

SISMO

SismoLink V2 User Manual

Connector for FS2020/FS2024 & XPlane 12

FS-MAN-SOF-NA-E-23-2454

SismoLink

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1 PURPOSE

This manual explains how to install and operate SismoLink V2, connect Sismo Ethernet cockpit modules, and use the same Windows application with either Microsoft Flight Simulator 2020/2024 and PMDG 737 or X-Plane 12 and Zibo 737-800X.

SismoLink V2 combines the PMDG integration developed in SismoLink V1.8 with the X-Plane functionality previously supplied as OrbitXP. The user selects one simulator mode; only one simulator backend is active in each session.



Note: The iFly 737 MAX connector for Microsoft Flight Simulator 2024 is planned and is not operational in SismoLink V2. No availability date is specified in this edition.

2 REFERENCE DOCUMENTS

Id	Title	Reference	Ed.	Author / Publisher
[R1]	User Manual - SC-MB Ethernet Configuration	SC-MAN-SCE-E-17-0003	Applicable edition	Sismo
[R2]	PMDG 737 SDK documentation	PMDG supplied documentation	Current	PMDG
[R3]	SismoLink Readme	Included with SismoLink V2	Current	Sismo

3 INTRODUCTION TO SISMO HARDWARE

Each Sismo Plug&Fly module (MCP/EFIS, MIP, Pedestal, FWD Overhead and AFT Overhead) has its own hardware components and wiring layout. They are controlled by Sismo SimCards Ethernet boards, a hardware family used by Sismo since 2009.

Ethernet provides a stable LAN connection for the large number of cockpit inputs and outputs handled in real time. A SimCard is the Ethernet interface for its connected cockpit module. A Sismo baseplate provides the expected wiring between the Motherboard and the IDC modules.

A complete Plug&Fly module is not required if the individual Sismo modules, baseplate and SimCards follow the specified wiring. SismoLink is not a general mapping editor for arbitrary third-party panels. Contact Sismo if the wiring specification is required.

3.1 EXAMPLE HARDWARE SET-UP

A typical installation places the simulator PC and the Sismo Ethernet modules on the same cockpit LAN. Each SimCard has its own board IP address and sends its data to the HOST IP and HOST PORT configured for the SismoLink PC.

Module	Typical board IP	HOST PORT
MCP	192.168.1.151	1151
MIP	192.168.1.152	1152
Pedestal	192.168.1.153	1153
FWD Overhead	192.168.1.154	1154
AFT Overhead	192.168.1.155	1155

Note: These are default examples, not mandatory addresses for every network. The SimCard configuration and SismoLink settings must agree. A standalone Motherboard may initially use 192.168.1.150.

3.2 REQUIREMENTS AND SUPPORTED SIMULATORS

Simulator	Aircraft	Status
MSFS 2020 / 2024	PMDG 737	Available
X-Plane 12	Zibo 737-800X	Available
MSFS 2024	iFly 737 MAX	Planned only

64-bit Windows supporting .NET Framework 4.8.1.

A supported simulator and aircraft installation. Use the supplied SismoLink libraries as a matched set.

For PMDG, enable SDK data broadcast. For Zibo, install the supplied Sismo X-Plane plugin.

A working Ethernet connection to the SimCards and firewall permission for the installed SismoLink executable.

3.3 SISMOLINK V2 FEATURES

One SismoLink.exe for PMDG 737 and Zibo 737-800X.

Native 64-bit Windows application.

PMDG communication through Microsoft SimConnect and the PMDG SDK.

Zibo communication through the X-Plane UDP interface and the supplied plugin.

Automatic SimCard discovery and hardware synchronization for supported module families.

Configuration through the SismoLink interface and simulator-specific profiles.

AlbatrossService for hardware diagnostics, including supported inputs, outputs, displays and servos.

Automatic connection monitoring and reconnection support.

Available functionality depends on the variables, events, datarefs and commands exposed by the active aircraft interface. A working hardware output does not prove that the corresponding simulated aircraft function is implemented.

4 HARDWARE COMPATIBILITY

SismoLink V2 supports the following Sismo module families where the installed hardware revision and aircraft interface provide the required functions:

MCP and Captain / First Officer EFIS

MIP

FWD Overhead

AFT Overhead

Pedestal

Supported gauges and servos

The actual module line and release must match the installed hardware. Do not select a newer revision simply because it is available in the software. Hardware mappings are fixed for Sismo wiring and baseplates.

Important: Do not run OrbitXP or another SismoLink instance against the same SimCards at the same time. Only one hardware connector should control the cockpit network.

