

FLIGHTDECK

SOLUTIONS



FDS-PRO-Ethernet-CDU

ProSim B737 Integration



New for **2020**, the FDS-Pro-Ethernet-CDU comes with HDMI compatibility. With most of the latest Graphics cards (GFX) providing DVI-D and HDMI and DisplayPort.

The newest version lets you use the latest GFX cards with HDMI and/or Display Port.

*Minimum requirement for GFX cards and Avionics Suites is a 2 GIG card.

*Requires ProSimB737 3.08b13 or higher.

* Tested with 3.08b31

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SOLUTIONS



ProSim 737 shown on the screen

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SOLUTIONS



- Rubberized Keys
 - Dome type switches providing millions of cycles
 - Brightness switch is functional (screen dimming) from the ProSim software to dim the ProSim CDU screen brightness.
- Note: **Not** the hardware screen brightness*



Looking from the rear and left to right:

L Position – IBL constantly ON (set to maximum)

C Position – External IBL from PWM dimmer.

R Position - External IBL from DC voltage regulated dimmer.

- *The “C” position is most commonly used when connected to the FDS IBL Dist Boards.*
- ***Left/Center/Right***



REAR VIEW

- HDMI port
- Screen switches w/indicator LED
- Ethernet jack
- Reset switch
- Power jack
- Back lighting switch/remote IBL jack



Rear View



Cables connected to the CDU



Pin1 – DC voltage from “0 to 5V” from voltage regulated dimmer **OR** “PWM” from PWM dimmer.

Pin2 – GND

Connects to the FDS IBL Dimmer in the Pedestal with the supplied cable. See **page 11 in the **FDS-PRO-Ethernet-CDUManual** for further details on connecting this harness if required.*

Latest change to the FDS-E-Series CDU in ProSim

A change was necessary to add an easy way to assign the CDU's in ProSim. Follow the instructions to make your installation easy!

Release Note:

- [FDS Ethernet] Refactored hardware detection

Note: Advanced window was removed, and hardware implementation is based on device host Name. This will allow device PnP implementation within ProSim



Configuration
— □ ×

Main
Drivers
Combined config
MCP/Throttle
Tuning

	CPFlight V2	<input type="checkbox"/> Enabled	Advanced
	Directinput support for joysticks	<input type="checkbox"/> Enabled	
	EHID Server	<input type="text"/> <input type="text"/>	Advanced
	FDS hardware support	<input checked="" type="checkbox"/> Enabled	Advanced
	FDS Ethernet	<input checked="" type="checkbox"/> Enabled	
+	Flight Illusion support	[Not installed] ▼	Advanced
	FSBUS support	[Not installed] ▼	
	FSC/Poldragonet TQ (Beta)	[Not installed] ▼	Advanced
	FSC Stickshaker	<input type="text"/> <input type="text"/>	
	FSUIPC support	<input type="checkbox"/> Enabled	
	Generic COM port/TCP driver	<input type="checkbox"/> Enabled	Advanced
	GoFlight hardware support	<input type="checkbox"/> Enabled	Advanced
	SIOC Direct	<input type="text"/> <input type="text"/>	Advanced
+	IOCP Server	<input type="text"/> <input type="text"/>	
	Matrix Orbital display support	<input type="checkbox"/> Enabled	
	Phidgets support	<input type="checkbox"/> Enabled	Advanced
	Phidgets 22 support	<input checked="" type="checkbox"/> Enabled	Advanced

