G40x PC Tool User Guide

WebGui and UHDWall Manager (UWM)

Technical support:
E-mail: sales@vnstw.com
Tel: +886-2-2792-2819 Cell: +886-935-678-033
Skype: vns-inc
Version: 1.0
Website: www.vnstw.com

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PC Tool for G40x (WebGui & UWM)

Introduction

1.1 GeoBox G40x can be controller through below method:

a. Front panel Keypad: via OSD menu

b. IR remote controller: via OSD menu

c. RS232: RS232 protocol

d. USB: UWM PC Tool

e. Ethernet: WebGui and UWM PC Tool

1.2 This User Guide focuses on the introduction and instruction in the use of WebGui and UWM PC tool.

Applicable models

a. G406: 4 channel video wall controller supports up to 4k/60Hz with matrix function.

b. G405Lite (G405L): simplified model of G405, supports up to 4k/30Hz input.

c. G406Lite (G406L): Simplified mode of G406, supports up to 4k/60Hz input.

d. G408: 8 channel video wall controller supports up to 4k/60Hz input.

Equipment Required

a. PC/Notebook with Windows standard USB HID driver & RJ 45 Ethernet.

b. USB cable: (If user wants to control through USB)

✓ USB Type B (G40x) to USB (PC/Notebook).

c. Standard RJ45 UTP cable or

d. Crossover UTP cable for single unit controller through direct connection without Ethernet Router or switch/hub.

System connection

a. User can use either USB or Ethernet to control GeoBox.

b. Ethernet setting

- User needs to connect GeoBox to WiFi Router or switch/hub through RJ45 connector to LAN port. Then User can control the system through Ethernet.

- Open web browser (Google Chrome or Internet Explorer) and input IP address, user can see GeoBox WebGui and see virtual keys and operation Menu (similar to OSD) for further system operation. There is no additional software tool is required.
- UHDWall Manager PC Tool (UWM) is another web tool that has full function for system settings and operation. It can also update Firmware or MCU code.
- Each GeoBox can select DHCP or Static IP. If Static IP is selected, user can set different IP address for each GeoBox for independent operation and control.
- Please use < > OSD keys to change OSD menu items and use ∧ ∨ OSD keys to change IP address. PC should have the same IP domain segment.
- If GeoBox is connected with WiFi Router (through LAN port), user can control G4eoBox through WiFi via PC, iPad or mobile phone.

1 WebGui (Webpage)

1.1 Introduction

WebGui provides Webpage with virtual keys for system operation. Once user connects Ethernet with GeoBox through Web Browser, such as Microsoft Explorer and Google Chrome, user will see this webpage and execute system operation similar to OSD menu. There is no appropriate software tool is required.

1.2 [Virtual Key]

a. Select operation channel first, then follow the function keys to execute the functions.

b. Input port Selection:
   - Each channel can select individual input port.
   - G406: there are some limitations in input port selection. Two HDMI ports can be selected by all channels but CH-1 & CH-2 or CH-3 & CH-4 can only select one HDMI input port. DP1 can only be selected by CH-1 or CH-2 and DP2 can only be selected by CH-3 or CH-4.
   - G405L/G406L/G408: Default is HDMI input, no other selection.

c. Output Resolution Selection:
   - Select CH-1 or CH-2 to set output resolution for CH-1 & CH-2.
   - Select CH-3 or CH-4 to set output resolution for CH-3 & CH-4.

d. [Reset]: Press [Reset] key will turn off system and re-boot again.

e. [Power]: Press [Power] key will turn off GeoBox. User can press [Power] key or use IR remote control to power ON GeoBox again. When GeoBox is ON, the indicator will turn to [Green]. If GeoBox is powered OFF, the indicator will turn [Red].

1.3 [Video Wall] - Image split / Assignment location

a. [Zoom]: split the image based on H&V monitor number
b. [Pan]: assign image location for each monitor
c. [Overlap]: set cropping area, execute image position adjustment and bezel compensation

1.4 [Orientation] - Image Flip / Rotation

1.5 [Image]: Input port / Output resolution / Color adjustment

1.6 [System]: Ethernet Config / Profile save and recall

1.7 [EDID]: EDID Setting

2 UHDWall Manager (UWM) PC Tool

2.1 Introduction

a. This tool is for system control through either USB or Ethernet. User need to download UWM from VNS website at www.vnstw.com. The major difference between WebGui and UWM is that UWM can execute Firmware and MCU code update but WebGui can' t.

b. Once user connects GeoBox with PC through Ethernet or USB. User can open and access UWM and execute all functions similar to OSD menu through PC.

c. User can backup system setting in PC and restore/copy to other units.

d. Firmware and MCU code update can be executed through UWM.

e. User can control multiple units at the same time through switching different IP address.

