



I Wish I Knew How To ...

*Program HTML, CSS, and
JavaScript with Xojo*

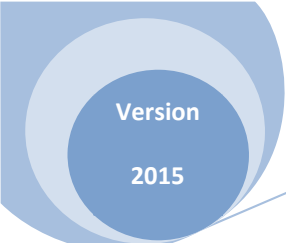
December 2015 Edition (1.0)

By Eugene Dakin

Table of Contents

Chapter 1 - Introduction to HTML	8
HTML Formatting	8
Tag Pairs	10
HTML 5	10
CSS	12
Web Servers	13
Online Editing	13
Chapter 2 – Beginning.....	14
Setup Web Control Wrapper.....	14
Sizing WebControlWrapper	18
Web Control Properties	21
Chapter 3 – Showing HTML.....	23
Inline Text.....	23
More Inline Text	26
Headers	28
Chapter 4 – Images and Shapes.....	31
Pictures with Free 4Shared Account.....	31
Showing a Picture.....	31
Wrap Text Around Picture.....	34
Picture Margin.....	36
Chapter 5 – Lists.....	38
Common Lists	38
Fancy Lists.....	41
Change List Colours	44
Chapter 6 – Hyperlinks.....	46
Common HREF Targets.....	47
Page Jumps.....	49
MailTo links	54
Scroll Text	58
Horizontal List.....	60
Rotate Link List	64
Chapter 7 – Tables	67
Simple Table	67
CSS Formatted Table	69
Add Table Header.....	72

Row Span	75
Row Colours	77
Chapter 8 – Buttons and Javascript Introduction	80
First Form Example.....	82
Changing Info (Javascript)	84
Functions (Important)	86
Custom Buttons.....	91
Reading Control Text.....	95
Open New Xojo Webpage (HashTagChanged).....	98
Open Xojo Webpage (triggerServerEvent).....	102
Chapter 9 – HTML Canvas	105
Draw Rectangle	105
Simple Screen Resize.....	110
Picture on Canvas.....	116
Mouse Click	118
Bounce Ball Animation	121
RequestAnimationFrame Animation.....	126
Show FPS	130
Ball and Paddle Game	134
Drawing a Circle.....	135
Ball Movement	140
Bouncing.....	143
Add Paddle.....	145
Move Paddle.....	149
Paddle with Mouse.....	153
Paddle with TouchScreen	157
Add Bricks	161
Colours.....	166
Chapter 10 – Sound.....	171
HTML Button Click.....	171
WebPageSource Preload.....	175
JavaScript Sound	176
Paddle Sound.....	179
Simple HTML Audio Player	184
JavaScript Loading Audio.....	186
Chapter 11 – Video	190
HTML 5 Video Player	190
Chapter 12 – Loading JavaScript Files.....	193

