next couple of pages).

All buttons and switches will announce their function. This is a good way to familiarise yourself with all the controls.

Once the game starts, the script will be in "GAME MODE".

MapKey Profiles

There are two MapKey Profiles to choose from, FULL and BASIC, selectable in the ED_UserSettings file.

The **BASIC profile**, maps straight keyboard keypresses to the triggers, switches and buttons.

No macros, functions or modifiers are available in this profile so most of the features of the script are simply bypassed. This profile is for players looking for a straight WARTHOG profile and binding file combination, or players who are just starting out and want a simpler solution. The bind files, installation instructions etc are all compatible for both modes.

The **FULL profile** takes advantage of every feature, macro and function. It also has some rudimentary debug features, which can come in handy when you are not certain things are quite right.

Refer to **ED_UserSettings File** chapter, later in this guide.

Training Mode

When the game is not running, pressing any of the buttons or switch combinations described in the following chapters will result in both Voice feedback and a console printout of the mapped function. Make sure you also check out the modified buttons and switches!

The training mode is customised for both FULL and BASIC profiles.

Enable 'TrainingEnabled' in the ED_UserSettings file to take advantage of this training mode.

Enable 'AnnounceTraining' in ED_UserSettings file to announce via Voice feedback the selected Training mode status when the script starts or when the games stops.

Modifiers

The 'FULL Profile' uses modifiers which do much the same thing as the 'SHIFT' or ' CTRL' keys do on a keyboard…they change or extend the use of the switch or button on the HOTAS.

Using modifiers, each button or switch can have up to six different functions.

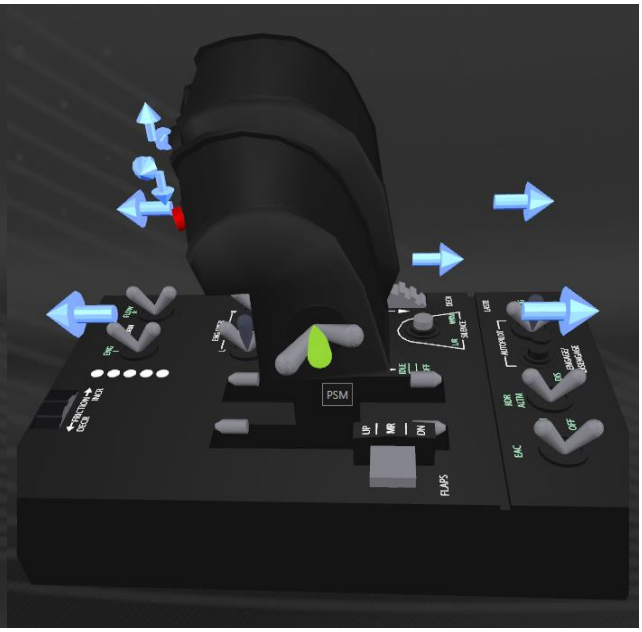
It is worth noting that I do not use modifiers on all switches and buttons … only about half of the buttons available are mapped to use modifiers.

The modifiers use the designations I, O, U, M, D. The letters stand for 'In', 'Out', 'Up', 'Middle' and 'Down'

The script uses the Joystick S3 ('Nose wheel') button as the IO modifier. When pressed we are using the 'I' layer. 'O' layer is being used when it isn't pressed.

The script uses the Throttle PSF, PSM, PSB ('Pinky Switch') as the UMD modifier (layers). PSF is the 'U' layer, PSM is the 'M' layer and PSB is the 'D' layer (F=Forward, M=Middle, B=Back)

Joystick S3 'Nosewheel' switch



Throttle PSF/PSM/PSB 'Pinky' switch

In the ED_MapKeyAssignment.tmh file, you will see each switch and button mapped via a MapKey statement. This defines what we want to do when the switch is pressed.

It may look like one of the following four examples;

a. MapKey(&Joystick, TG1, <action>);
   No modifiers used. Press the trigger to do 'action'

b. MapKeyIO(&Joystick, TG1, <'I' action>, <'O' action>);
   Modifier 'IO' in play.
   Press and hold S3, then the trigger to do 'action for I'
   Press the trigger without pressing S3 to do 'action for O' (ie no modifier)

(…Modifiers continued)

c. MapKeyUMD(&Joystick, TG1, <'U' action>, <'M' action>, <'D action'>);
   Modifiers 'UMD' in play.
   Flick Pinky Switch Forward (PSF) and press the trigger to do 'U action'
   Leave or move Pinky Switch to Middle (PSM) and press the trigger to do 'M action'
   Flick Pinky Switch Back (PSB) and press the trigger to do 'D action'

d. MapKeyIOUMD(&Joystick, TG1, <IU>, <OU>, <IM>, <OM>, <ID>, <OD>);
   The most complex mapping as you can see and has 6 separate actions depending on both S3 being pressed and/or position of the Throttle pinky switch!

In this user guide, I will list each switch position used in the script and if modified, will use the following terminology;

Switch	Usage	Means…
TG1 – IU	S3+PSF+TG1	Press+hold S3 (I), Flick PSF (U), then press the main trigger
TG1 – OM	TG1	Just press the Joystick main trigger (no effective modifier) (S3 not pressed and Throttle Pinky Switch in the middle position)
S1 – U	PSF+S1	Flick PSF (U), then press the Joystick S1 ('Master Mode') button
H4P – D	PSB+H4P	Flick PSB (D), then press the Joystick CMS Switch
S4	S4	(no modifiers) … just press the Joystick S4 switch (pinky lever)

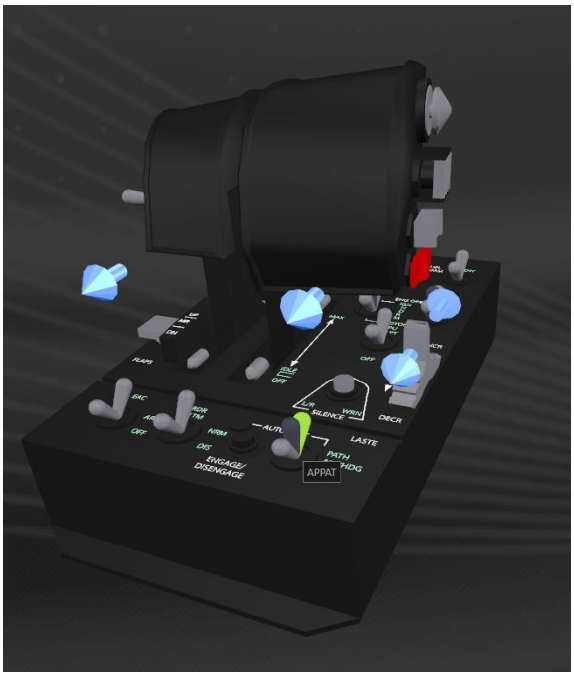
In other words, I will only describe the modifiers where they are used for that switch mapping in script.

I will then go on to describe the 'action' or function of each switch in use and I will include a reference picture of the switch being described.

To further complicate matters, the script does make use of the ability to detect when a switch/button is released in cases where I need this…I will avoid using these references here for simplicity. Refer to the MapKeyAssignment file and look for 'MapKeyR' , 'MapKeyRIO', 'MapKeyRUMD' or 'MapKeyRIOUMD' statements.

Axis Curves and Curve Control

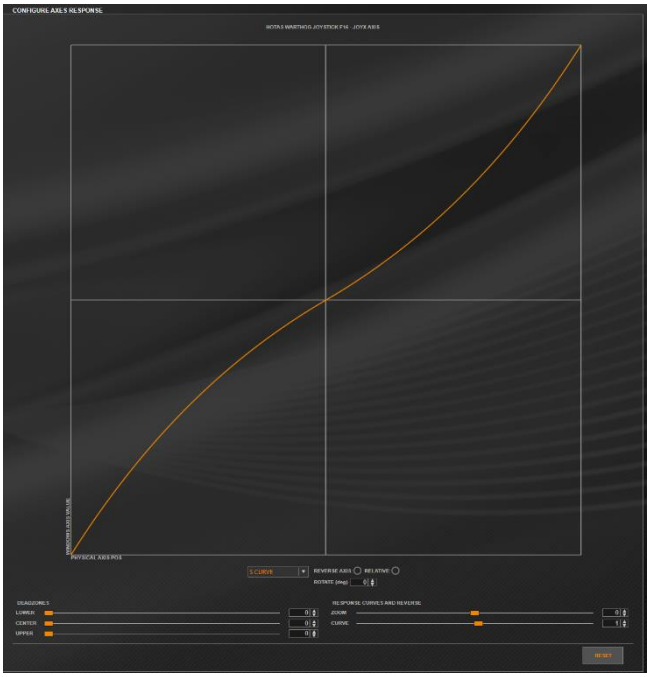
Switch	Usage	Action
APPAT-O	APPAT	Set Joystick and Rudder curves to MILD (1)
APPAT-I	S3+APPAT	Set Joystick and Rudder curves to MEDIUM (2)



Throttle APPAT (Autopilot Path)

MILD applies a small amount of curve to the joystick and rudder.
The joystick and rudder have a slight non-linear rate of response.

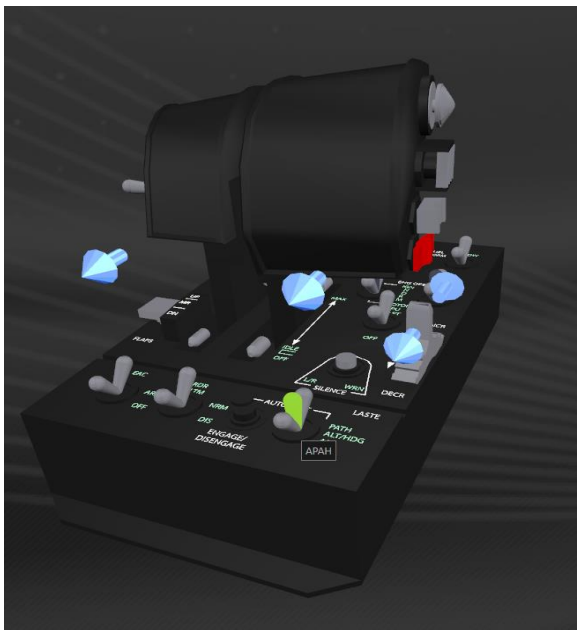
The S-Curve causes the response to be slightly slower at the beginning of travel away from centre and gets faster the further from centre you move the stick (or rudder).



Joystick Curves set to 1 (Non-Linear Response)

(…curves continued)

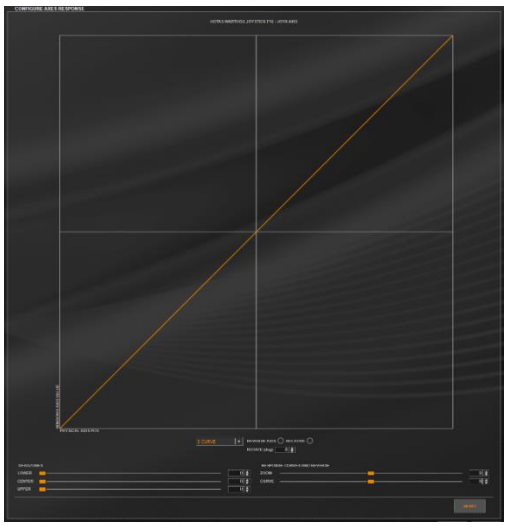
Switch	Usage	Action
APAH	APAH	Set Joystick and Rudder curves to OFF (0)



Throttle APAH (Autopilot ALT/HDG)

Default position for this switch. No curves means that the joystick and rudder axes have a linear response. That is, it increases the roll or pitch rate in a consistent manner as you move the stick all the way left, right, up, or down.

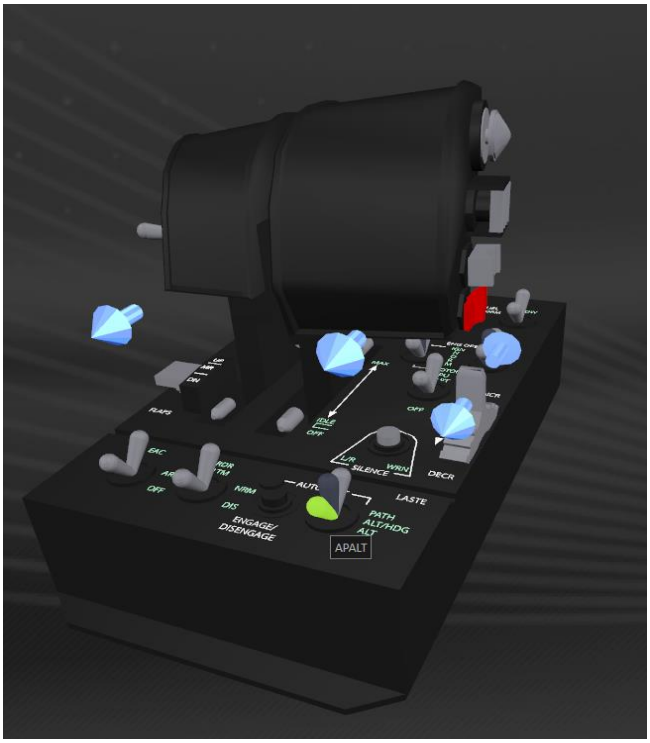
As the script applies the same curve profiles to the joystick and rudder when switching, the same theory applies to the rudder.



Joystick Curves set to 0 (linear response)

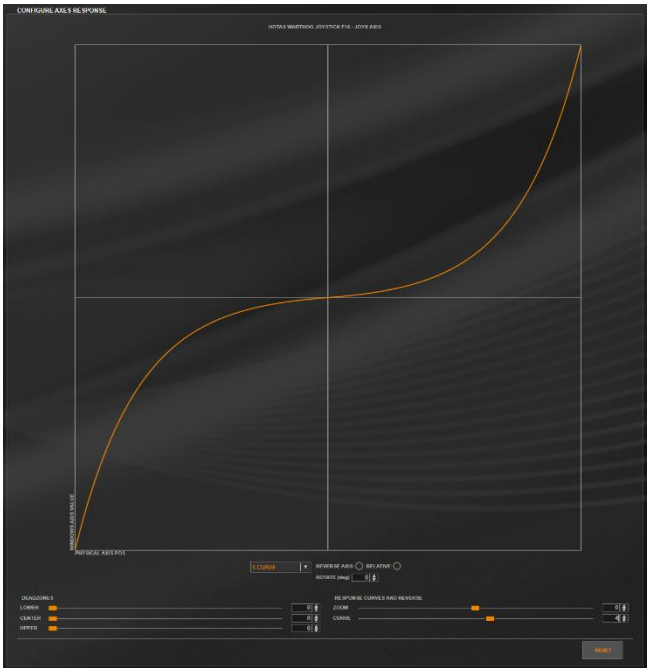
(…curves continued)

Switch	Usage	Action
APALT-O	APALT	Set Joystick and Rudder curves to SLOW (3)
APALT-I	S3+APALT	Set Joystick and Rudder curves to SLOWEST (4)



Throttle APALT (Autopilot ALT)

At a curve profile of 'SLOW' (3) or 'SLOWEST' (4), the Joystick/Rudder response starts quite a bit slower and then gets a fair bit faster the more you move the throttle or rudder from the centre position. This is most useful when learning and using Flight Assist Off (FA-OFF).



Joystick Curves set to 4 (non-linear response)

(…curves continued)

Switch	Usage	Action
S4	S4	1st press - Toggles FA-OFF and sets joystick & rudder curves to the value you choose in the UserSettings file (eg MEDIUM or SLOW) 2nd press - Toggles FA-ON and resets curve profile to the associated autopilot switch setting

Joystick S4 (Pinky lever)

FA-OFF: Status LED 1

The curves that FA-OFF will use can be set via the 'FAOFFCurves' variable within the ED_UserSettings.tmh file. Valid settings are 'OFF', 'MILD', 'MEDIUM' or 'SLOW'

Console printout each time curves change can be enabled via 'CurveInfo' variable within ED_UserSettings.tmh file. Valid settings are 'PRINT' or 'NOPRINT'

Note: The above settings are case sensitive.

(…curves continued)

Axis	Usage	Action
THR_FC	THR_FC	Used to adjust radar range

Throttle THR_FC (Slider)

The slider axis requires 'SetCustomCurve' which is selected automatically depending on flight mode. Flight mode is detected in the script each time your flight mode changes from normal, super cruise, FSS Scanner or DSS Scanning (surface probes, front/rear planet view).

