

# Building Accessible Web Applications

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# Overview

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- About accessibility & universal design
- What we're doing
  - Administrative Computing (AdCom)
  - EEE (NACS Academic Web Technologies)
- What you can do today
- Tools & resources

# Accessibility & Universal Design

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- Ensuring that the greatest number of people have access to the information and resources on your website or web application
- Separate content from presentation
- Strive for **universal design** - do it right for everybody and you don't have to address (many) special cases

“... the degree to which a system is usable by as many people as possible.”

-Wikipedia

# What to look for

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- **Images** - define alt attribute on all images
- **Stylesheets** - use CSS to style pages, and keep CSS in its own file
- **Tables** - define column and row headers, don't use for layout
- **Colors** - don't rely on color as the sole indicator
- **Forms** - labels, logical layout
- **Javascript** - use carefully
- **Semantic correctness** - close tags

# What We're Doing / AdCom

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## **AdCom Accessibility Plan**

1. Take inventory
  - how many applications (~30)
  - what type (legacy, vendor)
2. Assess how compliant we currently are
3. Implement GUI templates
4. Prioritize
  - how many users
  - type of users (internal only?)
5. Test

# What We're Doing / AdCom

- Accessibility Plan Checklist (Sample)

<span style="color: blue;">●</span> Incomplete	<span style="color: gray;">—</span> Does not apply to	<span style="color: green;">✓</span> Complete
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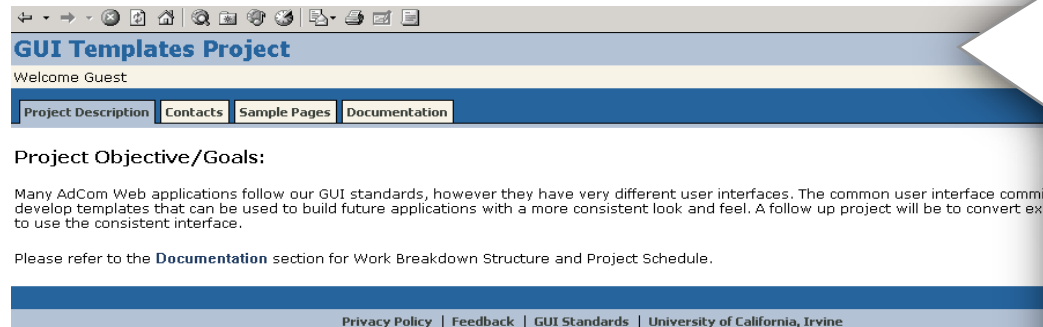
Applicable Areas									
Application	Priority	GUI Template	(1) Images	(2) Style sheets	(3) Tables	(4) Colors	(5) Forms	(6) Javascript	(7) XHTML
Campus Credit Card System	Medium	Yes	✓	✓	●	✓	●	✓	✓
Campus Online Deposit	Low	Yes	✓	✓	●	✓	●	✓	✓
Contacts and Grants Billing System (Accounting Only)	Low	No							
Cost Sharing System	Medium	Yes	●	✓	●	✓	●	✓	✓
Data Warehouse	Medium-High	Yes	✓	✓	●	✓	●	✓	✓

# What We're Doing / AdCom

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- GUI Template Implementation – provides accessible header and footer (stylesheets, icon library, and sample code)

 [http://apps.adcom.uci.edu/GUI\\_Templates](http://apps.adcom.uci.edu/GUI_Templates)



- Skip navigation
- No images
- div tags instead of tables
- Works when stylesheets are disabled

## Next Steps / AdCom

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- Implement template with UC Irvine Communications banner
- Take advantage of the Yahoo User Interface Library (YUI) - <http://developer.yahoo.com/yui/>
- Tackle larger applications
- Provide more samples for programmers
- More testing methods

# What We're Doing / EEE

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- Audience
  - Content creators and content consumers
  - Students and instructors
  - Somewhat challenging and very challenging
- Two phase approach - student tools (consumers), instructor tools (creators)
- Updates assigned as projects
  - Prioritized by importance
  - One tool == one project
  - “HTML” vs. “Code” projects

