

BFF CL Loader for FS9/X/P3D/X-Plane

V2.51 from V2.50

- Fixed bug which prevents FS Trim adjustment using FS internal trim buttons when in Heavy Jet Mode. (Normally only CL trim buttons would be used in this mode but this keeps option for users to use FS internal trim buttons.)

CL Background Process

V2.140 from V 2.130

- Changes to support new R51 BLDRV3 and R41 CL_SPU microcontroller firmware. This firmware adds card registration and unlock features to better support 3rd party manufacture of the cards.

CL Controller App

V 1.20 from 1.01

- Added support for new R50 BLDRV3 and R41 CL_SPU microcontroller firmware registration and unlock features. The new REGI button handles the card firmware report and unlock features.

Use these features to first read and report the unique ID's of the BLDRV3 cards to be unlocked, then to perform the card unlock using matching unlock keys provided by BFF Design Ltd. Once unlocked the cards will run without time limit. Whilst in their default locked mode the R51 cards will run with full function for 15 minutes demo period.

- Other small code tidies.

23/3/24

BFF CL Loader for FS9/X/P3D/X-Plane

V2.50 from V2.34

- Removed all registration requirements - to simplify upkeep for existing users.
- Added some GUI branding options and small tidy up.

Background Process

V2.130 from V 2.125

- Added some GUI branding options and small tidy up.

CL Controller App

V 1.01 from 0.95

- Added some GUI branding options and small tidy up.

25/1/23

BFF CL Loader for FS9/X/P3D/X-Plane

V2.34 from V2.31

- Bug fix on display of card internal force demand.
- Improved GUI LED function.
- Added user select option to use standard lower accuracy internal timers or higher accuracy timers which use more CPU resource.

This is via parameter `Timer_CPU_Use=Low` in the [Timer] section of the winpos.ini file. Set `=High` to use higher accuracy higher CPU use timers.

`Timer_CPU_Use=Low` is the default but may give lower loop speeds than `=High`. `=High` however will use more CPU resource.

- Added some additional logging data.

Background Process

V2.125 from V 2.121

- Added joystick hot button to centre rudder axis CL trim. This may be useful in some heavy jet setups.

The button is set in the Background.ini file using parameters in the [Parameters] section:

```
Rud_Trim_Cent_Stick=0  
Rud_Trim_Cent_But=0
```

- Added user select option to use standard lower accuracy internal timers or higher accuracy timers which use more CPU resource.

This is via parameter `Timer_CPU_Use=Low` in the [Timer] section of the winpos.ini file. Set `=High` to use higher accuracy higher CPU use timers.

`Timer_CPU_Use=Low` is the default but may give lower loop speeds than `=High`. `=High` however will use more CPU resource.

- Fixed bug which prevented CL software from running at same time as CL Controller when 2 independent CL_SPU's are present on same PC.

CL Controller App

V 0.95 from 0.92

- Added user select option to use standard lower accuracy internal timers or higher accuracy timers which use more CPU resource.

This is via parameter `Timer_CPU_Use=Low` in the [Timer] section of the `winpos2.ini` file. Set `=High` to use higher accuracy higher CPU use timers.

`Timer_CPU_Use=Low` is the default but may give lower loop speeds than `=High`. `=High` however will use more CPU resource.

- Fixed bug which prevented CL software from running at same time as CL Controller when 2 independent `CL_SPU`'s are present on same PC.
- Improved data logging for APUC Monitor. User choice now available to add new logging data to existing log files. Fixed bug which deleted some logs before APUC had finished.

19/4/21

BFF CL Loader for FS9/X/P3D/X-Plane

V2.31 from V2.30

- Added experimental Rudder Auto-Trim (RAT) feature. This feature simulates the rudder auto-trim behaviour of Air Bus aircraft. If A/P is engaged whilst significant thrust imbalance and balancing rudder trim is present the feature will automatically adjust rudder position if airspeed or engine thrust changes whilst A/P is engaged.

See Config Mngr V2.10 Tab 4 Items 29-34.

- Added user settings for stick hard-over auto-release checks carried out by the software. See Config Mngr V2.10 Tab 6. Previously these force/position/duration checks were hard-coded and would cause loading auto-release if any axis was held at load near end of stroke for the trigger period. They are now user definable.

Background Process

V2.121 from V 2.118

- Changes to support RAT feature (see above)
- Added main axis position adjustment when trim button keyboard override is active (-1 set as trim button joystick number). In this case holding the Alt key down will adjust main axis position rather than trim axis position – see Config Mngr Trim Tab.
- Fixed bug on CL_SPU card opening when CP_Ignore override is set. This is used to force the CL software to ignore any Co-Pilot assigned CL_SPU card and allows the CL Controller software to drive the CP assigned CL_SPU separately for, for example, tiller operation. Previously the software was wrongly closing the I2C device associated with the Pilot card.