Mode 0: linear. Used for FSS Mode Radar
Curve Profile 0 = (0,0, 25,25, 50,50, 75,75, 100,100)

Mode 1: non-linear. Used for normal flight and SRV
Curve Profile 1 = (0,0, 40,25, 75,50, 85,75, 100,100)
i.e. When slider is at 40%, Windows DX value is at 25% etc.

Mode 2: non-linear. Used for Super cruise
Curve profile 2 = (0,0, 50,10, 75,30, 90,50, 100,100)

Note: J-Curve settings (via 'SetJCurve' statement in script) do not work as well as 'SetCustomCurve'

Most of the settings for each of the curve functions can be found within the ED_UserSettings.tmh file under the 'Axis Curves' section, or in the ED_Functions file (look for fnSetJoystickCurves() and fnSetSliderCurve() functions.

Refer 'Axes' chapter starting on p27 in the Target Script Editor Basics Manual v1.5 for more details on 'S', 'J' and 'Custom' curves.

(…curves continued)

Axis	Usage	Action
SCX	SCX	Slew Control X-Axis. Used for Lateral Thrusters
SCY	SCY	Slew Control Y-Axis. Used for Vertical Thrusters

Throttle SCX (Slew Control) Throttle SCY (Slew Control)

Curves for the Slew Control are also set when we change the Joystick curves.
The three profiles are all set the same (linear) but can be changed via curve arrays within ED_UserSettings.tmh to suit your own tastes.

I use a slight centre dead zone, as this control is quite sensitive.

NOTE: I have modified my WARTHOG HOTAS by replacing the slew control 'nub' with an analogue control replacement that I obtained from:

https://deltasimelectronics.com/products/thumbstick-slew-sensor-adapter

This is a fantastic upgrade to the HOTAS, which I heartily recommend.
It turns what I consider a relatively useless control that I did not/would not use, into something supremely useable which I cannot do without!

Joystick Controller

Switch	Usage	Action
TG1-U	PSF+TG1	Increment Primary Trigger Action - Discovery Scanner Mode - Mining Laser Mode - Pulse Wave Scanner Mode
TG1-M	TG1	Primary trigger default action (press to fire, release to stop)
TG1-D	PSB+TG1	Disco scan. Press+Release to fire. Trigger released after 6.1 secs Mining laser. Press to fire, press to stop Pulse Wave Scanner. Press+Release to start. Pulse sent every 7 seconds. Press+Release to stop

Joystick TG1 (Primary Fire)

(… JOYSTICK continued)

Switch	Usage	Action
TG2	TG2	(not mapped)

Switch	Usage	Action
S1-U	PSF+S1	Toggle HUD between Analysis and Combat Modes
S1-M	S1	Toggle Hard points (normal flight mode) Toggle HUD Mode (in Super Cruise flight mode)
S1-D	PSB+S1	Toggle Joystick X-Axis between ROLL and YAW (if using BASIC profile press ENTER on the KEYPAD to toggle) (handy if you have no rudder)

Joystick S1 (Master Mode Control)

NOTE: When in Super cruise, S1-M toggles HUD mode automatically

(… JOYSTICK continued)

Switch	Usage	Action
S2-U	PSF+S2	Increment Secondary Trigger Action - Discovery Scanner Mode - Mining Laser Mode - Pulse Wave Scanner Mode
S2-M	S2	Secondary trigger default action (press to fire, release to stop)
S2-D	PSB+S2	Disco scan. Press+Release to fire. Trigger released after 6.1 secs Mining laser. Press to fire, press to stop Pulse Wave Scanner. Press+Release to start. Pulse sent every 7 seconds. Press+Release to stop

Joystick S2 (Secondary Fire/Weapons Release)

(… JOYSTICK continued)

Switch	Usage	Action
H1U-U	PSF+H1U	Toggle FSS Mode
H1U-M	H1U	Select Next Fire Group
H1U-D	PSB+H1U	Turn off DSS Mode

Joystick H1U (China Hat – Up)

(… JOYSTICK continued)

Switch	Usage	Action
H1D	H1D	Select Previous Fire Group

Joystick H1D (China Hat – Down)

(… JOYSTICK continued)

Switch	Usage	Action
H1L	H1L	Tempo. Press and hold for 0.5 seconds toggles landing gear Short press does nothing.

Joystick H1L (China Hat – Left)

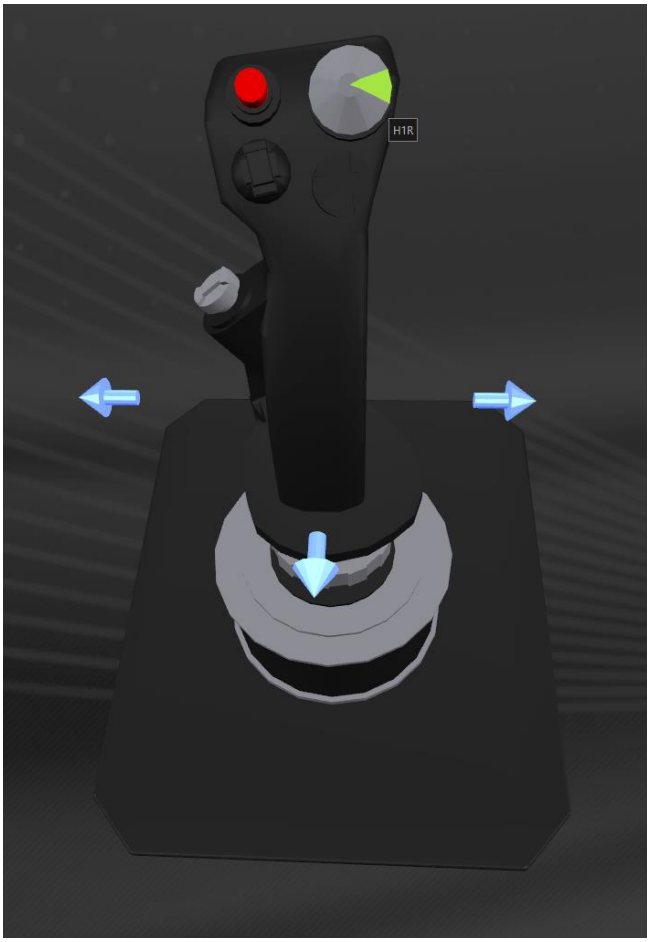
Landing Gear: Status LED 5

Press and hold H1L for 0.5 Seconds to toggle the landing gear.
This prevents accidental deployment during combat if you accidentally hit H1L instead of H1U (Next Fire group) or H1D (Previous Fire group)

The 0.5-second delay can be changed via the 'LongPress' variable defined in the UserSettings file.

(… JOYSTICK continued)

Switch	Usage	Action
H1R-U	PSF+H1R	Toggle Night Vision ON/OFF
H1R-M	H1R	Tempo. Press and hold for 0.5 seconds toggles lights Short press does nothing. Prevents accidental toggle of lights
H1R-D	PSB+H1R	(not mapped)



Joystick H1R (China Hat – Right)

Toggle Lights: Status LED 2

Ship Lights simply toggle ON/OFF

SRV lights cycle ON/HI BEAM/OFF

The 0.5-second delay can be changed via the 'LongPress' variable defined in the UserSettings file.

(… JOYSTICK continued)

Switch	Usage	Action
H2U-U	PSF+H2U	Toggle Planet View, Front/Back (Must be in FSS Mode)
H2U-M	H2U	Select Target Ahead
H2U-D	PSB+H2U	Select Target Ahead

Joystick H2U (Target Designator – Up)

(… JOYSTICK continued)

Switch	Usage	Action
H2D-U	PSF+H2D	(not mapped)
H2D-M	H2D	Select Highest Threat
H2D-D	PSB+H2D	Select Wing Man's Target

Joystick H2D (Target Designator – Down)

(… JOYSTICK continued)

Switch	Usage	Action
H2L-U	PSF+H2L	(not mapped)
H2L-M	H2L	Select next ship
H2L-D	PSB+H2L	Select next wingman (sequences each wingman in turn)

Joystick H2L (Target Designator – Left)

(… JOYSTICK continued)

Switch	Usage	Action
H2R-U	PSF+H2R	(not mapped)
H2R-M	H2R	Select next hostile ship
H2R-D	PSB+H2R	Select Wingman's NAV Lock

Joystick H2R (Target Designator – Right)

(… JOYSTICK continued)

Switch	Usage	Action
H3U	H3U	PIP Management – PIPs to Engines
H3D	H3D	Balance PIPs
H3L	H3L	PIPs to Systems (Shields)
H3R	H3R	PIPs to Weapons

Joystick H3D (Data Mgmt – Up) Joystick H3U (Data Mgmt – Down)

Joystick H3L (Data Mgmt – Left) Joystick H3R (Data Mgmt – Right)

The script has six PIP Modes selectable via H4P (see below)

(… JOYSTICK continued)

Switch	Usage	Action
H4P-U	PSF+H4P	Reset PIP Mode to DefaultPIPMode (set in ED_UserSettings.tmh)
H4P-M	H4P	Select Next PIP Mode. (0 - 5) (5 wraps to 0)
H4P-D	PSB+H4P	Select Previous PIP Mode (5 - 0) (0 wraps to 5)

Joystick H4P (Countermeasures – Press)

PIP Mode 0:	Single PIPs	1 press = 1 PIP
PIP Mode 1:	Double PIPs	1 press = 2 PIPs
PIP Mode 2:	Attack	SYS = [4 0 2], ENG = [0 4 2], WEP = [0 2 4]
PIP Mode 3:	Defend	SYS = [4 2 0], ENG = [2 4 0], WEP = [2 0 4]
PIP Mode 4:	Recharge	SYS = [4 1 1], ENG = [1 4 1], WEP = [1 1 4]
PIP Mode 5:	3+3	SYS = [3 3 0], ENG = [0 3 3], WEP = [3 0 3]

(… JOYSTICK continued)

Switch	Usage	Action
H4U-U	PSF+H4U	'Double Bank' Fire 2x Shield Cell Banks (SCB) + 1x Heatsink
H4U-M	H4U	Tempo. Short Press = Fire 1x SCB, Long Press = 1x SCB + 1x Heatsink
H4U-D	PSB+H4U	FSS or Camera Zoom - IN

Joystick H4U (Countermeasures – UP)

(… JOYSTICK continued)

Switch	Usage	Action
H4D-U	PSF+H4D	(not mapped)
H4D-M	H4D	Fire 1x Heatsink
H4D-D	PSB+H4D	FSS or Camera Zoom – OUT

Joystick H4D (Countermeasures – DOWN)

(… JOYSTICK continued)

Switch	Usage	Action
H4L-U	PSF+H4L	(not mapped)
H4L-M	H4L	Electronic Countermeasures (ECM). Hold to charge, Release to Fire
H4L-D	PSB+H4L	Camera Blur – OUT

Joystick H4L (Countermeasures – LEFT)

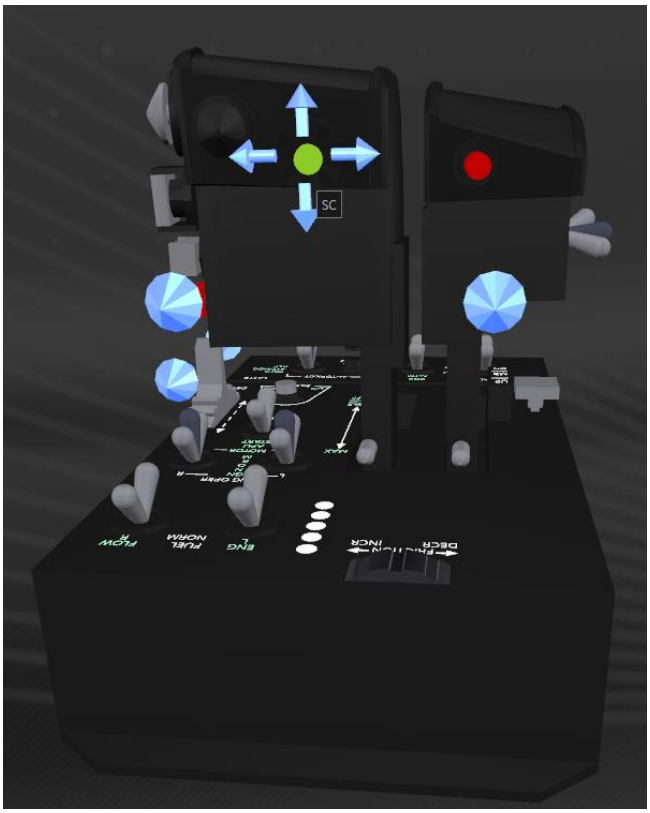
(… JOYSTICK continued)

Switch	Usage	Action
H4R-U	PSF+H4R	(not mapped)
H4R-M	H4R	Fire 1x Chaff
H4R-D	PSB+H4R	Camera Blur – IN

Joystick H4R (Countermeasures – RIGHT)

Throttle Control Lever

Switch	Usage	Action
SC-U	PSF+SC	Toggle Connection status. Shows Bandwidth counter
SC-M	SC	Centres EDTracker
SC-D	PSB+SC	(not mapped)

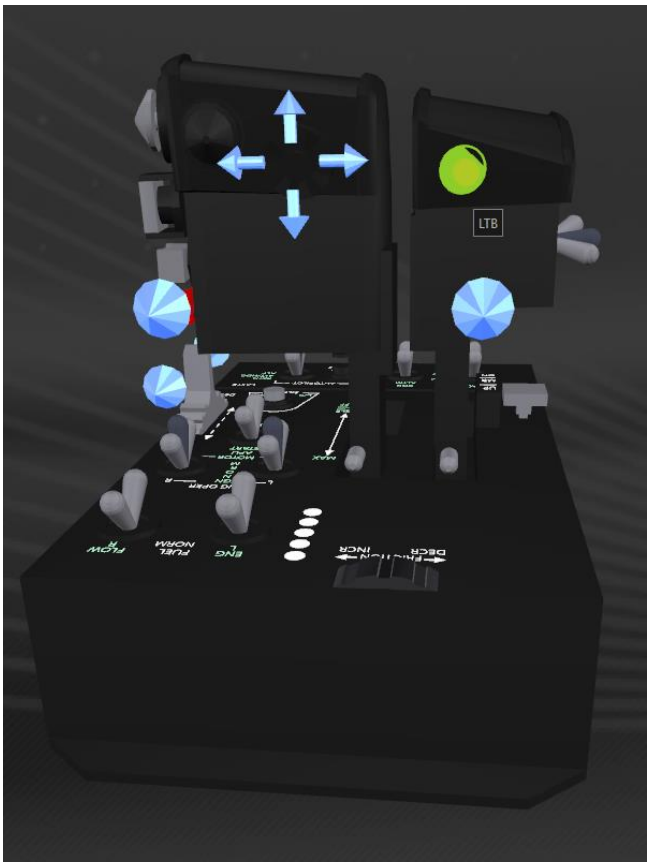


Throttle SC (Slew Control Press Button)

The Slew Control finger controlled mini joystick is also used for lateral thrust

(… Throttle LEVER continued)

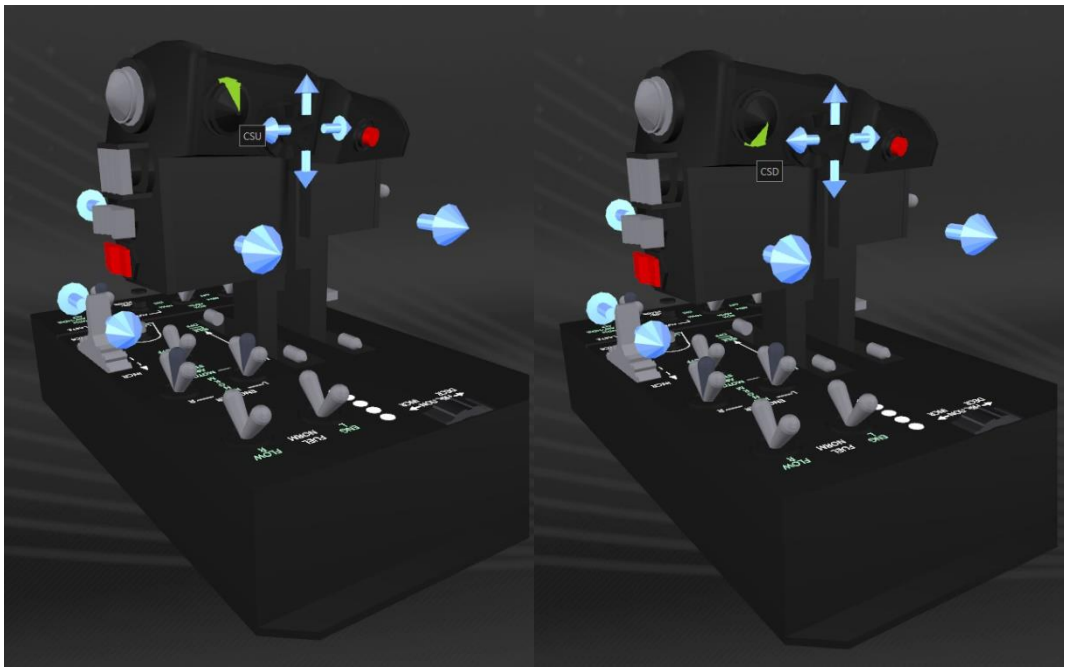
Switch	Usage	Action
LTB-U	PSF+LTB	Toggles external 'free camera view' and turn off GUI
LTB-M	LTB	Toggle Head look ON/OFF
LTB-D	PSB+LTB	(not mapped)



Throttle LTB (Left Throttle Button)

(… Throttle LEVER continued)

Switch	Usage	Action
CSU-I	S3+CSU	Alternate Pitch Up
CSU-O	CSU	Engage/Cancel/Disengage Super cruise
CSD-I	S3+CSD	Alternate Pitch Down
CSD-O	CSD	Engage/Cancel System Jump (Hyperspace)



Throttle CSU (Coolie Switch – UP) Throttle CSD (Coolie Switch – DOWN)

The script can detect a wide range of game states via status.json including if we are in Super cruise versus Hyper jump, when we are Mass Locked, when the FSD is cooling down or charging up.

