



NexAIoT Co., Ltd.

NexWall

User Manual

NexAIoT Co., Ltd.

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PREFACE

Disclaimer

The information in this document is subject to change without prior notice and does not represent commitment from NexAloT Co., Ltd. However, users may update their knowledge of any product in use by constantly checking its manual posted on our website: <https://www.nexaiot.com>. NexAloT Co., Ltd. shall not be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of any product, nor for any infringements upon the rights of third parties, which may result from such use. Any implied warranties of merchantability or fitness for any particular purpose is also disclaimed.

Acknowledgements

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Revision History

Version	Date	Description
v1.00	January 2020	Initial release
v1.1	June 2021	Web based Scene Editor
v1.2	May 2022	New Editor, Restful API Server, UVC, Microsoft Edge Browser

CHAPTER 1: USING THE NEXWALL

1.1 Introduction

NexWall is an interactive video wall player desktop application that works on selected Windows-supported industrial PCs connected to a TV wall. It supports playback of multimedia contents such as images, videos, music and websites.

NexWall allows users to divide the video wall screen into different zones and assign contents to each zone separately. Furthermore, NexWall provides users the flexibility to define which scenes they would like to display periodically.

Editor is a new tool for customers to collect all required images, video, urls, ...etc, into a central location. Specifically, it is used to add/delete Scenes and arrange orders for all the Scenes. Each Scene will be divided into several zones, each zone will then be assigned a different content. Editor will guide the user into creating a full story in expressing his/her idea through Utility.

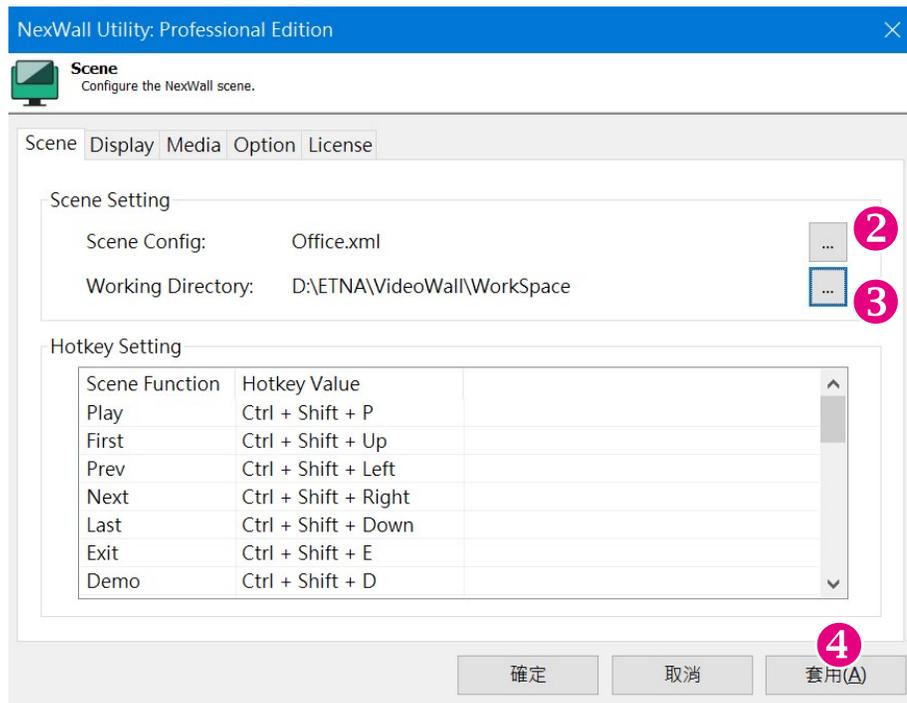
1.2 Install 3rd party tools

NexWall Utility will use 3rd party tools for playing different contents, please go to each product website to begin download and installation.

1. Chrome Browser ©:
<https://support.google.com/chrome/answer/95346?hl=zh-Hant&co=GENIE.Platform%3DDesktop>
2. Microsoft Edge Browser ©:
<https://www.microsoft.com/zh-tw/edge>
3. Adobe Reader ©:
<https://www.adobe.com/tw/acrobat/pdf-reader.html>

1.3 Launch & Configure the Utility

1. Launch **Utility** and enter the password in the respective field, then click **OK**. (Default password is "0000")

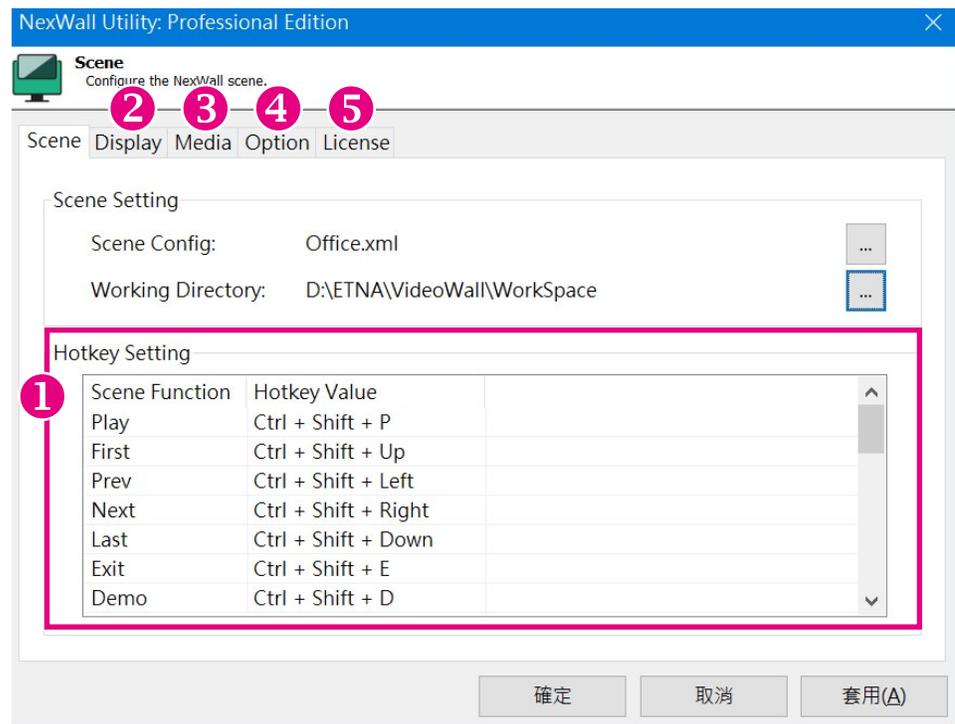


2. Click the Scene Config to design Scenes.
3. Click the Working Directory to setup the media file folder.
4. Click the Apply (A) button to complete the setting.

CHAPTER 2: BASIC OPERATIONS

2.1 Introduction

This chapter introduces the user interface and basic operations. Once you logon, you will see the user interface as shown below.



Item	Name	Description
1	Hotkey Setting	Configure keyboard shortcuts for functions
2	Display	Configure the VideoWall display
3	Media	Detect/Configure the media support list
4	Option	Set the environment parameters
5	License	Description of the version information and its features

2.2 Configuring Hotkey Settings

We offer various functions where users can use for playing content, ranging from switching from Normal Mode to Demo Mode, to shifting between scenes.

By default, there are predefined hotkeys which can also be customized by users.

