

Proof of Concept

This is a basic working version of the tool that I've wanted to have for the last couple of years: have a student drop a Git commit on to it and it renders out the relevant source code (not just the code changed in the commit, but all the code in the project affected by the commit). Hopefully this gets me closer to being able to use [SpeedGrader](#) in Canvas to mark up student code that has been committed to GitHub!

Seth Battis <seth@battis.net>

12:24 am, Sunday, October 11, 2015

./ OAuthPest.php

```
1 <?php
2
3 class TokenPest extends Pest {
4
5     protected $headers;
6
7     public function __construct($baseUrl, $apiToken) {
8         parent::__construct($baseUrl);
9         $this->setupToken($apiToken);
10    }
11
12    public function setupToken($token, $authorizationPrefix = 'token') {
13        $this->addHeader('Authorization', "$authorizationPrefix $token");
14    }
15
16    public function addHeader($key, $value) {
17        $this->headers[$key] = $value;
18    }
19
20    protected function prepHeaders($headers) {
21        return parent::prepHeaders(array_merge($this->headers, $headers));
22    }
23 }
```

./ common.inc.php

```
1 <?php
2
3 require_once(__DIR__ . '/vendor/autoload.php');
4
5 function html_var_dump($var) {
6     echo '<pre>';
7     var_dump($var);
8     echo '</pre>';
9 }
10
11 $secrets = simplexml_load_string(file_get_contents('secrets.xml'));
12
13 $smarty = StMarksSmarty::getSmarty(true, __DIR__ . '/templates');
14
15 $github = new TokenPest("https://api.github.com", (string) $secrets->github->token);
16 $github->addHeader('User-Agent', 'github-presenter');
17
18 ?>
```

./ composer.json

```
1 {
2   "name": "battis/github-presenter",
3   "description": "Present the source code in the tree of a Git commit as a single web page",
4   "require": {
5     "smtech/stmarkssmarty": "dev-master",
6     "educoder/pest": "dev-master",
7     "geshi/geshi": "dev-master",
8     "michelf/php-markdown": "~1.5"
9   },
10  "license": "GPL-3.0",
11  "authors": [
12    {
13      "name": "Seth Battis",
14      "email": "seth@battis.net"
15    }
16  ],
17  "minimum-stability": "dev",
18  "autoload": {
19    "classmap": [""]
20  }
21 }
22
```

./ index.php

```
1 <?php
2
3 header('Location: presenter.php');
4
5 ?>
```

./ presenter.php

```

1 <?php
2
3 require_once('common.inc.php');
4
5 define('STEP_COMMIT', 1);
6 define('STEP_FILES', 2);
7 define('STEP_DISPLAY', 3);
8
9 function isInvisible($path) {
10     return empty($_REQUEST['ignore_invisible']) || ($_REQUEST['ignore_invisible'] && !preg_match('%^(\\.|\\.*)|(.\\.)$')) ;
11 }
12
13 function isFiltered($filename) {
14     return empty($_REQUEST['enable_filter']) || ($_REQUEST['enable_filter'] && preg_match("%{$_REQUEST['regex_f']}"));
15 }
16
17 $step = (empty($_REQUEST['step']) ? STEP_COMMIT : $_REQUEST['step']);
18
19 switch($step) {
20
21     case STEP_DISPLAY:
22
23         $commit = json_decode(
24             $github->get($_REQUEST['commit']),
25             true
26         );
27         $commit['message'] = \Michelf\Markdown::defaultTransform('#' . $commit['message']);
28         $smarty->assign('commit', $commit);
29
30         $files = array();
31         foreach ($_REQUEST['files'] as $spath => $url) {
32             $blob = json_decode($github->get($url), true);
33             $geshi = new GeSHi(base64_decode($blob['content']), preg_replace('/^.*\.(\w+)$/', '$1', $path));
34             $geshi->set_header_type(GESHI_HEADER_PRE_TABLE);
35             $geshi->enable_line_numbers(GESHI_FANCY_LINE_NUMBERS);
36
37             $files[$spath] = array(
38                 'filename' => basename($spath),
39                 'path' => dirname($spath),
40                 'content' => $geshi->parse_code()
41             );
42         }
43
44         $smarty->assign('files', $files);
45         $smarty->display('display.tpl');
46
47         break;
48
49     case STEP_FILES:
50
51         /* get the commit information */
52         $commit = json_decode(
53             $github->get(
54                 preg_replace(
55                     '%^https://github.com/(.*)/commit/(.*)$',
56                     'repos/$1/commits/$2',
57                     $_REQUEST['commit_url']
58                 )
59             ),
60             true
61         );
62
63         /* get the commit tree */
64         $commitTree = json_decode(
65             $github->get(
66                 preg_replace(
67                     '%^https://github.com/(.*)/commit/(.*)$',
68                     'repos/$1/git/trees/$2',
69                     $_REQUEST['commit_url']
70                 ),
71                 array(
72                     'recursive' => true
73                 )
74             ),
75             true
76         );
77
78         /* make a list of changed subdirectories of the root (i.e. Eclipse projects) */
79         $changes = array();
80         foreach ($commit['files'] as $file) {

