

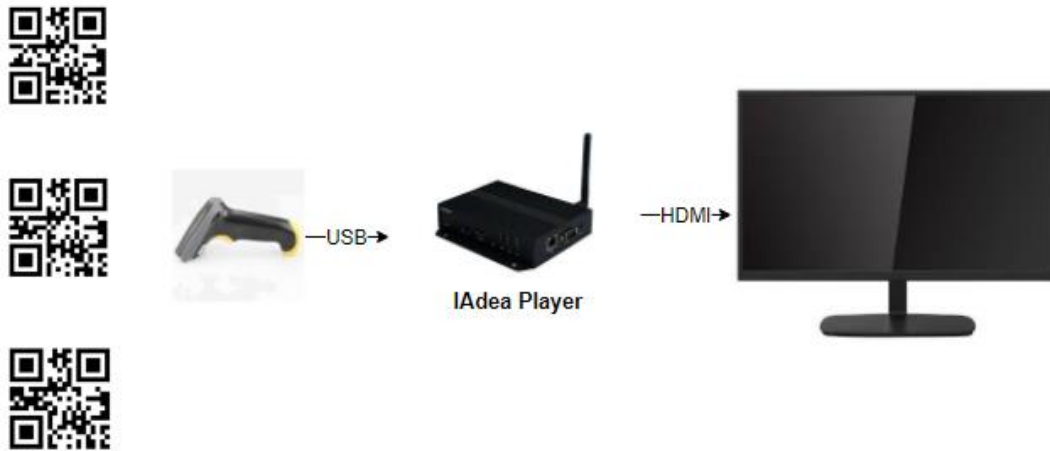
IAdea Technical Document

Date	2018/04/11	OS/ FW	NA
Topic	How to make the player play different video contents when QR code scanned?		
Keyword	QR code scanner, Bar code, HTML5, Switch content, Lift and learn, SignApps Express, Widget		
Related Product	MBR-1100, XMP-6250, XMP-6400, XMP-7300		
Prerequisite	QR code scanner, HTML5 building environment, SignApps Express		

❖ Abstract

When customer wants to play a different content by scanning a QR code or bar code tag, we could utilize HTML5 to make it happen. Follow the instruction in the article, you could build the demo in just 30 minutes.

An application structure is illustrated as the following. By scanning different tags, the player will output the corresponding video content to the monitor.



❖ Prerequisite

1. QR code scanner, USB interface. DK-5220 is used in this demo. If you don't have a scanner, a keyboard is good enough to simulate the scanner input.
2. HTML5 building environment. You could use any text editor, such as Notepad++. Visual Studio Code is used in this demo.
3. SignApps Express, [download link](#). SignApps Express helps you to create files for deploying to the player through either network or USB dongle.

❖ Outline for Step by step

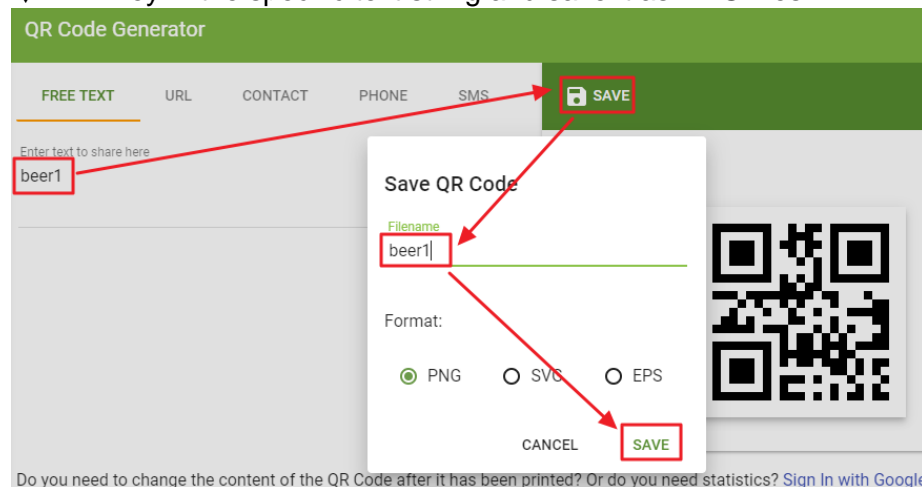
1. **Generate QR code or Bar code first**
 - 1-1 Key in the specific text string and save it as PNG files
 - 1-2 Open text editor and connect QR code scanner to PC to test the scanning function
2. **Create HTML5 with key functions**
 - 2-1 **Text invisible in CSS setting**
 - 2-1-1 CSS settings in the head and write CSS file for it.
 - 2-1-2 CSS to make input box invisible by either z-index<0 or opacity=0
 - 2-2 **Input tag, onkeyup event and autofocus attribute**
 - 2-2-1 HTML5 input tag, onkeyup event and autofocus attribute
 - 2-3 **Javascript to decide which content to play**
 - 2-3-1 onkey event to trigger Javascript "myFunction"
3. **Upload content to a web server and obtain URL. Set URL for the player.**
 - 3-1 to 3-8, step by step
4. **How to run the demo without Internet-Build a widget**
 - 4-1 to 4-10, step by step

