

Source Control Management in Xcode

Session 411

Eric Dudiak

Xcode Software Engineer

These are confidential sessions—please refrain from streaming, blogging, or taking pictures

Agenda

Agenda

- Introduction

Agenda

- Introduction
- Committing

Agenda

- Introduction
- Committing
- Sharing your code

Introduction to Source Control

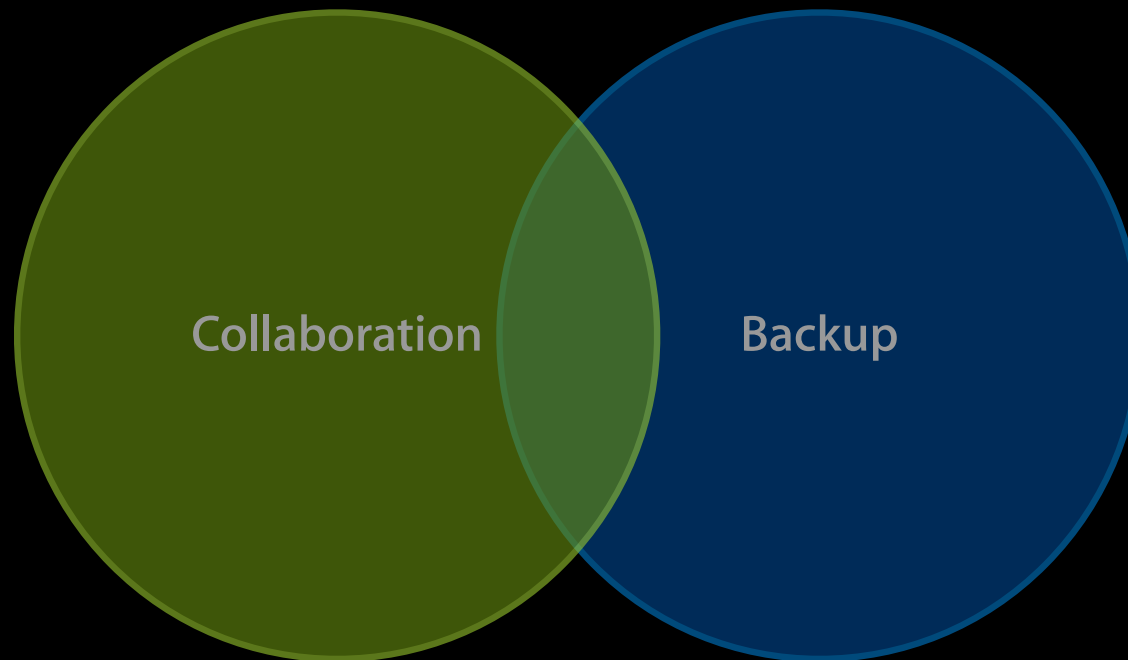


Collaboration

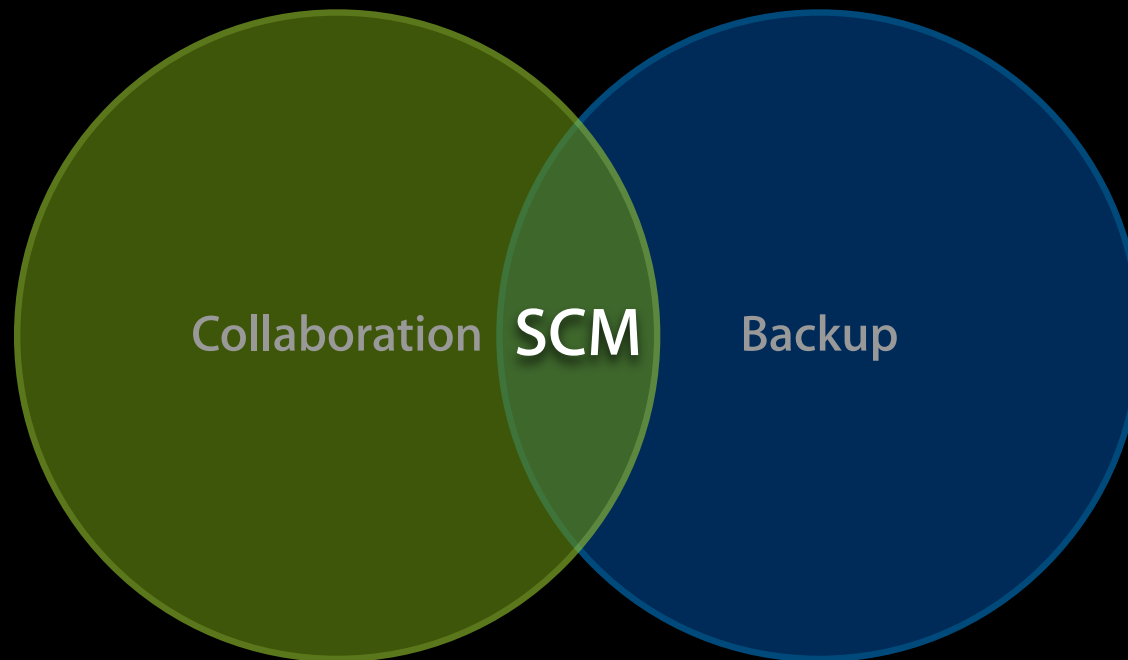


Backup

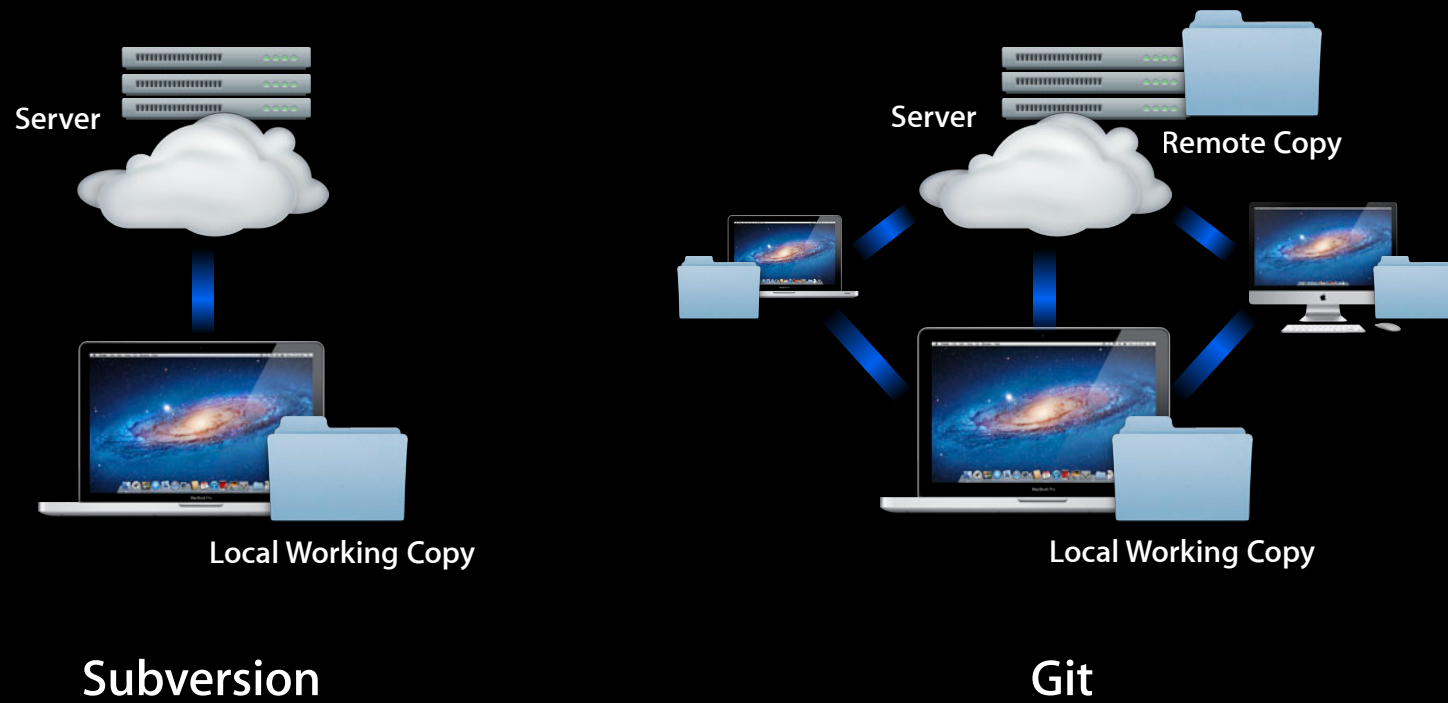
Introduction to Source Control



Introduction to Source Control



Subversion and Git



Source Control in Xcode

Source Control in Xcode

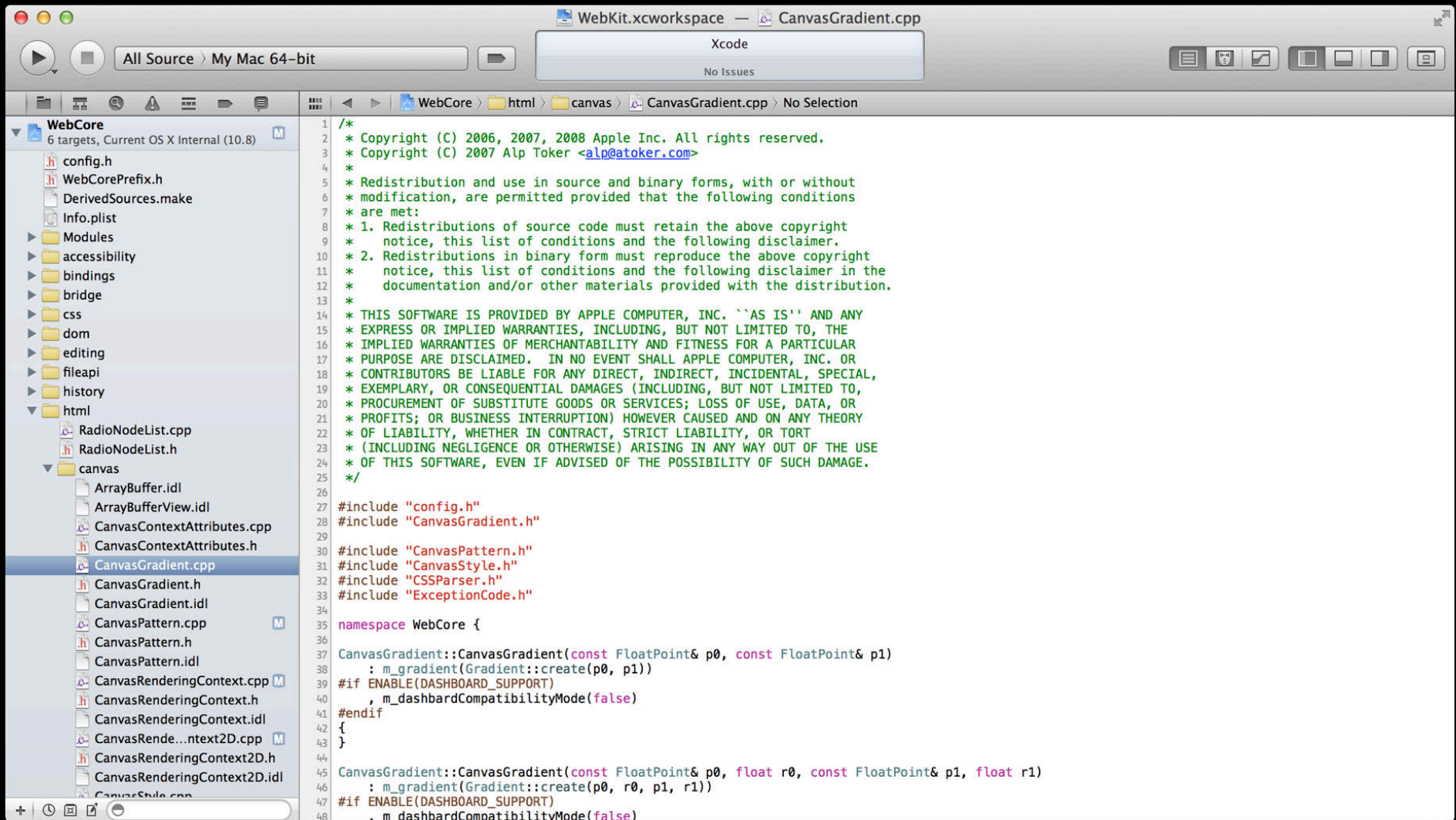
- Editing

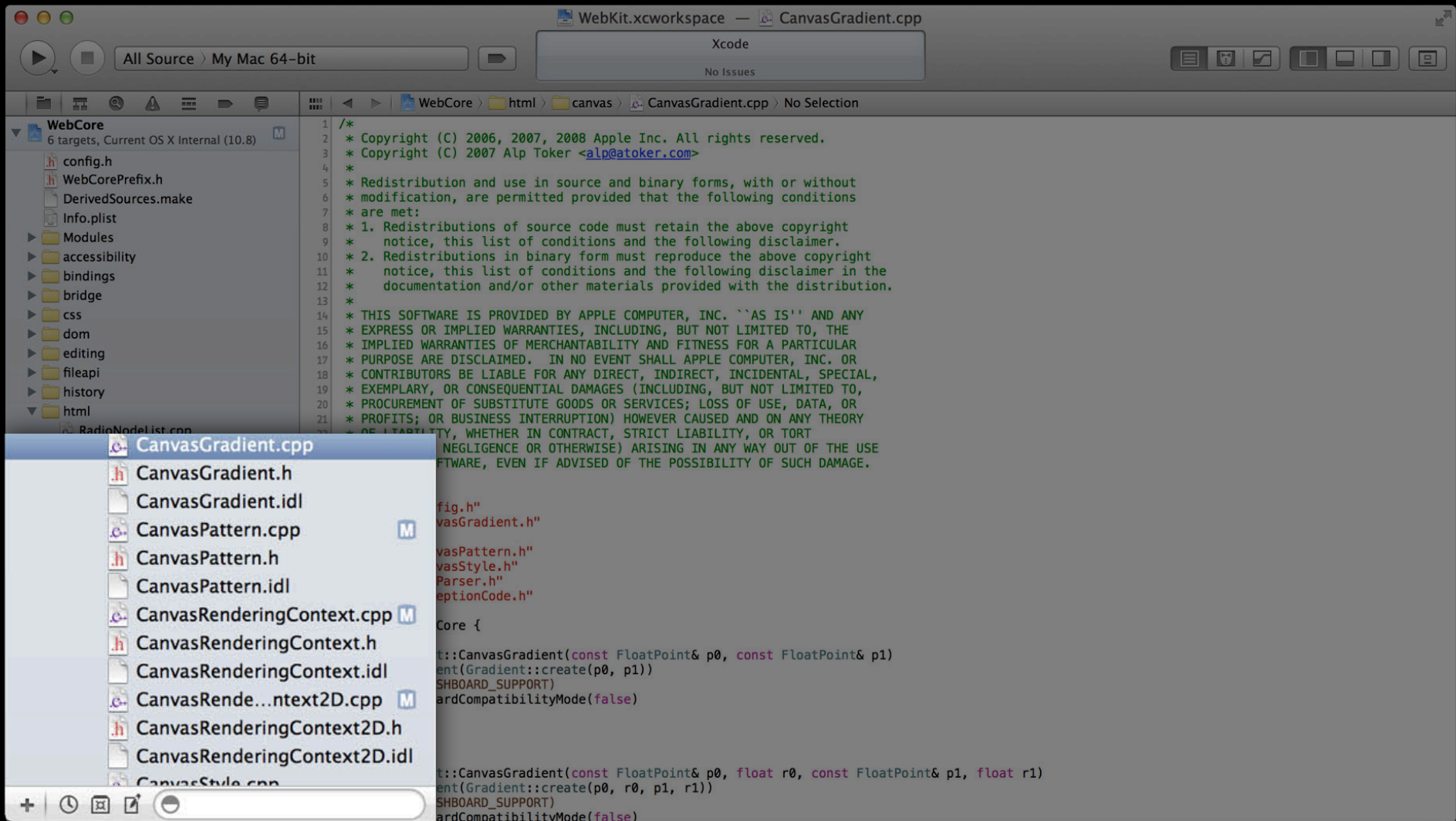
Source Control in Xcode

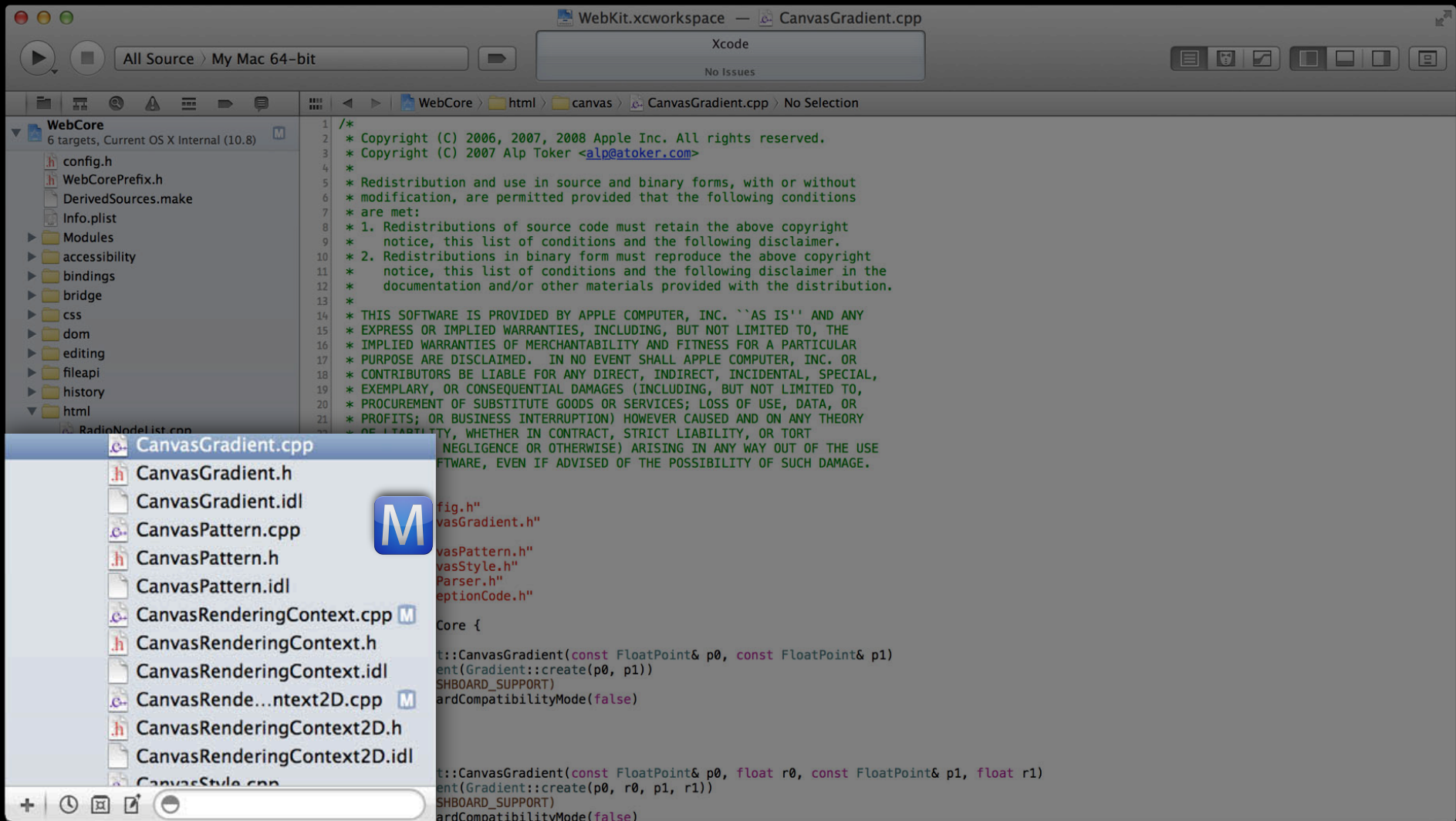
- Editing
- Viewing history

Source Control in Xcode

- Editing
- Viewing history
- Managing repositories









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C

The image shows a screenshot of an IDE window titled "WebKit.xcworkspace" with the file "CanvasPattern.cpp" open. The interface includes a top toolbar with navigation icons, a breadcrumb path "WebCore > html > canvas > CanvasPattern.cpp", and a progress indicator "Indexing | Processed 758 of 2974 files".

The left sidebar displays a project tree for "WebCore" (6 targets, Current OS X Internal (10.8)). The tree is expanded to show the "canvas" directory, which contains several files including "CanvasPattern.cpp", which is currently selected and highlighted.

The main editor area displays the C++ code for "CanvasPattern.cpp". The code includes a copyright notice for Apple Inc. (2006, 2008), followed by a disclaimer. It then includes headers for "config.h", "CanvasPattern.h", "ExceptionCode.h", and "PlatformString.h". The code defines a namespace "WebCore" and a function "void CanvasPattern::parseRepetitionType(const String& type, bool& repeatX, bool& repeatY, ExceptionCode& ec)". The function logic includes conditional checks for "repeat", "no-repeat", "repeat-x", and "repeat-y" types, setting the corresponding "repeatX" and "repeatY" flags. It also includes an error handling section for "SYNTAX_ERR".

```
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3  *
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6  * are met:
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21 * OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
22 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
23 * OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
24 */
25
26 #include "config.h"
27 #include "CanvasPattern.h"
28