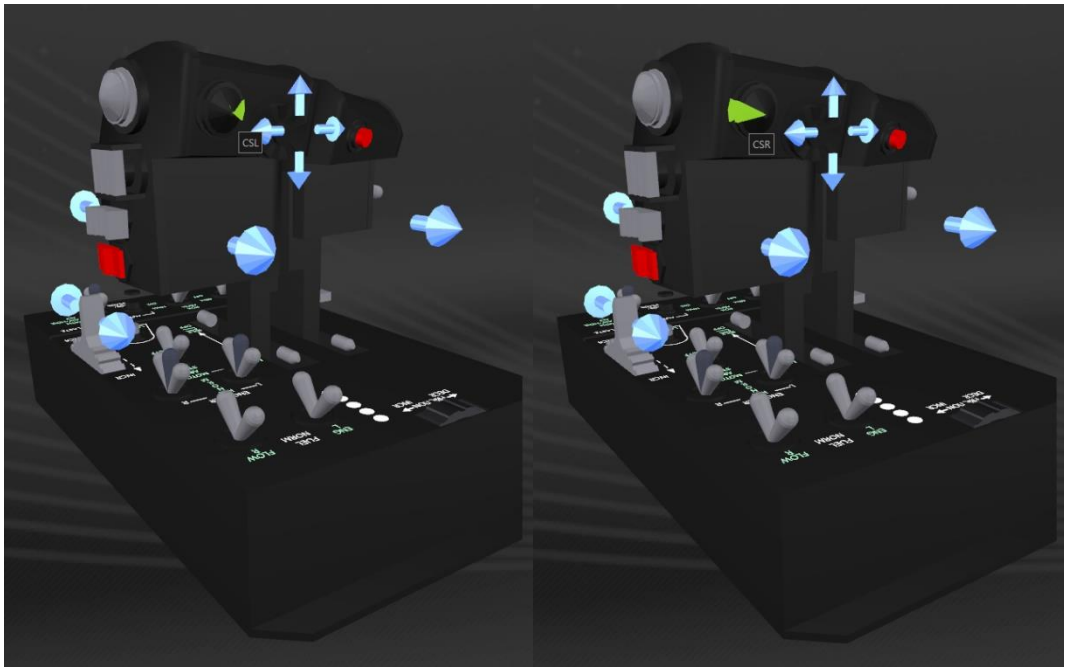
The script also detects when we drop out of Super cruise and if this was initiated or we have dropped out via interdiction, hyperdicted, or drop from orbital cruise etc.

When we Charge the FSD, the script will automatically retract the hard points, landing gear and cargo scoop if needed.

When interdicted, as soon as we drop from Super cruise, the script will automatically select Combat HUD mode, deploy hard points and endeavour to select the highest threat.

(… Throttle LEVER continued)

Switch	Usage	Action
CSL-I	S3+CSL	Alternate Yaw Left
CSL-O	CSL	Select Next System in route
CSR-I	S3+CSR	Alternate Yaw Right
CSR-O	CSR	Toggle Orbit Lines ON/OFF

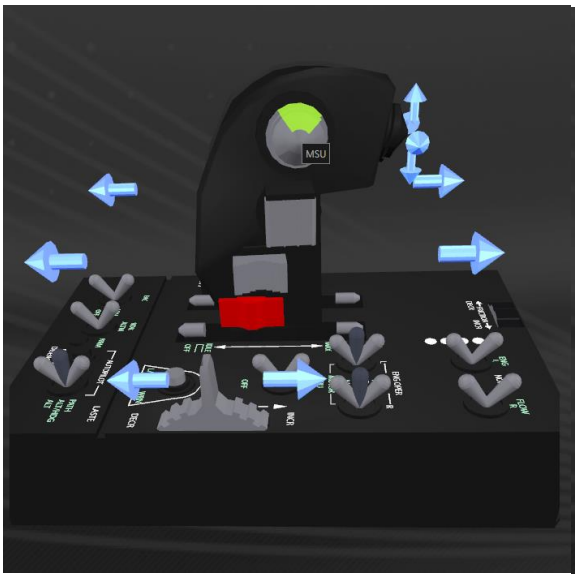


Throttle CSL (Coolie Switch – LEFT) Throttle CSR (Coolie Switch – RIGHT)

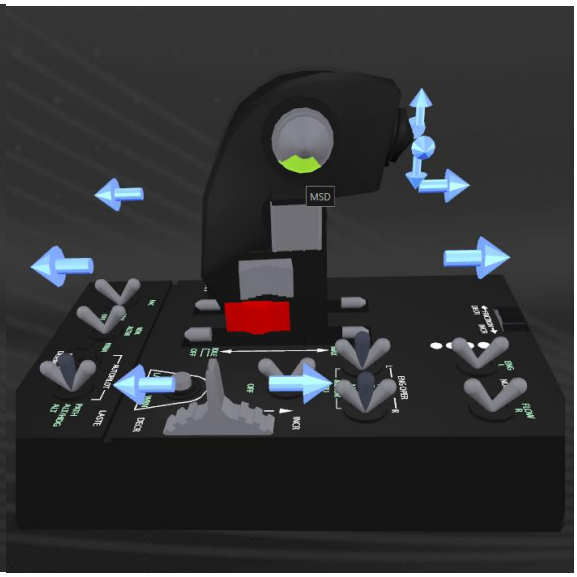
If you do not have a set of rudder pedals, you can yaw the ship using CSL and CSR respectively using the S3 (Joystick pinky button, not lever) IO shift function

(… Throttle LEVER continued)

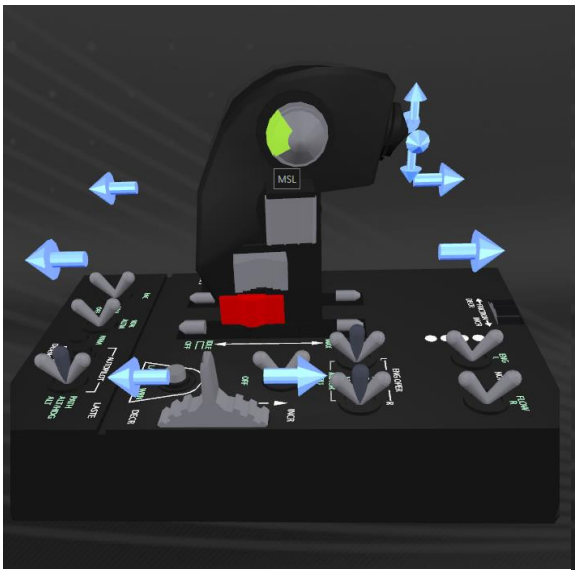
Switch	Usage	Action
MSU	MSU	Select NEXT Comms Channel
MSD	MSD	Select PREVIOUS Comms Channel
MSL	MSL	Output Communications Status
MSR	MSR	Output Communications Status



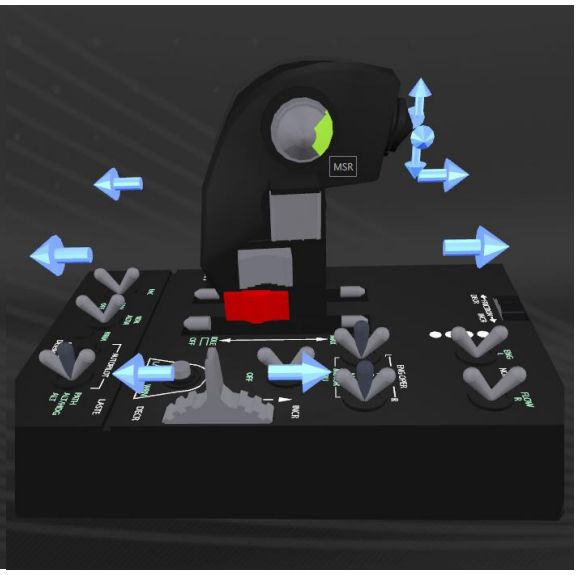
Throttle MSU (Mike Switch – UP)



Throttle MSD (Mike Switch – DOWN)



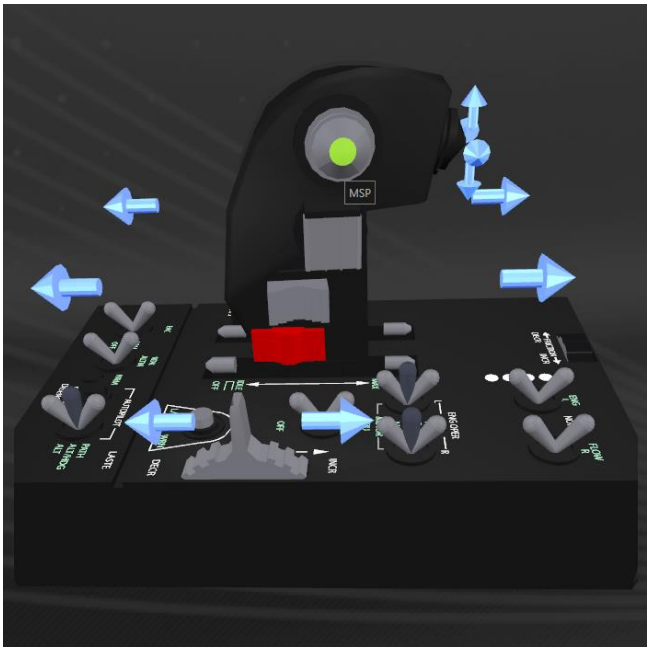
Throttle MSL (Mike Switch – LEFT)



Throttle MSR (Mike Switch – Right)

(… Throttle LEVER continued)

Switch	Usage	Action
MSP-I	S3+MSP	Toggle Push-To-Talk Mode (PTT v Push ON/Push OFF)



Throttle MSP (Mike Switch – PRESS)

The 'Mike Switch' is used for voice communications functions.

(… Throttle LEVER continued)

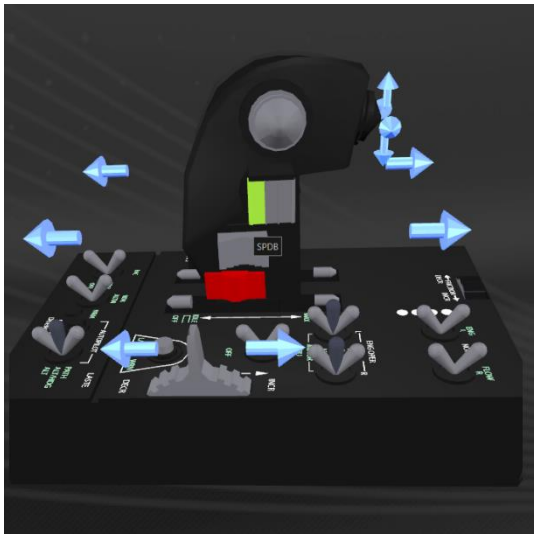
Switch	Usage	Action
SPDF-U	PSF+SPDF	Reverse Thrust (no speed brake)
SPDF-M	SPDF	Reverse Thrust (+Speed brake if hard points are deployed)
SPDF-D	PSB+SPDF	Re-align switch to action if out of synch

The landing gear used as an auto speed brake by hitting 'Reverse' when in normal flight. This will automatically deploy the landing gear, then retract 5 seconds later.
Boost-bleeding can be accomplished by hitting boost, then Reverse.

Reverse thrust turned off when switch returned to middle position.

Throttle SPDF (Speed Brake – FORWARD)

Switch	Usage	Action
SPDB	SPDB	Boost (momentary action switch)

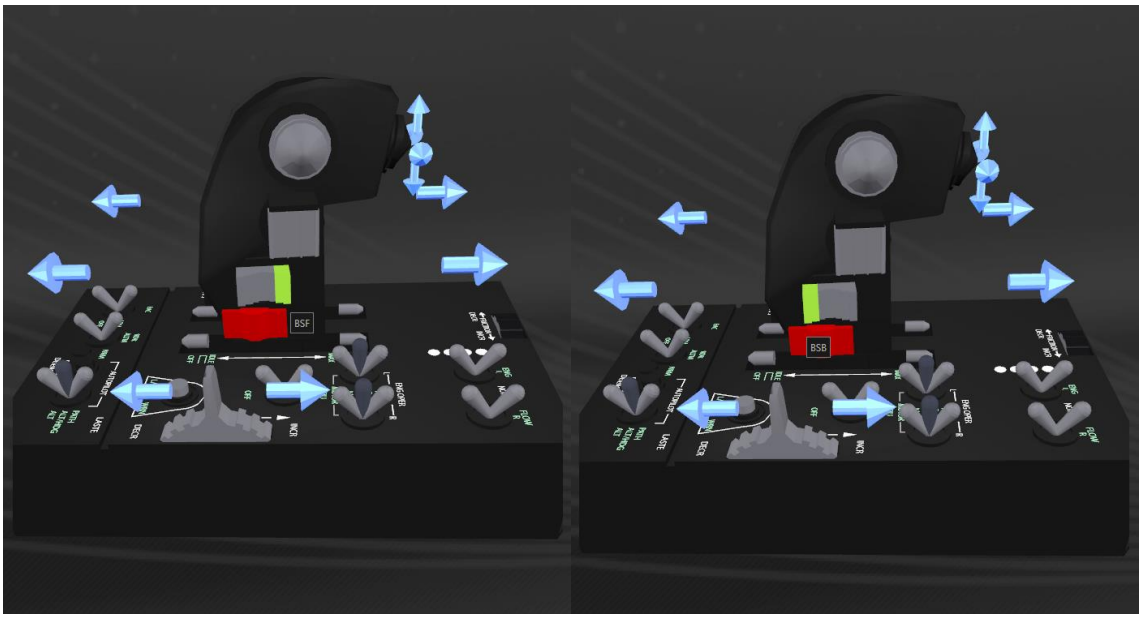


Throttle SPDB (Speed Brake – BACK)

(… Throttle LEVER continued)

Switch	Usage	Action
BSF-U	PSF+BSF	Macro: Toggles Wingman Beacon WING/OFF (Right Panel must be at home position or this won't work)
BSF-M	BSF	(not mapped)
BSF-D	PSB+BSF	Toggle Text-To-Speech feedback ENABLED/DISABLED

Switch	Usage	Action
BSB-U	PSF+BSB	Toggle 'Report Crimes against me' ON/OFF (Right panel must be at home position or this won't work)
BSB-M	BSB	(not mapped)
BSB-D	PSB+BSB	(not mapped)



Throttle BSF (Boat Switch – FORWARD) Throttle BSB (Boat Switch – BACK)

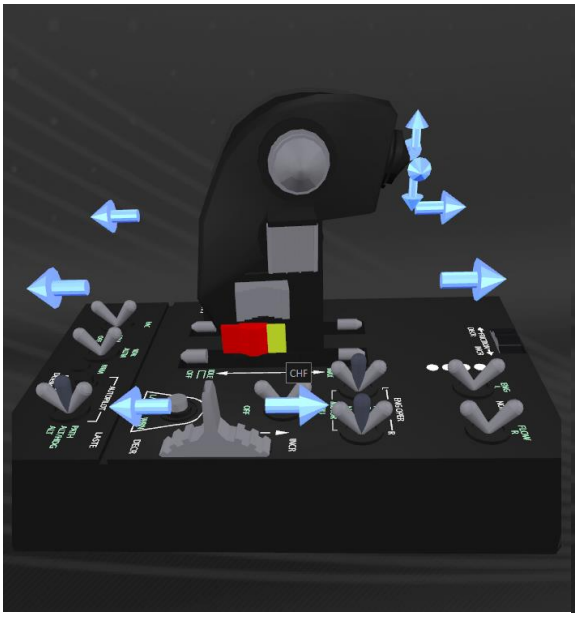
NOTE:
The Wingman Beacon and Report Crimes macros require the SYSTEM Panel (Right Panel) to be at home position or undesired/random results will happen. Home position is the left most TAB in the Top Left position.