The following are common used functions:

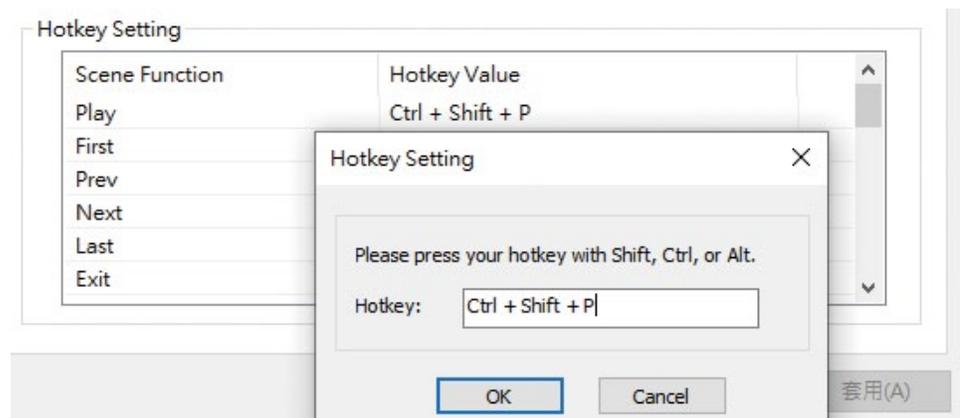
CTRL+SHIFT+P: Play all Scenes

CTRL+SHIFT+E: Exit all Scenes

CTRL+SHIFT+Right: Play next Scenes

CTRL+SHIFT+D: Demo mode, auto play all Scenes by timer setting

To customize a keyboard shortcut, double click on **Scene Function** to open the edit dialogue. Press your hotkey and click the **OK** button.

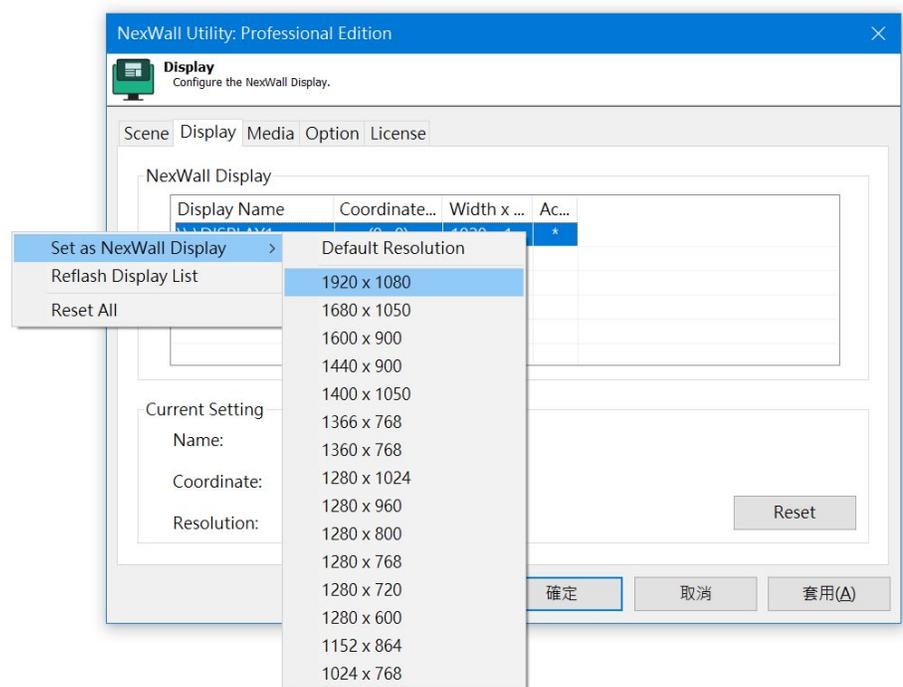


2.3 Configuring the Displays

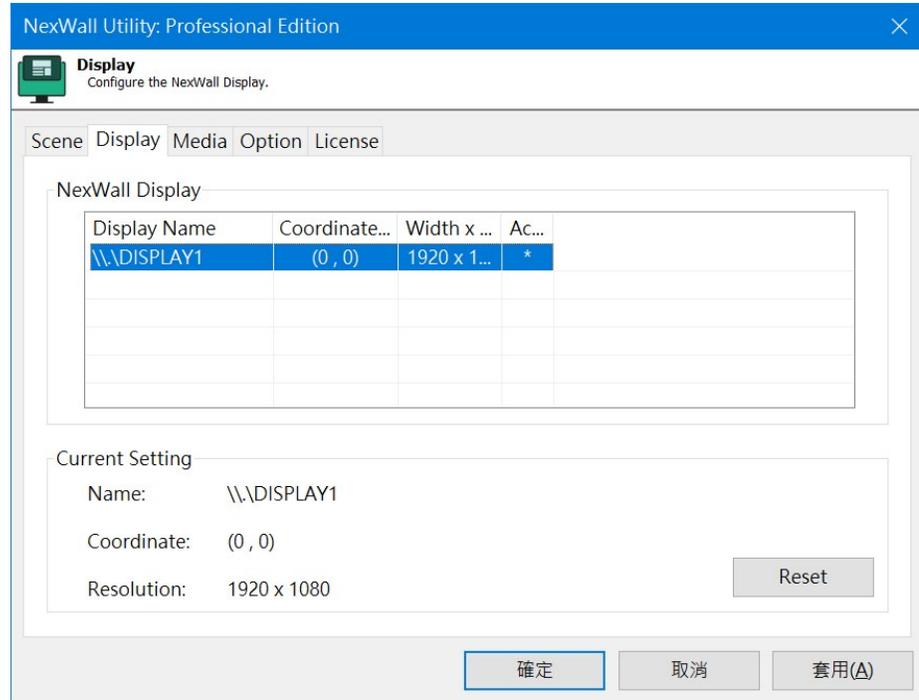
Utility can automatically detect and display the monitors currently connected, as well as the resolution and XY coordinates of each monitor.

Before using this function, please make sure all your panels are connected. Use the display setting function to arrange the panels layout.

1. To set a monitor as a display, right-click the monitor in the **Display Name** list, and select the resolution that will be used for displaying contents.



2. Click the **Reset** button to redetect and display the monitors currently connected, as well as the resolution and XY coordinates of each monitor.

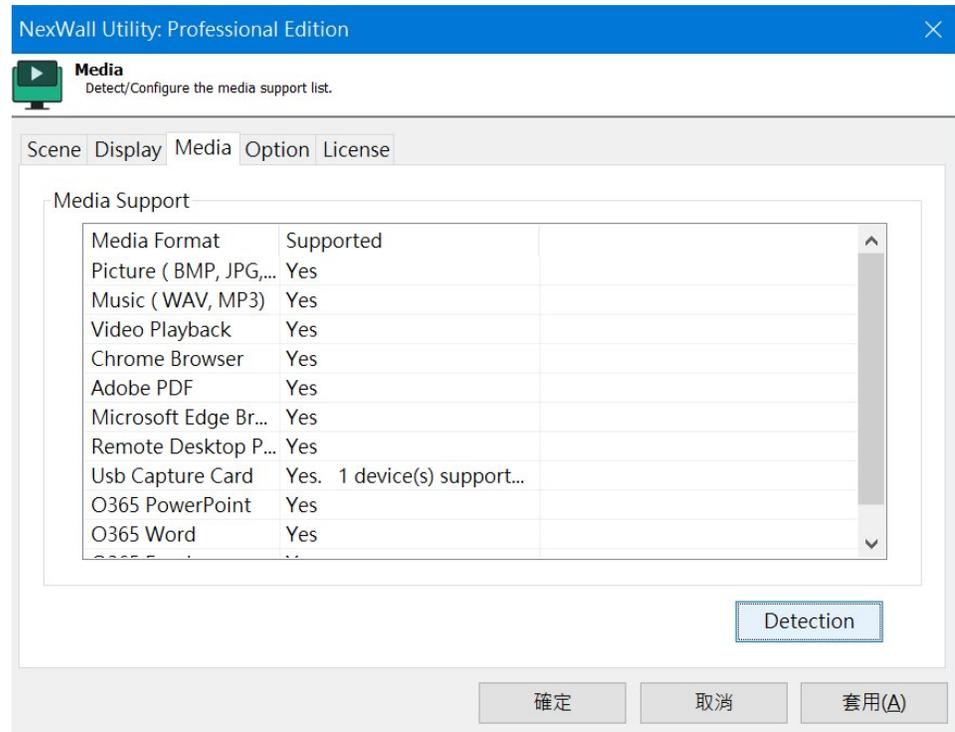


2.4 Viewing the Media Support List

The Media tab displays a list of media type supported.