❖ Step by step

1. Generate QR code or Bar code first

There are some websites providing the service to create QR code. Here is an example. Please go to the website <https://www.the-qrcode-generator.com/>. Get images as the following instruction.

▼ 1-1 Key in the specific text string and save it as PNG files.



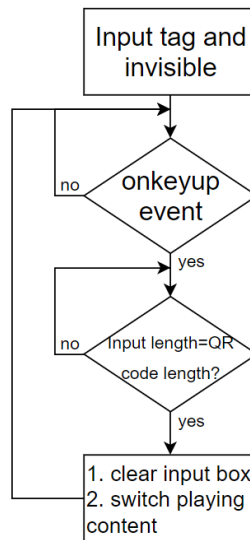
- ▼ 1-2 Open text editor and connect QR code scanner to PC to test the scanning function.



2. Create HTML5 with these key functions.

- 2-1 Text invisible in CSS setting.
- 2-2 Input tag, onkeyup event and autofocus attribute.
- 2-3 Javascript to decide which content to play

A flow chart is shown below to explain how to make the video content switched by QR code scanning to get input text string.



- ▼ 2-1-1 CSS settings in the head and write CSS file for it.

```

<head>
  <title>Demo, Input Text to Switch Content</title>
  <style type="text/CSS">
    html, body { width: 1920px; height: 1080px; margin: 0; background-color: black; }
  </style>
  
```

```
<link rel="stylesheet" type="text/CSS" href="CSS/style1.CSS" />
</head>
```

- ▼ 2-1-2 CSS to make input box invisible by either z-index<0 or opacity=0.

```
input[type="text"]
{
  font-size:100px;
  z-index: 1;
  position: absolute;
  bottom: 200px;
  left: 200px;
  width: 100%;
  text-align: center;
  opacity: 0;
}
```

- ▼ 2-2-1 HTML5 input tag, onkeyup event and autofocus attribute.

```
<body>
<input id="myInput" type="text" onkeyup="myFunction()" autofocus="autofocus">
<video id="videoclip" loop autoplay><source id="mp4video"
src="media/default.mp4" type="video/mp4"></video></body>
```

- ▼ 2-3-1 onkey event to trigger Javascript "myFunction". Write script in the body. Define different video contents corresponding to QR code string. Once the string length matched, then clear input box and switch to the corresponding video to play.

```
<body>
<script>
  function myFunction() {
    var video = document.getElementById("myInput").value;
    var videocontainer = document.getElementById('videoclip');
    var videosource = document.getElementById('mp4video');
    var newmp4_1 = 'media/1.mp4';
    var newmp4_2 = 'media/2.mp4';
    var newmp4_3 = 'media/3.mp4';
    var n = video.length;
    //if input length is matched to the QR code length, then clear input tag and
    switch to corresponding case to play video
    if (n == 5) {
      document.getElementById("myInput").value = "";
      switch (video) {
        case "beer1":
          videocontainer.pause();
          videosource.setAttribute('src', newmp4_1);
          videocontainer.load();
          videocontainer.play();
          break;

