Drawing a Line on Quality and Paying For It

Bruce Williams, Senior Director of Development at thunder::tech (US)
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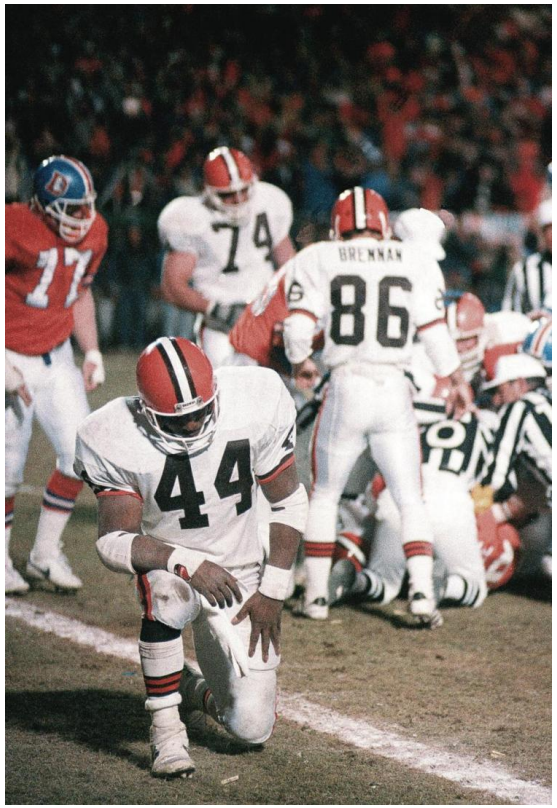
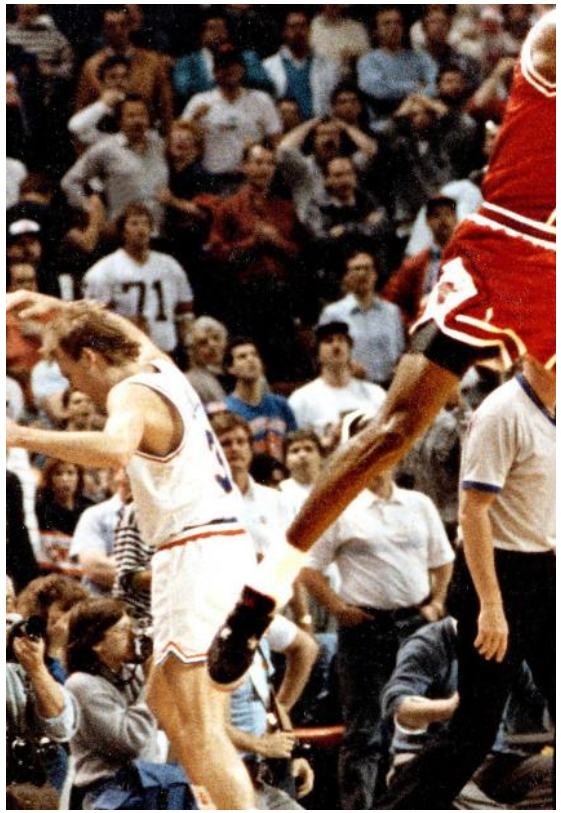
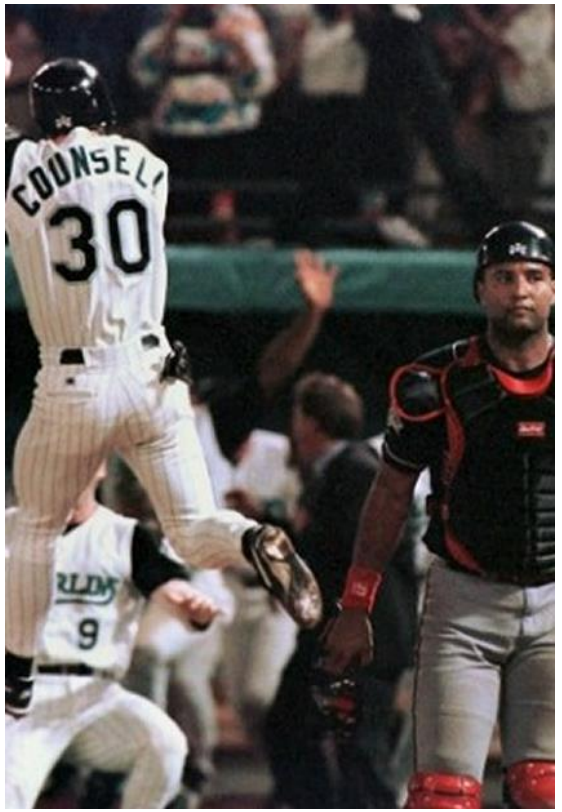
Cleveland



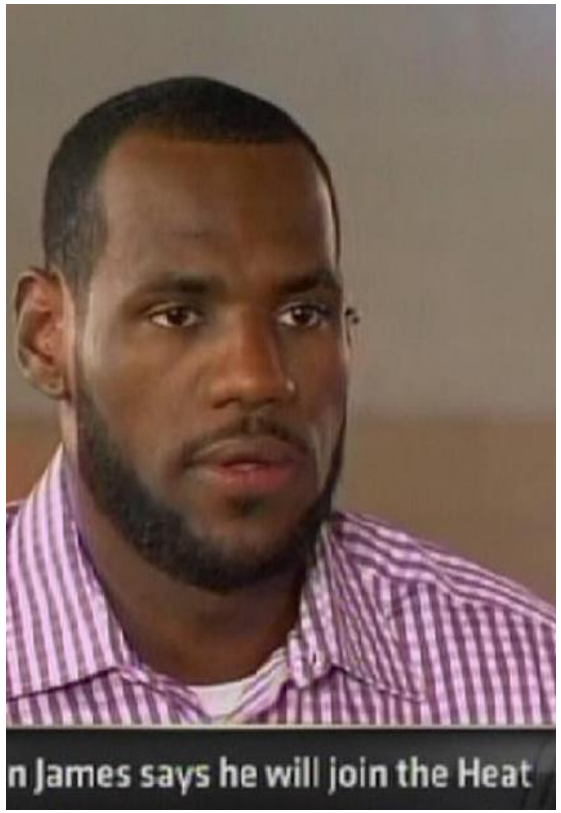
1988
"The Fumble"



1989
"The Shot"



1997
"The Choke"



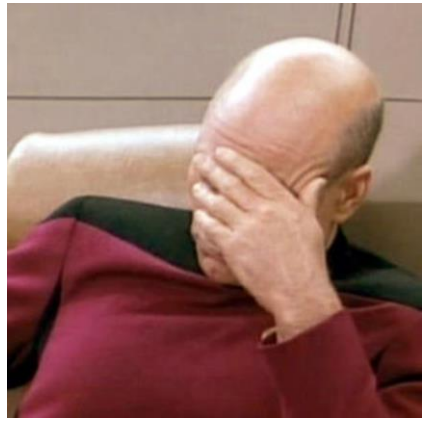
2010
"The Decision"

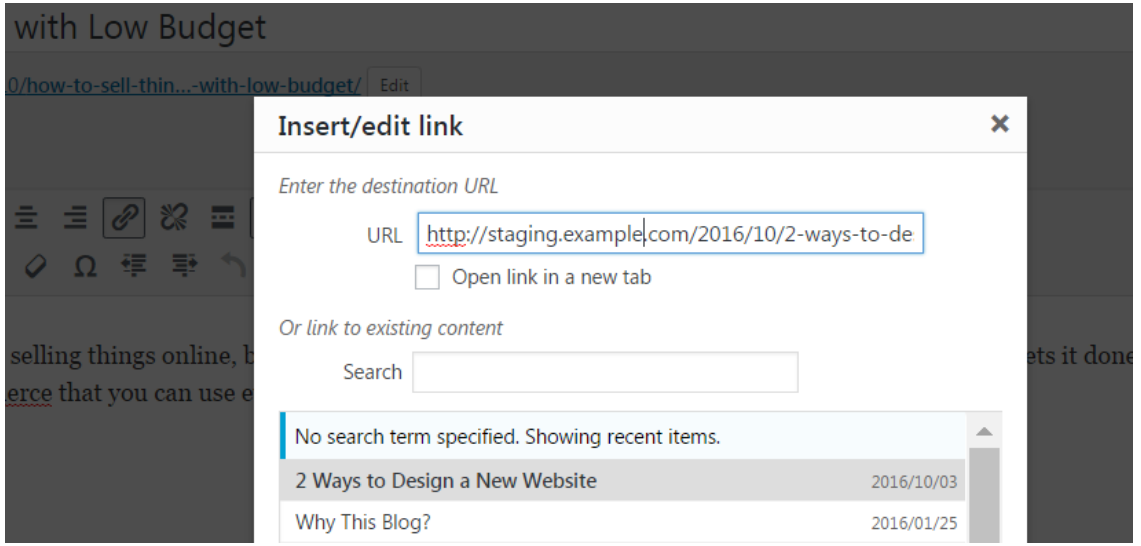
…building websites like it's 1999….