5 INSTALLATION AND SIMULATOR SELECTION

Back up existing SismoLink and OrbitXP configuration files before upgrading. Keep the old installers until the new setup has been checked.

Close SismoLink and OrbitXP. Install the complete SismoLink V2 package on the cockpit PC.

Keep the supplied DLLs with the executable. Do not replace SimConnect.dll with a DLL from a different SDK.

Run SismoLink and allow network access when Windows Security prompts. Check module IP addresses and ports before testing.

For Zibo, install the supplied X-Plane plugin as described in chapter 8. Start the installed SismoLink once before launching it from the plugin.

Select PMDG or Zibo and verify the Log tab and module tree.

5.1 SELECTING AND CHANGING THE SIMULATOR

Use the Simulator panel in the main window or Tools > Options. The selection is saved for subsequent starts. If a different mode is selected, SismoLink asks whether to restart now.

Yes: SismoLink closes the current connections and restarts using the saved selection.

No: the current simulator remains active for this session; the new selection applies at the next normal start.

Only one backend is active in a session.

5.2 IFLY MAX ENTRY

The iFly MAX option is marked pending. It is a placeholder for the planned MSFS 2024 connector, not a working aircraft connection. If selected for startup, return to PMDG or Zibo in the selection dialog to use the current release.

6 ETHERNET NETWORK AND FIREWALL

Each SimCard has its own board IP address. Its HOST IP is the IPv4 address of the PC running SismoLink, and its HOST PORT is the UDP port on that PC that receives the board telegrams. These settings are distinct from the X-Plane server address and port.

6.1 CHECKING A BOARD

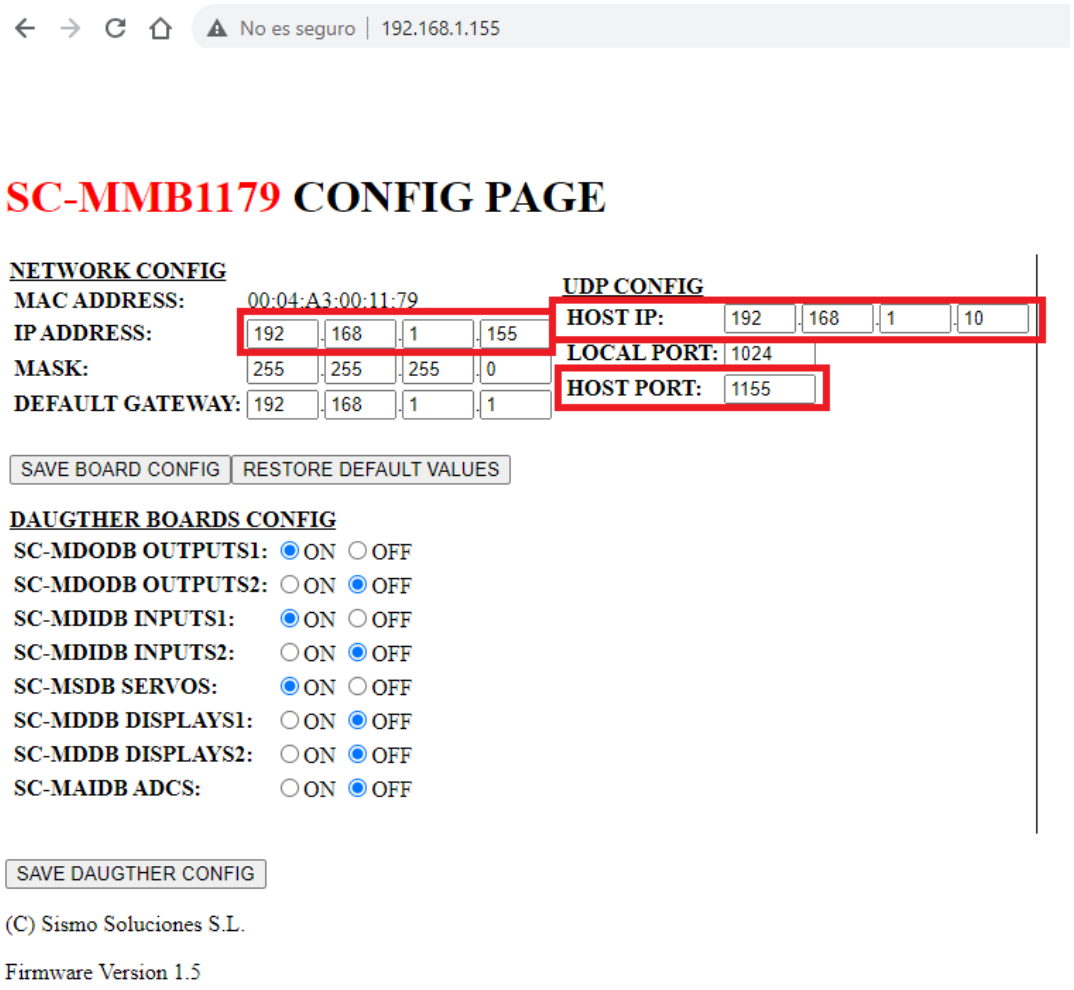
Run ipconfig on the SismoLink PC and identify the IPv4 address of its cockpit Ethernet adapter.