BFF CL Configuration Manager

V2.10 from V2.05

- Added support for items listed above in main CL Software section

See Tabs 4 & 6

CL Controller App

V 0.92 from 0.91

- Cleaned up CL_SPU close functions when two CL_SPU cards are present.

http://bffsimulation.com/CL_Controller.php

27/11/20

BFF CL Loader for FS9/X/P3D/X-Plane

V2.30 from V2.21

- Adjusted FSUIPC detection to support new FSUIPC V7

Background Process

- No change

CL Controller App

V 0.91 from 0.8

- Added APUC Monitor feature. This feature allows logging of the APUC movement process to support flight control hardware debugging. This needs BLDRV3 cards with firmware R50 Build 84 or later to operate.

http://bffsimulation.com/CL_Controller.php

20/8/20

BFF CL Loader for FS9/X/P3D/X-Plane

V2.21 from V2.18

- Improved parsing of Sim-A A/P offset to better identify CWS mode.
- Improved registration key code to handle changes to recent Windows OS names.
- Improved display of force components in Show_Elev etc windows to better reflect the force limits present in the on-board calcs carried out on the driver cards.

Background Process

V2.118 from V 2.114

- Bug fix on handling of Neutral Position offset on elevator axis. The force neutral position and the shifted zero displacement position were not aligning properly. (Config Mngr Tab 5 Item 9)
- Added additional logging on USB comms

CL Controller App

V 0.8 from 0.5

- Added parameter Force_CL_SPU to ini file to enable specified CL_SPU card to be connected if both Pilot and Co-Pilot cards are present. Force_CL_SPU=1 chose Pilot card, =0 chose Co-Pilot card.
- Alt+D keypress displays new data window showing the CL_SPU return bytes.
- Added Parameters 20 and 21 to EEPROM settings. These define the new two stage spring rate response available in recent drive card firmware. This can be used to set soft stops, or a uni-direction response mode such as for toe brakes.
- Various small code tidying.

http://bffsimulation.com/CL_Controller.php

6/2/20

BFF CL Loader for FS9/X/P3D

V2.18 from V2.16

- Corrected bug in reading aircraft COG data from cfg file at startup for X-Plane. This affected the Alpha loading component.

Background Process

V2.114 from V 2.113

- Improved Alpha and Beta loading effects in event of stall – previously AoA could rise unrealistically high during extreme stall which affected stall loading. AoA is now limited to a more realistic maximum.

BFF Driver Test Application

V 1.21 from V1.2

- Corrected bugs in position following mode.

CL Controller App

V0.5 First beta release. See web page for more details -

http://bffsimulation.com/CL_Controller.php

8/7/19

BFF CL Loader for FS9/X/P3D

V2.16 from V2.15

- Added support for Heli-mode in FSX/P3D. Previously this was available only for X-Plane.

Background Process

V2.113 from V 2.112

- Added support for items listed above in main CL Software section.
- Added specialised parameter CP_Ignore to Background.ini file. When set =1 this instructs the CL software to ignore any CL_SPU_USB card which is jumper set as the Co-Pilot station.

2/4/19

BFF CL Loader for FS9/X/P3D

V2.15 from V2.14

- Added 2nd elevator trim buttons – see Tab 7. This allows two pairs of buttons to be assigned for elevator trim – eg pilot and copilot trim buttons.
- Added parameters to give user control of the rate and resolution of axis position data write to FSUIPC. See Tab 5 Items 27 & 28. This allows the user to reduce the rate and resolution at which position is written to balance control response and sim resource consumption.
- Fixed bug reading parameter PortS from cfg files. Previously a blank value read was not automatically corrected – it now is.

Background Process

V2.112 from V 2.111

- Added support for items listed above in main CL Software section

BFF CL Configuration Manager

V2.05 from V2.04

- Added support for items listed above in main CL Software section

See Tab 7 Items 26 & 27
Tab 5 Items 27 & 28

21/2/19

BFF CL Loader for FS9/X/P3D

V2.14 from V2.1

- Added telemetry UDP output and UDP Data Receiver application. This allows live axis position and force data to be recorded. See Tab 8 in Config Mngr V2.04+

NOTE this feature is active for commercial-use registrations only.

- Added APUC Go-Ahead joystick button option. This allows calibration movement go-ahead to be given without access to the CL software GUI. See Tab 6 Items 19&20 of the Config Mngr.
- Added experimental A2A Comanche A/P mode – see Cnfig Mngr Tab 5 Item 22
- Added offsets.in file containing FSUIPC offsets mappings used in the CL software. This can allow custom offsets to be used.
- CL software now runs whilst waiting for active cards, previously the software would wait for active cards before proceeding. This allows the software to be operated without hardware present.

Background Process

V2.111 from V 2.009

- Added support for items listed above in main CL Software section

BFF CL Configuration Manager

V2.04 from V2.02

- Added support for items listed above in main CL Software section

See Tab 4 Item 28
Tab 5 Item 22
Tab 6 Items 19 & 20
Tab 8 Items 7 to 11

BFF CL Loader for FS9/X/P3D

V2.1

- First release

Background Process

V 2.009

- First release

BFF CL Configuration Manager

V2.02

- First release

BFF Driver Test Application

V 1.2

- First release

31/10/18