1. Sitemap
2. Design Comps
3. Front-end Dev
4. App Dev
5. Launch

Failing Example #1:

- Local B2C retail company
- Good looking site
- Wordpress
- Staging URLs embedded in content
- SEO = not good



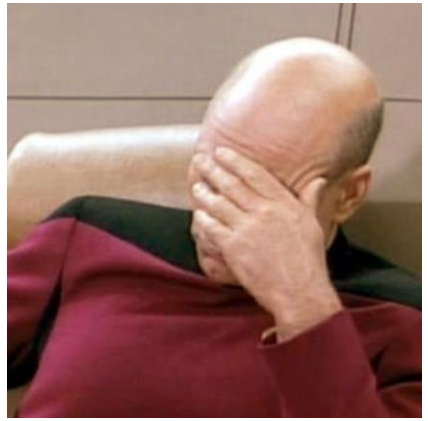



```
<p>
  <a href="http://polaris.thunder-stage2.com/connect/alumni">Alumni Services</a>
</p>
```

```
<p>
  <a href="http://www.polaris.com/connect/alumni">Alumni Services</a>
</p>
```

Failing Example #2

- B2B services company
- Good looking responsive site
- Project went well
- Contact form for leads
- Exchange Server Bounces Emails
- SMTP Relay Blacklists Sends
- No one notices



Default SMTP server

SMTP server:	smtp.sendgrid.net
SMTP server user:	1234567890
SMTP server password:	•••••••••
Use SSL:	☐
Additional SMTP servers:	You can specify more SMTP servers with advanced settings in the SMTP servers application.

New record | Select displayed fields

Actions	ContactUsID	Form inserted	Form updated	First name	Last name	E-mail	Phone number	Your message
✎ 🗑 •••	1	2/21/2014 2:12:12 PM	2/21/2014 2:12:12 PM	Brad	Summers	brad.summers@example.com	(123) 456-7890	Hi, I'm contacting you to find out if this form works.
✎ 🗑 •••	2	2/21/2014 2:13:08 PM	2/21/2014 2:13:08 PM	Sheryl	Cox	sherylc@example.com	(987) 654-3210	Hi, I'd like to request your latest catalog. Thanks!
✎ 🗑 •••	3	2/21/2014 2:13:37 PM	2/21/2014 2:13:37 PM	David	Silver	david.silver@example.com	(566) 545-4863	Hey, your website rocks!
✎ 🗑 •••	4	2/21/2014 2:14:06 PM	2/21/2014 2:14:06 PM	John	Smith	smith@example.com	(555) 666-7777	Hello, please get back to me as soon as possible.

bruce wlllams

Dashboard

Marketing

Templates

Activity Feed

TYPE | Search by email | CATEGORY | TIME

Block — M matt.thiesler@thundertech.com

Block — M matt.thiesler@thundertech.com

Block — M matt.thiesler@thundertech.com

EMAIL: matt.thiesler@thundertech.com

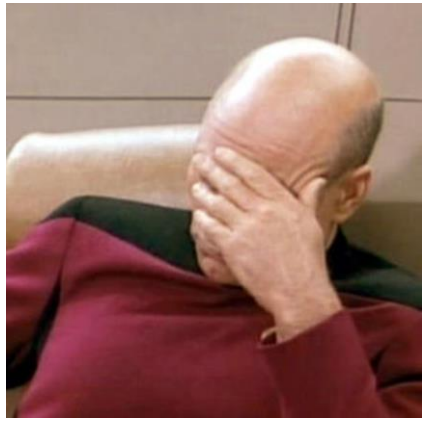
REASON: 550 5.7.1 <matt.thiesler@thundertech.com>: Relay access denied (G8)

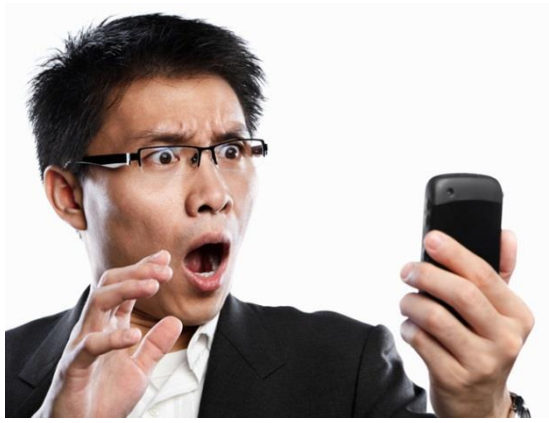
SMTP-ID: <il864qUhSx6Ub96lOBsvKQ@ismtpd0004p1iad1.sendgrid.net>

PROCESSED STRING: October 28, 2016 - 07:34:05 AM

MSGID: il864qUhSx6Ub96lOBsvKQ.filter0555p1mdw1-26997-58133795-D.2

Failing Example #3





- Early 2000s
- Lab testing services company
- Redesign site
- Design put in ‘placeholder’ contact info
- ‘Placeholder’ phone number never updated at launch
- ‘Placeholder’ number just happened to be a dirty talk hotline

New Standards. New Systems. New Expectations.

"94% of problems in business are systems driven and only 6% are people driven."

—W. Edwards Deming, 1900–1993

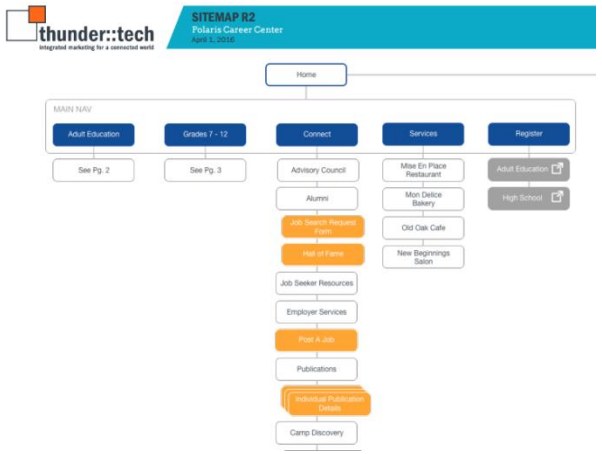
thunder::tech's Web Design System

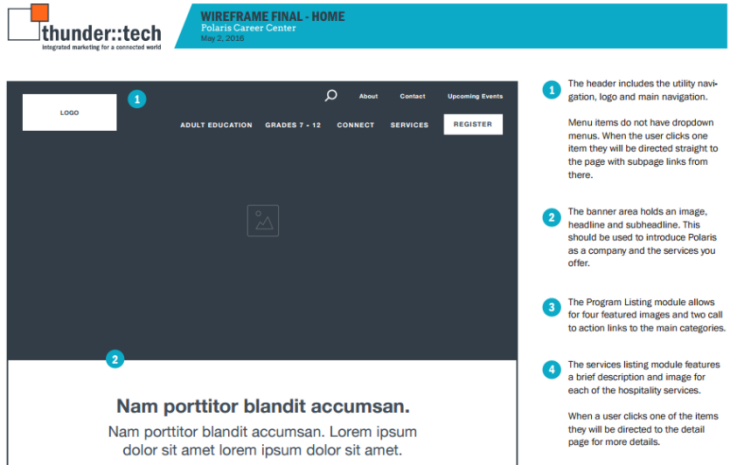
1. Sitemap / Information Architecture and User Flow
2. Wireframes / Content Strategy
3. Creative Style Boards and Comps
4. Front-end Development
5. Application Development (CMS Install)
6. Content Install
7. Training
8. BETA
9. QA
10. Launch
11. Support Hand-Off
12. Ongoing Support

Sitemap & Wireframes & Content Strategy

- How do we structure sites to align both user and business needs?
- How do we optimize the content creation and effectiveness?
- How do we incorporate exploration and more freedom in layouts and experiences?