Click the **Detection** button to redetect the media type.

Media Support will depend on its version.



2.5 Additional Playback and Startup Options

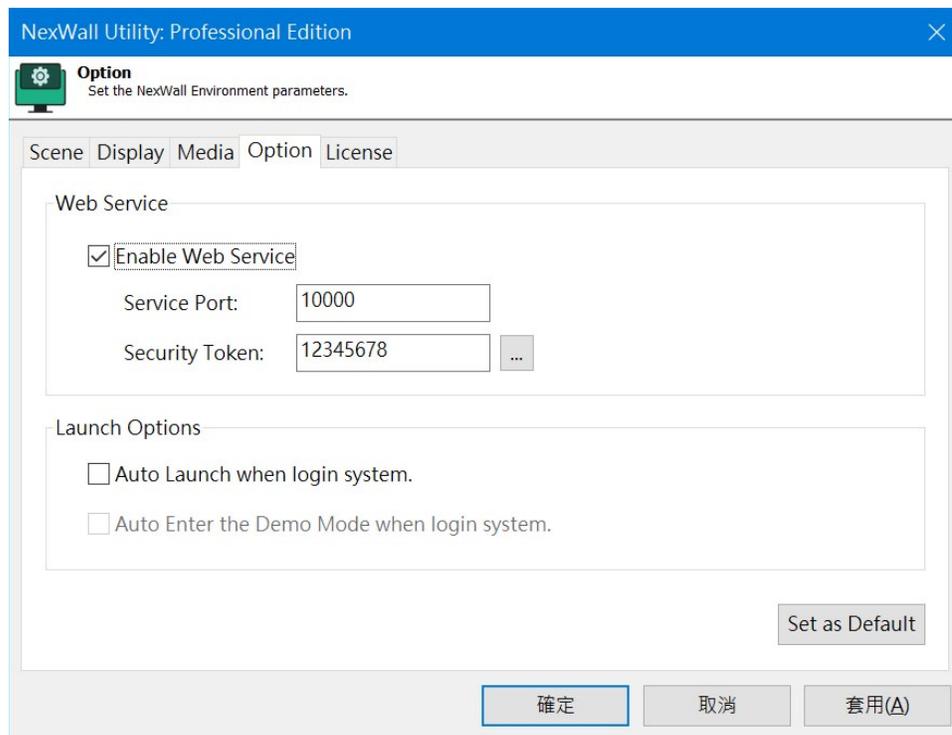
The option tab provides additional playing and launch options that can be enabled during play mode and startup.

Click the **Set as Default** button to return to default options.

The Web Service will offer the Restful API for customers to remotely control the specific scenes by name, or to Play, Next, Exit,...etc.

The launch options offer two options:

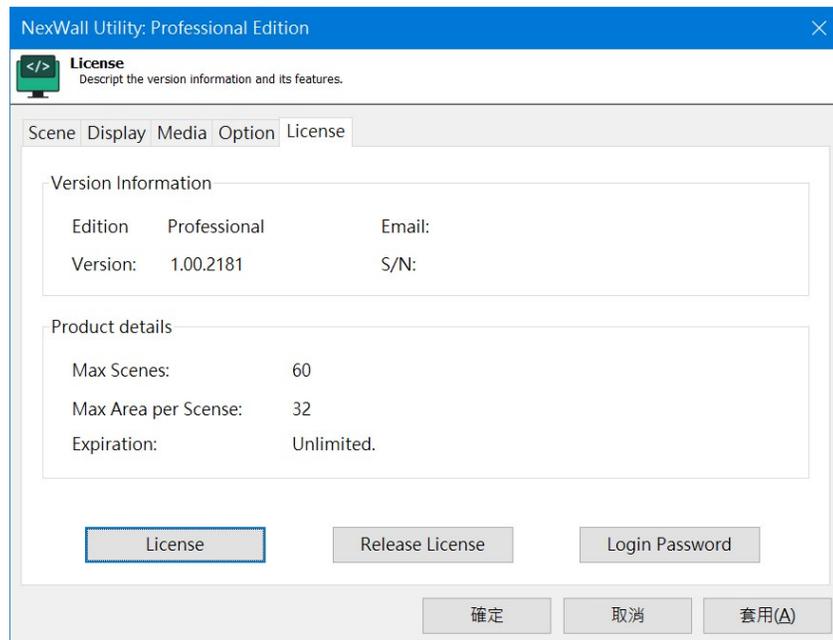
1. Auto launch when logged in to the system.
2. Auto enter into the demo mode when logged in to the system.



2.6 License Operations

The license tab has been provided for users to enter the license key. The license key can be reused for hardware replacements. There are four versions, community is free to use when registered. For product details of each version, please view our website (www.aiotcloud.dev).

1. Click the **License** button to open the edit dialogue. Click the **OK** button to enable license.



2. Click the **Login Password** button to open the edit dialogue. Click the **OK** button to update the login password.

2.7 Web Service

We provide a simple http server which can allow users to send the restful api to control Scene functions. Check the “Enable Web Service” in the options tab page to enable this feature.

There are two items: Service Port and Security Token

Service Port: Allows users to configure restful port number.

Security Token: Can select manual input or press “...” for auto generate.



Note: Other programs and firewall add in-bound rule must not be used for this port.

NexWall Utility: Professional Edition

Option
Set the NexWall Environment parameters.

Scene Display Media **Option** License

Web Service

Enable Web Service

Service Port: 10000

Security Token: 12345678 ...

Launch Options

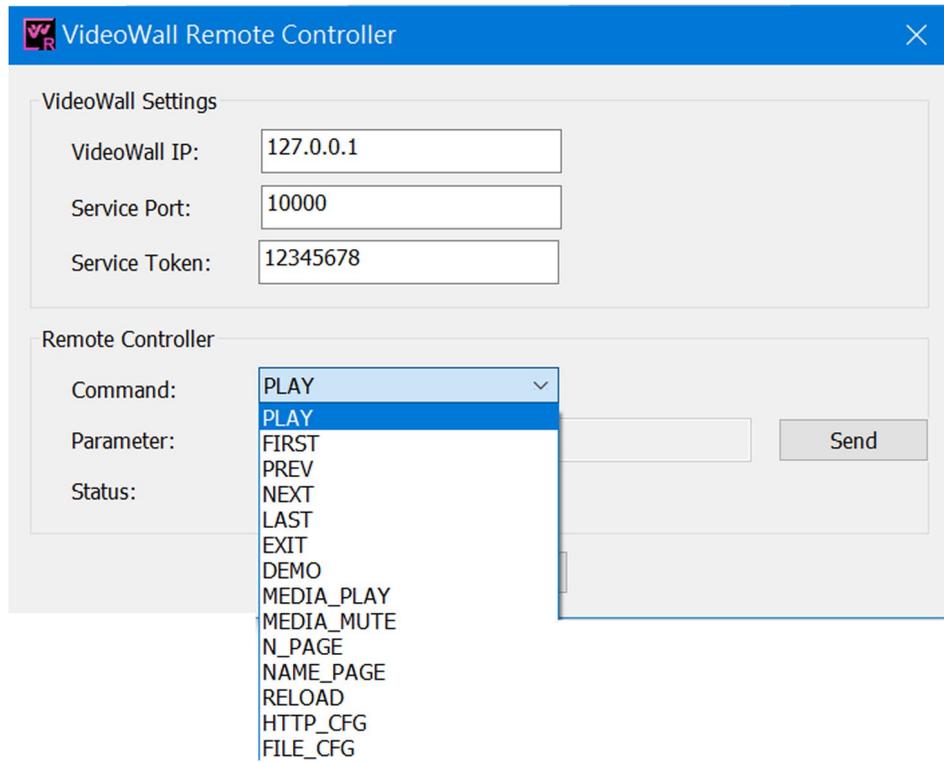
Auto Launch when login system.

