# Configure the system via DX-Builder

After installing and connecting all DT-IPG, the system will need to be configured before Using advance funcitno such as, name-list, customize input for building over 32 apartments.

Free of installation and establish the database, DX-Builder is powerful but light and easy tool for DT-IPG, it helps you build-up a project easily. Configure the system using the "DX-Builder" application

- Install the application on a PC and use to create the configuration for all DT-IPGs.
- Search for DT-IPG on the network; assign and upload configuration data for the system.
- DT-IPG's Maintians

PC requirements for using the DX-Builder.

Operating System: Windows 7 / Windows 8 / Windows 10

CPU: 32 bit (x86) processor or 64 bit (x64) processor of 1 GHz or higher

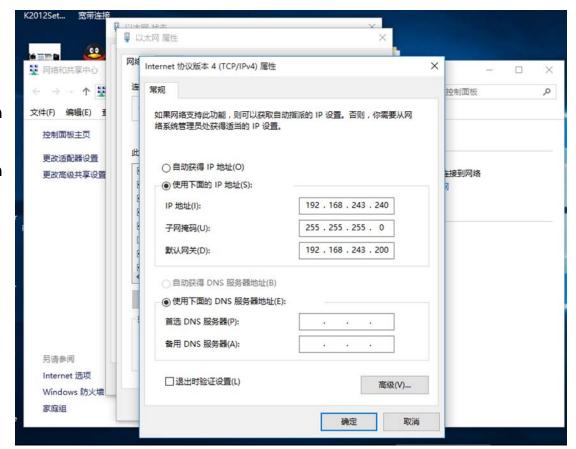
Memory: 2 GB RAM or Higher

#### **Configure for PC/Laptop**

The DT-IPG's default IP address is from 192.168.243.1~192.168.243.199. The PC will need to be set in the same subnet in order to connect to the IPG

#### A. Open Control Panel

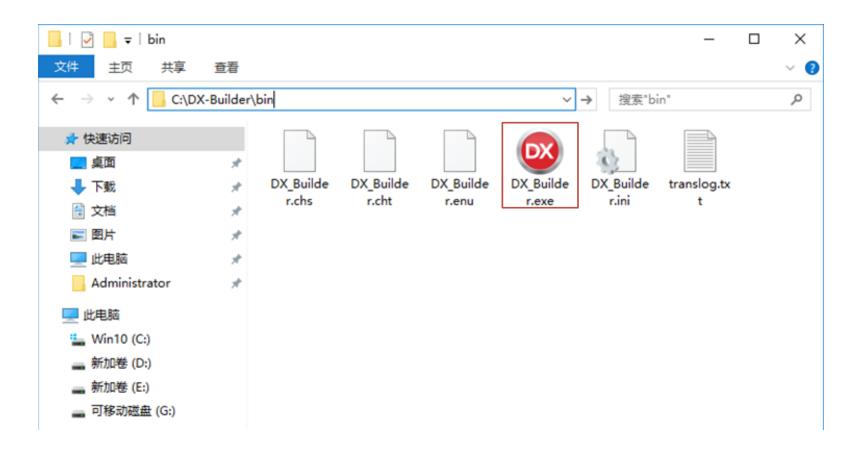
- Windows XP® (Classic View) **Network Connections** Double click **Local Area Connection** to open **Connection Status** window.
- Windows 7/8/10® (Category View) **Network and Internet View network status and tasks** Click **Local Area Connection** to open the **Local Area Connection Status** window.
- B. Click the **Properties** button to open **Local Area Connection Properties** window.
- C. Scroll down and left click **Internet Protocol** (TCP/IP) then click **Properties** button to open **Internet Protocol Properties** window.
- D. Select the **Ouse the following IP address** radio button. Type in the IP address 192.168.1.233 (the last number can be any valid host address from 233~254) and change the subnet mask to 255.255.255.0. Click [OK].
- E. Click [OK] in **Connection Properties** window to accept these changes.



# **Running DX-Builder**

In the folder specified storage, double-click "SupportTool.exe." which inside of "Bin" folder.

(With the default setting, IX Support Tool will be installed in "My Computer" > "Local disc (C)"> "DX-Builder" > "Bin" > "DX\_Builder.exe")

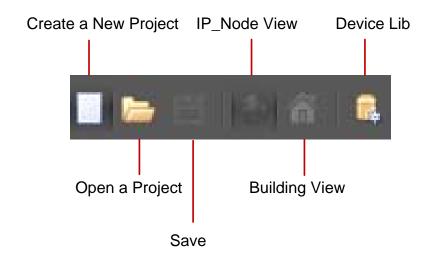




#### **Menul Bar**

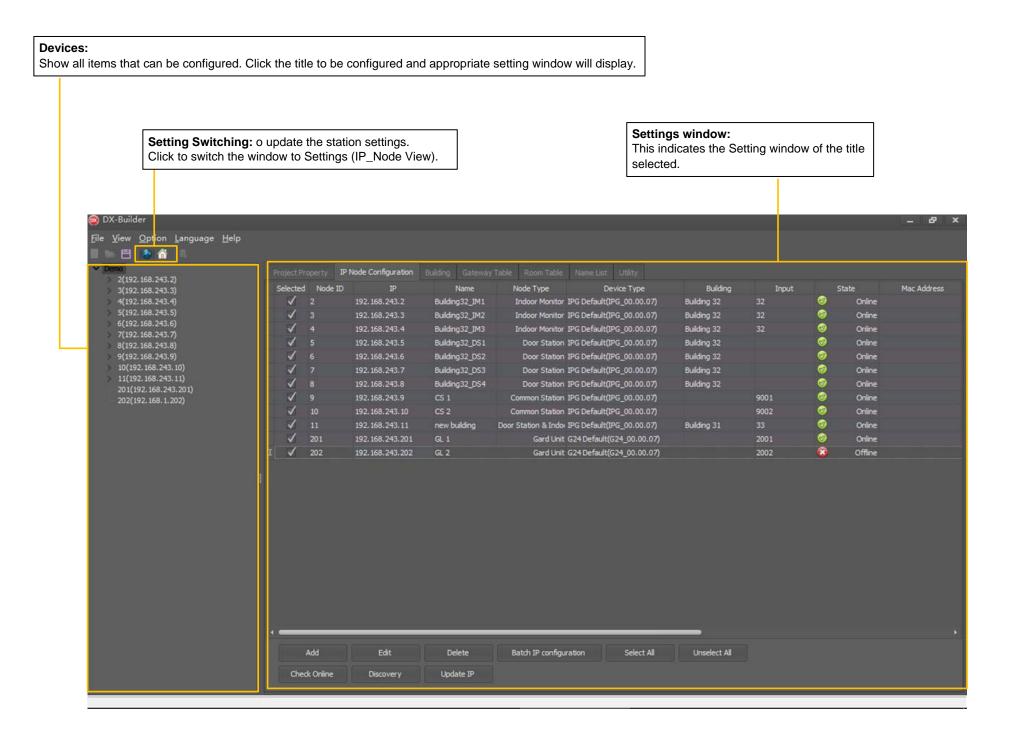
- File: to create a new project or open a exist project
- View: change setting menu's sort
- Option: manage device lib
- Language: switch display language
- Help: disable/enable log files for technical.

#### **Tool Bar**



#### **Settings window sample**

Configure all the DT-IPG in the system from the Settings window.



#### How to configure

Here will use a example project to guide how to configure the system.