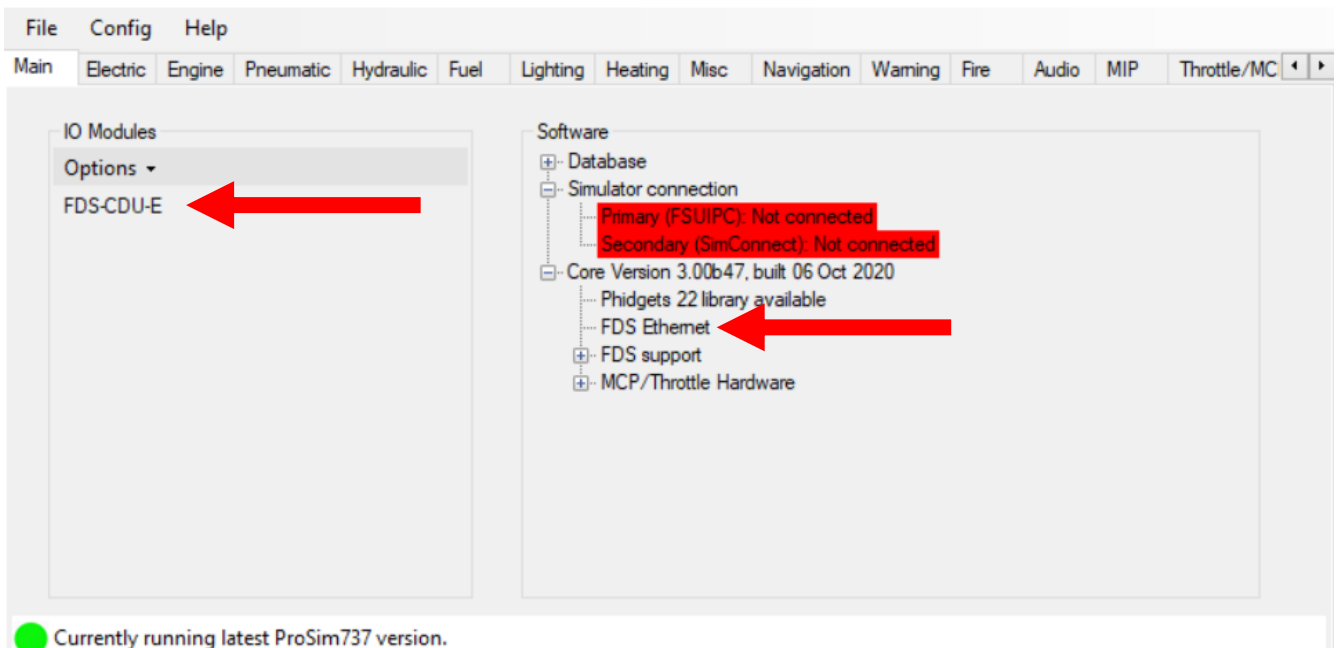
OK
Cancel

Open the ProSim System B737 Config screen and open the Drivers Tab. Version 3.08b13 or higher is required.

Enable **“FDS Ethernet”**

Click **“OK”**

ProSim will reload.



In the IO Modules list you will see **“FDS-CDU-E”** and **FDS Ethernet** in the Software List.

***It is recommended you use the Test Module to locate the IP Addresses of each CDU. ProSim does not have a way to tell you which CDU is which. Change the default “Host Name to “CA_CDU and FO_CDU as per page 13 in this manual.**

Default Host Name looks like this: IIT801F12889819

In ProSim, there is a requirement to change the “Host Name” to match the CDU position in the simulator. The 2 names are :

