

# FLIGHTDECK

SOLUTIONS



## FDS-PRO-Ethernet-CDU

## PMDG 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 there are limited GFX cards available.

The newest version lets you use the latest GFX cards.

\*Minimum requirement for GFX cards is a 2 GIG card.

PMDG Drivers are available from the TEKWorx webpage. Check for updates if you have installed the software already. Updates may contain fixes or enhancements for some or all PMDG aircraft.

Drivers located [here](#)



TEKWorx Website for updates and other FDS related drivers [here](#)

\*\*\*We offer limited support for PMDG software, the following software is designed to use with P3D and at this time it is **NOT** available for MS2020.\*\*\*

Please refer to the FDS Forum/Interface Products [here](#)

## Necessary Files that need to be installed in P3D Vx.x

All the PMDG modules (which will only show up if you have Sim-Connect installed otherwise, they won't load to get their names) require the files located in this folder.

C:\Prepar3D v4\redist\Interface (or your default P3D folder)

4 are required (Russian and Japanese version only if you require them)

Example of location in each folder:

C:\Prepar3D v4\redist\Interface\FSX-RTM\**retail\lib** then run the .msi and "Accept" if indicated.

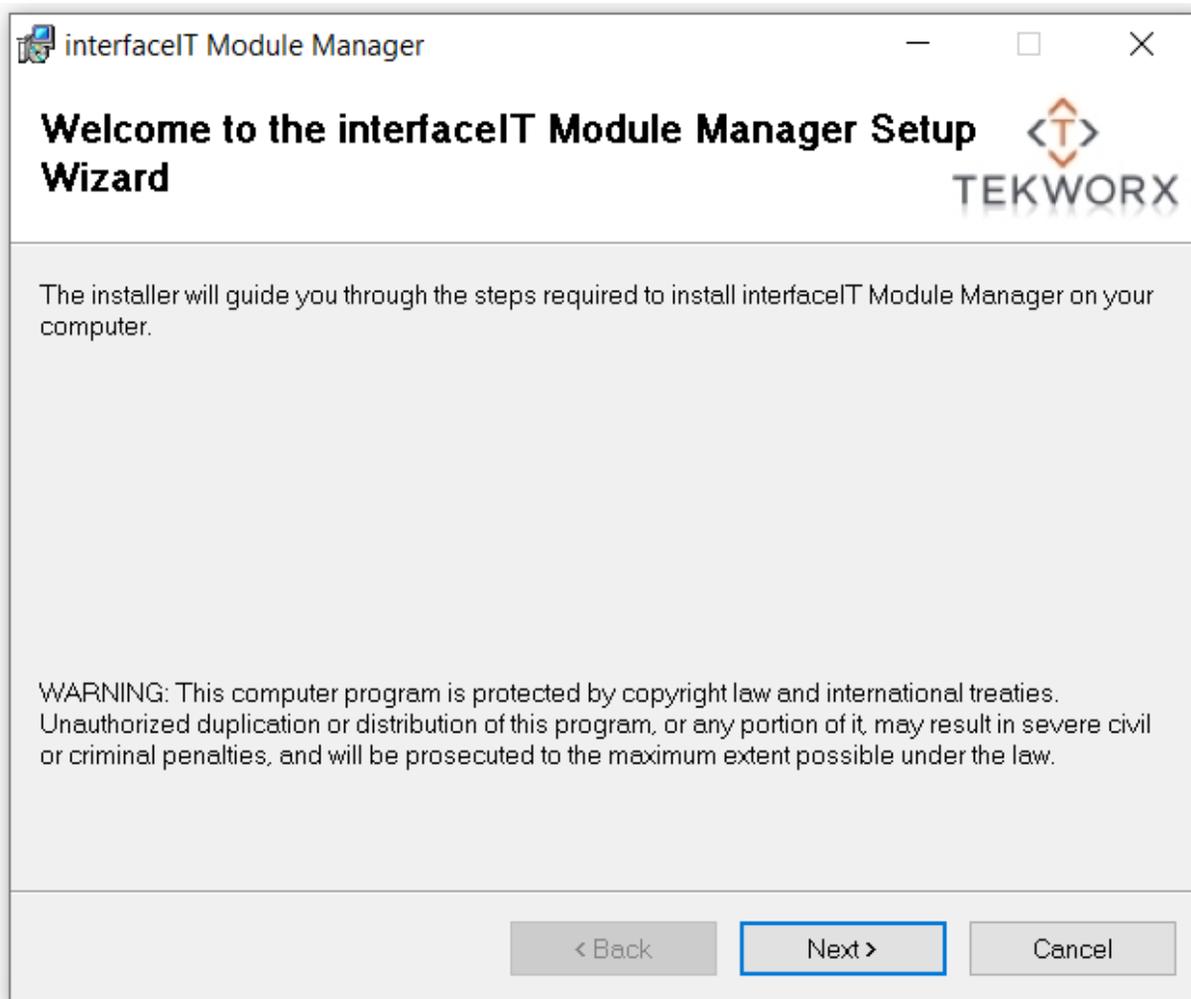
Files are in the Programs Screen in Control Panel.