29 #include "ExceptionCode.h"
30 #include "PlatformString.h"
31
32 namespace WebCore {
33
34 void CanvasPattern::parseRepetitionType(const String& type, bool& repeatX, bool& repeatY, ExceptionCode& ec)
35 {
36     ec = 0;
37     if (type.isEmpty() || type == "repeat") {
38         repeatX = true;
39         repeatY = true;
40         return;
41     }
42     if (type == "no-repeat") {
43         repeatX = false;
44         repeatY = false;
45         return;
46     }
47     if (type == "repeat-x") {
48         repeatX = true;
49         repeatY = false;
50         return;
51     }
52     if (type == "repeat-y") {
53         repeatX = false;
54         repeatY = true;
55         return;
56     }
57     ec = SYNTAX_ERR;
58 }
59
60 CanvasPattern::CanvasPattern(PassRefPtr<Image> image, bool repeatX, bool repeatY, bool originClean)
61 : m_pattern(Pattern::create(image, repeatX, repeatY))
62 , m_originClean(originClean)
63 {
64 }
65
66 }
```

WebKit.xcworkspace — CanvasPattern.cpp

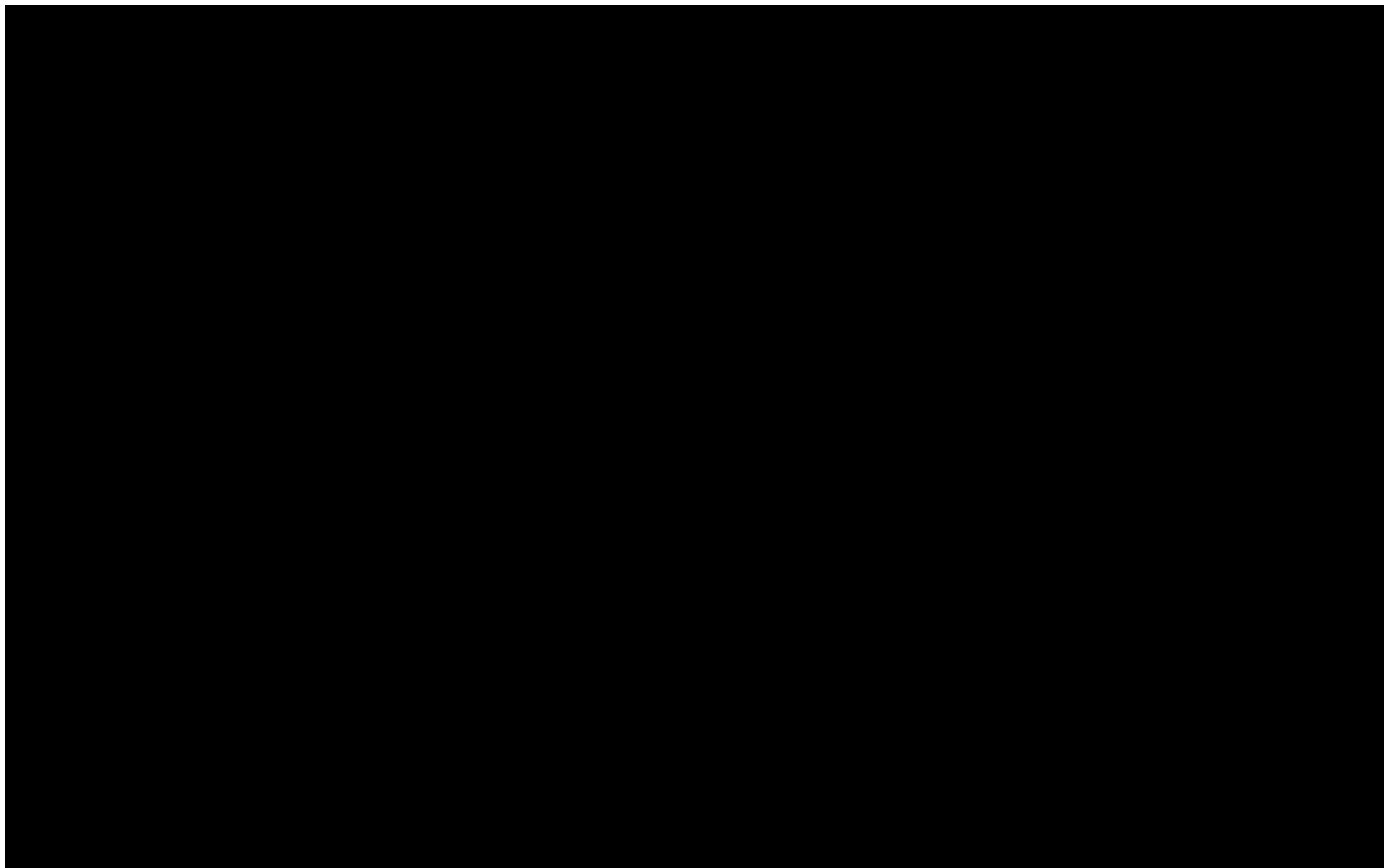
All Source My Mac 64-bit

Indexing | Processed 758 of 2974 files

Workspace 6

WebCore > html > canvas > CanvasPattern.cpp / No Selection

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1 /*
2  * Copyright (C) 2006, 2008 Apple Inc. All rights reserved.
3  *
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6  * are met:
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21 * OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
22 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
23 * OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
24 */
25
26 #include "config.h"
27 #include "CanvasPattern.h"
28
29 #include "ExceptionCode.h"
30 #include "PlatformString.h"
31
32 namespace WebCore {
33
34 void CanvasPattern::parseRepetitionType(const String& type, bool& repeatX, bool& repeatY, ExceptionCode& ec)
35 {
36     ec = 0;
37     if (type.isEmpty() || type == "repeat") {
38         repeatX = true;
39         repeatY = true;
40         return;
41     }
42     if (type == "no-repeat") {
43         repeatX = false;
44         repeatY = false;
45         return;
46     }
47     if (type == "repeat-x") {
48         repeatX = true;
49         repeatY = false;
50         return;
51     }
52     if (type == "repeat-y") {
53         repeatX = false;
54         repeatY = true;
55         return;
56     }
57     ec = SYNTAX_ERR;
58 }
59
60 CanvasPattern::CanvasPattern(PassRefPtr<Image> image, bool repeatX, bool repeatY, bool originClean)
61 : m_pattern(Pattern::create(image, repeatX, repeatY))
62 , m_originClean(originClean)
63 {
64 }
65
66 }
```





Comparison