Auto Enter the Demo Mode when login system.

Set as Default

確定 取消 套用(A)

You can then use “Remote Controller” from Microsoft START to test the Web Service functions.



The restful api format:

```
header : VW_Token:{security token}
GET    : http://{the VideoWall ip}:port/VW_SERVICE?VW_
        CMD={VW_CMD}
```

or

```
http://{the VideoWall ip}:port/VW_SERVICE?VW_
CMD={VW_CMD}&VW_PARAM={VM_PARAM}
```

Sample: "To show page 1"

VideoWall ip : 10.15.1.85

port : 10000

security token : 12345678

The restful :

```
header = {"VW_Token" : "12345678"}
```

```
GET: http://10.15.1.85:10000/VW_SERVICE?VW_
      CMD=N_PAGE&VW_PARAM=0
```

VW_CMD	VM_PARAM	Note
PLAY	none	
FIRST	none	
PREV	none	
NEXT	none	
LAST	none	
EXIT	none	
DEMO	none	
MEDIA_PLAY	none	
MEDIA_MUTE	none	
N_PAGE	the page number	from 0 start to (max. number of page - 1)
NAME_PAGE	the page name	
RELOAD	none	
HTTP_CFG	the web CFG file	format http://
FILE_CFG	the local CFG file	format file://

CHAPTER 3: USING EDITOR

3.1 Introduction

The Editor allows users to design the presentation for Utility. This handy tool gives users the freedom and flexibility to add, modify and classify different types of rich media files, from pictures, video files, web to presentation.

- Select and add content (play item) from content list to specific zones
- Support 100 scenes and up to 64 zones in each scene
- Support both Default Layout Templates and User Defined Templates
- Intuitive UI for central management and easy operation
- Save the configuration file in XML format

3.2 Main Features

The Editor is used to provide a friendly user interface to design the presentation scenes and material management. It allows the user to manage content files and design presentations. It consists of 5 items: Main Area/Media/Scene Style/Scene Property/ Contents (of each Scene). (As shown in the following: Chart-1).

Chart-1:

#	Item	Description
1	Media	Managing content files, used to add new media files, web URL or manage the content files previously created.
2	Scene Style	To add new style into Scene, currently, we have Style01 and Style02. Design presentation or manage the design presentation previously created.
3	Scene Property	To set Scene Name and Timer. You can also view each content details and edit the order of the Scenes.
4	Contents (of each Scene)	To view details of all the content.

3.3 Start Editor

The Editor is at Microsoft Start menu, please launch from Microsoft START.

CHAPTER 4: CREATING A PRESENTATION

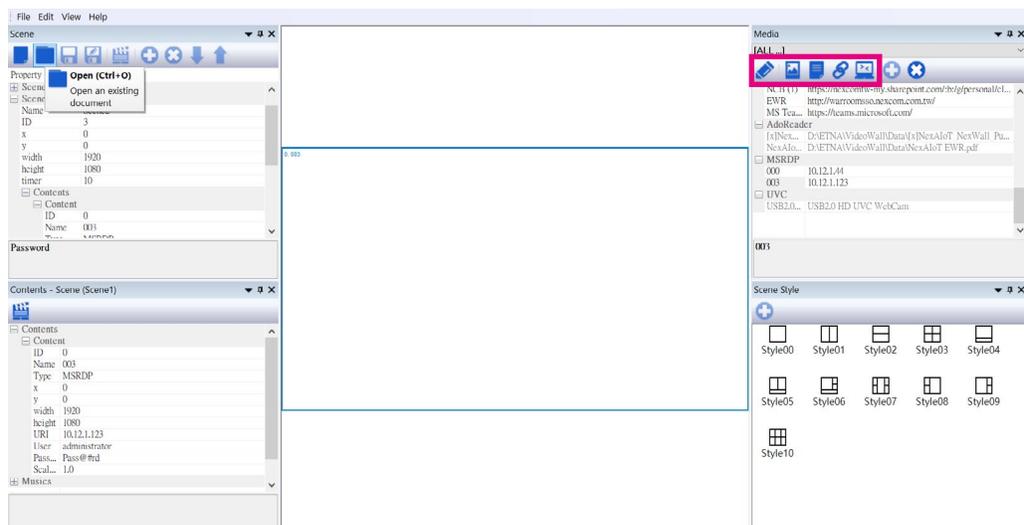
Before presentation creation, please do a script, collecting the available contents, design the number of Scenes and the number of zones in each Scene. Due to the different resolutions of image and video contents, the required zone must meet the resolution. Moreover, the order of Scenes are also crucial in making a good presentation.

4.1 Manage Content Operations

In this version, the supported media format consists of: images, video, PDF, Chrome, Microsoft Edge, MS RDP, etc., please check the “Media” tab for more details. (Note: the media supported varies with version).

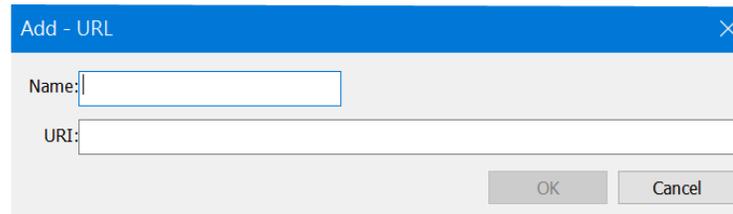
Move to the Media window to add new content files or manage the content files previously created.

4.1.1 Add Content from your local storage



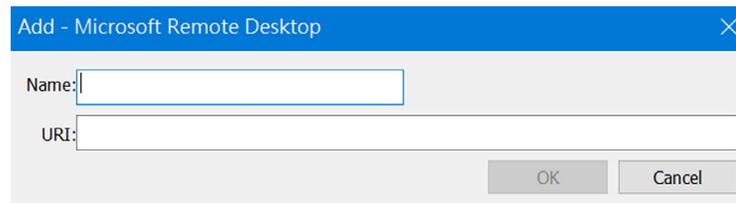
1. Click “**Add media files**” icon at the top right of the page.
2. Select any multimedia content file (images, video and PDF) from your local storage.

4.1.2 Add URL link



1. Click “**Add Link**’ icon at the top of the page.
2. Enter name. (ex: The name you can remember for the link)
3. Enter the URL link. (ex: www.nexcom.com.tw)
4. Click OK to add the link.