If you are used to manually accessing the panels frequently, consider not using these functions, or, get in the habit of returning to the home position manually each time.

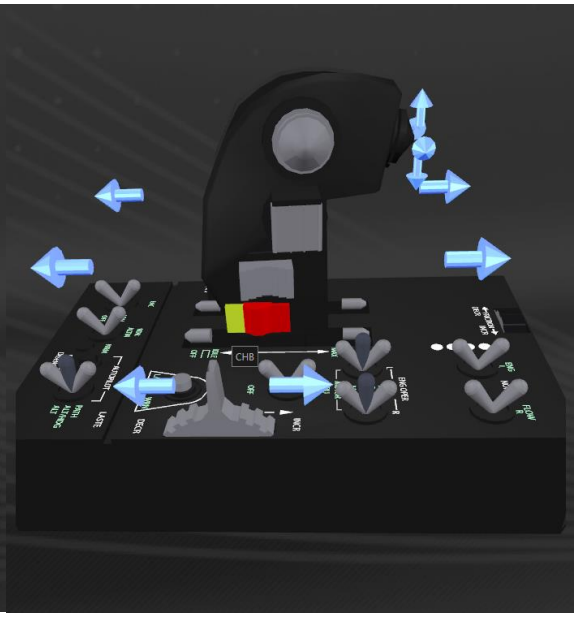
This also applies to the 'Docking Request' macro and NAV (Target) Panel (Left Panel)

(… Throttle LEVER continued)

Switch	Usage	Action
CHF	CHF	Select next subsystem on targeted ship (momentary action switch)
CHB	CHB	Select previous subsystem on targeted ship (momentary action)



Throttle CHF (China Hat – FORWARD)

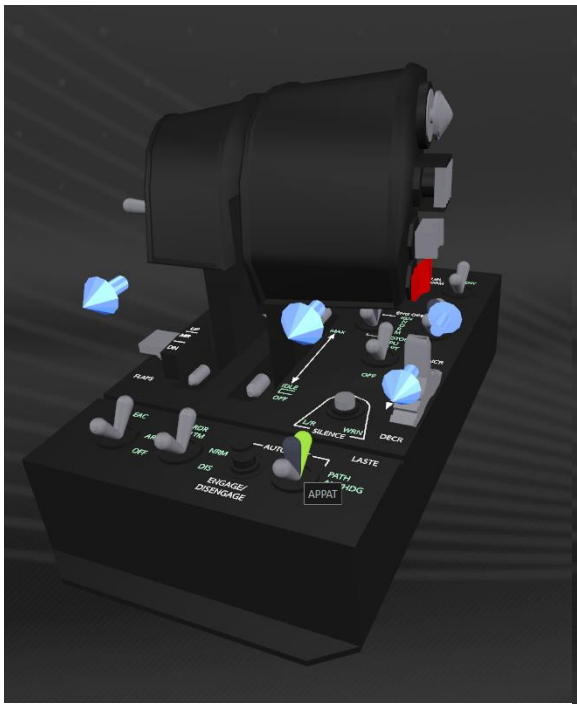


Throttle CHB (China Hat – BACK)

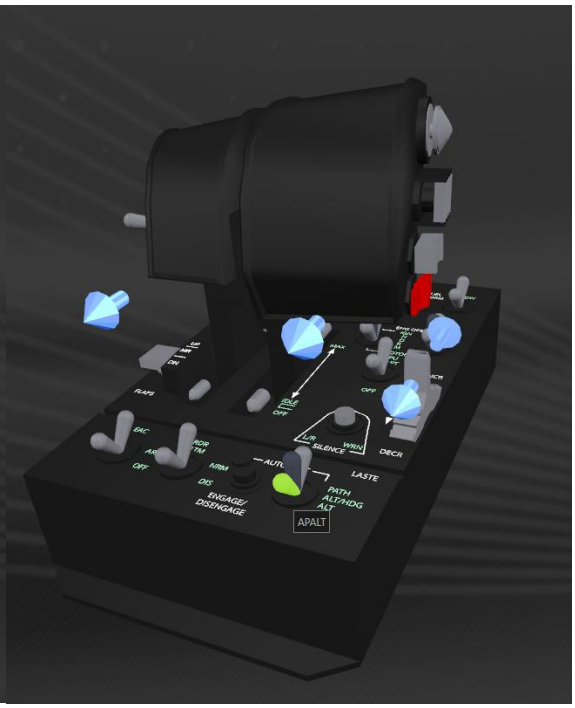
Throttle Control Base

Switch	Usage	Action
APPAT-O	APPAT	Set Joystick/Rudder curves to MILD
APPAT-I	S3+APPAT	Set Joystick/Rudder curves to MEDIUM
APAH	APAH	Set Joystick/Rudder curves to OFF
APALT-O	APALT	Set Joystick/Rudder curves to SLOW
APALT-I	S3+APALT	Set Joystick/Rudder curves to SLOWEST

Refer to Axis Curves and Curve Control



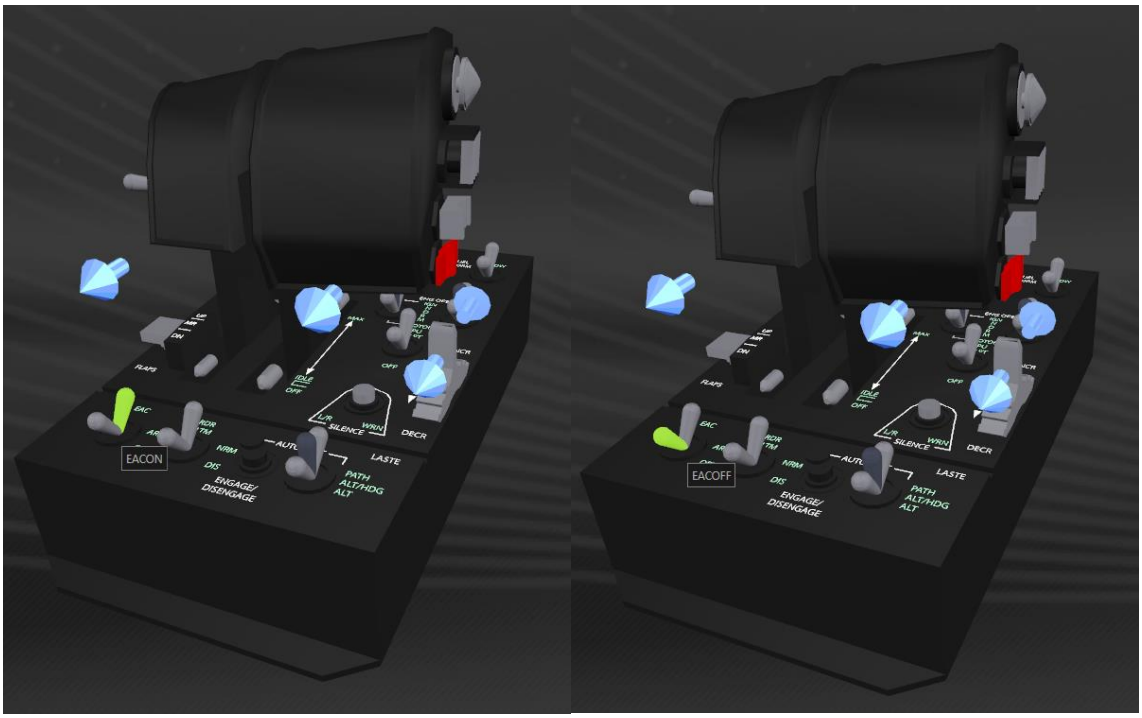
Throttle APPAT (Auto Pilot - Path)



Throttle APALT (Auto Pilot - ALT)

(… Throttle BASE continued)

Switch	Usage	Action
EACON-I	S3+EACON	Toggle Silent Running – STROBE
EACON-O	EACON	Toggle Silent Running – ON
EACOFF	EACOFF	Toggle Silent Running – OFF



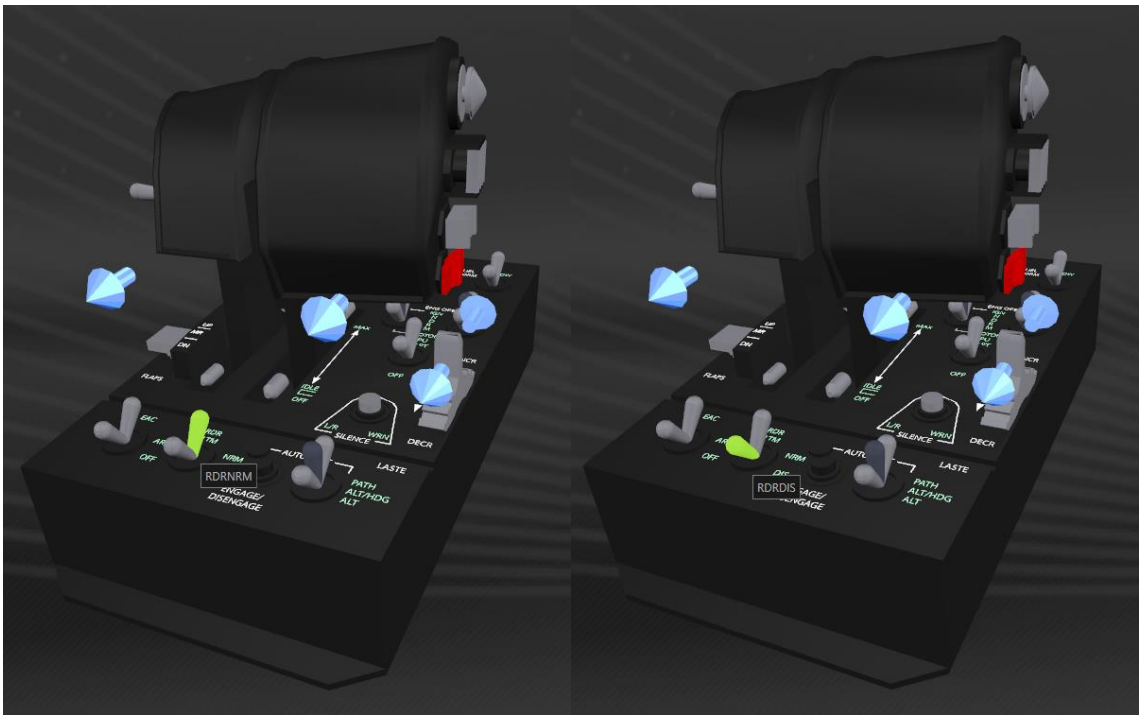
Throttle EACON (Enh Attitude Control – ON) Throttle EACOFF (Enh Attitude Control – OFF)

Silent Running: Status LED 3

STROBE mode toggles Silent Running on/off every 2 seconds. This breaks target lock of attacking ships.

(… Throttle BASE continued)

Switch	Usage	Action
RDRNRM-IU	S3+PSF+RDRNRM	Jettison Cargo
RDRNRM-OU	PSF+RDRNRM	(not mapped)
RDRNRM-IM	S3+RDRNRM	(not mapped)
RDRNRM-OM	RDRNRM	Deploy Cargo Scoop
RDRNRM-ID	S3+PSB+RDRNRM	(not mapped)
RDRNRM-OD	PSB+RDRNRM	(not mapped)
RDRDIS	RDRDIS	Retract Cargo Scoop



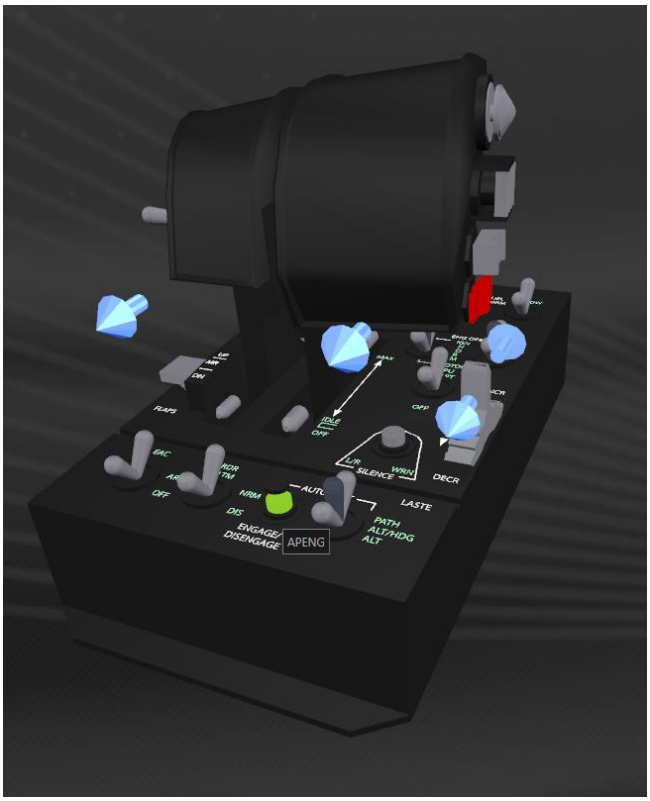
Throttle RDRNRM (Radar Altimeter – NRM) Throttle RDRDIS (Radar Altimeter – DIS)

Cargo Scoop: Status LED 4

Jettison Cargo: Jettisons all cargo in cargo hold. Using both S3+PSF when flicking RDRNRM is about as safe as I can make this!

(… Throttle BASE continued)

Switch	Usage	Action
APENG-I	S3+APENG	Enter Hanger and go to Hanger Services
APENG-O	APENG	Request docking permission (NAV/Target Panel must be in home position or this will not work)



Throttle APENG (Autopilot Engage Button)

Request docking macro fires a sequence of keystrokes to request docking then returns the selector back to the 'home position' in the NAV panel.

When you move within the panels manually, there is no tracking mechanism and my code will not know if we are starting from the 'home' position.

If the NAV panel is not at the 'home position' when you hit this switch, unpredictable results will happen…USE WITH CAUTION!

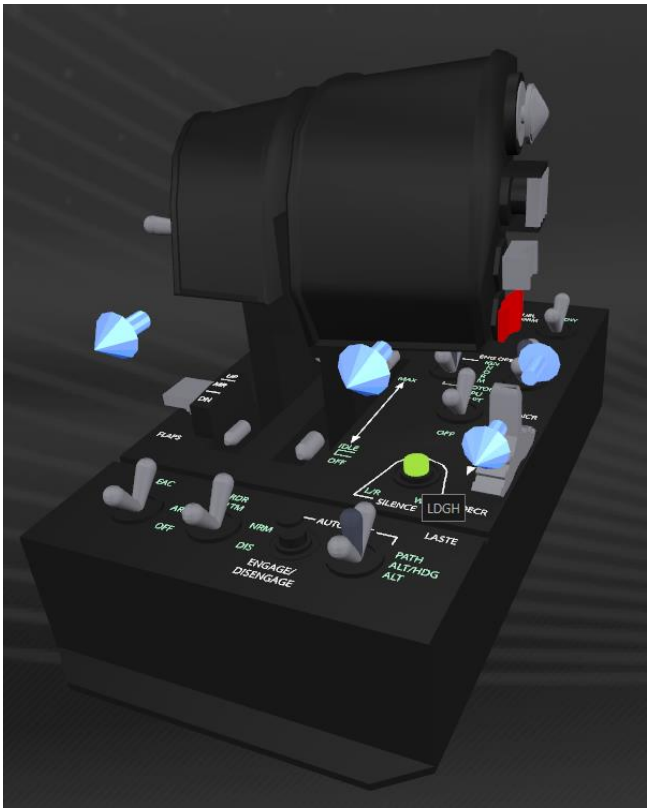
The docking request macro will also set 4x PIPs to SYS and 2x PIPs to ENG. If 'AutoGearDOWN' is set in ED_UserSettings the landing gear will deploy automatically.