```
WebKit.xcworkspace - CanvasRenderingContext2D.cpp
Xcode
No Issues

WebCore / html / canvas / CanvasRenderingContext2D.cpp / CanvasRenderingContext2D::setShadow(float width, float height, float blur, float r, float g, float b, float a)
1159 void CanvasRenderingContext2D::setShadow(float width, float height, float blur)
1160 {
1161     state().m_shadowOffset = FloatSize(width, height);
1162     state().m_shadowBlur = blur;
1163     state().m_shadowColor = Color::transparent;
1164     applyShadow();
1165 }
1166
1167 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, const
String& color)
1168 {
1169     if (!parseColorOrCurrentColor(state().m_shadowColor, color, canvas()))
1170         return;
1171     state().m_shadowOffset = FloatSize(width, height);
1172     state().m_shadowBlur = blur;
1173     applyShadow();
1174 }
1175
1176 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float
grayLevel)
1177 {
1178     state().m_shadowOffset = FloatSize(width, height);
1179     state().m_shadowBlur = blur;
1180     state().m_shadowColor = makeRGBA32FromFloats(grayLevel, grayLevel, grayLevel,
1.0f);
1181     applyShadow();
1182 }
1183
1184 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, const
String& color, float alpha)
1185 {
1186     RGBA32 rgba;
1187     if (!parseColorOrCurrentColor(rgba, color, canvas()))
1188         return;
1189     state().m_shadowColor = colorWithOverrideAlpha(rgba, alpha);
1190     state().m_shadowOffset = FloatSize(width, height);
1191     state().m_shadowBlur = blur;
1192     applyShadow();
1193 }
1194
1195 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float
r, float g, float b, float a)
1196 {
1197     didDraw(boundingRect);
1198 }
1199
1200 void CanvasRenderingContext2D::setShadow(float width, float height, float blur)
1201 {
1202     setShadow(FloatSize(width, height), blur, Color::transparent);
1203 }
1204
1205 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, const
String& color)
1206 {
1207     RGBA32 rgba;
1208     if (!parseColorOrCurrentColor(rgba, color, canvas()))
1209         return;
1210     setShadow(FloatSize(width, height), blur, rgba);
1211 }
1212
1213 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float
grayLevel)
1214 {
1215     setShadow(FloatSize(width, height), blur, makeRGBA32FromFloats(grayLevel,
grayLevel, grayLevel, 1));
1216 }
1217
1218 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, const
String& color, float alpha)
1219 {
1220     RGBA32 rgba;
1221     if (!parseColorOrCurrentColor(rgba, color, canvas()))
1222         return;
1223     setShadow(FloatSize(width, height), blur, colorWithOverrideAlpha(rgba, alpha));
1224 }
1225
1226 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float
grayLevel, float alpha)
1227 {
1228     setShadow(FloatSize(width, height), blur, makeRGBA32FromFloats(grayLevel,
grayLevel, grayLevel, alpha));
1229 }
1230
1231 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float
r, float g, float b, float a)
1232 {
1233 }
```




Log

```
WebKit.xcworkspace - CanvasRenderingContext2D.cpp
All Source My Mac 64-bit Xcode No Issues
WebCore / html / canvas / CanvasRenderingContext2D.cpp CanvasRenderingContext2D::clearShadow()
1154 c->strokeRect(rect, lineWidth);
1155 didDraw(boundingRect);
1156 }
1157
1158 void CanvasRenderingContext2D::setShadow(float width, float height, float blur)
1159 {
1160     setShadow(FloatSize(width, height), blur, Color::transparent);
1161 }
1162
1163 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, const String& color)
1164 {
1165     RGBA32 rgba;
1166     if (!parseColorOrCurrentColor(rgba, color, canvas()))
1167         return;
1168     setShadow(FloatSize(width, height), blur, rgba);
1169 }
1170
1171 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float grayLevel)
1172 {
1173     setShadow(FloatSize(width, height), blur, makeRGBA32FromFloats(grayLevel, grayLevel, grayLevel, 1));
1174 }
1175
1176 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, const String& color, float alpha)
1177 {
1178     RGBA32 rgba;
1179     if (!parseColorOrCurrentColor(rgba, color, canvas()))
1180         return;
1181     setShadow(FloatSize(width, height), blur, colorWithOverrideAlpha(rgba, alpha));
1182 }
1183
1184 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float grayLevel, float alpha)
1185 {
1186     setShadow(FloatSize(width, height), blur, makeRGBA32FromFloats(grayLevel, grayLevel, grayLevel, alpha));
1187 }
1188
1189 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float r, float g, float b, float a)
1190 {
1191     setShadow(FloatSize(width, height), blur, makeRGBA32FromFloats(r, g, b, a));
1192 }
1193
1194 void CanvasRenderingContext2D::setShadow(float width, float height, float blur, float c, float m, float y, float k, float a)
1195 {
1196 }
```

June 4, 2012
commit-queue@webki... 9:02 AM
Unreviewed, rolling out r119393.
https://www.webkit.org/show_bug.cgi?id=88216
Test is incorrect (duplicate content) and is causing Chromium failures (Requested by schenney on #webkit).
Patch by Sheriff Bot <webkit_review_bot@gmail.com> on 2012-06-04
Source/WebCore:
* html/canvas/CanvasRenderingContext2D.cpp: (WebCore: CanvasRenderingContext2D::drawImage):
LayoutTests:
* fast/canvas/drawImage-clipped-source-expected.txt: Removed.
* fast/canvas/drawImage-clipped-source.html: Removed.
* fast/canvas/drawImage-clipped-source.js: Removed.
commit-queue@webki... 7:43 AM
Canvas 2D - Source rectangles that overlap the source image boundary, not supported by drawImage.
https://www.webkit.org/show_bug.cgi?id=66574
Patch by Justin Novosad <jnovos@chromium.org> on 2012-06-04
Reviewed by Stephen White.
Source/WebCore:

WebKit / Trunk / 6/4/12 commit-queue@webkit.org 119403 (BASE, HEAD)

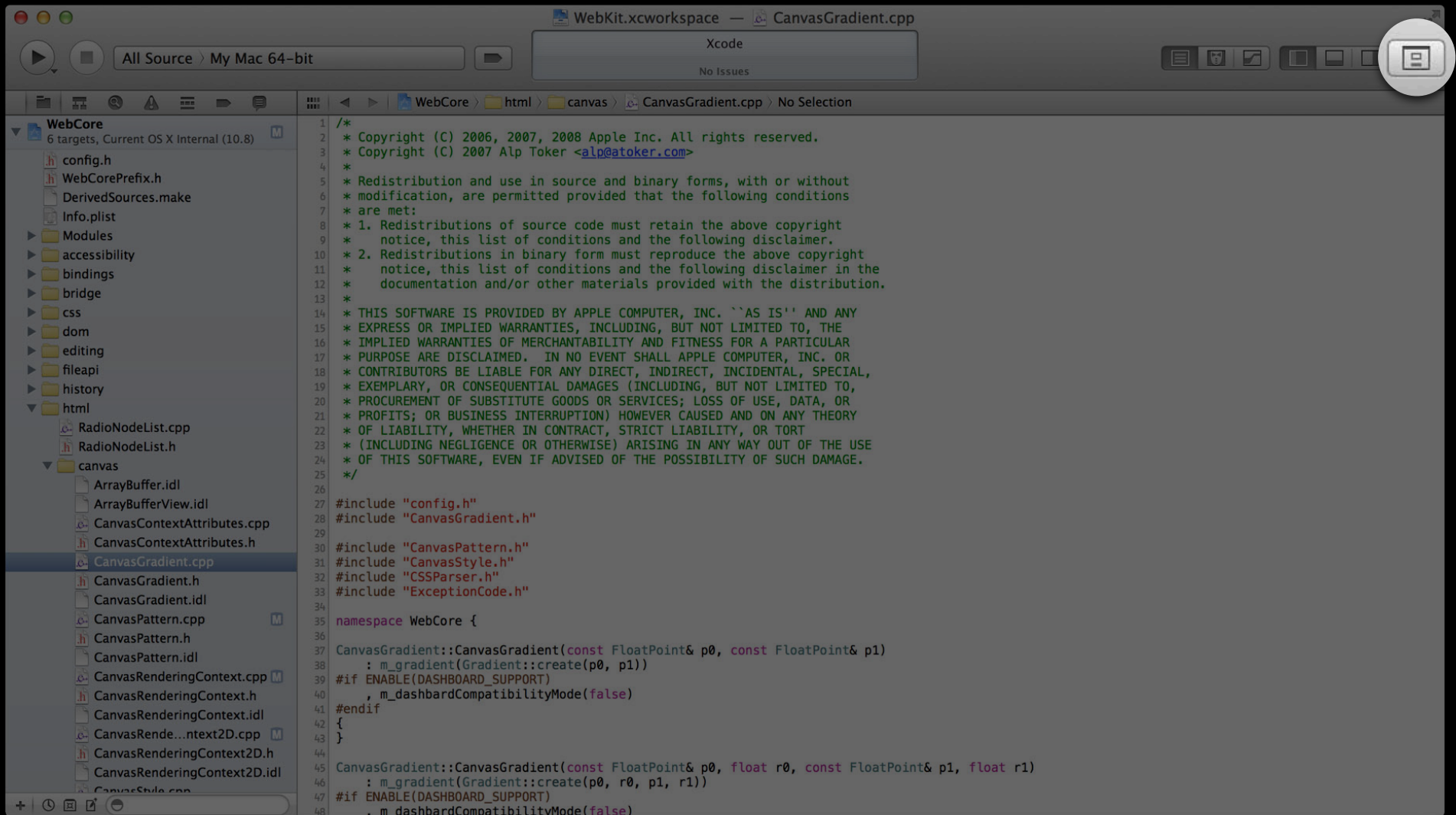
WebKit.xcworkspace — CanvasGradient.cpp

Xcode
No Issues

All Source > My Mac 64-bit

WebCore > html > canvas > CanvasGradient.cpp > No Selection

```
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3  * Copyright (C) 2007 Alp Toker <alp@atoker.com>
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23 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
24 * OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
25 */
26
27 #include "config.h"
28 #include "CanvasGradient.h"
29
30 #include "CanvasPattern.h"
31 #include "CanvasStyle.h"
32 #include "CSSParser.h"
33 #include "ExceptionCode.h"
34
35 namespace WebCore {
36
37 CanvasGradient::CanvasGradient(const FloatPoint& p0, const FloatPoint& p1)
38     : m_gradient(Gradient::create(p0, p1))
39 #if ENABLE(DASHBOARD_SUPPORT)
40     , m_dashbardCompatibilityMode(false)
41 #endif
42 {
43 }
44
45 CanvasGradient::CanvasGradient(const FloatPoint& p0, float r0, const FloatPoint& p1, float r1)
46     : m_gradient(Gradient::create(p0, r0, p1, r1))
47 #if ENABLE(DASHBOARD_SUPPORT)
48     , m_dashbardCompatibilityMode(false)
49 #endif
50 }
```



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Devices Repositories Projects Archives Documentation

webkit
http://svn.webkit.org...

- Root
- Trunk
- Branches
- Tags
- WebKit


webkit
Location http://svn.webkit.org/repository/webkit
Type Subversion

Username
Password

Trunk ●
Branches ●
Tags ●

Branching and merging rely on these settings.

Today

 **120121 by fpizlo@apple.com** 6 files modified at 2:15 PM



REGRESSION (r119779): Javascript TypeError: 'undefined' is not an object
https://bugs.webkit.org/show_bug.cgi?id=88783
<rdar://problem/11640299>

Source/JavaScriptCore:
Reviewed by Geoffrey Garen.

If you don't keep alive the base of an object access over the various checks you do for the prototype chain, you're going to have a bad time.

* dfg/DFGByteCodeParser.cpp:
(JSC::DFG::ByteCodeParser::handleGetById):

LayoutTests:

 Refresh  View Revision

Trunk, Branches, and Tags

Subversion

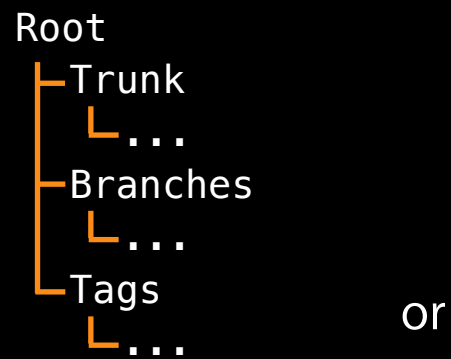
Trunk, Branches, and Tags

Subversion



Trunk, Branches, and Tags

Subversion



Trunk, Branches, and Tags

Subversion

Root



or

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Demo

Summary