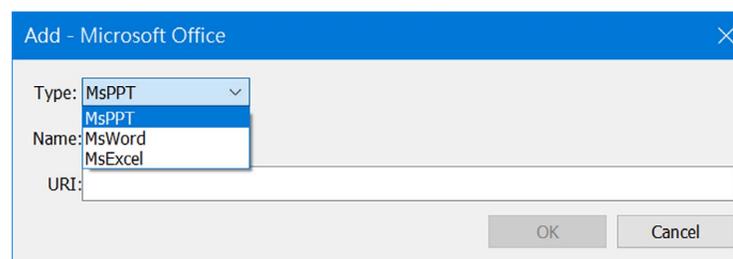
4.1.3 Add MSRPD



1. Click “**Add MSRPD**’ icon at the top of the page.
2. Enter name. (ex: The name you can remember for the link)
3. Click **OK** to add the link.

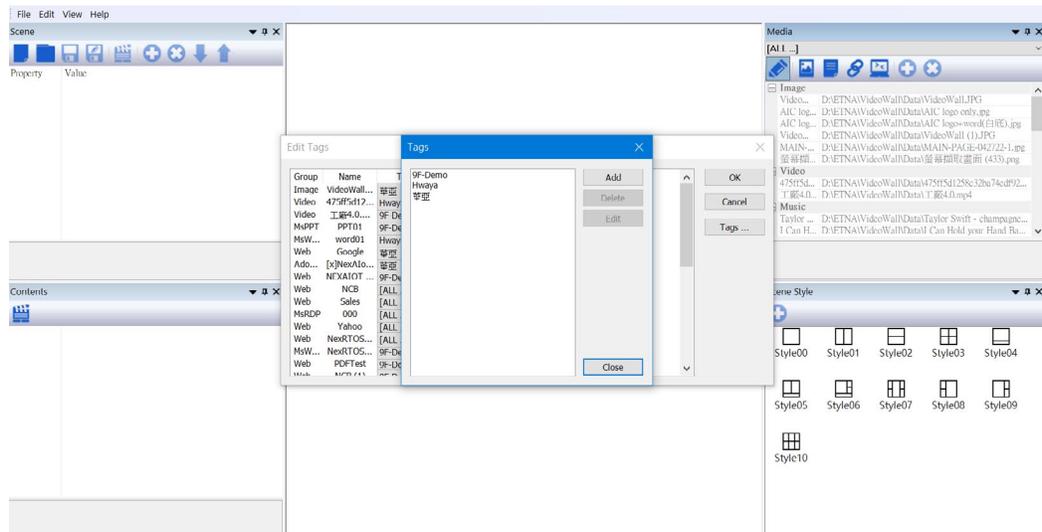
4.1.4 Add MS Office file link

1. Click “MS Office file link” icon at the top of the page.
2. Select the file type: MSPPT/PSWord/MSExcel.
3. Input the name.
4. Input the link of the shared file in one-drive.

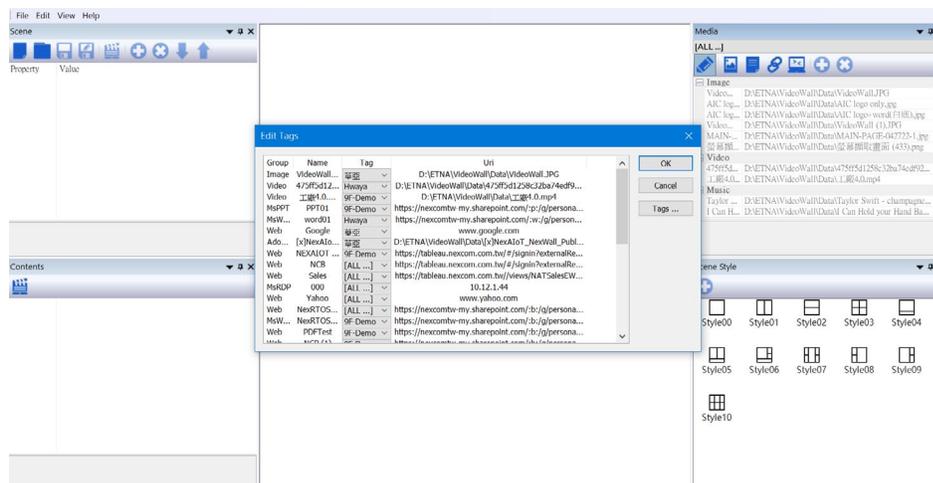


4.1.5 Add Tag for Media files

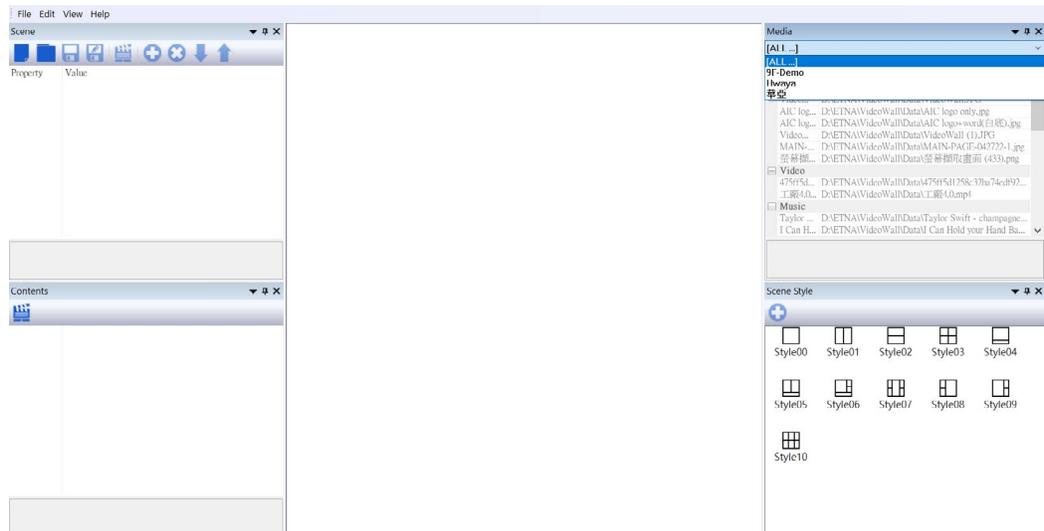
1. Press “edit tags” in upper right “Media” window.
2. Go to “Tags...” to define your Tags by Add/Delete and Edit.



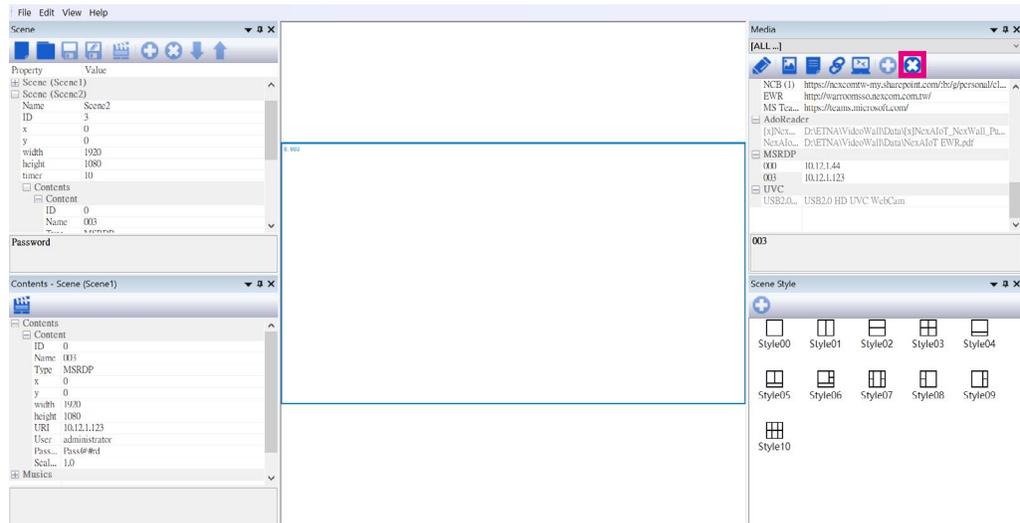
3. In Edit Tags windows, use the drop down list to set the tag for media file.



