

Enhancing HTML5 Responsive Layout and Design

Scott DeLoach – scott@clickstart.net

ClickStart – www.clickstart.net

CSS provides numerous options for positioning elements. In this session, we will discuss the pros and cons of using responsive layouts, float, grid, and flex in MadCap Flare. During the session, I will share real-world examples of using each approach and share best practices for using them.

Overview

- table tag
- column properties
- float property
- Responsive layout
- display: table
- display: grid
- display: flex

Table tag

Table tag - why?

Present "tabular" data

Table tag - pros/cons

Pros

- It works
- Easy to use
- Table styles

Cons

- Should not be used for non-tabular data
- Requires JS to adapt for mobile devices

Table tag - code

```
<table>
  <tbody>
    <tr>
      <td>content...</td>
      <td>content...</td>
    </tr>
  </tbody>
</table>
```

Table tag - advanced options

- Table styles - custom row/column styles
- jQuery responsive table plugins - www.clickstart.net

Table tag - print

- Browsers won't print background colors (by default)

Table tag - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
all	all	all	all	all	YES	YES

column properties

column properties - why?

- Multi-column layouts that automatically adjust for small screens
- Mimic print designs

column properties - pros/cons

Pros

- Easy to use
- Automatically responsive

Cons

- Display issues in Flare's Editor
- Not supported in print targets
- Can be difficult to handle overflow
- Firefox & Chrome don't support break properties

column properties - code

```
<div class="exColumns">content...</div>
```

```
div.exColumns {  
  mc-column-count: 3;  
  column-count: 3;  
  column-width: 100px;  
  column-gap: 40px;  
  column-rule: solid 2px green;  
}
```

column properties - advanced options

- column-fill
- column-gap
- column-rule
- column span

column properties - print

- Multiple frames in page layout

column properties - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
4	10 (2012)	12	all	10 (2016)	NO	NO

float property

float property - why?

Wrap text around an element (usually an image)

float property - pros/cons

Pros

- Easier to use than display property
- Wraps well (unlike other approaches)
- Bug and fixes are well documented

Cons

- Must be cleared
- Only left/right (no "center")
- Limited source order independence
- Out of favor with designers

float property - code

```
<div class="exFloat">content...</div>
<div class="exFloat">content...</div>

div.exFloat {
  float: left;
  overflow: auto;
  width: 50%;
}
```

float property - advanced options

Clearfix hack

```
div.exFloat::after { clear: both; }
```

float property - print

- Converted to a table

float property - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
all	6 (2001)	all	all	all	YES	NO

Responsive layout

Responsive layout - why?

- Side-by-side layouts that automatically "stack" top-to-bottom on smaller screens

Responsive layout - pros/cons

Pros

- Built into Flare
- Based on Foundation's grid

Cons

- Setup and 12-column grid can be confusing
- Becomes a table in Word targets (and usually not side-by-side)
- Source order dependent

Responsive layout - code

```
<div class="up2">
  <div>content...</div>
  <div>content...</div>
</div>

div.up2 {
  mc-grid-row: true;
  margin-left: auto;
  margin-right: auto;
}

div.up2::before {
  content: ' ';
  display: table;
}

div.up2::after {
  content: ' ';
  display: table;
  clear: both;
}

div.up2 > div {
  float: left;
  -moz-box-sizing: border-box;
  box-sizing: border-box;
  padding-left: .5rem;
  padding-right: .5rem;
  width:45%;
  margin-left: 5%;
}
```

Responsive layout - advanced options

- "cell offset" - margin-left
- "row gutter" - padding-left and -right

Responsive layout - print

- Usually break if they span across pages
- Lose horizontal alignment in Word

Responsive layout - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
4	8 (2009)	12	3 (2008)	3	Partial	NO

display: table

display: table - why?

Vertical centered and/or equal height layouts ("cards")

display: table - pros/cons

Pros

- Vertical centering
- Can set equal heights

Cons

- Usually requires "extra" divs
- Overflow can be hard to handle
- Source order dependent

display: table - code

```
<div class="exDisplayTable">
  <div class="tableRow">
    <div class="tableCol">content...</div>
    <div class="tableCol">content...</div>
  </div>
</div>
```

```
div.exDisplayTable { display: table; }
div.tableRow { display: table-row; }
div.tableCol { display: table-cell; }
```

display: table - advanced option

- vertical-align: middle

display: table - print

- Lose horizontal alignment in Word

display: table - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
4	8 (2009)	12	3 (2008)	3	YES	YES

display: flex

display: flex - why?

- Allow the container to alter its child items' width, height, and order to best fill the available space
- Content first

display: flex - pros/cons

Pros

- Considered "the future" of CSS layout
- Source order independent
- Vertical centering and equal heights

Cons

- Poor PDF/Word support
- Not supported in Flare's Editor

display: flex - code

```
<div class="exDisplayFlex">
  <div class="box">content...</div>
  <div class="box">content...</div>
</div>
```

```
div.exDisplayFlex {
  display: flex;
  flex-wrap: nowrap;
}
```

```
div.box { width: 300px; }
```

display: flex - advanced options

- align-items
- align-self
- flex-direction
- flex-flow
- flex-wrap
- justify-content
- order

display: flex - print

Use a page layout

display: flex - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
21 (2012)	10 (2012) requires ms- prefix	12 (2015) requires ms- prefix	28 (2014)	6	NO	NO

display: grid

display: grid - why?

- Divide the screen into multiple sections
- Layout first

display: grid - pros/cons

Pros

- Two dimensional (columns and rows)
- Source order independent

Cons

- Poor PDF/Word support
- Can be confusing and very complex ("track-size", "fr" units, etc)

display: grid - code

```
<div class="exDisplayGrid">
  <div class="box">content...</div>
  <div class="box">content...
</div>

div.exDisplayGrid {
  display: grid;
  grid-template-columns: 300px 300px;
  grid-gap: 10px;
}
```

display: grid - advanced options

- inline-grid
- grid-template -rows, -columns, and -areas
- grid-auto -rows and -columns
- grid-row
- row-gap
- grid-column
- column-gap

display: grid - print

- Use a page layout

display: grid - compatibility

Chrome	IE	Edge	Firefox	Safari	PDF	Word
57 (2017)	10 (2012) requires ms- prefix	12 requires ms- prefix	52 (2017)	10 (2017)	NO	NO

Sample project

I have created a sample project to demonstrate responsive layouts and designs. You can download it at:

bit.ly/MW19DeLoach

About the presenter

Scott DeLoach is the Founder of Click**Start**, where he provides training and consulting for MadCap Flare, embedded user assistance, JavaScript/jQuery, CSS, and HTML5. He has been developing browser-based help systems for 25+ years, and he has received four Best in Show awards for his work from STC.

Scott is a certified Flare and Doc-to-Help instructor, and he is the author of *MadCap Flare: The Definitive Guide*, *CSS to the Point*, and *HTML5 to the Point*. For more information about Scott's books see www.lulu.com/clickstart.

You can reach Scott at www.clickstart.net or by email at scott@clickstart.net.

