



# Web Application Report

This report includes important security information about your web application.

## Security Report

This report was created by IBM Security AppScan Standard 9.0.0.1, Rules: 1755  
Scan started: 7/1/2015 10:24:56 AM

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## Fix Recommendations

- Always use SSL and POST (body) parameters when sending sensitive information.
- Disable WebDAV, or disallow unneeded HTTP methods
- Enforce account lockout after several failed login attempts
- Correctly set the "autocomplete" attribute to "off"
- Remove business and security logic from the client side
- Remove e-mail addresses from the website
- Remove old versions of files from the virtual directory
- Remove the Bash shell history file or restrict access to it
- Verify that parameter values are in their expected ranges and types. Do not output debugging error messages and exceptions

## Advisories

- Unencrypted Login Request
- Inadequate Account Lockout
- Insecure HTTP Methods Enabled
- Alternate Version of File Detected
- Archive File Download
- Autocomplete HTML Attribute Not Disabled for Password Field
- Bash Shell History File Retrieval
- Temporary File Download
- Application Error
- Client-Side (JavaScript) Cookie References
- Email Address Pattern Found

## Application Data

- Cookies
- JavaScripts
- Parameters
- Comments
- Visited URLs
- Failed Requests
- Filtered URLs

# Introduction

This report contains the results of a web application security scan performed by IBM Security AppScan Standard.

High severity issues:	2
Medium severity issues:	2
Low severity issues:	9
Informational severity issues:	9
Total security issues included in the report:	22
Total security issues discovered in the scan:	22

## General Information

Scan file name:	openFda
Scan started:	7/1/2015 10:24:56 AM
Test policy:	Default
Host	openfda.wasoftware.com
Operating system:	Unknown
Web server:	Apache
Application server:	Any

## Login Settings

Login method:	Recorded login
Concurrent logins:	Enabled
JavaScript execution:	Disabled
In-session detection:	Enabled
In-session pattern:	>Logout<
Tracked or session ID cookies:	JSESSIONID
Tracked or session ID parameters:	[JSESSIONID] [JSESSIONID]
Login sequence:	<pre>http://openfda.wasoftware.com/OpenFDA/ http://openfda.wasoftware.com/OpenFDA/css/webicons- master/webicons.scss;jsessionid=AB992C477E84B673AB3721CC09C19B70 http://fonts.gstatic.com/s/lato/v11/KT3KS9Ao14WfR6Vas8kNcg.woff http://fonts.gstatic.com/s/lato/v11/9k-RPmcnxYEPm8CNFsH2gg.woff http://fonts.gstatic.com/s/lato/v11/wkfQbvft_02e2IWO3yYueQ.woff http://openfda.wasoftware.com/OpenFDA/j_spring_security_check;jsessi onid=AB992C477E84B673AB3721CC09C19B70 http://openfda.wasoftware.com/OpenFDA/welcome</pre>

<http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons.scss>

# Issues Sorted by Issue Type

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Unencrypted Login Request 2

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## Unencrypted Login Request

Severity: **High**

URL: [http://openfda.wasoftware.com/OpenFDA/j\\_spring\\_security\\_check](http://openfda.wasoftware.com/OpenFDA/j_spring_security_check)

Entity: [j\\_spring\\_security\\_check](#) (Page)

Risk: It may be possible to steal user login information such as usernames and passwords that are sent unencrypted

Causes: Sensitive input fields such as usernames, password and credit card numbers are passed unencrypted

Fix: [Always use SSL and POST \(body\) parameters when sending sensitive information.](#)

**Reasoning:** AppScan identified a login request that was not sent over SSL.

### Original Request

```
j_username=user1&j_password=123456&submit=Submit
```

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## Unencrypted Login Request

**Severity:** High

**URL:** http://openfda.wasoftware.com/OpenFDA/j\_spring\_security\_check

**Entity:** j\_password (Parameter)

**Risk:** It may be possible to steal user login information such as usernames and passwords that are sent unencrypted

**Causes:** Sensitive input fields such as usernames, password and credit card numbers are passed unencrypted

**Fix:** Always use SSL and POST (body) parameters when sending sensitive information.

**Reasoning:** AppScan identified a password parameter that was not sent over SSL.

### Original Request

```
...

Content-Type: application/x-www-form-urlencoded
Cookie: JSESSIONID=5E020F4F71F969AB063488761FFE6683
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/?language=en
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)
Content-Length: 48

j_username=user16&j_password=123456&submit=Submit

HTTP/1.1 302 Found
Server: Apache-Coyote/1.1
Location: http://openfda.wasoftware.com/OpenFDA/welcome
Content-Length: 0
Date: Wed, 01 Jul 2015 14:25:51 GMT
Set-Cookie: JSESSIONID=CCE6C267D29698358F90DBF19FE2D2E9; Path=/OpenFDA/; HttpOnly

...
```

M

## Inadequate Account Lockout 1

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## Inadequate Account Lockout

Severity: Medium

URL: [http://openfda.wasoftware.com/OpenFDA/j\\_spring\\_security\\_check](http://openfda.wasoftware.com/OpenFDA/j_spring_security_check)

Entity: j\_password (Parameter)

**Risk:** It might be possible to escalate user privileges and gain administrative permissions over the web application**Causes:** Insecure web application programming or configuration**Fix:** [Enforce account lockout after several failed login attempts](#)

**Reasoning:** Two legitimate login attempts were sent, with several false login attempts in between. The last response was identical to the first. This suggests that there is inadequate account lockout enforcement, allowing brute-force attacks on the login page. (This is true even if the first response was not a successful login page.)

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## Insecure HTTP Methods Enabled 1

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## Insecure HTTP Methods Enabled

Severity: Medium

URL: <http://openfda.wasoftware.com/OpenFDA/>

Entity: OpenFDA/ (Page)

**Risk:** It is possible to upload, modify or delete web pages, scripts and files on the web server**Causes:** The web server or application server are configured in an insecure way**Fix:** [Disable WebDAV, or disallow unneeded HTTP methods](#)



**Reasoning:** The Allow header revealed that hazardous HTTP Options are allowed, indicating that WebDAV is enabled on the server.

**Raw Test Response:**

```
...

Cookie: JSESSIONID=73708CEB06DC5193BCC66E2BE0BA1F55
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Allow: GET, HEAD, POST, PUT, DELETE, TRACE, OPTIONS, PATCH
Content-Length: 0
Date: Wed, 01 Jul 2015 15:11:22 GMT

...
```

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## Alternate Version of File Detected

Severity: Low

URL: http://openfda.wasoftware.com/OpenFDA/j\_spring\_security\_check

Entity: j\_spring\_security\_check (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations**Causes:** Temporary files were left in production environment**Fix:** Remove old versions of files from the virtual directory

**Reasoning:** AppScan requested a file which is probably not a legitimate part of the application. The response status was 200 OK. This indicates that the test succeeded in retrieving the content of the requested file.

**Raw Test Response:**

```
...
GET /OpenFDA/.j_spring_security_check HTTP/1.1
Cookie: JSESSIONID=2D534DDB6FA195029FF02D5673D07792
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/?language=en
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 15:09:41 GMT
...
```

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## Alternate Version of File Detected

Severity: Low

URL: http://openfda.wasoftware.com/OpenFDA/login

Entity: login (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations**Causes:** Temporary files were left in production environment**Fix:** Remove old versions of files from the virtual directory

**Reasoning:** AppScan requested a file which is probably not a legitimate part of the application. The response status was 200 OK. This indicates that the test succeeded in retrieving the content of the requested file.

Raw Test Response:

```
...
GET /OpenFDA/.login HTTP/1.1
Cookie: JSESSIONID=9709B154BA8CC290D072D9506D05113F
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/j_spring_security_check
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html;charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 15:09:41 GMT

...
```

Alternate Version of File Detected	
Severity:	Low
URL:	http://openfda.wasoftware.com/OpenFDA/welcome
Entity:	welcome (Page)
Risk:	It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations
Causes:	Temporary files were left in production environment
Fix:	Remove old versions of files from the virtual directory

**Reasoning:** AppScan requested a file which is probably not a legitimate part of the application. The response status was 200 OK. This indicates that the test succeeded in retrieving the content of the requested file.

Raw Test Response:

```
...
GET /OpenFDA/.welcome HTTP/1.1
Cookie: JSESSIONID=9709B154BA8CC290D072D9506D05113F
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/j_spring_security_check
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html;charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 15:09:41 GMT

...
```

**Archive File Download****Severity:** Low**URL:** http://openfda.wasoftware.com/OpenFDA/welcome**Entity:** welcome (Page)**Risk:** It is possible to download temporary script files, which can expose the application logic and other sensitive information such as usernames and passwords**Causes:** Temporary files were left in production environment**Fix:** [Remove old versions of files from the virtual directory](#)

**Reasoning:** The test tried to retrieve a source code file. The fact that the response did not yield an error, and contained non-HTML contents, indicates that the source code retrieval succeeded.

**Raw Test Response:**

```
...
GET /OpenFDA/welcome.arc HTTP/1.1
Cookie: JSESSIONID=9709B154BA8CC290D072D9506D05113F
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/j_spring_security_check
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6610
Date: Wed, 01 Jul 2015 15:10:33 GMT

...
```

**Archive File Download****Severity:** Low**URL:** http://openfda.wasoftware.com/OpenFDA/login**Entity:** login (Page)**Risk:** It is possible to download temporary script files, which can expose the application logic and other sensitive information such as usernames and passwords**Causes:** Temporary files were left in production environment**Fix:** [Remove old versions of files from the virtual directory](#)

**Reasoning:** The test tried to retrieve a source code file. The fact that the response did not yield an error, and contained non-HTML contents, indicates that the source code retrieval succeeded.

**Raw Test Response:**

```
...
GET /OpenFDA/login.arc HTTP/1.1
Cookie: JSESSIONID=9709B154BA8CC290D072D9506D05113F
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/j_spring_security_check
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 200 OK
```

```
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 15:09:41 GMT
```

...