Open the SimCard IP address in a browser, or open its configuration from SismoLink.

Check board IP, HOST IP and HOST PORT. For example, an AFT Overhead at 192.168.1.155 may send to PC 192.168.1.10 on port 1155.

Save changes with SAVE BOARD CONFIG and follow the board instructions if a restart is needed.

Restart SismoLink and check the Log. Some firmware sends only after an input changes, so move a switch or encoder if needed.



Example SimCard web configuration. Verify board IP, HOST IP and HOST PORT.

6.2 WINDOWS FIREWALL

Allow the actual installed SismoLink.exe to receive UDP traffic from the cockpit network. A permission granted to an older executable path may not apply to V2. If detection fails, check inbound rules for the executable and the configured ports, commonly 1151-1155.

Keep Windows Firewall enabled. Local cockpit operation does not require router port forwarding.

7 PMDG CONFIGURATION AND OPERATION

7.1 ENABLE SDK DATA BROADCAST

Locate 737_Options.ini for the installed PMDG aircraft variant. The location varies with simulator version, aircraft variant and distribution. When SDK data is missing, SismoLink logs the detected options-file path; use that information instead of assuming a path from an older manual.

With the simulator closed, ensure the file contains the following setting without duplicating an existing SDK section:

```
[SDK]
EnableDataBroadcast=1
```

Restart Microsoft Flight Simulator after changing the setting. The older manual also listed CDU broadcast options; they are not the basic requirement for the PMDG hardware connection described here.

7.2 START A PMDG SESSION

Start MSFS 2020 or MSFS 2024 and load the supported PMDG 737.

Start SismoLink in PMDG mode. Confirm the module tree and hardware revisions.

Observe the connection status; use Connect if necessary. A SimConnect connection alone is not proof that PMDG SDK data is arriving.

Check for PMDG client-data detection and synchronization messages. Confirm the aircraft model and User Aircraft text.

Compare physical controls and indications with the aircraft. Outputs follow the simulated electrical state, so unpowered aircraft systems may leave physical panels dark.

7.3 HARDWARE BEHAVIOUR AND ELECTRICAL POWER

SismoLink V2 retains the V1.8 PMDG improvements for buttons, momentary controls, encoders, selectors, radio panels, landing gear and electrical power recovery. PMDG bus-powered states govern supported module power. Zibo electrical behaviour is handled separately.

Note: Do not diagnose a dark panel only from SimConnect connection status. Confirm PMDG SDK data and the simulated electrical buses first; then use AlbatrossService to distinguish aircraft mapping from hardware or wiring problems.

7.4 CONNECTION AND SHUTDOWN

The application monitors the simulator connection and supports reconnection. Use Disconnect to stop the connection manually and Connect to resume it. Close SismoLink normally before changing installation files or starting another hardware connector.

8 X-PLANE 12 AND ZIBO CONFIGURATION

8.1 INSTALL THE SISMO X-PLANE PLUGIN

Close X-Plane and the old OrbitXP application. Back up the old OrbitXP plugin folder outside Resources\plugins so it cannot load at the same time.

Extract the plugin package supplied with SismoLink into the X-Plane 12 Resources\plugins directory.

Check that the Windows binary is inside the supplied plugin folder under 64\win.xpl. Keep the filename win.xpl unchanged.

Start the installed SismoLink once and close it. This records its executable location for plugin launch.

Start X-Plane 12 and load Zibo 737-800X.

Important: Use the plugin supplied for SismoLink V2, not an older standalone OrbitXP plugin. Do not install multiple plugin copies at the same time.

8.2 SET THE CONNECTION ADDRESS

Open Tools > Options and select Zibo. On the same PC, the usual endpoint is 127.0.0.1 with UDP port 49000. If X-Plane runs on another PC, enter that PC's IPv4 address and its configured X-Plane UDP port. Allow the necessary traffic between the PCs.

Save the settings and accept the restart if changing simulator mode. X-Plane can connect independently of whether any physical SimCards have been detected; check simulator and hardware status separately.

