FATWIRE INTERACT 2010
GLOBAL USER CONFERENCE

Search Engine Optimization Using Content Server

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Agenda

- **Overview of SEO techniques**
  - “Fly Casual”
  - Quality Content
  - Keyword research & placement
  - Avoid redundancy by not repeating yourself
  - Page Structure

- **How FatWire Can Help**
  - Collaborative authoring
  - Asset Modeling
  - Flex Filters & Text Mining
  - Cross-linking, SEO and URLs
  - Template Design Techniques & the GSF
  - Site Map
  - Utilize UGC

- **Discussion**

Part I: An Overview of Selected SEO Topics

Search Engine Optimization is the use of various techniques to improve a web site's ranking and thus attract more visitors

-- Wiktionary

“Fly Casual”

- **Search Engine Optimization = End User Optimization**
  - Make your pages easy for your visitors and search engines will reward you
  - The most compelling pages nearly always rank first
- **Be a good citizen**
  - Don’t bother trying to trick the search engines
  - …they know about you…
  - Google changes its algorithm 500 times per year
- **Know what search engines are trying to do but don’t act like you know how they are doing it**

Quality Content

- **Compelling content always ranks higher**
  - Why do you like the pages you visit every day?
    - It’s about a topic you find interesting
    - You haven’t seen it before
    - Other people with similar interests find it relevant

- **Keep your content fresh and relevant**
  - Fresh content represents your contribution – your value
  - Focus
    - Off-topic rants don’t help your credibility

Keyword Research & Placement

- **Think back to high school**
  - Organize your thoughts into an outline
  - Create a keyword outline
    - Select relevant key words for your content
    - Research their relevance and value
    - If your content is organized, these outlines will coincide
  - Merge your outlines together into a well-crafted, organized article, with keywords sprinkled in appropriate places

Stay On Topic

- Keep the theme of your page consistent & launch new pages for new ideas
- Diluting the theme of your page dilutes its value to your users, and therefore its page rank

I once knew a man who kept talking about things that didn't matter. Boy did that drive me nuts. He was such a character. I'll never forget him. He had brown hair, walked with a limp, and whenever he spoke the strangest thing would happen: His right eye would blink in morse code, spelling out the words He was actually saying

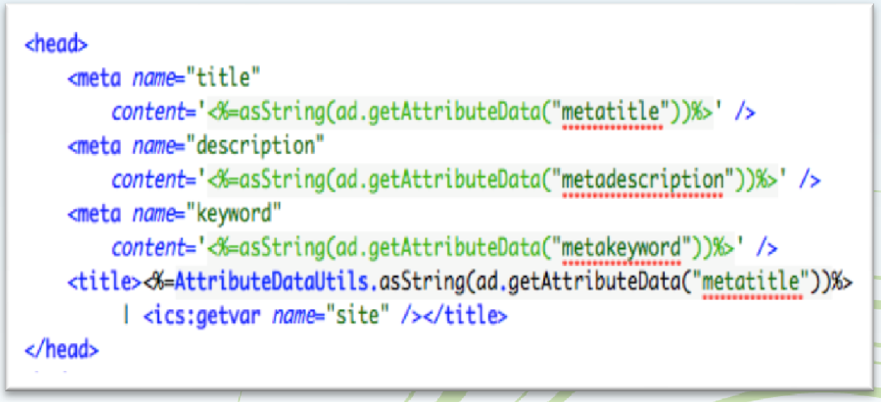
?!?!?

Avoid Dilution and Duplication

- **You will be penalized in the rankings if your content appeared elsewhere and is duplicated without any added value**
  - Even if it’s your own content and both pages are yours (don’t split your own page rank)
- **Avoid having more than one URL for a page**
  - www.fatwire.com vs fatwire.com
  - Printer-friendly URLs
  - Duplicate URLs
  - All of these will dilute your page rank by splitting it among the different URLs

Page Structure

- Craft your markup as thoughtfully as your content
- Use title tags
- Use h1/h2 tags
- Images aren’t read – use alt text
- A word about meta keywords
- Write a good meta description

