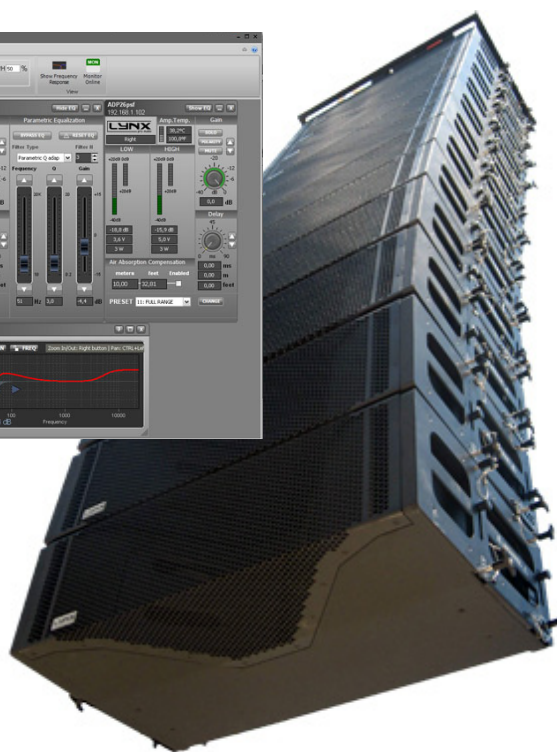
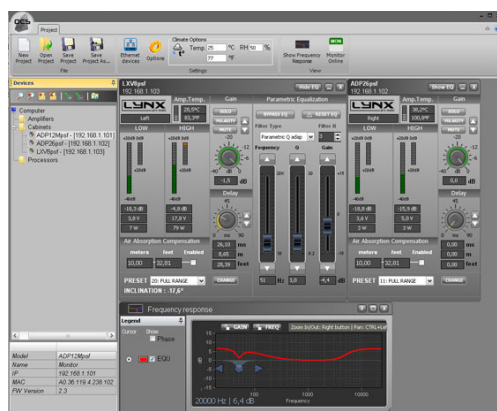




## QUICK USER GUIDE

### Software V2.0



Valencia, Spain - [www.lynxproaudio.com](http://www.lynxproaudio.com)



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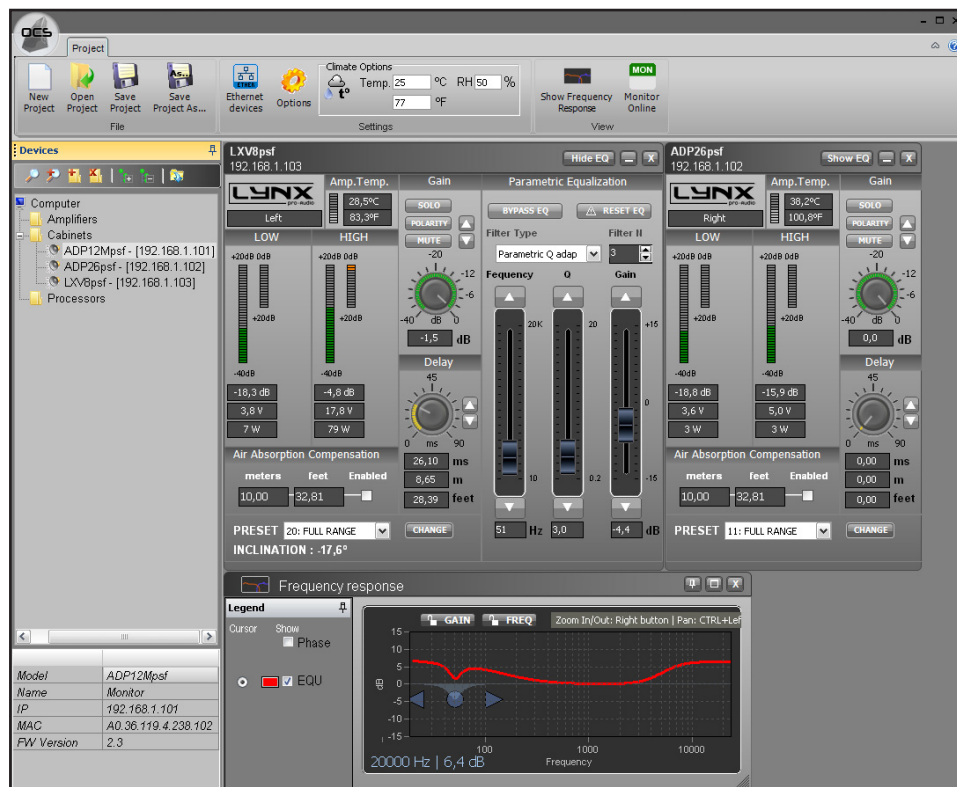
## 1. - Introduction

The O.C.S. software (Online Control System) is available for all self powered DSP incorporated Lynx Pro Audio cabinets where the user has requested the cabinets be supplied with the Ethernet module kit.

