

# Using SIMCMP1 with Link2FS

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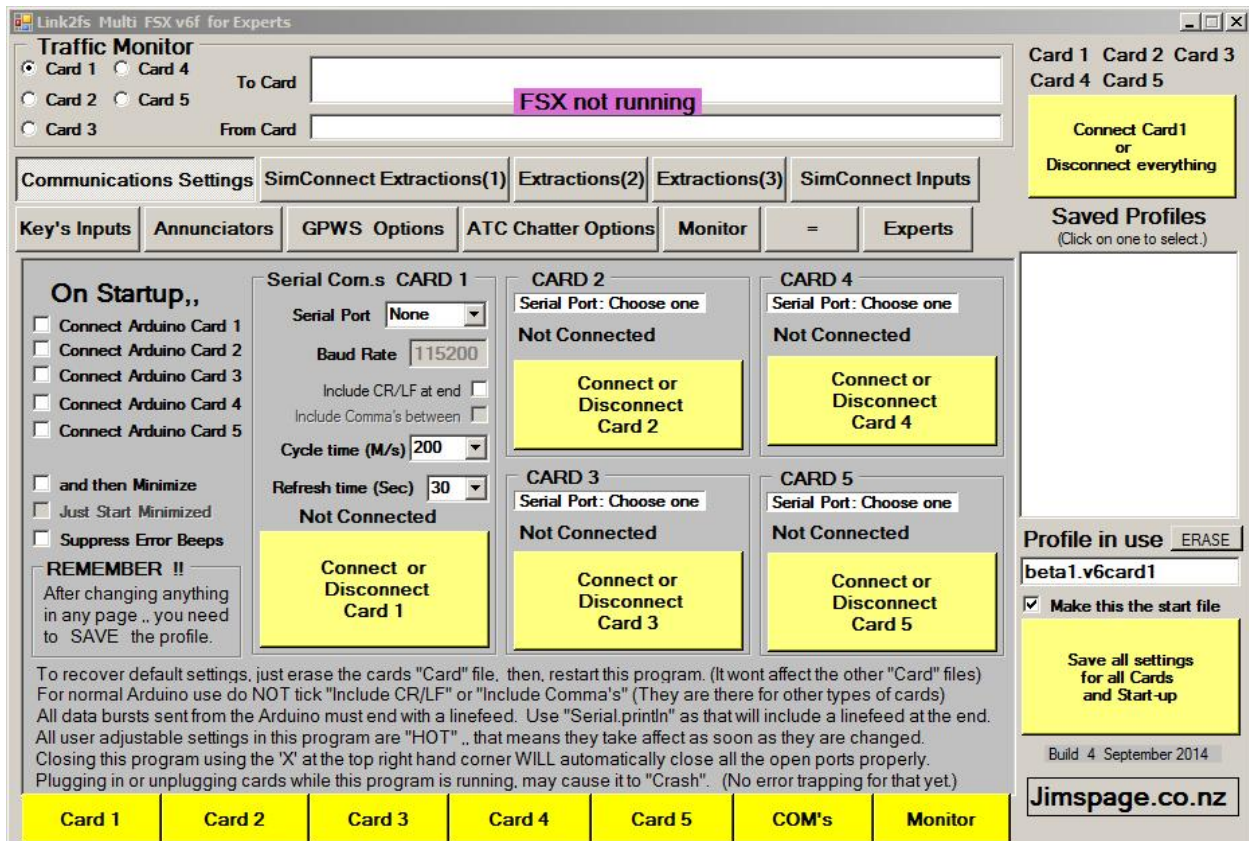
## Getting Link2FS

Link2FS program can be freely downloaded from <http://www.jimspage.co.nz/intro.htm>

You want the latest version of Link2fs\_Multi\_FSX. Download it and place in a folder somewhere, it does not require an installation process, just run the executable.

## Configuring Link2FS

Upon first launch you'll see a screen like the following. Connect Arduino to PC and begin configuring the Link2FS settings to talk with SIMCMP1 firmware.



## Using SIMCMP1 with Link2FS

### Configure Serial Port

Select appropriate card – its CARD1 if this is the only project you have running Link2FS on.  
Select the serial port, eg COM7, that the SIMCMP1 Arduino is using.