# What you can do today / Strategy

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- Start developing a strategy
  - Identify audience
  - Identify pages & applications to be updated
  - Determine resources
    - Are you doing it all?
    - Do you have programmers to do some for you?
  - Create a plan of attack

# What you can do today / Making updates

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- Add alt attributes to all images
- Add skip navigation
- Update global content (headers, footers)

# Resources

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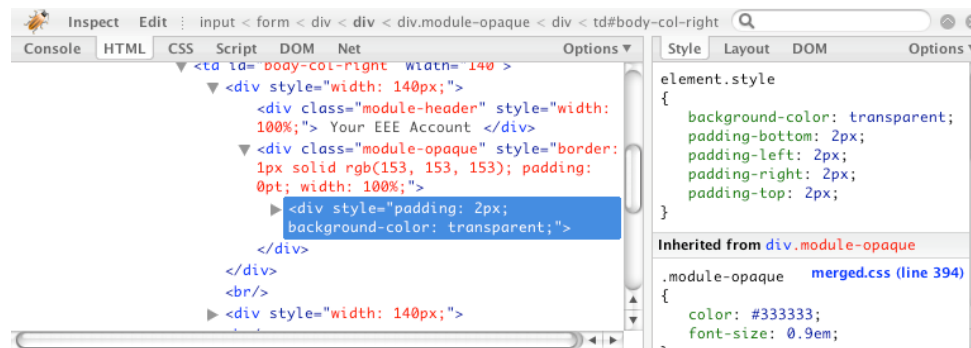
- Section 508 website
  - <http://www.section508.gov/>
- Center for Instructional Technology Accessibility
  - <http://cita.uiuc.edu/>
- Information Technology Technical Assistance & Training Center
  - <http://www.ittatc.org/technical/experts/>
- New York Public Libraries Style Guide
  - <http://www.nypl.org/styleguide/xhtml/index.html>

# Tools - Firefox plugins

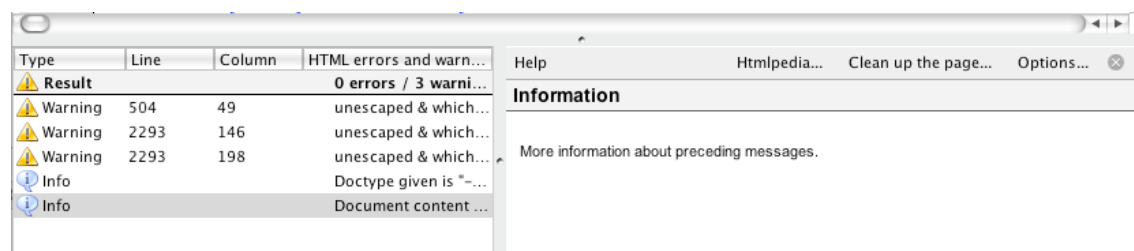
- ICITA Accessibility Toolbar - <http://firefox.cita.uiuc.edu/>



- Firebug - <http://addons.mozilla.org/en-US/firefox/addon/1843>



- HTML Validator - <http://users.skynet.be/mgueury/mozilla/>



# Tools / Functional Accessibility Evaluator

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- <http://fae.cita.uiuc.edu/>
- Created by ICITA (Illinois Center for Instructional Technology Accessibility at the University of Illinois at Urbana/Champaign)
- Uses several resources as guidelines:
  - Section 508
    - <http://www.section508.gov/>
  - W3C Web Content Accessibility Guidelines (WCAG) 1.0
    - <http://www.w3.org/TR/WCAG/>
  - Illinois Web Accessibility Standards
    - <http://www.illinois.gov/iwas/>

# Questions?

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Hopefully we have answers!

For more information,

visit <http://eee.uci.edu/about/accessibility/>

or search for **Accessibility** on <http://snap.uci.edu/>.