```

```

81         if (isInvisible($file['filename'])) {
82             if(isFiltered(basename($file['filename']))) {
83                 $parts = explode('/', $file['filename']);
84                 if (!in_array($parts[0], $changes)) {
85                     $changes[] = $parts[0];
86                 }
87             }
88         }
89     }
90
91     /* make a list of viewable files in the commit tree */
92     $tree = array();
93     $currentDir = '@';
94     foreach ($commitTree['tree'] as $leaf) {
95         if (isInvisible($leaf['path'])) {
96             if(isFiltered(basename($leaf['path']))) {
97                 $parts = explode('/', dirname($leaf['path']));
98                 $leaf['changed'] = in_array($parts[0], $changes);
99                 $leaf['filename'] = basename($leaf['path']);
100                 $leaf['path_parts'] = $parts;
101                 $tree[$leaf['path']] = $leaf;
102             }
103         }
104     }
105
106     $commit['commit']['message'] = \Michelf\Markdown::defaultTransform('### ' . $commit['commit']['mess
107     $smarty->assign('commit', $commit['commit']);
108     $smarty->assign('tree', $tree);
109     $smarty->assign('formTemplate', 'files.tpl');
110     $smarty->assign('formHidden', array('step' => STEP_DISPLAY));
111     $smarty->display('picker.tpl');
112     break;
113
114 case STEP_COMMIT:
115 default;
116
117     $smarty->assign('formTemplate', 'commit.tpl');
118     $smarty->assign('formHidden', array('step' => STEP_FILES));
119     $smarty->display('picker.tpl');
120 }
121
122 ?>

```

templates/ **commit.tpl**

```
1 <div class="container">
2     <div class="readable-width">
3         <input name="commit" type="hidden" value="{ $commit['url'] }" />
4
5         { $commit['message'] }
6
7         <p>{ $commit['author']['name'] } <small>&lt;{ $commit['author']['email'] }&gt;</small><br />
8         { date('g:i a, l, F j, Y', strtotime($commit['author']['date'])) }</p>
9     </div>
10 </div>
```


templates/ display.tpl

```
1 <html>
2   <head>
3     <style>
4       @page {
5         size: letter;
6         margin: 1in;
7       }
8
9       @media print {
10        .page {
11          page-break-after: always;
12        }
13      }
14
15      @media screen {
16        .page {
17          margin: 1in;
18        }
19      }
20
21      body {
22        font-family: Helvetica, Arial, sans-serif;
23      }
24
25      small {
26        color: #ccc;
27        font-weight: normal;
28      }
29    </style>
30  </head>
31  <body>
32    <div class="page">
33      {include file="commit.tpl"}
34    </div>
35
36    {foreach $files as $file}
37      <div class="page">
38        <h1><small>{$file['path']}</small> {$file['filename']}</h1>
39
40        {$file['content']}
41      </div>
42    {/foreach}
43  </body>
44 </html>
```

templates/ **navigation-menu.tpl**

```
1 {block name="navigation-menu"}{/block}
```

templates/ **picker.tpl**

```
1 {extends file="subpage.tpl"}
2
3 {block name="subcontent"}
4
5     {include file="picker/$formTemplate"}
6
7 {/block}
```

templates/ **presenter**

templates/presenter/ **commit.tpl**

```
1 {extends file="form.tpl"}
2
3 {block name="form-content"}
4
5     <div class="form-group">
6         <label for="commit_url" class="control-label col-sm-{$formLabelWidth}">Commit URL</label>
7         <div class="col-sm-{12 - $formLabelWidth}">
8             <input id="commit_url" name="commit_url" type="text" class="form-control" placeholder="https
9                 <p class="help-block">Paste the URL of your commit from the GitHub history page</p>
10             </div>
11         </div>
12
13     <div class="form-group">
14         <div class="col-sm-offset-{$formLabelWidth}">
15             <div class="checkbox">
16                 <label for="ignore_invisible">
17                     <input id="ignore_invisible" name="ignore_invisible" type="checkbox" value="
18                         Ignore &ldquo;invisible&rdquo; <code>.files</code>
19                 </label>
20             </div>
21         </div>
22     </div>
23
24     <div class="form-group">
25         <label for="regex_filter" class="control-label col-sm-{$formLabelWidth}">Filter RegEx</label>
26         <div class="col-sm-{12 - 2 * $formLabelWidth}">
27             <input id="regex_filter" name="regex_filter" type="text" class="form-control" placeholder="
28         </div>
29         <div class="checkbox">
30             <label for="enable_filter">
31                 <input id="enable_filter" name="enable_filter" type="checkbox" value="true" checked=
32                 Enable filename filtering
33             </label>
34         </div>
35     </div>
36
37     {assign var="formButton" value="Choose Files"}
38
39 {/block}
```

templates/presenter/ files.tpl

```
1 {extends file="form.tpl"}
2
3 {block name="form-content"}
4     <style>
5         .path {
6             font-size: smaller;
7         }
8
9         .path.dir {
10             color: gray;
11         }
12
13         .path.dir.project {
14             color: black;
15             font-size: medium;
16         }
17
18         .path.file {
19             color: black;
20             font-size: medium;
21         }
22     </style>
23
24     {include file="commit.tpl"}
25
26     <div class="form-group">
27         <button type="submit" class="btn btn-primary has-spinner">Display Commit <span class="spinner"><i cl
28     </div>
29
30     {foreach $tree as $leaf}
31         <div class="form-group">
32             <div class="checkbox">
33                 <label for="{ $leaf['sha'] }">
34                     <input id="{ $leaf['sha'] }" name="files[{ $leaf['path'] }]" type="checkbox" val
35                     {assign var="first" value=true}
36                     {foreach $leaf['path_parts'] as $part}
37                         <span class="path dir {if $first}project{$first = false}{/if}">{$par
38                     {/foreach}
39                     <span class="path file">{$leaf['filename']}</span>
40                 </label>
41             </div>
42         </div>
43     {/foreach}
44
45     {assign var="formButton" value="Display Files"}
46
47 {/block}
48
49 {block name="form-buttons"}{/block}
```