O.C.S. obtain detailed information of cabinet behaviour and monitor the cabinets/s in real time through the users PC so you can control online a single cabinet or a complete cabinet system from the OCS window. You can apply a Parametric EQ with 6 filters totally configurable, insert a delay up to 90 ms, change the preset, gain, mute, polarity and phase of every cabinet connected. You can also activate the air absorption compensation and select the «SOLO» mode.

The software works via Ethernet (cable or wireless). Once installed, the software automatically detects all the cabinets connected to the network and displays them in the O.C.S. window on the user's PC.

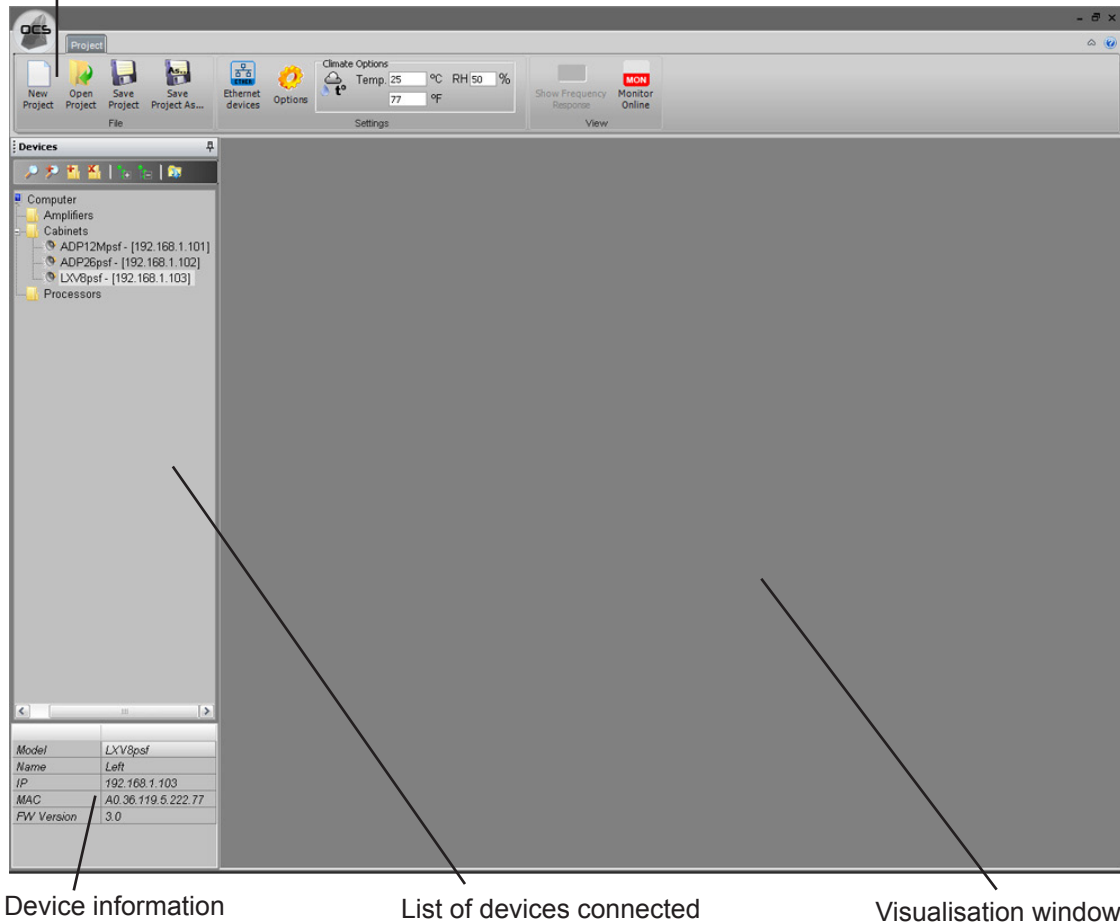
As well as displaying the cabinet model and IP address, the O.C.S. will be monitoring in real time and the user will be able to view RMS levels, delay, EQ, compression and output levels per way, power module temperature, air absorption compensation and cabinet angulation.