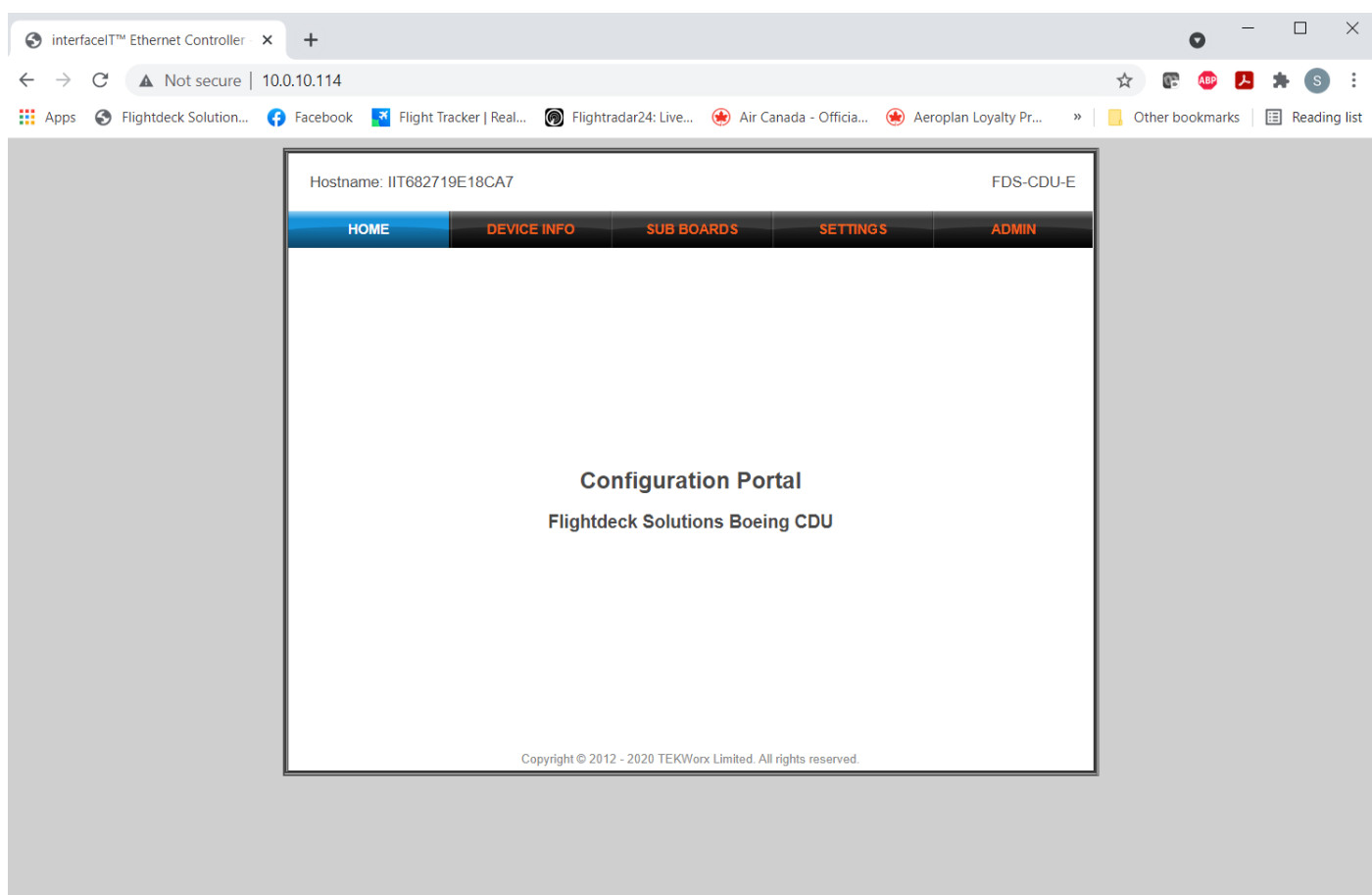
CA_CDU

FO_CDU

There must be NO spaces so use an underscore as shown above.

Once ProSim sees the new Host Name it will automatically assign each CDU to that position.

Type the IP Address you get from the Test Module into your browser and you can open the following pages.



Click on the “Settings” tab and the Host Name is visible. This is where you will change the Default Host Name to the new Host Name depending on the position of the CDU.

CA_CDU or FO_CDU

Hostname: IIT682719E18CA7

FDS-CDU-E

HOME

DEVICE INFO

SUB BOARDS

SETTINGS

ADMIN

CAUTION: Incorrect settings may cause the device to lose network connectivity.

Network

Host Name: IIT682719E18CA7

MAC Address: 68:27:19:E1:8C:A7

☒ Enable DHCP

IP Address: 10.0.10.114

Gateway: 10.0.10.1

Subnet Mask: 255.255.255.0

Primary DNS: 192.168.1.1

Secondary DNS: 0.0.0.0

Miscellaneous

Board Location: 1

Board Usage: 1

Save Configuration

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Change the Host Name to the position of the CDU as per below

Hostname: IIT682719E18CA7

FDS-CDU-E



CAUTION: Incorrect settings may cause the device to lose network connectivity.