The script also detects when you touch down and will balance PIPs one second after you touch down.

If 'AutoGearUP' is set in ED_UserSettings, the landing gear will automatically retract when you lift off.

(… Throttle BASE continued)

Switch	Usage	Action
LDGH-I	S3+LDGH	Clear all chat box windows
LDGH-O	LDGH	Clear currently selected Chat box



Throttle LDGH (Landing Gear Horn Silence Button)

The 'clear chat box' macros send the following key sequence to the selected chat box;

enter, /, c, l, e, a, r, enter

NOTE:
As written, the Clear all Chat box windows macro will clear both chat boxes.

If you are a member of a squadron, there will be 3x chat boxes.
Look for the 'ClearAllChatBox' macro in EDMacros.tmh file and remove the comments ("//") from the third sequence.

(… Throttle BASE continued)

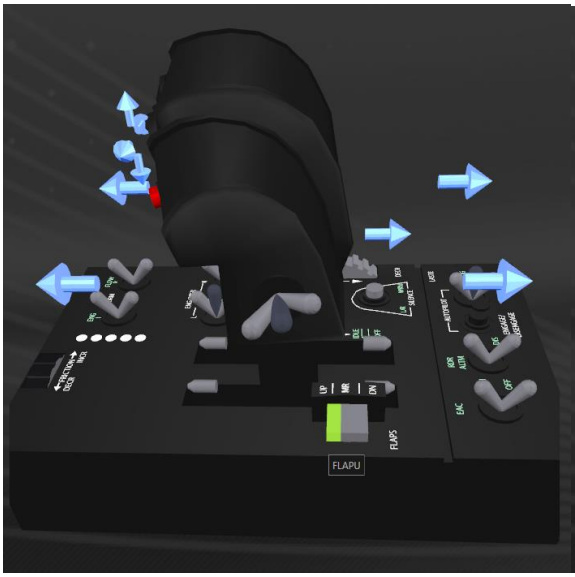
Switch	Usage	Action
FLAPU-U	PSF+FLAPU	Increase Text-To-Speech Volume
FLAPU-M	FLAPU	Go to Galaxy Map
FLAPU-D	PSB+FLAPU	Increase Throttle LED Brightness (0 → 5 → 0)

Switch	Usage	Action
FLAPD-U	PSF+FLAPD	Decrease Text-To-Speech Volume
FLAPD-M	FLAPD	Go to System Map
FLAPD-D	PSB+FLAPD	Turn Throttle LEDs OFF
FLAPDR-D	PSB+FLAPDR	Turn Throttle LEDs back ON

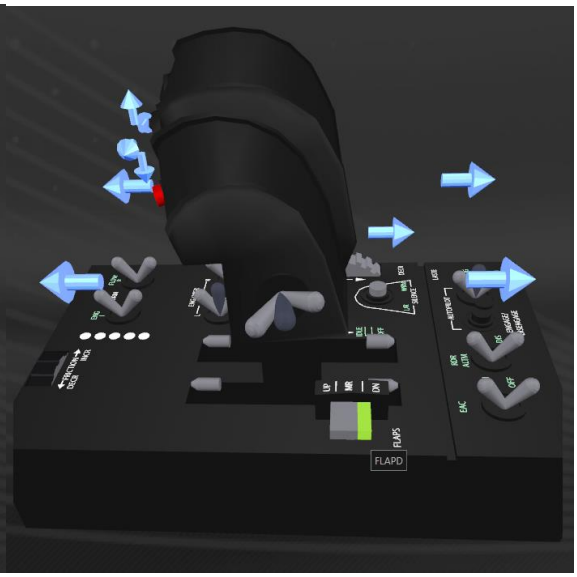
Increase and decrease Text-To-Speech Volume changes volume of the Voice feedback in increments of 5%. Example: To lower the volume by 10%, use PSF+FLAPD twice. (Lowest volume = 5%)

Turn LEDs OFF by PSB+FLAPD. If you move the PSF modifier switch back to its default PSM position then move the Flaps switch back to M, the LEDs stay off.

To turn them back on, simply toggle PSB+FLAPD and back to middle.



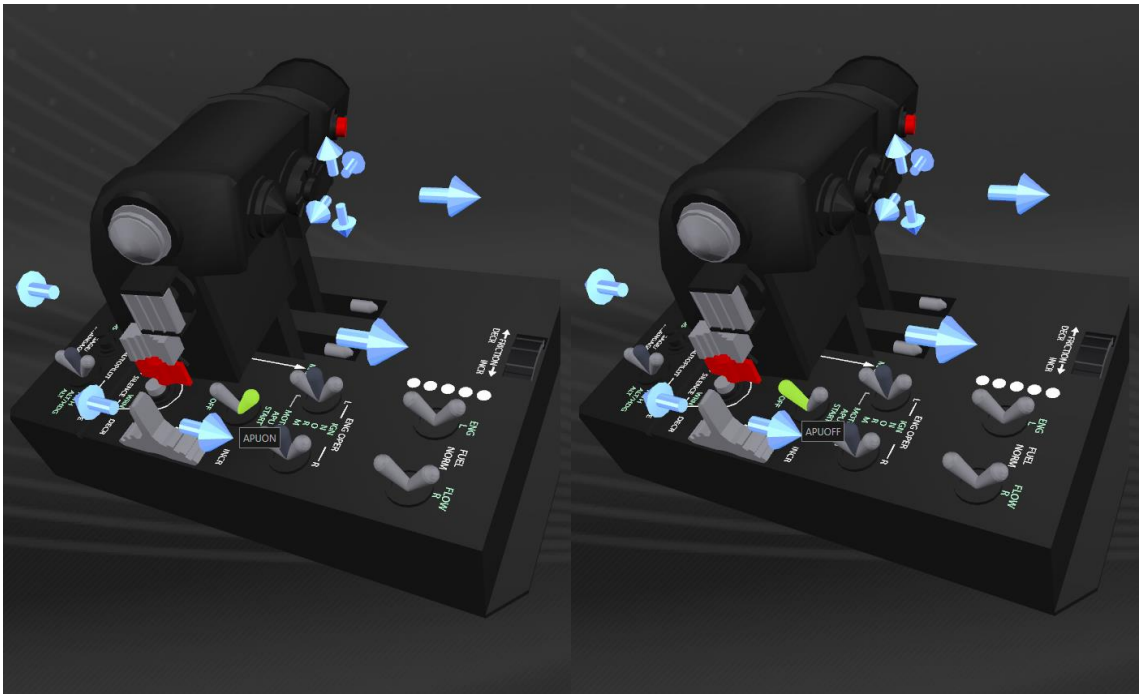
Throttle FLAPU (Flaps UP)



Throttle FLAPD (Flaps Down)

(… Throttle BASE continued)

Switch	Usage	Action
APUON	APUON	Deploy SRV ROLE Panel must be in home position or this will not work
APUOFF	APUOFF	Recover SRV ROLE Panel must be in home position or this will not work



Throttle APUON (Aux Power Unit – START) Throttle APUOFF (Aux Power Unit – OFF)

DEPLOY SRV:
The script cannot check the presence of an SRV.
If you use this function with no SRV, unpredictable results will happen.
The ROLE Panel (lower panel) must be in the Home position for this macro to work.
The script checks that you are landed, however, make sure you have an SRV!

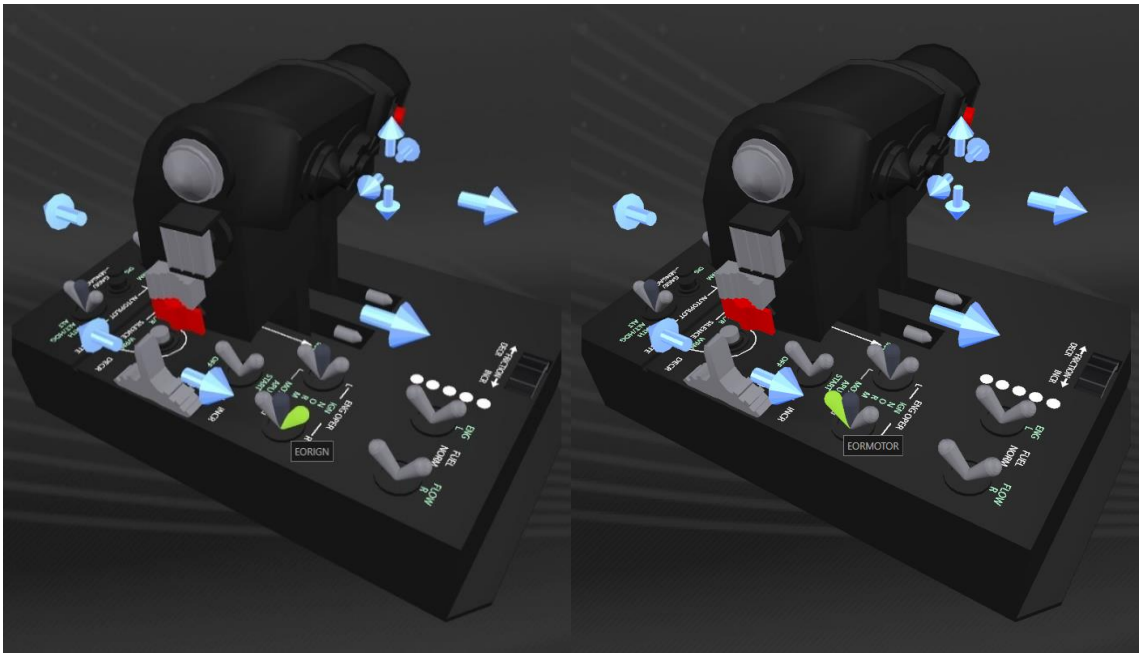
RECOVER SRV:
The script cannot currently detect when you are directly under the ship ('boarding light' on).
It will check when the turret is stowed (which means you are close).
If you use this function when not directly under the ship, unpredictable results will happen.
The ROLE Panel (lower panel) must be in the Home position for this macro to work.
Make sure the 'Boarding Light' is lit before flicking the APUOFF switch.

WARNING:
I've seen some unpredictable behaviour in the RECOVER macro at times and am yet to make this macro 100% reliable.

This script macro positions the selector but does not send 'enter' in case it is not at the correct menu option.

(… Throttle BASE continued)

Switch	Usage	Action
EORIGN	EORIGN	Dismiss/Recall Ship (momentary action)
EORMOTOR	EORMOTOR	Toggle Ship GUI OFF/ON



Throttle EORIGN (Engine Operate – IGNITION) Throttle EORMOTOR (Engine Operate – MOTOR)

Dismiss/Recall Ship:

This function is only useful if you are not planning to stray too far away from your landed ship, or if you are in the habit of dismissing your ship every time you deploy the SRV.

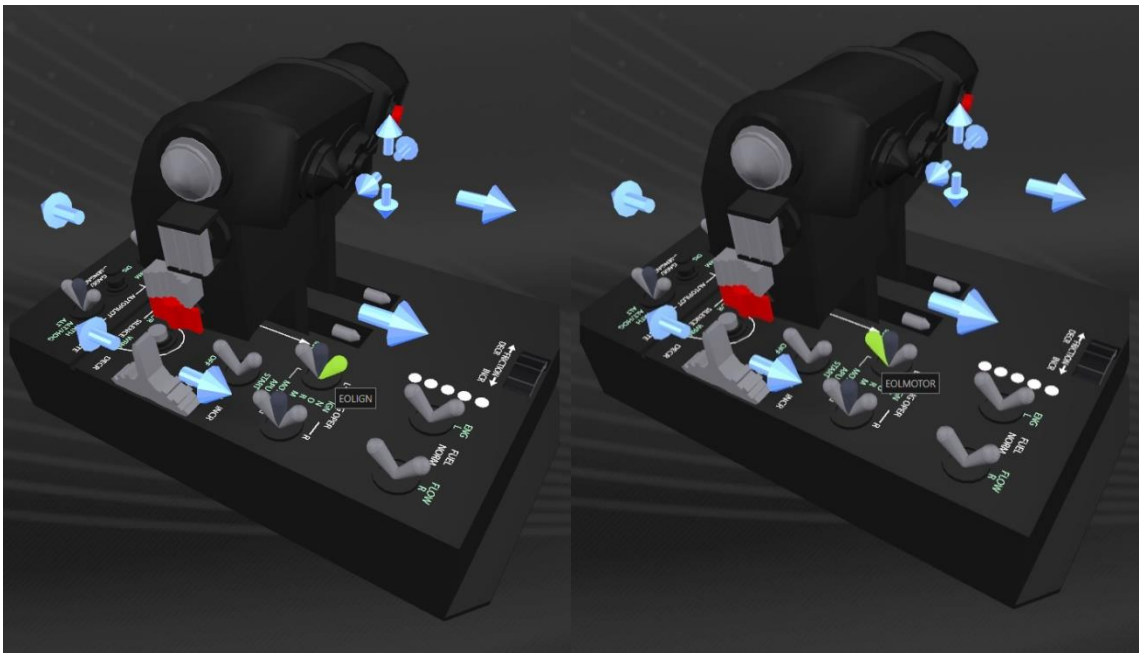
The Flags key value in status.json does not have a bit representing if the Ship is landed nearby or if it was dismissed. I have implemented my own status variable for this, however if you manually dismiss the ship via keyboard or mouse interaction, or if the ship flies off after you wander far enough away, this variable will not be able to be tracked.

This results in the voice feedback potentially being wrong.
(I have turned off voice feedback for this function for now, however the code still exists.)

(… Throttle BASE continued)

Switch	Usage	Action
EOLIGN-U	PSF+EOLIGN	Game Mode Switch to OPEN
EOLIGN-M	EOLIGN	Game Mode Switch to PRIVATE GROUP
EOLIGN-D	PSB+EOLIGN	Game Mode Switch to SOLO

Switch	Usage	Action
EOLMOTOR	EOLMOTOR	Toggle Engine and Weapon Colours



Throttle EOLIGN (Engine Operate – IGNITION) Throttle EOLMOTOR (Engine Operate – MOTOR)

Game Mode Switch:
This macro exits the game to the main menu and logs back in to which ever mode you selected via the PSF/PSM/PSB switch.

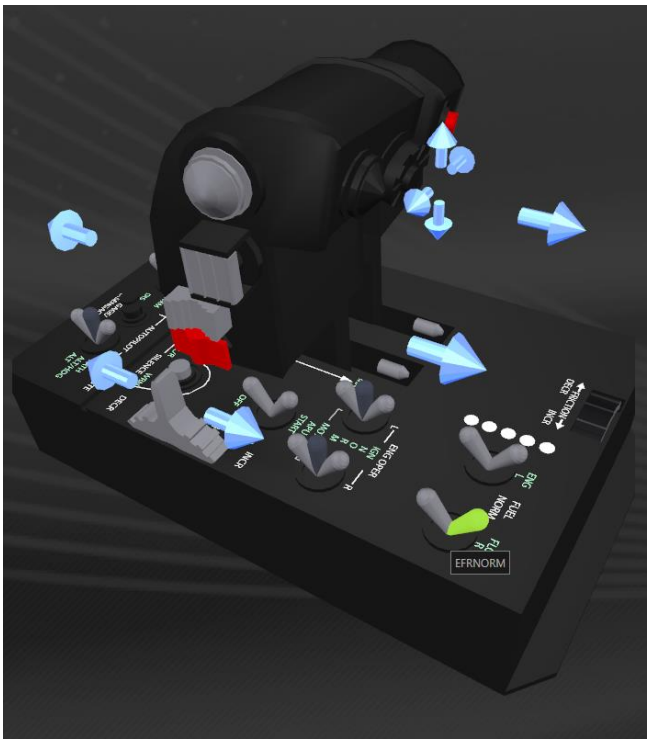
The script checks for and sets various ship systems that are reset as part of a Menu log or game restart.