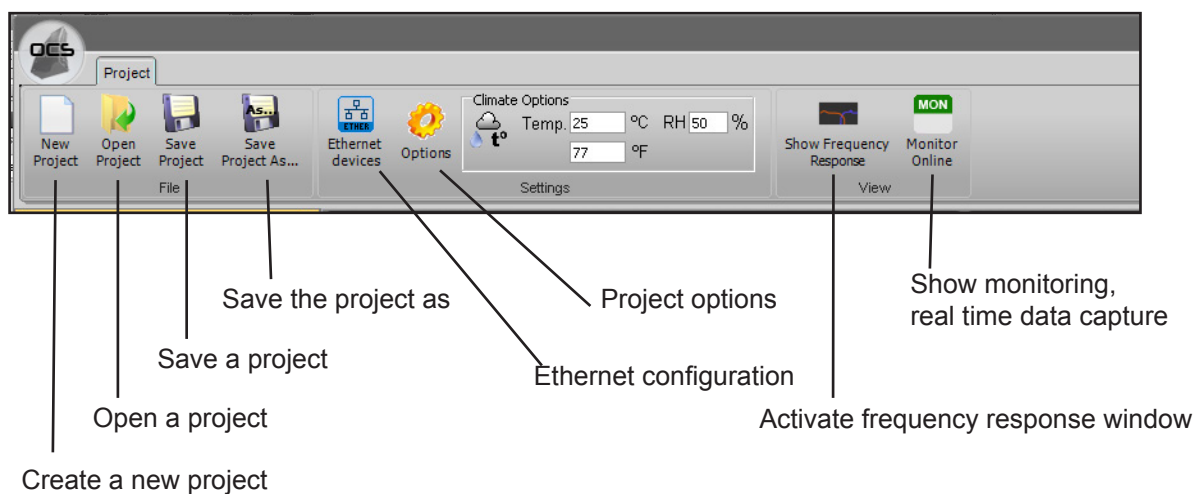
## 2 - Overview

The O.C.S main screen is very simple. From this screen you can access all the basical functions.

Tools bar



The Tools bar offer the following options:



The window of the devices connected offer the following functions:

Search connected devices (delete list of devices)

Search new conected devices

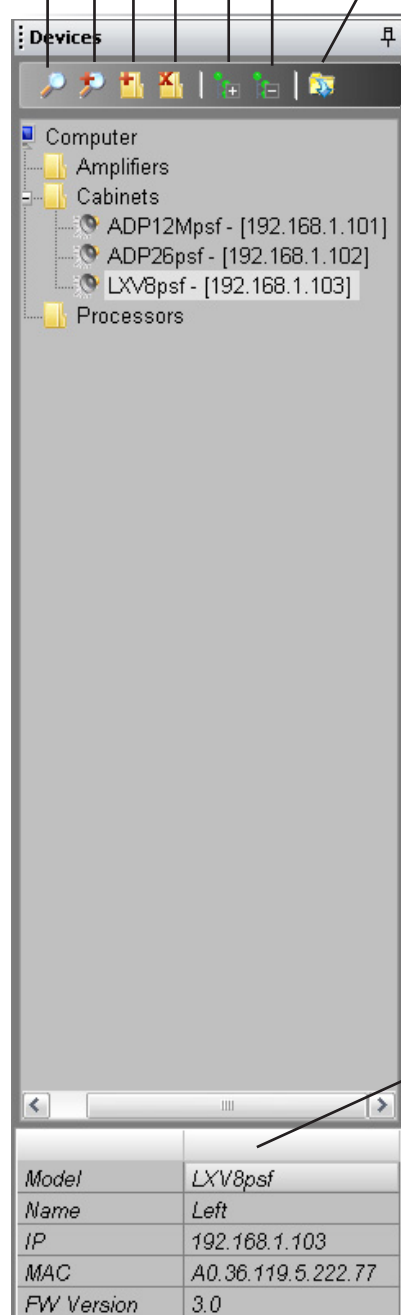
New folder

Delete folder

Expand tree

Shrink tree

Open all the connected devices



Device general information

### 3 - Cabinet control

The OCS software shows one window per each cabinet connected. Each window offers detailed information of the box behaviour. You can insert a delay up to 90 ms, change the preset, gain, mute and polarity. You can also activate the air absorption compensation and select the "SOLO" mode. If you want to apply a Parametric EQ then click on the "Show EQ" button.

The screenshot shows the OCS software interface for a cabinet named LXV8psf with IP address 192.168.1.103. The interface includes several sections:

- Header:** Cabinet model and IP address (LXV8psf, 192.168.1.103), Cabinet name (LXV8psf), and a "Show EQ" button to activate the Equalization window.
- Amp. Temp.:** Power module internal temperature (28,8°C / 83,8°F).
- Gain Section:**
  - Buttons for SOLO, POLARITY, and MUTE.
  - Gain control knob with a scale from -40 dB to 0 dB.
  - Gain value display: -1,5 dB.
- Delay Section:**
  - Delay control knob with a scale from 0 ms to 90 ms.
  - Delay value display: 25,31 ms.
- Air Absorption Compensation:**
  - Buttons for meters, feet, and Enabled.
  - Values: 10,00 meters, 32,81 feet.
- Preset and Inclination:**
  - PRESET: 20: FULL RANGE.
  - INCLINATION: -17,7°.

Red lines point from the following labels to the corresponding controls in the interface:

- Cabinet model and IP address
- Cabinet name
- Power module internal temperature
- Activate Equalization window
- SOLO function
- Change the cabinet polarity
- Increases gain + 0.1dB
- Decreases gain - 0.1dB
- Mute the cabinet
- Input gain control
- Write the exact Gain here from 0 to -40dB
- Delay control
- Increases delay
- Decreases delay
- Write the exact Delay here from 0 to 90ms
- Activate atmospheric compensation
- Preset change
- Cabinet inclination (if there is any)