Sitemap & Wireframes & Content Strategy

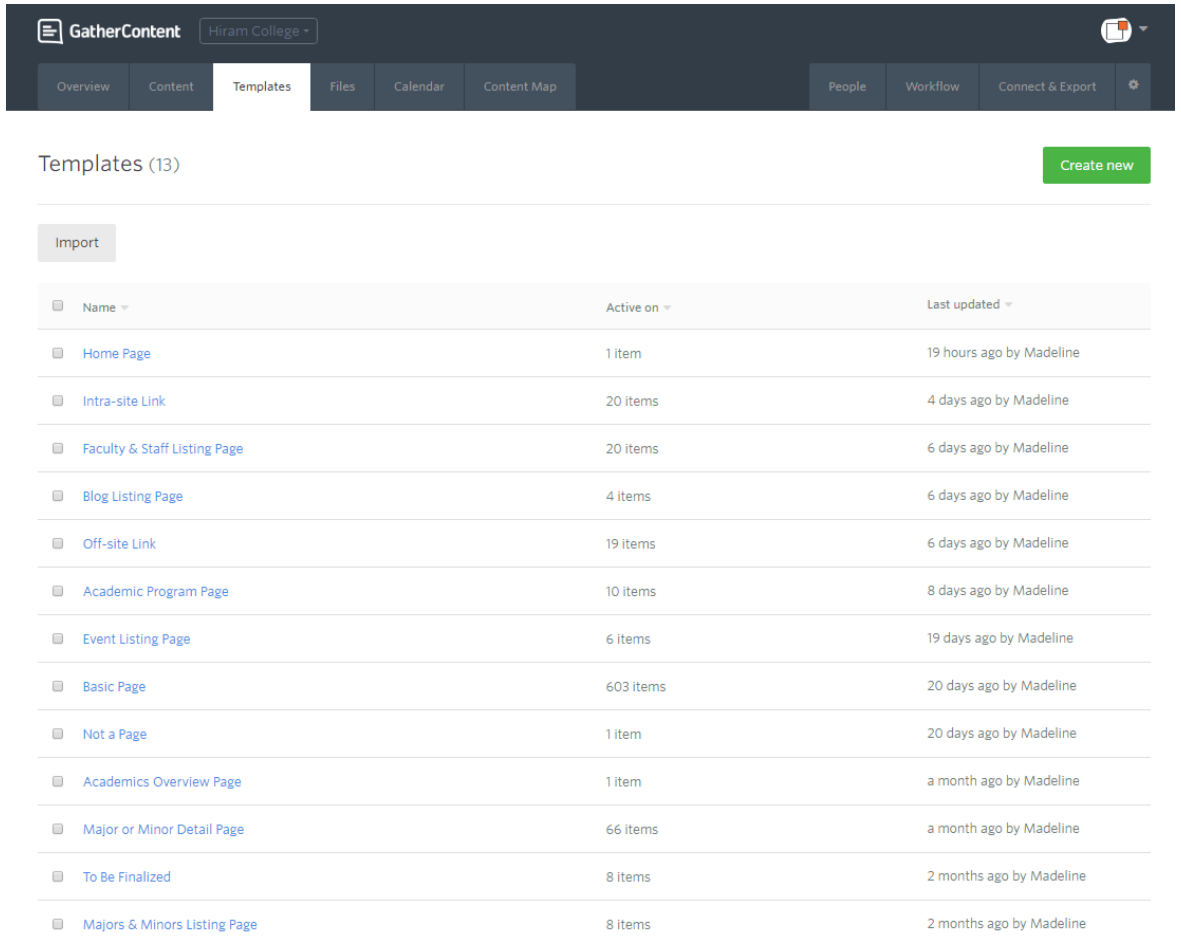


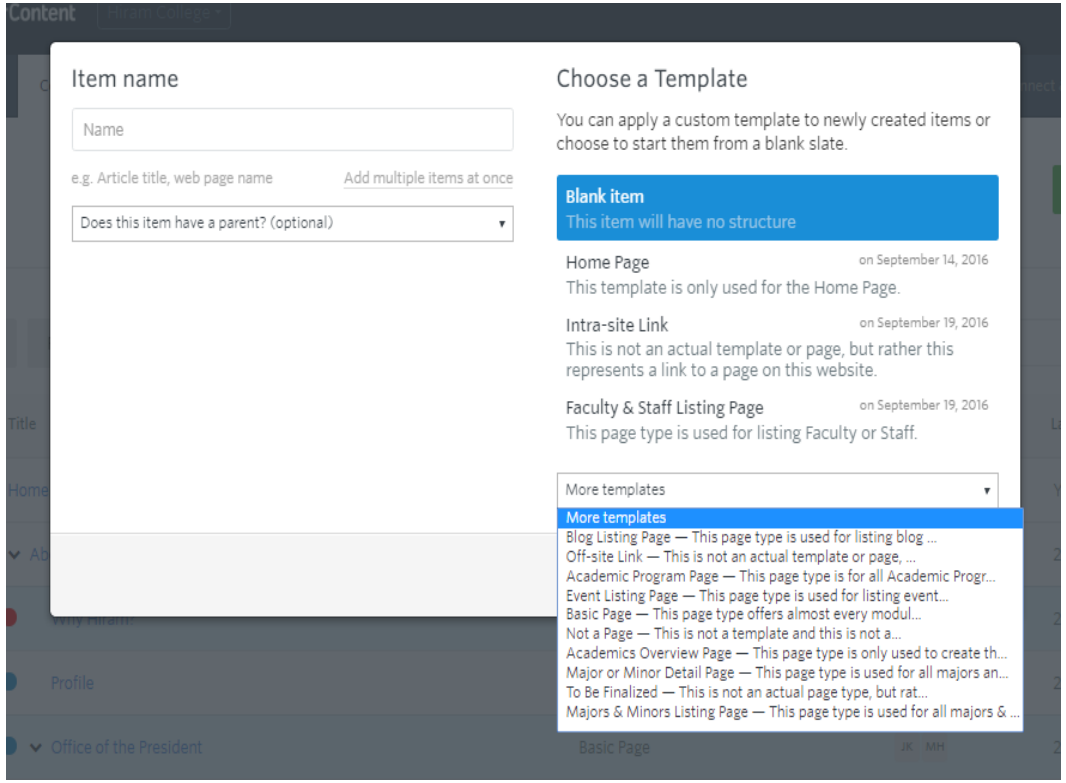


GatherContent

Kentico Draft

Sitemap & Wireframes & Content Strategy

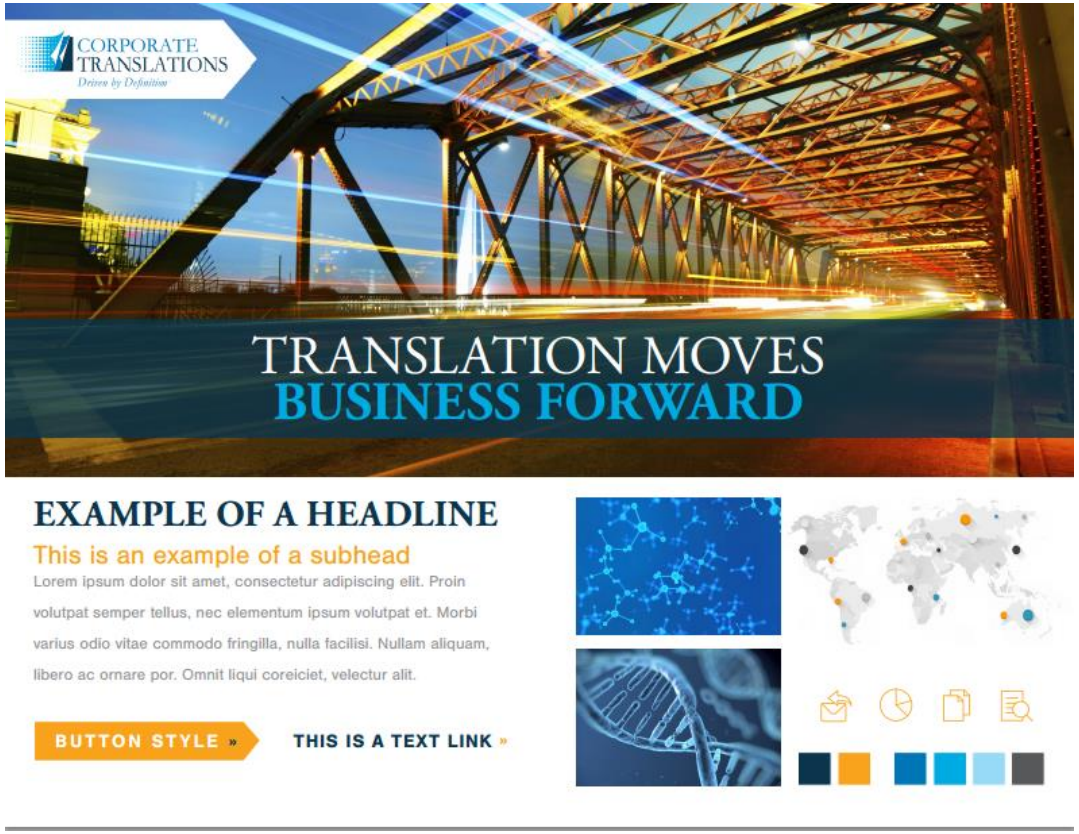


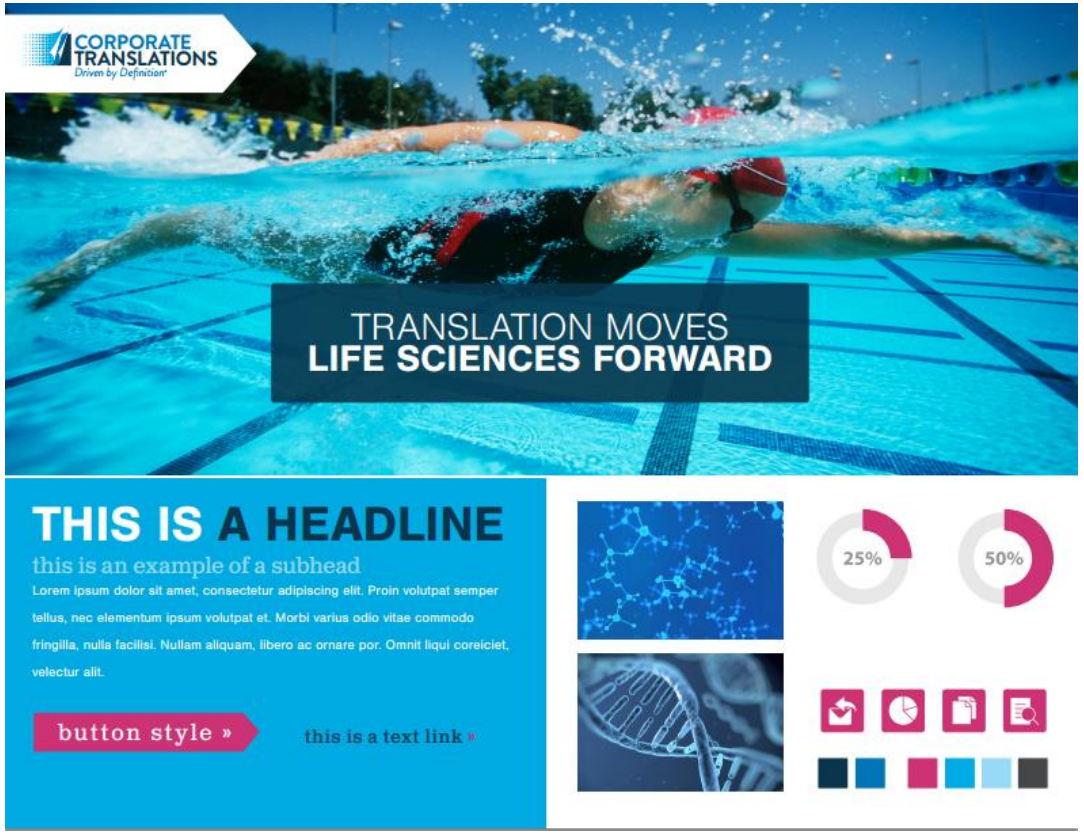