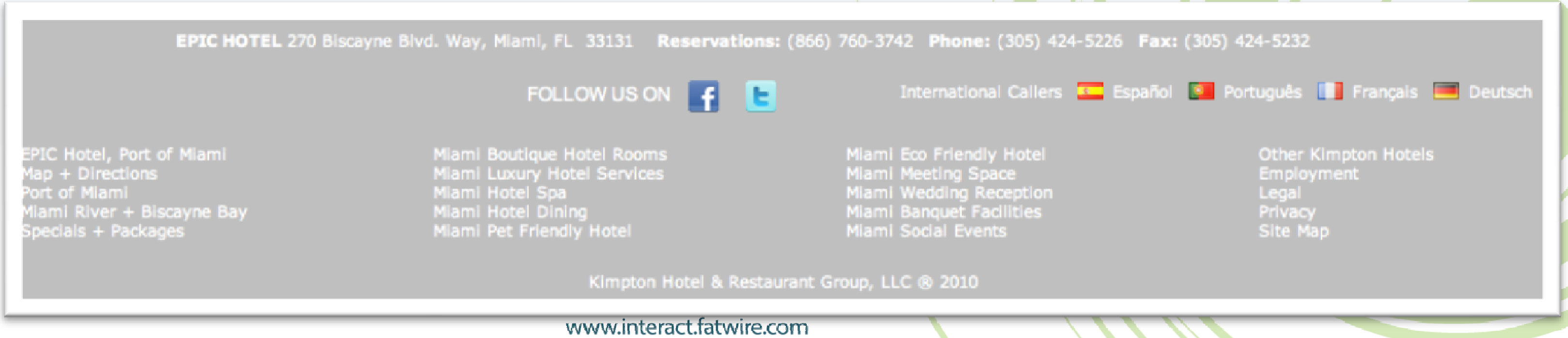


```
<head>
    <meta name="title"
        content='<%=asString(ad.getAttributeData("metatitle"))%>' />
    <meta name="description"
        content='<%=asString(ad.getAttributeData("metadescription"))%>' />
    <meta name="keyword"
        content='<%=asString(ad.getAttributeData("metakeyword"))%>' />
    <title><%=AttributeDataUtils.asString(ad.getAttributeData("metatitle"))%>
        | <ics:getvar name="site" /></title>
</head>
```

Page Structure

- **URLs**
  - Actual URL content
  - Uniqueness
  - URL Shortening Services
- **Links are endorsements**
  - Consider the source!
    - Yourself, a respected site, a link farm…
- **Use a site map page for visitors**
- **Have a sitemap.xml**

- **Show your physical address!**
  - So you can be be accurately placed in local results pages.



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Part II

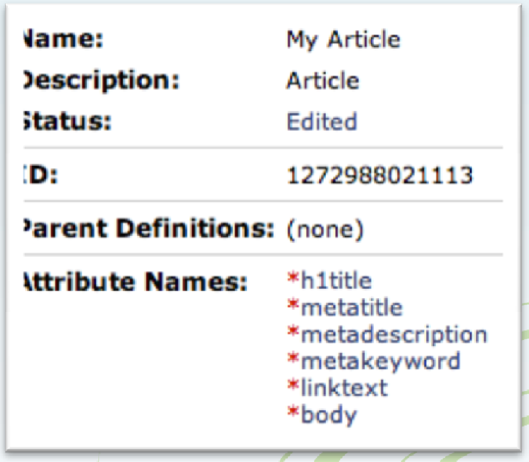
How SEO can be Implemented With FatWire's Software

Write Compelling Content

- Utilize TeamUp to formulate your content and keyword outlines
- Collaborate with others in your organization before writing your copy
- When ready, move content to Content Server

Asset Model

- **Your asset model should capture key data**
  - H1 title
  - Meta desription
  - URL
  - Keywords
  - Link text
  - Tags
- **Define relationships to link to related content**
- **Carefully manage external links as assets so that they can be used strategically**



Name:	My Article
Description:	Article
Status:	Edited
ID:	1272988021113
Parent Definitions:	(none)
Attribute Names:	*h1title *metatitle *metadescription *metakeyword *linktext *body