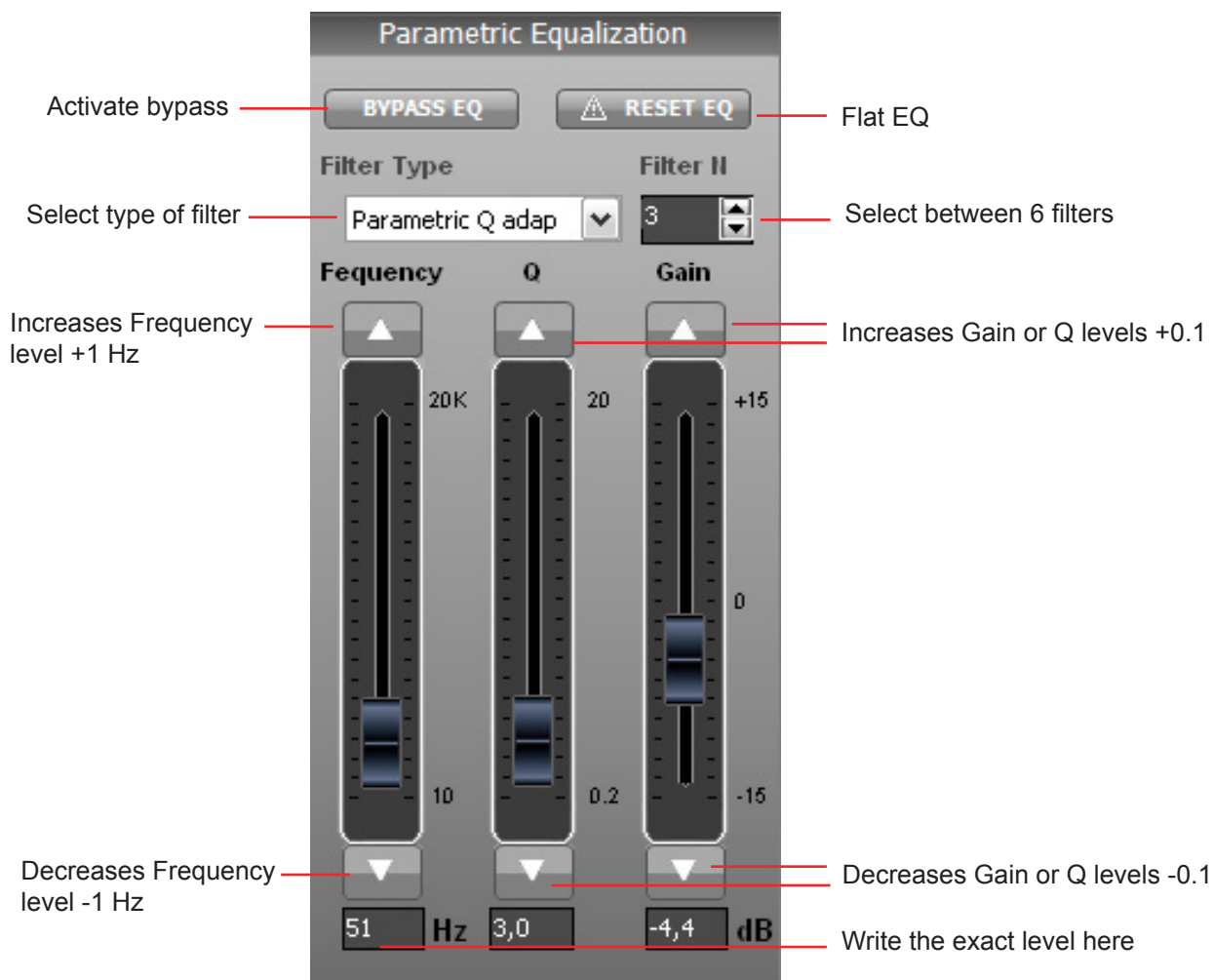
If you activate the “Show EQ” button the cabinet window will be expanded and you will see the Equalisation control section with the rest of the cabinet information.



You can use up to 6 filters per way, totally configurable, which can be chosen between adaptable or constant Q, All Pass, Band Pass, Notch, HP Q, LP Q or High and Low Shelves providing flexibility.

The EQ will be saved into the preset you are using, so if you disconnect the cabinet the EQ will be available again switching on the cabinet, without changing the preset.

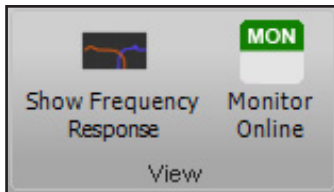
If you change of preset then all the user changes will be deleted and the cabinet start working in the EQ bypass mode again.