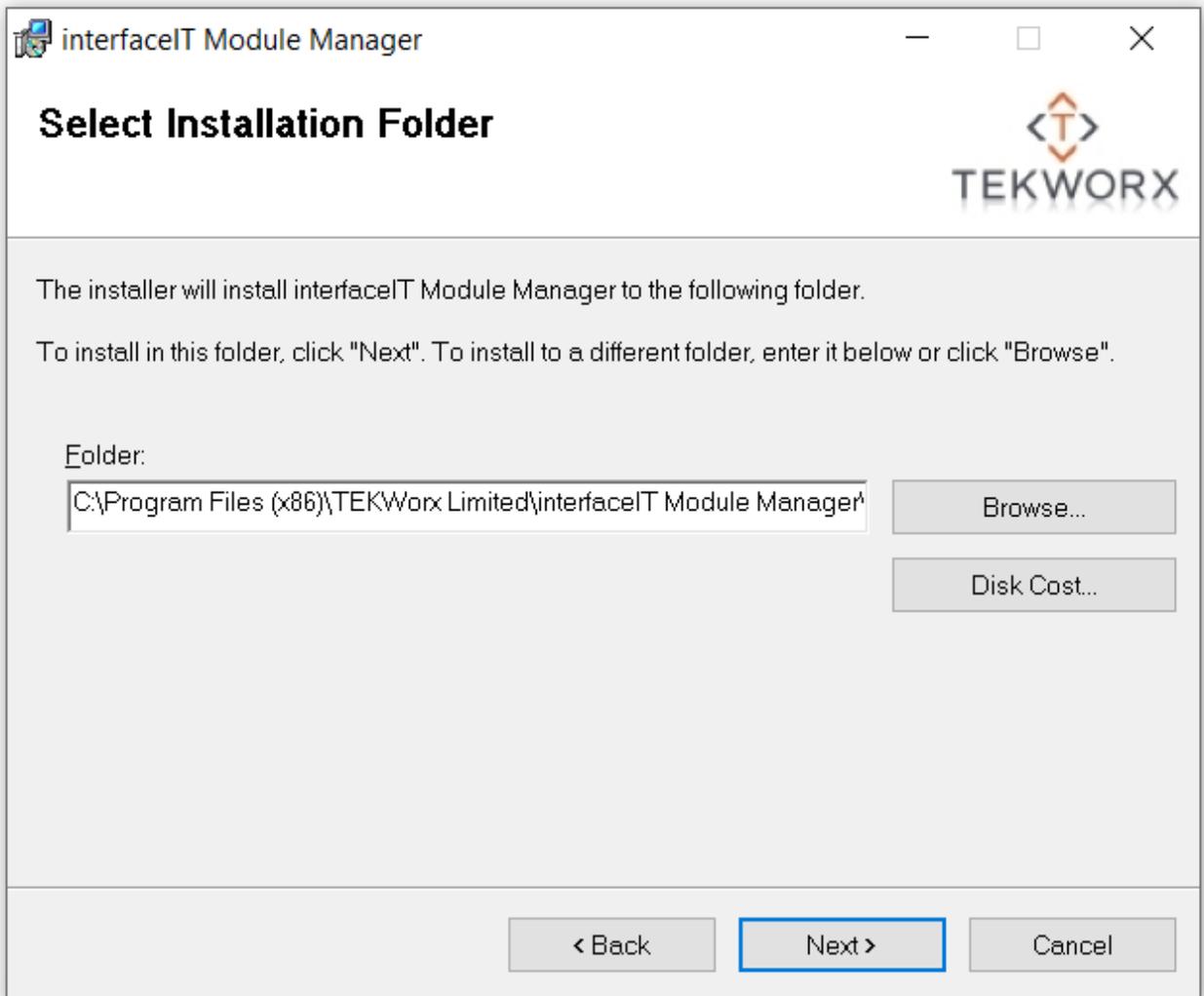
*Control Panel\Programs\Programs and Features*

Refer to the following webpage [here](#) for additional information.

The CDU Module has a test module that will provide a graphic showing switch presses and LED's. Screen will show up once plugged into a PC and will turn on and then off unless the PC is turned on. You will see your Desktop on the screen. The CDU graphic screen in PMDG needs to be undocked and moved to the FDS-CDU hardware screen.