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## Autocomplete HTML Attribute Not Disabled for Password Field 1

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### Autocomplete HTML Attribute Not Disabled for Password Field

Severity: Low

URL: http://openfda.wasoftware.com/OpenFDA/

Entity: (Page)

Risk: It may be possible to bypass the web application's authentication mechanism

Causes: Insecure web application programming or configuration

Fix: Correctly set the "autocomplete" attribute to "off"

**Reasoning:** AppScan has found that a password field does not enforce the disabling of the autocomplete feature.

**Raw Test Response:**

```
GET /OpenFDA/ HTTP/1.1
Cookie: JSESSIONID=DE9C81E8EE4EDAF26F371F10C198E62A
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)
```

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 14:25:14 GMT
```

...

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## Bash Shell History File Retrieval 1

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## Bash Shell History File Retrieval

Severity: **Low**

URL: <http://openfda.wasoftware.com/OpenFDA/>

Entity: [.bash\\_history](#) (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

**Causes:** The web server or application server are configured in an insecure way

**Fix:** [Remove the Bash shell history file or restrict access to it](#)

**Reasoning:** AppScan requested a file which is probably not a legitimate part of the application. The response status was 200 OK. This indicates that the test succeeded in retrieving the content of the requested file.

### Test Request:

```
GET /OpenFDA/.bash_history HTTP/1.1
Cookie: JSESSIONID=73708CEB06DC5193BCC66E2BE0BA1F55
Accept-Language: en-US
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0;
WOW64; Trident/5.0)
```

### Test Response

```
...
GET /OpenFDA/.bash_history HTTP/1.1
Cookie: JSESSIONID=73708CEB06DC5193BCC66E2BE0BA1F55
Accept-Language: en-US
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0;
WOW64; Trident/5.0)
```

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 15:09:41 GMT
```

...

## L Temporary File Download 2

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## Temporary File Download

Severity: **Low**

URL: <http://openfda.wasoftware.com/OpenFDA/login>

Entity: [login](#) (Page)

**Risk:** It is possible to download temporary script files, which can expose the application logic and other sensitive information such as usernames and passwords

**Causes:** Temporary files were left in production environment

**Fix:** [Remove old versions of files from the virtual directory](#)

**Reasoning:** The test tried to retrieve a source code file. The fact that the response did not yield an error, and contained non-HTML contents, indicates that the source code retrieval succeeded.

### Raw Test Response:

```
...
GET /OpenFDA/login.old HTTP/1.1
Cookie: JSESSIONID=D3B191DFD12A2BDD62D19C16523FC55C
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
```

```
Referer: http://openfda.wasoftware.com/OpenFDA/j_spring_security_check
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)
```

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6275
Date: Wed, 01 Jul 2015 15:22:45 GMT
Set-Cookie: JSESSIONID=1AD0EF5F600C145BD5F401EF34108A2E; Path=/OpenFDA/; HttpOnly
```

...

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### Temporary File Download

**Severity:** Low

**URL:** http://openfda.wasoftware.com/OpenFDA/welcome

**Entity:** welcome (Page)

**Risk:** It is possible to download temporary script files, which can expose the application logic and other sensitive information such as usernames and passwords

**Causes:** Temporary files were left in production environment

**Fix:** Remove old versions of files from the virtual directory

**Reasoning:** The test tried to retrieve a source code file. The fact that the response did not yield an error, and contained non-HTML contents, indicates that the source code retrieval succeeded.

#### Raw Test Response:

```
...
GET /OpenFDA/welcome.sav HTTP/1.1
Cookie: JSESSIONID=28185DC9C59C52B82BE04B0F8FD315D7
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/j_spring_security_check
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)
```

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Language: en
Content-Length: 6610
Date: Wed, 01 Jul 2015 15:10:33 GMT
```

...

## Issue 1 of 2

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## Application Error

Severity: Informational

URL: http://openfda.wasoftware.com/OpenFDA/login

Entity: language (Parameter)

Risk: It is possible to gather sensitive debugging information

**Causes:** Proper bounds checking were not performed on incoming parameter values  
No validation was done in order to make sure that user input matches the data type expected

**Fix:** Verify that parameter values are in their expected ranges and types. Do not output debugging error messages and exceptions

**Reasoning:** The application has responded with an error message, indicating an undefined state that may expose sensitive information.

## Raw Test Response:

```
...
GET /OpenFDA/login?language=%27 HTTP/1.1
Cookie: JSESSIONID=4F6D08A7519911033036017E92496AD7
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/login
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 500 Internal Server Error
Server: Apache-Coyote/1.1
Content-Type: text/html;charset=utf-8
Content-Language: en
Transfer-Encoding: chunked
Date: Wed, 01 Jul 2015 16:04:15 GMT
Connection: close

<html><head><title>Apache Tomcat/7.0.62 - Error report</title><style><!--H1 {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2 {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:14px;} BODY {font-
family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P {font-
family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;} A {color :
black;} A.name {color : black;} HR {color : #525D76;}--></style> </head><body><h1>HTTP Status 500 -
Request processing failed; nested exception is java.lang.IllegalArgumentException: Locale part
'&quot;' contains invalid characters</h1><HR size="1" noshade="noshade"><p><b>type</b>
Exception report</p><p><b>message</b> <u>Request processing failed; nested exception is
java.lang.IllegalArgumentException: Locale part '&quot;' contains invalid characters</u></p>
<p><b>description</b> <u>The server encountered an internal error that prevented it from
fulfilling this request.</u></p><p><b>exception</b>
```



```
<pre>org.springframework.web.util.NestedServletException: Request processing failed; nested
exception is java.lang.IllegalArgumentException: Locale part '"' contains invalid
characters
    org.springframework.web.servlet.FrameworkServlet.processRequest(FrameworkServlet.java:978)
    ...
```

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### Application Error

**Severity:** Informational

**URL:** http://openfda.wasoftware.com/OpenFDA/

**Entity:** language (Parameter)

**Risk:** It is possible to gather sensitive debugging information

**Causes:** Proper bounds checking were not performed on incoming parameter values  
No validation was done in order to make sure that user input matches the data type expected

**Fix:** Verify that parameter values are in their expected ranges and types. Do not output debugging error messages and exceptions

**Reasoning:** The application has responded with an error message, indicating an undefined state that may expose sensitive information.

#### Raw Test Response:

```
...
GET /OpenFDA/?language=%27 HTTP/1.1
Cookie: JSESSIONID=6AE00D659025453B5A9C2CE16FF409F7
Accept-Language: en-US
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Referer: http://openfda.wasoftware.com/OpenFDA/
Host: openfda.wasoftware.com
User-Agent: Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.0; WOW64; Trident/5.0)

HTTP/1.1 500 Internal Server Error
Server: Apache-Coyote/1.1
Content-Type: text/html;charset=utf-8
Content-Language: en
Transfer-Encoding: chunked
Date: Wed, 01 Jul 2015 16:04:15 GMT
Connection: close

<html><head><title>Apache Tomcat/7.0.62 - Error report</title><style><!--H1 {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2 {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:14px;} BODY {font-
family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-
family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P {font-
family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;}A {color :
black;}A.name {color : black;}HR {color : #525D76;}--></style> </head><body><h1>HTTP Status 500 -
Request processing failed; nested exception is java.lang.IllegalArgumentException: Locale part
'"' contains invalid characters</h1><HR size="1" noshade="noshade"><p><b>type</b>
Exception report</p><p><b>message</b> <u>Request processing failed; nested exception is
java.lang.IllegalArgumentException: Locale part '"' contains invalid characters</u></p>
<p><b>description</b> <u>The server encountered an internal error that prevented it from
fulfilling this request.</u></p><p><b>exception</b>
<pre>org.springframework.web.util.NestedServletException: Request processing failed; nested
exception is java.lang.IllegalArgumentException: Locale part '"' contains invalid
characters
```

```
org.springframework.web.servlet.FrameworkServlet.processRequest (FrameworkServlet.java:978)
...
```

## Client-Side (JavaScript) Cookie References

**Severity:** Informational**URL:** <http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.cookie.js>**Entity:** /\*! (Page)**Risk:** The worst case scenario for this attack depends on the context and role of the cookies that are created at the client side**Causes:** Cookies are created at the client side**Fix:** [Remove business and security logic from the client side](#)**Reasoning:** AppScan found a reference to cookies in the JavaScript.

### Original Response

```
...

Date: Wed, 01 Jul 2015 14:25:14 GMT

/*!
 * jQuery Cookie Plugin v1.4.1
 * https://github.com/carhartl/jquery-cookie
 *
 * Copyright 2013 Klaus Hartl
 * Released under the MIT license
 */
!function(a){function b(a){return h.raw?
a:encodeURIComponent(a)}function c(a){return h.raw?decodeURIComponent(a)}function d(a){return
b(h.json?JSON.stringify(a):String(a))}function e(a){0===a.indexOf('')&&(a=a.slice(1,-
1).replace(/\\/g,'').replace(/\\\\/g,'\\'));try{return a=decodeURIComponent(a.replace(g,"
")),h.json?JSON.parse(a):a}catch(b){}}function f(b,c){var d=h.raw?b:e(b);return a.isFunction(c)?
c(d):d}var g=/\\/+g,h=a.cookie=function(e,g,i){if(void 0!==(g&&!a.isFunction(g))){
if(i=a.extend({},h.defaults,i),"number"!==typeof i.expires){var j=i.expires,k=i.expires=new
Date;k.setTime(+k+864e5*j)}return document.cookie=[b(e),"=",d(g),i.expires?";
expires="+i.expires.toUTCString()+";","i.path?"; path="+i.path:"","i.domain?";
domain="+i.domain:"","i.secure?"; secure:""].join("")}for(var l=e?void 0:{},m=document.cookie?
document.cookie.split("; "):[],n=0,o=m.length;o>n;n++){var
p=m[n].split("="),q=c(p.shift()),r=p.join("=");if(e&&e===q){l=f(r,g);break}e||void 0===r||(r=f(r))||
(l[q]=r)}return l;h.defaults={},a.removeCookie=function(b,c){return void 0===a.cookie(b)?!1:
(a.cookie(b,"",a.extend({},c,{expires:-1})),!a.cookie(b))};
...}
```

## Issue 1 of 6

TOC

## Email Address Pattern Found

Severity: Informational

URL: <http://openfda.wasoftware.com/OpenFDA/>

Entity: (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations**Causes:** Insecure web application programming or configuration**Fix:** [Remove e-mail addresses from the website](#)**Reasoning:** The response contains an e-mail address that may be private.**Raw Test Response:**

```
...

<link href="/OpenFDA/css/webicons-master/webicons.scss" rel="stylesheet">

<footer class="large-12 columns">
  <div class="large-6 medium-10 small-12 columns">
    <p>
      <b>Copyright © Washington Software, Inc.</b><br />
      <a href="mailto:info@wasoftware.com?subject=Mail from the site.">Contact Us:
      info@wasoftware.com</a>
    </p>
  </div>

  <div class="large-6 medium-10 small-12 columns">
    <div class="row text-right">
      <div class="large-11 large-push-1 medium-10 small-12 columns">
        <a href="#" class="fc-webicons facebook" data-toggle="tooltip" title="Facebook">
          
        </a>
      </div>
    </div>
  </div>
</div>

...
```