**On Startup,,**

- ☒ Connect Arduino Card 1
- ☐ Connect Arduino Card 2
- ☐ Connect Arduino Card 3
- ☐ Connect Arduino Card 4
- ☐ Connect Arduino Card 5

☐ and then Minimize  
☐ Just Start Minimized  
☐ Suppress Error Beeps

**REMEMBER !!**  
After changing anything in any page .. you need to SAVE the profile.

**Serial Com.s CARD 1**

Serial Port **Your Port**

Baud Rate **115200**

Include CR/LF at end ☐  
Include Comma's between ☐

Cycle time (M/s) **200**

Refresh time (Sec) **30**

Not connected

**Connect to Com Port**

**CARD 2**

Serial Port: Com7

Not Connected

**Connect or Disconnect Card 2**

**CARD 4**

Serial Port: Choose one

Not Connected

**Connect or Disconnect Card 4**

**CARD 3**

Serial Port: Choose one

Not Connected

**Connect or Disconnect Card 3**

**CARD 5**

Serial Port: Choose one

Not Connected

**Connect or Disconnect Card 5**

To recover default settings, just erase the cards "Card" file, then, restart this program. (It wont affect the other "Card" files)  
For normal Arduino use do NOT tick "Include CR/LF" or "Include Comma's" (They are there for other types of cards)  
All data bursts sent from the Arduino must end with a linefeed. Use "Serial.println" as that will include a linefeed at the end.  
All user adjustable settings in this program are "HOT" .. that means they take affect as soon as they are changed.  
Closing this program using the 'X' at the top right hand corner WILL automatically close all the open ports properly.  
Plugging in or unplugging cards while this program is running, may cause it to "Crash". (No error trapping for that yet.)

If you've selected things correctly, upon clicking "Connect to Com Port", you'll see the screen change to

**Serial Com.s CARD 1**

Serial Port **Com7**

Baud Rate **115200**

Include CR/LF at end ☐  
Include Comma's between ☐

Cycle time (M/s) **200**

Refresh time (Sec) **30**

**Connected**

**Disconnect**

## Extractions 1

Communications Settings		SimConnect Extractions(1)	Extractions(2)	Extractions(3)	SimConnect Inputs
Key's Inputs	Annunciators	GPWS Options	ATC Chatter Options	Monitor	= Experts

Nav/Com Radios	Autopilot	Indications
<input type="checkbox"/> =A Com1 frequency	<input type="checkbox"/> =a AP (Autopilot) active	<input type="checkbox"/> <A Gear nose <input type="checkbox"/> In Detail
<input type="checkbox"/> =B Com1 s/b frequency	<input type="checkbox"/> =b AP altitude set	<input type="checkbox"/> <B Gear left <input type="checkbox"/> In Detail
<input type="checkbox"/> =C Com2 frequency	<input type="checkbox"/> =c AP vertical speed set	<input type="checkbox"/> <C Gear right <input type="checkbox"/> In Detail
<input type="checkbox"/> =D Com2 s/b frequency	<input type="checkbox"/> =d AP heading set	<input type="checkbox"/> <D Altitude
<input type="checkbox"/> =E Nav1 Frequency	<input type="checkbox"/> =e AP course (CRS) set	<input type="checkbox"/> <E Ground clearance
<input type="checkbox"/> =F Nav1 s/b Frequency	<input type="checkbox"/> =f AP speed set knots	<input type="checkbox"/> <F G Force
<input type="checkbox"/> =G Nav2 Frequency	<input type="checkbox"/> =g AP speed set mach	<input type="checkbox"/> <G Flaps position <input type="checkbox"/> In %
<input type="checkbox"/> =H Nav2 s/b frequency	<input type="checkbox"/> =h AP mach active	<input type="checkbox"/> <H Trim position
<input type="checkbox"/> =I ADF1 frequency	<input type="checkbox"/> =i AP Current Mach	<input type="checkbox"/> <I Plane on ground
<input type="checkbox"/> =J Transponder code	<input type="checkbox"/> =j AP Heading lock active	<input type="checkbox"/> <J Heading
<input type="checkbox"/> =K DME1 N.miles	<input type="checkbox"/> =k AP Altitude lock active	<input type="checkbox"/> <K Angle of attack
<input type="checkbox"/> =L DME2 N.miles	<input checked="" type="checkbox"/> =l AP GPS drives Nav1	<input type="checkbox"/> <L Vertical speed
<input checked="" type="checkbox"/> =M Com1 sound active	<input type="checkbox"/> =m AP Approach hold active	<input type="checkbox"/> <M Total Fuel %
<input checked="" type="checkbox"/> =N Com2 sound active	<input type="checkbox"/> =n AP Backcourse active	<input type="checkbox"/> <N Turn Co-ordination ball
<input checked="" type="checkbox"/> =O Com all sound active	<input type="checkbox"/> =o AP Nav1 lock active	<input type="checkbox"/> <O Ground speed
<input checked="" type="checkbox"/> =P Nav1 sound active	<input type="checkbox"/> =p AP Wind leveler active	<input type="checkbox"/> <P Airspeed indicated
<input checked="" type="checkbox"/> =Q Nav2 sound active	<input type="checkbox"/> =q AP Flight director active	<input type="checkbox"/> <Q Pitch
<input checked="" type="checkbox"/> =R DME sound active	<input type="checkbox"/> =r AP Glideslope hold active	<input type="checkbox"/> <R Roll
<input checked="" type="checkbox"/> =S ADF1 sound active	<input type="checkbox"/> =s AP Airspeed hold active	<input type="checkbox"/> <S Stall warning
<input type="checkbox"/> =T ADF2 sound active	<input type="checkbox"/> =t AP Autothrottle armed	<input type="checkbox"/> <T Engine 1 RPM
<input type="checkbox"/> =U Marker sound active	<input type="checkbox"/> =u AP Autothrottle active	<input type="checkbox"/> <U Engine 2 RPM
<input checked="" type="checkbox"/> =V Marker state(1=Out,2=Mid,3=In)	<input type="checkbox"/> =v AP Take-off power active	<input type="checkbox"/> <V Throttle 1 position
<input type="checkbox"/> =W DME selected	<input type="checkbox"/> =w HSI CDI needle position	<input type="checkbox"/> <W Throttle 2 position
<input type="checkbox"/> =X DME1 Speed. Knots	<input type="checkbox"/> =x HSI GSI needle position	<input type="checkbox"/> <X Fuel left %
<input type="checkbox"/> =Y DME2 Speed. Knots	<input type="checkbox"/> =y HSI flag(0=off, 1=to, 2=from)	<input type="checkbox"/> <Y Fuel centre %
<input type="checkbox"/> =Z ADF2 frequency	<input type="checkbox"/> =z HSI bearing valid	<input type="checkbox"/> <Z Fuel right %