```
My Best Friend.xcodeproj — MBFViewController.m
Build Succeeded | 5/30/12 at 1:08 PM

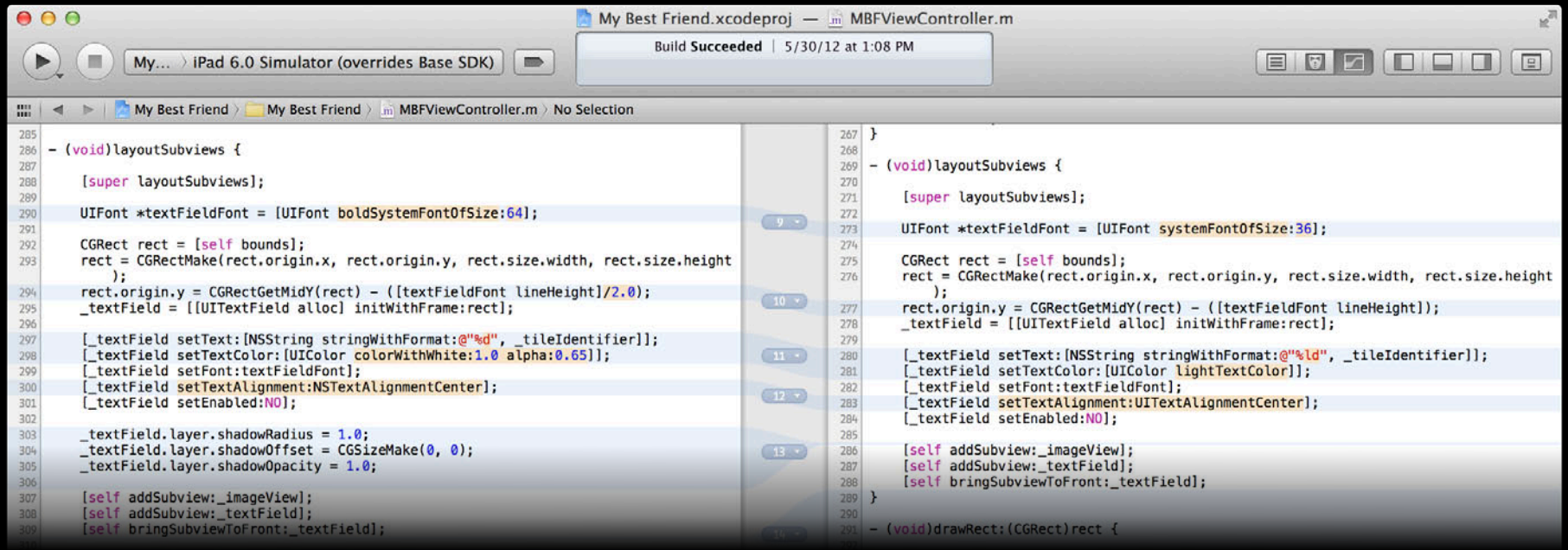
My... > iPad 6.0 Simulator (overrides Base SDK)

My Best Friend > My Best Friend > MBFViewController.m > No Selection

285 - (void)layoutSubviews {
286
287     [super layoutSubviews];
288
289     UIFont *textFieldFont = [UIFont boldSystemFontOfSize:64];
290
291     CGRect rect = [self bounds];
292     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
293     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]/2.0);
294     _textField = [[UITextField alloc] initWithFrame:rect];
295
296     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
297     [_textField setTextColor:[UIColor colorWithWhite:1.0 alpha:0.65]];
298     [_textField setFont:textFieldFont];
299     [_textField setTextAlignment:NSTextAlignmentCenter];
300     [_textField setEnabled:NO];
301
302     _textField.layer.shadowRadius = 1.0;
303     _textField.layer.shadowOffset = CGSizeMake(0, 0);
304     _textField.layer.shadowOpacity = 1.0;
305
306     [self addSubview:_imageView];
307     [self addSubview:_textField];
308     [self bringSubviewToFront:_textField];
309
310 }
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367 }
368
369 - (void)layoutSubviews {
370     [super layoutSubviews];
371
372     UIFont *textFieldFont = [UIFont systemFontOfSize:36];
373
374     CGRect rect = [self bounds];
375     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
376     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]);
377     _textField = [[UITextField alloc] initWithFrame:rect];
378
379     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
380     [_textField setTextColor:[UIColor lightTextColor]];
381     [_textField setFont:textFieldFont];
382     [_textField setTextAlignment:UITextAlignmentCenter];
383     [_textField setEnabled:NO];
384
385     [self addSubview:_imageView];
386     [self addSubview:_textField];
387     [self bringSubviewToFront:_textField];
388
389 }
390
391 - (void)drawRect:(CGRect)rect {
392
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Summary

- Edit



```
My Best Friend.xcodeproj — MBFViewController.m
Build Succeeded | 5/30/12 at 1:08 PM

My Best Friend > My Best Friend > MBFViewController.m > No Selection

285 - (void)layoutSubviews {
286
287     [super layoutSubviews];
288
289     UIFont *textFieldFont = [UIFont boldSystemFontOfSize:64];
290
291     CGRect rect = [self bounds];
292     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
293     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]/2.0);
294     _textField = [[UITextField alloc] initWithFrame:rect];
295
296     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
297     [_textField setTextColor:[UIColor colorWithWhite:1.0 alpha:0.65]];
298     [_textField setFont:textFieldFont];
299     [_textField setTextAlignment:NSTextAlignmentCenter];
300     [_textField setEnabled:NO];
301
302     _textField.layer.shadowRadius = 1.0;
303     _textField.layer.shadowOffset = CGSizeMake(0, 0);
304     _textField.layer.shadowOpacity = 1.0;
305
306     [self addSubview:_imageView];
307     [self addSubview:_textField];
308     [self bringSubviewToFront:_textField];
309
310 }
311
312 - (void)drawRect:(CGRect)rect {
313
314 }
315
316 }
317
318 - (void)layoutSubviews {
319     [super layoutSubviews];
320
321     UIFont *textFieldFont = [UIFont systemFontOfSize:36];
322
323     CGRect rect = [self bounds];
324     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
325     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]);
326     _textField = [[UITextField alloc] initWithFrame:rect];
327
328     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
329     [_textField setTextColor:[UIColor lightTextColor]];
330     [_textField setFont:textFieldFont];
331     [_textField setTextAlignment:UITextAlignmentCenter];
332     [_textField setEnabled:NO];
333
334     [self addSubview:_imageView];
335     [self addSubview:_textField];
336     [self bringSubviewToFront:_textField];
337
338 }
339
340 - (void)drawRect:(CGRect)rect {
341
342 }
```

Summary

- Edit
- View history

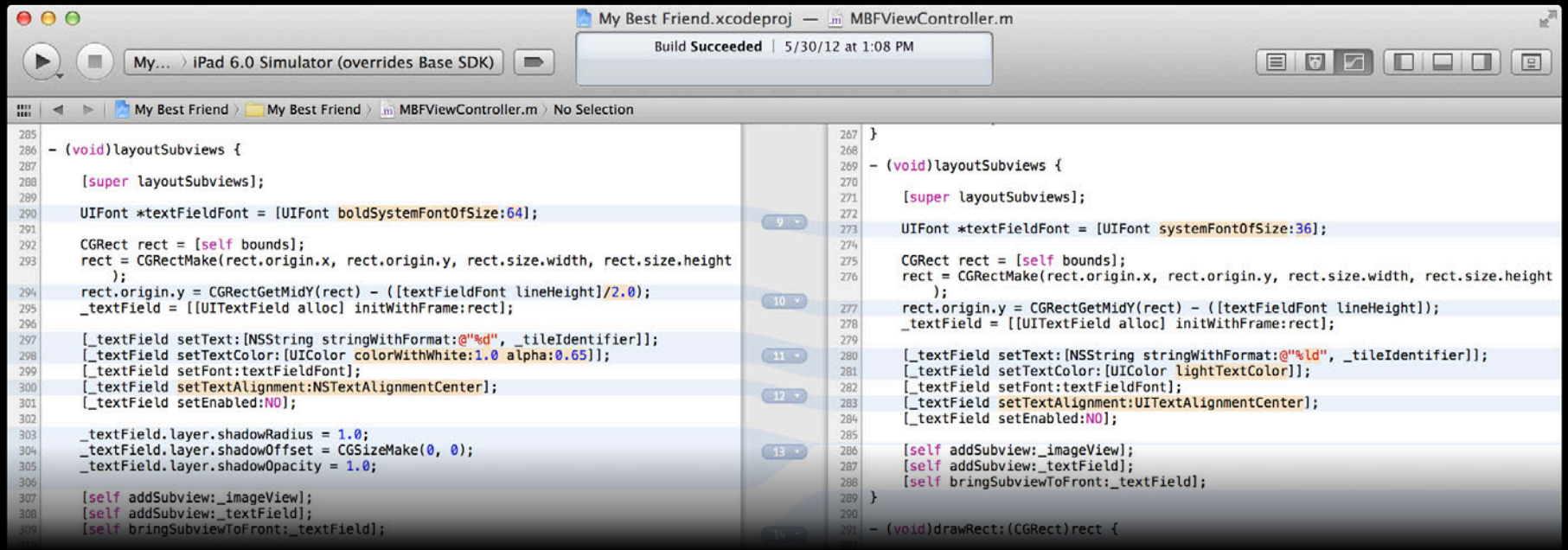
```
My Best Friend.xcodeproj — MBFViewController.m
Build Succeeded | 5/30/12 at 1:08 PM

My Best Friend > My Best Friend > MBFViewController.m > No Selection

285 - (void)layoutSubviews {
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299     [_textField setEnabled:NO];
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304
305     [self addSubview:_imageView];
306     [self addSubview:_textField];
307     [self bringSubviewToFront:_textField];
308 }
309
267 }
268
269 - (void)layoutSubviews {
270     [super layoutSubviews];
271
272     UIFont *textFieldFont = [UIFont systemFontOfSize:36];
273
274     CGRect rect = [self bounds];
275     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
276     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]);
277     _textField = [[UITextField alloc] initWithFrame:rect];
278
279     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
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282     [_textField setTextAlignment:UITextAlignmentCenter];
283     [_textField setEnabled:NO];
284
285     [self addSubview:_imageView];
286     [self addSubview:_textField];
287     [self bringSubviewToFront:_textField];
288 }
289
290 - (void)drawRect:(CGRect)rect {
291 }
```

Summary

- Edit
- View history
- Manage repositories



The screenshot shows the Xcode IDE with two versions of the `layoutSubviews` method side-by-side, illustrating a change in font settings. The left pane shows the current code, and the right pane shows a previous version. A vertical timeline on the right side of the editor indicates the sequence of changes.

```
285 - (void)layoutSubviews {
286     [super layoutSubviews];
287
288     UIFont *textFieldFont = [UIFont boldSystemFontOfSize:64];
289
290     CGRect rect = [self bounds];
291     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
292     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]/2.0);
293     _textField = [[UITextField alloc] initWithFrame:rect];
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295     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
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297     [_textField setFont:textFieldFont];
298     [_textField setTextAlignment:NSTextAlignmentCenter];
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300
301     _textField.layer.shadowRadius = 1.0;
302     _textField.layer.shadowOffset = CGSizeMake(0, 0);
303     _textField.layer.shadowOpacity = 1.0;
304
305     [self addSubview:_imageView];
306     [self addSubview:_textField];
307     [self bringSubviewToFront:_textField];
308 }
309
267 }
268
269 - (void)layoutSubviews {
270     [super layoutSubviews];
271
272     UIFont *textFieldFont = [UIFont systemFontOfSize:36];
273
274     CGRect rect = [self bounds];
275     rect = CGRectMake(rect.origin.x, rect.origin.y, rect.size.width, rect.size.height);
276     rect.origin.y = CGRectGetMidY(rect) - ([textFieldFont lineHeight]);
277     _textField = [[UITextField alloc] initWithFrame:rect];
278
279     [_textField setText:[NSString stringWithFormat:@"%d", _tileIdentifier]];
280     [_textField setTextColor:[UIColor lightTextColor]];
281     [_textField setFont:textFieldFont];
282     [_textField setTextAlignment:UITextAlignmentCenter];
283     [_textField setEnabled:NO];
284
285     [self addSubview:_imageView];
286     [self addSubview:_textField];
287     [self bringSubviewToFront:_textField];
288 }
289
290 - (void)drawRect:(CGRect)rect {
291 }
```