The example as below:

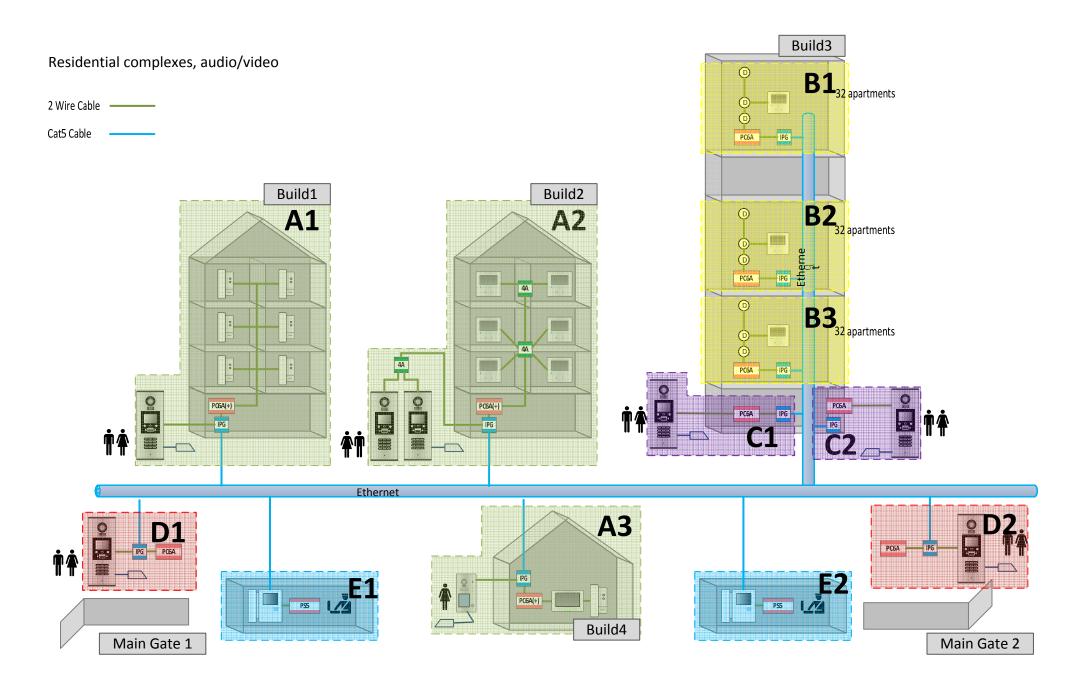
- Build 1: Building within 128 audio handsets.
- Build 2: Building within 32 video monitors
- Build 3: Building with more than 32 video monitors, here take as 96
- Build 4: Villa or Small apartment within 4 monitors
- And 2 Common door stations and 2 Guard units

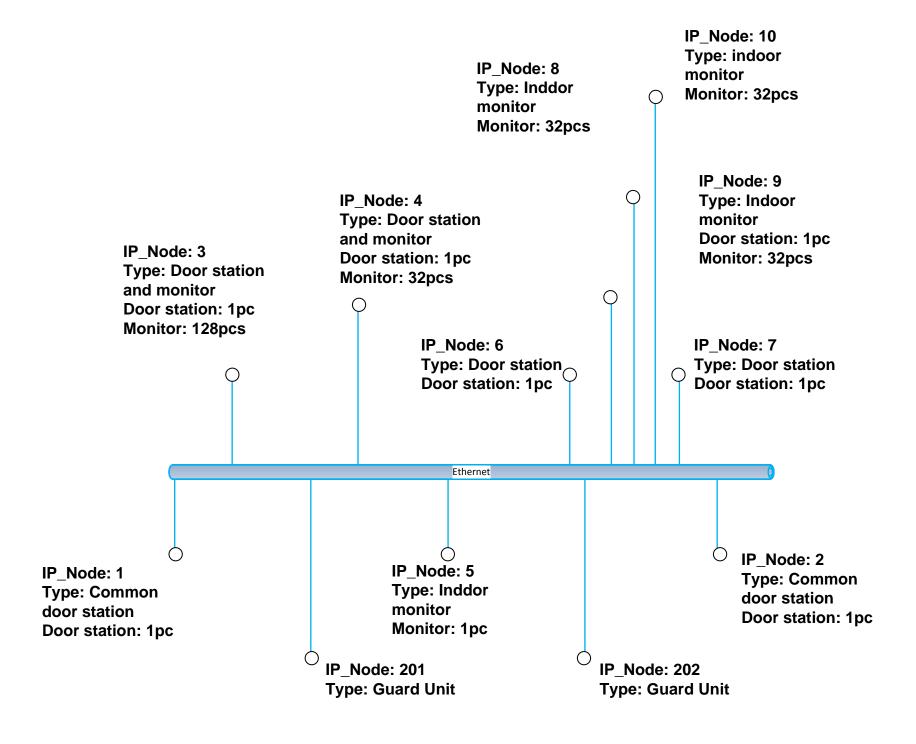
Each Building is a typical building in 2-Wire system, in example will only show one for each type, but in configure the building quantities can be set as required

#### **Node Type**

To identity each DT-IPG's duty is important, Node Type is to make each DT-IPG knows what responds for, there are 5 kind of different type:

- **1. Common Door station**, this Node Type connect with one DMR18S, and it can call to all the indoor units in the whole system, such as D1 and D2 in the example
- **2. Door station and Indoor Monitor**, this Node Type connect with multi door station (less than 4) and multi indoor units (less than 32 video or 128 audio), door station is private and can only reach to this building. such as A1, A2 and A3 in the example
- **3. Door station**, this Node Type connect with one DMR18S, but it limits to call to only the indoor units inside the building, it works for the building as normally door station, such as C1 and C2 in the example
- **4. Indoor Monitor**, this Node Type connect with only multi monitors(no more 32), it is a extent for the High-Rise building for each more 32 monitors, such as B1, B2 and B3 in the example
- 5. Guard Unit, this Node Type is not DT-IPG but IP-G24, it can call all the units and been call by any door station, such



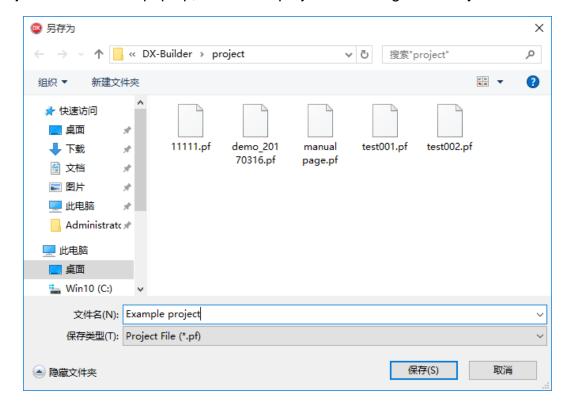


# **Create a New Project**

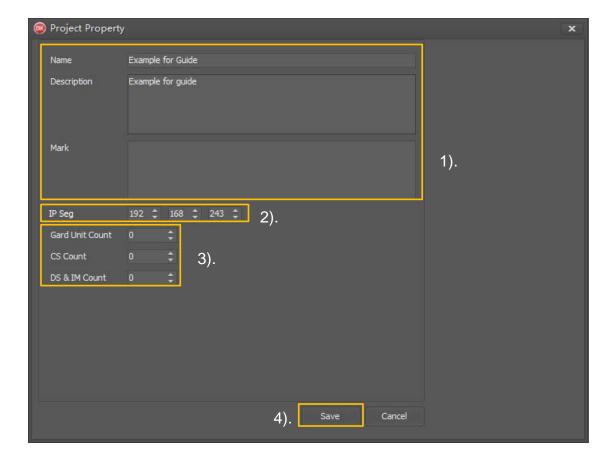
- 1. There are 2 ways to create a new project:
  - 1). Click "File" on the Menu bar and click on "New"



- 2). Click "New" licon on the tool bar
- 2. After create a new project a window will pop up, choice the project file storage directory and name for the project.