8.3 PLUGIN CONTROLS AND RECONNECTION

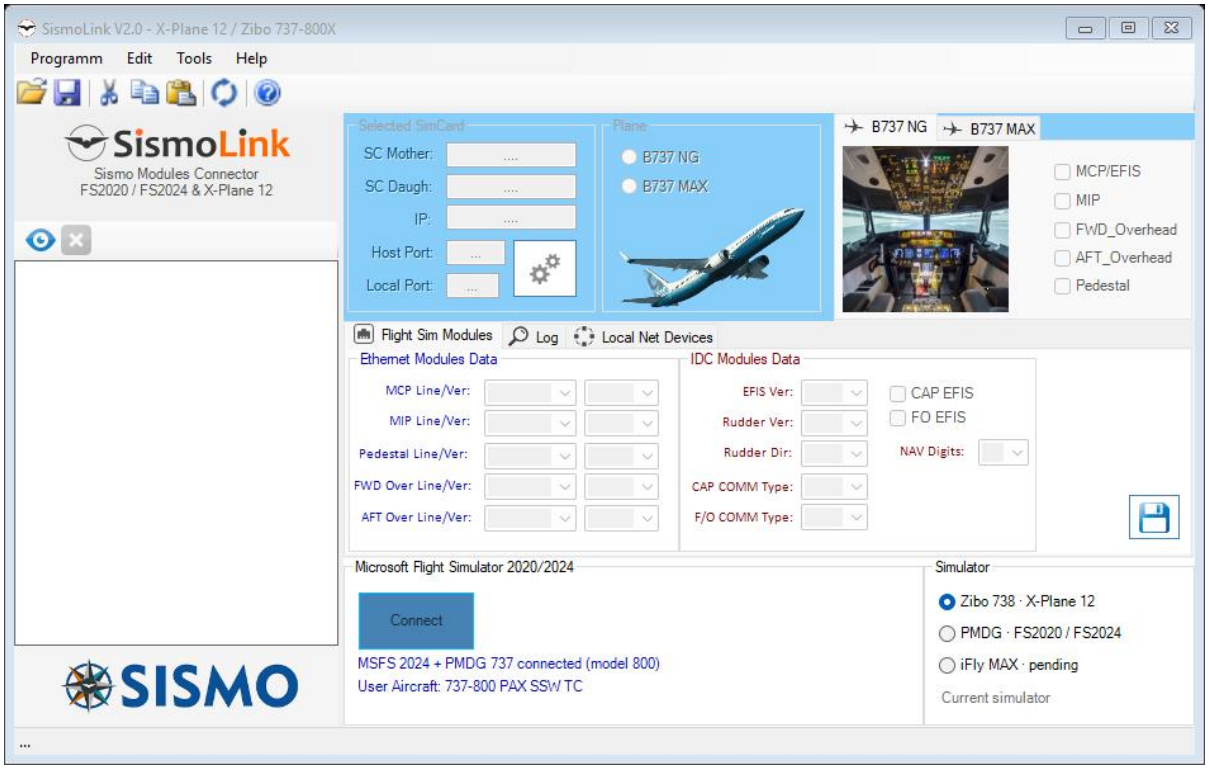
The plugin SismoLink menu provides launch, show and exit controls. Launch requests a Zibo session; it does not switch an already running PMDG session. Closing X-Plane leaves SismoLink available for reconnection. A plugin launch notification alone is not proof that Zibo data is being received.

8.4 ZIBO LIMITATIONS

Functions depend on the installed Zibo datarefs and commands. SELCAL, Cargo Fire, WXR or individual annunciators may be unavailable or partly implemented. Compare the hardware with the virtual panel and consult the current Readme. Do not force unsupported lamps on to imitate a real-aircraft function.

9 MAIN WINDOW AND EVERYDAY OPERATION

The main window combines hardware selection, simulator status and module configuration. The Simulator selector is on the lower right; the SISMO logo is below the module tree on the left.



SismoLink V2 main window. Example values are illustrative; live state depends on the active session.

Module tree: select the detected cockpit module or board. An empty tree means no module has yet been added, even if a UDP receiver is listening.

Selected SimCard: inspect the Motherboard, daughter board, IP and port information. Open the board tools for configuration and diagnostics.

Flight Sim Modules: set the actual module lines and revisions, EFIS options, radio type, NAV digits and rudder configuration. Save changes with the save control.

Log: check configuration loading, receiver startup, simulator connection and errors. Local Net Devices provides network information.

Connection area: use Connect or Disconnect and read aircraft status.

Simulator: save the next mode and accept or defer restart. The Plane NG/MAX controls are separate from this selector and do not enable the unfinished iFly backend.