## Issue 2 of 6

TOC

## Email Address Pattern Found

**Severity:** Informational

**URL:** <http://openfda.wasoftware.com/OpenFDA/login>

**Entity:** login (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

**Causes:** Insecure web application programming or configuration

**Fix:** [Remove e-mail addresses from the website](#)

**Reasoning:** The response contains an e-mail address that may be private.

**Raw Test Response:**

```
...

<link href="/OpenFDA/css/webicons-master/webicons.scss" rel="stylesheet">

<footer class="large-12 columns">
  <div class="large-6 medium-10 small-12 columns">
    <p>
      <b>Copyright © Washington Software, Inc.</b><br />
      <a href="mailto:info@wasoftware.com?subject=Mail from the site.">Contacte con nosotros:
      info@wasoftware.com</a>
    </p>
  </div>

  <div class="large-6 medium-10 small-12 columns">
    <div class="row text-right">
      <div class="large-11 large-push-1 medium-10 small-12 columns">
        <a href="#" class="fc-webicons facebook" data-toggle="tooltip" title="Facebook">
          
        </a>
      </div>
    </div>
  </div>
</div>

...
```

## Email Address Pattern Found

**Severity:** Informational

**URL:** <http://openfda.wasoftware.com/OpenFDA/lib/foundation.datepicker.js>

**Entity:** foundation.datepicker.js (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

**Causes:** Insecure web application programming or configuration

**Fix:** [Remove e-mail addresses from the website](#)

**Reasoning:** The response contains an e-mail address that may be private.

**Raw Test Response:**

```
...

Content-Type: application/javascript
Content-Length: 49697
Date: Wed, 01 Jul 2015 15:09:44 GMT

/**
 * Created by ehung on 6/25/2015.
 */
/* =====
 * foundation-datepicker.js
 * Copyright 2013 Peter Beno, hajlepsiwebdesigner@gmail.com, @benopeter
 * project website http://foundation-datepicker.peterbeno.com
 *
 * original project:
 *   bootstrap-datepicker.js
 *   http://www.eyecon.ro/bootstrap-datepicker
 *   =====
 *   Copyright 2012 Stefan Petre
 *   Improvements by Andrew Rowls
 *
...

```

## Issue 4 of 6

TOC

### Email Address Pattern Found

**Severity:** Informational

**URL:** <http://openfda.wasoftware.com/OpenFDA/lib/parallax/TweenMax.min.js>

**Entity:** TweenMax.min.js (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

**Causes:** Insecure web application programming or configuration

**Fix:** [Remove e-mail addresses from the website](#)

**Reasoning:** The response contains an e-mail address that may be private.

**Raw Test Response:**

```
...

* DATE: 2013-05-16
* UPDATES AND DOCS AT: http://www.greensock.com
*
* Includes all of the following: TweenLite, TweenMax, TimelineLite, TimelineMax, EasePack,
CSSPlugin, RoundPropsPlugin, BezierPlugin, AttrPlugin, DirectionalRotationPlugin
*
* @license Copyright (c) 2008-2013, GreenSock. All rights reserved.
* This work is subject to the terms at http://www.greensock.com/terms\_of\_use.html or for
* Club GreenSock members, the software agreement that was issued with your membership.
*
* @author: Jack Doyle, jack@greensock.com
**/

```

```
(window._gsQueue||(window._gsQueue=[])).push(function(){var s=["core.Animation","core.SimpleTimeline","TweenLite"],function(t,e,i){var s=[].slice,r=function(t,e,s){(i...var l,_u,p,f,c,m=(?:\\d|\\\\-|\\\\d|\\\\-\\\\-|\\\\d)/+g,d/(?:\\d|\\\\-|\\\\d|\\\\-\\\\-|\\\\d|\\\\+=\\\\d|\\\\-=\\\\d|\\\\+=\\\\d|\\\\-\\\\d)/+g,g/(?:\\+=|\\\\-=|\\\\-|\\\\b)[\\d|-\\.]+[a-zA-Z0-9]?*(?:%|\\b)/gi,v=/^[^\\d|-\\.]/g,y=/(?:\\d|\\\\|\\|=|#|\\.|\\/)*g,T=...}})._autoCSS=!0>window._gsDefine("easing.Back",["easing.Ease"],function(t){var e,i,s,r=window.GreenSockGlobals||window,n=r.com.greensock,a=2*Math.PI,o=Math.PI/2,h=n._class,l=function(i,i){var s=h("easing."+e,function(i){},!0),r=s.prototype=new t;return r.constructor=s,r.getRatio=i,s},_t.register||function(){}),u=function(t,e,i,s){var r=h("easing."+t,{easeOut:new e,easeIn:new i,easeInOut:new s,!0});return_(r,t,r),p=function(t,e,i){this.t=t,this.v=e,i&&(this.next=i,i.prev=this,this.c=i.v-e,this.gap=i.t-t)},f=function(e,i){var s=h("easing."+e,function(t){this._p1=t||0===t?t:1.70158,this._p2=1.525*this._p1},!0),r=s.prototype=new t;return r.constructor=s,r.getRatio=i,r.config=function(t){return new s(t)},s,c=u("Back",f("BackOut",function(t){return(t-=1)*t*((this._p1+1)*t+this._p1+1)}),f("BackIn",function(t){return t*t*((this._p1+1)*t-this._p1)}),f("BackInOut",function(t){return 1>(t*=2)??.5*t*t*(this._p2+1)*t-this._p2:.5*((t-=2)*t*((this._p2+1)*t+this._p2)+2)})),m=h("easing.SlowMo",function(t,e,i){e=el||0===e?e:7,null==t?t=.7:t>1&&(t=1),this._p1!==t?t:e:0,this._p1=(1-t)/2,this._p2=t,this._p3=this._p1+this._p2,this._calcEnd=i===!0,!0),d=m.prototype=new t;return d.constructor=m,d.getRatio=function(t){var e=t+.5-t)*this._p;return this._p1>t?this._calcEnd?1-(t=1-t)/this._p1)*t:e-(t=1-t)/this._p1)*t*t*e:t>this._p3?this._calcEnd?1-(t=this._p3)/this._p1)*t:e+(t-e)*(t=t-this._p3)/this._p1)*t*t*t:this._calcEnd?1:e),m.ease=new m(.7,.7),d.config=m.config=function(t,e,i){return new m(t,e,i)},e=h("easing.SteppedEase",function(t){t=t||1,this._p1=1/t,this._p2=t+1,!0),d=e.prototype=new t,d.constructor=e,d.getRatio=function(t){return 0>t?t=0:t>1&&(t=.999999999),(this._p2>>)this._p1,d.config=e.config=function(t){return new e(t)},i=h("easing.RoughEase",function(e){e=el||{};for(var i,s,r,n,a,o,h=e.taper||"none",l=[],_o,u=0){e.points||[20],f=u,c=e.randomize===!1,m=e.clamp===!0,d=e.template instanceof t?e.template:null,g="number"==typeof e.strength?2.4*e.strength:4;--f>1)i=c?Math.random():1/u*f,s=d?d.getRatio(i):i,"none"===h?r=g:"out"===h?(n=1-i,r=n*n*g):"in"===h?r=i*i*g:.5>i?(n=2*i,r=.5*n*n*g):(n=2*(1-i),r=.5*n*n*g),c?s+=Math.random()*r-.5*r:f%2?s+=.5*r:s-=.5*r,m&&(s>1?s=1:0>s&&(s=0)),l[++]=x:i,y:s};for(l.sort(function(t,e){return t.x-e.x})),o=new p(1,l,null),f=u;--f>1)a=l[f],o=new p(a.x,a.y,o);this._prev=new p(0,0,0)=o.t;o.o.next(),!0),d=i.prototype=new t,d.constructor=i,d.getRatio=function(t){var e=this._prev;if(t>e.t){for(;e.next&&t>=e.t;)e=e.next;e=e.prev}else for(;e.prev&&t<=e.t;)e=e.prev;return this._prev=e,e.v+(t-e.t)/e.gap*e.c},d.config=function(t){return new i(t),i.ease=new i,u("Bounce",l("BounceOut",function(t){return 1/2.75>t?7.5625*t*t:2/2.75>t?7.5625*(t-=1.5/2.75)*t+.75:2.5/2.75>t?7.5625*(t-=2.25/2.75)*t+.9375:7.5625*(t-=2.625/2.75)*t+.984375}),l("BounceIn",function(t){return 1/2.75>(t=1-t)?1-7.5625*t*t:2/2.75>t?1-7.5625*(t=1.5/2.75)*t+.75:2.5/2.75>t?1-7.5625*(t-=2.25/2.75)*t+.9375)-1:(7.5625*(t-=2.625/2.75)*t+.984375))),l("BounceInOut",function(t){var e=.5>t;return t=e?1-2*t:t-t-1,t=1/2.75>t?7.5625*t*t:2/2.75>t?7.5625*(t-=1.5/2.75)*t+.75:2.5/2.75>t?7.5625*(t-=2.25/2.75)*t+.9375:7.5625*(t-=2.625/2.75)*t+.984375,e*.5*t+.5)}),u("Circ",l("CircOut",function(t){return Math.sqrt(1-(t-=1)*t)}),l("CircIn",function(t){return -(Math.sqrt(1-t*t)-1)}),l("CircInOut",function(t){return 1>(t*=2)?-.5*(Math.sqrt(1-t*t)-1):.5*(Math.sqrt(1-(t-=2)*t)+1)})),s=function(e,i,s){var r=h("easing."+e,function(t,e){this._p1=t||1,this._p2=e||s,this._p3=this._p2/a*(Math.asin(1/this._p1)||0)},!0),n=r.prototype=new t;return n.constructor=r,n.getRatio=i,n.config=function(t,e){return new r(t,e)},r},u("Elastic",s("ElasticOut",function(t){return this._p1*Math.pow(2,-10*t)*Math.sin((t-this._p3)*a/this._p2+1),.3),s("ElasticIn",function(t){return -(this._p1*Math.pow(2,10*(t-=1))*Math.sin((t-this._p3)*a/this._p2))},.3),s("ElasticInOut",function(t){return 1>(t*=2)?-.5*this._p1*Math.pow(2,10*(t-1))*Math.sin((t-this._p3)*a/this._...}
```

## Email Address Pattern Found

Severity: **Informational**

URL: <http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/TweenMax.min.js>

Entity: TweenMax.min.js (Page)

Risk: It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

Causes: Insecure web application programming or configuration

Fix: [Remove e-mail addresses from the website](#)