3. After create a new project a window will pop up, choice the project file storage directory and name for the project.



- 1). Enter general description for the project, which is changeable in the next
- 2). Enter the IP segment for IPG, by default is start with 192.168.243
- 3). Fill in 3 Basic IP\_Node's quantity:

**Guard Unit** 

CS - Common door station

DS&IM - Door station and Indoor monitor

For rest of two IP\_Node type (Indoor monitor and Door station) can be added in the setting window. And all configuration is editable in setting window. Here will fill in "2,2,2" as the example project

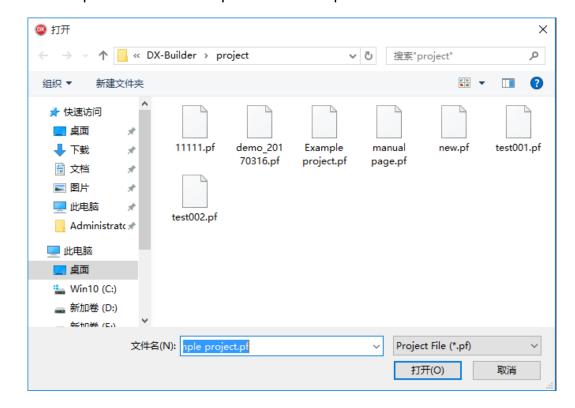
4). Click on "Save" to save the project

# **Open a exist Project**

- 1. There are 2 ways to create a new project:
  - 1). Click "File" on the Menu bar and click on "Open"



- 2). Click "New" 🛅 icon on the tool bar
- 2. Select the .pf project file need to open and click on "Open" button to open



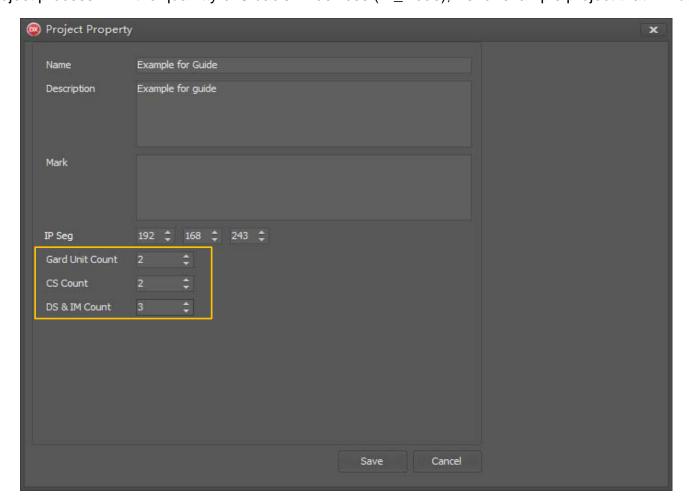
# **Adding IP device**

There are two ways adding device, manually and by Discovery

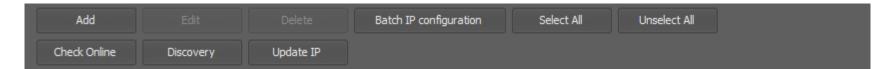
#### **Manually**

Manually adding the IP devices is more suitable for a new project, that all IP devices are configure first then install to the filed according to the configuration

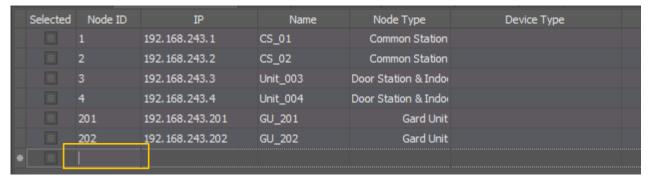
1. In the create a new project process fill in the quanitty of 3 bacis IP devices (IP\_Node), As for example project that will be as below



2. Click on the button to create a new device on the setting window



3. On the setting window, click on the blank Node item area to input the Node ID, Node ID shall not be duplicate With exist one



4. On the setting window, click on the blank item area to input the IP address, IP address shall not be duplicate With exist one



5. Enter the subnet and the mask for IPG.(scroll the scrollbar to the right), and fill in the item. By default Mask is 255.255.255.0, and Gateway is 192.168.243.200

Mask	Gateway
255.255.255.0	192.168.243.200

6. Repeat Step5~6 to finish all IPG adding

Project Pr	operty	IP Node Configuration	Building	Gateway T	able	Room Table		Utility
Selected	Node !	ID IP		Name	Node Type		De	evice Type
	1	192.168.243.1	CS_01		Common Station			
	2	192.168.243.2	CS_02		Common Station			
	3	192.168.243.3	Unit_0	03	Door Station & Indo			
	4	192, 168, 243, 4	Unit_0	04	Door Station & Indo			
	201	192.168.243.201	GU_20	)1	Gard Unit			
	202	192.168.243.202	GU_20	)2		Gard Unit		
	6	192, 168, 243, 6						
	7	192, 168, 243, 7						
	8	192.168.243.8						
	9	192, 168, 243, 9						

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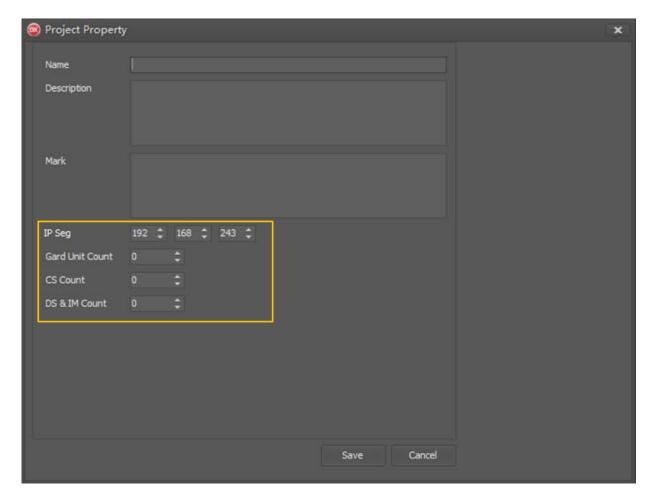
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# **Discovery**

Discovery IP devices is more suitable for a exist project, or DT-IPG is connect to the network, is more effective way to add devices to setting window

1. In the create a new project process not need to fill in the quantity of any DT-IPGs, and keep it remain to 0



2. Click on the Discovery button to create a new device on the setting window



3. A new window "IP Node Discovery" window will pop up and Click on the on the network button on the bottom to search all IP devices connected



4. A list will be shown on the blank arear with all connect IP devices and provide a basic information for devices. Click on the title item of the can change the sort of order

Select	Added	Node ID	IP	Mask	Gateway	Mfg_Sn	Device Type	Mac Address	Can change IP	State
		5	192.168.243.5	255.255.255.0	192.168.243.200	620b32311938	DT-IPG	620B32311938	Yes	8
		11	192.168.243.11	255.255.255.0	192.168.243.200	620832312338	DT-IPG	620832312338	Yes	8
		4	192.168.243.4	255.255.255.0	192.168.243.200	520a37382839	DT-IPG	520A37382839	Yes	8
		202	192.168.243.202	255.255.255.0	192.168.243.200	5e643038876a	DT-IPG24	5E643038876A	Yes	8
		10	192.168.243.10	255.255.255.0	192.168.243.200	620b3231192d	DT-IPG	620B3231192D	Yes	<b>(3)</b>
		3	192.168.243.3	255.255.255.0	192.168.243.200	620f32314133	DT-IPG	620F32314133	Yes	<b>(3)</b>
		9	192.168.243.9	255.255.255.0	192.168.243.200	620b32312c4f	DT-IPG	620B32312C4F	Yes	<b>(3)</b>
		6	192.168.243.6	255.255.255.0	192.168.243.200	620b32311d39	DT-IPG	620B32311D39	Yes	<b>(3)</b>
		8	192.168.243.8	255.255.255.0	192.168.243.200	620932312a3f	DT-IPG	620932312A3F	Yes	<b>(3)</b>
		7	192.168.243.7	255.255.255.0	192.168.243.200	62093231331d	DT-IPG	62093231331D	Yes	<b>(3)</b>
		-	100 100 010 0	255 255 255 2	100 150 040 000	620022212042	DT IDC	6000000000000	V	~