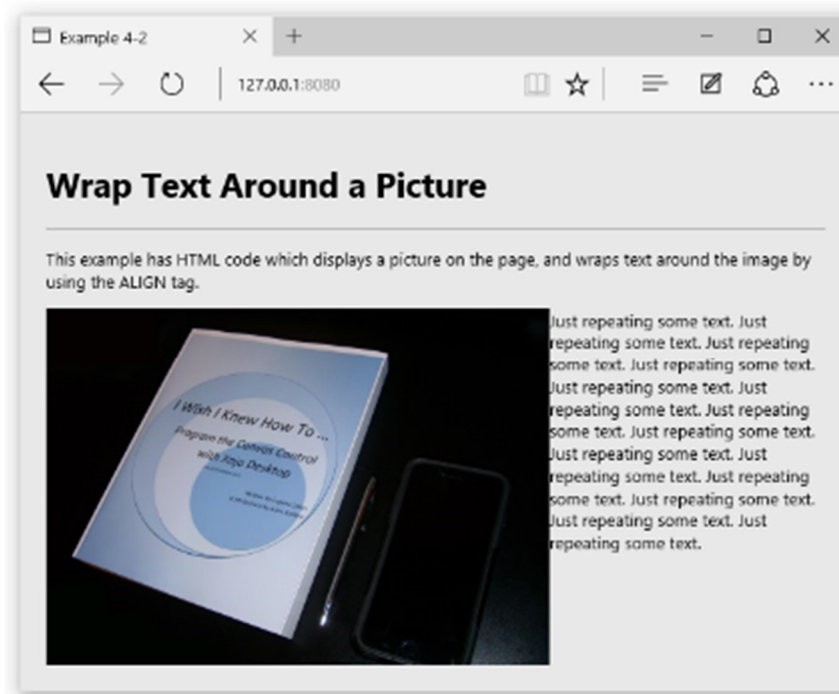


Local js file	193
Internet js File.....	195
LoadLibraries	198
Load JS File Xojo Server	200
Chapter 13 – Classes	203
removeClass	203
addClass.....	206
Appendix A – JavaScript Char Codes.....	211
Index.....	213

Wrap Text Around Picture

Pictures are great to have on a website as they can describe a complex idea or show something which would take many words to describe. Even though pictures save many words, there is much space remaining on a page. This example shows how to maximize the space around a picture by allowing text to wrap around the image.

Figure 15. Example 4-2: Picture Text Wrapping



Text automatically wraps around the picture and automatically adds new lines to the right of the picture.

Code 11. Example 4-2: Wrap Text Around a Picture

```
Me.MyHTML = Me.MyHTML + "<BODY>"
```

```
Me.MyHTML = Me.MyHTML + "<H1>Show a Picture</H1>" + _
'Header
"<HR> </HR>" 'Horizontal Rule
```

```
Me.MyHTML = Me.MyHTML + "<P>This example has HTML code which displays a picture on
the page, and wraps text around the image by using the ALIGN tag.</P>" 'Text
```

```
Me.MyHTML = Me.MyHTML + "<PICTURE>" + _
```

```
"<img  
src='http://www.4shared.com/download/b51aGs_qba/Book.JPG?sbsr=9105b714112634b41  
b80a9f277836c777b3407846ef634c3&lgfp=3000' ALT='Book Picture'" +_  
" WIDTH='400' HEIGHT='300' ALIGN='left'" +_  
"</PICTURE>" 'Link to picture  
Me.MyHTML = Me.MyHTML + "Just repeating some text. Just repeating some text. Just  
repeating some text. Just repeating some text. " +_  
"Just repeating some text. Just repeating some text. Just repeating some text. Just repeating  
some text. Just repeating some text. " +_  
"Just repeating some text. Just repeating some text. Just repeating some text. Just repeating  
some text. Just repeating some text. "  
Me.MyHTML = Me.MyHTML + "</BODY>"
```

This example has a header which shows the intent of this example, which is to wrap text around a picture. A horizontal line `<HR>` is added, and a paragraph `<P>` is added and the text mentions the `ALIGN` tag. A picture `<PICTURE>` is added and the link to the image `` points to the link where the picture is located. The width `<WIDTH=>` and height `<HEIGHT=>` of the picture to be displayed has fixed dimensions. When having text wrap around a picture, the picture must have an alignment `<ALIGN=>` setting. Once the alignment setting has been given then the text will automatically wrap about the image. Some repeating text is added to the webpage to show how the text wraps around the image.

This example shows how the `<ALIGN=>` tag allows text to wrap around an image.