**Reasoning:** The response contains an e-mail address that may be private.

**Raw Test Response:**

```
...

* DATE: 2013-05-16
* UPDATES AND DOCS AT: http://www.greensock.com
*
* Includes all of the following: TweenLite, TweenMax, TimelineLite, TimelineMax, EasePack,
CSSPlugin, RoundPropsPlugin, BezierPlugin, AttrPlugin, DirectionalRotationPlugin
*
* @license Copyright (c) 2008-2013, GreenSock. All rights reserved.
* This work is subject to the terms at http://www.greensock.com/terms\_of\_use.html or for
* Club GreenSock members, the software agreement that was issued with your membership.
*
* @author: Jack Doyle, jack@greensock.com
**/
(window._gsQueue||(window._gsQueue=[])).push(function(){
"use strict";
window._gsDefine("TweenMax",["core.Animation","core.SimpleTimeline","TweenLite"],function(t,e,i){
var s=
[.slice,r=function(t,e,s){i...
var l,_u,p,f,c,m=/(?:\d|\-|\d|\.\d|\-|\.\d|/g,d=/(?:\d|\-|\d|\.\d|/g,v=/(?:\d|\-|\d|\.\d|/g,y=/(?:\d|\-|\d|\.\d|/g,T=...
}))._autoCSS=!0,window._gsDefine("easing.Back",["easing.Ease"],function(t){
var e,i,s,r=window.GreenSockGlobals|window,n=r.com.greensock,a=2*Math.PI,o=Math.PI/2,h=n._class,l=function(e,i){
var s=h("easing."+e,function(t){},!0),r=s.prototype=new t;return
r.constructor=s,r.getRatio=i,s),_t.register||function(t){},u=function(t,e,i,s){
var r=h("easing."+t,{easeOut:new e,easeIn:new i,easeInOut:new s},!0);return
_(r,t),r,p=function(t,e,i){this.t=t,this.v=e,i&&(this.next=i,i.prev=this,this.c=i.v-e,this.gap=i.t-t)},f=function(e,i){
var s=h("easing."+e,function(t){this._p1=t|0===t?t1.70158,this._p2=1.525*this._p1},!0),r=s.prototype=new t;return
r.constructor=s,r.getRatio=i,r.config=function(t){return new s(t),s),c=u("Back",f("BackOut",function(t){return t-1})*t*((this._p1+1)*t+this._p1)},f("BackIn",function(t){return t*t*((this._p1+1)*t-this._p1)},f("BackInOut",function(t){return 1>(t*2)?2.5*t*t*((this._p2+1)*t-this._p2):.5*((t-2)*t*((this._p2+1)*t+this._p2)+2)})),m=h("easing.SlowMo",function(t,e,i){e=e|0===e?e:.7,null===t?t=.7:t>1&&(t=1),this._p1!=t?e:0,this._p1=(1-t)/2,this._p2=t,this._p3=this._p1+this._p2,this._calcEnd=i===!0,!0),d=m.prototype=new t;return
d.constructor=m,d.getRatio=function(t){var e=t+.5-t)*this._p;return this._p1>t?this._calcEnd?1-(t-1-t/this._p1)*t:e-(t-1-t/this._p1)*t*t*t*e:t>this._p3?this._calcEnd?1-(t-(t-1-t/this._p3)/this._p1)*t:e+(t-e)*(t-(t-1-t/this._p3)/this._p1)*t*t*t:this._calcEnd?1:e},m.ease=new m(.7,.7),d.config=m.config=function(t,e,i){return new m(t,e,i),e=h("easing.SteppedEase",function(t){t=t|1,this._p1=1/t,this._p2=t+1},!0),d=e.prototype=new t,d.constructor=e,d.getRatio=function(t){return 0>t?t=0:t=1&&(t=.999999999),this._p2>t?this._p1,d.config=e.config=function(t){return new e(t)},i=h("easing.RoughEase",function(e){e=e||{};for(var i,s,r,n,a,o,h,e,taper||"none",l=[],_0,u=0|(e.points||20),f=u,c=e.randomize,!l,m=e.clamp===!0,d=e.template instanceof t?e.template:null,g="number"===typeof e.strength?.4*e.strength:--f>-1;i=c?Math.random():1/u*f,s=d?d.getRatio(i):i,"none"===h?r=g:"out"===h?(n=1-i,r=n*n*g):"in"===h?r=i*i*g:.5>i?(n=2*i,r=.5*n*n*g):(n=2*(1-i),r=.5*n*n*g),c?s+=Math.random()*r-.5*r:f%2?s+=.5*r:s=-.5*r,m&&(s>1?s=1:0>s&&(s=0)),l[_++]=x:i,y:s};for(l.sort(function(t,e){return t.x-e.x}),o=new p(1,1,null),f=u;--f>-1;a=l[f],o=new p(a.x,a.y,o);this._prev=new p(0,0,0!o.t?o:o.next)},!0),d.i.prototype=new t,d.constructor=i,d.getRatio=function(t){var e=this._prev;if(t>e.t){for(;e.next&&t>=e.t;)e=e.next;e=e.prev}else for(;e.prev&&t>=e.t;)e=e.prev;return this._prev=e,e.v+(t-e.t)/e.gap*e.c},d.config=function(t){return new i(t)},i.ease=new i,u("Bounce",l("BounceOut",function(t){return 1/2.75>t?

```

```

7.5625*t*t:2/2.75>t?7.5625*(t=-1.5/2.75)*t+.75:2.5/2.75>t?7.5625*(t=-2.25/2.75)*t+.9375:7.5625*
(t=-2.625/2.75)*t+.984375}},l("BounceIn",function(t){return 1/2.75>(t=1-t)?1-7.5625*t*t:2/2.75>t?
1-(7.5625*(t=-1.5/2.75)*t+.75):2.5/2.75>t?1-(7.5625*(t=-2.25/2.75)*t+.9375):1-(7.5625*(t-
=2.625/2.75)*t+.984375)}),l("BounceInOut",function(t){var e=.5>t;return t=e?1-2*t:2*t-
1,t=1/2.75>t?7.5625*t*t:2/2.75>t?7.5625*(t=-1.5/2.75)*t+.75:2.5/2.75>t?7.5625*(t-
=2.25/2.75)*t+.9375:7.5625*(t=-2.625/2.75)*t+.984375,e?.5*(1-
t):.5*t+.5)}),u("Circ",l("CircOut",function(t){return Math.sqrt(1-(t-
=1)*t)}),l("CircIn",function(t){return-(Math.sqrt(1-t*t)-1)}),l("CircInOut",function(t){return 1>
(t*=2)?-.5*(Math.sqrt(1-t*t)-1):.5*(Math.sqrt(1-(t-=2)*t)+1)})),s=function(e,i,s){var
r=h("easing."+e,function(t,e){this._p1=t||1,this._p2=e||s,this._p3=this._p2/a*
(Math.asin(1/this._p1)||0)},!0),n=r.prototype=new t;return
n.constructor=r,n.getRatio=i,n.config=function(t,e){return new
r(t,e)},r},u("Elastic",s("ElasticOut",function(t){return this._p1*Math.pow(2,-10*t)*Math.sin((t-
this._p3)*a/this._p2)+1),.3),s("ElasticIn",function(t){return-(this._p1*Math.pow(2,10*(t-
=1))*Math.sin((t-this._p3)*a/this._p2))},.3),s("ElasticInOut",function(t){return 1>(t*=2)?-
.5*this._p1*Math.pow(2,10*(t-=1))*Math.sin((t-this._p3)*a/this._...

```

## Issue 6 of 6

TOC

### Email Address Pattern Found

**Severity:** Informational

**URL:** <http://openfda.wasoftware.com/OpenFDA/welcome>

**Entity:** welcome (Page)

**Risk:** It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

**Causes:** Insecure web application programming or configuration

**Fix:** [Remove e-mail addresses from the website](#)

**Reasoning:** The response contains an e-mail address that may be private.

**Raw Test Response:**

```

...

<link href="/OpenFDA/css/webicons-master/webicons.scss" rel="stylesheet">

<footer class="large-12 columns">
  <div class="large-6 medium-10 small-12 columns">
    <p>
      <b>Copyright © Washington Software, Inc.</b><br />
      <a href="mailto:info@wasoftware.com?subject=Mail from the site.">Contact Us:
      info@wasoftware.com</a>
    </p>
  </div>

  <div class="large-6 medium-10 small-12 columns">
    <div class="row text-right">
      <div class="large-11 large-push-1 medium-10 small-12 columns">
        <a href="#" class="fc-webicons facebook" data-toggle="tooltip" title="Facebook">
          
        </a>
      </div>
    </div>
  </div>
</div>
...

```



# Fix Recommendations

H

Always use SSL and POST (body) parameters when sending sensitive information.

TOC

## Issue Types that this task fixes

- [Unencrypted Login Request](#)

### General

1. Make sure that all login requests are sent encrypted to the server.
2. Make sure that sensitive information such as:
  - Username
  - Password
  - Social Security number
  - Credit Card number
  - Driver's License number
  - e-mail address
  - Phone number
  - Zip code

is always sent encrypted to the server.

M

Disable WebDAV, or disallow unneeded HTTP methods

TOC

## Issue Types that this task fixes

- [Insecure HTTP Methods Enabled](#)

### General

If you do not need WebDAV enabled on your server, make sure that you either disable it, or disallow HTTP methods

(verbs) that are unneeded.

M

## Enforce account lockout after several failed login attempts

TOC

### Issue Types that this task fixes

- [Inadequate Account Lockout](#)

#### General

Decide upon the number of login attempts to be allowed (usually from 3 to 5), and make sure that the account will be locked once the permitted number of attempts is exceeded.

To avoid unnecessary support calls from genuine users who were locked out of their account and require enabling, it is possible to suspend account activity only temporarily, and enable it after a specific period of time. Locking the account for a period of ten minutes or so is usually sufficient to block brute force attacks.

L

## Correctly set the "autocomplete" attribute to "off"

TOC

### Issue Types that this task fixes

- [Autocomplete HTML Attribute Not Disabled for Password Field](#)

#### General

If the "autocomplete" attribute is missing in the "password" field of the "input" element, add it and set it to "off".

If the "autocomplete" attribute is set to "on", change it to "off".

For example:

Vulnerable site:

```
<form action="AppScan.html" method="get">
  Username: <input type="text" name="firstname" /><br />
  Password: <input type="password" name="lastname" />
  <input type="submit" value="Submit" />
</form>
```

Non-vulnerable site:

```
<form action="AppScan.html" method="get">
  Username: <input type="text" name="firstname" /><br />
  Password: <input type="password" name="lastname" autocomplete="off"/>
  <input type="submit" value="Submit" />
</form>
```

L

Remove business and security logic from the client side

TOC

## Issue Types that this task fixes

- Client-Side (JavaScript) Cookie References

### General

[1] Avoid placing business/security logic at the client side.

[2] Find and remove insecure client-side Javascript code which may pose a security threat to the site.

L

Remove e-mail addresses from the website

TOC

## Issue Types that this task fixes

- Email Address Pattern Found

### General

Remove any e-mail addresses from the website so that they won't be exploited by malicious users.

L

Remove old versions of files from the virtual directory

TOC

## Issue Types that this task fixes

- [Alternate Version of File Detected](#)
- [Archive File Download](#)
- [Temporary File Download](#)

## General

Do not keep alternate versions of files underneath the virtual web server root. Instead, when updating the site, delete or move the files to a directory outside the virtual root, edit them there, and move (or copy) the files back to the virtual root. Make sure that only the files that are actually in use reside under the virtual root.