4. In Media window, drop down the select tag to show medias with the selected tag.



4.1.6 Delete Content Files

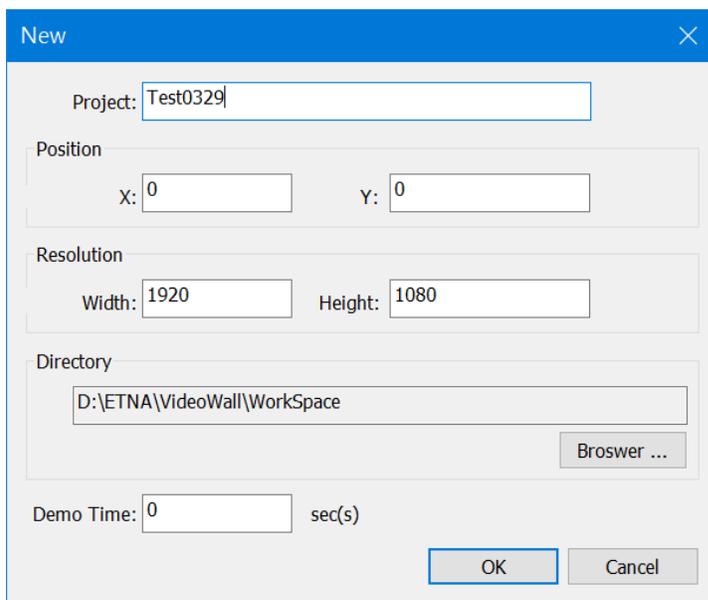


1. Click the content files to be deleted.
2. Click "x" icon to delete these files.

4.2 Design Presentation Operations

4.2.1 Creating a New Presentation

1. Select “New”



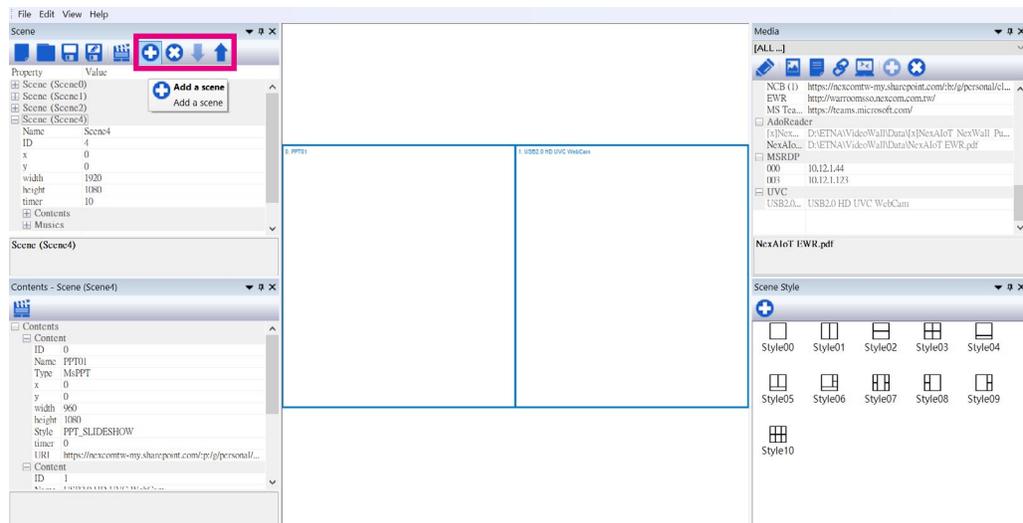
The screenshot shows a 'New' dialog box with the following fields and values:

- Project: Test0329
- Position: X: 0, Y: 0
- Resolution: Width: 1920, Height: 1080
- Directory: D:\ETNA\VideoWall\WorkSpace (with a 'Browser ...' button)
- Demo Time: 0 sec(s)

Buttons: OK, Cancel

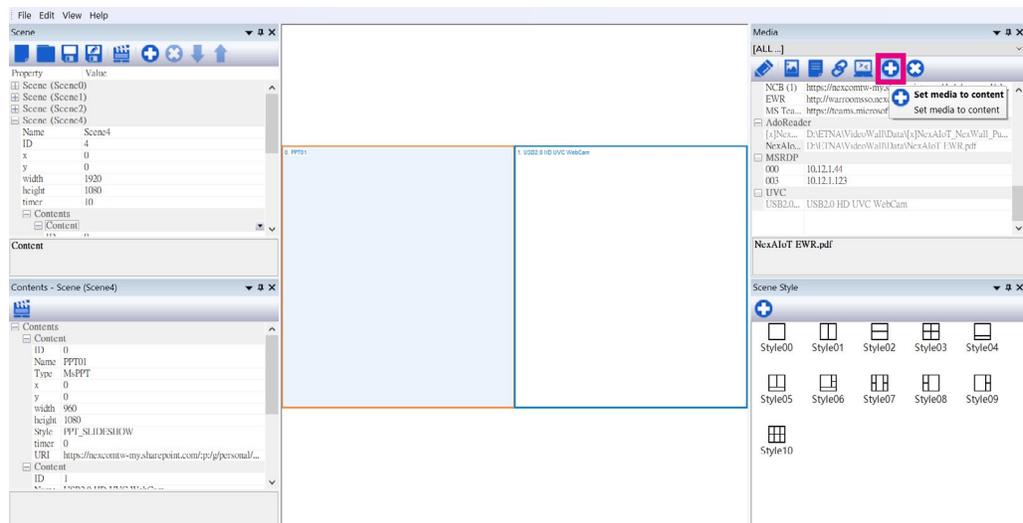
2. Enter Project Name, Position, Resolution, Directory, Demo time and then click **OK**. Project name will be a folder and a XML, we save XML file and all media files into this folder.

3. Create a new Scene by clicking “+” button, then move it to the middle window. Next, click it to make it active.

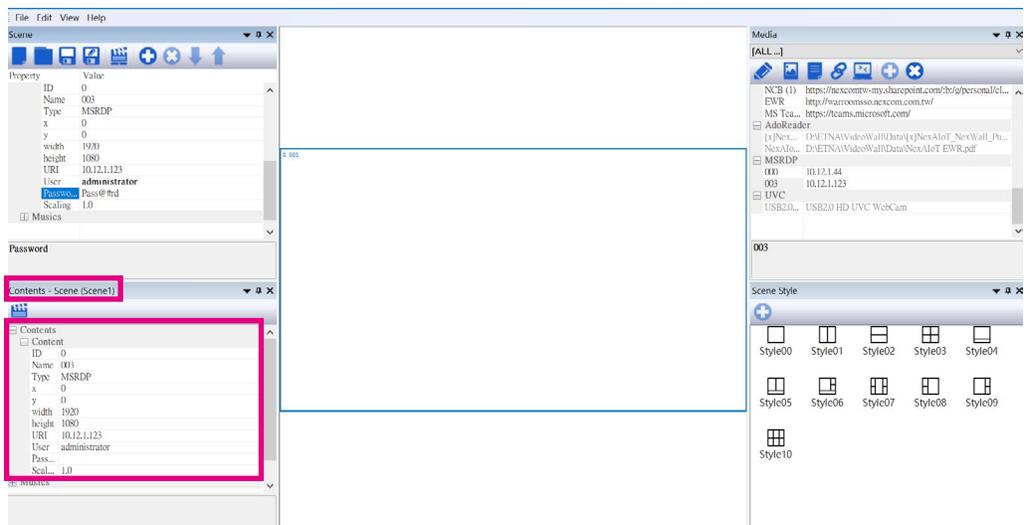


4. Design the zones for each Scene. Go to the lower right of the “Scene Style” window, select “Style01” or “Style02.” Next, click the Add “+” button to design the zones. This operation can be left on to design required zones for the target Scene.