More Radio stuff in "Other" Tick what you want to be sent to the Arduino Card.

## Extractions 2

Communications Settings		SimConnect Extractions(1)	Extractions(2)	Extractions(3)	SimConnect Inputs
Key's Inputs	Annunciators	GPWS Options	ATC Chatter Options	Monitor	= Experts

Systems1	Systems2	Other
<input checked="" type="checkbox"/> <a Electrical master switch	<input type="checkbox"/> ?A Overspeed warning	<input type="checkbox"/> ?a Number of engines
<input type="checkbox"/> <b Pitot heat on	<input type="checkbox"/> ?B Fire engine No. 1	<input type="checkbox"/> ?b Is gear retractable
<input type="checkbox"/> <c De-icing on	<input type="checkbox"/> ?C Fire engine No. 2	<input type="checkbox"/> ?c Ambient temperature. C
<input type="checkbox"/> <d No smoking light on	<input type="checkbox"/> ?D Longitudinal wind speed	<input type="checkbox"/> ?d Local FSX time. hh:mm:ss
<input type="checkbox"/> <e Seatbelt sign on	<input type="checkbox"/> ?E Vacuum Hg	<input type="checkbox"/> ?e Profile in use (first 3 letters)
<input type="checkbox"/> <f Lights on state. 10 of them	<input type="checkbox"/> ?F Master battery switch	<input type="checkbox"/> ?f Sim is paused
<input checked="" type="checkbox"/> <a Avionics master switch on	<input type="checkbox"/> ?G Fuel pump No 1	<input type="checkbox"/> ?q Hydraulic pressure systems(3)
<input type="checkbox"/> <h Spoilers position %	<input type="checkbox"/> ?H Fuel pump No 2	<input type="checkbox"/> ?h Prop synchronization active
<input type="checkbox"/> <i Spoilers armed	<input type="checkbox"/> ?I Battery voltage	<input type="checkbox"/> ?i Fuel tanks selected (1, 2)
<input type="checkbox"/> <j Spoilers handle position	<input type="checkbox"/> ?J Battery amps	<input type="checkbox"/> ?i Fuel Crossfeed
<input type="checkbox"/> <k Starter engine No. 1 position	<input type="checkbox"/> ?K Main bus voltage	<input type="checkbox"/> ?k Kohlsman setting Hg
<input type="checkbox"/> <l Starter engine No. 2 position	<input type="checkbox"/> ?L Main bus amps	<input type="checkbox"/> ?i Alt/Gen 1 amps
<input type="checkbox"/> <m Propeller No. 1 control position	<input type="checkbox"/> ?M Exhaust gas temp Eng1 C	<input type="checkbox"/> ?m Alt/Gen 2 amps
<input type="checkbox"/> <n Propeller No. 2 control position	<input type="checkbox"/> ?N Exhaust gas temp Eng2 C	<input type="checkbox"/> ?n ADF1 Bearing indicator
<input type="checkbox"/> <o Mixture control No. 1 position	<input type="checkbox"/> ?O Engine oil temp Eng1 C	<input type="checkbox"/> ?o ADF2 Bearing indicator
<input type="checkbox"/> <p Mixture control No. 2 position	<input type="checkbox"/> ?P Engine oil temp Eng2 C	<input type="checkbox"/> ?o Nav1 Bearing indicator
<input type="checkbox"/> <q Park brake position	<input type="checkbox"/> ?Q Manifold press. Eng1 PSI	<input type="checkbox"/> ?a Nav2 Bearing indicator
<input type="checkbox"/> <r Jet Engine No. 1 fuel valve	<input type="checkbox"/> ?R Manifold press. Eng2 PSI	<input type="checkbox"/> ?r Nav2 OBS
<input type="checkbox"/> <s Jet Engine No. 2 fuel valve	<input type="checkbox"/> ?S Cylinder head temp Eng1 C	<input type="checkbox"/> ?s Master Alternator (eng1, 2)
<input type="checkbox"/> <t Oil pressure Eng1 PSI	<input type="checkbox"/> ?T Cylinder head temp Eng2 C	<input type="checkbox"/> ?t ADF Card (background)
<input type="checkbox"/> <u Oil pressure Eng2 PSI	<input type="checkbox"/> ?U Avionics bus voltage	<input type="checkbox"/> ?u Nav1 flag, Nav2 flag(to/from)
<input type="checkbox"/> <v Door open	<input type="checkbox"/> ?V Fuel flow GPH Eng 1	<input type="checkbox"/> ?v Latitude
<input type="checkbox"/> <w Fuel pressure engine No. 1	<input type="checkbox"/> ?W Fuel flow GPH Eng 2	<input type="checkbox"/> ?w Longitude
<input type="checkbox"/> <x Fuel pressure engine No. 2	<input type="checkbox"/> ?X Flaps handle %	<input type="checkbox"/> ?x Acceleration body X
<input type="checkbox"/> <y Volts engine No. 1 generator	<input type="checkbox"/> ?Y Gear position (Nose,L,R)	<input type="checkbox"/> ?y Acceleration body Y
<input type="checkbox"/> <z Volts engine no. 2 generator	<input type="checkbox"/> ?Z Rudder Trim %	<input type="checkbox"/> ?z Acceleration body Z