Creative Style Boards

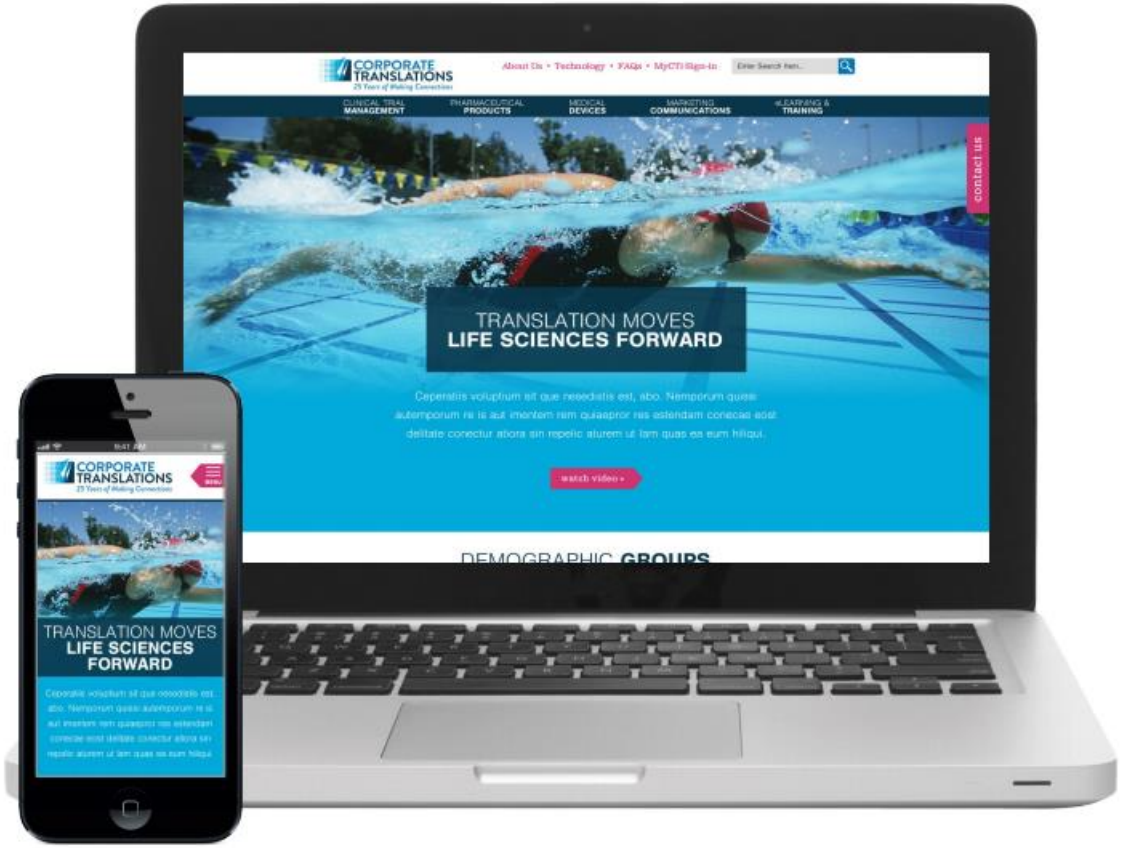
- How do we give our FE team flexibility to fill in the gaps?
- How do we separate usability needs vs. design theory?
- How do we get at the heart of a digital style without going through countless revisions of static comps?