10 SOFTWARE CONFIGURATION

10.1 CONFIGURATION PROFILES AND MIGRATION

Purpose	Path under %LocalAppData%\Sismo\SismoLink
PMDG settings and saved mode	config.ini
Zibo module settings	Zibo\config.ini
Diagnostics	Logs\

When the root config.ini does not exist, SismoLink first checks the previous ProgramData SismoLink configuration, then the configuration supplied beside the executable. Existing LocalAppData settings are retained.

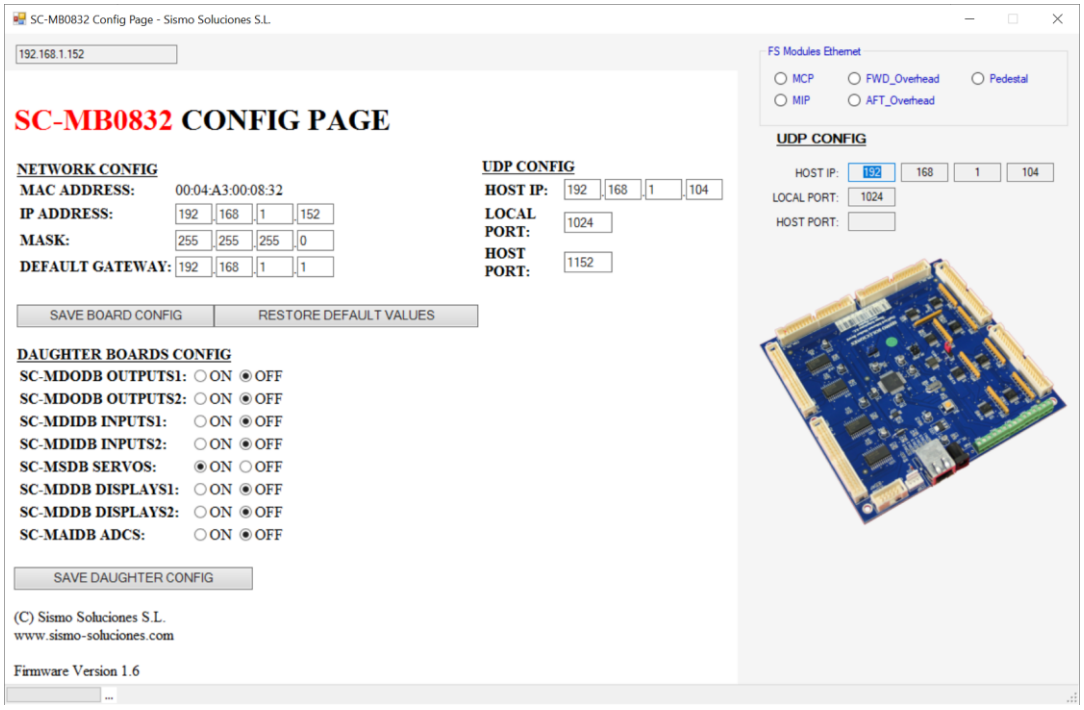
On first Zibo setup, an existing C:\ProgramData\Sismo\OrbitXP\config.ini is imported into the separate Zibo profile when available. Otherwise, the root SismoLink configuration is the starting source. Migration validates the profile and creates backups; it does not modify the original OrbitXP configuration. An existing Zibo profile is preserved.

10.2 IP ADDRESSING

	MCP	MIP	Pedestal	FWD Over	AFT Over
IP	192.168.1.151	192.168.1.152	192.168.1.153	192.168.1.154	192.168.1.155
HOST IP	Computer IP	Computer IP	Computer IP	Computer IP	Computer IP
HOST PORT	1151	1152	1153	1154	1155

10.3 SIMCARDS CONFIGURATION

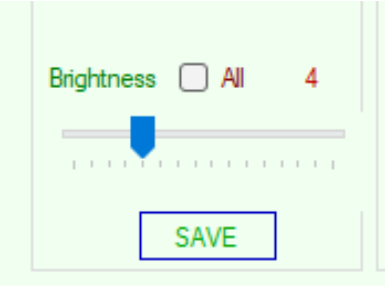
SimCards must be connected to the user LAN as described in [R1]. Network values can be changed directly in the browser using the board IP address or through the board configuration tools in SismoLink. A SimCard supplied with a specific baseplate is normally preconfigured; a standalone board may use 192.168.1.150 by default.



SimCard Motherboard configuration page available from SismoLink.

10.4 DISPLAYS BRIGHTNESS

Display brightness for supported Plug&Fly modules can be adjusted and saved in the active configuration profile. Brightness keys include MCP_BRIGHTNESS, PED_BRIGHTNESS, AFT_OVER_BRIGHTNESS and FWD_OVER_BRIGHTNESS; the documented range is 0-15.