Committing Your Changes

Kevin Lindeman
Xcode Software Engineer

Committing Your Changes

Committing Your Changes

- Source control for new projects

Committing Your Changes

- Source control for new projects
- What is new while committing

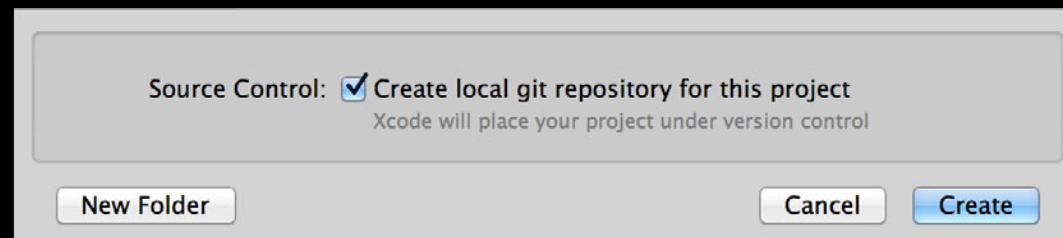
Committing Your Changes

- Source control for new projects
- What is new while committing
- Ignoring files

Source Control for New Projects

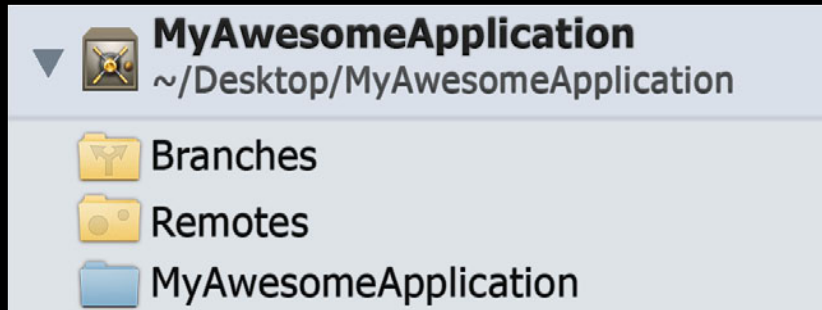
Source Control for New Projects

- Managing your project with source control



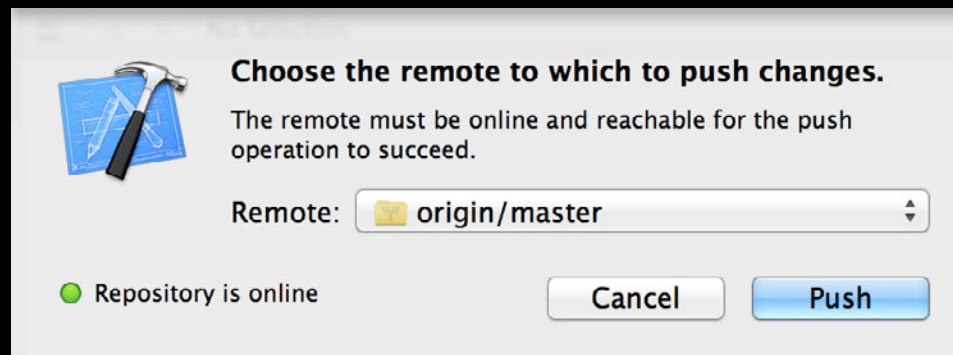
Source Control for New Projects

- Managing your project with source control
- Configuring remotes



Source Control for New Projects

- Managing your project with source control
- Configuring remotes
- Pushing changes



Demo

Source Control for New Projects

Source Control for New Projects

- Placing your project under source control

Source Control for New Projects

- Placing your project under source control
- Configuring remotes

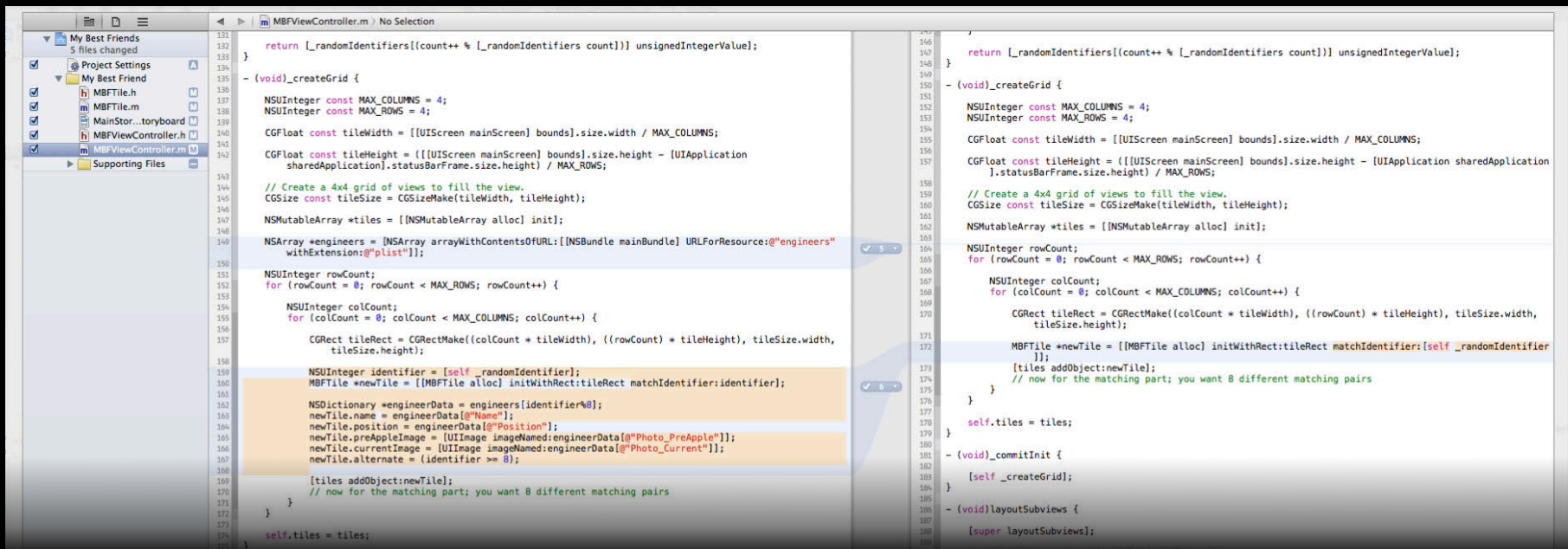
Source Control for New Projects

- Placing your project under source control
- Configuring remotes
- Pushing changes

What Is New

What Is New

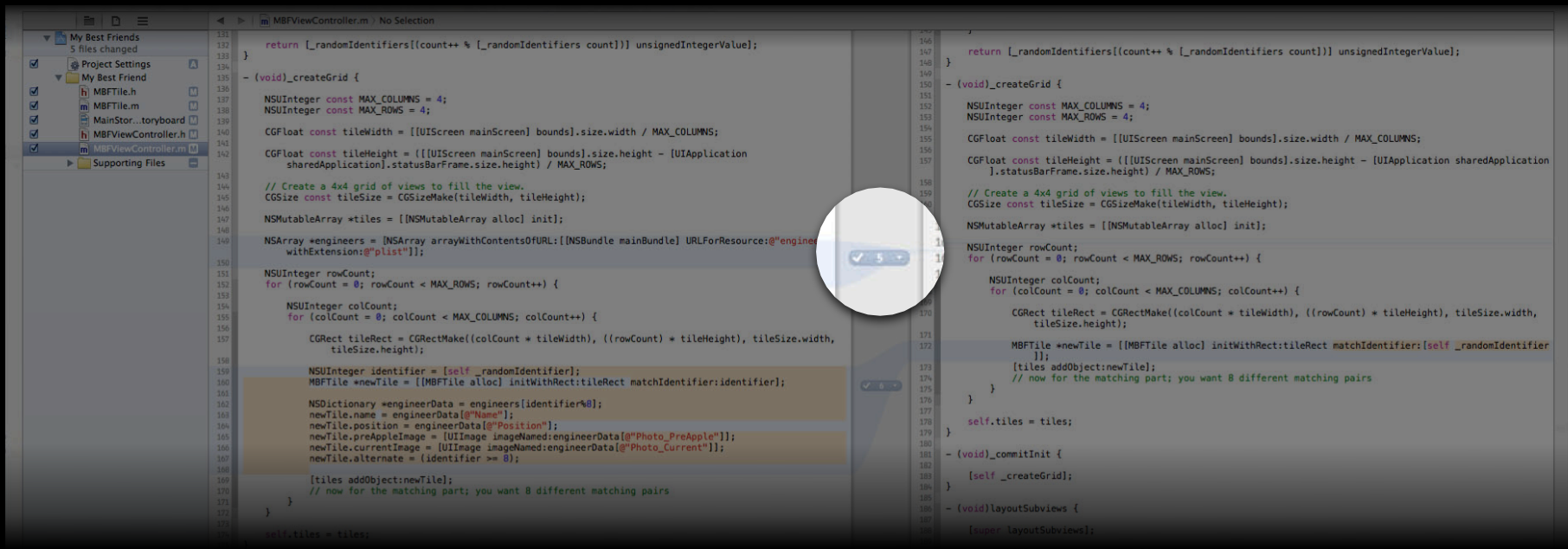
- Better change detection



```
131 }
132
133 }
134
135 - (void)_createGrid {
136     NSUInteger const MAX_COLUMNS = 4;
137     NSUInteger const MAX_ROWS = 4;
138
139     CGFloat const tileWidth = [[UIScreen mainScreen] bounds].size.width / MAX_COLUMNS;
140
141     CGFloat const tileHeight = ([[UIScreen mainScreen] bounds].size.height - [UIApplication
142     sharedApplication].statusBarFrame.size.height) / MAX_ROWS;
143
144     // Create a 4x4 grid of views to fill the view.
145     CGSize const tileSize = CGSizeMake(tileWidth, tileHeight);
146
147     NSMutableArray *tiles = [[NSMutableArray alloc] init];
148
149     NSArray *engineers = [NSArray arrayWithContentsOfURL:[NSBundle mainBundle] URLForResource:@"engineers"
150     withExtension:@"plist"];
151
152     NSUInteger rowCount;
153     for (rowCount = 0; rowCount < MAX_ROWS; rowCount++) {
154         NSUInteger colCount;
155         for (colCount = 0; colCount < MAX_COLUMNS; colCount++) {
156             CGRect tileRect = CGRectMake(colCount * tileWidth, ((rowCount) * tileHeight), tileSize.width,
157             tileSize.height);
158
159             NSUInteger identifier = [self _randomIdentifier];
160             MBFTile *newTile = [[MBFTile alloc] initWithRect:tileRect matchIdentifier:identifier];
161
162             NSDictionary *engineerData = engineers[identifier%8];
163             newTile.name = engineerData[@"Name"];
164             newTile.position = engineerData[@"Position"];
165             newTile.preAppleImage = [UIImage imageNamed:engineerData[@"Photo_PreApple"]];
166             newTile.currentImage = [UIImage imageNamed:engineerData[@"Photo_Current"]];
167             newTile.alternate = (identifier >= 8);
168
169             [tiles addObject:newTile];
170             // now for the matching part; you want 8 different matching pairs
171         }
172     }
173     self.tiles = tiles;
174 }
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What Is New

- Better change detection
- Skip or discard individual changes



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132 }
133 }
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135 Project Settings
136 My Best Friend
137 MBFTile.h
138 MBFTile.m
139 MainStor...toryboard
140 MBFViewController.h
141 MBFViewController.m
142 Supporting Files
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```

What Is New

- Better change detection
- Skip or discard individual changes

```
131 }
132 return [_randomIdentifiers[(count++ % [_randomIdentifiers count])] unsignedIntegerValue];
133 }
134
135 - (void)_createGrid {
136     NSInteger const MAX_COLUMNS = 4;
137     NSInteger const MAX_ROWS = 4;
138
139     CGFloat const tileWidth = [[UIScreen mainScreen] bounds].size.width / MAX_COLUMNS;
140
141     CGFloat const tileHeight = ([[UIScreen mainScreen] bounds].size.height - [UIApplication
142     sharedApplication].statusBarFrame.size.height) / MAX_ROWS;
143
144     // Create a 4x4 grid of views to fill the view.
145     CGSize const tileSize = CGSizeMake(tileWidth, tileHeight);
146
147     NSMutableArray *tiles = [[NSMutableArray alloc] init];
148
149     NSArray *engineers = [NSArray arrayWithContentsOfURL:[NSBundle mainBundle] URLForResource:@"engineers"
150     withExtension:@"plist"];
151
152     NSInteger rowCount;
153     for (rowCount = 0; rowCount < MAX_ROWS; rowCount++) {
154         NSInteger colCount;
155         for (colCount = 0; colCount < MAX_COLUMNS; colCount++) {
156             CGRect tileRect = CGRectMake((colCount * tileWidth), ((rowCount) * tileHeight), tileSize.width,
157             tileSize.height);
158
159             NSString *identifier = [self _randomIdentifier];
160             MBFFile *newTile = [[MBFFile alloc] initWithRect:tileRect matchIdentifier:identifier];
161
162             NSDictionary *engineerData = engineers[identifier%8];
163             newTile.name = engineerData[@"Name"];
164             newTile.position = engineerData[@"Position"];
165             newTile.preAppleImage = [UIImage imageNamed:engineerData[@"Photo_PreApple"]];
166             newTile.currentImage = [UIImage imageNamed:engineerData[@"Photo_Current"]];
167             newTile.alternate = (identifier % 8);
168
169             [tiles addObject:newTile];
170             // now for the matching part; you want 8 different matching pairs
171         }
172     }
173     self.tiles = tiles;
174 }
175
176 - (void)_commitInit {
177     [self _createGrid];
178 }
179
180 - (void)layoutSubviews {
181     [super layoutSubviews];
182 }
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What Is New