```

```
case "beer2":
    videocontainer.pause();
    videosource.setAttribute('src', newmp4_2);
    videocontainer.load();
    videocontainer.play();
    break;
case "beer3":
    videocontainer.pause();
    videosource.setAttribute('src', newmp4_3);
    videocontainer.load();
    videocontainer.play();
    break;
}
}
}
</script>
</body>
```

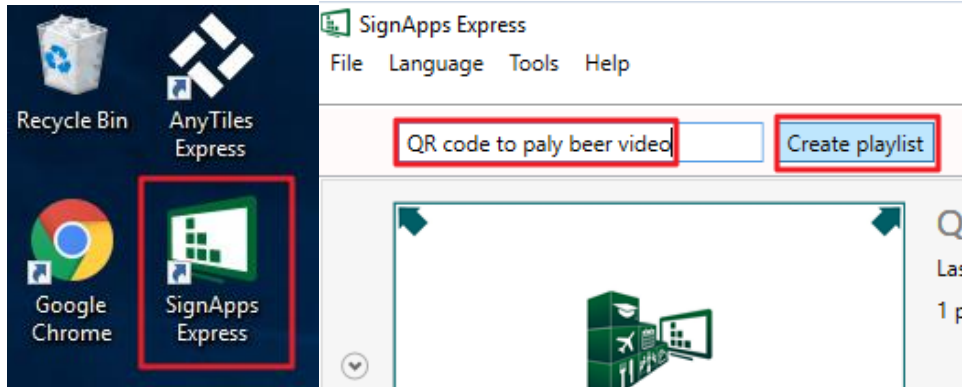
3. Upload content to a web server and obtain URL. Set URL for the player.

At this step, upload HTML5 content you created to a web server and obtain URL first. You could try the demo content already uploaded to IAddea web server at http://cloud.iadea.com/tmp/ivan/demo_qrcode/ Either connect a QR code scanner to the pc and then scan the QR code as the following, or just type beer1, beer2 or beer3 to trigger videos. Before scanning or typing, make sure the cursor is clicked on the webpage for receiving key-in text strings.

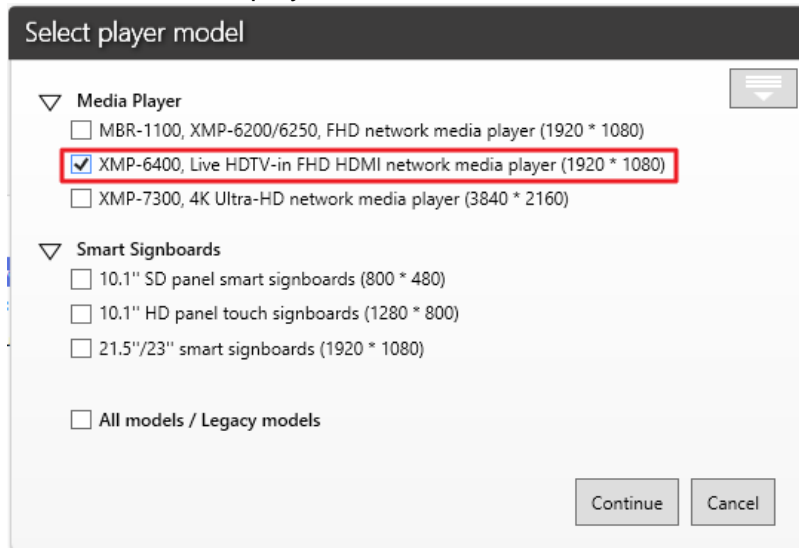


Once you upload your content to a web server and obtain URL, you could follow the steps to make IDea player to run the URL demo.

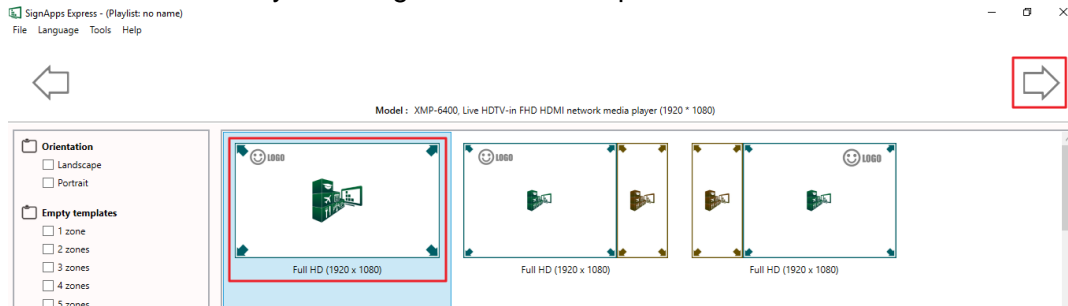
▼ 3-1 Open SignApps Express and create a playlist.



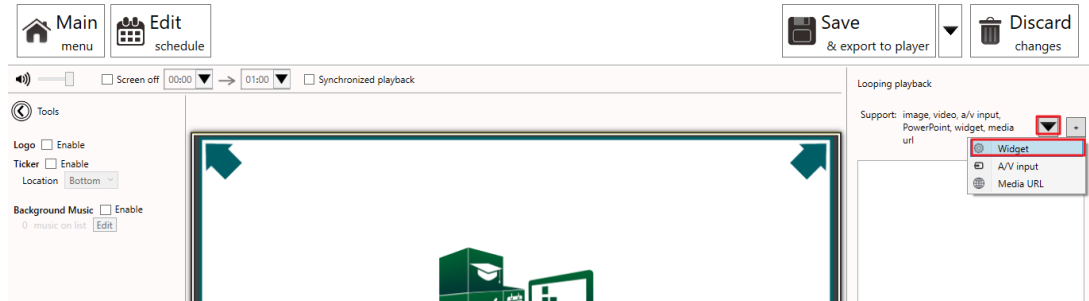
▼ 3-2 Select the player model



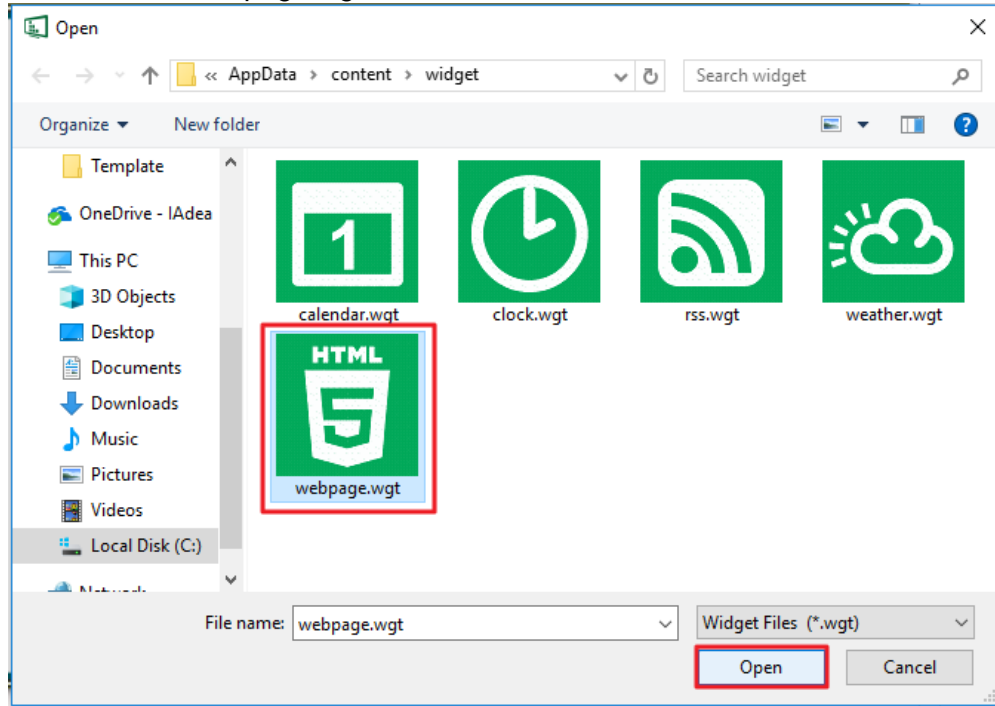
▼ 3-3 Decide the layout and go to the next step



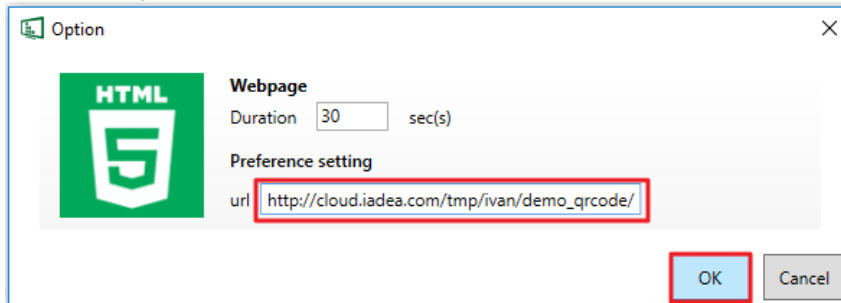
▼ 3-4 Add a widget



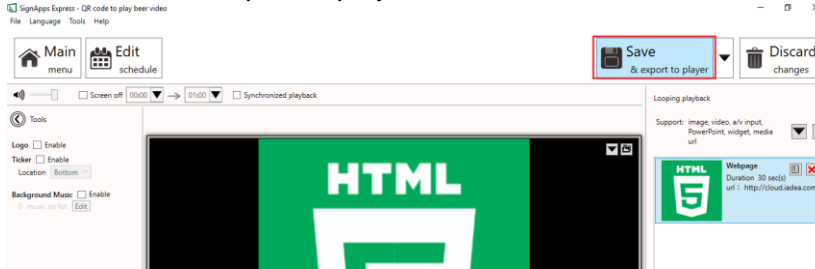
▼ 3-5 Select webpage.wgt



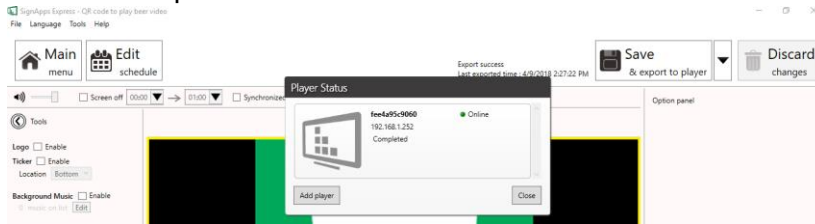
▼ 3-6 Key in the URL



3-7 Save & export to player



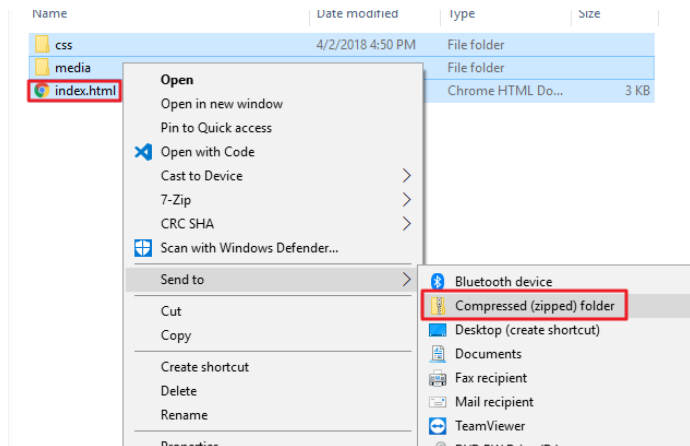
3-8 Completed.



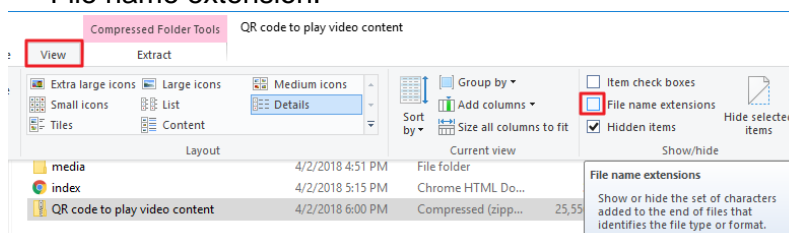
4. How to run the demo without Internet- Build a widget

Follow the steps to build a widget from HTML5 content. And then deploy the widget to IDea player.

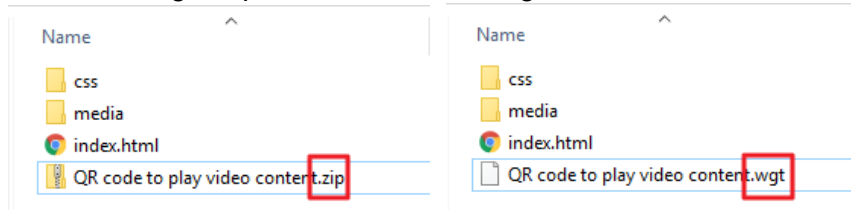
4-1 Zip HTML5 content folder including all files. Make sure the HTML5 named as "index"



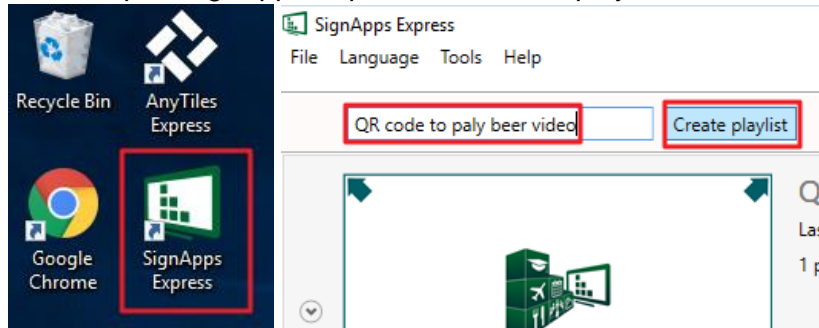
4-2 If there is no file extension, please check the box shown bellowing. View-> File name extension.



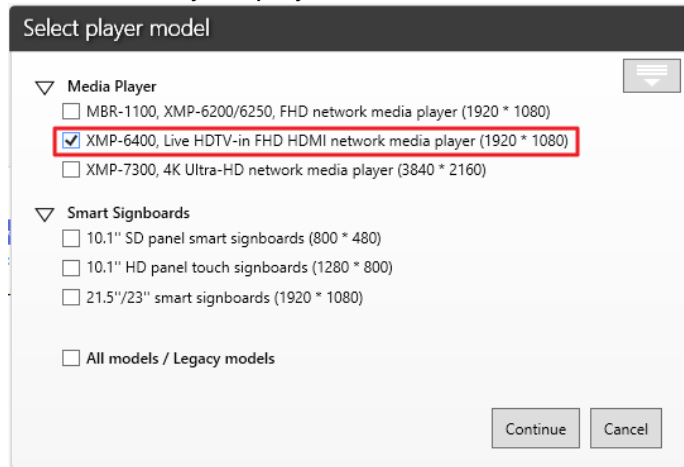
▼ 4-3 Change “zip” file extension to “wgt”



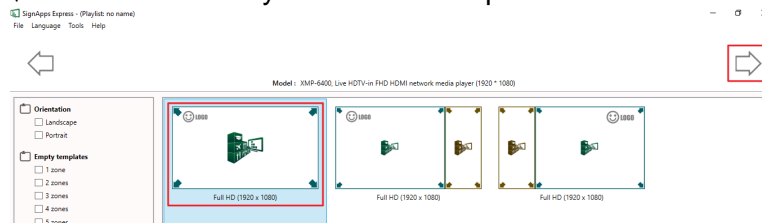
▼ 4-4 Open SignApps Express to create a play list