Example display brightness control retained from the previous manual.

10.5 EDITING THE CONFIG FILE

Use the graphical interface for settings exposed by SismoLink. For manual changes, close SismoLink, back up the active profile, preserve exact keys, quotation marks, separators and hardware revision values, then restart the application and check the Log.

10.5.1 Mode and endpoint example

```
SIMULATOR_MODE                                    =                                    "ZIBO"
XP_SERVER_IP                                    =                                    "127.0.0.1"
XP_PORT = 49000
```

10.5.2 Module entry example

```
SIMMOD737_MCP = "NG;MCP;ALPHA;V3;192.168.1.151"
```

The fields are aircraft type, module name, hardware line, revision and board IP, separated by semicolons. Replace example revisions with the actual installed hardware revision. For Zibo, use Boeing 737-NG. Never select MAX simply to activate the unfinished iFly connector.

11 MODULE SETTINGS AND HARDWARE DIAGNOSTICS

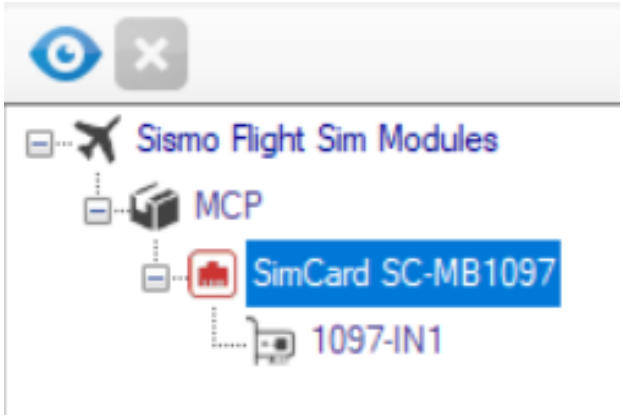
11.1 HARDWARE REVISIONS AND PANEL TYPES

Select the actual module line and release, not the newest value by default. Verify MCP/EFIS revision, Captain and F/O EFIS units, Captain and F/O VHF or RT radio panels, NAV digit count and rudder-trim version. For potentiometer rudder trim, also check the applicable direction setting.

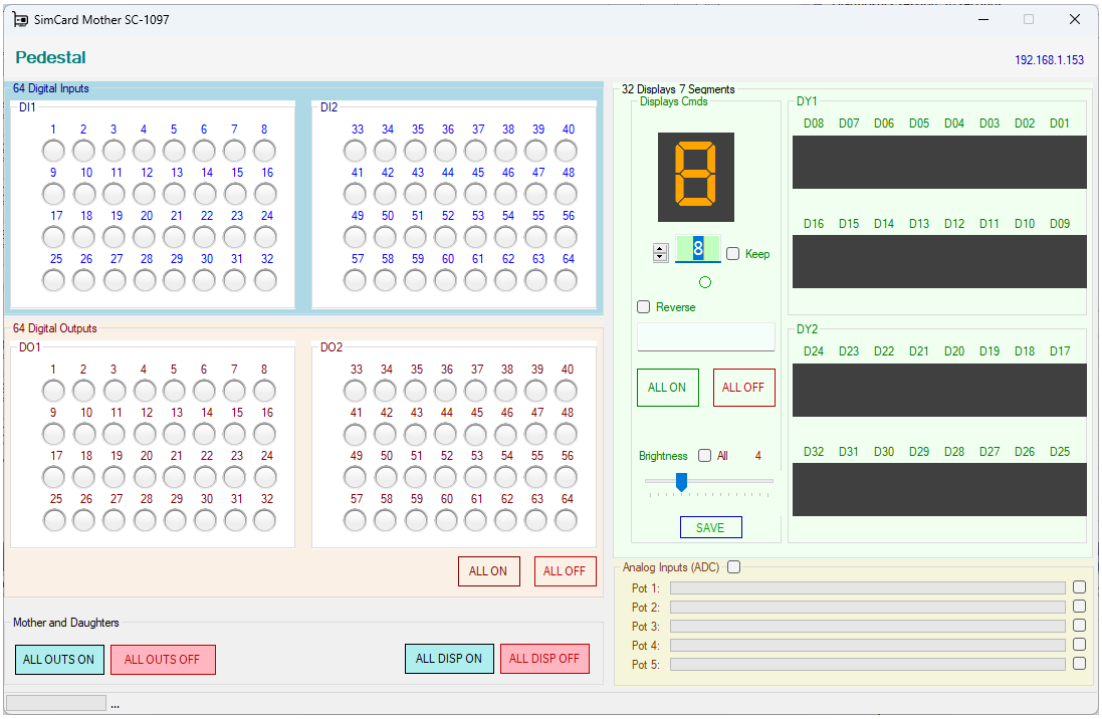
FWD_OVER_ENCs and AFT_OVER_ENCs select CTS or ALPS encoder handling. If a control rotates in the wrong direction or skips steps, identify the installed encoder before changing the setting. Do not copy another cockpit's values without checking its hardware.