Creative Style Boards



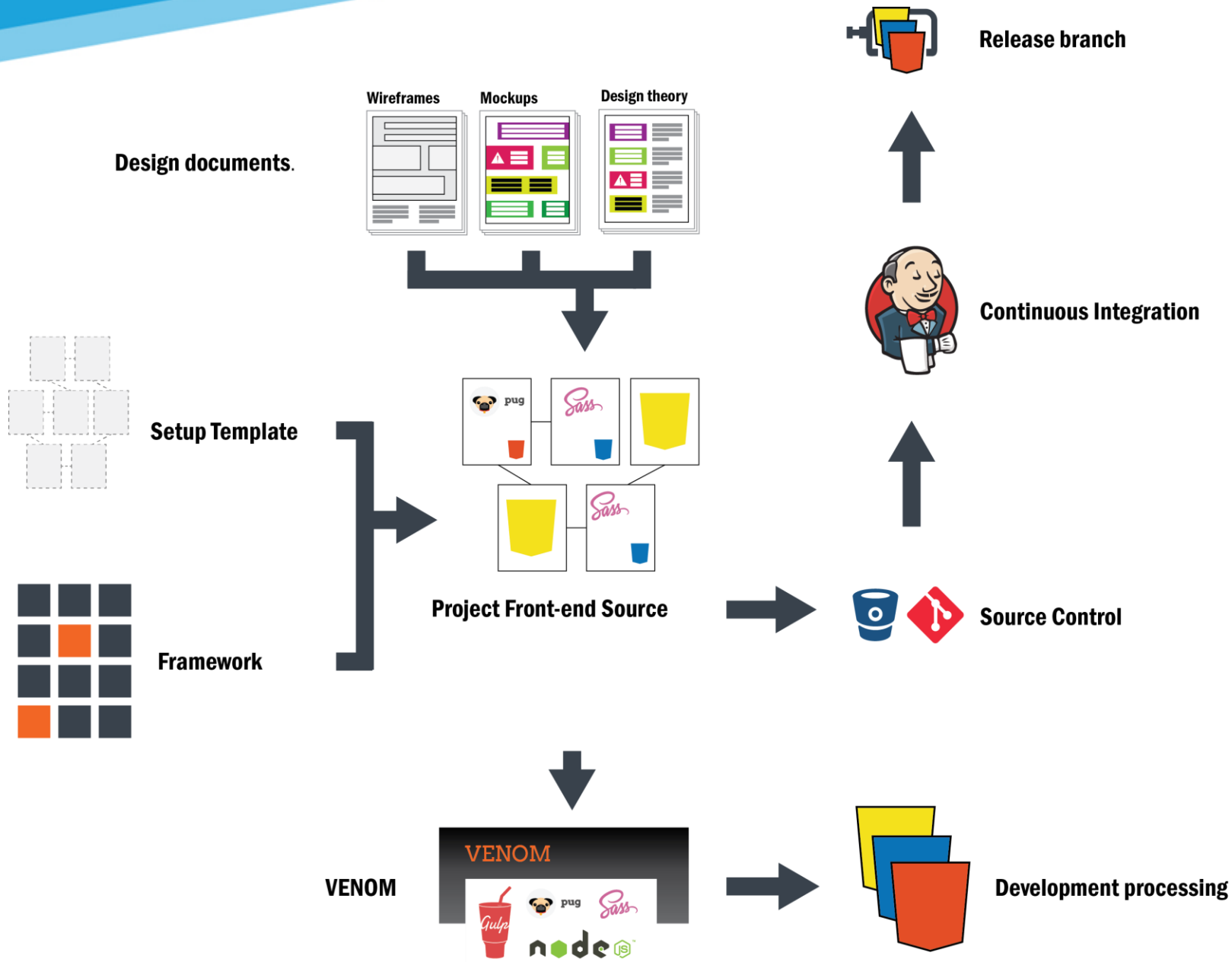


Creative Style Boards



Front-end Development

- How do we build HTML, CSS, JS from designs that are so freely created?
- How can we stay on budget and calendar?
- Where / how do we test our templates?


Release branch
Wireframes
Mockups
Design theory
Design documents.
Continuous Integration
Setup Template
Framework
Project Front-end Source
Source Control
VENOM
VENOM
Development processing

thunder57 — coda — 80×24

```
 Responded to js change
Built js.



 Responded to js change
Built js.
```

1. Ask

```
VENOM need hero
```

2. Get

```
 Framework search results
immersive-video-hero pattern
  An immersive home page hero with an embedded iframe video
  use --pattern immersive-video-hero
page-video-hero pattern
  An immersive sub page hero with an embedded iframe video and breadcrumbs
  use --pattern page-video-hero


VENOM use --pattern page-video-hero
```

```
-
  videoPageVideoHeroSection = {
    hasVideo: true
  };

  imagePageVideoHeroSection = {
    hasVideo: false
  };

mixin page-hero-section-content-area( content )
    div.page-hero-section-content-area
      div.large-center-margin-wrap
        h2.h2= content.title
        +breadcrumb-snippet(content, defaultBreadcrumbSnippet)

mixin page-hero-section( content, options )
  section.page-hero-section(data-module-id='page-hero-section')&attributes(attributes)
    if options.hasVideo
      <!--[if lte IE 8]><div class="page-hero-section-image-area" data-image-src="#{conte
      <!--[if gt IE 8]><!-->
      div.page-hero-section-video-area(data-image-src=content.image)
        div.page-hero-section-video-position
          div.page-hero-section-video(data-property="{videoURL:'" + content.video + "',contair
        <!-- <![endif]-->
        +page-hero-section-content-area( content )
    else
      div.page-hero-section-image-area(data-image-src=content.image)
      +page-hero-section-content-area( content )
```

```scss
@mixin page-hero-height {
  @include width-up ( $medium-large-viewport ) {
    height: 15em;
  }
}

.page-hero-section {
  position: relative;
  overflow: hidden;
}

.page-hero-section-image-area {
  background-size: cover;
  background-position: center;
  @include page-hero-height;
}

.page-hero-section-video-area {
  position: relative;
  background-size: cover;
  background-position: center;
  @include page-hero-height;
  &:after {
    content: "";
    position: absolute;
    left: 0;
    width: 100%;
    height: 100%;
    top: 0;
```

```
  <body>
    <form class="overflow-wrap">
      <div class="transform-wrap">
        <section class="page-hero-section" data-module-id="page-hero-section"><!--[if lte IE 8]><div class="page-hero-section-image-area" data-image-src="./content/copy-image.gif"></div><![endif]-->
<!--[if gt IE 8]><!-->
          <div class="page-hero-section-video-area" data-image-src="./content/copy-image.gif">
            <div class="page-hero-section-video-position">
              <div class="page-hero-section-video" data-property="{videoURL:'tsi9-oiQMEw',containment:'self', showControls:false, autoPlay:true, loop:true, mute:true, startAt:0, opacity:1, addRaster:false, quality:'default'}"></div>
            </div><!-- <![endif]-->
            <div class="page-hero-section-content-area">
              <div class="large-center-margin-wrap">
                <h2 class="h2">Lorem ipsum dolor sit amet consectetur adsciping elit</h2>
                <div class="breadcrumb-snippet">
                  <ul class="breadcrumb-list">
                    <li><a class="breadcrumb-link" href="/home">Home</a>
                    </li>
                    <li><a class="breadcrumb-link" href="/products">Products</a>
                    </li>
                    <li><a class="breadcrumb-link" href="/widgets">Widgets</a>
                    </li>
                  </ul>
                </div>
              </div>
            </div>
          </div>
        </section>
      </div>
    </form>
```

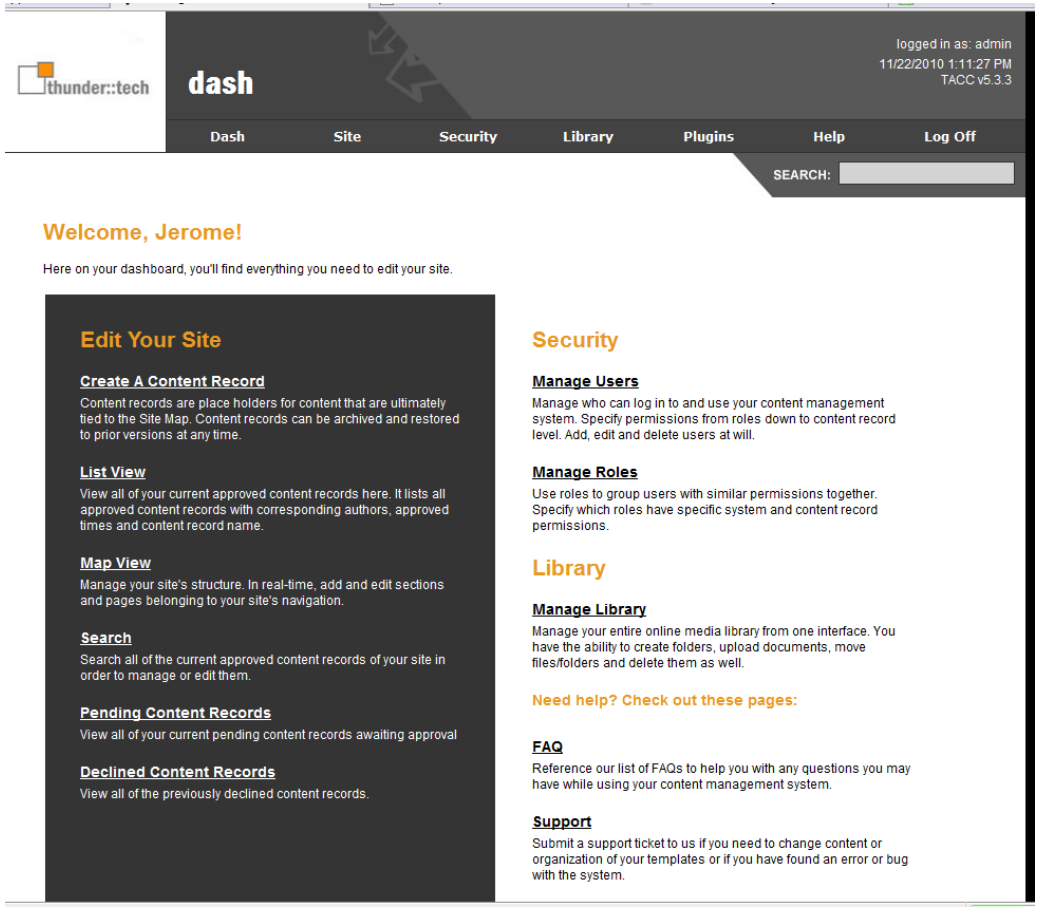
Front-end Development

Application Development (CMS Install)

- How do we tailor the CMS experience to accommodate the design and varied structured data?
- How do we sync the FE and App Dev teams?
- Where can we reuse code and build in best practices?

Application Development (CMS Install)

tacc
thunder application for content control



Application Development (CMS Install)

```
namespace KenticoFramework.bo.page
{
    public class KenticoMasterPage : TemplateMasterPage
    {
        public enum REQUEST_TYPE { NORMAL, SECURE };

        public KenticoMasterPage()
            : base()
        {
            this.Properties = new BasePage(DocumentContext.CurrentDocument, "", "", "");
            AddQueryStringToCanonical = false;
        }
        /// <summary>
        /// Initializes a Master page. This should be all that is called. Adds Canonical, Open Graph Tags and Regis
        /// Setting request type to SECURE will force canontical to be https at all times.
        /// </summary>
        /// <param name="overrideDomain"></param>
        public void InitPage(REQUEST_TYPE request = REQUEST_TYPE.NORMAL, string overrideDomain = null)
        {

            string url = bll.DocumentHelper.GetCanonicalURL(DocumentContext.CurrentDocument ,overrideDomain, reques
            string query = AddQueryStringToCanonical ? ValidationHelper.GetString(GetQueryString(), "") : "";
            AddOpenGraphToHeader(url, overrideDomain, request == REQUEST_TYPE.SECURE);
            AddCanonicalTagToHeader(string.IsNullOrEmpty(CanonicalOverride) ? (url + query) : CanonicalOverride);
            AddMetaLinkToHeader("http-equiv", "content-type", "text/html");
            AddMetaLinkToHeader("name", "description", Properties.MetaDescription);
            CMS.Helpers.ScriptHelper.RegisterJQuery(this.Page);
        }
```

View all redirects | Add Rewrite Rules

Rules

Excluded Paths

Search | Both

Active Rules

Actions	Old URL
Delete	/Ever%20wonder%20what%20techniques%20the%20Chef's%20Garden%20uses%20to%20grow%20the%20best%2
Delete	/index.php/archive-2010
Delete	/index.php/blog/4-on-the-farm/whats-growing?limitstart=0
Delete	/index.php/herbs-2/4-on-the-farm/whats-growing
Delete	/index.php/in-season-at-the-chefs-garden/all-products/14-herbs/detail/1265-herbs-cardamom-shoots?tmpl=com
Delete	/index.php/in-season-at-the-chefs-garden/all-products/14-herbs/detail/1565-sage-sampler?tmpl=component
Delete	/index.php/in-season-at-the-chefs-garden/all-products/14-herbs/detail/910-chocolate-mint-herbs-chefs-garden?t
Delete	/index.php/in-season-at-the-chefs-garden/all-products/14-herbs/detail/925-golden-sage-herbs-chefs-garden
Delete	/index.php/in-season-at-the-chefs-garden/all-products/14-herbs/detail/936-lucky-clover-herbs-chefs-garden?tmp
Delete	/index.php/in-season-at-the-chefs-garden/all-products/14-herbs/detail/952-samphire-aka-sea-fennel-herbs-chefs
Delete	/index.php/in-season-at-the-chefs-garden/all-products/16-lettuce-greens/detail/1130-wasabi-mustard?phocaslide
Delete	/index.php/in-season-at-the-chefs-garden/all-products/16-lettuce-greens/detail/1130-wasabi-mustard?tmpl=com
Delete	/index.php/in-season-at-the-chefs-garden/all-products/16-lettuce-greens/detail/1130-wasabi-mustard?tmpl=com
Delete	/index.php/in-season-at-the-chefs-garden/all-products/16-lettuce-greens/detail/1132-bowtie-arugula-greens
Delete	/index.php/in-season-at-the-chefs-garden/all-products/16-lettuce-greens/detail/1132-bowtie-arugula-greens?phc
Delete	/index.php/in-season-at-the-chefs-garden/all-products/16-lettuce-greens/detail/1132-bowtie-arugula-greens?tmp

Clear All | Export All

```
using System.Data.SqlClient;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Web;

namespace KenticoRedirection
{
    public class URLRedirection : IHttpModule
    {
        public void Dispose()
        {

        }

        public void Init(HttpApplication context)
        {
            context.BeginRequest += ExecuteCustomRedirects;
        }

        private static void ExecuteCustomRedirects(object sender, EventArgs e)
        {

            /*
             * NEED TO ADD VALIDATION TO MAKE SURE THAT WE DON'T ALLOW THE USER TO CREATE INFINITE
             * NEED TO ADD A FIELD FOR "DOMAIN" AND FORCE A VALIDATION CHECK ON THAT PART OF THE F
             */
            try
            {
                var customRedirect = FindRedirectByOldURL(CMSHttpContext.Current.Request);

                if (customRedirect != null)
                    customRedirect.ExecuteRedirect();
            }
            catch (Exception) { }
        }
```

QA

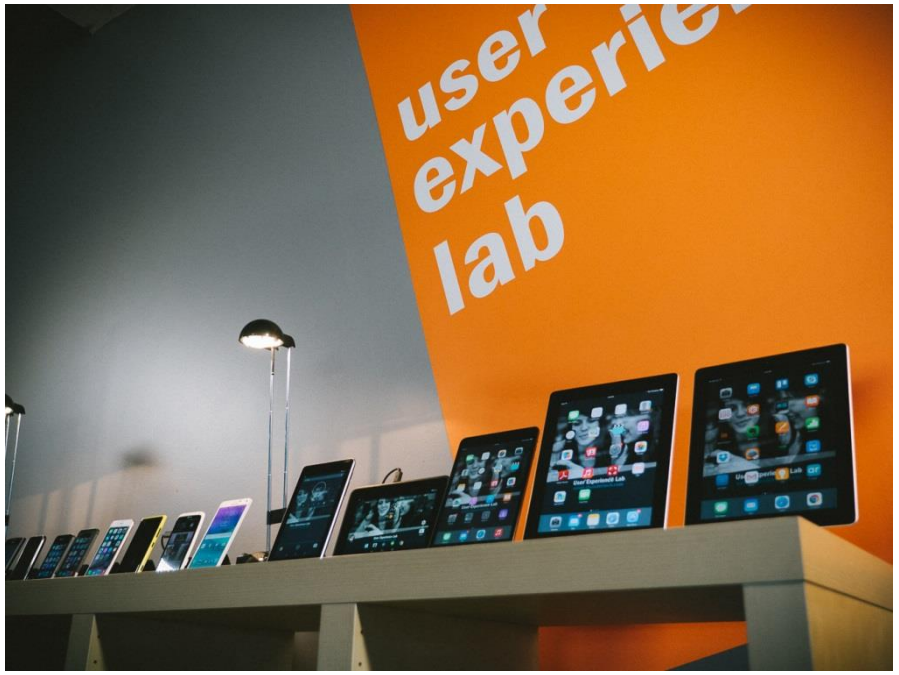
- What do we need to check before launch?
- What do we check after launch?
- How do we publish effectively, consistently, across a wide team and to scale?
- How do we balance testing and cost?

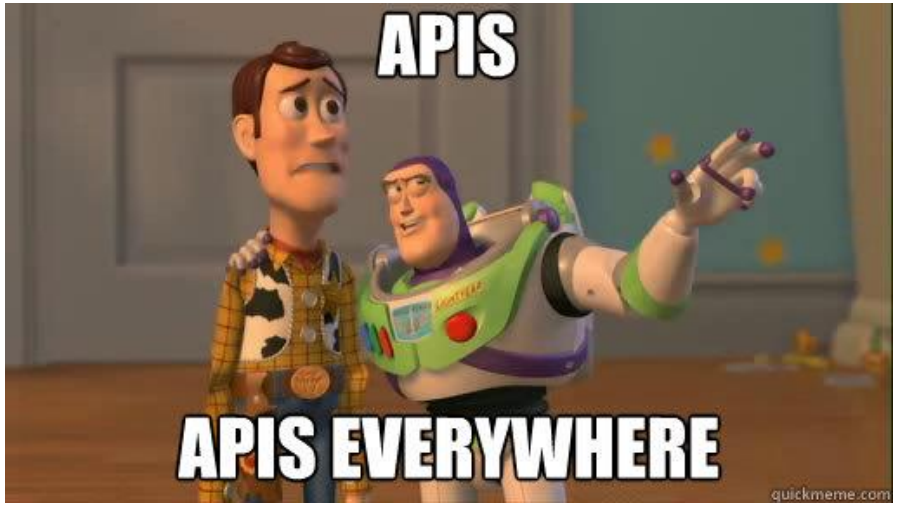
QA

GADGET
powered by thunder::tech

Site24x7

Screamingfrog





Hosting ToDos

- Site 24x7 monitor added for produciton domain
- server / site backups are enabled
- SQL Maintenance plan setup, enabled, tested
- Schedule out DNS changes with client
  2
- Legacy site copied for historical reference (HTTrack)
- staging site setup on thunder-stage and the db/files are in sync with live
-
  credentials for email / smtp relay
  1 1

Add a card...

General Site ToDos

- All links, images, fonts, resources working
- Custom 404 page
- Custom 500 page
- Custom favicon exists
- Creative review
- Content review by App Dev
  7/7
- Cross browser testing
- Contact forms working
  10/11
- Open Graph tags installed and validate
- Cross site scripting (XSS) check
  1
- W3C - generate report
  1
- Cache breaker exists for all cache-able page items (JS, CSS)

Add a card...

SEO Related ToDos

- robots.txt declared
  2
- Google Analytics installed
  4/4
- sitemap.xml exists and is declared in robots.txt
  2
- perform google site search and check for any URIs are reference the staging URL
- META author tag is removed
- Prevent duplicate H1's / single item category pages

Add a card...

Kentico Specific ToDos

- Rebuild site search index
- Production license installed for production domain
- Site aliases added for production domain and any other domains that resolve to the site
  0/2
- blog - tag group setup within Kentico
- all heavy database calls are cache
- cache keys are unique
- cache is cleared when a custom table item is edited
- cache is cleared when a document item is edited
- extension-less urls
- DLLs should be compiled in release mode
- add apostrophe into illegal url characters (settings)
- change web.config to

Add a card...

Kentico 8.1+

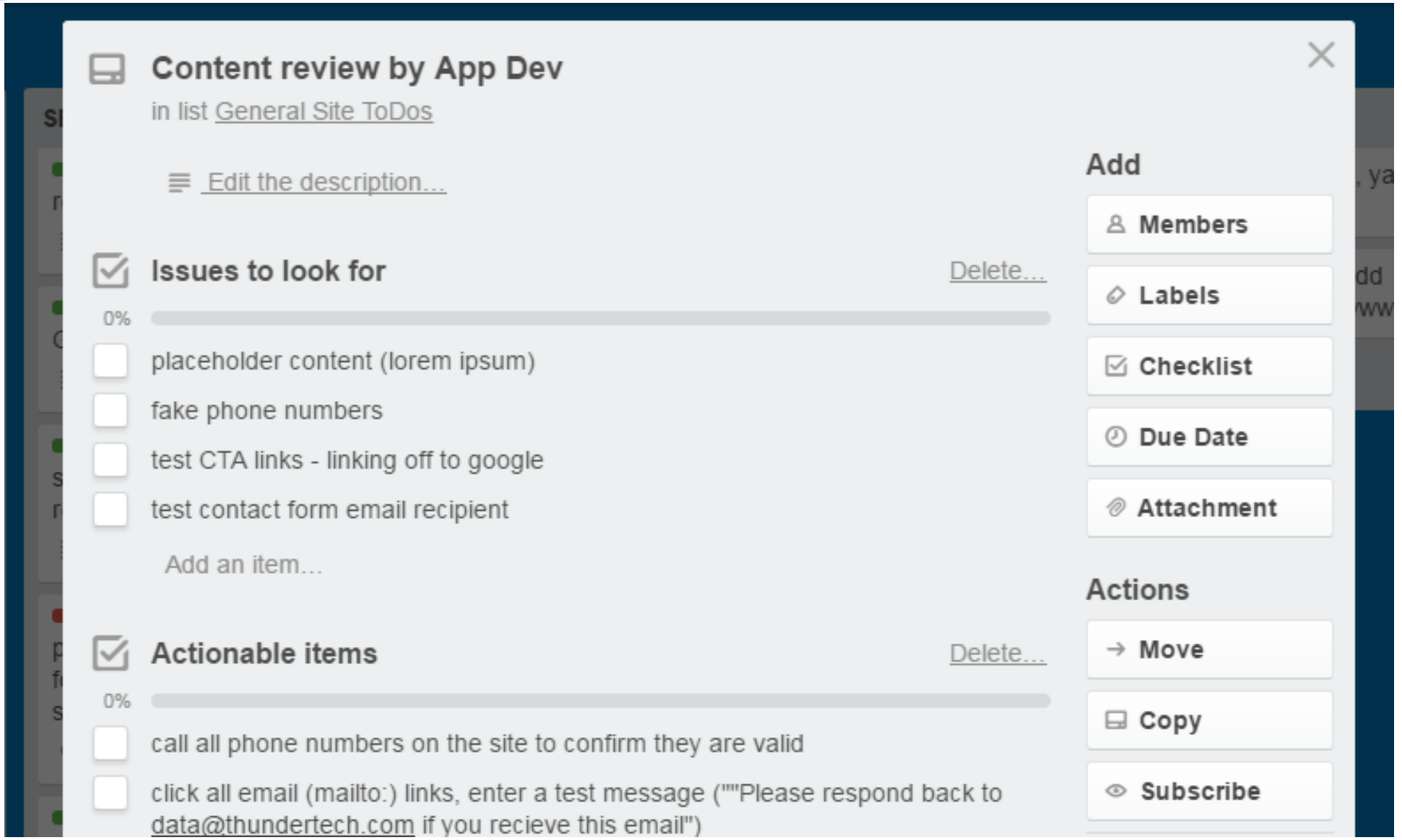
- change to web.config to enable toolbar in wysiwyg
  Feb 13, 2015