- Better change detection
- Skip or discard individual changes

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165     newTile.position = engineerData[@"position"];
166     newTile.preAppleImage = UIImage imageNamed:engineerData[@"Photo_PreApple"];
167     newTile.currentImage = UIImage imageNamed:engineerData[@"Photo_Current"];
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MyBestFriend master Local Revision 12 MyBestFriend master 5/29/12 Eric Dudlak 344a9f1bc6ae (BASE, HEAD)

Commit to Branch... Cancel Commit 27 Files

What Is New

- Better change detection
- Skip or discard individual changes
- Commit to a new branch

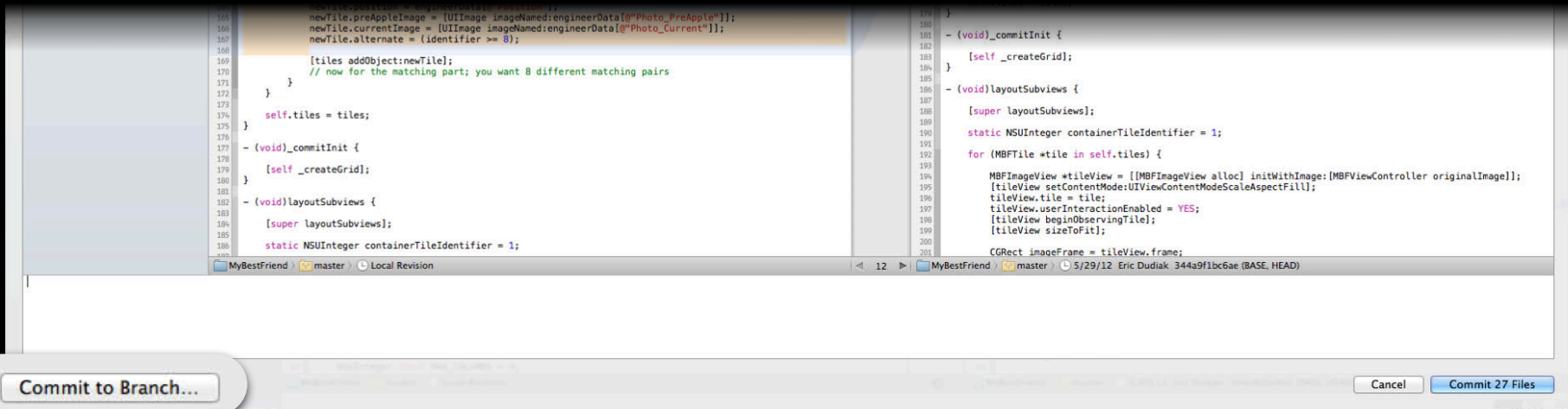
```
165 newTile.position = engineerData[@"position"];
166 newTile.preAppleImage = UIImage imageNamed:engineerData[@"Photo_PreApple"];
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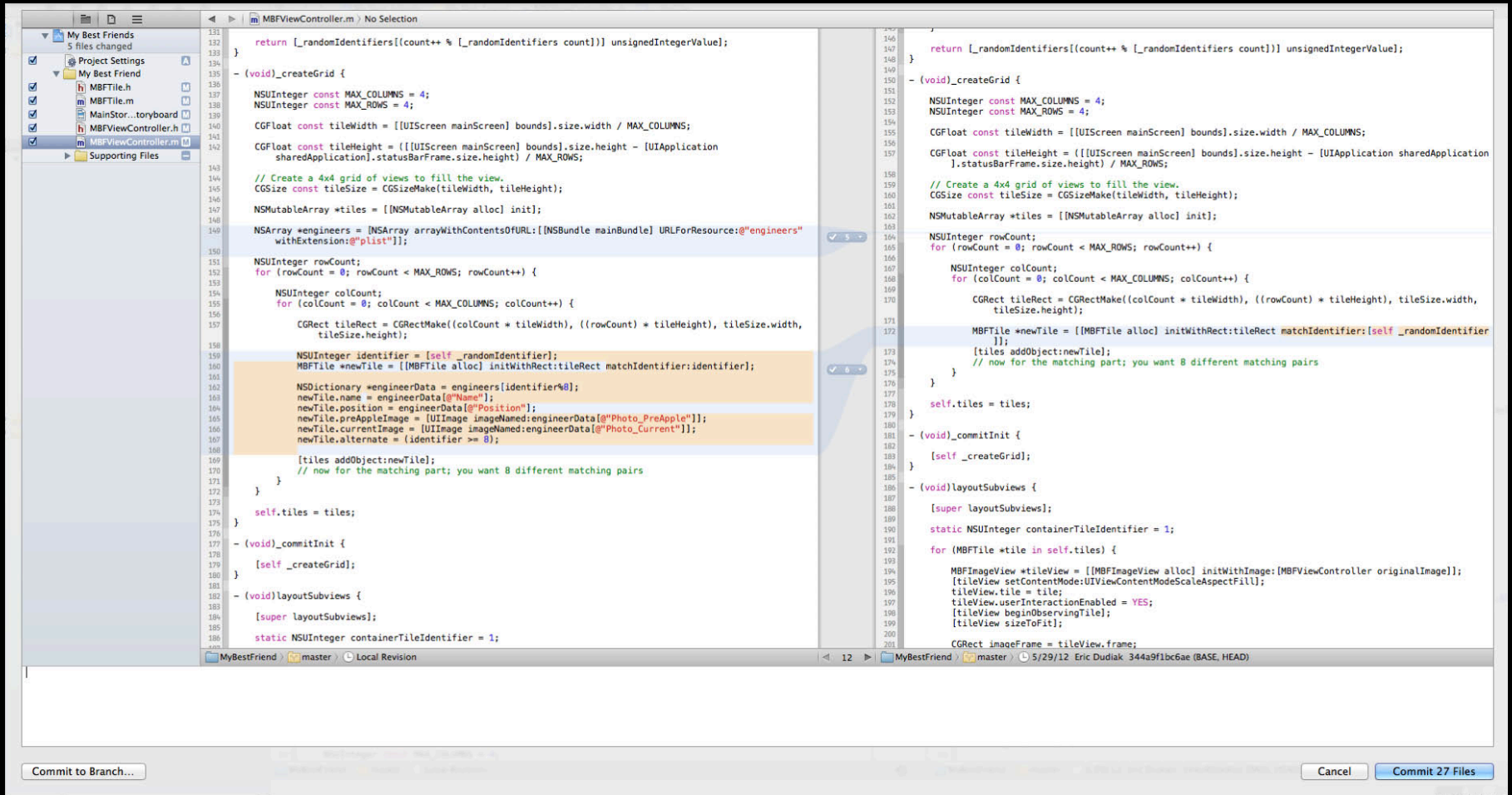
MyBestFriend master Local Revision 12 MyBestFriend master 5/29/12 Eric Dudlak 344a9f1bc6ae (BASE, HEAD)

Commit to Branch... Cancel Commit 27 Files

What Is New

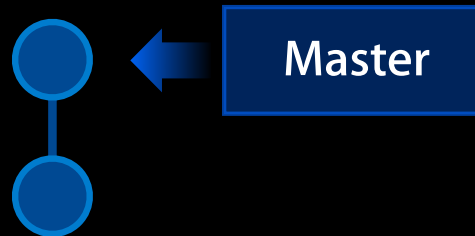
- Better change detection
- Skip or discard individual changes
- Commit to a new branch



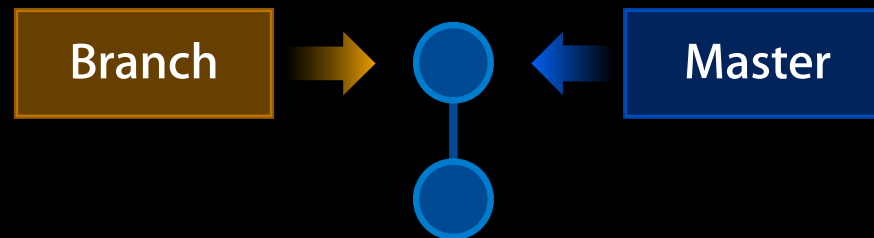


What Is a Branch?

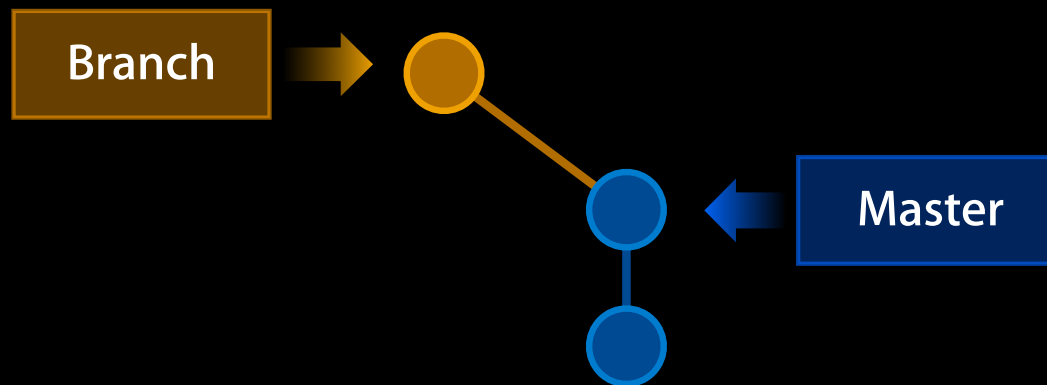
What Is a Branch?



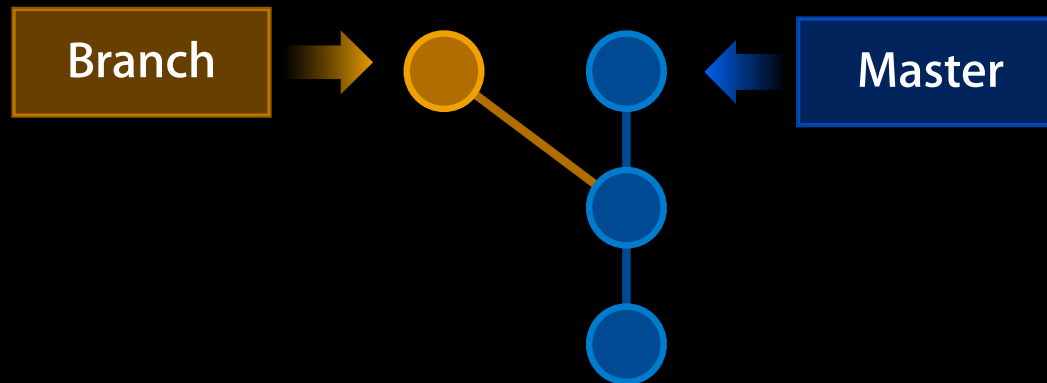
What Is a Branch?



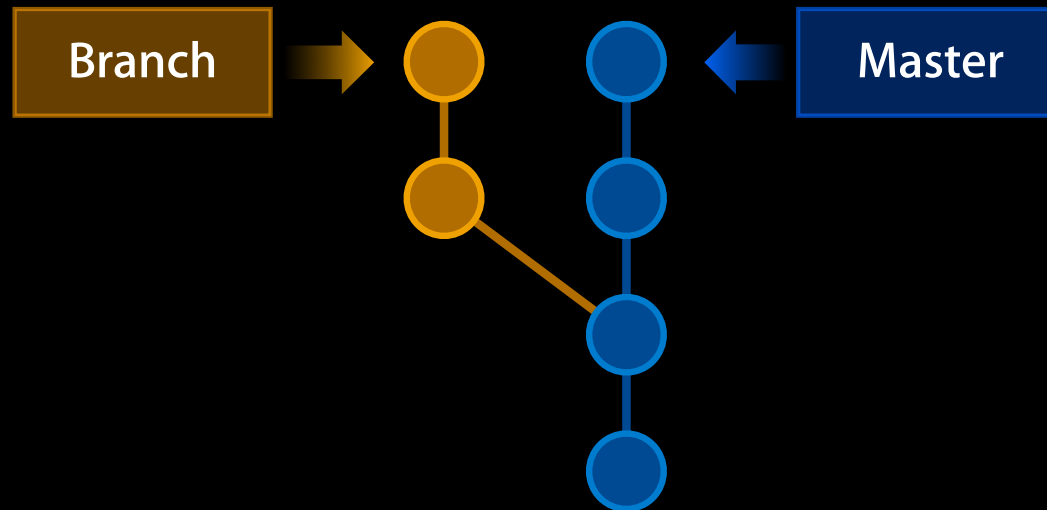
What Is a Branch?



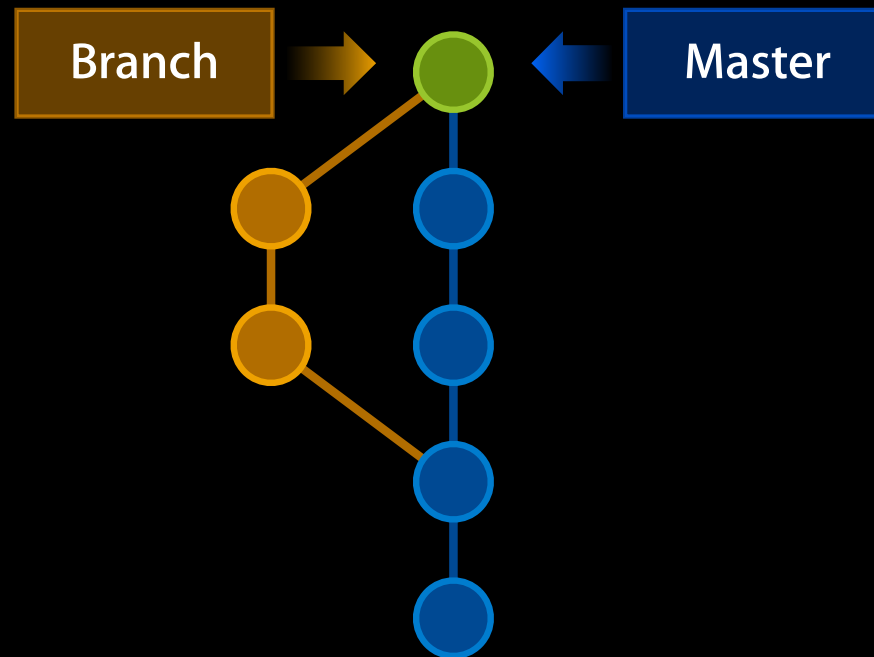
What Is a Branch?



What Is a Branch?



What Is a Branch?



Demo

What Is New

What Is New

- Better change detection

What Is New

- Better change detection
- Skip or discard individual changes

What Is New

- Better change detection
- Skip or discard individual changes
- Commit to a new branch

Ignoring Files

Ignoring Files

- Why?

Ignoring Files

- Why?
- What to ignore?

Ignoring Files

- Why?
- What to ignore?
- What if I committed those already?

What to Ignore

What to Ignore

- Finder settings

.DS_Store

What to Ignore

- Finder settings

`.DS_Store`

- Window geometry

`UserDefaults.xcuserstate`

What to Ignore

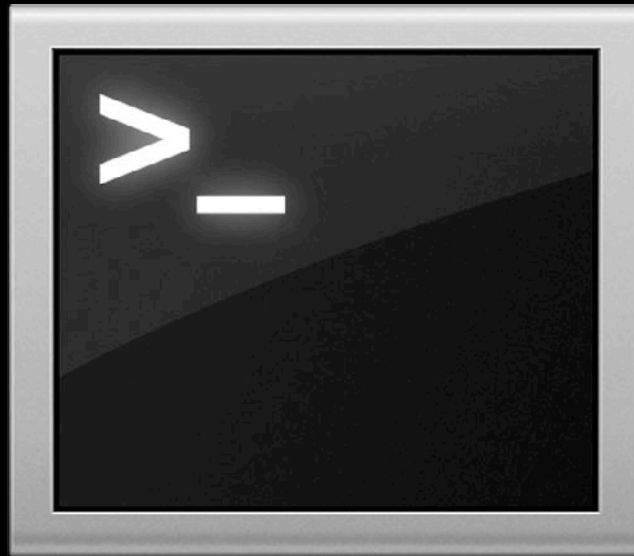
- Finder settings
 - `.DS_Store`
- Window geometry
 - `UserDefaults.xcuserstate`
- Private schemes and breakpoints
 - `*.xcuserdatad`

xcrun

Used to run Xcode command line tools

xcrun

Used to run Xcode command line tools



Used to run Xcode command line tools

Ignoring Files

`git`

Ignoring Files

git

- Per-repository
 - Place a `.gitignore` file at the root of your git working copy