11.2 ALBATROSSSERVICE

Select a board and open its diagnostic/service window. Observe digital and analog inputs while moving the corresponding control. Test supported outputs, displays and servos to distinguish wiring or hardware problems from aircraft mapping problems. Restore normal simulator control after testing.



Select a SimCard and open the hardware testing service.



SimCard Motherboard diagnostic window: inputs, outputs, displays, analog inputs and service controls.

11.3 SERVO ACTIVATION AND CALIBRATION

Verify that the SimCard and Servo Board are detected and enabled.

Open the supported gauge calibration control using its gear icon and follow the calibration dialog for that gauge.

Save the calibration in the active simulator profile. Use known safe mechanical positions; do not copy generic example positions into a real gauge.

Check the gauge against several corresponding aircraft values, not just an endpoint.

For the FWD Overhead, check CONT CAB, FWD CAB and AFT CAB temperature potentiometers against the virtual aircraft. Confirm analog-input movement over the physical range before investigating an aircraft variable or dataref.

11.4 HARDWARE-CONTROLLED FUNCTIONS

In the inherited Zibo implementation, basic Pedestal Bright Panel and MIP BALC functions are hardware-controlled. CBC and FOBC panel brightness is hardware-controlled; screen brightness is not supported by those functions. An All Lights test proves an output, not that every aircraft indication has a usable dataref.

12 QUESTIONS AND ANSWERS / TROUBLESHOOTING

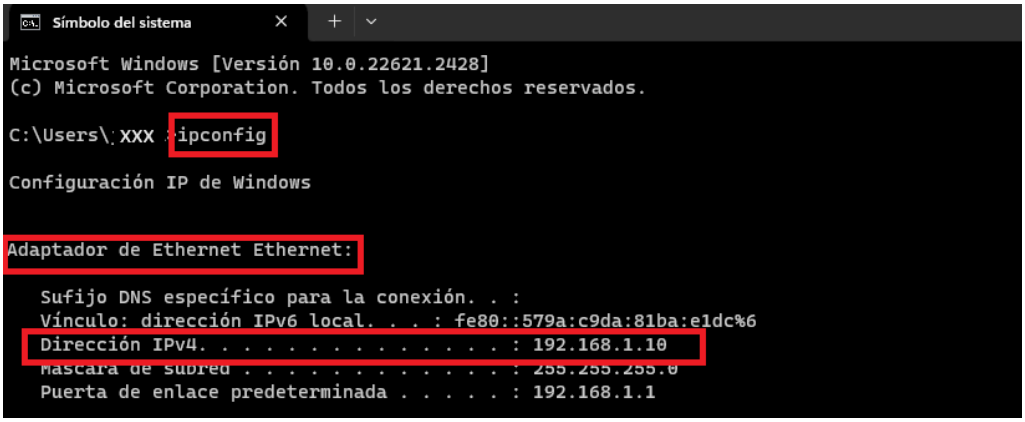
12.1 Q1 - NO MODULES APPEAR

Close other SismoLink and OrbitXP instances. Check board power and Ethernet, then verify the board IP, destination HOST IP and HOST PORT against chapter 6. Allow the exact V2 executable through Windows Firewall. A successful ping does not prove that UDP telegrams reach the application.

A log line such as "receiver listening on 0.0.0.0:1151" means the local receiver opened. It does not mean that a card was identified. Some firmware sends only after an input changes; move a switch or encoder.

12.2 Q2 - HOW DO I FIND THE HOST IP?

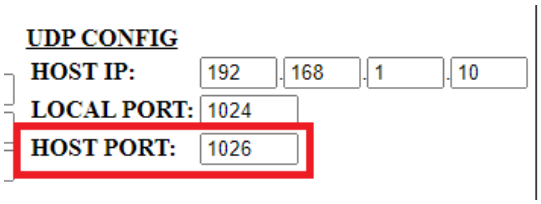
Run ipconfig from a Windows Command Prompt and identify the IPv4 address of the cockpit Ethernet adapter. Enter this IPv4 address as HOST IP in the relevant SimCard.