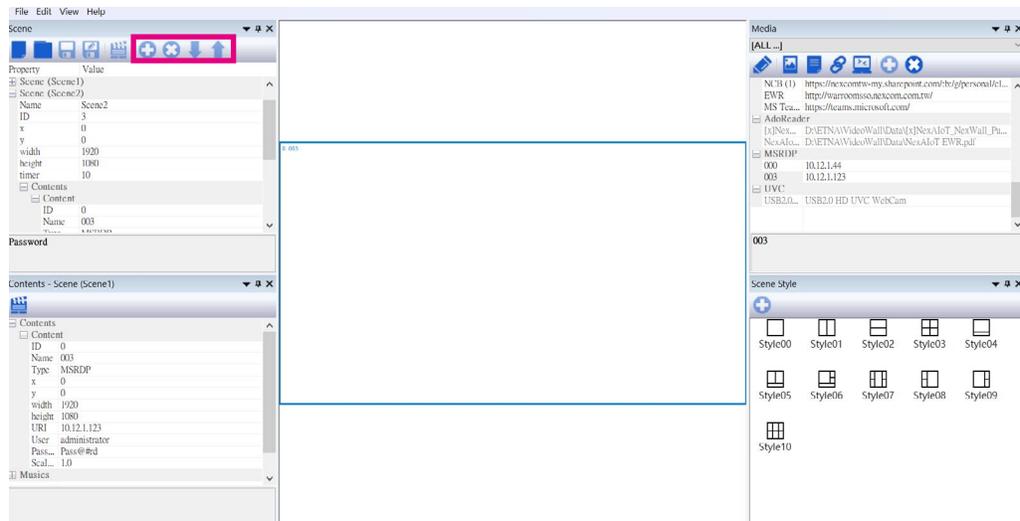
- Click the target zone, move to the upper right Media and select the content. Click it and press "+" to add it to the selected zone.



- The bottom left is the Content of each Scene (Content - Scene(name)), displaying the Content ID, type, x,y, width, height and URL. (Some includes parameters information)

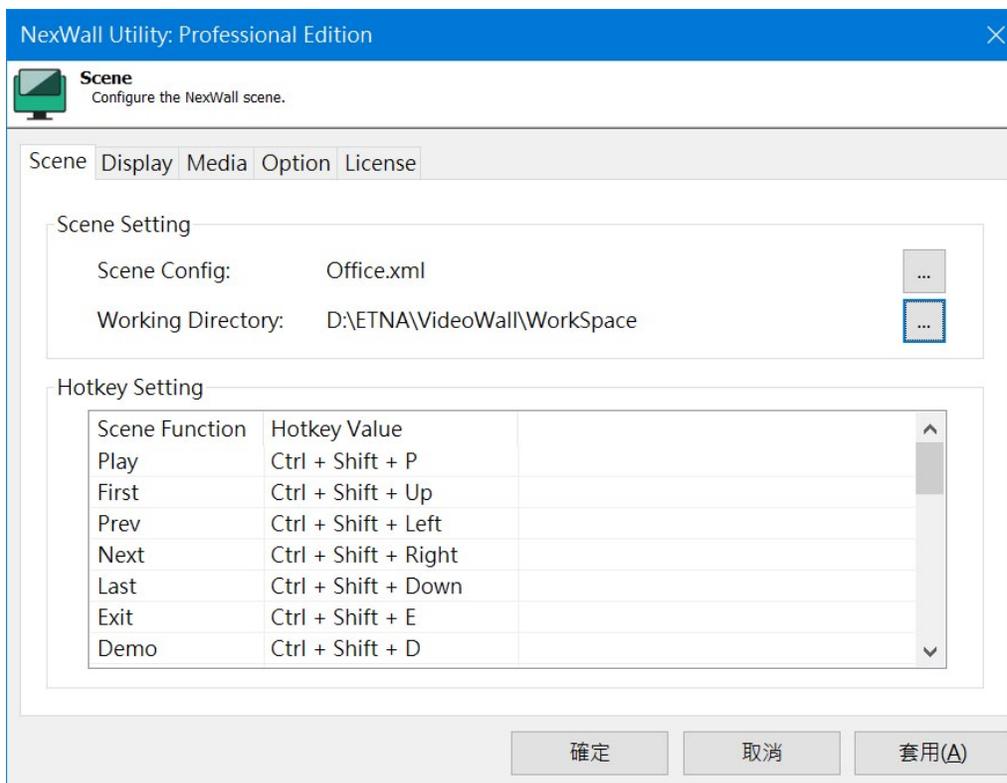


- The upper left window displays the Scene properties. All Scenes will be listed here, order adjustments can be done through the use of the up and down key.



- When all the designs are complete, click "Save."
- After saving the project file, a notification asking whether to apply the Scene Config. file to VideoWall Utility will appear. Click "OK," to automatically run the VideoWall Utility.
- Enter VideoWall Utility login, the default password is "0000." (can be changed after login)

11. Editor will auto load config. file and directory. To load other XML file and other directory, please click and select "Scene Config" and "Working Directory" to your own config. file and directory.



CHAPTER 5: MEDIA REFERENCE SAMPLE

5.1 Microsoft Office files

Microsoft Office files include Word, Excel and PowerPoint. When preparing the content, please make sure to have Microsoft O365. Follow the following steps to share the file, take PPT for instance:

1. Open the PPT file
2. Select the "File"
3. Click "Share"
4. Select the target OneDrive
5. Copy the link
6. Paste the link to VideoWall Editor "Media," type: MSPPT, set timer and Normal/Slideshow



共用

請上傳您的簡報以進行共用。



改為附加複本



傳送連結

簡報.pptx

擁有連結的任何人都可以編輯

收件者: 名稱、群組或電子郵件

訊息...