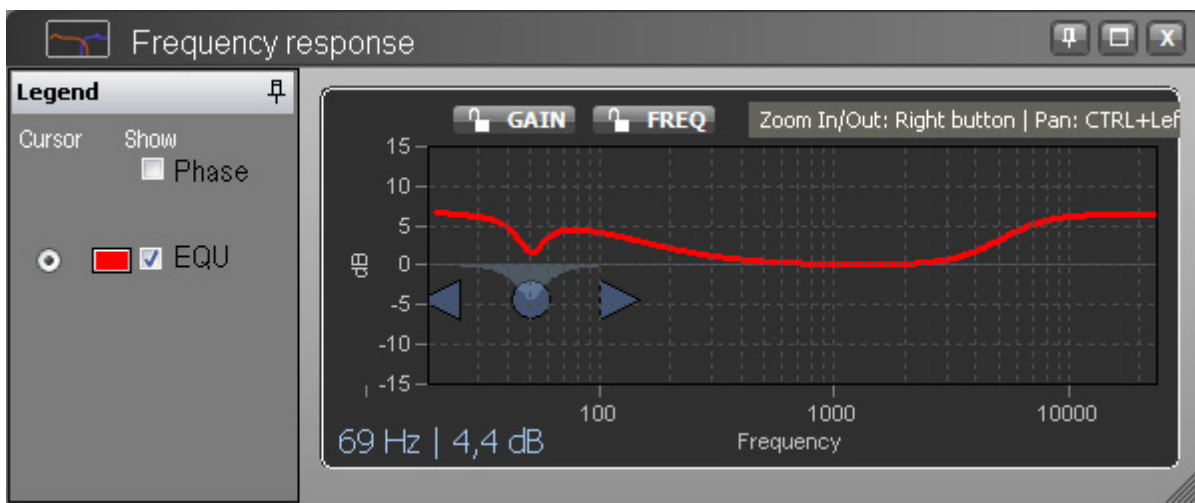


## 4 - View section

If you click on the Monitor online icon it changes from red to green colour. When its green then you will be able to see the cabinet data capture in real time (into the cabinet control window). When the icon is red then the monitor online is disconnected.

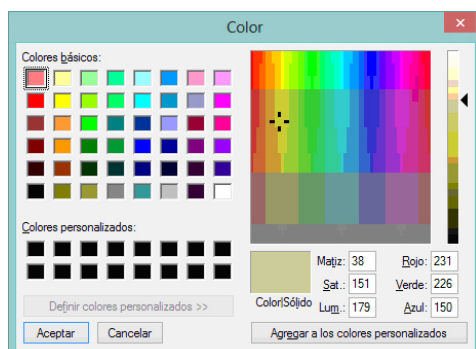


From the View section you can also activate or hide the Frequency Response window. The following image is the Frequency Response window. If you want to open this window just activate the “Show Frequency Response” button on the Main menu tools bar.



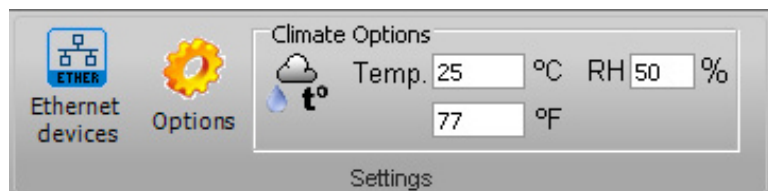
When the EQ is in bypass mode the frequency response is shown as a hyphoned line. You can also show the EQ phase by activating the Show Phase function on the Legend part.

You can also change the colours of the graphics for each cabinet. These changes are saved when you are closing the software.

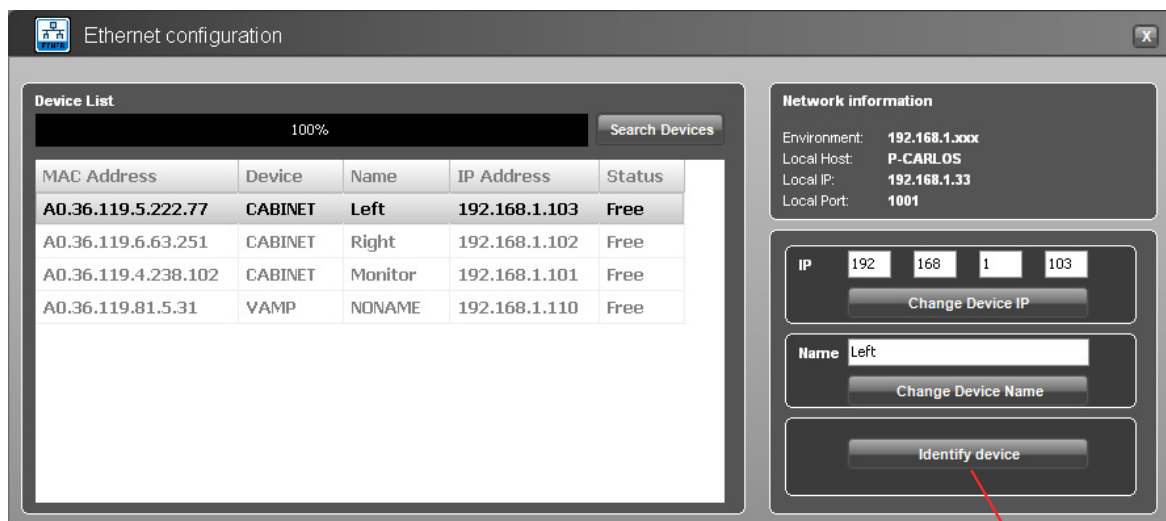


## 5 - Settings section

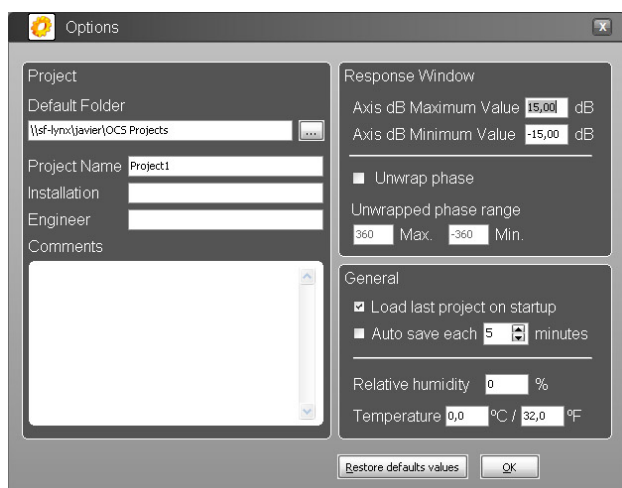
From this part of the software you can set up different options. Into the climate part you can insert the climate options, whose data is directly connected to the Air absorption compensation of all the cabinets connected.



