

Auditing your site for accessibility: now what?

Caveats

1: Identify

PyOhio

July 29-30, 2017



SAVE THE DATE!:

PyOhio 2018 is July 28 & 29 at The Ohio Union in Columbus, OH.

Come be a part of the *10th Annual PyOhio!*

A **FREE** annual conference at the Ohio Union in Columbus, Ohio for Python programmers in and around Ohio, the entire Midwest, maybe even the whole world.

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PyOhio 2018

The FREE Annual Python Conference in Ohio

PyOhio 2018 is July 28-29, 2018

at [The Ohio Union](#) in Columbus, OH

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1: Identify

Quick and easy method -
browser extensions

- WAVE
- aXe
- Lighthouse

Automation can only catch
about 1/3 of potential
accessibility issues

2: Verify

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What kinds of manual tests can we do?

- Keyboard
- Screen reader

2: Verify

What kinds of manual tests can we do?

- Keyboard
- Screen reader
- Browser zoom
- Touch devices

3: Plan

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Many small changes? Organize
by page or flow

3: Plan

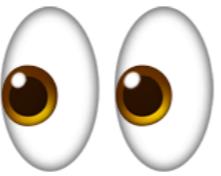
Many small changes? Organize
by page or flow

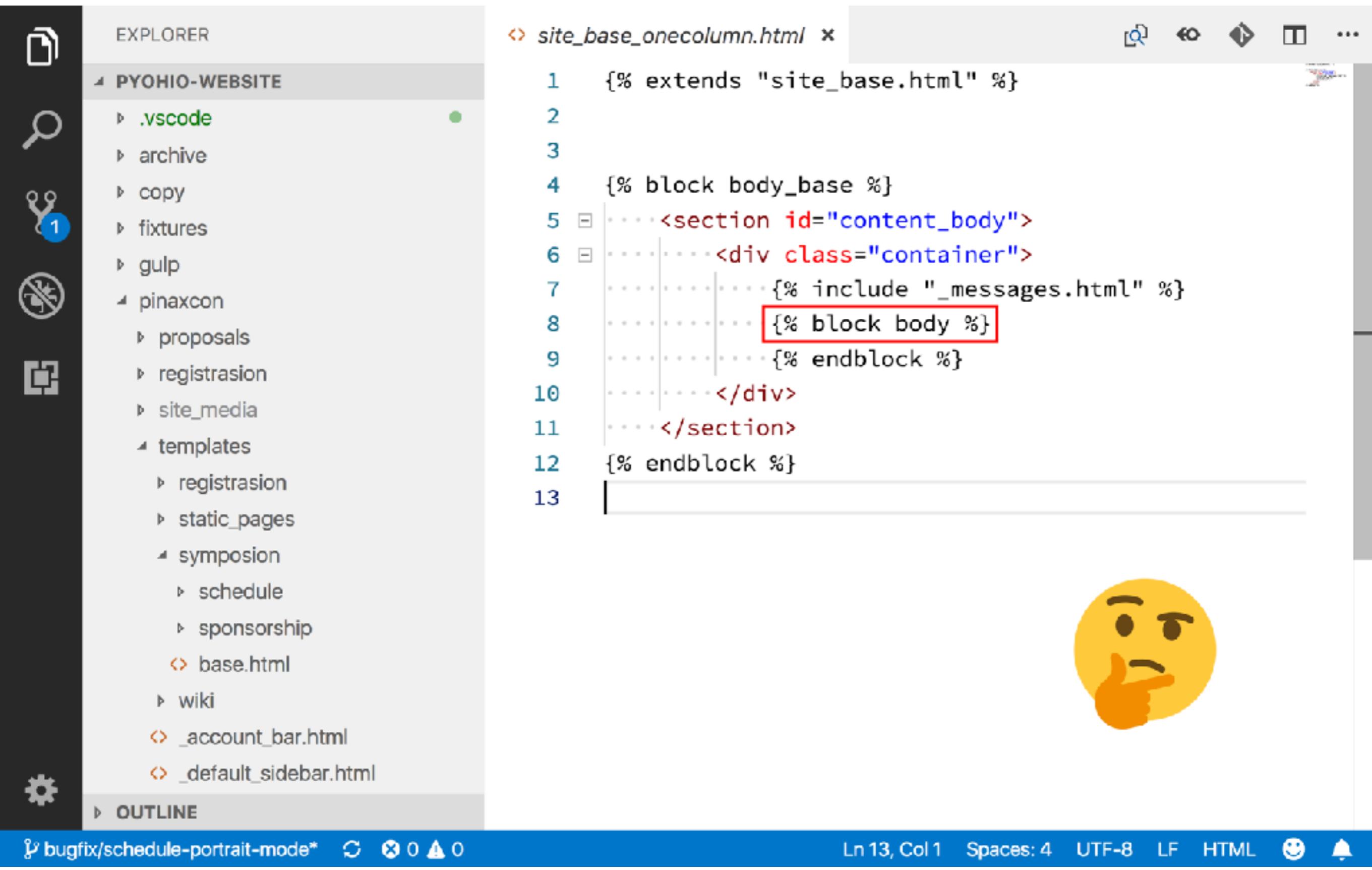
Many large changes?
Incremental updates (long-term
feature branch)