複製連結

擁有連結的任何人都可以編輯

傳送複本

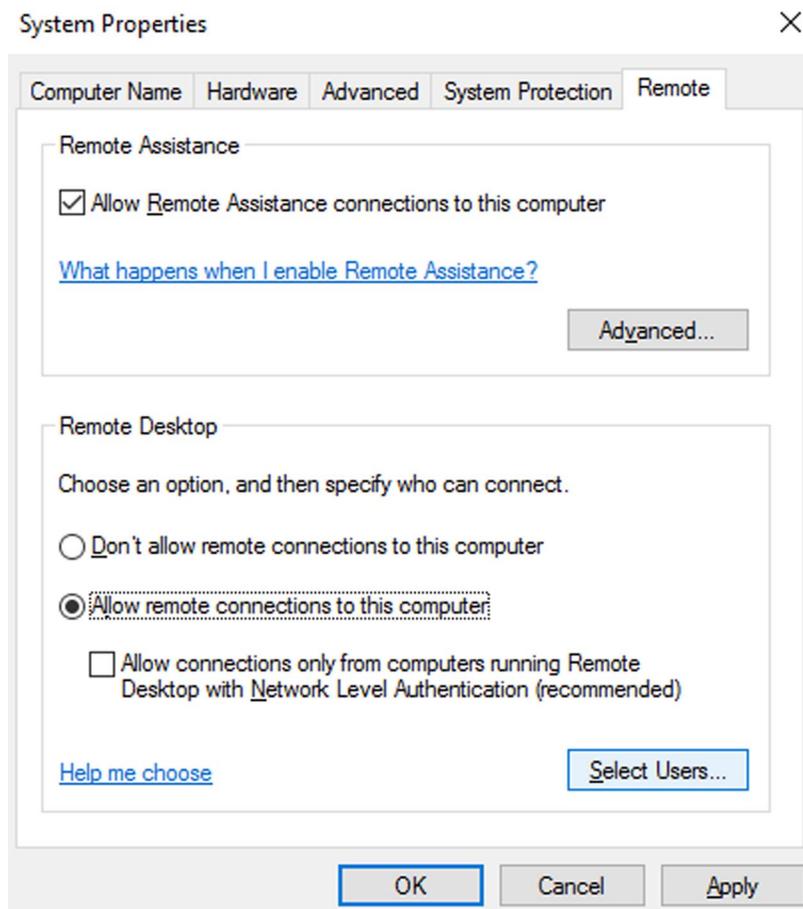
已複製「簡報.pptx」的連結

擁有連結的任何人都可以編輯

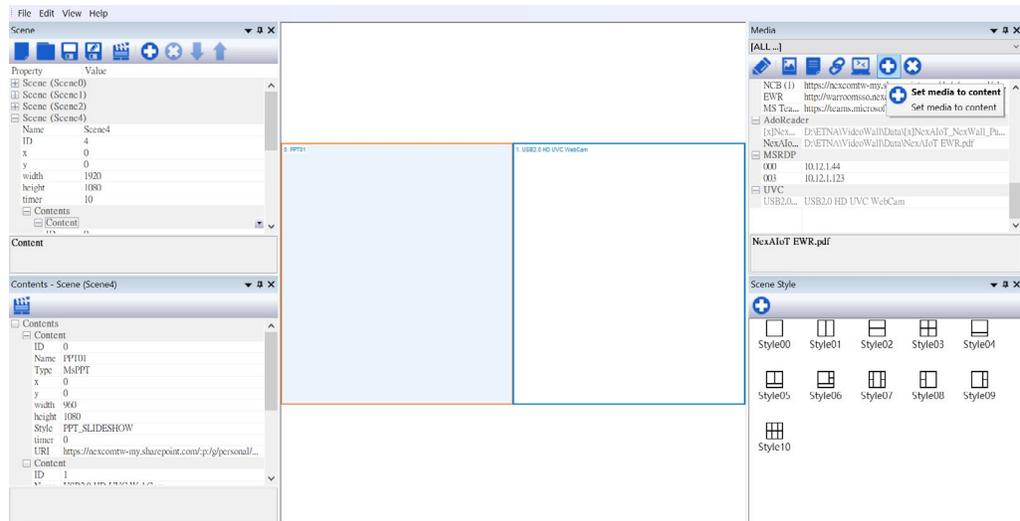
5.2 Microsoft Remote Desktop

Some old applications or close system are unable to be accessed by Chrome browser or Microsoft Edge. Thus, we offer a MSRDP for customers to reserve a zone for it. Please follow the following steps to set it up:

1. Go to the target PC, system setting page
2. Enable the "Remote Assistance" and "Remote Desktop"
3. Keep the computer full name,
(e.g: "A123-PC.abc.com," or "IP: 10.12..1.100")
4. Paste the full name to VideoWall Editor "Media,"
type: MSRDP, give ID/password



5. In Editor, please to go Scene/Content, input login ID/password to log in to remote desktop PC when connection is established.



5.3 Exor JMobile

JMobile is an excellent solution for HMI, compact SCADA, and visualization gateway for the design of HMI applications in a simple and intuitive way. There are two methods to use JMobile Dashboard on NexWall. First, is by using URL, the other, is to connect to the JMobile Server PC through utilizing MSRDP.

Each JMobile server have 4 connection URL. (Max is 10, depending on the capability of the server)

When using MSRDP, the JMobile server must use the same display setting as each zone of the Scene. (Ex: JMobile server is 1920x1080, so the zone should have the same), if not, you will see scroll bars.

5.4 HDMI to USB Video Capture Module Setup

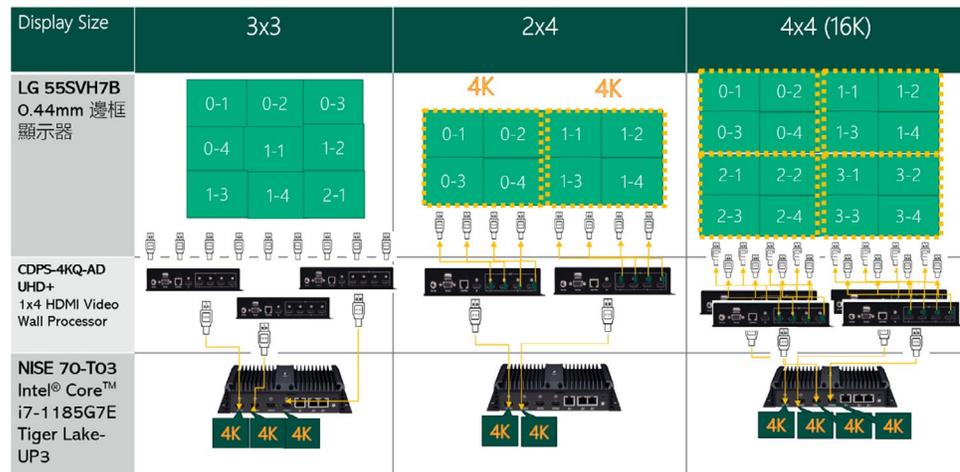
When using HDMI to USB video capture recorder, please plug it into NexWall player USB port (ex: NISE70). Next, use NexWall Editor to add it into Media source. One capture module only can be used in one zone of Scene. Using an USB camera will also work.

The hardware we suggest is CUSB-V605H UHD+ HDMI to USB Video Capture with PIP by CYPRESS TECHNOLOGY. It can be used to connect notebook or Apple TV.

CHAPTER 6: APPENDIX

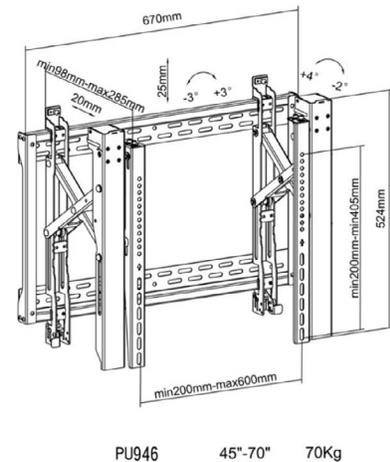
6.1 Player Hardware

We recommend NexAIoT Co., Ltd. NISE70 as the player hardware. It is an Intel® Core™ i7-1185G7E Tiger Lake-UP3 processor system with 4 x HDMI ports. If more HDMI ports are needed, it is possible to add 1x4 HDMI Video Wall Processor (CDPS-4KQ-AD UHD+) to extend it to 3x3, 2x4, 4x4.



6.2 TV Wall Panels and Setup

There are many TV wall panel vendors, however, for best experience, we recommend 55" with slim bezel. Thus far, we have tested LG/ Philip and AUO. Furthermore, installing a TV wall mount is also crucial, we suggest selecting PLB-3246 to mount the TV wall. Please contact your system integrator for more details.



PU946 45"-70" 70Kg

6.3 Android PAD Setup

There are various methods to control the Scenes switch, one of which is PAD. We offer a custom Android APK with some NRE charge. Customers are to offer the background image and the required ICONs, while we customize the APK. Android PAD can either be 10" or 8". The following is a sample:

