

# **IAdea Technical Document**

Date	2018/04/11	OS/ FW	NA
Торіс	How to make the code scanned?	e player p	lay different video contents when QR
Keyword	QR code scanne learn, SignApps I		e, HTML5, Switch content, Lift and Vidget
Related Product	MBR-1100, XMP	-6250, X№	IP-6400, XMP-7300
Prerequisite	QR code scanne Express	r, HTML5	building environment, SignApps

## ✤ 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, <u>download link</u>. 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"

- 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 <u>https://www.the-qrcode-generator.com/</u>. Get images as the following instruction.

QR Code Generator					
FREE TEXT URL	CONTACT	PHONE SM	s	SAVE	
Enter text to share here		Save QR C	ode		
		Filename beer1			oso (
		Format:			
		PNG	O SVS	O EPS	
			CANCEL	SAVE	
Do you need to change the o	content of the QR	Code after it has	been printed? O	r do you need	statistics? Sign In with Google

▼ 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.









k 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.

font-size:100px; z-index: 1; position: absolute; bottom: 200px; left: 200px; width: 100%; text-align: center; opacity: 0;	nput[type="text"]	
left: 200px; width: 100%; text-align: center;	z-index: 1;	
width: 100%; text-align: center;		
text-align: center;		
	<b>.</b>	

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





### 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 IAdea web server at <a href="http://cloud.iadea.com/tmp/ivan/demo\_qrcode/">http://cloud.iadea.com/tmp/ivan/demo\_qrcode/</a>

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.



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

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



✓ Media Player	
MBR-1100, XMP-6200/6250, FHD network media player (1920 * 1080)	
XMP-6400, Live HDTV-in FHD HDMI network media player (1920 * 1080)	
XMP-7300, 4K Ultra-HD network media player (3840 * 2160)	
10.1" SD panel smart signboards (800 * 480)	
10.1" HD panel touch signboards (1280 * 800)	
21.5"/23" smart signboards (1920 * 1080)	
All models / Legacy models	
Continue	Cancel
Contract	

#### ▼ 3-3 Decide the layout and go to the next step SignApps Express - (Playlist: no name) File Language Tools Help σ × $\langle \neg \rangle$ ⇒ Model: XMP-6400, Live HDTV-in FHD HDMI network media player (1920 \* 1080) Crientation 1060 000 000 Landscape X 300 600 300 Empty templates 1 zone 2 zones Full HD (1920 x 1080) Full HD (1920 x 1080) Full HD (1920 x 1080) 4 zones



▼ 3-4 Add a widget	
Main menu Edit schedule	Save & export to player
Image: Screen off       0000 ▼ → 01:00 ▼       Synchronized playback         Image: Synchronized playback       Image: Synchronized playback         Image: State       Image: Synchronized playback	Looping playback Support: image video, a/v input. PowerPeint, widget, media v url Widget Widget Widget Widget URL
▼ 3-5 Select webpage.wgt	×
	vidget
Organize 🔻 New folder	📼 🔻 🔟 😮
<ul> <li>Template</li> <li>OneDrive - IAdea</li> <li>This PC</li> <li>3D Objects</li> <li>Desktop</li> <li>Documents</li> <li>Downloads</li> <li>Music</li> <li>Pictures</li> <li>Videos</li> <li>Local Disk (C;)</li> </ul>	weather.wgt
File name: webpage.wgt	Files (*.wgt) ~

## ▼ 3-6 Key in the URL

🔄 Option		×
HTML	Webpage         Duration       30       sec(s)         Preference setting       url       http://cloud.iadea.com/tmp/ivan/demo_qrcode/	
	OK Car	icel



		B Save		scard
1:00 💟 🗌 Synchronized p	layback		pport image, video, a/v input,	
	HTML	<b>T</b> (2)	Webpage Duration 30 sec(s) url : http://cloud.i	
	150 🔻 🗌 Synchronized y		100 🔻 🗆 Synchronized ployback. Lon Sup	100 ▼ □ Synchronized pilyback Support: Image, video, alv input. ProveFinit: videot media VTTPL Workson: 100-endia



#### 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 IAdea 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.

	Compressed Folder Tools	QR code to play video conte	ent				
2 View	Extract						
Extra la	rrge icons 🛋 Large icons cons 👫 List 🚆 Content	ten Medium icons → ten Details → Ten Details →	Sort by •	<ul> <li>□ Group by ▼</li> <li>1 Add columns ▼</li> <li>1 Size all columns ■</li> </ul>	to fit	☐ Item check boxes ☐ File name extensions ✔ Hidden items	Hide selected items
	Layout			Current view		Show/hide	
🔜 media		4/2/2018 4:51 PM	Fil	e folder		File name extensions	
💿 index		4/2/2018 5:15 PM	Cł	rome HTML Do		Show or hide the set o	
🔢 QR co	de to play video content	4/2/2018 6:00 PM	Co	ompressed (zipp	25,55	added to the end of fil identifies the file type (	es that



## ▼ 4-3 Change "zip" file extension to "wgt"

Name	Name
css	css
media	nedia 🔤
💿 index.html 🛛 🔤	💿 index.html
📱 QR code to play video conter <mark>t</mark> .zip	QR code to play video content.wgt

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



## ▼ 4-5 Select your player model

Select player model
Media Player Media Player MBR-1100, XMP-6200/6250, FHD network media player (1920 * 1080) XMP-6400, Live HDTV-in FHD HDMI network media player (1920 * 1080) XMP-7300, 4K Ultra-HD network media player (3840 * 2160)
<ul> <li>Smart Signboards</li> <li>10.1" SD panel smart signboards (800 * 480)</li> <li>10.1" HD panel touch signboards (1280 * 800)</li> <li>21.5"/23" smart signboards (1920 * 1080)</li> </ul>
All models / Legacy models     Continue     Cancel

## ▼ 4-6 Select the layout and next step

File Language Tools Help				- 0 ^
$\langle \neg$	Model: XMP-64	00, Live HDTV-in FHD HDMI network media player (19	820 * 1080)	$\Box$
Orientation     Landscape     Format     Tenpy templates     J zones     J zones     J zones     J zones     J zones	Full HD (1920 x 1000)	Full HD (1920 x 1080)	Full InD (1520 x 1060)	^



## ▼ 4-7 Add the widget

•

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

	Sav	xport to player
] Synchronized playback		Looping playback Support: image, video, a PowerPoint, wi url
Image: Option       Image: Option	×	
• 诸年分	OK Cancel	

Q<sup>2</sup>











## 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

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 <u>www.IAdea.com</u>.

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.