

HtmlControl



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HtmlControl OVERVIEW



- **Why HtmlControl?**
- **PL/B Interface**
- **HTML Interface**
- **Accessing the HTML**
- **Getting Events**

HtmlControl OVERVIEW



- **Form Interaction**
- **HctlDesign**
- **Common Frameworks**
- **Sample Programs**

Why HtmlControl?



- **Came from PANEL InnerHtml method**
- **Provides modern layout language available on all platforms**
- **Allows modern looking User Interface**
- **No need for Sunbelt to invent its own styling or drawing language**
- **Support for HTML 5, CSS 3, and JavaScript**

Why HtmlControl?



- **Large number of available books, web resources, and training**
- **Many samples can be found on internet**
- **JavaScript runs asynchronously in every control**
- **Access to other companies REST API's for charting, credit card processing, ...**

PL/B Interface



- **Standard PL/B Object - available in the designer**
- **Supports CREATE, DESTROY, ACTIVATE, DEACTIVATE**
- **Supports EVENTREGISTER, EVENTSEND**
- **Supports GETPROP, SETPROP, SETFOCUS**
- **The one generated event is \$JQueryEvent**

PL/B Interface



- **Methods used to interact with contents**
- **Windows only MakePict method will generate a PICT object**

HTML Interface



- **Two ways of interacting with HTML**
- **First way is placing HTML inside**
- **Partial and full html can be used**
- **Second ways uses ! to redirect to an existing URL**
- **Windows and Web Server have some basic differences**

HTML Interface

- Windows uses separate IE browser instances

- Windows requires IE tag:

`<meta http-equiv='X-UA-Compatible' content='IE=edge' />`

- Windows inserts this CSS:

`* { margin: 0; padding: 0 } body { background-color: %s; }`

HTML Interface

- **PWS has no separation between HTMLCONTROLS**

- **PWS ! produces:**

```
<iframe class='plbif' width='%dpx' height='%dpx' src='%s'></iframe>
```

- **Frameworks can be loaded with a custom plbwebstart.html page**
- **PWS supports EnableJqEvent and DisableJqEvent**

Accessing the HTML



- **GetAttr** retrieves low level HTML element attributes
- **GetCss** retrieves a style from an HTML element
- **SetAttr** sets low level HTML element attributes
- **SetCss** sets a style from an HTML element
- **Special attribute names of body, html, text, and class**

Getting Events



- **HTML events are supported**
(click,change,dblclick,keydown,keyup,keypress,mouseout,mouseover,mousemove,mousedown,mouseup,blur,focus)
- **Native HTML events use the PL/B \$jQueryEvent**
- **Each HTML element can use a data-plbevent attribute**
- **UpdateEvents will rescan data-plbevent attributes**

Getting Events



- **Event data is returned in JSON format**
- **Event type field is used to determine the event type**
- **Event id field is used to find the element that produced the event**

Form Interaction



- **Focus method changes focus to a low-level HTML element**
- **The data-plbtabid attribute indicates PL/B tabbing order**
- **The data-plbenable attribute indicates PL/B ENABLED support**
- **Context click is allowed using ContextMenu method**

Form Interaction



- **Cross scripting on PWS can be an issue**
- **Windows 10 html onxxxx= eventcode not allowed**

HctlDesign



- Created for rapid design and testing of HTML
- Released as `hctldesign_demo.zip`
- Provides testing of events, focus, disable, tabbing, ...
- Stores HTML in `.snip` files
- Supports UTF8 `.snip` files

Common Frameworks



- Frameworks require `<link>` and `<script>` elements
- URLs can be local or remote
- PWS already includes JQuery, JQuery UI, and JQuery Mobile
- PWS frameworks can be added to a custom start HTML page

Common Frameworks



- JQuery UI - <https://jqueryui.com/demos/>
- JQuery Mobile - <https://demos.jquerymobile.com/1.4.5/>
- BootStrap 4 - <https://getbootstrap.com/docs/4.3/examples/>
- Many more - <https://www.w3schools.com/whatis/default.asp>

Sample Programs



- `hctldesign.pls`

- `testdrive.pls`

Questions?