Do not keep archived versions of files underneath the virtual web server root. Instead, keep the archive files outside the virtual root. Make sure that only the files that are actually in use reside under the virtual root.

Do not keep backup/temporary versions of files underneath the virtual web server root. This usually happens when editing these files "in place" by editors. Instead, when updating the site, move or copy the files to a directory outside the virtual root, edit them there, and move (or copy) the files back to the virtual root. Make sure that only the files that are actually in use reside under the virtual root.

L

Remove the Bash shell history file or restrict access to it

TOC

## Issue Types that this task fixes

- [Bash Shell History File Retrieval](#)

## General

Remove the Bash shell history file or restrict access to it.

L

Verify that parameter values are in their expected ranges and types. Do not output debugging error messages and exceptions

TOC

## Issue Types that this task fixes

- [Application Error](#)

## General

[1] Check incoming requests for the presence of all expected parameters and values. When a parameter is missing, issue a proper error message or use default values.

[2] The application should verify that its input consists of valid characters (after decoding). For example, an input value containing the null byte (encoded as %00), apostrophe, quotes, etc. should be rejected.

[3] Enforce values in their expected ranges and types. If your application expects a certain parameter to have a value from a certain set, then the application should ensure that the value it receives indeed belongs to the set. For

example, if your application expects a value in the range 10..99, then it should make sure that the value is indeed numeric, and that its value is in 10..99.

[4] Verify that the data belongs to the set offered to the client.

[5] Do not output debugging error messages and exceptions in a production environment.

## .Net

In order to disable debugging in ASP.NET, edit your web.config file to contain the following:

```
<compilation
  debug="false"
/>
```

For more information, see "HOW TO: Disable Debugging for ASP.NET Applications" in:

<http://support.microsoft.com/default.aspx?scid=kb;en-us;815157>

You can add input validation to Web Forms pages by using validation controls. Validation controls provide an easy-to-use mechanism for all common types of standard validation (for example, testing for valid dates or values within a range), plus ways to provide custom-written validation. In addition, validation controls allow you to completely customize how error information is displayed to the user. Validation controls can be used with any controls that are processed in a Web Forms page's class file, including both HTML and Web server controls.

To make sure that all the required parameters exist in a request, use the "RequiredFieldValidator" validation control. This control ensures that the user does not skip an entry in the web form.

To make sure user input contains only valid values, you can use one of the following validation controls:

[1] "RangeValidator": checks that a user's entry (value) is between specified lower and upper boundaries. You can check ranges within pairs of numbers, alphabetic characters, and dates.

[2] "RegularExpressionValidator": checks that the entry matches a pattern defined by a regular expression. This type of validation allows you to check for predictable sequences of characters, such as those in social security numbers, e-mail addresses, telephone numbers, postal codes, and so on.

Important note: validation controls do not block user input or change the flow of page processing; they only set an error state, and produce error messages. It is the programmer's responsibility to test the state of the controls in the code before performing further application-specific actions.

There are two ways to check for user input validity:

1. Test for a general error state:

In your code, test the page's `IsValid` property. This property rolls up the values of the `IsValid` properties of all the validation controls on the page (using a logical AND). If one of the validation controls is set to invalid, the page's property will return false.

2. Test for the error state of individual controls:

Loop through the page's `Validators` collection, which contains references to all the validation controls. You can then examine the `IsValid` property of each validation control.

## J2EE

**\*\* Input Data Validation:**

While data validations may be provided as a user convenience on the client-tier, data validation must be performed on the server-tier using Servlets. Client-side validations are inherently insecure because they can be easily bypassed, e.g. by disabling Javascript.

A good design usually requires the web application framework to provide server-side utility routines to validate the following:

[1] Required field

- [2] Field data type (all HTTP request parameters are Strings by default)
- [3] Field length
- [4] Field range
- [5] Field options
- [6] Field pattern
- [7] Cookie values
- [8] HTTP Response

A good practice is to implement the above routine as static methods in a "Validator" utility class. The following sections describe an example validator class.

#### [1] Required field

Always check that the field is not null and its length is greater than zero, excluding leading and trailing white spaces.

Example of how to validate required fields:

```
// Java example to validate required fields
public Class Validator {
    ...
    public static boolean validateRequired(String value) {
        boolean isFieldValid = false;
        if (value != null && value.trim().length() > 0) {
            isFieldValid = true;
        }
        return isFieldValid;
    }
    ...
}
...
String fieldValue = request.getParameter("fieldName");
if (Validator.validateRequired(fieldValue)) {
    // fieldValue is valid, continue processing request
    ...
}
```

#### [2] Field data type

In web applications, input parameters are poorly typed. For example, all HTTP request parameters or cookie values are of type String. The developer is responsible for verifying the input is of the correct data type. Use the Java primitive wrapper classes to check if the field value can be safely converted to the desired primitive data type.

Example of how to validate a numeric field (type int):

```
// Java example to validate that a field is an int number
public Class Validator {
    ...
    public static boolean validateInt(String value) {
        boolean isFieldValid = false;
        try {
            Integer.parseInt(value);
            isFieldValid = true;
        } catch (Exception e) {
            isFieldValid = false;
        }
        return isFieldValid;
    }
    ...
}
...
// check if the HTTP request parameter is of type int
String fieldValue = request.getParameter("fieldName");
if (Validator.validateInt(fieldValue)) {
    // fieldValue is valid, continue processing request
    ...
}
```

```
}
```

A good practice is to convert all HTTP request parameters to their respective data types. For example, store the "integerValue" of a request parameter in a request attribute and use it as shown in the following example:

```
// Example to convert the HTTP request parameter to a primitive wrapper data type
// and store this value in a request attribute for further processing
String fieldValue = request.getParameter("fieldName");
if (Validator.validateInt(fieldValue)) {
    // convert fieldValue to an Integer
    Integer integerValue = Integer.getInteger(fieldValue);
    // store integerValue in a request attribute
    request.setAttribute("fieldName", integerValue);
}
...
// Use the request attribute for further processing
Integer integerValue = (Integer)request.getAttribute("fieldName");
...
```

The primary Java data types that the application should handle:

- Byte
- Short
- Integer
- Long
- Float
- Double
- Date

### [3] Field length

Always ensure that the input parameter (whether HTTP request parameter or cookie value) is bounded by a minimum length and/or a maximum length.

Example to validate that the length of the userName field is between 8 and 20 characters:

```
// Example to validate the field length
public Class Validator {
    ...
    public static boolean validateLength(String value, int minLength, int maxLength) {
        String validatedValue = value;
        if (!validateRequired(value)) {
            validatedValue = "";
        }
        return (validatedValue.length() >= minLength &&
            validatedValue.length() <= maxLength);
    }
    ...
}
...
String userName = request.getParameter("userName");
if (Validator.validateRequired(userName)) {
    if (Validator.validateLength(userName, 8, 20)) {
        // userName is valid, continue further processing
        ...
    }
}
}
```

#### [4] Field range

Always ensure that the input parameter is within a range as defined by the functional requirements.

Example to validate that the input numberOfChoices is between 10 and 20:

```
// Example to validate the field range
public Class Validator {
    ...
    public static boolean validateRange(int value, int min, int max) {
        return (value >= min && value <= max);
    }
    ...
}
...
String fieldValue = request.getParameter("numberOfChoices");
if (Validator.validateRequired(fieldValue)) {
    if (Validator.validateInt(fieldValue)) {
        int numberOfChoices = Integer.parseInt(fieldValue);
        if (Validator.validateRange(numberOfChoices, 10, 20)) {
            // numberOfChoices is valid, continue processing request
            ...
        }
    }
}
```

#### [5] Field options

Often, the web application presents the user with a set of options to choose from, e.g. using the SELECT HTML tag, but fails to perform server-side validation to ensure that the selected value is one of the allowed options. Remember that a malicious user can easily modify any option value. Always validate the selected user value against the allowed options as defined by the functional requirements.

Example to validate the user selection against a list of allowed options:

```
// Example to validate user selection against a list of options
public Class Validator {
    ...
    public static boolean validateOption(Object[] options, Object value) {
        boolean isValidValue = false;
        try {
            List list = Arrays.asList(options);
            if (list != null) {
                isValidValue = list.contains(value);
            }
        } catch (Exception e) {
        }
        return isValidValue;
    }
    ...
}
...
// Allowed options
String[] options = {"option1", "option2", "option3"};
// Verify that the user selection is one of the allowed options
String userSelection = request.getParameter("userSelection");
if (Validator.validateOption(options, userSelection)) {
    // valid user selection, continue processing request
    ...
}
```



#### [6] Field pattern

Always check that the user input matches a pattern as defined by the functionality requirements. For example, if the userName field should only allow alpha-numeric characters, case insensitive, then use the following regular expression:

`^[a-zA-Z0-9]*$`

Java 1.3 or earlier versions do not include any regular expression packages. Apache Regular Expression Package (see Resources below) is recommended for use with Java 1.3 to resolve this lack of support.

Example to perform regular expression validation:

```
// Example to validate that a given value matches a specified pattern
// using the Apache regular expression package
import org.apache.regexp.RE;
import org.apache.regexp.RESyntaxException;
public Class Validator {
    ...
    public static boolean matchPattern(String value, String expression) {
        boolean match = false;
        if (validateRequired(expression)) {
            RE r = new RE(expression);
            match = r.match(value);
        }
        return match;
    }
    ...
}
// Verify that the userName request parameter is alpha-numeric
String userName = request.getParameter("userName");
if (Validator.matchPattern(userName, "^[a-zA-Z0-9]*$")) {
    // userName is valid, continue processing request
    ...
}
```

Java 1.4 introduced a new regular expression package (java.util.regex). Here is a modified version of Validator.matchPattern using the new Java 1.4 regular expression package:

```
// Example to validate that a given value matches a specified pattern
// using the Java 1.4 regular expression package
import java.util.regex.Pattern;
import java.util.regex.Matcher;
public Class Validator {
    ...
    public static boolean matchPattern(String value, String expression) {
        boolean match = false;
        if (validateRequired(expression)) {
            match = Pattern.matches(expression, value);
        }
        return match;
    }
    ...
}
```

#### [7] Cookie value

Use the javax.servlet.http.Cookie object to validate the cookie value. The same validation rules (described above) apply to cookie values depending on the application requirements, e.g. validate a required value, validate length, etc.