2.2 UWM Download / Setup

a. Download [UWM.ex_] file from website www.vnstw.com.

b. Decompressed [UWM.rar_] into UWM.ex_

c. Rename [UWM.ex_] into [UWM.exe] before execution.

d. In the near future, we will add [Languages.ini] into UWM to allow user to change operation language into local language.

2.3 Home Page

a. After open UWM PC tool, user will see below operation window.

b. Please select [USB] if user wants to use USB control.

The color icons on the top of Channel indicator are to show the system connection status. Green means the channel has detected display device and Yellow means input signal is connected. In the above example, channel 4 output is not connected with monitor.

2.4 Home Page Description

#1. Language Selection: only [English] in current version.

#2. Selection connection type: Ethernet or USB

#3. [Connect] icon: Click for system connection. After connection, the icon will turn to be [Disconnect] and the color indicator on the top of each Channel selection key will show the status for signal and display device connection.

#4. System Connection status:

- Green: monitor connection
- Yellow: signal source connection

#5. Channel Selection:

- To select operation channel.
- If G408 is connected, it will show 8 channels for selection

#6. Orientation: Image rotation and flip (mirror)

#7. Operation Menu selection

#8. Video Wall operation menu

#9. Save and Load setting in PC. The settings can be copied to another unit.

2.5 [Video Wall] – Image split / Assign location

a. [Zoom]: split the image based on H&V monitor number
b. [Pan]: assign image location for each monitor
c. [Overlap]: set cropping area, execute image position adjustment and bezel compensation
d. [Reset]: reset Video Wall settings to default value.

2.6 [Orientation] - Image Flip / Rotation

a. To execute image rotation and flip.
b. The rotation angle is limited to 90/180/270 degrees, with full content without loss.
c. Image 90/270 rotation is only functional under 4k/2k 30Hz input source. Image 180 degrees flip can be implemented at all input timing.

2.7 [Input Port] / [Output Resolution] selection

a. Select channel.
b. Select input port: please pay attention to the limitations in G406 input port selection.
c. Select output resolution: CH-1 or CH-2 settings will apply to CH-1/CH-2 at the same time. CH-3 or CH-4 settings will apply to CH-3/CH-4 at the same time.

2.8 [Image] - Color Adjustment

a. Select channel.

b. [Picture] adjustment: If the signal is YUV, all the adjustment items will be available for adjustment. If the signal is PC graphics (RGB), only Brightness and Contrast can be adjusted.

c. [Color] adjustment:

- Preset color: User can select among [Nature], [Reddish] and [Bluish]
- Custom color: user can change [Gain] value in RGB color.

2.9 [System] Setting - Ethernet Config / [Profile] save and recall

a. System setting result will apply to all channels. It is not necessary to select channel before execute the function.

b. [Load Profile]: to recall the Profile setting (user settings).

c. [Save Profile]: to save user settings into GeoBox for long term reservation. It will not been deleted after Power Off or system reset.

d. [Ethernet Config]: to select system configuration type and set Ethernet IP address。

2.10 [EDID] Setting

1. To set EDID for each input port.
2. User can select standard timing from the drop-down list.
3. If user wants to set EDID which is not in drop-down list, then user can select [Customize] item and set custom EDID under below range:
   - H: 1024-3840
   - V: 720-2400

2.11 [Firmware Update]

a. There are two types of Firmware in each G40x series products. One is Firmware and another is MCU code.

b. The Firmware samples are as follows:

- G406: G406R2A14_20180507.bin
  Model: G406, Hardware version: R2, FW version: A14, FW issued date: 2018-05-07
- G405Lite: G405L1A01B_20180403.bin
- G406Lite: G406L1A03_20180424.bin
- G408: G408R1A02_20180416.bin

b. The MCU code is similar to "G40XMCU_20180508.bin" (Model: G40X)

c. FW/MCU code update procedures

- Select [Firmware Update] menu
- Browse and select .bin FW/MCU code
- Click [Start], then the system will automatically select FW or MCU code and update to all channels in the system.
- User can only update FW or MCU code at one time. No special sequence for the FW or MCU code update.
- After finishing code update, please power OFF and Power ON GeoBox again to complete the code update procedures.

d. The updating time for G406 FW update is about 70 seconds and 14 seconds for MCU code update.