These include the Cargo Scoop, Reverse Thrust and Silent Running.
Last time I checked, FA-OFF and the condition of the lights, are not reset.

NOTE: This Mode Switching macro will not fire if you are in danger (ie Combat) and so cannot be used to Combat Log (clog) on your opponent.

(… Throttle BASE continued)

Switch	Usage	Action
EFRNORM-U	PSF+EFRNORM	Debug tool: Dump Flags to console (see note below)
EFRNORM-M	EFRNORM	Debug tool: Reset Status LEDs (see note below)
EFRNORM-D	PSB+EFRNORM	Debug tool: Print Status Page banner to console



Throttle EFRNORM (Fuel Flow Right – NORMAL)

Dump Flags to Console:

Will print out all currently *set* 'Flags' and 'Flags2' bits from status.json to the console.

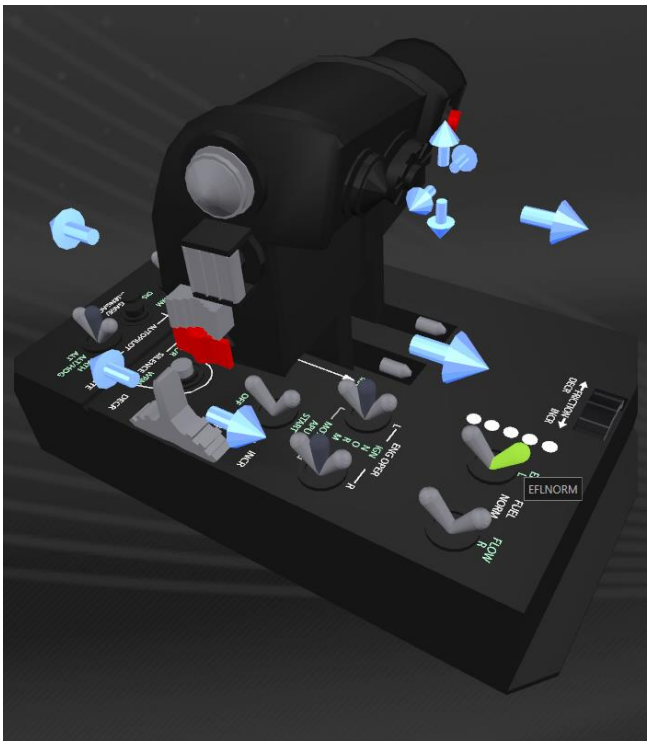
Reset Status LEDs:

If the Status LEDs are toggled in quick succession, they can occasionally go out of synch. Using EFRNORM will force the script to align the LEDs to the values of status.json 'Flags' bits.

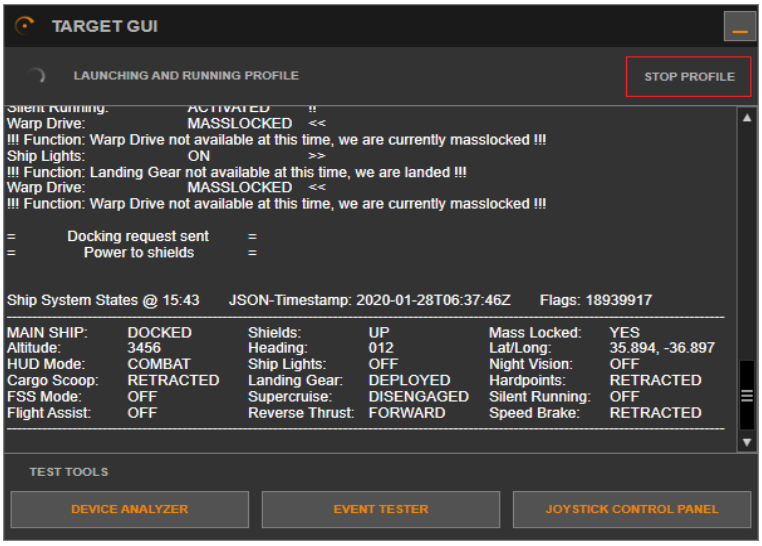
LED	Status	LED on	flag bit variable
LED1	Flight Assist	OFF	fFAOff
LED2	Ship/SRV Lights	ON	fLights
LED3	Silent Running	ON	fSilentRunning
LED4	Cargo Scoop	DEPLOYED	fCargoScoop
LED5	Landing Gear	DEPLOYED	fLandingGear

(… Throttle BASE continued)

Switch	Usage	Action
EFLNORM-U	PSF+EFLNORM	Debug Tool: Turn 'ShowFlags = ON'
EFLNORM-M	EFLNORM	Debug Tool: Turn 'Debug = ON'
EFLNORM-D	PSB+EFLNORM	Debug Tool: Turn 'Debug' and 'ShowFlags' = ON
EFLOVER	EFLOVER	Debug Tool: Turn 'Debug' and 'ShowFlags' = OFF



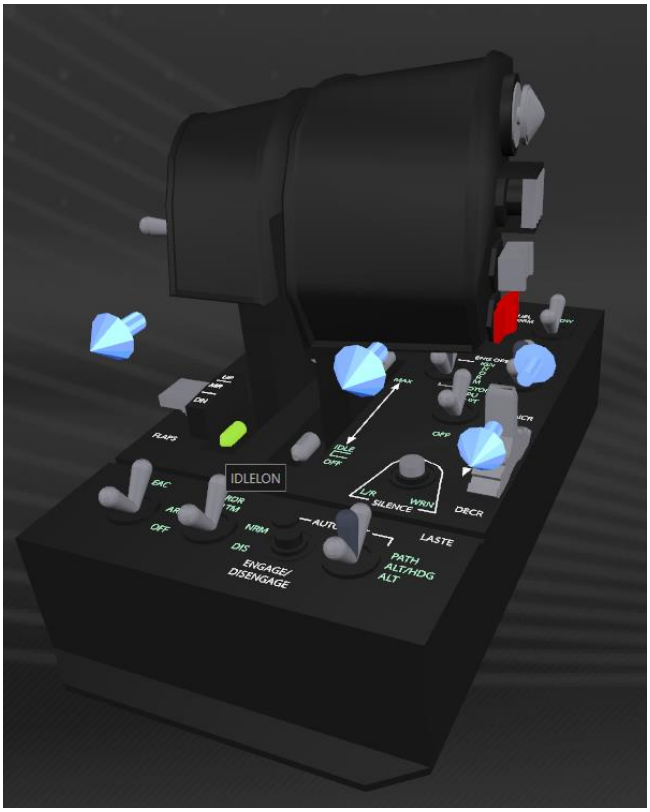
Throttle EFLNORM (Fuel Flow Left – NORMAL)



Example of Status Page

(… Throttle BASE continued)

Switch	Usage	Action
IDLELON	IDLELON	Ship: Enter Hanger and Station Services SRV: Toggle hand brake on
IDLELOFF	IDLEOFF	Ship: Exit Hanger and Lift off (retract landing gear) SRV: Toggle hand brake off



Throttle IDLELON (Engine Idle – LEFT)

Engine Idle ON LEFT/RIGHT:

To engage Engine Idle Switch, from the Throttle all the way back position, LIFT and move back over the notch.

Engine Idle OFF LEFT/RIGHT:

From the Engine Idle ON position (lifted + all the way back), move the Throttle lever forward until it drops back off the notch.

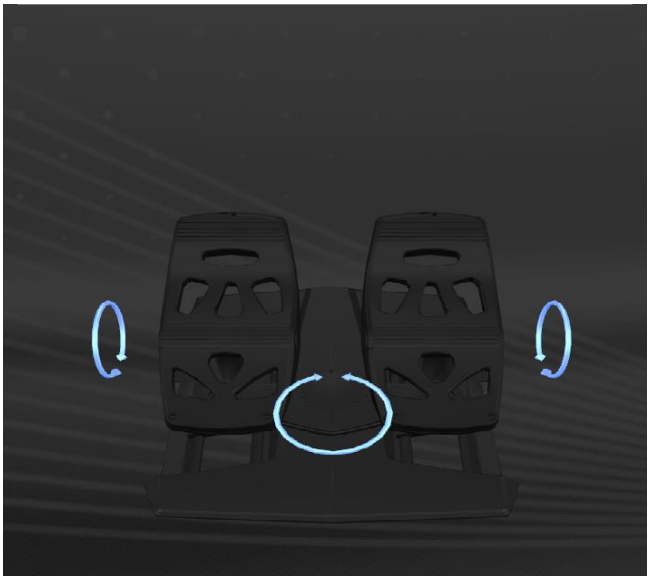
TFRP Rudder Controller

The rudder pedals provide yaw for the ship and steering for the SRV.

Curves may be applied to the rudder via the autopilot switch and can be customised within the ED_UserSettings.tmh file.

Curves are turned off by flicking the Autopilot switch to the 'ALT/HDG' position (APAH).

These curves are linked to the Joystick curve profile.
Refer to the 'Axis Curves and Curve Control' section.



TFRP Rudder Pedals

Note:

The Toe Brakes are not currently mapped in this script.

Keyboard Key Binds

Notable keys (generally no script function mapped):

Key	Label	Action
RSHIFT+W	RollLeft	Alternate Roll Control – Left (mapped if no rudders)
RSHIFT+S	RollRight	Alternate Roll Control – Right (mapped if no rudders)
RSHIFT+Q	YawLeft	Alternate Yaw Control – Left (mapped if no rudders)
RSHIFT+E	YawRight	Alternate Yaw Control – Right (mapped if no rudders)
NP-3	SetSpeed75	Sets Throttle to 75% (Blue Zone)
X	SetSpeed0	Set Throttle to 0 (or SRV Handbrake)
NP-Enter	SwapRollYaw	Swaps Roll axis and Yaw Axis (Mapped to S1-D)
LALT+B	FighterDock	Send Dock order to fighter
LALT+D	FighterDefend	Send Defend order to fighter
LALT+A	FighterAggr	Send Aggressive order to fighter
LALT+T	FighterAttack	Send Attack order to fighter (focus on my target)
LALT+H	FighterNoFire	Send Hold fire order to fighter
LALT+S	FighterHold	Send hold position order to fighter
LALT+F	FighterFollow	Send follow me order to fighter
LALT+O	FighterOpen	Send open orders to fighter
LALT+W	WeaponColour	Swaps Weapon Colour On/Off
LALT+E	EngineColour	Swaps Weapon Colour On/Off
RALT+F11	GalNetPlay	Toggle Play/Pause GalNet Audio
RALT+F10	GalNetPrev	Select previous GalNet item to play
RALT+F12	GalNetNext	Select next GalNet item to play
RALT+F9	GalNetClear	Clear the GalNet Audio Queue
LCTRL+1-9	CameraPreset1-9	Cycle Camera pre-sets

Note:

Multi crew key binds are not currently used in this script nor mapped in the bind files

Fighter commands are not currently used in the script, however these are present in the bind files

(… Keyboard Keybinds continued)

Full Keybind Listing Refer to following files;

File	Location
ED_Defines.ttm	Script folder
KeyBinds.xls	Maps folder
Keyboard Usage.png	Maps folder

…or the below pages;

Joystick Map – BASIC and FULL

Throttle Map – BASIC and FULL

Key Bind Sheet

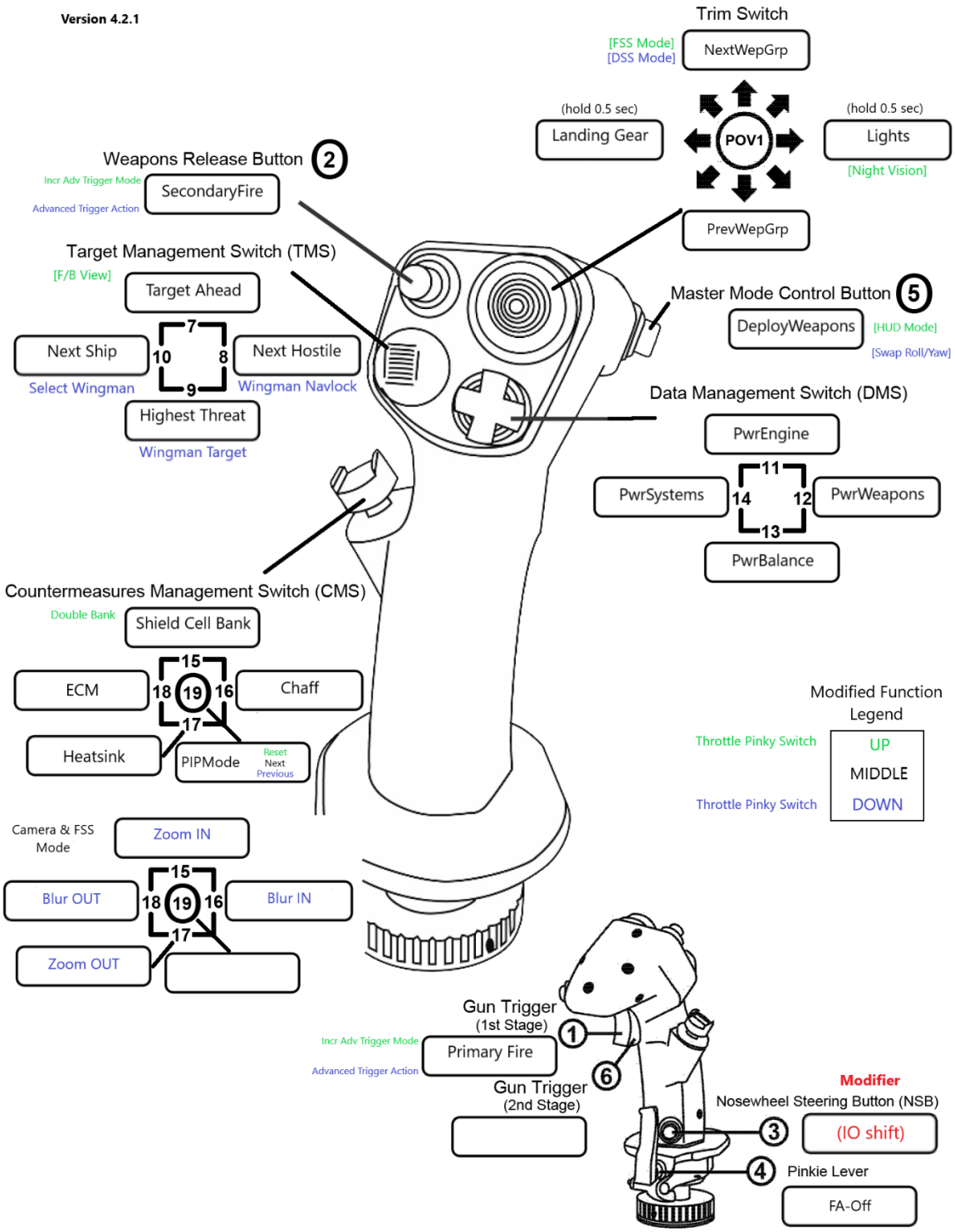
ED_UserSettings File

Variable	Default	Use
MapKeyProfile	FULL	Use all macros and functions
FlashLEDs	ENABLED	Enables flashing base LEDs at startup and status LEDs when status changes
LEDLevel	1	Sets the LED brightness level on the Throttle base (0 – 5)
StatusFile	<string>	Pathname for Elite Dangerous 'status.json' file
StatusReadRate	500	Loop timer (in msec) that the script will read status.json
MyStatusFile	<string>	Pathname for extra state flags to be saved (Refer to chapter on "Special Functions" later in this guide)
EnableVoice	ENABLED	Enables the TextToSpeech engine (voice feedback)
VoicePath	<string>	Pathname to 'voice.exe'
VoiceVolume	75	Default volume for TextToSpeech Voice
"TTS Voice name"	<alias>	Short name for TTS Voices installed and enabled on your PC
DefaultVoice	<alias>	Set to your preferred (installed) MS TTS Voice
VoiceCMD	<string>	Command line options for voice.exe
TrainingMode	ENABLED	Enables 'training mode'. When game is not running, pressing a button or switch will announce what it does via voice feedback and console printout
AnnounceTraining	ENABLED	Announces if Training Mode is available/active
EnableSoundFX	ENABLED	Enables the SoundFX Engine (.wav file player)
SoundPath	<string>	Pathname to 'sounder.exe'
WAVPath	<string>	Pathname to wav files for SoundFX
SoundCMD	<string>	Command line options for sounder.exe
DefaultPIPMode	3	Select your choice of 6 PIPModes as the default
PulseTime	33	Key press (hold down) time (in msec)
DelayTime	75	Delay between releasing one key and press the next (msec)
LongPress	500	Used for 'TEMPO' delay (msec). Hold key for 'LongPress' to trigger second action
DiscoDelay	6100	Trigger mode for Discovery Scanner. Holds trigger for 'DiscoDelay' milliseconds then releases (6.1 seconds)