Index

!, 205

#bottom, 52

#middle, 51

#top, 50

%, 30

%20, 46

_blank, 48

_inner, 97

_self, 48

+=, 142

<a href>, 48

<ABBR>, 26

<Abbreviation>, 26

<ACRONYM>, 26

<ALIGN>, 76

, 24

<BLOCKQUOTE>, 24

<BODY>, 16

<button>, 83

<CENTER>, 25

<CODE>, 24

<COLSPAN>, 75

<DD>, 39

<DL>, 39

<DT>, 39

, 24

, 24

, 24

, 24

<formaction>, 83

<H1>, 16, 24

<HR>, 24

<I>, 24

, 32

, 39

<Mark Text>, 26

<MARK>, 26

<OL Type= Start=>, 39

, 39

<P>, 16

<PICTURE>, 32
<Q>, 27
<ROWSPAN>, 76
<script>, 90
<SMALL>, 24
, 84
<STRIKE>, 24
, 25
<SUB>, 26
<SUP>, 26
<table>, 68
<td>, 68
<th>, 73
<tr>, 68
<TT>, 24
<U>, 24
, 39
100, 30
add, 209
addClass, 209
addEventListener, 120, 150, 205
ALIGN, 35
Align Center, 25
Alignment lines, 19
anchor name, 50
APIVersion, 21
APNG, 33
arc, 124
Arc(), 115
arcTo(), 115
array, 163, 205
assign, 100
audio, 172
background, 92
background color, 78
background-color, 64, 92
bcc, 56
Before Content, 175
beginPath, 124
beginPath(), 115
Behaviour, 175
bezierCurveTo(), 115
Blind Carbon Copy, 56
block, 28
BMP, 33
BMP ICO, 33

body email, 56

body=, 56

bold, 30

Bold, 24

bolder, 30

border, 92

border-left, 64

border-radius, 92

border-right, 64

box-shadow, 65

bubbling phase, 120

button, 83

Canvas, 107

Canvas HTML, 107

carbon copy, 56

cc=, 56

Center Align, 25

Child, 201

class, 42

classList, 209

className, 205

clearRect, 124

clearRect(), 115

clientWidth, 154

Clip(), 115

closePath, 124

closePath(), 115

cm, 30

color, 29, 30, 42

 red, 29

Colour Font, 24

COLSPAN, 75

content, 42

controlID, 97

ControlID, 21

CSS Table, 70

Cursor, 22

DebugBuild, 201

Definition List, 39

Definition Term, 39

Description Definition, 39

display, 42

 block, 28

 inline, 42

div, 205

div id, 42

document, 80

 activeElement, 80

addEventListener(), 80
 adoptNode, 80
 anchors, 80
 applets, 80
 baseURI, 80
 body, 80
 close(), 80
 cookie, 80
 createAttribute, 80
 createComment, 80
 createDocumentFragment, 80
 createElement, 80
 createTextNode, 81
 doctype, 81
 documentElement, 81
 documentMode, 81
 documentURI, 81
 domain, 81
 embeds, 81
 forms, 81
 getElementById, 81
 getElementsByClassName, 81
 getElementsByTagName(), 81
 getElementsByTagName(), 81
 hasFocus(), 81
 head, 81
 images, 81
 implementation, 81
 importNode(), 81
 InputEncoding, 81
 lastModified, 81
 links, 81
 normalize, 81
 normalizeDocument, 81
 open(), 81
 querySelector(), 81
 querySelectorAll(), 81
 readyState, 81
 referrer, 81
 removeEventListener, 81
 renameNode(), 81
 scripts, 81
 strictErrorChecking, 81
 title, 81
 URL, 81
 write(), 82
 writeln(), 82
 document object, 80
 Document Object Model, 80
 DOM, 80
 double-array, 163
 drawImage, 117
 em, 30
 Email body, 56
 Emphasis Strong, 25
 Emphasized, 24
 Example
 01-01 Begin HTML, 8
 02-01 Setup Web Control Wrapper, 16
 02-02 Resize Control Wrapper, 20
 02-03 WebControl Properties, 21
 03-01 Formatting Text, 24
 03-02 More Text, 26
 03-03 Headers, 28
 04-01 Show Picture, 32
 04-02 Picture Text Wrapping, 34
 04-03 Show Picture, 36
 05-01 Four Lists Code, 39
 05-02 Fancy Lists, 41
 05-03 List Colours, 44
 06-01 Common href Links, 47
 06-02 Page Jump, 50
 06-03 MailTo Links, 55
 06-04 Scroll Text, 59
 06-05 Horizontal List Link, 60
 06-06 Rotate List Link, 64
 07-01 Simple Table, 68