If you click the “Ethernet devices” icon you will see the following window, where you can set up the Ethernet parameters:



make to blink the device Ethernet led



If you click the “Options” icon you can set up general project data and change different options.

## 6 - Ethernet Configuration guide

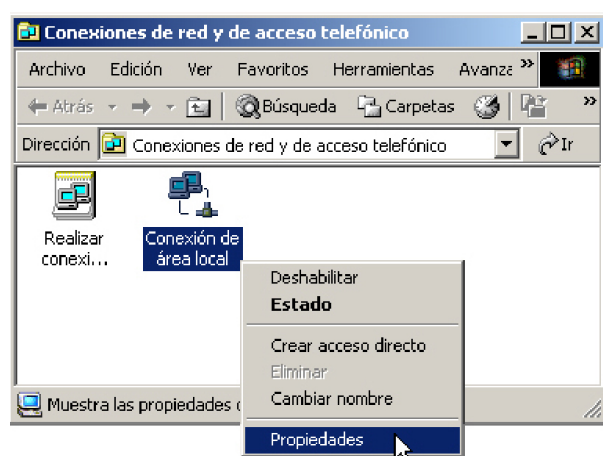
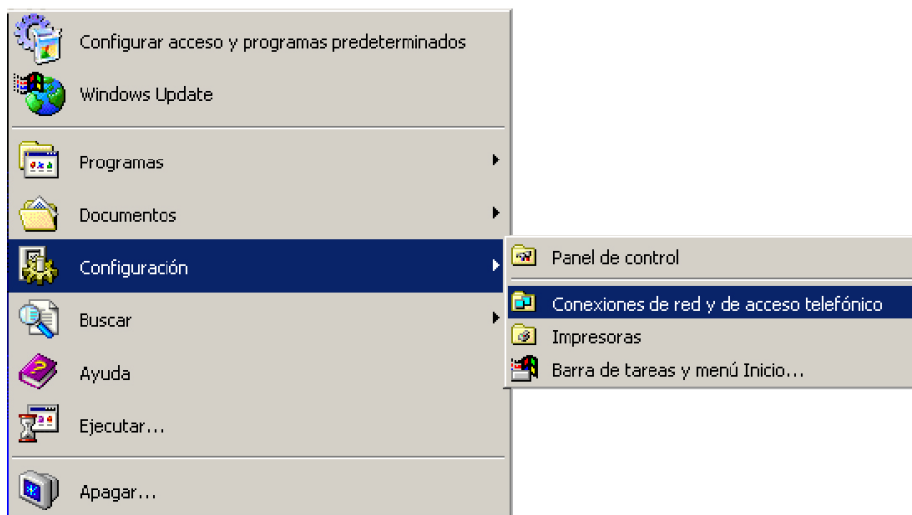
Configuring an Ethernet Network to work with the OCS is simple. Here we explain how to proceed.

There are two possible ways to connect:

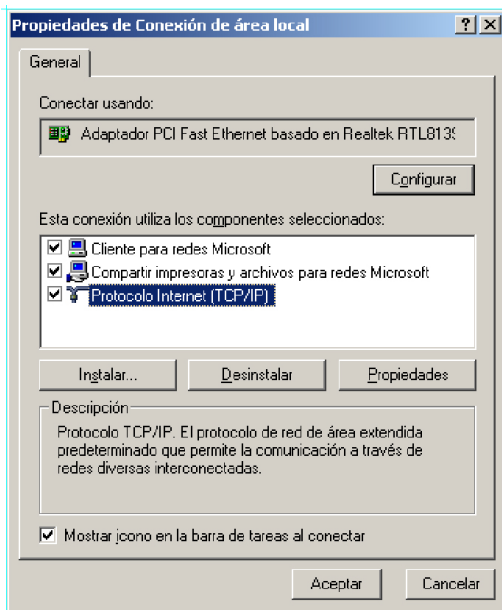
- 1.- Direct connection with the cabinet:
  - From the PC to the cabinet (You will need a Ethernet Crossed Cable).
- 2.- Connecting through an ETHERNET SWITCH/HUB::
  - You will need a normal CAT5 Cable.