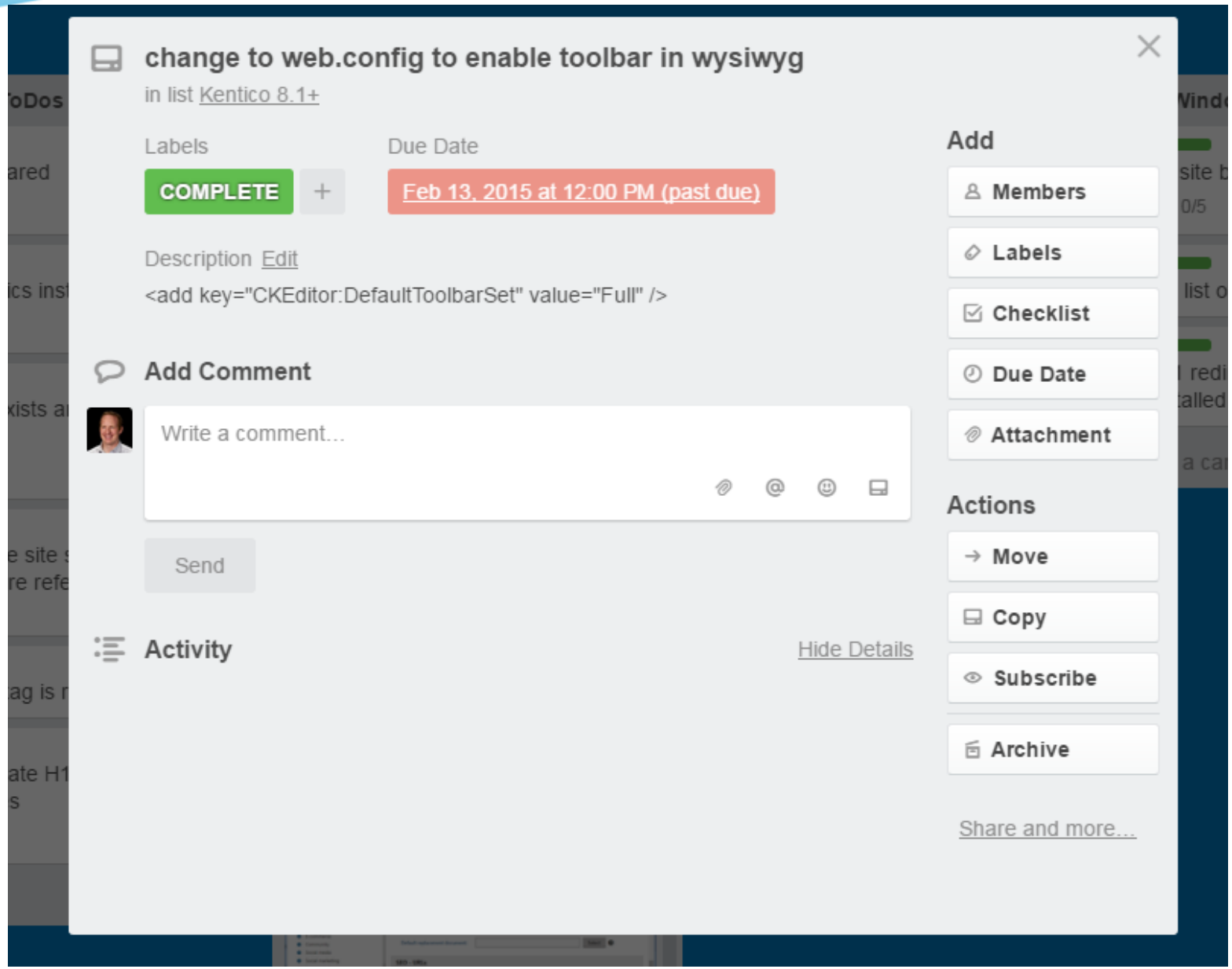
Add a card...

IIS/Windows Specific ToDos

- IIS site bindings added
  0/5
- get list of production domains
- 301 redirect module / url rewrite installed

Add a card...


Content review by App Dev
in list General Site ToDos
Edit the description…
Issues to look for
Delete…
0%
placeholder content (lorem ipsum)
fake phone numbers
test CTA links - linking off to google
test contact form email recipient
Add an item…
Actionable items
Delete…
0%
call all phone numbers on the site to confirm they are valid
click all email (mailto:) links, enter a test message (""Please respond back to data@thundertech.com if you recieve this email")
Add
Members
Labels
Checklist
Due Date
Attachment
Actions
Move
Copy
Subscribe


change to web.config to enable toolbar in wysiwyg
in list Kentico 8.1+
Labels
COMPLETE
Due Date
Feb 13, 2015 at 12:00 PM (past due)
Description Edit
<add key="CKEditor:DefaultToolbarSet" value="Full" />
Add Comment
Write a comment...
Send
Activity
Hide Details
Add
Members
Labels
Checklist
Due Date
Attachment
Actions
Move
Copy
Subscribe
Archive
Share and more...

ET
:tech

production | calendar | relationships | h

Provider: All | Product: All | Location: All | 30 Day Warranty: All | Site Monitoring: All

Company	Provider	Product	Location	30 Day Warranty	Site Monitoring
Youth Opportunities Unlimited	Rackspace	Cloud Site	ORD	Active - Pending Launch	Not Enabled
HealthPro Rehabilitation	Client Hosted	Windows 2012	On-site / In-office	Active - Pending Launch	Enabled - Pending Launch (30
Cleveland City Council	Rackspace	Cloud Server - Windows 2012	Chicago (ORD)	No Warranty	Not Enabled
Nelsen Corporation	Rackspace	Cloud Server - Windows 2012	Chicago (ORD)	Expired 137 day(s) ago	Enabled (30 mins)
Universal Oil	Rackspace	Cloud Server - Windows 2012	Chicago (ORD)	Expired 130 day(s) ago	Enabled (30 mins)
Group Plan Commission	Rackspace	Cloud Server - Windows 2012	Chicago (ORD)	Expired 32 day(s) ago	Enabled (30 mins)
Team Wendy	Rackspace	Cloud Server - Windows 2012	Chicago (ORD)	Expired 42 day(s) ago	Enabled (30 mins)
Lube Stop, The	Rackspace	Cloud Server - Windows 2012	Chicago (ORD)	Expired 7 day(s) ago	Not Enabled

Site24x7

```
public static MonitorInfo CreateMonitor(CreateMonitorInfo monitor)
{
    List<RestSharp.Parameter> requestParams = new List<Parameter>();
    requestParams.Add(new Parameter() { Value = Newtonsoft.Json.JsonConvert.SerializeObject(monitor,

    var mResponse = RESTAPI.BasicPostRequest("/api/monitors", requestParams);

    var response = N                    JsonConvert.DeserializeObject<BaseResponseInfo<MonitorInfo>>(mRes

    if (response == null) throw new Exception("Response was null");
    if (response.code != 0) throw new Exception(string.Format("{0} [{1}]", response.message, respons

    return response.data;
}
```

class Site247.RESTAPI

Application Site Monitoring Summary

Service / Website	Status	Performance (Last 1 hr)	Downtime Details
			00:00 04:00 08:00 12:00 16:00 20:00
1. A.F. Goldenbogen Compa...	↑	276 ms	
2. Adams Lynch site - htt...	↑	312 ms	
3. Adoption Network Site ...	↑	535 ms	
4. AdvancedEPM - http://w...	↑	916 ms	
5. Akron STEM site - http...	↑	606 ms	
6. ALMA - http://www.alma...	↑	1,041 ms	
7. American Psycho - http...	↑	767 ms	
8. Andrews Mobility GTM -...	↑	466 ms	
9. ATCO - http://www.atco...	↑	2,627 ms	
10. BeechBrook Site - http...	↑	1,252 ms	
11. Bob Weber Site - http:...	↑	407 ms	
12. Bottle Solutions Corpo...	↑	686 ms	
13. CCC facilities develop...	↑	526 ms	
14. Chefs Garden - http://...	↑	1,062 ms	
15. City of Strongsville S...	↑	323 ms	
16. Clear Process Solution...	↑	467 ms	
17. Cleveland Beer Week Si...	↑	338 ms	
18. Cleveland City Council...	↑	1,100 ms	

Post Mortems (dark, right?)

- Internal, honest reviews of projects after completion
- Talk through trouble
- Talk through success
- What was learned? What are outliers?
- What should be rolled into process?
- Code takeaways for framework?
- Handle the critic's math

Critic's Math:
1 insult + 1,000 compliments = 1 insult.

Shut up and take my money!

How to present it

- We started to achieve consistency and ability to forecast effort
- Communicate and market the process
- Align and explain expectations with client and production
- Flexibility with modifiers (ADA, 508)
- Routinely review and audit
- Cost + Time
- Costs less to do it right
- Platform 3rd party + service

Tasks	Hours	Description
Templates		
homepage	6	
1 column subpage	2	
2 column subpage	2	
Navigation		
Top Navigation	2	
Breadcrumbs	2	
Sidebar Navigation	2	
Footer Navigation	2	
Blog		
full page listing	3	

Tasks w/o modifiers	Hours	Description
Config / Chores		
success manual creation (support)	2	
success manual copyediting (comms)	1	
staging site config	1	
production site config / migration	1	
QA Checklist (app dev)	2	
QA Checklist (seo)	2	
Meetings		
Client Kick off	2	
Pre Kick off	1	
Post Kick off	1	
App Dev Review	1	
Beta review w/ client	2	
301 redirects (seo)	0	1 hr per 100 pag
Client Training	2	
Site Compliance		
Subtotal (hours)	**18**	

Where else can this apply?

- Content Marketing
- Email Marketing
- App Development
- Web Design
- CRM
- Ecommerce
- Social Media
- Blackjack

Takeaways

Define your steps to quality

Leverage tech and tools to support steps

Regularly incorporate feedback

See success

52
YEARS

thunder::tech

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integrated marketing for a connected world

thundertech.com Email trends@thundertech.com for upcoming Marketing Trends