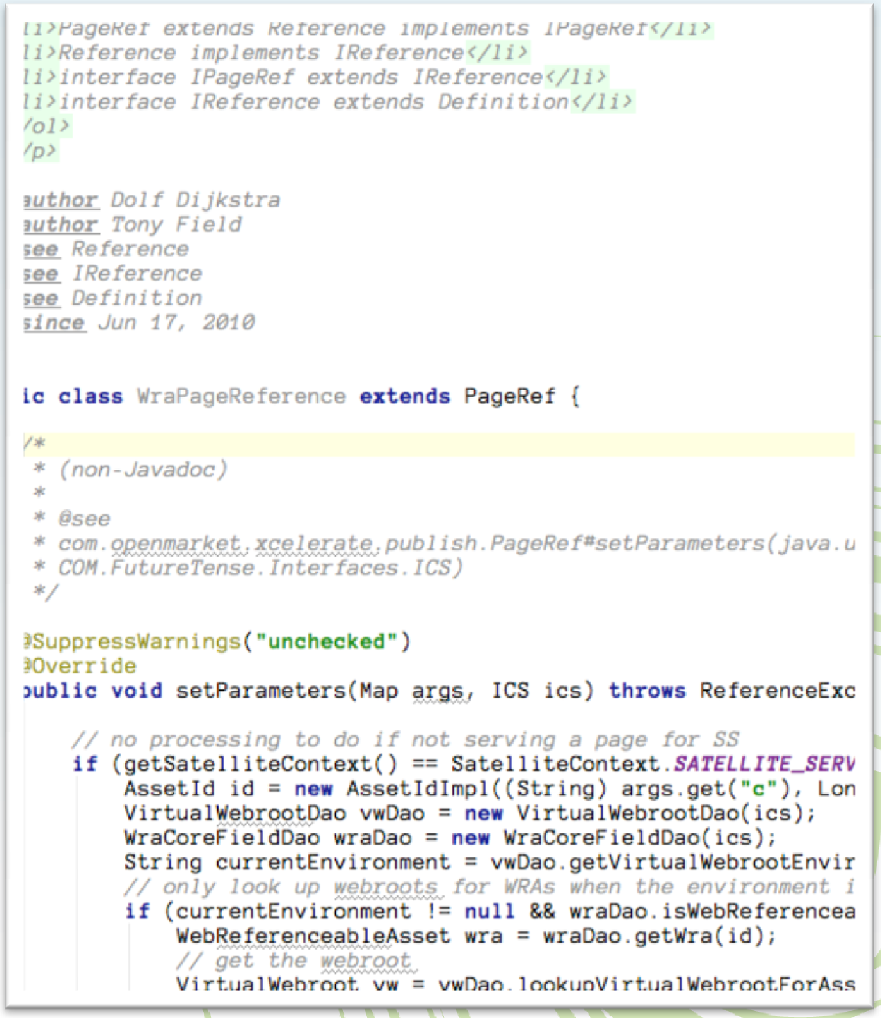
GSF supports all of these out-of-the-box with Web Referenceable Assets, Tagging, and Aliases

Utilize Flex Filters for Automation and Text Mining

- **Users don’t always create their own meta descriptions or identify relevant keywords**
- **A flex filter is called just before a flex asset is saved to the database**
- **Invoke external services to process data and update asset fields**
  - Extract the first 2 sentences for a description
  - Invoke a text mining service to extract keywords
- **Customize the UI to leverage link suggestions**