07-02 CSS Formatted Table, 70
07-03 CSS Table Header, 72
07-04 Table Rowspan, 75
07-05 Table Colouring, 78
08-01 Buttons on a Form, 82
08-02 Change HTML Text, 84
08-03 Function, 89
08-04 Custom Buttons, 92
08-05 Custom Buttons, 97
08-06 HashTagChanged, 100
08-07 triggerServerEvent, 103
09-01 Setup HTML Canvas, 107
09-02 Resize Canvas, 113
09-03 Picture in a Canvas, 117
09-04 addEventListener, 119
09-05 Bounce Ball, 124
09-06 requestAnimationFrame, 126
09-06a requestAnimationFrame Shim, 128
09-07 Frames Per Second, 131
09-08a Draw Circle, 138
09-08b Ball Movement, 140
09-08c Ball Bouncing, 143
09-08d Add Paddle, 146
09-08e Move Paddle, 149
09-08f Control Paddle with Mouse, 153
09-08g Touch Functionality, 157
09-08h Adding Bricks, 161
09-08i Adding Colour, 166
10-1 HTML Sound, 172
10-2 WebPageSource, 176
10-3 JavaScript Sound, 177
10-4 Ball and Paddle Sound, 180
10-5 HTML Audio Player, 185
10-6 JavaScript Load Audio, 188
11-1 HTML Video Control, 191
12-1 External Temporary JS File, 195
12-2 External Load js File, 197
12-3 LoadLibraries Code, 199
12-4 Load Local JS File, 201
13-1 removeClass, 205
13-2 addClass, 209
ExecuteEvent, 104
ExecuteJavaScript, 85, 98, 109, 113, 124
Exists, 201
fill, 115, 124
fillRect, 108, 114
fillRect(), 115
fillStyle, 108, 114, 115
fillText, 114, 116
FolderItem, 201
font, 114, 116
Font Name, 24
Font Small, 24
font-family, 42, 64
font-size, 29, 42
font-weight, 29
Font-weight, 30
formation, 83
function, 108
getContext(), 114
getContext('2d'), 108
getElementById, 108
getElementById, 85, 97, 114
getElementsByClassName, 205
getElementsByTagName, 209

GIF, 33

gradient, 92

HashTagChanged, 98

Header, 24

Header Table, 72

Height, 21

Horizontal Rule, 24

href, 48

HTML Canvas, 107

HTMLHeader, 90

http

- `//yourjavascript.com`, 196, 200

id, 42

If, 132

Image, 32

Index, 14

indexOf, 205

inherit, 30

initial, 30

inline, 42

inline-block, 93

innerHTML, 85, 97

isPointInPath(), 115

Italisized, 24

JPEG, 33

Jump Page, 50

keyCode, 150

keydown, 150

keyup, 150

large, 30

larger, 30

Left, 21

length, 205

lighter, 30

linear gradient, 92

lineTo, 114

lineTo(), 115

List

- Definition, 39
- Description Definition, 39
- Item, 39
- Modified, 39
- Ordered, 39
- Term, 39
- Unordered, 39

