

WINDOW 생성



WINDOW

CHILD
WINDOW

유튜브 내장 플레이어

IFrame Player API

- https://developers.google.com/youtube/iframe_api_reference
- javascript
- HTML5 postMessage 지원 브라우저(Internet Explorer 7 이상)
- player 테스트 : <https://jsfiddle.net>

```
var tag = document.createElement('script');

tag.src = "https://www.youtube.com/iframe_api";
var firstScriptTag = document.getElementsByTagName('script')[0];
firstScriptTag.parentNode.insertBefore(tag, firstScriptTag);

// 3. This function creates an <iframe> (and YouTube player)
//    after the API code downloads.
var player;
function onYouTubeIframeAPIReady() {
  player = new YT.Player('player', {
    height: '360',
    width: '640',
    videoId: 'M7lc1UVf-VE',
    events: {
      'onReady': onPlayerReady,
      'onStateChange': onPlayerStateChange
    }
  });
}

// 4. The API will call this function when the video player is ready.
function onPlayerReady(event) {
  event.target.playVideo();
}

// 5. The API calls this function when the player's state changes.
```



게임 <-> 웹 연동

유튜브 웹페이지 전체화면 버튼 클릭(javascript)

-> 클라이언트 WINDOW SIZE 변경(C++)



CLICK



게임 <-> 웹 연동 : JAVASCRIPT 에서 C++ 호출

Navigate2(url, ...)

NavigateComplete

“PointBlank” 오브젝트 주입

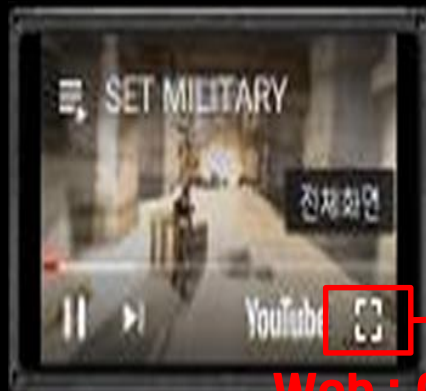
```
DISPID dispid;  
HRESULT hr = winEx->GetDispID(objName, fdexNameEnsure, &dispid);
```

```
SysFreeString(objName);
```

```
if (FAILED(hr))  
    return;
```

```
DISPID namedArgs[] = {DISPID_PROPERTYPUT};  
DISPPARAMS params;  
params.rgvarg = new VARIANT[1];  
params.rgvarg[0].pdispVal = custObj;  
params.rgvarg[0].vt = VT_DISPATCH;  
params.rgdispidNamedArgs = namedArgs;  
params.cArgs = 1;  
params.cNamedArgs = 1;
```

```
hr = winEx->InvokeEx(dispid, LOCALE_USER_DEFAULT, DISPATCH_PROPERTYPUT, &params,  
winEx->Release());
```



Web : CLICK

전체화면
전환

```
events-  
{  
    'onReady': onPlayerReady,  
    'onStateChange': onPlayerStateChange,  
    'onError': onPlayerError  
});  
}  
  
function fullscreenCallback()  
{  
    try  
    {  
        PointBlank.OnToggleFullScreenMode();  
    }  
    catch(err) {}  
}  
  
document.addEventListener("fullscreenchange", fullscreenCallback, false);  
document.addEventListener("webkitfullscreenchange", fullscreenCallback, false);  
document.addEventListener("mozfullscreenchange", fullscreenCallback, false);  
document.addEventListener("MSFullscreenChange", fullscreenCallback, false);  
  
function stopVideo()  
{  
    player.stopVideo();  
}
```

Client : OnToggleFullScreenMode() 호출

게임 <-> 웹 연동 : C++ 에서 JAVASCRIPT 함수 호출

```
HRESULT hr;
```

```
IHTMLDocument2 *doc = GetDoc();
```

IWebBrowser2

```
if (doc == nullptr)  
    return;
```

```
//Getting IDispatch for Java Script objects
```

```
CComPtr<IDispatch> script = nullptr;
```

```
hr = doc->get_Script(&script);
```

```
if (FAILED(hr))  
    return;
```

```
//Find dispid for given function in the object
```

```
CComBSTR bstrMember(bstrFunc.c_str());
```

```
DISPID dispid = 0;
```

```
hr = script->GetIDsOfNames(IID_NULL, &bstrMember, 1, LOCALE_SYSTEM_DEFAULT, &dispid);
```

```
if (FAILED(hr))  
    return;
```

```
const int numArgs = (int)strArgs.size();
```

```
//Putting parameters
```

```
DISPPARAMS dispparams;
```

```
memset(&dispparams, 0, sizeof dispparams);
```

```
dispparams.cArgs = numArgs;
```

```
dispparams.rgvarg = new VARIANT[dispparams.cArgs];
```

```
dispparams.cNamedArgs = 0;
```

```
for (int i = 0; i < numArgs; i++)
```

```
{
```

```
    CComBSTR bstr = strArgs[numArgs - 1 - i].c_str(); // back reading
```

```
    bstr.CopyTo(&dispparams.rgvarg[i].bstrVal);
```

```
    dispparams.rgvarg[i].vt = VT_BSTR;
```

```
}
```

```
EXCEPINFO excepInfo;
```

```
memset(&excepInfo, 0, sizeof excepInfo);
```

```
CComVariant vaResult;
```

```
UINT nArgErr = (UINT)-1; // initialize to invalid arg
```

```
//Call JavaScript function
```

```
hr = script->Invoke(dispid, IID_NULL, 0, DISPATCH_METHOD, &dispparams, &vaResult, &excepInfo, &nArgErr);
```

```
delete[] dispparams.rgvarg;
```

```
document.addEventListener("webkitfullscreenchange", fullscreenCallback, false);  
document.addEventListener("mozfullscreenchange", fullscreenCallback, false);  
document.addEventListener("MSFullscreenChange", fullscreenCallback, false);
```

```
function stopVideo()
```

```
{  
    player.stopVideo();  
}
```