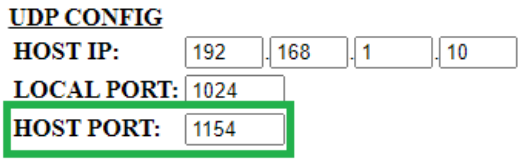
Example ipconfig output. Use the IPv4 address of the adapter connected to the cockpit LAN.

12.3 Q3 - A MODULE IS DETECTED BUT THE TREE IS EMPTY

Check the SimCard HOST PORT. A receiver may be listening while the board transmits to a different destination port. For the default layout, use the module port shown in chapter 3.1.



Example of an incorrect HOST PORT.



Example of the corrected FWD Overhead HOST PORT.

12.4 Q4 - PMDG IS CONNECTED BUT HARDWARE IS DARK

Check PMDG client-data detection as well as the SimConnect connection. Confirm SDK broadcast and the loaded aircraft. Compare the virtual electrical state with the physical panel; supported outputs follow PMDG buses. If hardware tests fail too, investigate the board, wiring or power before aircraft mapping.

12.5 Q5 - X-PLANE REMAINS IN WAITING STATE

Check that Zibo is loaded, the supplied plugin is present and only one plugin copy is active. Verify IPv4 address and UDP port, especially on two-PC setups. Review X-Plane Log.txt and SismoLink logs. The simulator UDP port is separate from SimCard ports 1151-1155.

12.6 Q6 - PLUGIN FAILS TO LOAD

Check the plugin 64\win.xpl path and X-Plane Log.txt. Error 126 can indicate a missing dependency, not necessarily a missing plugin file. Use the Windows x64 runtime dependencies required by the supplied build; do not rename win.xpl or install random replacement DLLs.

12.7 Q7 - SETTINGS ARE NOT SAVED OR EDITS ARE IGNORED

Confirm which Windows account and simulator profile are active. Edit LocalAppData settings, not an obsolete file beside the executable. Normal saves should not require running SismoLink as administrator. Back up the file before repairing invalid values.

12.8 Q8 - A SPECIFIC CONTROL DOES NOT MATCH THE AIRCRAFT

Check module revision, wiring, encoder type and Albatross input/output behaviour. Compare the corresponding virtual control. Functions unavailable in the PMDG SDK or Zibo interface cannot be corrected through firewall settings.

12.9 INFORMATION TO SEND TO SUPPORT

Include SismoLink version, simulator and aircraft versions, selected mode, module and board revisions, startup log, relevant IP/port settings, and whether the same input works in AlbatrossService.

13 REFERENCE AND RELEASE INFORMATION

13.1 CHANGES IN V2

One executable with PMDG and integrated OrbitXP Zibo modes.

Persistent simulator selector, restart confirmation and one active backend.

Separate profiles and safe first-use OrbitXP configuration import.

X-Plane connection monitoring, reconnection and plugin launch integration.

Updated main window and aircraft status layout.

iFly 737 MAX for MSFS 2024 listed as planned, not operational.

13.2 HISTORICAL FEATURES AND LIMITATIONS

The older OrbitXP manual describes a beta virtual SismoFMC/CDU service. Its availability and workflow have not been established for the V2 interface described here. Do not apply legacy OrbitXP FMC setup instructions to V2 without confirmation from Sismo.

Old missing-function tables and release roadmaps are historical, not a current compatibility guarantee. Consult the Readme supplied with the application for module-specific changes and validation limitations. Detection and connection tests do not certify every panel function.

13.3 SOURCE DOCUMENTS

SismoLink User Manual Edition 1.4 - PMDG hardware, configuration and diagnostic procedures.

OrbitXP User Manual Edition 5.1 - X-Plane, SimCard networking, calibration and Zibo procedures.

SismoLink V2 User Manual draft Edition 2.0 - current V2 installation, profiles, restart and plugin integration.

SC-MB Ethernet Configuration User Manual, reference SC-MAN-SCE-E-17-0003 - consult the edition applicable to the board.

This edition replaces older instructions that required writable configuration in Program Files or OrbitXP ProgramData during normal V2 use. The ProgramData OrbitXP file remains relevant only as a migration source.

13.4 LICENSE AND SUPPORT

SismoLink is distributed as freeware by Sismo Soluciones. Simulator and aircraft products are obtained separately. The program is provided AS IS without warranty, including implied warranties of merchantability or fitness for a particular purpose. The supplied Readme retains the full release disclaimer and evaluation-use conditions.

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Website: www.sismo-soluciones.com

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14 PICS OF THE SISMO COCKPIT

The following photographs are retained from Edition 1.4 as representative examples of Sismo cockpit installations.



Sismo cockpit example.