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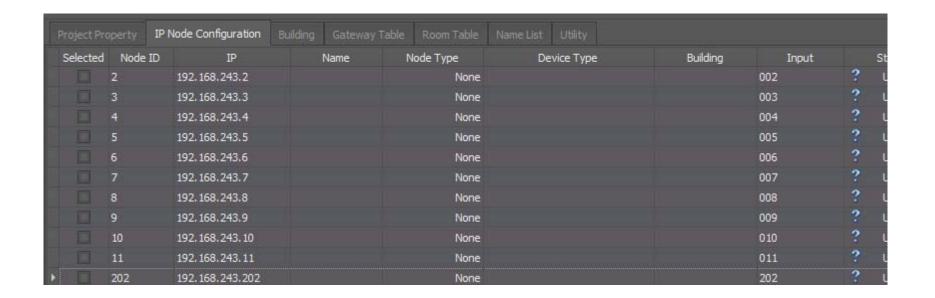
7.7



6. The adding process will take a while, and the software will check the state of all devices and a window will show, the "Added" be ticked means the device is already exist in the setting window, and with the state will be change to and click on "Close" button or "X" to exit discovery



7. The setting window will show as below, next according to the "Manually" process to add devices are not connected yet,

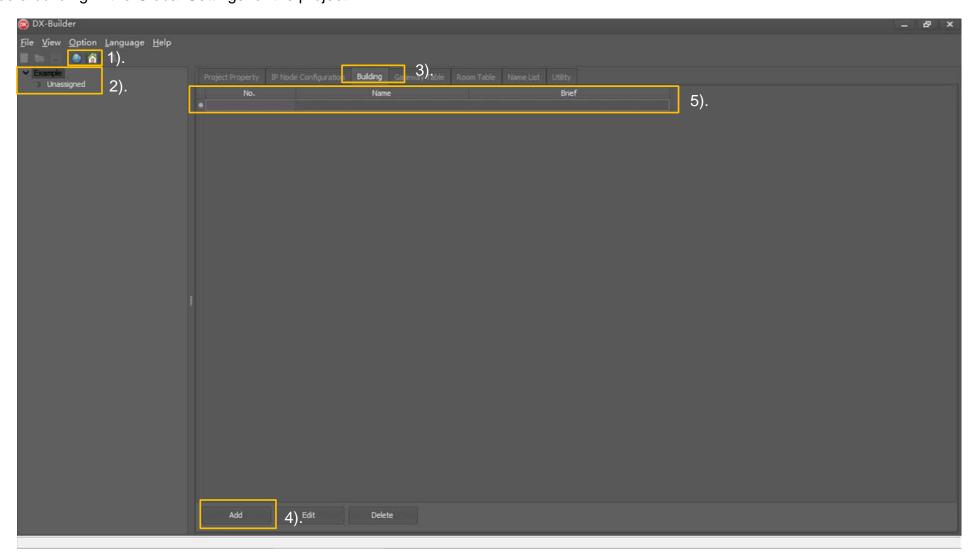


# **Building**

Building is a important property when the system is with high-rise building, by sign with a group of DT-IPG into same building means that those DT-IPGs only works for that building. Also "Building" property provides "Building" view to check IP-Devices

#### **Add a Building**

To add a building in the Global Settings for the project



- 1). Click on the 🛍 icon to change to device view into "Building View"
- 2). Click on the main title of this project, ensure the setting window is for global settings
- 3). Click on the Building tab to go into Building tab
- 4). Click on the button to create a new item for building
- 5). Fill in the Building information.

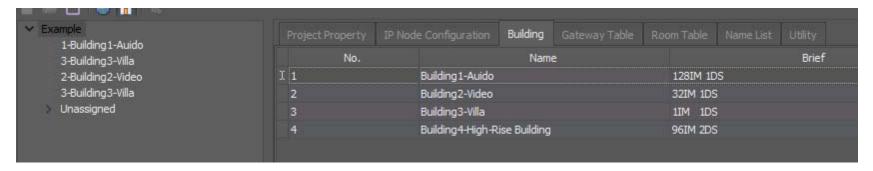
No.: Number for the Building

Name: Name for the Building, will show on IP-G24 units' list

Brief: Annotation for the building, not a must

6). Repeat step.3~4 to finish all edit

On the device view the new added building will show on the list, but it doesn't been sign to any DT-IPG yet so is empty



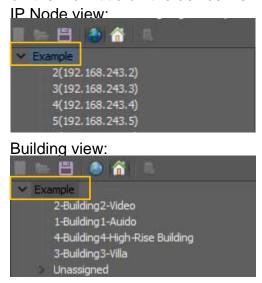
#### Global settings-IP Node configuration

Global settings is use to configure the basic and important property for each IP devices in the setting window, 6 properties are required to configure manually.

- Name: Mark name for the DT-IPG
- Node type: different function for DT-IPG
- Device type: whether this unit is DT-IPG or IP-G24
- Building: Identity which building DT-IPG are working for.
- Input: Calling codes setting, provides a friendly input call codes to end-user
- Extent Mode: whether the DT-IPG is in extent mode

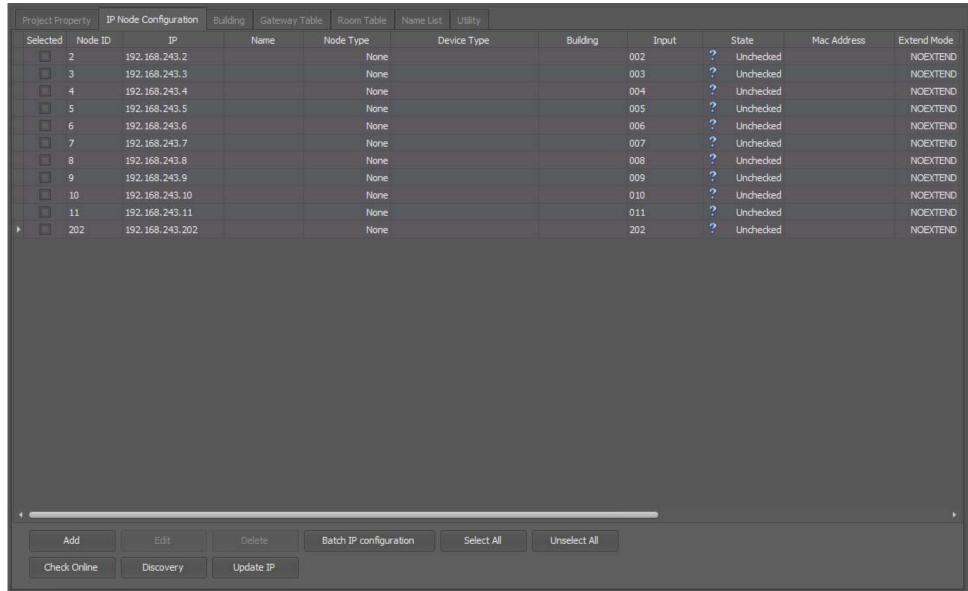
#### How to configure

1. Click on the main title on the device view.



2.Click on the "IP Node Configuration"

IP Node Configuration Bu tab, and configure will be show on the setting window.



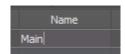
#### How to configure

The settings as blow, if parts of not show on the list, scroll the scrollbar to right on the bottom can check more setting items

- Select: click on the frame or click "Select All" / "Unselect All" to change the state of been sleeted.
- Node ID: ID number that is unique for each DT-IPG, editable
- IP: IP address for DT-IPG.
- Name: Enter name for DT-IPG
- Node type: Click to select different duty for DT-IPG, total 5 types
- Device type: Click to select the identity the device is DT-IPG or IP-G24
- Building: Click to select DT-IPG sever for which building, building is add and edit on Tab Building
- Input: Calling codes to reach this DT-IPG or IP-G24, as the Building No. on the DMR18S's settings
- State: Showing the state of IPGs, "Unchecked"- haven't been check yet, "Online"- device connected "Offline"- device unconnected
- Mac Address: Each IPG's Mac address is unique and is not editable
- Extent Mode: for video monitor select "DT\_32", for audio handset select "DT\_128", not connect with indoor units select "NOEXTENT"
- Gateway: DT-IPG Network's gateway, by default is 192.168.243.200
- Msg\_Sn: Serial Number for DT-IPG
- Brief: Enter information for mark

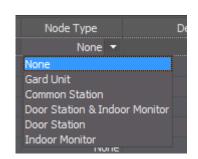
### Name

Click on the blank arear of the "Name" item to enter the name for the IP device, this property is only a mark for the device



# **Node type**

Click on the blank arear of the "Node Type" item, and click on the icon select a item in the dropdown list.