List Item, 39

LoadLibraries, 199, 201

location.assign, 100

location.replace, 100

LockBottom, 22

LockHorizontal, 22

LockLeft, 22

LockRight, 22

LockTop, 22

LockVertical, 22

Lorem Ipsum, 18

MailTo, 55

MARGIN, 37

margin-bottom, 29

margin-left, 29

margin-right, 29

margin-top, 29

measureText, 116

medium, 30

Modified Ordered List, 39

mousemove, 154

moveTo, 114

moveTo(), 115

Name, 22

name anchor, 50

Name of Font, 24

normal, 30

nth-child, 44

onAbort, 118

onBeforeUnload, 118

onclick, 120

ondblclick, 120

ondrag, 120

ondragend, 120

ondragenter, 120

ondragleave, 120

ondragover, 120

ondragstart, 120

ondrop, 120

onError, 118

onHashChange, 118

onload, 117

onLoad, 118

onmousedown, 120

onmousemove, 120

onmouseout, 120

onmouseover, 120

onmouseup, 120

onPageHide, 118

onPageShow, 118

onResize, 118

onscroll, 120

- onScroll, 118
- onUnload, 118
- onwheel, 120
- Open, 201
- Ordered List, 39
- Ordered List Parameter, 40
- Overflow
 - auto, 59
 - hidden, 59
 - inherit, 59
 - initial, 59
 - scroll, 59
 - visible, 59
- Page Jump, 50
- Parent, 201
- Parent Name, 22
- Picture, 32
- PICTURE ALIGN, 35
- Play, 172
- PNG, 33
- PNG ICO, 33
- pointer, 93
- preload, 172
 - auto, 173
 - metadata, 173
 - none, 173
- pt, 30
- px, 30
- quadraticCurveTo(), 115
- Quotation, 27
- Rect(), 115
- replace, 100
- Replace, 107
- requestAnimationFrame, 127
- rotate transform, 65
- Rowspan, 76
- script, 90, 108
- setInterval, 124
- shadow, 92
- shadow box, 65
- shadowBlur, 115
- shadowColor, 115
- shadowOffsetX, 115
- shadowOffsetY, 115
- Shim layer, 128
- Size Font, 24
- small, 30
- smaller, 30
- Snaps, 19
- Sound
 - addTextTrack, 173
 - audioTracks, 173

autoPlay, 173
buffered, 173
canPlayType(type), 173
controls, 173
currentSrc, 173
currentTime, 173
defaultMuted, 173
defaultPlaybackRate, 173
duration, 173
ended, 173
fastSeek, 173
load, 173
loop, 173
pause(), 173
play(), 173
seeking, 173
volume, 173
Sound Elements, 173
Sound Preload, 173
Source Code, 24
Space, 46
Space %20, 46
span, 84
splice, 205
split, 205
Strikethrough, 24
stroke, 114
stroke(), 115
strokeRect(), 115
strokeStyle, 115
strokeText, 116
Strong Emphasis, 25
Style, 22
STYLE, 37
style table, 68
subject line, 55
Subscript, 26
Superscript, 26
SVG, 33
table, 68
table data, 68
Table Header, 72
table row, 68
table style, 68
td, 70
text color, 78
textAlign, 116
textBaseline, 116
text-decoration, 65
text-shadow, 92
th, 72
Top, 21
touchmove, 158
touchstart, 159

transform rotate, 65

triggerServerEvent, 103

Typewriter Text, 24

Underlined, 24

Unordered List, 39

unset, 30

video, 191

Visible, 22

WebControlWrapper Name, 22

WebFile, 201

WebPage Name, 22

Width, 21

window.location.assign, 100

window.location.replace, 100

Wrap Text, 18

x-large, 30

x-small, 30

xx-large, 30

xx-small, 30

The 'I Wish I Knew' series contains technical data and advice that makes sense and contains practical and numerous examples with explanations to allow you to ease into the steep programming curve. You can create Xojo Web applications today!

This book "I Wish I Knew How to ... Program HTML, CSS, and Javascript with Xojo" shows how to build the fundamental parts of a webpage which uses these standardized languages to create the controls necessary for professional webpages. These examples make use of the **WebControlWrapper** control. Book examples have been tested in the three major operating systems: Windows 10, OS X El Capitan 10.11.2, and Ubuntu 15.10 32-bit version with Xojo version 2015 r4.

This intermediate book is written as a guide and reference to Xojo programmers who program Web Applications. It is recommended that the reader have some previous experience with Xojo before using this book. Each chapter and example builds on previous examples which begins with easier concepts to produce more complete examples near the end of the book.

There are 13 chapters and contains over 210 pages with more than 50 example programs.

Examples include topics such as HTML, CSS formatting, WebPageSource, and Javascript actions which are commonly used in modern webpages. Many screenshots have been added to show the results of the code with an index to help find topics quickly.

This is one of many books at Great White Software and can be purchased at <http://great-white-software.com/rblibrary/> where many great Xojo resources are available.

Happy programming!

Eugene

Eugene Dakin MBA, Ph.D., P.Chem., is an author of Xojo and Real Studio reference materials and has many years of experience in the programming industry. Another great reference book is *I Wish I Knew How To ... Being JSON with Xojo Desktop*.

ISBN: 978-1-927924-14-3