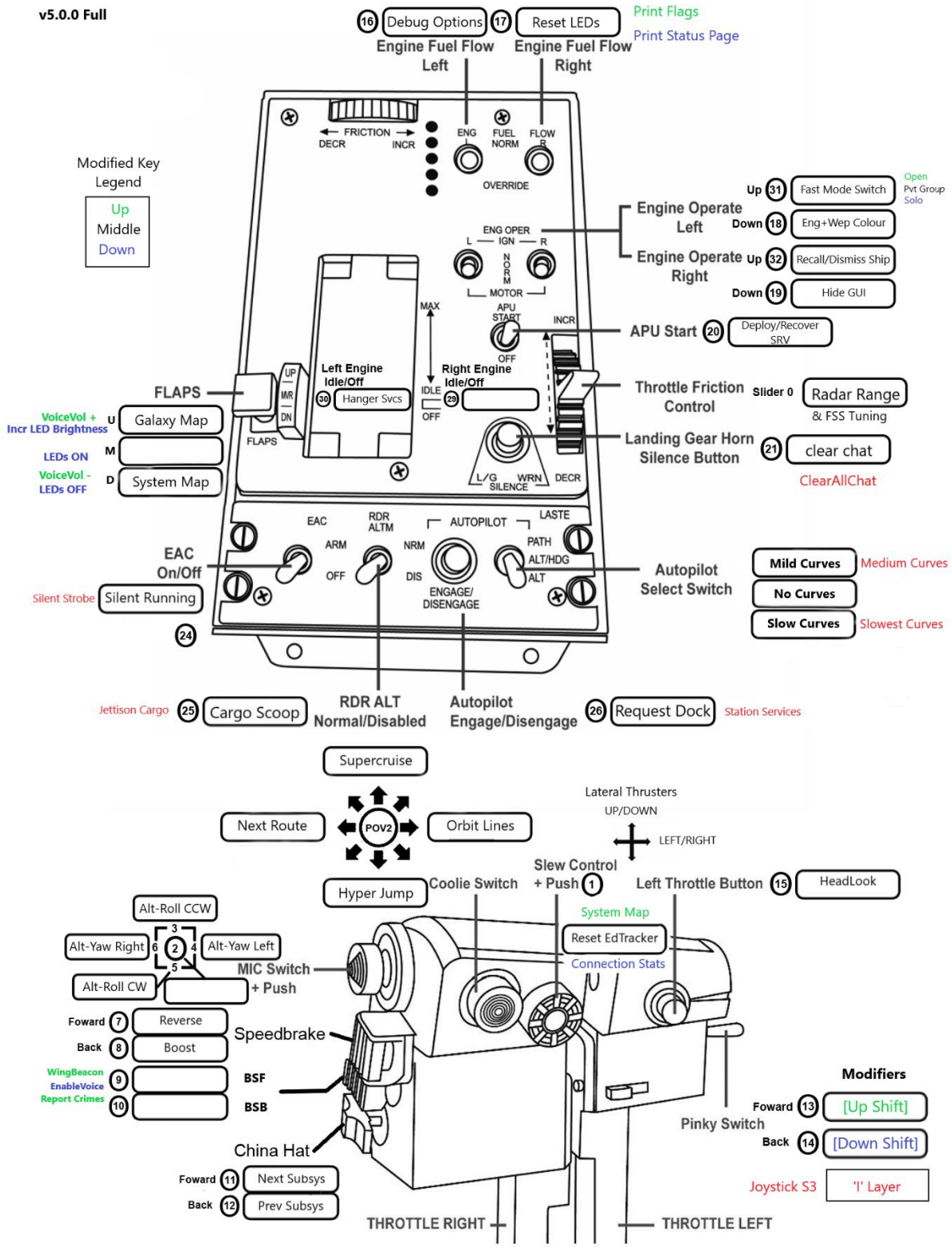
(… Ed_UserSettings File continued)

AutoHanger	DISABLED	When enabled will enter hanger and select station services automatically when you dock
AutoHUD	DISABLED	Enable to automatically engage Analysis Mode when going into super cruise
AutoGearUP	DISABLED	Raises Landing Gear automatically when you lift off
AutoGearDOWN	DISABLED	Lowers the Landing gear when you request docking perm
AutoHeatsink	ENABLED	Fire a heatsink when temperature hits 100%
AutoStrobe	ENABLED	Enable to strobe silent running on and off every 2 second when shields drop and 'in-danger'. Handy to break target lock on pursuing ships
CommsModule	DISABLED	Future feature – currently in test
ChatTABs	3	Set to number of Chat TABs you have within the Comms Panel. Reqd for fnClearChatBox() function
Joystick_*	*	Joystick dead zone and zoom settings (for curves)
Rudder_*	*	Rudder dead zone and zoom settings (for curves)
Slew_*	*	Slew control dead zone and zoom (for curves)
FAOFFCurves	SLOW	Set your desired curve profile when you go FA-OFF
CurveInfo	NOPRINT	Will print curve profile settings to console if = PRINT
EnableTFRPRudder	1	Set this to '0' if you do not have these rudder pedals Alternate Roll and Yaw will then be available via Mike Switch
SwapRoll4Yaw	0	Set to 1 to swap the Roll and Yaw axes on Joystick/Rudder
Joystick_Curve[]	*	Joystick Curve array settings (0 - 4)
Rudder_Curve[]	*	Rudder Curve array settings (0 - 4)
Slew_Curve[]	*	Slew Curve array settings (0 or 2)