Select the Node type as below example. Total 5 types of them

#### Node type

To identity each DT-IPG's duty is important, Node Type is to make each DT-IPG knows what responds for, there are 5 kind of different type:



**1. Common Door station**, this Node Type connect with one DMR18S, and it can call to all the indoor units in the whole system, such as D1 and D2 in the example

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**2. Door station and Indoor Monitor**, this Node Type connect with multi door station (less than 4) and multi indoor units (less than 32 video or 128 audio), door station is private and can only reach to this building. such as A1, A2 and A3 in the example



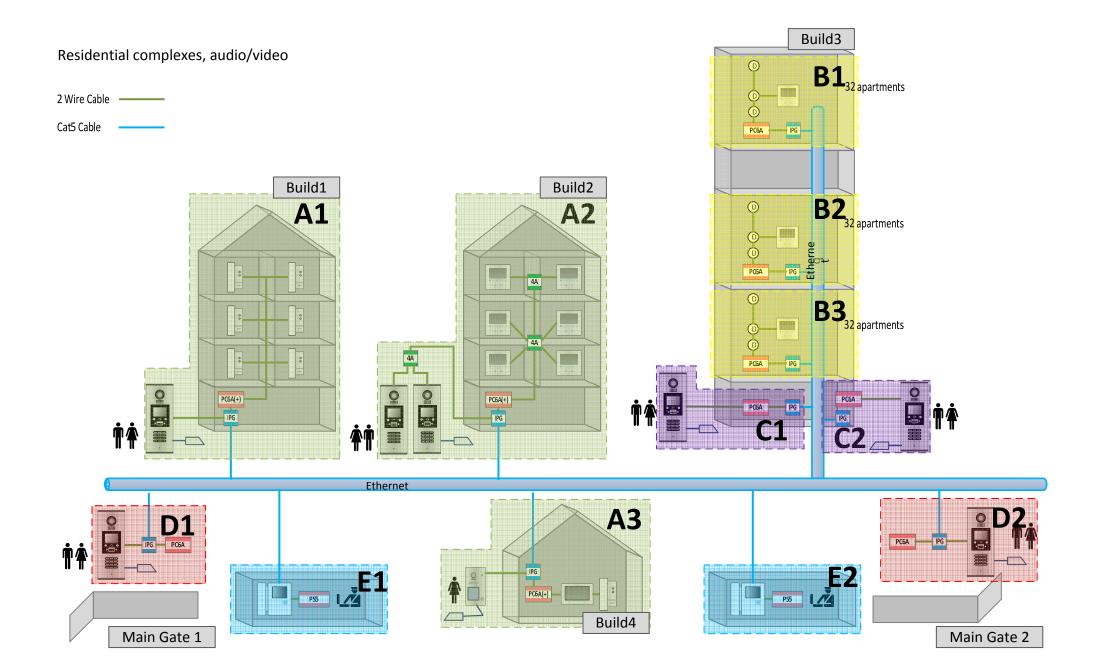
**3. Door station**, this Node Type connect with one DMR18S, but it limits to call to only the indoor units inside the building, it works for the building as normally door station, such as C1 and C2 in the example



**4. Indoor Monitor**, this Node Type connect with only multi monitors(no more 32), it is a extent for the High-Rise building for each more 32 monitors, such as B1, B2 and B3 in the example

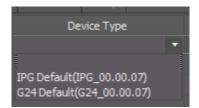


5. Guard Unit, this Node Type is not DT-IPG but IP-G24, it can call all the units and been call by any door station, such



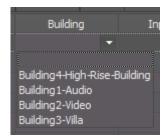
#### **Device type**

Only 2 types IP devices in 2-Wire system, one is DT-IPG and other is IP-G24 guard unit, click on the blank area of the "Deice type" and click on the icon and select one form the dropdown list



#### **Building**

Click on the blank arear of the "Building" item, and click on the icon select a item in the dropdown list. If the dropdown list is empty please add building on the building tab, for common door station leaves blank on this property



#### Input

Click on the blank arear of the "Input" item to enter the name for the Input call codes, here is the input to reach this DT-IPG.



#### **Extend Mode**

Click on the blank arear of the "Extent" item, and click on the icon select a item in the dropdown list.



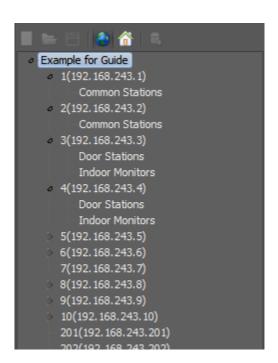
NOEXTEND: No indoor unit is connect with this IPG DT\_32: IPG is connect with video monitors DT\_128: IPG is connect with only audio handsets

After configure all above property the list will as follow

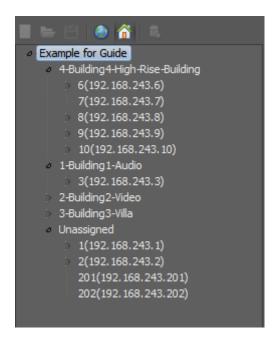


And check on the device view, the device are automatically out the configure.

#### **IP Node View**



#### **Building View**



# Separate settings

Before this step you need to configure the Global settings on the setting window before, otherwise the setting there won't be any setting items

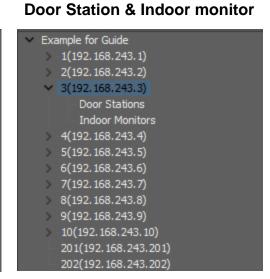
Separate settings for the DT-IPG is mainly to set the quantity, input and name for the 2-Wire devices that are connected on the this DT-IPG, you can set those settings on different view of the device view

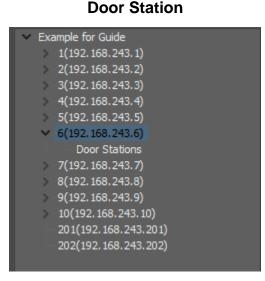
#### Select DT-IPG - IP Node View

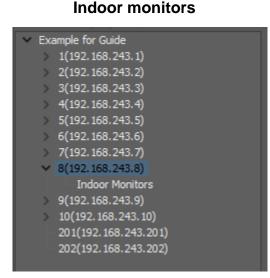
Separate settings for the DT-IPG is mainly to set the quantity, input and name for the 2-Wire devices that are connected on the this DT-IPG, you can set those settings on different view of the device view

Click on the IPG on the device view need to be configure, and click on the icon to show all kind of device of need to configure, according to the Node type there will be:

# Common Station Example for Guide (1(192.168.243.1) Common Stations 2(192.168.243.2) 3(192.168.243.3) 4(192.168.243.4) 5(192.168.243.5) 6(192.168.243.5) 6(192.168.243.6) 7(192.168.243.7) 8(192.168.243.8) 9(192.168.243.9) 10(192.168.243.10) 201(192.168.243.201) 202(192.168.243.202)

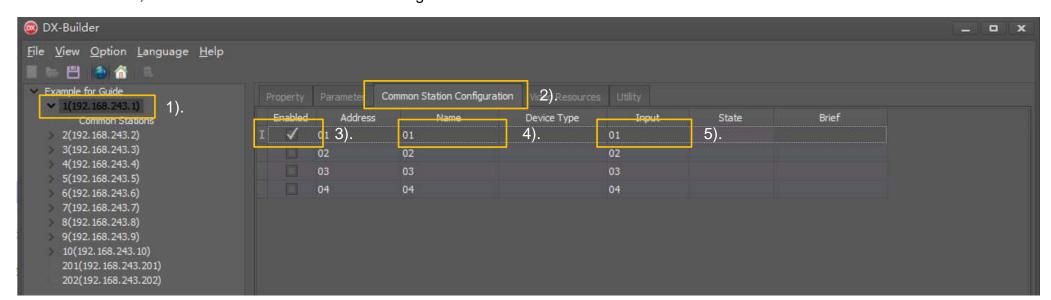






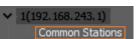
#### **Common Station**

For common Station, video resource and door station setting is a must.