```
.DS_Store  
UserInterface.xcuserstate
```

Ignoring Files

git

- Per-repository

- Place a `.gitignore` file at the root of your git working copy

```
.DS_Store  
UserInterface.xcuserstate
```

- Globally

- Create `~/.gitignore_global`

```
xcrun git config --global core.excludesfile ~/.gitignore_global
```

Ignoring Files

Subversion

Ignoring Files

Subversion

- Globally

Ignoring Files

Subversion

- Globally
 - Edit `~/.subversion/config`

Ignoring Files

Subversion

- Globally
 - Edit `~/.subversion/config`
 - Add or modify the `global-ignores` setting

Ignoring Files

Subversion

- Globally
 - Edit `~/.subversion/config`
 - Add or modify the `global-ignores` setting

```
global-ignores = .DS_Store UserInterface.xcuserstate
```

Ignoring Committed Files

Ignoring Committed Files

- In Terminal

Ignoring Committed Files

- In Terminal

```
cd <path to working copy>
```

Ignoring Committed Files

- In Terminal

```
cd <path to working copy>  
xcrun [git|svn] rm <relative path to file>
```

Ignoring Committed Files

- In Terminal

```
cd <path to working copy>  
xcrun [git|svn] rm <relative path to file>  
xcrun [git|svn] commit -m "Removing unneeded files"
```

Ignoring Committed Files

- In Terminal