Link API Improvements

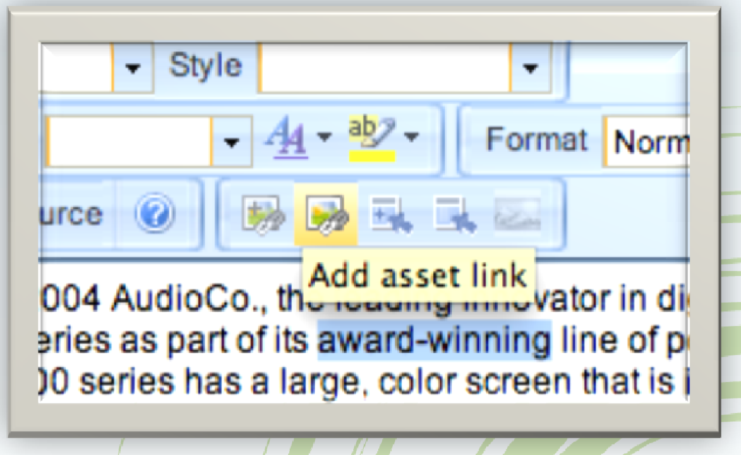
- **In older rendering models, c, cid & p were often required**
    - Users needed to use Link templates to calculate proper links
    - Embedding links in text meant embedding a Link pagelet
    - Linktext had to be passed in
- **Since 7.5.3, we can extend the link calculation mechanism to do this logic in Java**
    - No more Link templates!
    - Enables “highlight and link” in rich text fields



```
li>PageRef extends Reference implements IPageRef</li>
li>Reference implements IReference</li>
li>interface IPageRef extends IReference</li>
li>interface IReference extends Definition</li>
/ol>
/p>

author Dolf Dijkstra
author Tony Field
see Reference
see IReference
see Definition
since Jun 17, 2010


ic class WraPageReference extends PageRef {

/*
 * (non-Javadoc)
 *
 * @see
 * com.openmarket.xcelerate.publish.PageRef#setParameters(java.u
 * COM.FutureTense.Interfaces.ICS)
 */

@SuppressWarnings("unchecked")
@Override
public void setParameters(Map args, ICS ics) throws ReferenceExc

    // no processing to do if not serving a page for SS
    if (getSatelliteContext() == SatelliteContext.SATELLITE_SERV
        AssetId id = new AssetIdImpl((String) args.get("c"), Lon
        VirtualWebrootDao vwDao = new VirtualWebrootDao(ics);
        WraCoreFieldDao wraDao = new WraCoreFieldDao(ics);
        String currentEnvironment = vwDao.getVirtualWebrootEnvir
        // only look up webroots for WRAs when the environment i
        if (currentEnvironment != null && wraDao.isWebReferencea
            WebReferenceableAsset wra = wraDao.getWra(id);
            // get the webroot
            VirtualWebroot vw = vwDao.lookupVirtualWebrootForAss
```

Effective Cross-Linking

- **The introduction of the concept of Web Referenceable Assets in the GSF adds to this**
  - Only one URL per asset
  - Therefore no need to pass “p”
  - *All WRA links are proper, vanity-url-style permalinks*
- **Link generation frustration is history**
- **Editors can link to their own content using keywords they select from their body text, which improves search ranking**



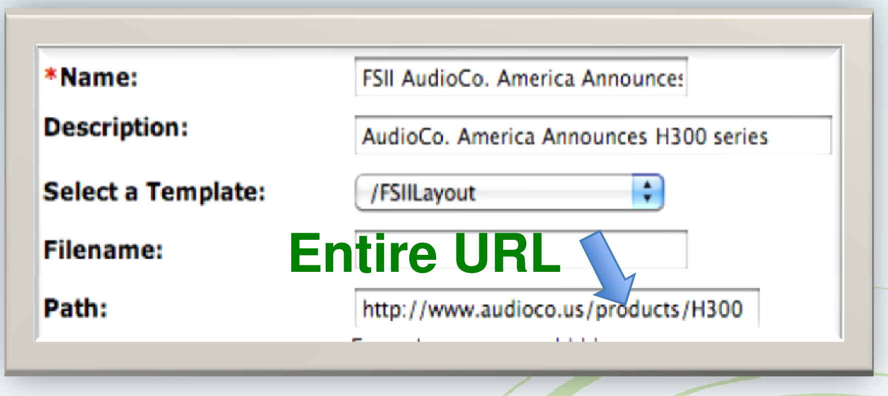
004 AudioCo., the leading innovator in di
eries as part of its award-winning line of p
00 series has a large, color screen that is i

Search Engine-Optimized URLs

- **Fully hand-crafted (vanity) URLs are highly desirable for web marketers**
- **Search engines favor URLs with appropriate keywords in them**
  - Pretty is not essential for search engines, but humans like them
- **URL assemblers introduced this capacity several years ago**
  - Tradeoffs existed
    - Custom code was often required
    - Configuration was tricky
- **This year the GSF introduced the Web Referenceable Asset and associated URL assembly infrastructure**
  - Full vanity URL support is included
  - Complete control is provided simply and transparently to editors

Full Control over URL Format

- The path field now contains the *entire* URL for the WRA as it would be deployed to production
- Smart substitution infrastructure ensures the URL can work on other environments
- Wide open text field?
  - URL must match a pre-registered “Virtual Webroot” prefix
  - Workflow or UI customizations can further restrict editing
  - Auto-suggest URLs based on headline etc.