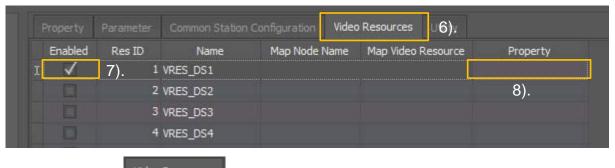


- 1). Click on the 1(192.168.243.1) DT-IPG need to configure and make the background be selected.
- 2). Click on the Common Station Configuration tab on the "Setting Window"
- 3). Tick on the door station with address 1
- 4). Enter the name of the Door Station
- 5). Enter the Input call codes, with the DT-IPG's call codes setting on the Global Settings and this input combine with a complete call input call code for IP-G24

Note: Click on the dropdown list also call out the setting page



rest of the item not need fill in



- 6). Click on the Video Resources tab on the "Setting Window"
- 7). Tick on the first one, means to this DT-IPG will provide a video/camera(a door station's)
- 8). Click on the blank item on the "Property", and after that click on the to call out a dropdown list

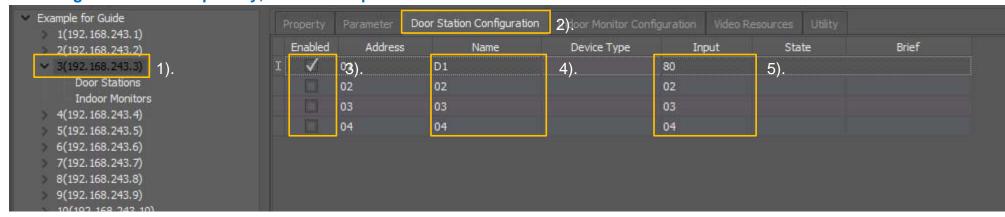


9). Click on the "Public", means this camera is open video for the system, the configure is finish.

#### **Door Station & Indoor monitor**

For common Station, video resource, door station and setting is a must. For this kind of IPG will connect with maximum 4 door station and maximum 32 monitors

Building's door station quantity, name and input.



- 1). Click on the 3(192.168.243.3) DT-IPG need to configure and make the background be selected.
- 2). Click on the Door Station Configuration tab on the "Setting Window"
- 3). Tick on the door stations are connect on this DT-IPG, maximum 4pcs
- 4). Enter the name for thoes Door Station
- 5). Enter the Input call codes, the call codes input must be **Unduplicated**, call codes for door station is for guard unit to call.

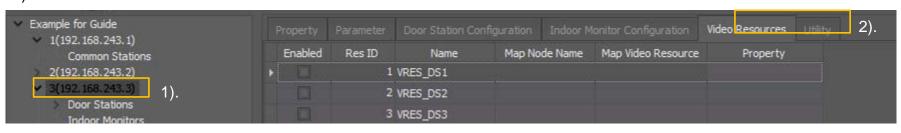
Note: Click on the dropdown list also call out the setting page



rest of the item not need fill in

#### **Building's Video resource**

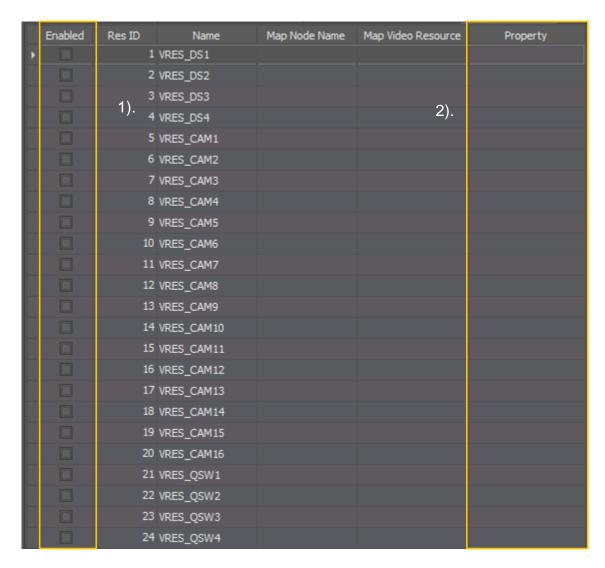
- 3). Tick on the door stations are connect on this DT-IPG, maximum 4pcs
- 4). Enter the name for thoes Door Station



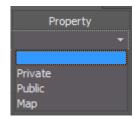
- 1). Click on the 3(192.168.243.3) DT-IPG need to configure and make the background be selected.
- 2). Click on the Video Resources tab on the "Setting Window"

Following list is to configure for the monitoring list, there are total 24 video resource in the list. For monitor DT43/DT16S/DT243/DT27S you can monitor on DS1~DS4 and CAM1~4, for DT17 the maximum is DS1~DS4 and CAM16, for DT37MG/DT47MG/DT31M the maximum is all the resource.

In general 2-Wire system if you are not connect with those DS or CAM, when try to monitoring to those DS or CAM, units will deny monitoring. In here although those video device is not connected, but allowed to mapping one or more video resources to other DS or CAM on the network. Each DT-IPG have 24 video resources allowed the monitor connect it with to surveillance, or provide the video resources to the network.



- 1). Tick on the resource want to surveillance or want to provide to the network
- 2). Double click on the blank arear on the property item Property a dropdown list will show:

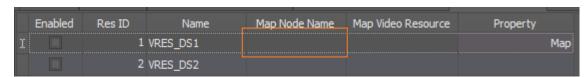


Private: means one video device (Door station/DT-SCU/DT-QSW) is actually connect and this video only service to this building, it is private.

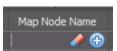
Public: means one video device (Door station/DT-SCU/DT-QSW) is actually connect and this video is service to this building and network, it is Public

Map: means there isn't a actual video device connected, but use a network's video(as Public video resource from other IPG) to replace this video resource, it is Map.

1.) Tick on the resource need to add and set the property to "Map", then click on the blank area of "Map Node Name"



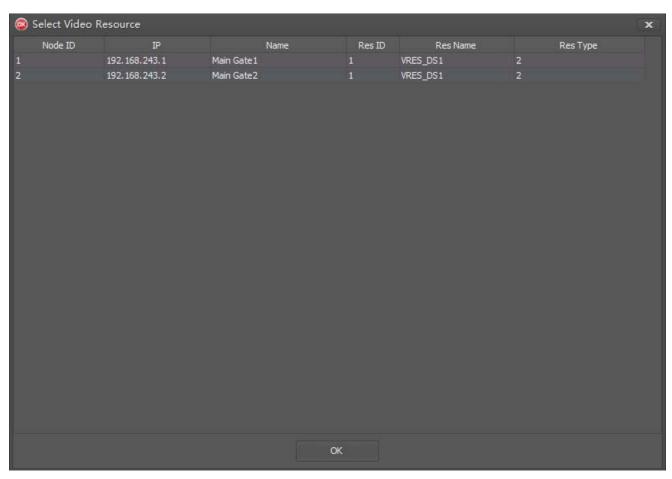
2.) Two icons will show on the box, click on the 🕕 icon



3.) A window will pop up with all the available public video resource on the network, select the one need to mapping to and click on



В

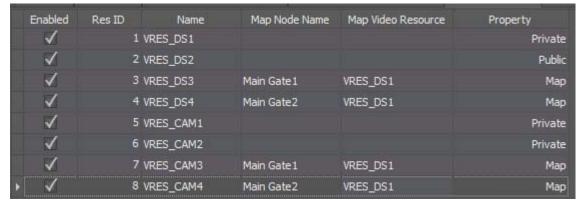


4.) if a wrong public resource be selected, click on the item and click on the or icon to remove the resource



An example about the video resource setting:

A building is actually connected with two door station and a SCU with 2 cameras, one of the door station is public and monitor allowed to use DS3 and DS4 to surveillance common door statin the connect on other IPG in the network. The configuration as below:



For monitors:

If surveillance DS1 and DS2 on the monitor, it will directly connect to the local door station 1 and 2.