```
cd <path to working copy>  
xcrun [git|svn] rm <relative path to file>  
xcrun [git|svn] commit -m "Removing unneeded files"
```

- Setup ignore files

Summary

Summary

- Source control for new projects

Summary

- Source control for new projects
- What is new when committing

Summary

- Source control for new projects
- What is new when committing
- Ignore files

Sharing Your Code

Eric Dudiak

Xcode Software Engineer

Team Workflows

Team Workflows

- Pull and update

Team Workflows

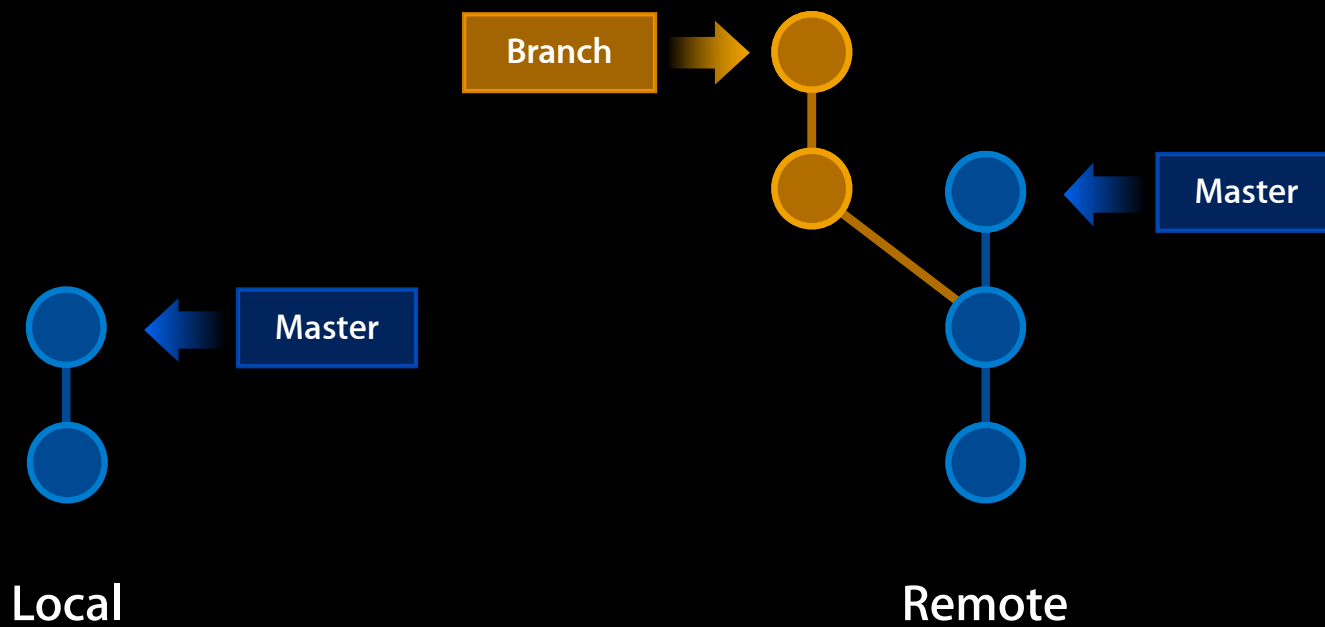
- Pull and update
- Merging branches

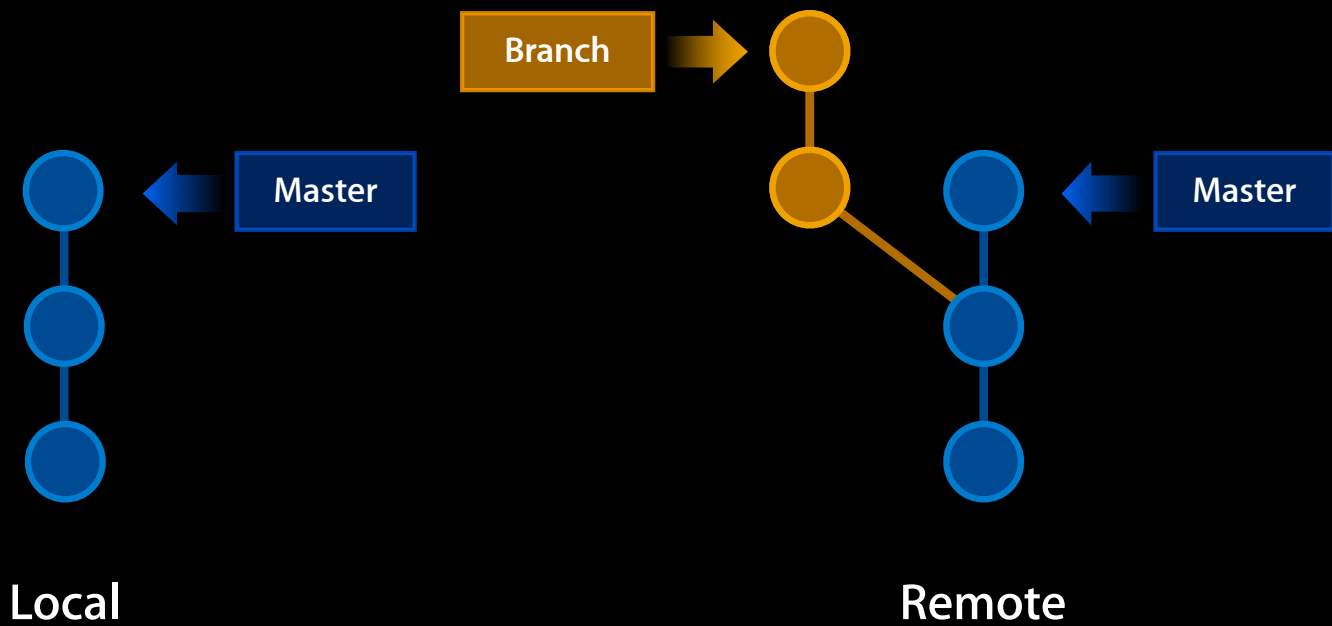
Team Workflows

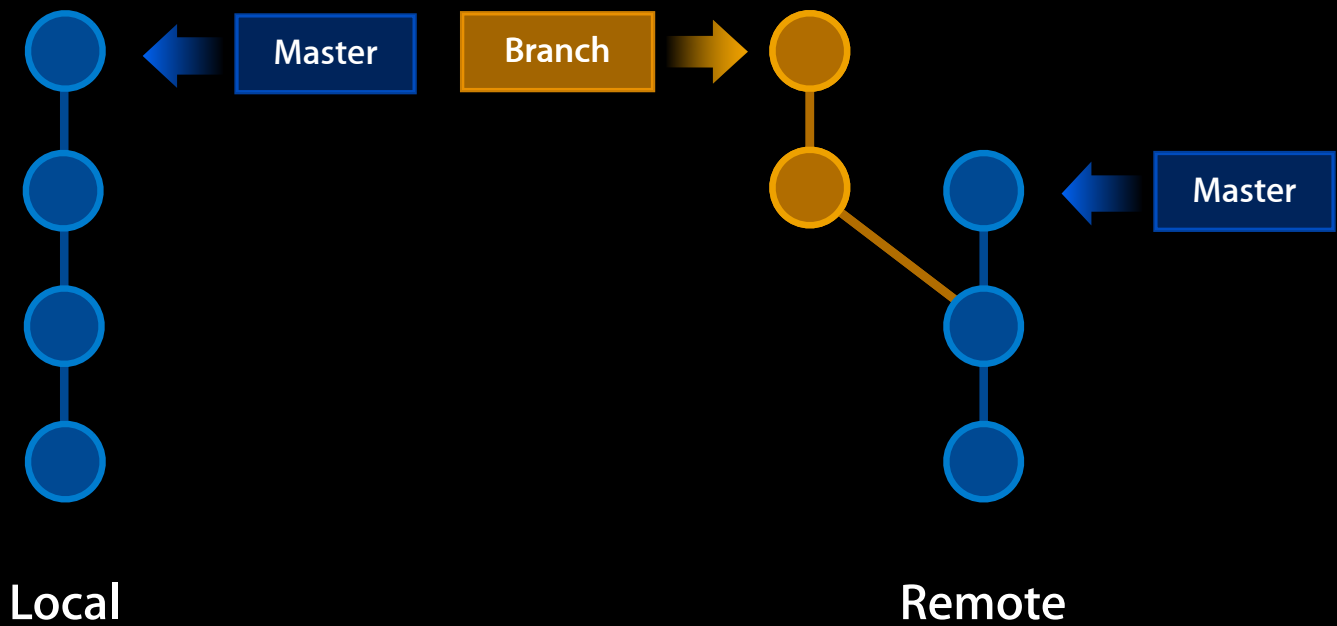
- Pull and update
- Merging branches
 - Resolving conflicts

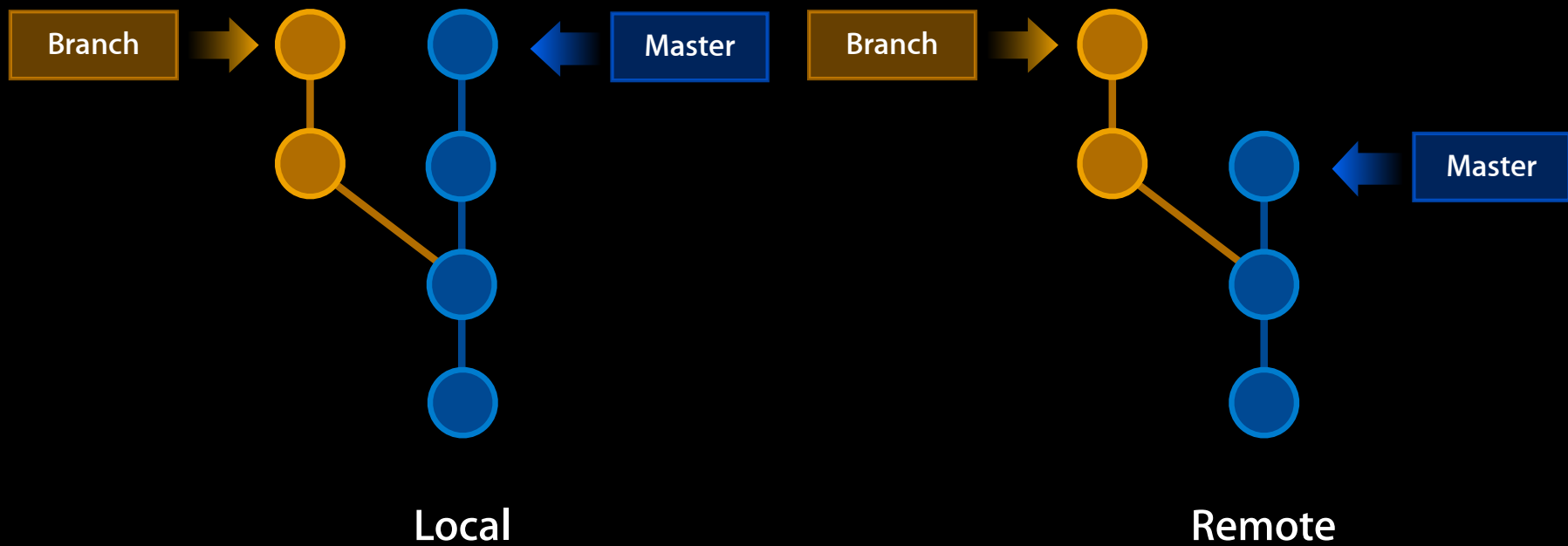
Team Workflows

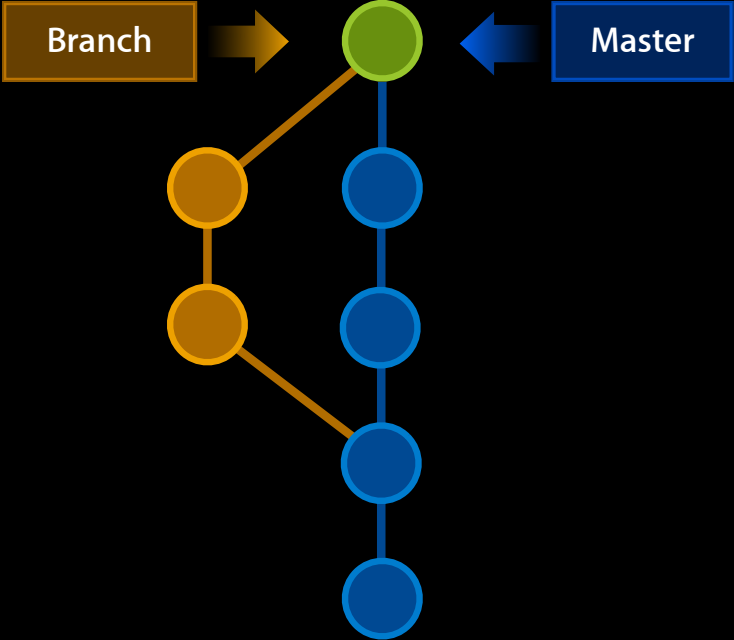
- Pull and update
- Merging branches
 - Resolving conflicts
- Push



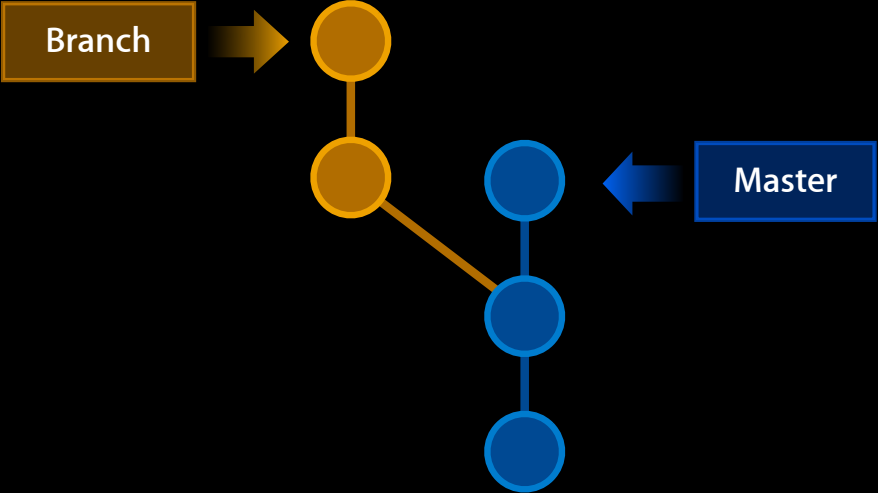




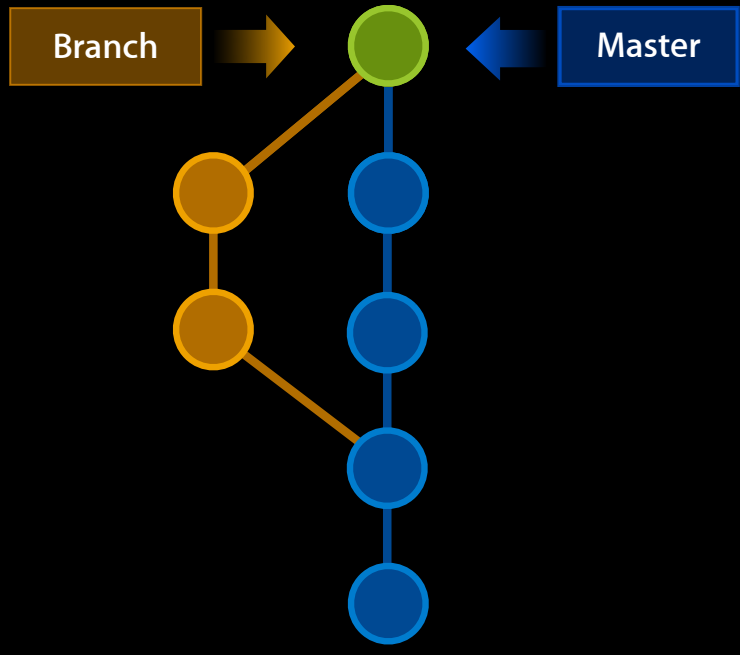




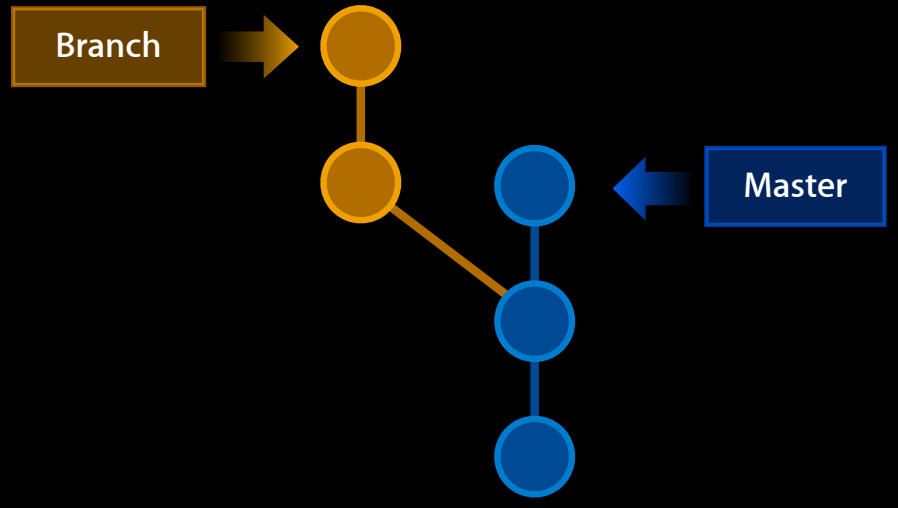
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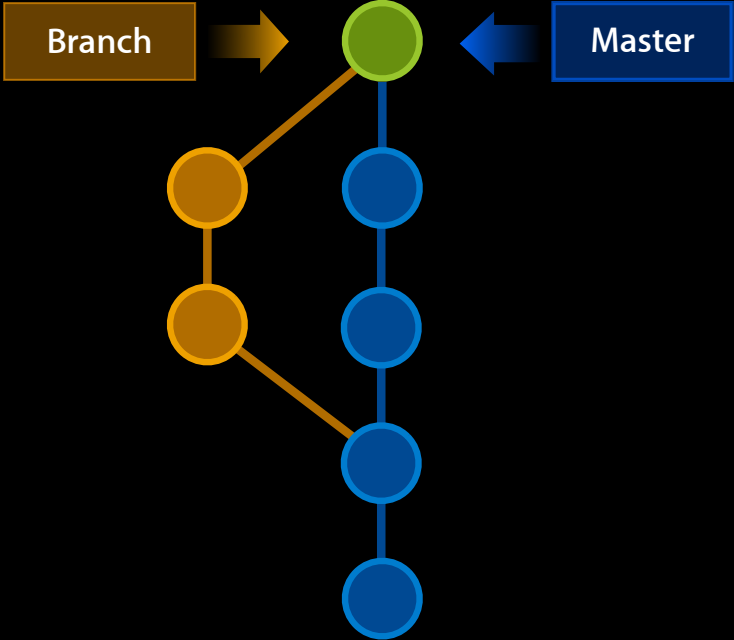
Remote



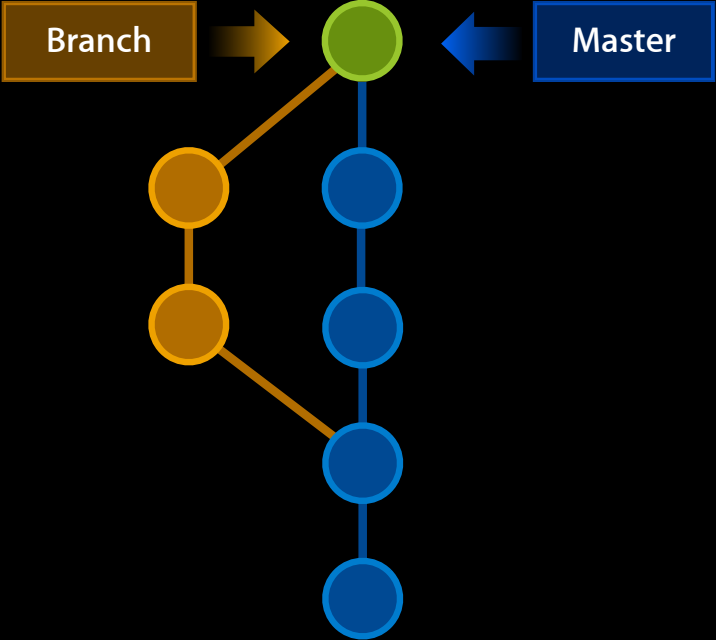
Local



Remote



Local



Remote

Demo

Summary

Summary

- Work with multiple repositories

Summary

- Work with multiple repositories
- Resolve conflicts

Summary

- Work with multiple repositories
- Resolve conflicts
 - Update

Summary

- Work with multiple repositories
- Resolve conflicts
 - Update
 - Merge

Summary

- Work with multiple repositories
- Resolve conflicts
 - Update
 - Merge
- Push

More Information

Michael Jurewitz

Developer Tools Evangelist

jury@apple.com

Apple Developer Forums

<http://devforums.apple.com>

Labs

Xcode Lab

Developer Tools Lab
Ongoing

 **WWDC2012**