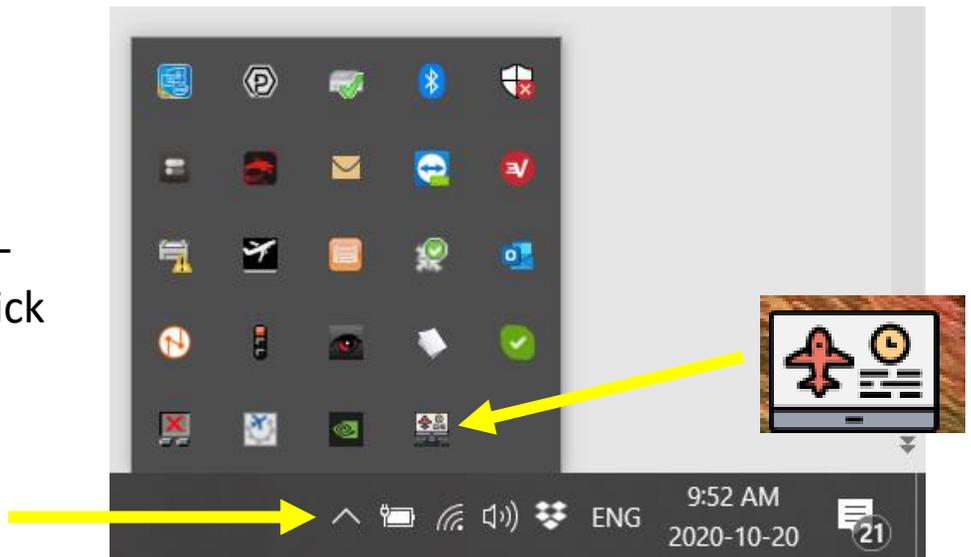
Download and install the InterfacelT Module Manager, leave the Folder location as selected by the installer. You will want to locate the folder and create a shortcut to your Desktop for easy access. **The Module Manager needs to be running in order to use the CDU every flight.** Once started (After configuration) it shows up in the “Hidden Icons” in the Taskbar. Left –click then right-click on the icon. See page 6 and 7.





Default Folder installation location in Program Files (x86)

Once started it shows up in the "Hidden Icons" in the Taskbar. Left – click then right-click on the icon.



interfaceIT™ Module Manager Configuration



CDU Settings

Available Modules

Configure

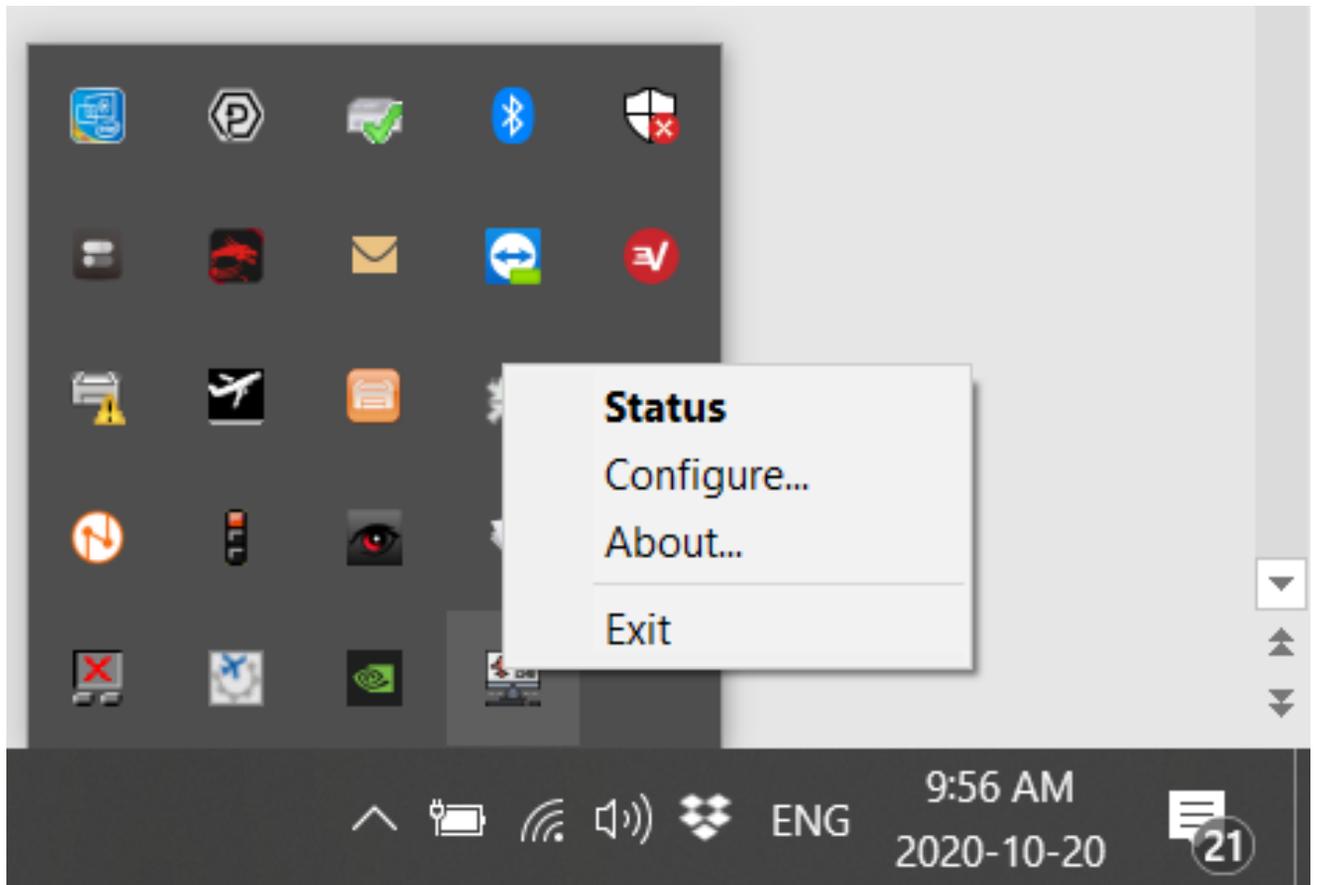
Devices

Device	Type	Assignment

NOTE: Double click item assignment to

Add Remove

Save Cancel



This allows you to access the following pages in the Module:

- Status
- Configure
- About
  
- Exit

Available Modules

PMDG 777X

PMDG 737 NGX

PMDG 737 NGXu

PMDG 747 QOTS II

PMDG 777X

Test Module - Ethernet CDU Controller

Device	Type	Assignment

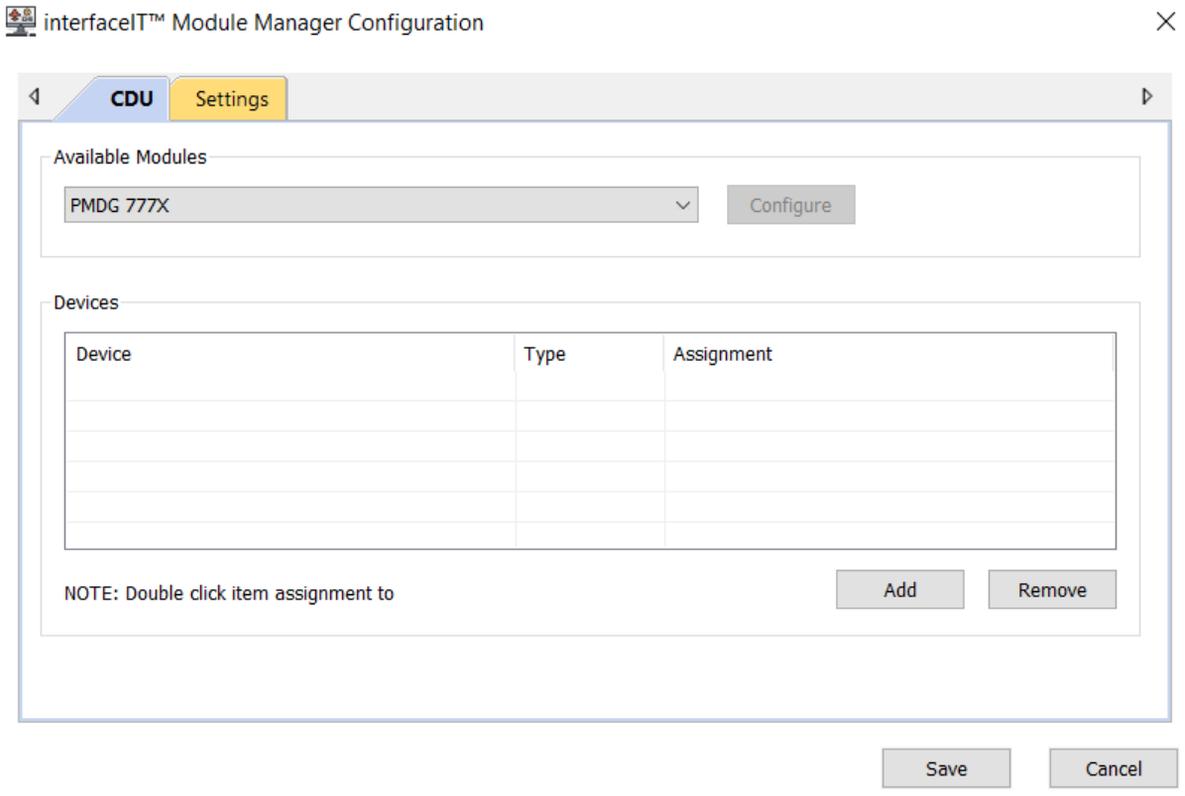
NOTE: Double click item assignment to

Add Remove

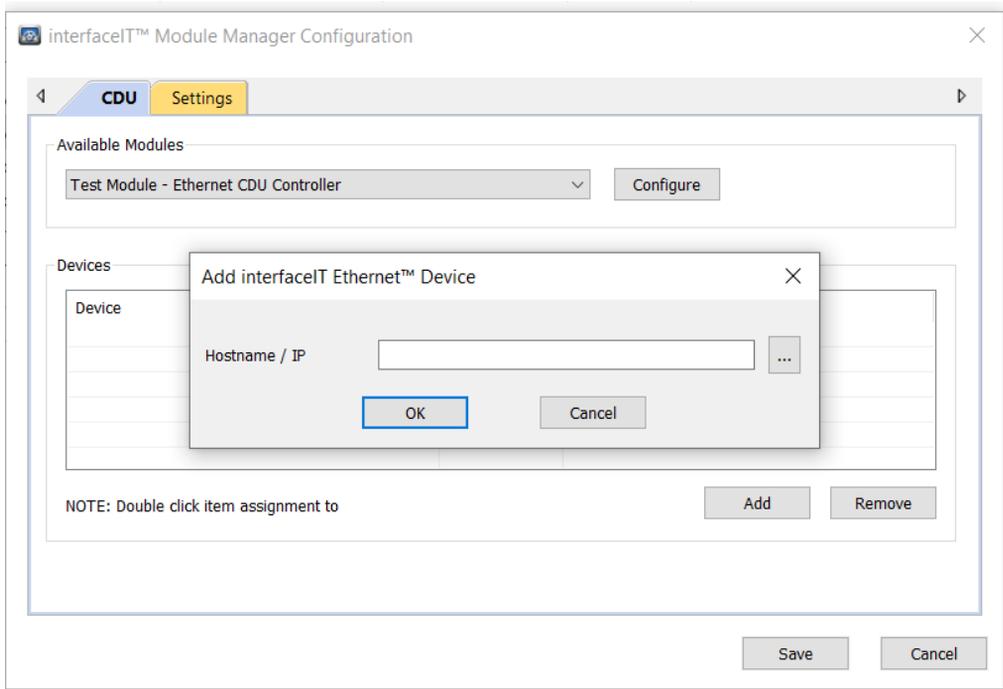
Save Cancel

## Available modules:

- PMDG737 NGX
- PMDG 737 NGXu
- PMDG 747 QOTS II
- PMDG 777X
- Test Module-Ethernet CDU Controller only



Select the aircraft you are using from the Drop-down Menu



Click on “Add”, click on small box to see IP Address then “OK”

interfacelIT™ Module Manager Configuration

CDU Settings

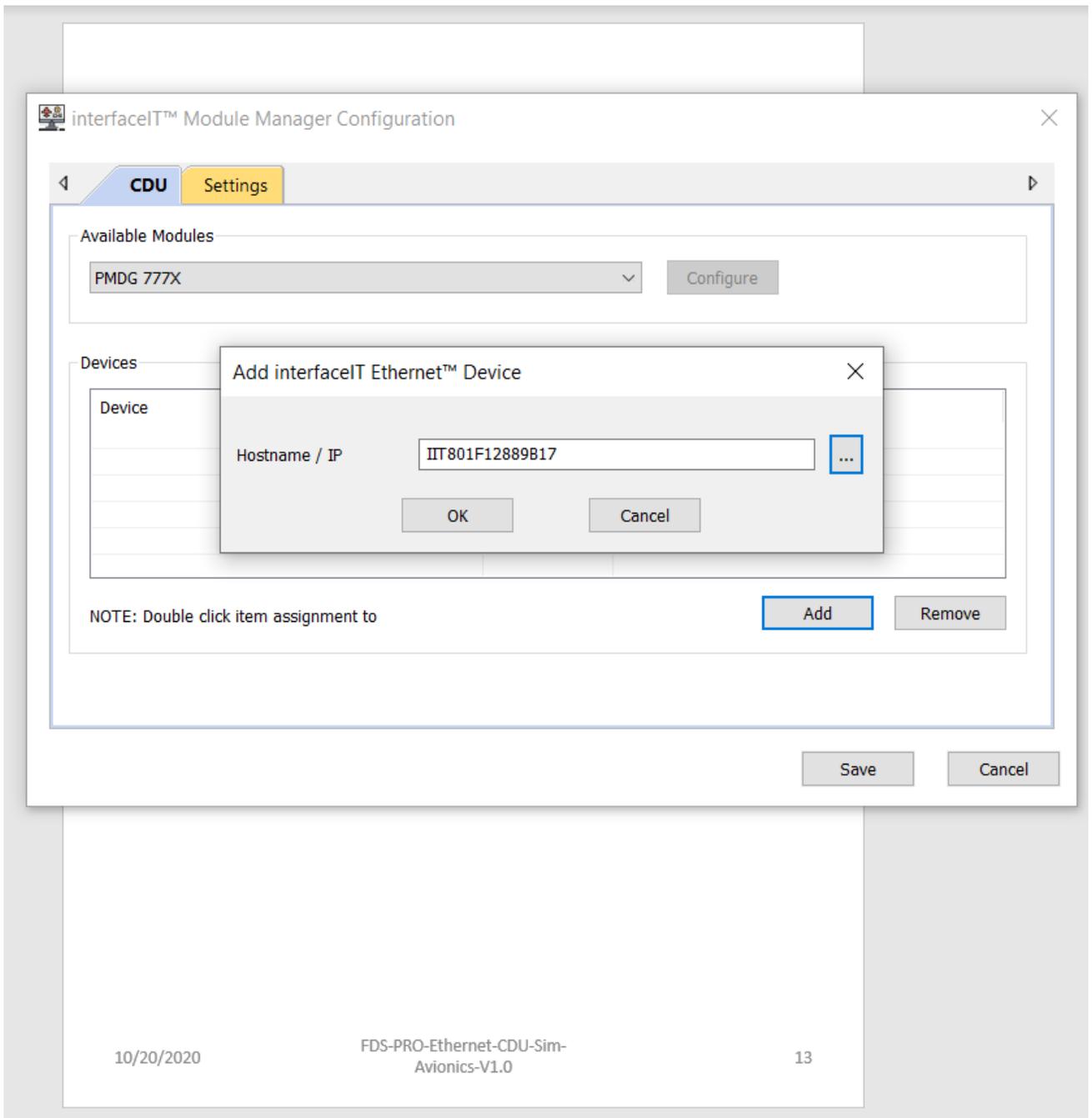
interfacelIT Ethernet Device Discovery

Hostname	IP Address	MAC Address	Last Message	Co...	Type	Description
IIT801F12889...	10.0.10.130	80-1F-12-88-9...		0E08	FDS-CDU-E	Flightdeck Solutions Boeing CDU

Select Close

Save Cancel

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IP Address shows up and click “OK”

Available Modules

PMDG 777X

Devices

Device	Type	Assignment
IIT801F12889B17	Ethernet	

NOTE: Double click item assignment to

Available Modules

PMDG 737 NGX

Devices

Device	Type	Assignment
IIT801F12889B17	Ethernet	Left
		Not Assigned
		Left
		Right

NOTE: Double click item assignment to

Available Modules

PMDG 737 NGX

Devices

Device	Type	Assignment
IIT801F12889B17	Ethernet	Left
		Not Assigned
		Left
		Right

NOTE: Double click item assignment to

Click on “Assignment” & select which CDU it will be assigned as.