If surveillance DS3, it will connect to the DT-IPG which Node name is Main Gate1, and get the video from the first door station connect on that IPG

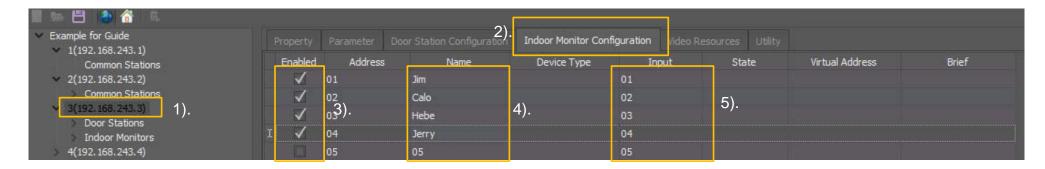
If surveillance DS4, same as DS3

If surveillance CAM1 and CAM2 on the monitor, it will directly connect to the local QSW/SCU's CAM1 or CAM2

If Surveillance CAM3 and CAM4. same as DS3

Note: if actual video device is exist, please do not mapping it to other network public video resource

#### Building's indoor monitor quantity, name and input.



- 1). Click on the 3(192.168.243.3) DT-IPG need to configure and make the background be selected.
- 2). Click on the Indoor Monitor Configuration tab on the "Setting Window"
- 3). Tick on the indoor monitor that are connect on this DT-IPG, maximum 32pcs if extent mode is DT\_32, maximum 128psc if is DT\_128
- 4). Enter the name for thoes Door Station
- 5). Enter the Input call codes, the call codes input must be **Unduplicated**, call codes for door stations and other monitors' input connect on this IPG

Note: Click on the dropdown list also call out the setting page

Door Stations rest of the item not need fill in Indoor Monitors

#### **Advance setting-Virtual address**

Virtual address provides 2 function:

- 1. For multi guard unit, provides a option to call multi guard unit Separately
- 2. For other 2-Wire multi-button door station to call guard unit.(DT607/DMR21/)

Virtual address will occupy the monitor's address, once the address is setting to virtual address that is not allowed to connect a monitor which address is same with the virtual one. It is mapping to the virtual address

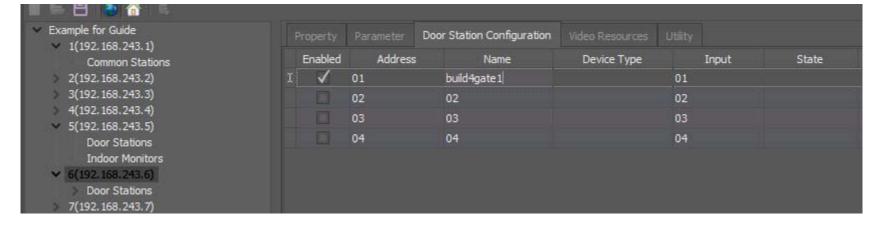


- 1). Tick on the address need to set to virtual
- 2). Double click on the blank arear of "Virtual address", a dropdown list will show all Guard unit in the configuration, selecte on of them This means if use the intercom function on the monitor to call address 8, it will transfer to the guard unit configure before, calling from the door station to the address 8 will also transfer to the guar unit, that is how to configure a multi-button door station to call guard unit. For DT607 as example, if configure address 4 to the virtual address to guard unit, the button 4 on the DT607 will transfer

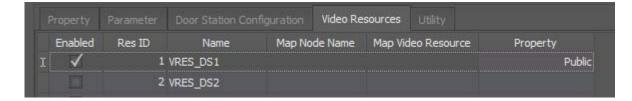
### **Door Station**

Door station settings is for high rise building, general only one DMR18S allowed to connect on this type of DT-IPG, the settings is the same with Common door station.

1. Tick on DS address 1 in the Door station configuration, and enter then name and input for the door station



2. Tick on the first one on the Video Resources and as public



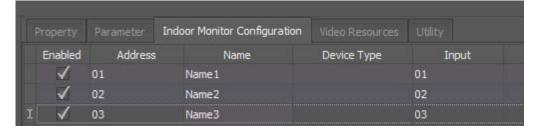
# **Indoor monitor**

Indoor monitor is to set the quantity name and input on monitors that are connected on this IPG, specially, this applicate is in high-rise building, so the input will be different.

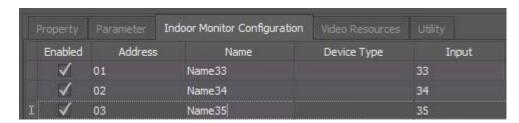
As the example project.

IP NODE 8~10 work as extent monitors for this building.

On the DT-IPG IP NODE8's "Indoor Monitor Configuration"



While on the DT-IPG IP NODE9's "Indoor Monitor Configuration"

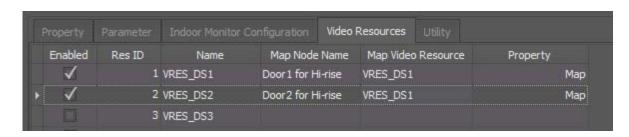


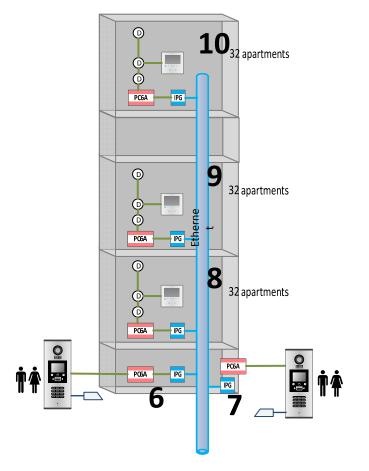
The input of the those monitors shall be follow by the IP NODE8's last monitor's input.

So here the first address on the NODE9 set to 33, means dial 33 will call to

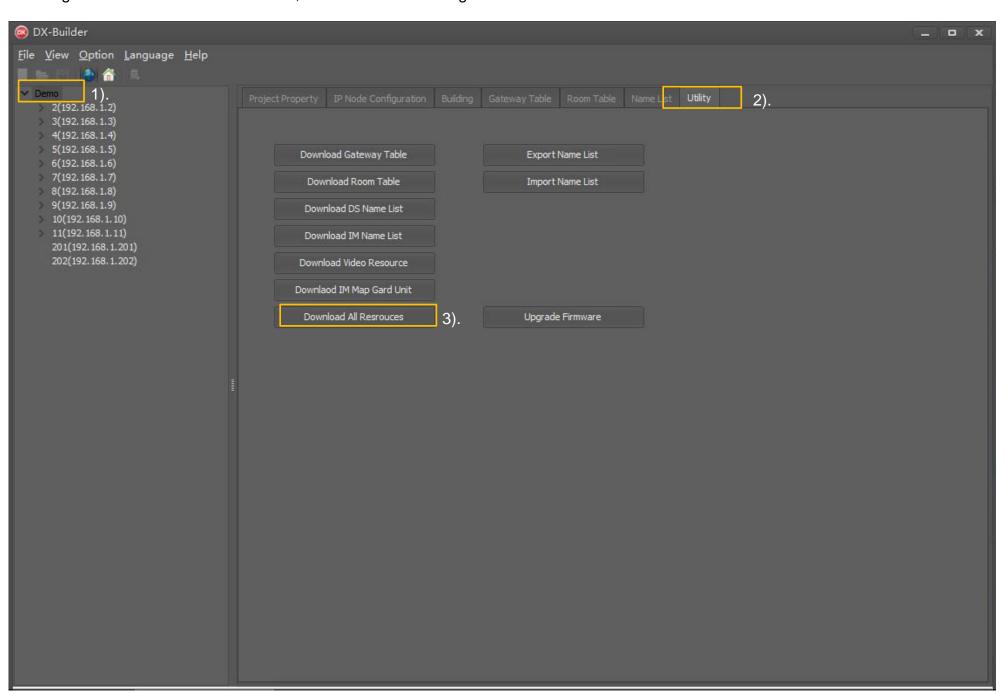
NODE9's first one

Also for the video resource, because there aren't any actual door station connection this type of DT-IPG, so if monitors need to surveillance this building's door station required to mapping to that door, and before configure, need to set that building's video resource as public, so that the DT-IPG can mapping to that public door station