Network	Miscellaneous
Host Name: <input type="text" value="CA_CDU"/>	Board Location: <input type="text" value="1"/> ▼
MAC Address: <input type="text" value="68:27:19:E1:8C:A7"/>	Board Usage: <input type="text" value="1"/> ▼
<input checked="" type="checkbox"/> Enable DHCP	
IP Address: <input type="text" value="10.0.10.114"/>	
Gateway: <input type="text" value="10.0.10.1"/>	
Subnet Mask: <input type="text" value="255.255.255.0"/>	
Primary DNS: <input type="text" value="192.168.1.1"/>	
Secondary DNS: <input type="text" value="0.0.0.0"/>	

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Click on the “Save Configuration” to allow the TEKWorx software to change the Host Name.as per below

Hostname: IIT682719E18CA7FDS-CDU-E

HOME

DEVICE INFO

SUB BOARDS

SETTINGS

ADMIN

CAUTION: Incorrect settings may cause the device to lose network connectivity.

Network

Host Name: CA_CDU

MAC Address: 68:27:19:E1:8C:A7

☒ Enable DHCP

IP Address: 10.0.10.114

Gateway: 10.0.10.1

Subnet Mask: 255.255.255.0

Primary DNS: 192.168.1.1

Secondary DNS: 0.0.0.0

Miscellaneous

Board Location: 1 ▾

Board Usage: 1 ▾

Save Configuration

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The new Host Name is shown after re-connecting.

Hostname: IIT682719E18CA7

FDS-CDU-Es

HOME

DEVICE INFO

SUB BOARDS

SETTINGS

ADMIN

New settings have been successfully saved.

The board is now located at: http://CA_CDU/

The board is now rebooting.

Reconnecting in 19 seconds

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You can enter the new CA_CDU Host Name in the Settings page and see the change. Top of the screen and in the Host Name box.

Hostname: CA_CDU FDS-CDU-E

HOME DEVICE INFO SUB BOARDS SETTINGS ADMIN

CAUTION: Incorrect settings may cause the device to lose network connectivity.

Network

Host Name:

MAC Address:

☒ Enable DHCP

IP Address:

Gateway:

Subnet Mask:

Primary DNS:

Secondary DNS:

Miscellaneous

Board Location: ▼

Board Usage: ▼

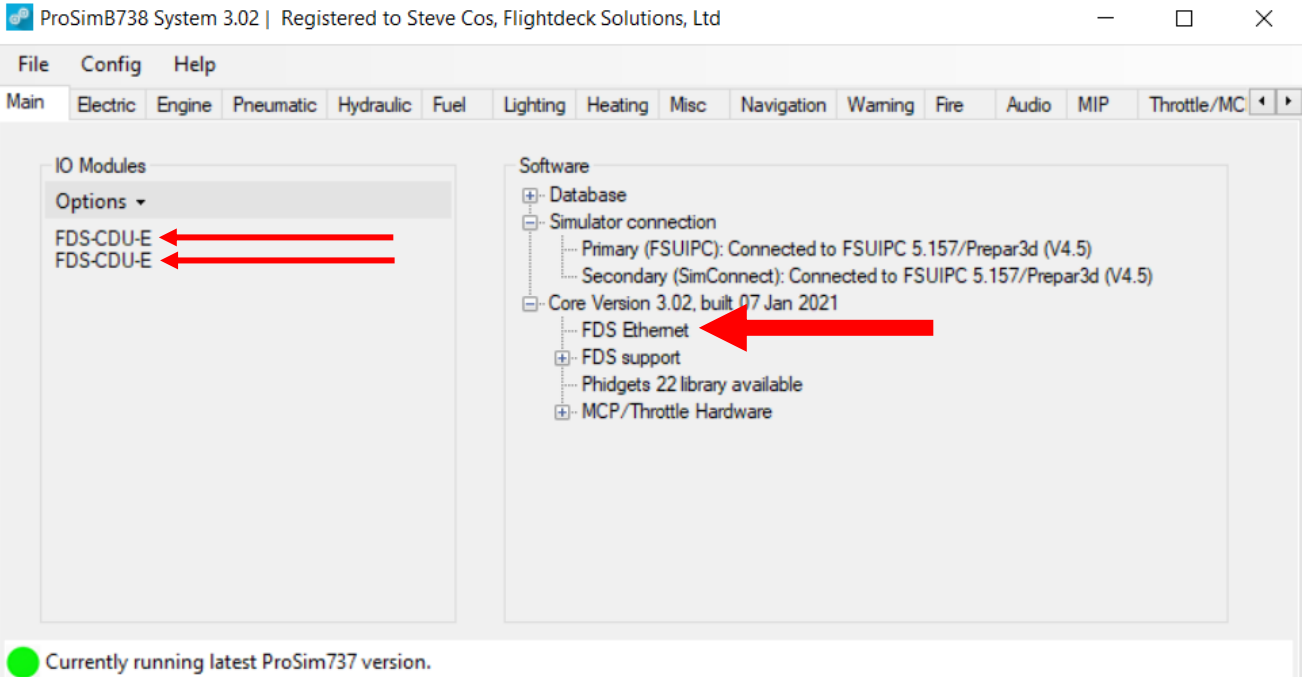
Save Configuration

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7/1/2021

FDS-PRO-Ethernet-CDU-ProSim-
V1.2

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IO Modules list you will see **“FDS-CDU-E”** and **FDS Ethernet** in the Software List. You will see two **“FDS-CDU-E”** if you have 2 CDU’s installed and configured. See above.

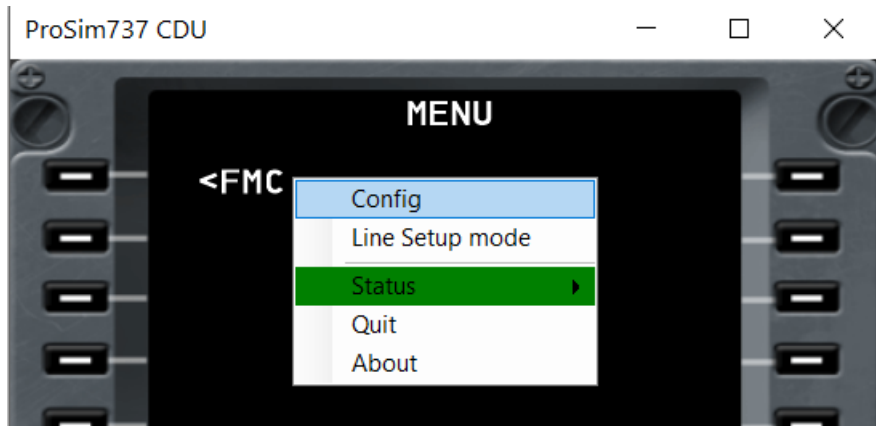
- Open the ProSimCDU Software.
- Setup the CDU software by selecting the CDU Position (Captain or First Officer)





- Open the Config and Select the CDU Role (Captain or First Officer)
- We usually set the Font's to 14.04 for both
- Drag the CDU to the CDU screen.
- Follow the ProSim Instructions to use the CDU in Full screen.