*Name:	FSII AudioCo. America Announces
Description:	AudioCo. America Announces H300 series
Select a Template:	/FSIILayout
Filename:	
Path:	http://www.audioco.us/products/H300

Entire URL

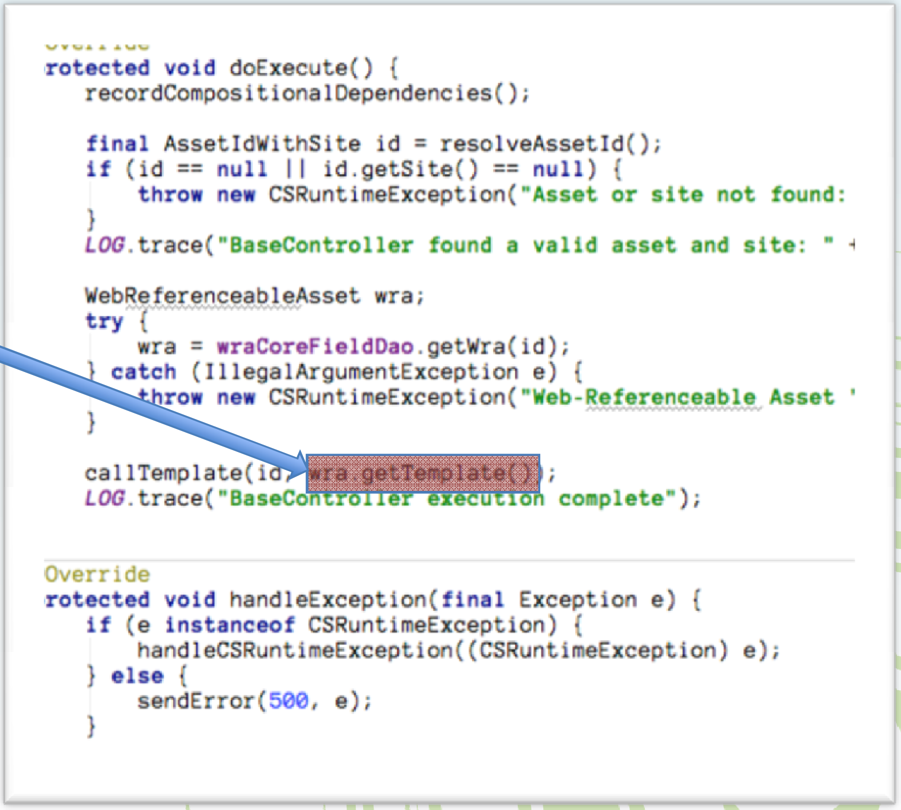
- Customize the path field UI for
  - Auto-suggestion
  - Restriction
  - Full automation

Template Design Techniques

- **Clean template design is difficult when combined with pagelet caching**
  - The FirstSite II rendering model has a Layout template
    - Beyond that, tracing through code to identify which code produced markup is tedious
  - Template layouts that override the standard Layout require special cases that tend to be developer-unfriendly
    - If-then-else blocks
    - Multiple nested layers
  - Maintenance costs of this complex infrastructure outweigh the performance and re-use benefits
- **A simpler, more pragmatic approach was needed!**
  - Use template-dispatching directly from the wrapper (i.e. no Layout!)
  - This is the technique utilized by the GSF

Template Design Techniques & the GSF

- **Rather than avoiding duplicating code at all costs (which are too high), allow some**
- **The WRA specifies its own template & the controller calls it.**
  - Eliminates *Layout* and *Detail dispatcher* layers completely
- **All core layout code moves into the WRA main body template**
  - Everything is visible to the developer in one place
  - Normal caching applies
  - Virtually no tradeoff