Example to validate a required cookie value:

```
// Example to validate a required cookie value
// First retrieve all available cookies submitted in the HTTP request
Cookie[] cookies = request.getCookies();
if (cookies != null) {
    // find the "user" cookie
    for (int i=0; i<cookies.length; ++i) {
        if (cookies[i].getName().equals("user")) {
            // validate the cookie value
            if (Validator.validateRequired(cookies[i].getValue()) {
                // valid cookie value, continue processing request
                ...
            }
        }
    }
}
```

## [8] HTTP Response

### [8-1] Filter user input

To guard the application against cross-site scripting, sanitize HTML by converting sensitive characters to their corresponding character entities. These are the HTML sensitive characters:

< > " ' % ; ) ( & +

Example to filter a specified string by converting sensitive characters to their corresponding character entities:

```
// Example to filter sensitive data to prevent cross-site scripting
public Class Validator {
    ...
    public static String filter(String value) {
        if (value == null) {
            return null;
        }
        StringBuffer result = new StringBuffer(value.length());
        for (int i=0; i<value.length(); ++i) {
            switch (value.charAt(i)) {
                case '<':
                    result.append("&lt;");
                    break;
                case '>':
                    result.append("&gt;");
                    break;
                case '"':
                    result.append("&quot;");
                    break;
                case '\'':
                    result.append("&#39;");
                    break;
                case '%':
                    result.append("&#37;");
                    break;
                case ';':
                    result.append("&#59;");
                    break;
                case '(':
                    result.append("&#40;");
                    break;
                case ')':
                    result.append("&#41;");
                    break;
                case '&':
                    result.append("&amp;");
                    break;
                case '+':
                    result.append("&#43;");
                    break;
                default:
                    result.append(value.charAt(i));
                    break;
            }
        }
        return result.toString();
    }
}
```

```

    }
    return result;
}
...
}
...
// Filter the HTTP response using Validator.filter
PrintWriter out = response.getWriter();
// set output response
out.write(Validator.filter(response));
out.close();

```

The Java Servlet API 2.3 introduced Filters, which supports the interception and transformation of HTTP requests or responses.

Example of using a Servlet Filter to sanitize the response using Validator.filter:

```

// Example to filter all sensitive characters in the HTTP response using a Java Filter.
// This example is for illustration purposes since it will filter all content in the response, including
HTML tags!
public class SensitiveCharsFilter implements Filter {
    ...
    public void doFilter(ServletRequest request,
                        ServletResponse response,
                        FilterChain chain)
        throws IOException, ServletException {

        PrintWriter out = response.getWriter();
        ResponseWrapper wrapper = new ResponseWrapper((HttpServletResponse) response);
        chain.doFilter(request, wrapper);

        CharArrayWriter caw = new CharArrayWriter();
        caw.write(Validator.filter(wrapper.toString()));

        response.setContentType("text/html");
        response.setContentLength(caw.toString().length());
        out.write(caw.toString());
        out.close();
    }
    ...
    public class CharResponseWrapper extends HttpServletResponseWrapper {
        private CharArrayWriter output;

        public String toString() {
            return output.toString();
        }

        public CharResponseWrapper(HttpServletResponse response) {
            super(response);
            output = new CharArrayWriter();
        }

        public PrintWriter getWriter() {
            return new PrintWriter(output);
        }
    }
}

```

## [8-2] Secure the cookie

When storing sensitive data in a cookie, make sure to set the secure flag of the cookie in the HTTP response, using `Cookie.setSecure(boolean flag)` to instruct the browser to send the cookie using a secure protocol, such as HTTPS or SSL.

Example to secure the "user" cookie:

```
// Example to secure a cookie, i.e. instruct the browser to
// send the cookie using a secure protocol
Cookie cookie = new Cookie("user", "sensitive");
cookie.setSecure(true);
response.addCookie(cookie);
```

## RECOMMENDED JAVA TOOLS

The two main Java frameworks for server-side validation are:

[1] Jakarta Commons Validator (integrated with Struts 1.1)

The Jakarta Commons Validator is a powerful framework that implements all the above data validation requirements. These rules are configured in an XML file that defines input validation rules for form fields. Struts supports output filtering of dangerous characters in the [8] HTTP Response by default on all data written using the Struts 'bean:write' tag. This filtering may be disabled by setting the 'filter=false' flag.

Struts defines the following basic input validators, but custom validators may also be defined:

required: succeeds if the field contains any characters other than white space.

mask: succeeds if the value matches the regular expression given by the mask attribute.

range: succeeds if the value is within the values given by the min and max attributes ((value >= min) & (value <= max)).

maxLength: succeeds if the field is length is less than or equal to the max attribute.

minLength: succeeds if the field is length is greater than or equal to the min attribute.

byte, short, integer, long, float, double: succeeds if the value can be converted to the corresponding primitive.

date: succeeds if the value represents a valid date. A date pattern may be provided.

creditCard: succeeds if the value could be a valid credit card number.

e-mail: succeeds if the value could be a valid e-mail address.

Example to validate the userName field of a loginForm using Struts Validator:

```
<form-validation>
  <global>
    ...
    <validator name="required"
      classname="org.apache.struts.validator.FieldChecks"
      method="validateRequired"
      msg="errors.required">
    </validator>
    <validator name="mask"
      classname="org.apache.struts.validator.FieldChecks"
      method="validateMask"
      msg="errors.invalid">
    </validator>
    ...
  </global>
  <formset>
    <form name="loginForm">
      <!-- userName is required and is alpha-numeric case insensitive -->
      <field property="userName" depends="required,mask">
        <!-- message resource key to display if validation fails -->
        <msg name="mask" key="login.userName.maskmsg"/>
        <arg0 key="login.userName.displayName"/>
        <var>
          <var-name>mask</var-name>
          <var-value>^[a-zA-Z0-9]*$</var-value>
        </var>
      </field>
      ...
    </form>
    ...
  </formset>
</form-validation>
```

## [2] JavaServer Faces Technology

JavaServer Faces Technology is a set of Java APIs (JSR 127) to represent UI components, manage their state, handle events and input validation.

The JavaServer Faces API implements the following basic validators, but custom validators may be defined:

validate\_doublerange: registers a DoubleRangeValidator on a component

validate\_length: registers a LengthValidator on a component

validate\_longrange: registers a LongRangeValidator on a component

validate\_required: registers a RequiredValidator on a component

validate\_stringrange: registers a StringRangeValidator on a component

validator: registers a custom Validator on a component

The JavaServer Faces API defines the following UIInput and UIOutput Renderers (Tags):

input\_date: accepts a java.util.Date formatted with a java.text.Date instance

output\_date: displays a java.util.Date formatted with a java.text.Date instance

input\_datetime: accepts a java.util.Date formatted with a java.text.DateTime instance

output\_datetime: displays a java.util.Date formatted with a java.text.DateTime instance

input\_number: displays a numeric data type (java.lang.Number or primitive), formatted with a java.text.NumberFormat

output\_number: displays a numeric data type (java.lang.Number or primitive), formatted with a java.text.NumberFormat

input\_text: accepts a text string of one line.

output\_text: displays a text string of one line.

input\_time: accepts a java.util.Date, formatted with a java.text.DateFormat time instance

output\_time: displays a java.util.Date, formatted with a java.text.DateFormat time instance

input\_hidden: allows a page author to include a hidden variable in a page

input\_secret: accepts one line of text with no spaces and displays it as a set of asterisks as it is typed

input\_textarea: accepts multiple lines of text

output\_errors: displays error messages for an entire page or error messages associated with a specified client identifier

output\_label: displays a nested component as a label for a specified input field

output\_message: displays a localized message

Example to validate the userName field of a loginForm using JavaServer Faces:

```
<%@ taglib uri="http://java.sun.com/jsf/html" prefix="h" %>
<%@ taglib uri="http://java.sun.com/jsf/core" prefix="f" %>
...
<jsp:useBean id="UserBean"
    class="myApplication.UserBean" scope="session" />
<f:use_faces>
    <h:form formName="loginForm" >
        <h:input_text id="userName" size="20" modelReference="UserBean.userName">
            <f:validate_required/>
            <f:validate_length minimum="8" maximum="20"/>
        </h:input_text>
        <!-- display errors if present -->
        <h:output_errors id="loginErrors" clientId="userName"/>
        <h:command_button id="submit" label="Submit" commandName="submit" /><p>
    </h:form>
</f:use_faces>
```

## REFERENCES

Java API 1.3 -

<http://java.sun.com/j2se/1.3/docs/api/>

Java API 1.4 -

<http://java.sun.com/j2se/1.4/docs/api/>  
Java Servlet API 2.3 -  
<http://java.sun.com/products/servlet/2.3/javadoc/>  
Java Regular Expression Package -  
<http://jakarta.apache.org/regexp/>  
Jakarta Validator -  
<http://jakarta.apache.org/commons/validator/>  
JavaServer Faces Technology -  
<http://java.sun.com/j2ee/javaxserverfaces/>

## **\*\* Error Handling:**

Many J2EE web application architectures follow the Model View Controller (MVC) pattern. In this pattern a Servlet acts as a Controller. A Servlet delegates the application processing to a JavaBean such as an EJB Session Bean (the Model). The Servlet then forwards the request to a JSP (View) to render the processing results. Servlets should check all input, output, return codes, error codes and known exceptions to ensure that the expected processing actually occurred.

While data validation protects applications against malicious data tampering, a sound error handling strategy is necessary to prevent the application from inadvertently disclosing internal error messages such as exception stack traces. A good error handling strategy addresses the following items:

- [1] Defining Errors
- [2] Reporting Errors
- [3] Rendering Errors
- [4] Error Mapping

### **[1] Defining Errors**

Hard-coded error messages in the application layer (e.g. Servlets) should be avoided. Instead, the application should use error keys that map to known application failures. A good practice is to define error keys that map to validation rules for HTML form fields or other bean properties. For example, if the "user\_name" field is required, is alphanumeric, and must be unique in the database, then the following error keys should be defined:

- (a) ERROR\_USERNAME\_REQUIRED: this error key is used to display a message notifying the user that the "user\_name" field is required;
- (b) ERROR\_USERNAME\_ALPHANUMERIC: this error key is used to display a message notifying the user that the "user\_name" field should be alphanumeric;
- (c) ERROR\_USERNAME\_DUPLICATE: this error key is used to display a message notifying the user that the "user\_name" value is a duplicate in the database;
- (d) ERROR\_USERNAME\_INVALID: this error key is used to display a generic message notifying the user that the "user\_name" value is invalid;

A good practice is to define the following framework Java classes which are used to store and report application errors:

- ErrorKeys: defines all error keys

```
// Example: ErrorKeys defining the following error keys:
// - ERROR_USERNAME_REQUIRED
// - ERROR_USERNAME_ALPHANUMERIC
// - ERROR_USERNAME_DUPLICATE
// - ERROR_USERNAME_INVALID
// ...
public class ErrorKeys {
    public static final String ERROR_USERNAME_REQUIRED = "error.username.required";
    public static final String ERROR_USERNAME_ALPHANUMERIC = "error.username.alphanumeric";
    public static final String ERROR_USERNAME_DUPLICATE = "error.username.duplicate";
    public static final String ERROR_USERNAME_INVALID = "error.username.invalid";
    ...
}
```

- Error: encapsulates an individual error

```
// Example: Error encapsulates an error key.
// Error is serializable to support code executing in multiple JVMs.
public Class Error implements Serializable {

    // Constructor given a specified error key
    public Error(String key) {
        this(key, null);
    }

    // Constructor given a specified error key and array of placeholder objects
    public Error(String key, Object[] values) {
        this.key = key;
        this.values = values;
    }

    // Returns the error key
    public String getKey() {
        return this.key;
    }

    // Returns the placeholder values
    public Object[] getValues() {
        return this.values;
    }

    private String key = null;
    private Object[] values = null;
}
```

- Errors: encapsulates a Collection of errors

```
// Example: Errors encapsulates the Error objects being reported to the presentation layer.
// Errors are stored in a HashMap where the key is the bean property name and value is an
// ArrayList of Error objects.
public Class Errors implements Serializable {

    // Adds an Error object to the Collection of errors for the specified bean property.
    public void addError(String property, Error error) {
        ArrayList propertyErrors = (ArrayList)errors.get(property);
        if (propertyErrors == null) {
            propertyErrors = new ArrayList();
            errors.put(property, propertyErrors);
        }
        propertyErrors.put(error);
    }

    // Returns true if there are any errors
    public boolean hasErrors() {
        return (errors.size > 0);
    }

    // Returns the Errors for the specified property
    public ArrayList getErrors(String property) {
        return (ArrayList)errors.get(property);
    }

    private HashMap errors = new HashMap();
}
```

Using the above framework classes, here is an example to process validation errors of the "user\_name" field:

```

// Example to process validation errors of the "user_name" field.
Errors errors = new Errors();
String userName = request.getParameter("user_name");
// (a) Required validation rule
if (!Validator.validateRequired(userName)) {
    errors.addError("user_name", new Error(ErrorKeys.ERROR_USERNAME_REQUIRED));
} // (b) Alpha-numeric validation rule
else if (!Validator.matchPattern(userName, "^[a-zA-Z0-9]*$")) {
    errors.addError("user_name", new Error(ErrorKeys.ERROR_USERNAME_ALPHANUMERIC));
}
else
{
    // (c) Duplicate check validation rule
    // We assume that there is an existing UserValidationEJB session bean that implements
    // a checkIfDuplicate() method to verify if the user already exists in the database.
    try {
        ...
        if (UserValidationEJB.checkIfDuplicate(userName)) {
            errors.addError("user_name", new Error(ErrorKeys.ERROR_USERNAME_DUPLICATE));
        }
    } catch (RemoteException e) {
        // log the error
        logger.error("Could not validate user for specified userName: " + userName);
        errors.addError("user_name", new Error(ErrorKeys.ERROR_USERNAME_DUPLICATE));
    }
}
// set the errors object in a request attribute called "errors"
request.setAttribute("errors", errors);
...

```

## [2] Reporting Errors

There are two ways to report web-tier application errors:

- (a) Servlet Error Mechanism
- (b) JSP Error Mechanism

### [2-a] Servlet Error Mechanism

A Servlet may report errors by:

- forwarding to the input JSP (having already stored the errors in a request attribute), OR
- calling `response.sendError` with an HTTP error code argument, OR
- throwing an exception

It is good practice to process all known application errors (as described in section [1]), store them in a request attribute, and forward to the input JSP. The input JSP should display the error messages and prompt the user to re-enter the data. The following example illustrates how to forward to an input JSP (`userInput.jsp`):

```

// Example to forward to the userInput.jsp following user validation errors
RequestDispatcher rd = getServletContext().getRequestDispatcher("/user/userInput.jsp");
if (rd != null) {
    rd.forward(request, response);
}

```

If the Servlet cannot forward to a known JSP page, the second option is to report an error using the `response.sendError` method with `HttpServletResponse.SC_INTERNAL_SERVER_ERROR` (status code 500) as argument. Refer to the javadoc of `javax.servlet.http.HttpServletResponse` for more details on the various HTTP status codes.

Example to return a HTTP error:



```
// Example to return a HTTP error code
RequestDispatcher rd = getServletContext().getRequestDispatcher("/user/userInput.jsp");
if (rd == null) {
    // messages is a resource bundle with all message keys and values
    response.sendError(HttpServletResponse.SC_INTERNAL_SERVER_ERROR,
        messages.getMessage(ErrorKeys.ERROR_USERNAME_INVALID));
}
```

As a last resort, Servlets can throw an exception, which must be a subclass of one of the following classes:

- RuntimeException
- ServletException
- IOException

#### [2-b] JSP Error Mechanism

JSP pages provide a mechanism to handle runtime exceptions by defining an errorPage directive as shown in the following example:

```
<%@ page errorPage="/errors/userValidation.jsp" %>
```

Uncaught JSP exceptions are forwarded to the specified errorPage, and the original exception is set in a request parameter called javax.servlet.jsp.jspException. The error page must include a isErrorPage directive as shown below:

```
<%@ page isErrorPage="true" %>
```

The isErrorPage directive causes the "exception" variable to be initialized to the exception object being thrown.

#### [3] Rendering Errors

The J2SE Internationalization APIs provide utility classes for externalizing application resources and formatting messages including:

- (a) Resource Bundles
- (b) Message Formatting

##### [3-a] Resource Bundles

Resource bundles support internationalization by separating localized data from the source code that uses it. Each resource bundle stores a map of key/value pairs for a specific locale.

It is common to use or extend java.util.PropertyResourceBundle, which stores the content in an external properties file as shown in the following example:

```
#####
# ErrorMessages.properties
#####
# required user name error message
error.username.required=User name field is required

# invalid user name format
error.username.alphanumeric=User name must be alphanumeric
```

```
# duplicate user name error message
error.username.duplicate=User name {0} already exists, please choose another one

...
```

Multiple resources can be defined to support different locales (hence the name resource bundle). For example, `ErrorMessages_fr.properties` can be defined to support the French member of the bundle family. If the resource member of the requested locale does not exist, the default member is used. In the above example, the default resource is `ErrorMessages.properties`. Depending on the user's locale, the application (JSP or Servlet) retrieves content from the appropriate resource.

### [3-b] Message Formatting

The J2SE standard class `java.util.MessageFormat` provides a generic way to create messages with replacement placeholders. A `MessageFormat` object contains a pattern string with embedded format specifiers as shown below:

```
// Example to show how to format a message using placeholder parameters
String pattern = "User name {0} already exists, please choose another one";
String userName = request.getParameter("user_name");
Object[] args = new Object[1];
args[0] = userName;
String message = MessageFormat.format(pattern, args);
```

Here is a more comprehensive example to render error messages using `ResourceBundle` and `MessageFormat`:

```
// Example to render an error message from a localized ErrorMessages resource (properties file)
// Utility class to retrieve locale-specific error messages
public class ErrorMessageResource {

    // Returns the error message for the specified error key in the environment locale
    public String getErrorMessage(String errorKey) {
        return getErrorMessage(errorKey, defaultLocale);
    }

    // Returns the error message for the specified error key in the specified locale
    public String getErrorMessage(String errorKey, Locale locale) {
        return getErrorMessage(errorKey, null, locale);
    }

    // Returns a formatted error message for the specified error key in the specified locale
    public String getErrorMessage(String errorKey, Object[] args, Locale locale) {
        // Get localized ErrorMessageResource
        ResourceBundle errorMessageResource = ResourceBundle.getBundle("ErrorMessages", locale);
        // Get localized error message
        String errorMessage = errorMessageResource.getString(errorKey);
        if (args != null) {
            // Format the message using the specified placeholders args
            return MessageFormat.format(errorMessage, args);
        } else {
            return errorMessage;
        }
    }

    // default environment locale
    private Locale defaultLocale = Locale.getDefaultLocale();
}

...
// Get the user's locale
Locale userLocale = request.getLocale();
// Check if there were any validation errors
Errors errors = (Errors)request.getAttribute("errors");
```

```

if (errors != null && errors.hasErrors()) {
    // iterate through errors and output error messages corresponding to the "user_name" property
    ArrayList userNameErrors = errors.getErrors("user_name");
    ListIterator iterator = userNameErrors.iterator();
    while (iterator.hasNext()) {
        // Get the next error object
        Error error = (Error)iterator.next();
        String errorMessage = ErrorMessageResource.getErrorMessage(error.getKey(), userLocale);
        output.write(errorMessage + "\r\n");
    }
}

```

It is recommended to define a custom JSP tag, e.g. `displayErrors`, to iterate through and render error messages as shown in the above example.

#### [4] Error Mapping

Normally, the Servlet Container will return a default error page corresponding to either the response status code or the exception. A mapping between the status code or the exception and a web resource may be specified using custom error pages. It is a good practice to develop static error pages that do not disclose internal error states (by default, most Servlet containers will report internal error messages). This mapping is configured in the Web Deployment Descriptor (`web.xml`) as specified in the following example:

```

<!-- Mapping of HTTP error codes and application exceptions to error pages -->
<error-page>
    <exception-type>UserValidationException</exception-type>
    <location>/errors/validationError.html</error-page>
</error-page>
<error-page>
    <error-code>500</error-type>
    <location>/errors/internalError.html</error-page>
</error-page>
<error-page>
    ...
</error-page>
...

```

## RECOMMENDED JAVA TOOLS

The two main Java frameworks for server-side validation are:

#### [1] Jakarta Commons Validator (integrated with Struts 1.1)

The Jakarta Commons Validator is a Java framework that defines the error handling mechanism as described above. Validation rules are configured in an XML file that defines input validation rules for form fields and the corresponding validation error keys. Struts provides internationalization support to build localized applications using resource bundles and message formatting.