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Options

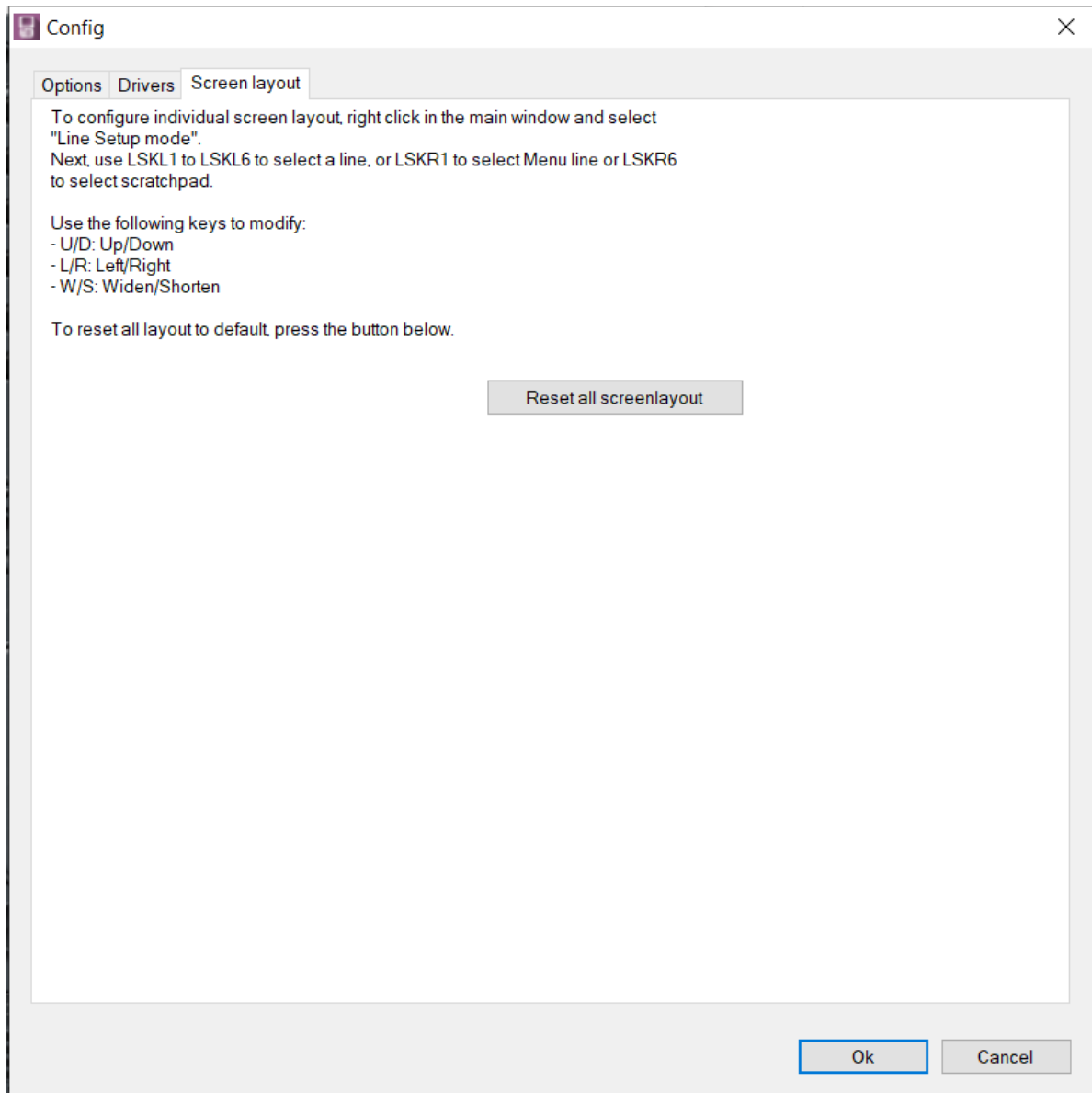
- | | |
|---|--|
| <input type="checkbox"/> Start minimized | <input checked="" type="checkbox"/> Show frame |
| <input type="checkbox"/> Start fullscreen | <input checked="" type="checkbox"/> Show border |
| <input type="checkbox"/> Preferred host for WebCDU | <input type="checkbox"/> Do not move window when border is off |
| <input type="checkbox"/> Stay on top | <input checked="" type="checkbox"/> Use color |
| <input type="checkbox"/> Hide mouse cursor | <input checked="" type="checkbox"/> Doubleclick to resize |
| <input type="checkbox"/> Allow remote computer shutdown | <input type="checkbox"/> Use keyboard leds |
| <input type="checkbox"/> FANS MCDU | <input type="checkbox"/> Enable Sound |
| CDU Role | Standalone CDU ▼ |

- Open the Config and Select the CDU Role (Captain or First Officer)
- We usually set the Font's to 14.04 for both
- Drag the CDU to the CDU screen.
- *Start Fullscreen* checked
- *Show Frame* and *Show Border* Unchecked.
- Click OK



Follow the Line Setup as per the ProSim Instructions.

Instructions show up in Config



Follow the Line Setup as per the ProSim Instructions.

Instructions show up in Config Tab under Screen Layout



Power Supply with adapters, Ethernet Cable supplied along with an IBL Cable for CDU Key Backlighting.

Terminology

CDU	Computer Display Unit
LSK	Line Select Key
FDS	Flightdeck Solutions Ltd
GFX	Video Graphics Card
IBL	Integrated Back Lighting for FDS Panels
MIP	Main Instrument Panel
OH	Overhead
PED	Center Aisle Stand or Pedestal
SBC	SYSBoard Controller
TQ	Throttle Quadrant
Ethernet	Technology that connects wired local area networks (LANs) and enables the device to communicate with each other through a protocol which is the common network language. Devices are connected to a Network Switch and each device will have its own IP Address.