

BFF Motion Driver v2.6 Key Features

for 2 or 3 DOF Motion Platforms

Flight Simulator Compatibility

- MS FS9 and FSX
- X-Plane 8.68 & onwards
- Condor Soaring
- Falcon 4 AF

Customised versions can be made available for other flight or racing sims – eg FalconF4, Condor, LFS etc. Please contact me if you wish to explore the possibilities for these paid-for customisations.

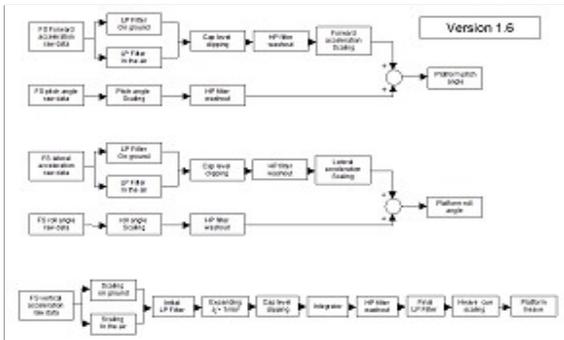


Motion Cues – 3 DOF

- Pitch – acceleration and braking gravity alignment force cues + pitch rotation cueing
- Roll – lateral acceleration gravity alignment force or impulse cues + roll rotation cueing
- Heave – heave acceleration impulse cues + additional turbulence and runway effects.

All core motion cues are derived from aircraft flight accelerations and angles as reported by the flight simulator program in real-time. Additional “manufactured” effects for on-runway motion and light turbulence can be added where absent from the flight sim output.

The software can drive 2 or 3 DOF motion platforms with independent DOF actuation or 2 or 3-point support type Platforms with “coupled” actuator movements.



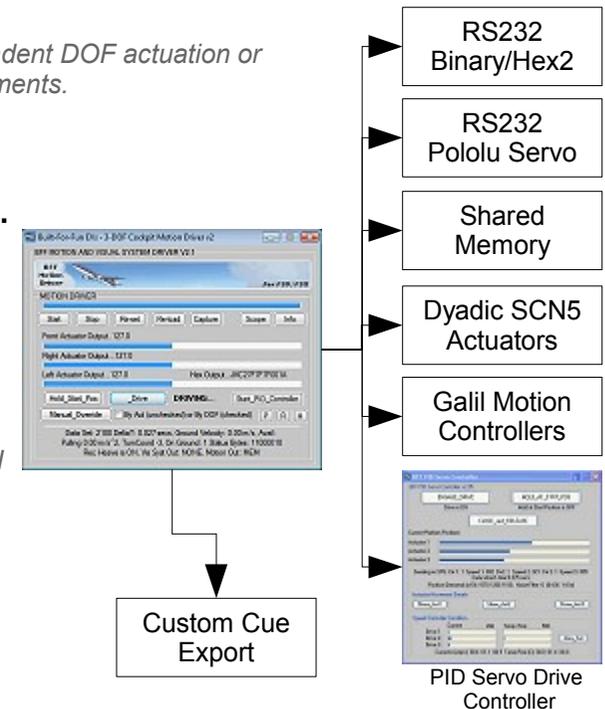
Connectivity & Data Output Formats

- Cue output to RS232 (COM port or USB) as binary, hex2 formats and Pololu RC Servo mode.
- Cue output to shared memory for inter-process comms.
- Cue direct to Galil motion controllers which support Position Tracking (PT) or to Dyadic SCN5 linear actuators via TermiBus.
- Integrated with BFF PID Servo Controller software for PID motion control using BFF SPU hardware.

Position demand data is updated and exported at roughly 50Hz – speed can be adjusted and is PC load dependent. LAN operation allows the driver to run on a second PC to minimise impact on simulator frame rates.

Customised versions can be made available for operation with other motion control hardware or devices – please contact me if you wish to explore possibilities here.