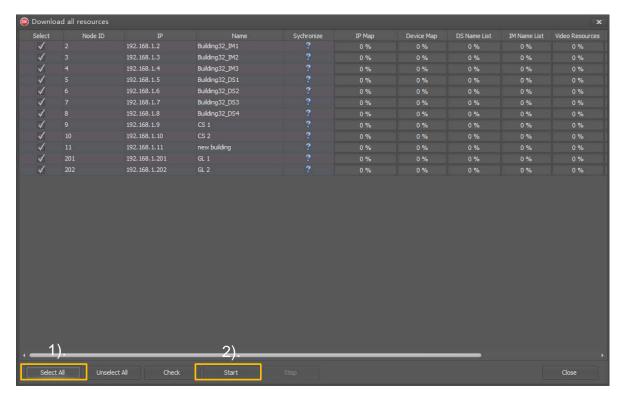


After all configure of each DT-IPG and IP-G24, download all the configuration files is a must.



- 1). Click on the pemo main title of this project, and make sure the title is be selected.
- 2). Click on the Utility tab on the "Setting Window"
- 3). Click on Download All Resrouces to get into the download window.

A window will pop up, showing all the IP devices configure on the software



- 1). Click on the Select All to select all IP device.
- 2). Click on the Start to start downloading the configuration files

Below process means the download is successful



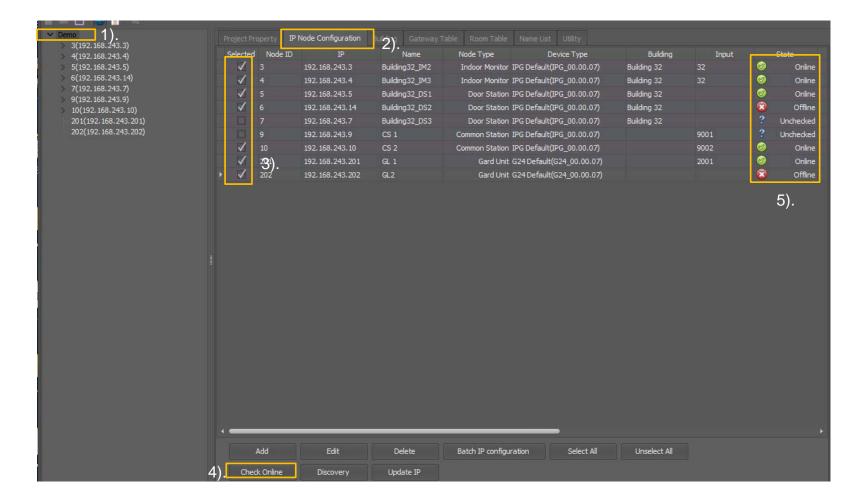
The process have a chance that download failed, which those failed IP device need to re-download the configuration, tick on those failed device, click on "Start" to download the configuration just for the deleted devices

Select	Node ID	IP	Name	Sychronize	IP Map	Device Map	DS N
	3	192.168.243.3	Building32_IM2	<	100 %	100 %	10
	4	192.168.243.4	Building32_IM3	<b>⊘</b>	100 %	100 %	10
	5	192.168.243.5	Building32_DS1	<b>⊘</b>	100 %	100 %	10
	6	192.168.243.6	Building32_DS2	<b>⊘</b>	100 %	100 %	10
	7	192.168.243.7	Building32_DS3	<b>⊘</b>	100 %	100 %	10
	9	192.168.243.9	CS 1	<b>⊘</b>	100 %	100 %	10
	10	192.168.243.10	CS 2	<b>⊘</b>	100 %	100 %	10
✓	201	192.168.243.201	GL 1	8	100 %	0 %	(

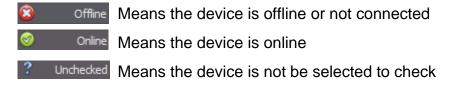
Debug

DX-Builder with some online check tools to search from the network to see if the devices is online or not.

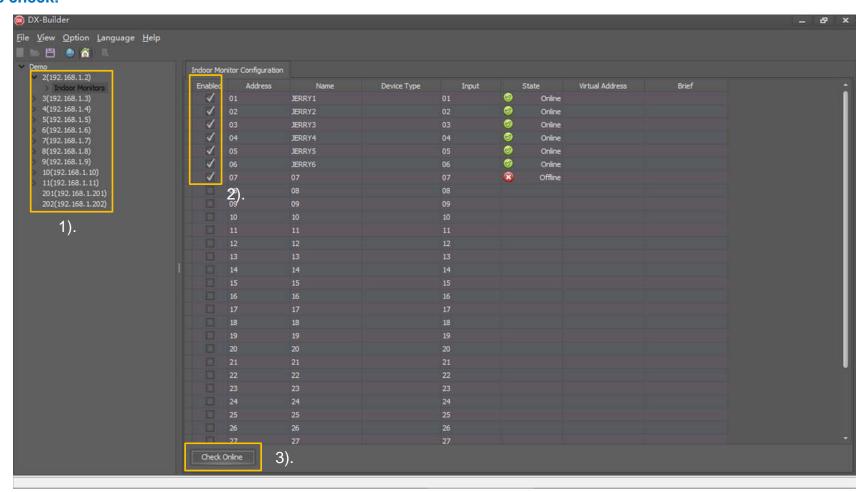
#### **IP-Device Online check:**



- 1). Click on the main title of this project, and make sure the title is be selected.
- 2). Click on the IP Node Configuration tab on the "Setting Window".
- 3). Tick on the devices want to be check or click on Select All to select all devices.
- 4). Click on the Check Online button to start checking.
- 5). Result will show on that line.

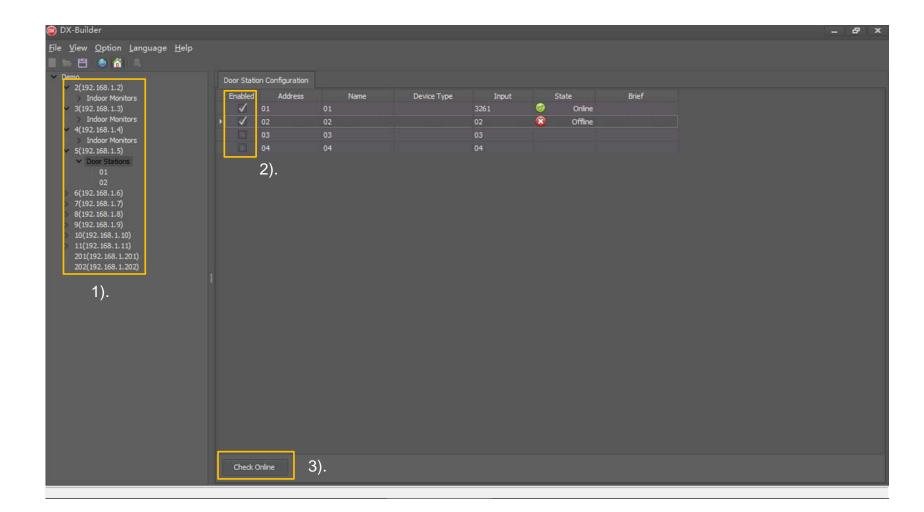


# **Monitor Online check:**



- 1). Select on Indoor Monitors the sub item need to be check on the target DT-IPG
- 2). Tick on the units want to be check
- 3). Click on Check Online icon to check the devices

# **Monitor Online check:**



- 1). Select on 5(192.168.1.5) the sub item need to be check on the target DT-IPG
- 2). Tick on the units want to be check
- 3). Click on Check Online icon to check the devices