CDU Settings

Available Modules

PMDG 747 QOTS II Configure

Devices

Device	Type	Assignment
IIT801F12889B17	Ethernet	<div style="border: 1px solid gray; padding: 2px;"> <span style="background-color: #0056b3; color: white; padding: 2px;">Left</span> <span style="padding: 2px;">Not Assigned</span> <span style="background-color: #0056b3; color: white; padding: 2px;">Left</span> <span style="padding: 2px;">Right</span> <span style="padding: 2px;">Center</span> </div>

NOTE: Double click item assignment to

Add
Remove

Save
Cancel

CDU Settings

Available Modules

PMDG 777X Configure

Devices

Device	Type	Assignment
IIT801F12889B17	Ethernet	<div style="border: 1px solid gray; padding: 2px;"> <span style="background-color: #0056b3; color: white; padding: 2px;">Left</span> <span style="padding: 2px;">Not Assigned</span> <span style="background-color: #0056b3; color: white; padding: 2px;">Left</span> <span style="padding: 2px;">Right</span> <span style="padding: 2px;">Center</span> </div>

NOTE: Double click item assignment to

Add
Remove

Save
Cancel

PMDG SIMULATIONS, LLC.

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Products Compatible with Prepar3D, by Lockheed Martin Corporation.

This End-User License Agreement ("EULA") pertains to PMDG Simulations, LLC's Copyrighted computer software (the "Software") in the package containing CD-ROMs, diskettes, associated media, printed materials, electronic distribution files or electronic documentation. Please read the terms and conditions of this End-User License Agreement ("EULA") before installing or using the Software.

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OK

Cancel

Read and Click OK on this screen to continue



PMDG options updated to allow reading variables.

Please restart Prepar3D.