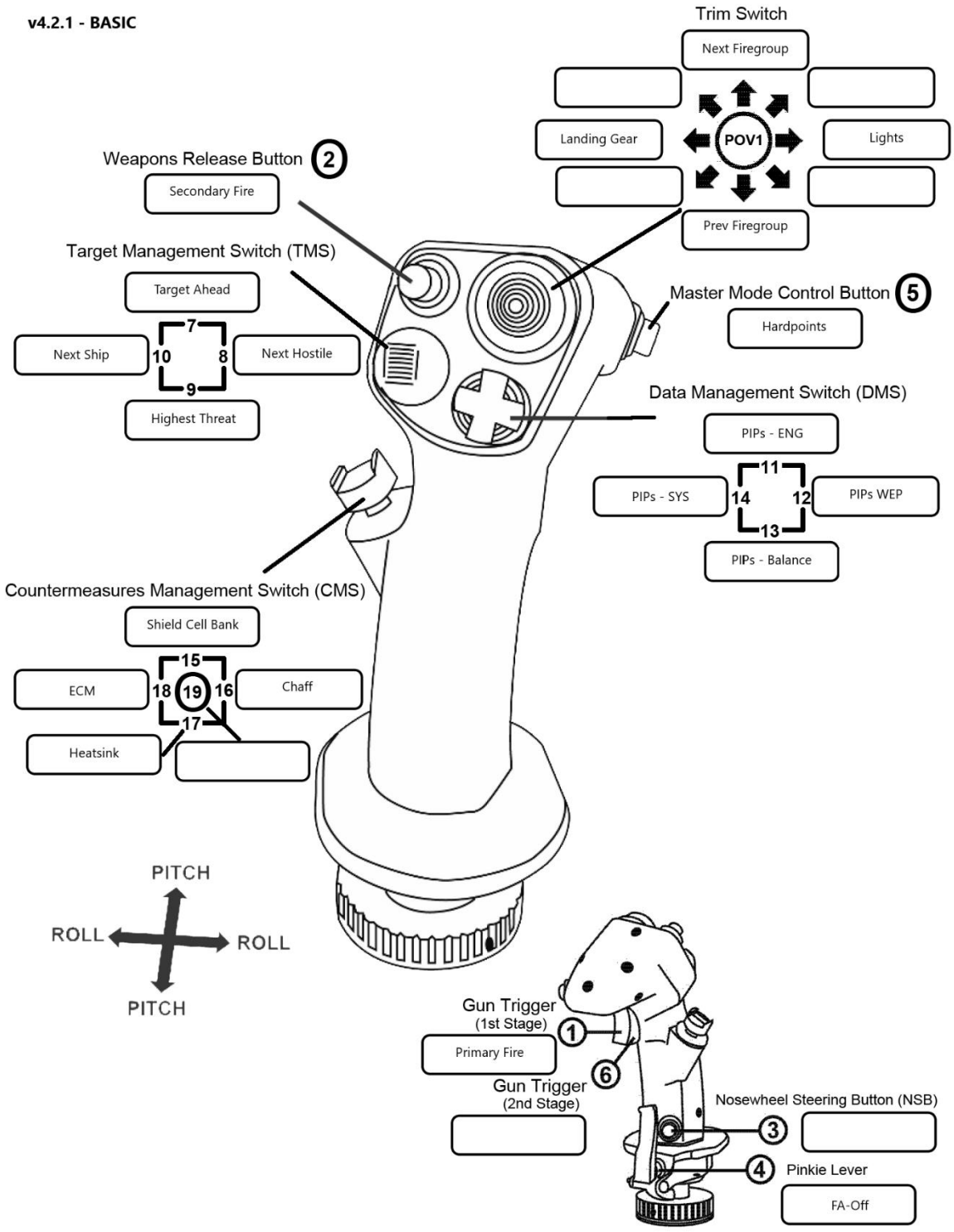
Joystick Map - FULL



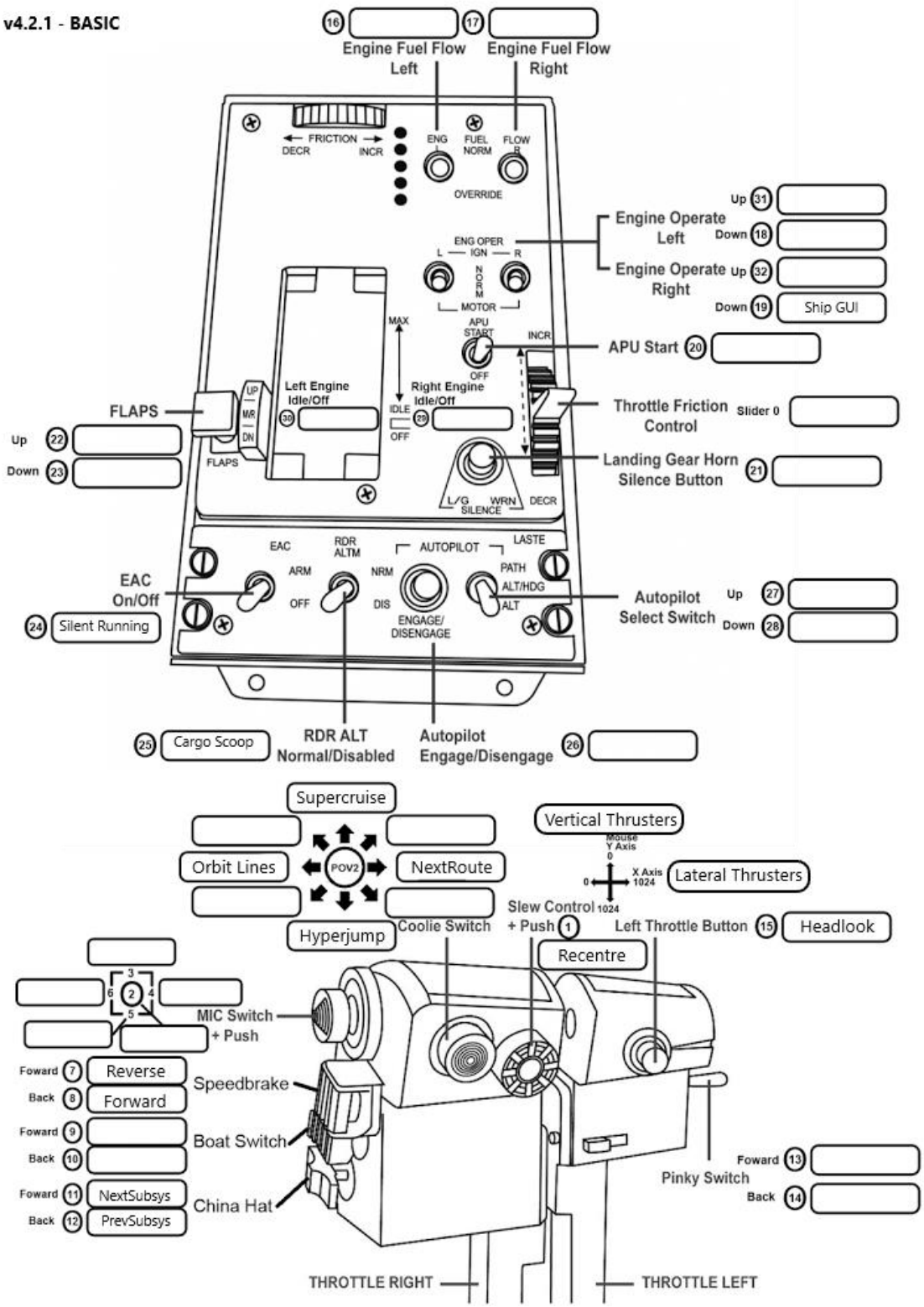
Throttle Map - FULL



Joystick Map – BASIC



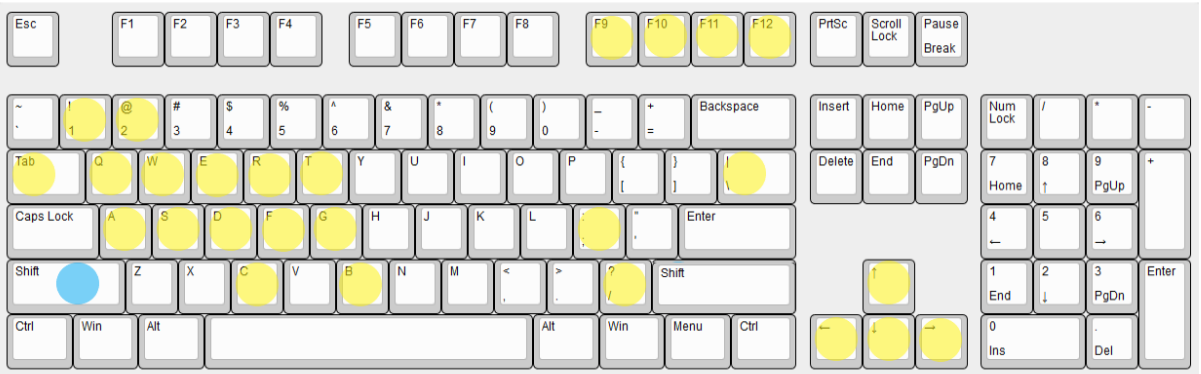
Throttle Map – BASIC



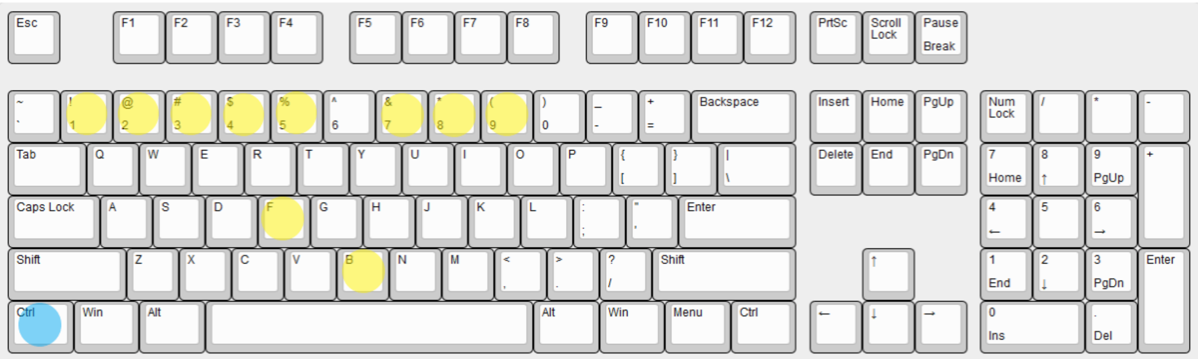
Keyboard Utilisation

Normal (straight) Keypress

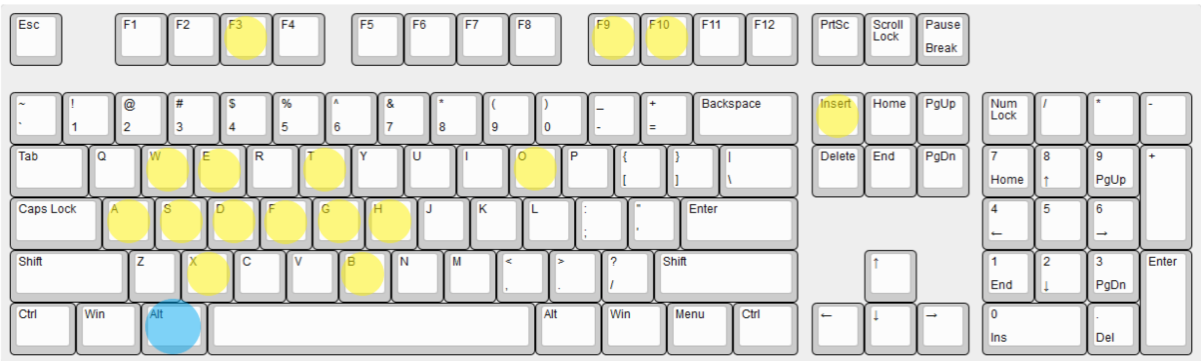
Modified Keypress



Modified Keypress



Modified Keypress



Key Bind Sheet – In Ship/SRV/Fighter

Standard Unmodified Keys - v4.2.1

A	UI-LEFT	Q	Thrust Left/Prev Tab	6	Wing NavLock	/	HUD Mode	DEL	Silent	NP-.	
B	Previous Ship	R	Thrust Up	7		ENTER	Quick Comms	ESC		NP-ENTER	Swap Roll/Yaw
C	Chaff/CameraBlurIn	S	Reverse Thrust	8	Wing 1	F1	Cam CockpitFront	PGUP	Inc Sensor Range	NP-PLUS	100% Throttle
D	UI-Right	T	Target Ahead	9	Wing 2	F2	Cam CockpitBack	PGDN	Dec Sensor Range	NP-MINUS	100% Reverse
E	Thrust Right/Next Tab	U	Hardpoints	0	Wing 3	F3	Cam Commander 1	HOME	Cargo Scoop	NP-DIV	Supercruise
F	Thrust Down	V	Heatsink/FSSStepZoomOut	-	FSS Honk	F4	Cam Commander 2	END	Eject All Cargo	NP-MULT	Reverse
G	Next Contact	W	Forward Thrust	=	Orbit lines	F5	Cam Co-Pilot 1	NP-1	25% Throttle		
H	Next Hostile	X	Stop	BACK		F6	Cam Co-Pilot 2	NP-2	50% Throttle	<up>	UI-Up
I	Next Subsystem	Y	Highest Threat	TAB		F7	Alt Controls/Cam Front	NP-3	75% Throttle	<down>	UI-DOWN
J	Supercruise/Hyperj	Z	FAOff	[	CamZoomIN	F8	Cam Back	NP-4		<left>	UI-LEFT
K	Previous Subsystem	`	Reset EDTracker	]	CamZoomOUT	F9	Cam Low	NP-5	External Camera	<right>	UI-RIGHT
L	Landing Gear/Prev Cam	1	NAV Panel	\	Front/Back	F10		NP-6	25% Reverse		
M	Next System in Route	2	Comms Panel	;	System Map	F11		NP-7	50% Reverse	SPACE	UI-Select
N	Previous Hostile	3	Role Panel	'	SCB/ZoomIn	F12	Reset Headlook	NP-8	75% Reverse		
O	Headlook	4	System Panel	,	Previous Firegroup	INS	Lights/Next Cam	NP-9	Free Camera On/Off		
P	Main Menu	5	Wing Target	.	Next Firegroup	PRTSCR		NP-0			

L-CTRL	L-ALT		L-Shift	R-Shift	R-ALT	R-CTRL
	X	Recall/DismissShip	;	Galaxy Map		
B	Connection Status	B	FighterDock	T	PitchUp/CamPitchUp			
F	Framerate	D	FighterDefence	G	PitchDown/CamPitchDown			
	A	FighterAgressive	Q	YawLeft/CamYawLeft			
	T	FighterFocusTarget	E	YawRight/CamYawRight			
	H	FighterHoldFire	W	RollLeft/CamTxlateFWD			
	S	FighterHoldPos	S	RollRight/CamTxlateBWD			
	F	FighterFollowMe	A	CamTxlateLeft			
	O	FighterOpenOrders	D	CamTxlateRight			
	W	WEP-Colour	R	CamTxlateUp			
	E	Eng-Colour	F	CamTxlateDown			
	Ins	Night Vision					
	G	FreeCam Toggle HUD					
			TAB	PrevPanel			
	F3	Mute Microphone	F9	GalnetCLRQueue			
			F10	GalnetSkipBWD			
		External	F11	GalnetPlay			
	F9	GPU Video Save (15mins)?	F12	GalnetSkipFWD			
	F10	GPU Screen shot?	<up>	PIP-ENG			
			<right>	PIP-WEP			
	F2	Mute Voice Attack	<left>	PIP-SYS			
	F5	Mute Discord etc	<down>	PIP-RST			
			1	PrimaryFire (ALT)			
			2	SecondaryFire (ALT)			
			/	FSS Mode On/Off			
			B	Boost			
			C	ECM+ZoomOut			

Key Bind Sheet – On Foot

Standard Unmodified Keys - v5.0.0

a	Strafe Left	q	Aim down sights	6		/		DEL	Silent	NP-.
b	Battle Stats	r	Reload	7		ENTER	Quick Comms	ESC		NP-ENTER
c	Crouch	s	Reverse	8		F1		PGUP		NP-PLUS
d	Strafe Right	t	Select Tool	9		F2		PGDN		NP-MINUS
e	Interact	u	Holster Weapon	0		F3		HOME		NP-DIV
f	Select Suit Tool	v	Toggle Shields	-		F4		END		NP-MULT
g	Toggle Tool Mode	w	Forward	=		F5		NP-1		
h	Inisght Hub	x	Throw Grenade	BACK		F6		NP-2		<up>
i		y	Walk	TAB	Secondary Interact	F7		NP-3		<down>
j	Sprint	z	Switch Weapon	[		F8		NP-4		<left>
k		`		]		F9		NP-5		<right>
l	Energy Link	1		\		F10		NP-6	External Camera	
m	Melee Attack	2	Comms Panel	;	System Map	F11		NP-7		SPACE
n		3		'	Energy Cell	F12	Reset Headlook	NP-8		
o		4		,	Next Weapon	INS	Flashlight	NP-9		Shft+;
p	Profile Analyzer	5		.	Previous Weapon	PRTSCR		NP-0	Free Camera On/Off	

Left Alt +										
A	Clear Auth Level	Q		6		/		DEL		NP-.
B		R		7		ENTER		ESC		NP-ENTER
C	Health Pack	S	Shield Granade	8		F1		PGUP		NP-PLUS
D		T		9		F2		PGDN		NP-MINUS
E	EMP Granade	U		0		F3		HOME		NP-DIV
F	Frag Grenade	V		-		F4		END		NP-MULT
G		W		=		F5		NP-1		
H	Toggle Help	X		BACK		F6		NP-2	<up>	Item Wheel - U
I		Y		TAB		F7		NP-3	<down>	Item Wheel - D
J		Z		[		F8		NP-4	<left>	Item Wheel - L
K		`		]		F9		NP-5	<right>	Item Wheel - R
L		1	Select Primary Weapon	\		F10		NP-6		
M		2	Select Secondary Weapon	;		F11		NP-7	SPACE	
N		3		'		F12		NP-8		
O		4		,	Next Grenade Type	INS	Night Vision	NP-9		
P		5		.	Prev Grenade Type	PRTSCR		NP-0		

HOTAS Switch and Button Reference – FULL

HOTAS - Quick reference - v5.0.0 - FULL

Joystick			
Switch	Mode	Function	Use for
TG1	U	tgTriggerMode(1)	
	M	Primary Fire	Normal
	D	fnAdvFireControl(1)	Disco/Mining/PWS
TG2	U		
	M		
	D		
S1	U	tgHUDMode()	
	M	tgHardPoints()	
	D	SwapRollYaw	
S2	U	tgTriggerMode(2)	PWS
	M	Secondary Fire	Normal
	D	fnAdvFireControl(3)	Disco/Mining/PWS
S3		SetShiftButton (IO - I)	
S4	U		
	M	tgEnhancedFAOFF()	
	D		
H1U	U	tgFSSMode()	
	M	NextFireGroup	
	D	DSSModeOFF	
H1D	U		
	M	PrevFireGroup	
	D		
H1L	U		
	M	tgLandingGear()	tempo
	D		
H1R	U	tgLights(1)	Night Vision
	M	tgLights(0)	tempo
	D		
H2U	U	tgPlanetView()	
	M	SelectTargetAhead	
	D	SelectTargetAhead	
H2D	U		
	M	SelectHIghestThreat	
	D	WingmanTarget	
H2L	U		
	M	SelectNextShip	
	D	SelectWingMan1, 2, 3	
H2R	U		
	M	SelectNextHostileShip	
	D	WingManNavlock	
H3U	U		
	M	fnPIPManager(ENG)	
	D		
H3D	U		
	M	BalancePower	
	D		
H3L	U		
	M	fnPIPManager(SYS)	
	D		
H3R	U		
	M	fnPIPManager(WEP)	
	D		
H4U	U	fnAdvancedSCB(2)	2xSCB, 1xHS
	M	fnAdvancedSCB(0)/(1)	SCB, SCB+HS
	D	CameraZoomIN	
H4D	U		
	M	fnHeatsink()	
	D	CameraZoomOUT	
H4L	U		
	M	ChargeECM (DOWN)	Charge ECM
	D	CameraBlurOUT	
H4L-R	U	0	
	M	ChargeECM (UP)	Fire ECM
	D	0	
H4R	U		
	M	fnChaff()	
	D	CameraBlurIN	
H4P	U	fnPIPMode(0)	Reset
	M	fnPIPMode(1)	Increment
	D	fnPIPMode(2)	Decrement

Throttle (lever)			
Switch	Mode	Function	Use for
PSF		SetShiftButton (UMD - U)	
PSM		SetShiftButton (UMD - M)	
PSB		SetShiftButton (UMD - D)	
SC	U	ShowConnectionStatus	
	M	ResetHeadOrientation	
	D		
LTB	U	tgExtCamera()	
	M	LookOnOff	
	D		
CSU	U		
	M	tgWarpDrive(0)	Supercruise
	D		
CSD	U		
	M	tgWarpDrive(1)	Hyperjump
	D		
CSL	U		
	M	SelectNextSystemInRoute	
	D		
CSR	U		
	M	OrbitLines	
	D		
MSU		Alternate Roll Control (CCW)	
MSD		Alternate Roll Control (CW)	
MSL		Alternate Yaw Control (Left)	
MSR		Alternate Yaw Control (Right)	
MSP			
SPDF	U	tgReverseThrust(0)	No Speedbrake
	M	tgReverseThrust(1)	Speedbrake
	D	tgReverseThrust(2)	fix LED
SPDF-R		tgReverseThrust(1)	Forward
SPDB	U		
	M	EngineBoost	
	D		
BSF	U	mNAVBeaconWingON/OFF	
	M		
	D	tgText2Speech()	EnableVoice ON/OFF
BSM	U		
	M		
	D		
BSB	U	mReportCrimesToggle	
	M		
	D		
CHF	U		
	M	TargetNextSubsystem	
	D		
CHB	U		
	M	TargetPrevSubsystem	
	D		

Throttle (base)			
Switch	Mode	Function	Use for
APAT	I	fnSetJoystickCurves(MEDIUM)	
	O	fnSetJoystickCurves(MILD)	
APAH	M	fnSetJoystickCurves(OFF)	
APALT	I	fnSetJoystickCurves(SLOWEST)	
	O	fnSetJoystickCurves(SLOW)	
EACON	IU	tgSilentRunning(STROBE)	
	OM	tgSilentRunning(ON)	
EACOFF	M	tgSilentRunning(OFF)	
RDRNRM	I	Eject All Cargo	
	O	tgCargoScoop(DEPLOY)	
RDRDIS	U		
	M	tgCargoScoop(RETRACT)	
	D		
LDGH	I	mClearAllChatBox	
	O	mClearChatBox	
APENG	I	fnHangerServices(1)	
	O	fnRequestDock()	
FLAPU	U	fnVoiceVolume(INCREASE)	
	M	Galaxy Map	ON
	D	fnLEDBrightness(INCREASE)	
FLAPU-R	U		
	M	Galaxy Map	OFF
	D		
FLAPM	U		
	M		
	D		
FLAPD	U	fnVoiceVolume(DECREASE)	
	M	SystemMap	ON
	D	SetLED OFF	
FLAPD-R	U		
	M	SystemMap	OFF
	D	SetLED ON	
APUON	U		
	M	fnDeploySRV(DEPLOY)	
	D		
APUOFF	U		
	M	fnDeploySRV(RECOVER)	
	D		
EORIGN	U		
	M	fnDRShip()	Dismiss/Recover
	D		
EORNORM	U		
	M		
	D		
EORMOTOR	U		
	M	HideShipGUI	GUI OFF
	D		
EORMOTOR-R		HideShipGUI	GUI ON
EOLIGN	U	fnModeSwitch(0)	Open
	M	fnModeSwitch(1)	Private Group
	D	fnModeSwitch(2)	Solo
EOLNORM	U		
	M		
	D		
EOLMOTOR	U		
	M	mChangeColours	
	D		
EFRNORM	U	stfnDumpFlags()	
	M	fnSetLEDs()	Reset Status LEDs
	D	fnPrintState()	
EFROVER	U		
	M		
	D		
EFLNORM	U	fnDebug(2)	ShowFlags
	M	fnDebug(1)	Debug
	D	fnDebug(3)	both
EFLOVER	U		
	M		
	D		
IDLELON	U		
	M	fnHangerServices(1)	Enter
	D		
IDLELOFF	U		
	M	fnHangerServices(0)	Launch
	D		
IDLERON	U		
	M		
	D		
IDLEROFF	U		
	M		
	D		

HOTAS Switch and Button Reference – BASIC

HOTAS - Quick reference - v4.2.1 - BASIC

Joystick			
Switch	Mode	Function	Use for
TG1		Primary Fire	
TG2			
S1		Hardpoints	
S2		Secondary Fire	
S3			
S4		FA-Off	
H1U		NextFireGroup	
H1D		PrevFireGroup	
H1L		Landing Gear	
H1R		Lights	
H2U		SelectTargetAhead	
H2D		TargetHighestThreat	
H2L		TargetNextShip	
H2R		TargetNextHostileShip	
H3U		PIPs - ENG	
H3D		PIPs - Balance	
H3L		PIPs - SYS	
H3R		PIPs - ENG	
H4U		Shield Cell Bank	
H4D		Heatsink	
H4L		ECM	
H4R		Chaff	
H4P			

Throttle (lever)			
Switch	Mode	Function	Use for
PSF			
PSM			
PSB			
SC		ResetHeadOrientation	
LTB		LookOnOff	
CSU		Supercruise	
CSD		Hyperjump	
CSL		SelectNextSystemInRoute	
CSR		OrbitLines	
MSU		Alternate Roll Control (CCW)	(no rudders)
MSD		Alternate Roll Control (CW)	(no rudders)
MSL		Alternate Yaw Control (Left)	(no rudders)
MSR		Alternate Yaw Control (Right)	(no rudders)
MSP			
SPDF		Reverse Thrust	
SPDF-R		Forward Thrust	
SPDB		EngineBoost	
BSF			
BSB			
CHF		TargetNextSubsystem	
CHB		TargetPrevSubsystem	

Throttle (base)			
Switch	Mode	Function	Use for
APAT			
APAH			
APALT			
EACON		Silent Running	
EACOFF			
RDRNRM		Cargo Scoop	
RDRDIS			
LDGH			
APENG			
FLAPU		Galaxy Map	
FLAPD		SystemMap	
APUON			
APUOFF			
EORIGN		HideShipGUI	
EORMOTOR			
EOLIGN			
EOLMOTOR			
EFRNORM			
EFROVER			
EFLNORM			
EFLOVER			
IDLELON			
IDLELOFF			

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