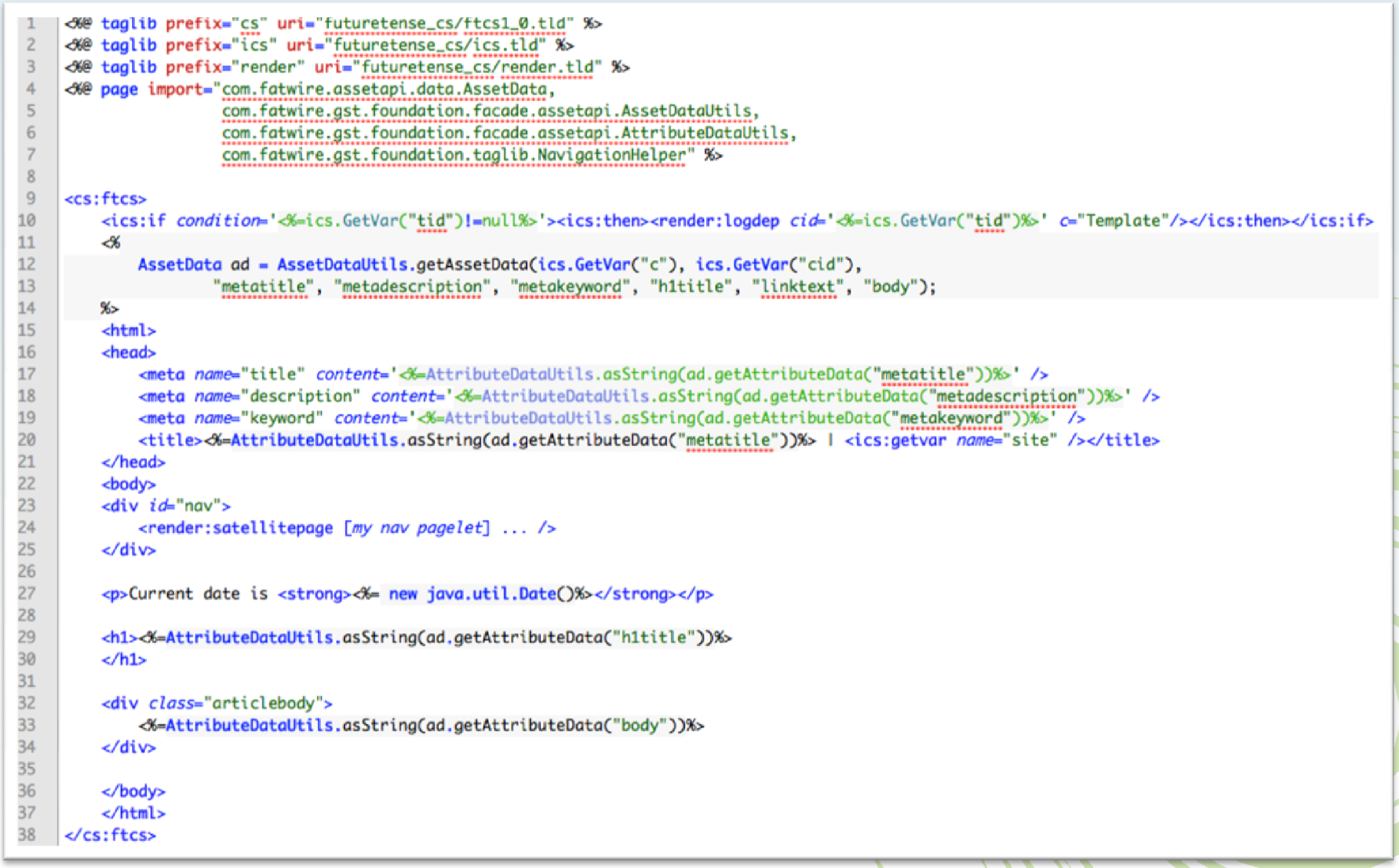


```
Override
rotected void doExecute() {
   recordCompositionalDependencies();

   final AssetIdWithSite id = resolveAssetId();
   if (id == null || id.getSite() == null) {
       throw new CSRuntimeException("Asset or site not found:
   }
   LOG.trace("BaseController found a valid asset and site: " +

   WebReferenceableAsset wra;
   try {
       wra = wraCoreFieldDao.getWra(id);
   } catch (IllegalArgumentException e) {
       throw new CSRuntimeException("Web-Referenceable Asset '
   }

   callTemplate(id, wra.getTemplate());
   LOG.trace("BaseController execution complete");


Override
rotected void handleException(final Exception e) {
   if (e instanceof CSRuntimeException) {
       handleCSRuntimeException((CSRuntimeException) e);
   } else {
       sendError(500, e);
   }
```