Tick what you want to be sent to the Arduino Card.



## Annunciators

Communications Settings SimConnect Extractions(1) Extractions(2) Extractions(3) SimConnect Inputs

Key's Inputs **Annunciators** GPWS Options ATC Chatter Options Monitor = Experts

☒ **Annunciators Active** Alarms are sent out on a change of state and with a "refresh" cycle of (Seconds).

☐ If any Warning is active then send /A1

☐ Overspeed Flaps at  then send /B1

☐ Overspeed Gear at  then send /C1

☐ Overspeed Frame at  then send /D1

☐ Airspeed Stall under  then send /E1

☒ Eng1 Oil Pressure under  then send /F1

☐ Eng2 Oil Pressure under  then send /G1

☐ Fuel Total quantity under  % then send /H1

☐ Fuel Center Tank below  % then send /I1

☒ Fuel Left Tank under  % then send /J1

☒ Fuel Right Tank under  % then send /K1

☐ Eng1 Fuel Pressure under  then send /L1

☐ Eng2 Fuel Pressure under  then send /M1

☒ Vacuum Suction under  then send /N1

☐ Door Open and Speed above  then send /O1

☐ Main Bus Volts under  then send /P1

☐ Battery Volts less than  then send /Q1

☒ Battery Amps less than "0" (Discharging) then send /R1

☐ FSX default stall alarm Active then send /S1

☐ Avionics buss volts low or off, then send /T1

☐ FSX default overspeed alarm active then send /U1

☐ Alternator / generator 1 not charging then send /V1

☐ Alternator / Generator 2 not charging then send /W1

☐ Left Bleed Air below  PSI send /X1

☐ Right Bleed Air below  PSI send /Y1

☐ Cabin Differential more than  PSI send /Z1

☐ Cabin Altitude more than  x10 feet send /a1

☐ Exhaust Gas temp Eng1 above  send /b1

☐ Exhaust Gas temp Eng2 above  send /c1

☐ Cylinder Head Temp eng1 above  send /d1

☐ Cylinder Head Temp eng2 above  send /e1

☐ Fire Engine 1 send /f1

☐ Fire Engine 2 send /g1

☐ Fire APU send /h1

When the Alarm is activated the indicated code is shown. When it disappears, the "1" would be a "0"

## Save Settings

Communications Settings Monitor = Experts

**Saved Profiles**  
(Click on one to select.)

Profile in use

**SIMCMP1.v6card1**

☒ Make this the start file

**Save all settings for all Cards and Start-up**

Build 4 September 2014