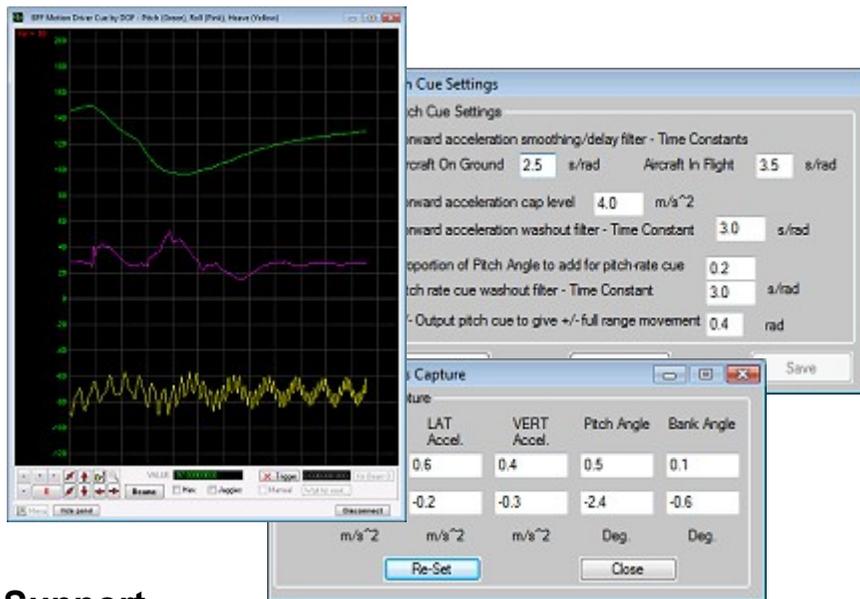
For individual DIY'ers compatible [control hardware](http://www.builtforfun.co.uk) is available on the builtforfun.co.uk web site. This is fully integrated with the BFF PID Servo Controller software and Motion Driver and provide a low-cost DIY motion platform drive system core to build your system around.



User Interface and Operation

- Compact GUI – operational features include -
- Full set of Start, Stop, Reset, Hold and Drive functions,
- Visual display of cue movements,
- Virtual oscilloscope for live cue tracing,
- In-program cue setting adjustment – for scaling, filtering and washout
- Manual position control – for system set-up and testing,
- Detailed data logging facilities for inspection and tuning.
- Flight data capture to support cue set-up.

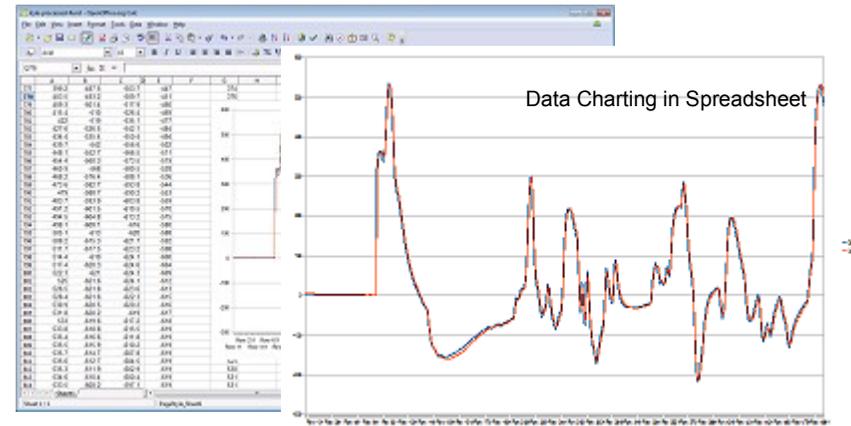
Customised versions can be made available with branded interfaces. Configuration settings can be saved in text editable configuration files. Separate set-up programs provided. Several features are provided to support system set-up and tuning activities – such as the built-in oscilloscope and in-program cue setting adjustment. Data logging facilities provide high level of detail to assist motion diagnosis and tuning.



Support

- [On-line](#) user manual.
- Pop-up help fields in the configuration set-up programs.
- Helpful email support provided for the software – more extensive paid-for technical support available for control system or motion platform advice.
- Detailed web site - <http://buggies.builtforfun.co.uk/Sim/>

Email technical support for individual customers is provided free-of-charge where possible. Where more extensive help is required I can offer a paid-for help service at an hourly rate.



Commercial Users – Customisation, Licensing and Support

I can respond flexibly and rapidly to requests for customisation of the motion software. Please contact me if you wish to explore the possibilities for connectivity, simulator or user interface customisations to suit your project. Low overheads allow me to offer very competitive time rates and final licensing costs. I have a professional engineering design background and am able to combine mechanical, electrical and software skills to work to support your project.

6 DOF motion driver for hexapod (Stewart) type platforms is also available – [see web site](#). Contact me for commercial-use pricing.

<http://buggies.builtforfun.co.uk> Email: ian@builtforfun.co.uk Telephone: +44(0)5601314941 (UK Broadband)