OK

CDU Settings

Available Modules

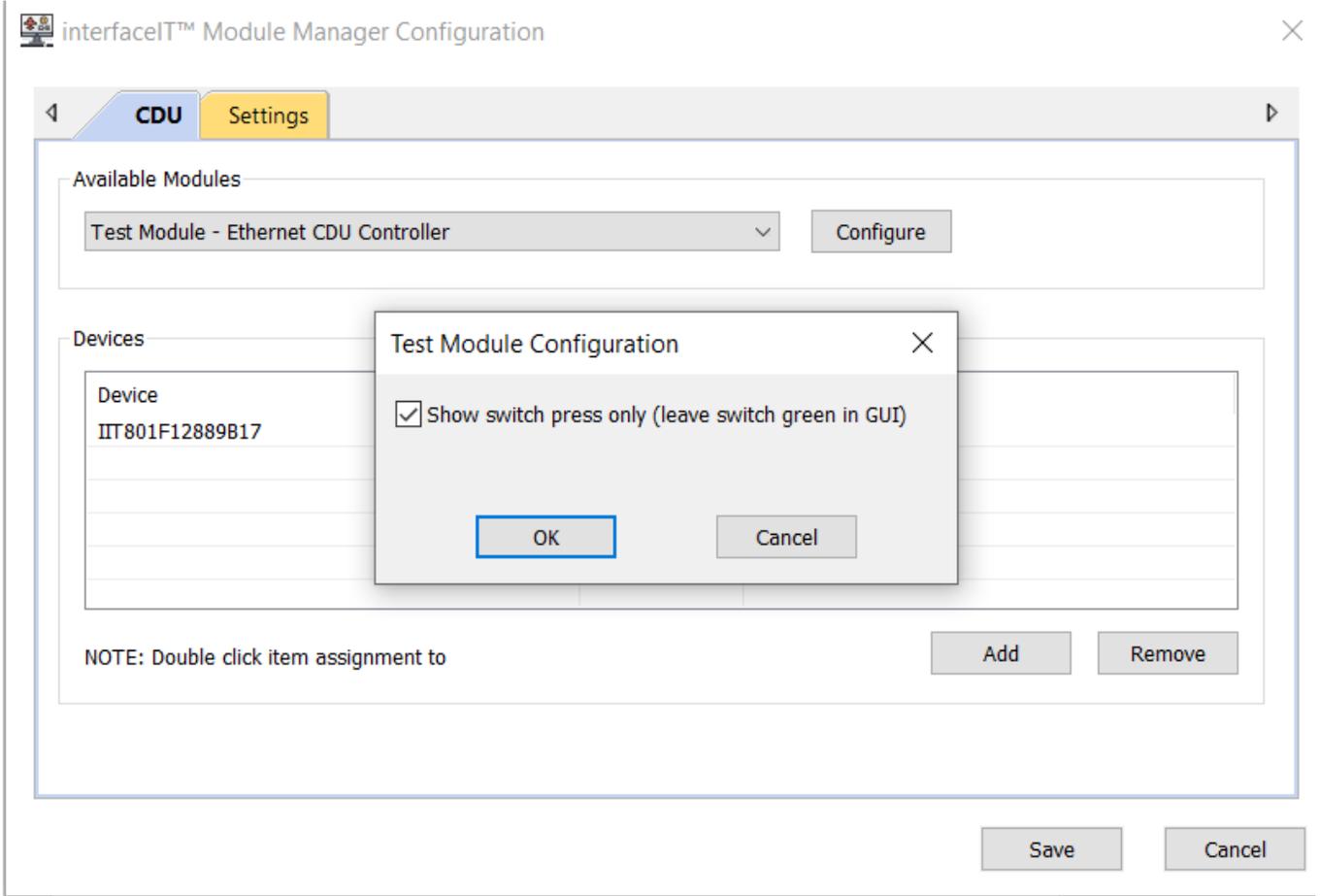
Test Module - Ethernet CDU Controller

Devices

Device	Type	Assignment
IIT801F12889B17	Ethernet	Not Assigned
		Not Assigned
		CDU 1
		CDU 2
		CDU 3

NOTE: Double click item assignment to

Test Module feature of the software



Checkbox will leave the switch that is pressed Green ON in the CDU GUI. All the switches will be Green when testing the keyboard.

Unchecked will only show the switch that is pressed (will flash)

**Boeing Layout**

35 65  
43 66  
51 67  
59 68  
56 69  
71 70

57 58 60 61 62 64 63  
49 50 52 53 54 55  
41 42 44 45 46 47 48  
33 34 36 37 38 39 40  
25 26 27 28 29 30 31 32  
17 18 19 20 21 22 23 24  
9 10 11 12 13 14 15 16  
1 2 3 4 5 6 7 8

**Device Type**

Boeing  Airbus

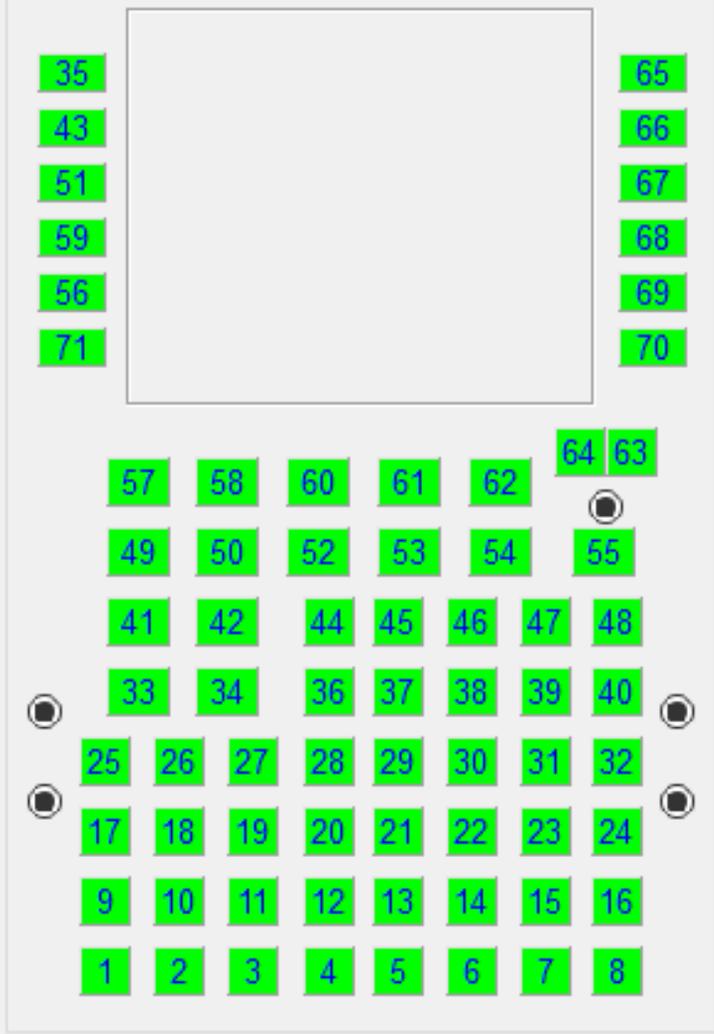
**Outputs**

LED 1  LED 6  
 LED 2  LED 7  
 LED 3  LED 8  
 LED 4  LED 9  
 LED 5  LED 10

0 Inputs received

Reset

### Boeing Layout



### Device Type



Boeing



Airbus

### Outputs



LED 1



LED 6



LED 2



LED 7



LED 3



LED 8



LED 4



LED 9



LED 5



LED 10

73 Inputs received

Reset

CDU **Settings**

Show Status Page on Launch

Load Delay (sec):

Enable Logging (requires a restart)

Advanced Test settings including Load Delay and logging

# PMDG CDU Window Setup

You will need to make an adjustment to the Aircraft Panel.cfg to make the CDU display in Full Screen. Applicable to the 737NGX and the 777X

