

IAdea Technical Document

Date	2018/06/20	OS/ FW	OS 4.4.2/ FW 1.2.84
Topic	How to trigger a content by pressing a button?		
Keyword	GPIO, HTML5, Switch content, Lift and learn, Button trigger, Sensor, Proximity		
Related Product	MBR-1100, XMP-6250, XMP-6400, XMP-7300, PIO-101		
Prerequisite	HTML5 building environment		

❖ Abstract

When customer wants to press a button or use a proximity sensor to trigger a content, we could utilize HTML5 and PIO-101 GPIO Extender to make it happen.

An application structure is illustrated as the following. By pressing a button connected to PIO-101, PIO-101 sends out a key code to IAdea player and then IAdea player will play the corresponding video content.



❖ Prerequisite

1. HTML5 building environment. You could use any text editor, such as Notepad++. Visual Studio Code is used in this demo.

❖ Outline for Step by step

1. **Create HTML5 with key functions**
 - 1-1 **Play a default video**
 - 1-1-1 Video tag attribute
 - 1-1-2 addEventListener for detecting an end of playback
 - 1-2 **Detect a GPIO button key event**
 - 1-2-1 addEventListener for keydown event
 - 1-2-2 slice out the button string
 - 1-3 **Decide which content to play**
 - 1-3-1 switch case to play contents
2. **Upload content to a web server and obtain URL. Set URL for the player.**
3. **How to run the demo without Internet-Build a widget**

❖ Step by step

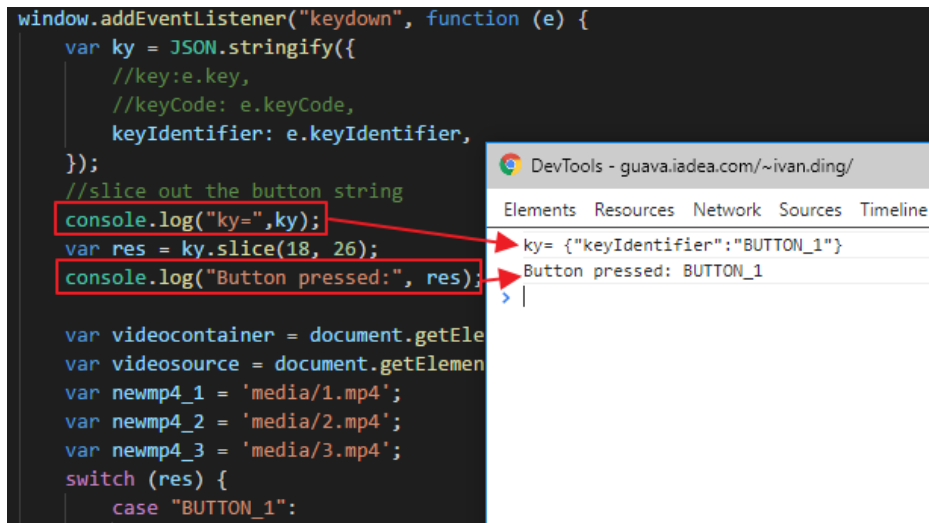
1. Create HTML5 with these key functions.

- 1-1 Play a default video
- 1-2 Detect a GPIO button key event
- 1-3 Decide which content to play

The main function is to detect key event and then decide to play which content.

```
window.addEventListener("keydown", function (e) {
  var ky = JSON.stringify({
    //key:e.key,
    //keyCode: e.keyCode,
    keyIdentifier: e.keyIdentifier,
  });
  //slice out the button string
  console.log("ky=",ky);
  var res = ky.slice(18, 26);
  console.log("Button pressed:", res);

  var videocontainer = document.getEle
  var videosource = document.getElemen
  var newmp4_1 = 'media/1.mp4';
  var newmp4_2 = 'media/2.mp4';
  var newmp4_3 = 'media/3.mp4';
  switch (res) {
    case "BUTTON_1":
```



- ▼ 1-1-1 Video tag attribute in body. Add “autoplay” attribute for default video playback.

```
<body>
  <video id="videoclip" autoplay>
    <source id="mp4video" src="media/default.mp4" type="video/mp4">
  </video>
```

- ▼ 1-2-1 Detect a GPIO button key event. Use window.addEventListener.

```
//When GPIO button pressed, obtain the information of keyIdentifier
window.addEventListener("keydown", function (e) {
  var ky = JSON.stringify({
    //key:e.key,
    //keyCode: e.keyCode,
    keyIdentifier: e.keyIdentifier,
  });
});
```

There are three different key information:

- key: e.key
- keycode: e.keyCode
- keyIdentifier: e.keyIdentifier

It depends on engine support. In this document development environment as the following, and the configuration supports keyIdentifier.

- HW : XMP-6400
- FW : 1.2.84
- OS : 4.4.2

- ▼ 1-3-1 Switch case to play contents. Write script in the body. Define different video contents corresponding to key event string. Once the string is matched, then switch to the corresponding video to play.

```
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';
switch (res) {
  case "BUTTON_1":
    videocontainer.pause();
    videosource.setAttribute('src', newmp4_1);
    videocontainer.load();
    videocontainer.play();
    break;
  case "BUTTON_2":
    videocontainer.pause();
    videosource.setAttribute('src', newmp4_2);
    videocontainer.load();
    videocontainer.play();
    break;
  case "BUTTON_3":
    videocontainer.pause();
    videosource.setAttribute('src', newmp4_3);
    videocontainer.load();
    videocontainer.play();
    break;
}
```

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

Refer to Page 5 to 8 in https://support.iadea.com/hc/en-us/article_attachments/360001386806/How_to_play_different_video_contents_when_QR_code_scanned.pdf

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

Refer to Page 8 to 11 https://support.iadea.com/hc/en-us/article_attachments/360001386806/How_to_play_different_video_contents_when_QR_code_scanned.pdf



❖ Conclusion

For interactivity, the document shows that IAdea player can interact with external hardware buttons. Of course, one can connect the sensors like proximity, IR sensors etc. to PIO-101 GPIO Extender to interact with the environment variables.

It allows one to create unlimited interactive solutions to fulfill with all kinds of requests in different applications.

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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.