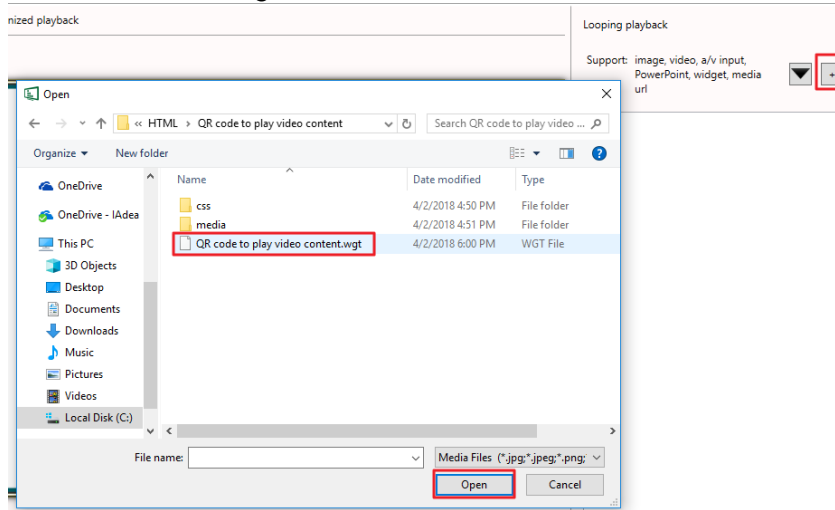
▼ 4-5 Select your player model



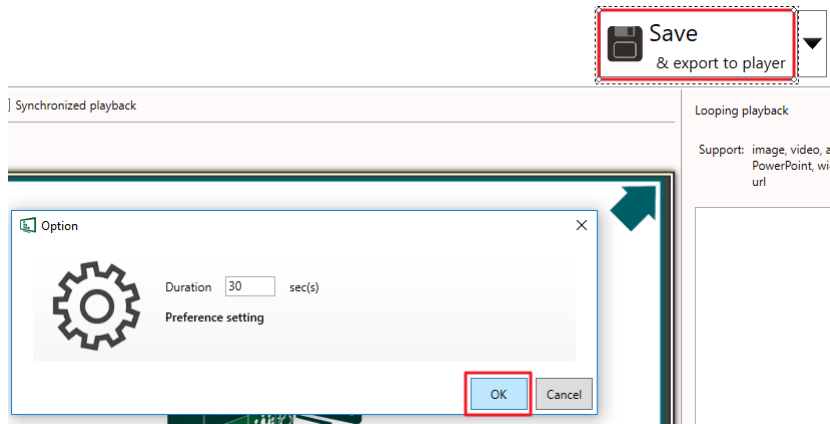
▼ 4-6 Select the layout and next step



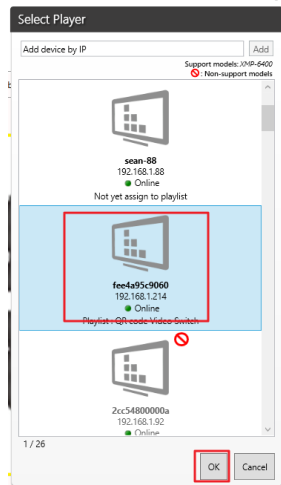
▼ 4-7 Add the widget



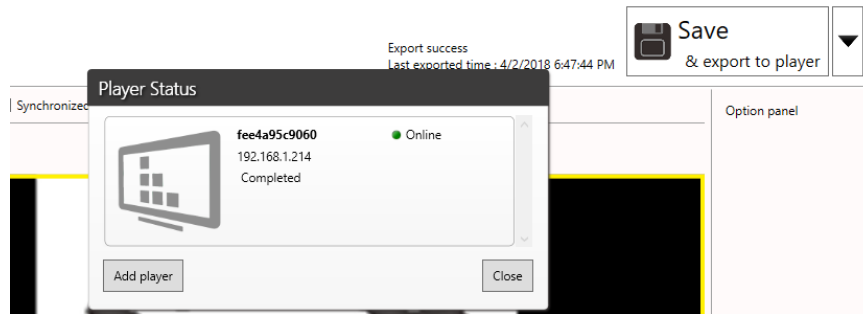
▼ 4-8 Set duration and then Save & export to player



▼ 4-9 Select which player to deploy.



- ▼ 4-10 Completed. HTML5 webpage is packed into a widget and deployed to the player.



❖ Conclusion

The case shows that IAdea player can interact with external devices, like QR code or bar code scanner for displaying different content. Moreover, SignApps Express is a great utility to deploy widget to the player. Through the instruction to integrate hardware and software, a quick and powerful demo is created to show the scenario of getting different video content playing by scanning QR code.

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About IAdea

IAdea strives to enable intelligent applications that touch every aspect of your business – customer satisfaction, employee productivity, operation efficiency and most importantly, enhanced quality of overall digital experience.

We are the compute engine behind more than 200,000 displays worldwide. Whether your business in retail or corporate communications, workplace management or transportation, work with us and be a part of our award-winning team.

For more information, visit www.IAdea.com.