Let us now proceed to configure the Ethernet network, setting the IP address of the computer as static. To do this go to:

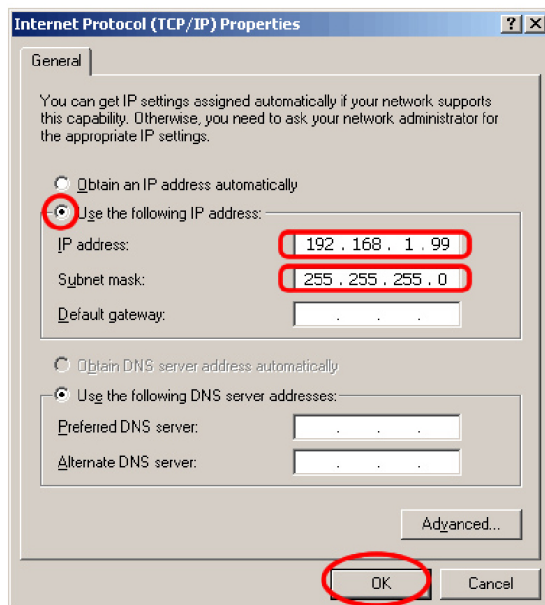
### START > CONFIGURATION > NETWORK CONFIGURATION



We will launch the properties of “Local Area Connection” by clicking the right mouse button and clicking on properties.



Select “Internet Protocol (TCP / IP)” and click on properties.



Select: “Use next IP Address” And write as you wish, in order to configure your network.

Normally, Ip values will be something like this:

*IP Address: 192.168.1.xxx*  
*Subnet Mask: 255.255.255.0*

Where xxx will be a number between 1 and 254

Accept to quit the network settings and again to apply them at the next screen. Depending on the Windows Version, you will be asked to reboot or not.

Once the Computer is configured with a static IP proceed to connect to the line array system through the OCS (online control system) software.

Open the OCS Software and from the Initial Screen choose **Ethernet Device** into the Configuration menu.

Open the Software OCS and go to the list of devices connected. Select one device and right click on it. A small device window will be opened. Select the “Ethernet config” option and the following window will appear:

**Ethernet configuration**

**Network information**

Environment: **192.168.1.xxx**  
 Local Host: **P-CARLOS**  
 Local IP: **192.168.1.46**  
 Local Port: **1001**

IP: 192 168 1 103  
 Change Device IP

Name: Left  
 Change Device Name

Identify device

**By default, the device will have this IP 192.168.1.100**

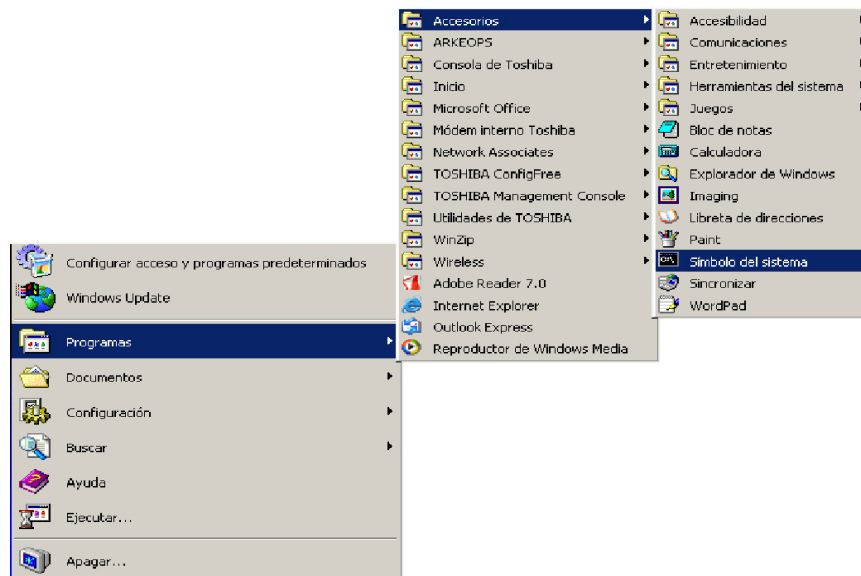
The Network environment consists in the first 3 sets of three numbers separated by dots. In order to communicate with the device, the software and the cabinet/ processor/ amp/ etc **must have the same Network settings**.

If it is not in the same environment Windows Professional (XP, VISTA, Windows 7 and 8) will detect it, but is not going to be able to establish connection. In Windows Home, the processor is not going to be detected until the same environment is applied.

In order to change the IP settings to have the same configuration as the PC, we can change the address of the device by clicking in the Change IP button after writing in the box above the desired data. Remember there cannot be two devices with exactly the same IP address, the last set of three numbers has to be different and unique to each one of the devices.

If you need to know the PC Network settings go to:

**START > ALL PROGRAMS > ACCESSORIES > Command Prompt**



It will open the cmd.exe from where you can type the IPCONFIG command ( ipconfig + Enter), which will show your actual IP settings.

 A screenshot of a Windows XP Command Prompt window titled 'Símbolo del sistema'. The window shows the output of the 'ipconfig' command. The text displayed is as follows:
 

```
Microsoft Windows XP [Versión 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Javier>ipconfig

Configuración IP de Windows

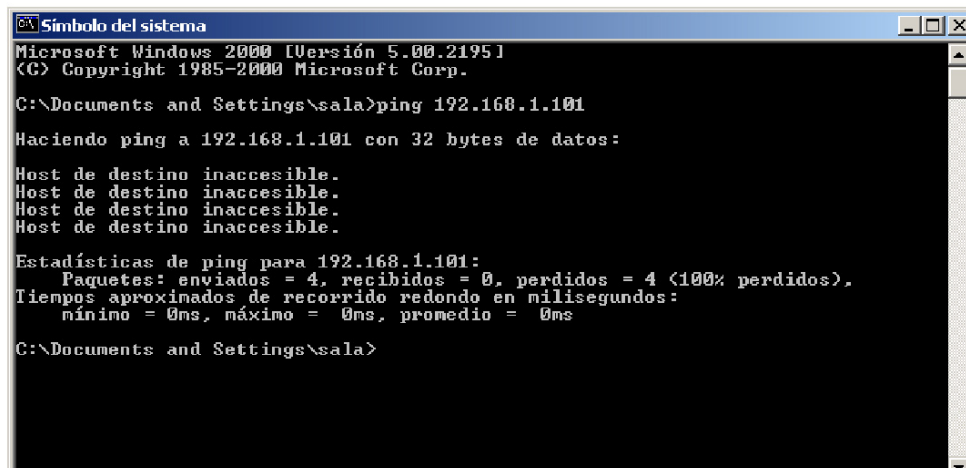
Adaptador Ethernet Conexión de área local      :
    Sufijo de conexión específica DNS :
    Dirección IP. . . . . : 192.168.1.46
    Máscara de subred . . . . . : 255.255.255.0
    Puerta de enlace predeterminada : 192.168.1.1

Adaptador Ethernet TeamViewer UPN      :
    Estado de los medios. . . . : medios desconectados

C:\Documents and Settings\Javier>
```

Here we can see that this PC has IP set as 192.168.1.46.

You can also use the command prompt to know if an IP is already in use by another device. In this case type “ping IP” (ping 192.168.1.xxx) and press enter. If there is no device with this IP you will see the following information:



```

Símbolo del sistema
Microsoft Windows [Versión 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\Documents and Settings\sala>ping 192.168.1.101

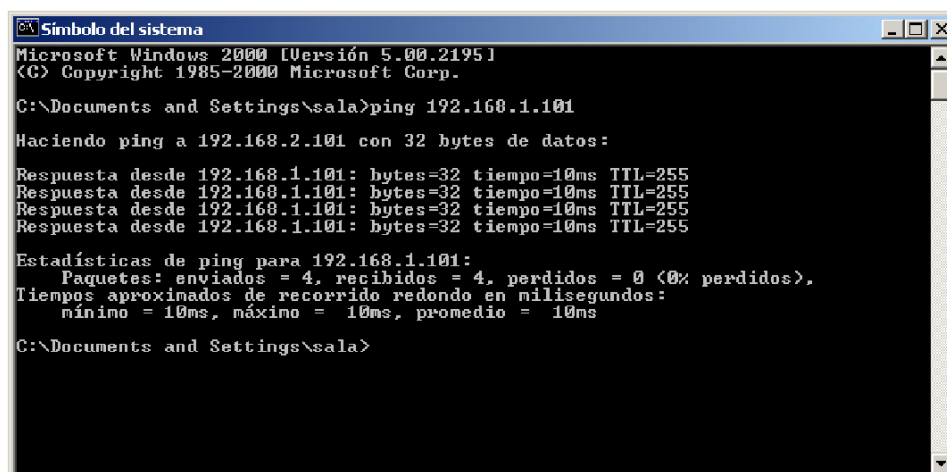
Haciendo ping a 192.168.1.101 con 32 bytes de datos:

Host de destino inaccesible.
Host de destino inaccesible.
Host de destino inaccesible.
Host de destino inaccesible.

Estadísticas de ping para 192.168.1.101:
    Paquetes: enviados = 4, recibidos = 0, perdidos = 4 (100% perdidos),
    Tiempos aproximados de recorrido redondo en milisegundos:
        mínimo = 0ms, máximo = 0ms, promedio = 0ms

C:\Documents and Settings\sala>
  
```

If the IP is in use, the device will respond to the Ping, and we will obtain this information:



```

Símbolo del sistema
Microsoft Windows [Versión 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\Documents and Settings\sala>ping 192.168.1.101

Haciendo ping a 192.168.2.101 con 32 bytes de datos:

Respuesta desde 192.168.1.101: bytes=32 tiempo=10ms TTL=255
Respuesta desde 192.168.1.101: bytes=32 tiempo=10ms TTL=255
Respuesta desde 192.168.1.101: bytes=32 tiempo=10ms TTL=255
Respuesta desde 192.168.1.101: bytes=32 tiempo=10ms TTL=255

Estadísticas de ping para 192.168.1.101:
    Paquetes: enviados = 4, recibidos = 4, perdidos = 0 (0% perdidos),
    Tiempos aproximados de recorrido redondo en milisegundos:
        mínimo = 10ms, máximo = 10ms, promedio = 10ms

C:\Documents and Settings\sala>
  
```

You now have the device working in the ETHERNET Network Enviroment.

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