1. Browse to the folder of the PMDG aircraft you are using :

[FS]\SimObjects\Airplanes\PMDG 737-800NGX\panel\  
[FS]\SimObjects\Airplanes\PMDG 777-200LR\panel\  
In this folder you will find a file called **panel.cfg**

You need to edit this file using something like Notepad or Editor

Scroll down until you find the section:

```
// CDU (Left)
```

```
//
```

```
[Window02]
```

```
BACKGROUND_COLOR=0,0,0
```

```
size_mm=385,600
```

```
window_size= 0.20052, 0.50000
```

```
position=8
```

```
visible=0
```

```
ident=402
```

```
zorder=99
```

(This is the line that needs to be changed)

```
gauge00=PMDG_737NGX!CDU, -50,-50,350,350,L #0
```

***(or gauge00=PMDG\_777X!CDU, -50,-50,350,350,L #0)***

2. Insert these numbers: (copy and paste)

```
gauge00=PMDG_737NGX!CDU, -90,-100,570,1580,L #0
```

( or gauge00=PMDG\_777X!CDU, -90,-100,570,1580,L #0 )

**\*Always back-up the original cfg file just in case.**

### 3. Now you can

- Start FSX/PMDG and select the PMDG aircraft
- Start the CDU Controller Software



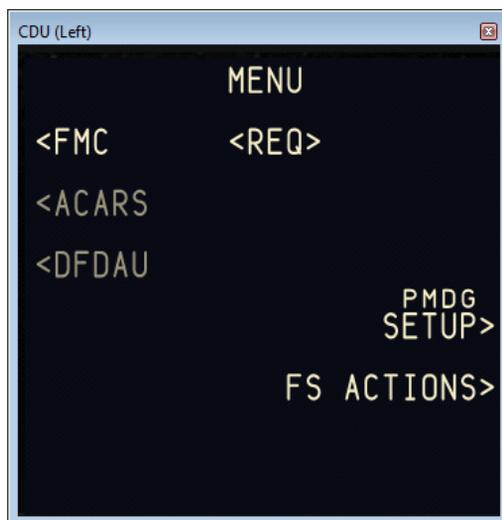
\* You can start these in any order

\*\* If P3D is closed or Restarted then you will also need to restart the CDU Controller Software.

Once you have selected the PMDG aircraft, from the aircraft cockpit you can now

- Click on the CDU to expand the CDU window.
- Right-Click on it to bring up the option menu and Select **UnDock Window**.
- Use ALT + ENTER to go to Full Screen

Once the Window is Undocked you can resize and position the window onto the CDU monitor.



Once the Window is Undocked you can resize and position the window onto the CDU monitor.

Press ALT + ENTER to switch the windows to Full Screen mode and remove the title bars.

Save the P3D/PMDG Scenario to save the new window positions.

**\*Always back-up the original cfg file just in case.**



Sim-Avionics shown on the screen



- Rubberized Keys
- Dome type switches providing millions of cycles
- Brightness switch is functional (screen dimming)



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 "L" position is most commonly used when connected to PMDG as a Desktop CDU.*



Rear View

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



Rear View



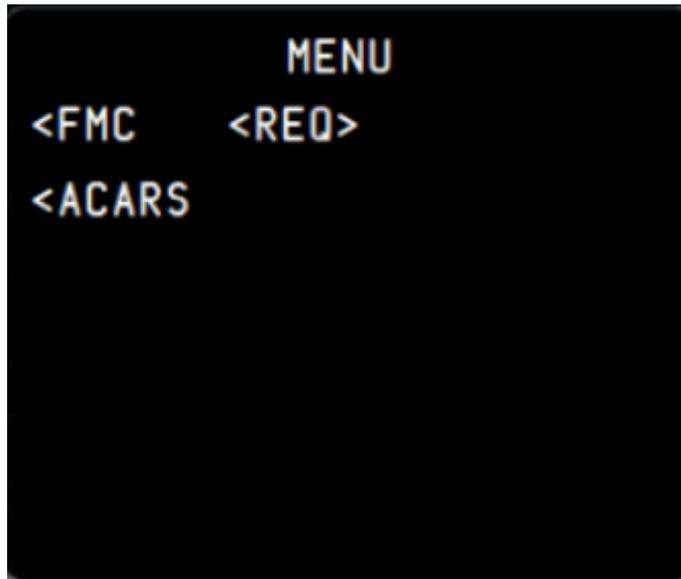
Cables connected to the CDU



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. Not a common item for PMDG users.



Undocked View of the CDU Screen that needs to be dragged to the CDU Hardware screen.

## Terminology

<b>CDU</b>	<b>Computer Display Display</b>
<b>LSK</b>	<b>Line Select Key</b>
<b>FDS</b>	<b>Flightdeck Solutions Ltd</b>
<b>IBL</b>	<b>Integrated Back Lighting for FDS Panels</b>
<b>MIP</b>	<b>Main Instrument Panel</b>
<b>OH</b>	<b>Overhead</b>
<b>PED</b>	<b>Center Aisle Stand or Pedestal</b>
<b>TQ</b>	<b>Throttle Quadrant</b>
<b>Ethernet</b>	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.