Template Design Techniques

- **I know what you're thinking…**
- **"You're telling me I have to duplicate my Layout code!"**
- **Yes. I am.**
  - Weigh the tradeoff:
    - Most sites have 8-20 wireframes
    - Of those, 2-6 are "special"
    - As few as 2 and only as many as 18 end up being duplicated
    - Pagelets are still regularly used for headers, footers, navs, etc.
    - Thus a very small number of lines end up being duplicated, and they are presented very clearly to the developer
- **The maintenance cost for this duplication is *far less* than the cost of maintaining the zero-duplication, complex, nested code.**
- **It is also faster to write it**
- **Simpler templates are more agile and can be adapted to changing needs more quickly… like improved SEO design**

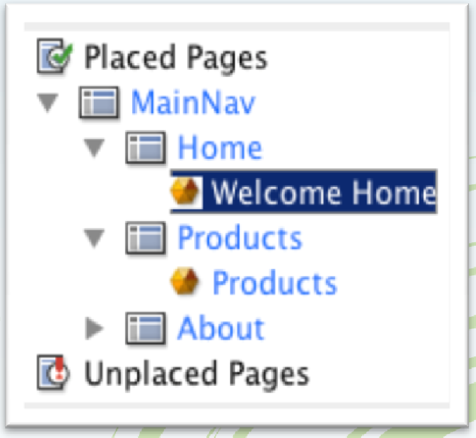
Designing Templates for SEO



```
<%@ taglib prefix="cs" uri="futuretense_cs/ftcs1_0.tld" %>
<%@ taglib prefix="ics" uri="futuretense_cs/ics.tld" %>
<%@ taglib prefix="render" uri="futuretense_cs/render.tld" %>
<%@ page import="com.fatwire.assetapi.data.AssetData,
                 com.fatwire.gst.foundation.facade.assetapi.AssetDataUtils,
                 com.fatwire.gst.foundation.facade.assetapi.AttributeDataUtils,
                 com.fatwire.gst.foundation.taglib.NavigationHelper" %>

<cs:ftcs>
    <ics:if condition='<%=ics.GetVar("tid")!=null%>'><ics:then><render:logdep cid='<%=ics.GetVar("tid")%>' c="Template"/></ics:then></ics:if>
    <%
        AssetData ad = AssetDataUtils.getAssetData(ics.GetVar("c"), ics.GetVar("cid"),
                "metatitle", "metadescription", "metakeyword", "h1title", "linktext", "body");
    %>
    <html>
    <head>
        <meta name="title" content='<%=AttributeDataUtils.asString(ad.getAttributeData("metatitle"))%>' />
        <meta name="description" content='<%=AttributeDataUtils.asString(ad.getAttributeData("metadescription"))%>' />
        <meta name="keyword" content='<%=AttributeDataUtils.asString(ad.getAttributeData("metakeyword"))%>' />
        <title><%=AttributeDataUtils.asString(ad.getAttributeData("metatitle"))%> | <ics:getvar name="site" /></title>
    </head>
    <body>
    <div id="nav">
        <render:satellitepage [my nav pagelet] ... />
    </div>

    <p>Current date is <strong><%= new java.util.Date()%></strong></p>

    <h1><%=AttributeDataUtils.asString(ad.getAttributeData("h1title"))%>
    </h1>

    <div class="articlebody">
        <%=AttributeDataUtils.asString(ad.getAttributeData("body"))%>
    </div>

    </body>
    </html>
</cs:ftcs>
```

Use Site Maps

- Site Maps help users to find pages
- Sitemap.xml files help search engines find pages
- Build your site map from your navigation structure
  - Then handle exceptions
- The Site Plan Tree is a great place to start
- Attach a vanity URL to the sitemap.xml to create a dynamic site map that does not require exporting


Placed Pages
▼ MainNav
▼ Home
Welcome Home
▼ Products
Products
▶ About
Unplaced Pages

Using Community Server to Improve Page Rank

- **If your site's content is not text-based, allow your users to write text for you**
  - UGC in the form of comments, if moderated, can be very effective
- **Community Server, added to pages, can add valuable keywords that help with page rank**
  - Example: YouTube

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Thank You

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