3: Plan

Set goals per release

- Percentage or numeric value of defects closed
- No regressions in a particular area
- 1+ new thing learned per feature





```
1  $(document).ready(function() { ...  
39 } );  
40  
41  function handleHomeAlert() { ...  
48 }  
49  
50  function handleResultNotificationElements() { ...  
61 }  
62  
63  /* ...  
69 |  
70  function handleLoginErrors() { ...  
84 }  
85  
86  function handleSignupErrors() { ...  
118 }  
119  
120  function handleCommonTalkDataForm() { ...  
155 }  
156  
157  function handleAddlSpeakerForm() { ...  
173 }  
174  
175  function handleSponsorErrors() { ...  
201 }  
202
```

```
41  ⊞ function handleHomeAlert() {  
42      .... // Notification for confirmation email sent  
43  
44      .... var banner = $('div.alert');  
45  ⊞ .... if(banner.length) {  
46      .... |.... banner.attr('role', 'alert');  
47      .... }  
48  }  
49
```

```
86  function handleSignupErrors() {
87      var globalError = $('div.alert');
88      var formItems = $('div.form-group');
89
90      // This form is complicated:
91      // * Can have global error
92      // * Can have inline error
93      // * Global doesn't tie direct to input
94      // User potentially has to error twice to hear both.
95      if(globalError.length) {
96          globalError.attr('role', 'alert');
97      }
98
99      if(formItems.length) {
100         formItems.each(function(index) {
101             if($(formItems[index]).hasClass('has-error')) {
102                 var errorMessage = $(formItems[index]).find('span.help-block');
103                 var errorInput = errorMessage.prev();
104
105                 errorInput.attr('aria-invalid', 'true');
106                 errorInput.attr('aria-describedby', errorInput.attr('id') + '-error');
107                 errorMessage.attr('id', errorInput.attr('id') + '-error');
108                 errorMessage.attr('role', 'alert');
109             }
110         });
111     }
112
113     if($('input[aria-invalid]').length) {
114         // Use native focus
115         // Won't work right until reconciled w/ pinax-theme-bootstrap
116         document.querySelector('input[aria-invalid]').focus();
117     }
118 }
```

```

96 97     handleSignifiers
97 98     globalError = $(`div.alert`)
98 99     foreItems = $(`div.form-group`)
99
100    // This form is complicated:
101    // * Can have global error
102    // * Can have inline error
103    // * Global doesn't tie direct to input
104    // User potentially has to error twice to hear both.
105    if(globalError.length) {
106      globalError.attr('role', 'alert')
107    }
108
109    if(foreItems.length) {
110      foreItems.each(function(index) {
111        if(foreItems[index].hasClass('has-error')) {
112          errorMessage = $(foreItems[index]).find('span.help-block')
113          errorInput = errorMessage.prev()
114
115          errorInput.attr('aria-invalid', 'true')
116          errorInput.attr('aria-describedby', errorInput.attr('id') + '-error')
117          errorMessage.attr('id', errorInput.attr('id') + '-error')
118          errorMessage.attr('role', 'alert')
119        }
120      })
121    }
122
123    if($('input[aria-invalid]', length)) {
124      // Use native focus
125      // Won't work right until reconciled w/ gmax-theme-bootstrap
126      document.querySelector('input[aria-invalid]',).focus()
127    }
128

```

```
120  function handleCommonTalkDataForm() {
121    var formItems = $('div.form-group');
122    formItems.each(function(index) {
123      var helpText = $(formItems[index]).find('p.help-block');
124      if($(formItems[index]).hasClass('has-error')) {
125        // Errors may have multiple "help" blocks
126
127        var errorMessage = helpText.prev();
128        var errorInput = errorMessage.prev();
129        var errorID = errorInput.attr('id') + '-error';
130        var helpID = errorInput.attr('id') + '-help';
131
132        errorInput.attr('aria-invalid', 'true');
133        errorInput.attr('aria-describedby', errorID + ' ' + helpID);
134        helpText.attr('id', helpID);
135        errorMessage.attr('id', errorID);
136        errorMessage.attr('role', 'alert');
137      }
138    } else {
139      // Handle help text
140
141      if(helpText) {
142        var prev = helpText.prev();
143
144        // Set up describedby relationship
145        helpText.attr('id', prev.attr('id') + '-help');
146        prev.attr('aria-describedby', helpText.attr('id'));
147      }
148    }
149  });
150
151  if($('input[aria-invalid]').length) {
152    // Use native focus
153    document.querySelector('input[aria-invalid]').focus();
154  }
155}
```



4: Due diligence

4: Due Diligence

- Keep fixing
- Keep testing
- Future proofing

4: Due Diligence

Pa11y

<http://pa11y.org>

Resources

WAVE

<https://wave.webaim.org/about>

Resources

aXe

<https://www.deque.com/axe/>

Resources

Lighthouse

[https://developers.google.com/
web/tools/lighthouse/](https://developers.google.com/web/tools/lighthouse/)

Resources

Pa11y

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