Example to validate the `userName` field of a `loginForm` using Struts Validator:

```

<form-validation>
    <global>
        ...
        <validator name="required"
            classname="org.apache.struts.validator.FieldChecks"
            method="validateRequired"
            msg="errors.required">
        </validator>
        <validator name="mask"
            classname="org.apache.struts.validator.FieldChecks"
            method="validateMask"
            msg="errors.invalid">
        </validator>
    </global>

```

```

...
</global>
<formset>
  <form name="loginForm">
    <!-- userName is required and is alpha-numeric case insensitive -->
    <field property="userName" depends="required,mask">
      <!-- message resource key to display if validation fails -->
      <msg name="mask" key="login.userName.maskmsg"/>
      <arg0 key="login.userName.displayName"/>
      <var>
        <var-name>mask</var-name>
        <var-value>^[a-zA-Z0-9]*$</var-value>
      </var>
    </field>
    ...
  </form>
  ...
</formset>
</form-validation>

```

The Struts JSP tag library defines the "errors" tag that conditionally displays a set of accumulated error messages as shown in the following example:

```

<%@ page language="java" %>
<%@ taglib uri="/WEB-INF/struts-html.tld" prefix="html" %>
<%@ taglib uri="/WEB-INF/struts-bean.tld" prefix="bean" %>
<html:html>
<head>
<body>
  <html:form action="/logon.do">
    <table border="0" width="100%">
      <tr>
        <th align="right">
          <html:errors property="username"/>
          <bean:message key="prompt.username"/>
        </th>
        <td align="left">
          <html:text property="username" size="16"/>
        </td>
      </tr>
      <tr>
        <td align="right">
          <html:submit><bean:message key="button.submit"/></html:submit>
        </td>
        <td align="right">
          <html:reset><bean:message key="button.reset"/></html:reset>
        </td>
      </tr>
    </table>
  </html:form>
</body>
</html:html>

```

## [2] JavaServer Faces Technology

JavaServer Faces Technology is a set of Java APIs (JSR 127) to represent UI components, manage their state, handle events, validate input, and support internationalization.

The JavaServer Faces API defines the "output\_errors" UIOutput Renderer, which displays error messages for an entire page or error messages associated with a specified client identifier.

Example to validate the userName field of a loginForm using JavaServer Faces:

```

<%@ taglib uri="http://java.sun.com/jsf/html" prefix="h" %>
<%@ taglib uri="http://java.sun.com/jsf/core" prefix="f" %>
...
<jsp:useBean id="UserBean"
    class="myApplication.UserBean" scope="session" />
<f:use_faces>
    <h:form formName="loginForm" >
        <h:input_text id="userName" size="20" modelReference="UserBean.userName">
            <f:validate_required/>
            <f:validate_length minimum="8" maximum="20"/>
        </h:input_text>
        <!-- display errors if present -->
        <h:output_errors id="loginErrors" clientId="userName"/>
        <h:command_button id="submit" label="Submit" commandName="submit" /><p>
    </h:form>
</f:use_faces>

```

## REFERENCES

Java API 1.3 -

<http://java.sun.com/j2se/1.3/docs/api/>

Java API 1.4 -

<http://java.sun.com/j2se/1.4/docs/api/>

Java Servlet API 2.3 -

<http://java.sun.com/products/servlet/2.3/javadoc/>

Java Regular Expression Package -

<http://jakarta.apache.org/regexp/>

Jakarta Validator -

<http://jakarta.apache.org/commons/validator/>

JavaServer Faces Technology -

<http://java.sun.com/j2ee/javaserverfaces/>

## PHP

**\*\* Input Data Validation:**

While data validations may be provided as a user convenience on the client-tier, data validation must always be performed on the server-tier. Client-side validations are inherently insecure because they can be easily bypassed, e.g. by disabling Javascript.

A good design usually requires the web application framework to provide server-side utility routines to validate the following:

- [1] Required field
- [2] Field data type (all HTTP request parameters are Strings by default)
- [3] Field length
- [4] Field range
- [5] Field options
- [6] Field pattern
- [7] Cookie values
- [8] HTTP Response

A good practice is to implement a function or functions that validates each application parameter. The following sections describe some example checking.

[1] Required field

Always check that the field is not null and its length is greater than zero, excluding leading and trailing white spaces.

Example of how to validate required fields:

```
// PHP example to validate required fields
```

```
function validateRequired($input) {
    ...
    $pass = false;
    if (strlen(trim($input))>0){
        $pass = true;
    }
    return $pass;
    ...
}
...
if (validateRequired($fieldName)) {
    // fieldName is valid, continue processing request
    ...
}
```

## [2] Field data type

In web applications, input parameters are poorly typed. For example, all HTTP request parameters or cookie values are of type String. The developer is responsible for verifying the input is of the correct data type.

## [3] Field length

Always ensure that the input parameter (whether HTTP request parameter or cookie value) is bounded by a minimum length and/or a maximum length.

## [4] Field range

Always ensure that the input parameter is within a range as defined by the functional requirements.

## [5] Field options

Often, the web application presents the user with a set of options to choose from, e.g. using the SELECT HTML tag, but fails to perform server-side validation to ensure that the selected value is one of the allowed options. Remember that a malicious user can easily modify any option value. Always validate the selected user value against the allowed options as defined by the functional requirements.

## [6] Field pattern

Always check that user input matches a pattern as defined by the functionality requirements. For example, if the userName field should only allow alpha-numeric characters, case insensitive, then use the following regular expression:

```
^[a-zA-Z0-9]+$
```

## [7] Cookie value

The same validation rules (described above) apply to cookie values depending on the application requirements, e.g. validate a required value, validate length, etc.

## [8] HTTP Response

### [8-1] Filter user input

To guard the application against cross-site scripting, the developer should sanitize HTML by converting sensitive characters to their corresponding character entities. These are the HTML sensitive characters:

```
< > " ' % ; ) ( & +
```

PHP includes some automatic sanitization utility functions, such as htmlentities():

```
$input = htmlentities($input, ENT_QUOTES, 'UTF-8');
```

In addition, in order to avoid UTF-7 variants of Cross-site Scripting, you should explicitly define the Content-Type header of the response, for example:

```
<?php
header('Content-Type: text/html; charset=UTF-8');

?>
```

## [8-2] Secure the cookie

When storing sensitive data in a cookie and transporting it over SSL, make sure that you first set the secure flag of the cookie in the HTTP response. This will instruct the browser to only use that cookie over SSL connections.

You can use the following code example, for securing the cookie:

```
<$php
$value = "some_value";
$time = time()+3600;
$path = "/application/";
$domain = ".example.com";
$secure = 1;

setcookie("CookieName", $value, $time, $path, $domain, $secure, TRUE);

?>
```

In addition, we recommend that you use the HttpOnly flag. When the HttpOnly flag is set to TRUE the cookie will be made accessible only through the HTTP protocol. This means that the cookie won't be accessible by scripting languages, such as JavaScript. This setting can effectively help to reduce identity theft through XSS attacks (although it is not supported by all browsers).

The HttpOnly flag was Added in PHP 5.2.0.

## REFERENCES

[1] Mitigating Cross-site Scripting With HTTP-only Cookies:

<http://msdn2.microsoft.com/en-us/library/ms533046.aspx>

[2] PHP Security Consortium:

<http://phpsec.org/>

[3] PHP & Web Application Security Blog (Chris Shiflett):

<http://shiflett.org/>

# Advisories

## Unencrypted Login Request

[TOC](#)

### Test Type:

Application-level test

### Threat Classification:

Insufficient Transport Layer Protection

### Causes:

Sensitive input fields such as usernames, password and credit card numbers are passed unencrypted

### Security Risks:

It may be possible to steal user login information such as usernames and passwords that are sent unencrypted

### Affected Products:

### CWE:

523

### X-Force:

52471

### References:

Financial Privacy: The Gramm-Leach Bliley Act  
Health Insurance Portability and Accountability Act (HIPAA)  
Sarbanes-Oxley Act  
California SB1386

### Technical Description:

During the application test, it was detected that an unencrypted login request was sent to the server. Since some of the input fields used in a login process (for example: usernames, passwords, e-mail addresses, social security number, etc.) are personal and sensitive, it is recommended that they will be sent to the server over an encrypted connection (e.g. SSL).

Any information sent to the server as clear text, may be stolen and used later for identity theft or user impersonation.



In addition, several privacy regulations state that sensitive information such as user credentials will always be sent encrypted to the web site.

## Inadequate Account Lockout

[TOC](#)

### Test Type:

Application-level test

### Threat Classification:

Brute Force

### Causes:

Insecure web application programming or configuration

### Security Risks:

It might be possible to escalate user privileges and gain administrative permissions over the web application

### Affected Products:

### CWE:

307

### X-Force:

52623

### References:

"Blocking Brute-Force Attacks" by Mark Burnett

### Technical Description:

AppScan Detected that the application does not limit the number of false login attempts.

It did so by sending 10 requests with a bad password, and then successfully logged in using the correct credentials.

Not limiting the number of false login attempts exposes the application to a brute force attack.

A brute force attack is an attempt by a malicious user to gain access to the application by sending a large number of possible passwords and/or usernames.

Since this technique involves a large amount of login attempts, an application that does not limit the number of false login requests allowed is vulnerable to these attacks.

It is therefore highly recommended to restrict the number of false login attempts allowed on an account before it is locked.

### Sample Exploit:

The following request illustrates a password-guessing request:

`http://site/login.asp?username=EXISTING_USERNAME&password=GUESSED_PASSWORD`

If the site does not lock the tested account after several false attempts, the attacker may eventually discover the

account password and use it to impersonate the account's legitimate user.

## Insecure HTTP Methods Enabled

[TOC](#)

### Test Type:

Infrastructure test

### Threat Classification:

[Content Spoofing](#)

### Causes:

The web server or application server are configured in an insecure way

### Security Risks:

It is possible to upload, modify or delete web pages, scripts and files on the web server

### Affected Products:

### X-Force:

52655

### References:

[WASC Threat Classification: Content Spoofing](#)

### Technical Description:

It seems that the web server is configured to allow one (or more) of the following HTTP methods (verbs):

- DELETE
- SEARCH
- COPY
- MOVE
- PROPFIND
- PROPPATCH
- MKCOL
- LOCK
- UNLOCK
- PUT

These methods may indicate that WebDAV is enabled on the server, and may allow unauthorized users to exploit it.

## Alternate Version of File Detected

[TOC](#)

### Test Type:

Infrastructure test

### Threat Classification:

Information Leakage

### Causes:

Temporary files were left in production environment

### Security Risks:

It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

### Affected Products:

### X-Force:

52504

### Technical Description:

Oftentimes, developers may leave alternate versions of script files in the virtual root, such as files beginning with "Copy of", "\_", ":", "~", and "Old". When requesting these files, they will be displayed in the browser. These files may contain alternate or older versions of existing scripts.

It is important to remove these files from under the virtual directory, as they may contain sensitive information that was used for debugging purposes, or point to areas of the site which are not viewable through current scripts.

## Archive File Download

[TOC](#)

### Test Type:

Infrastructure test

### Threat Classification:

Predictable Resource Location

### Causes:

Temporary files were left in production environment

### Security Risks:

It is possible to download temporary script files, which can expose the application logic and other sensitive information such as usernames and passwords

### Affected Products:

## X-Force:

52496

## References:

WASC Threat Classification: Predictable Resource Location

## Technical Description:

Web servers usually associate Common Gateway Interface (CGI) filename extensions, such as .pl, with a handler, such as Perl. When a URL path ends with .pl, the filename designated in the path is sent to Perl for execution; the file contents are not returned to the browser. However, when the script files are archived, an ARC file may be created. The web server usually does not have a specific handler for this extensions. If the attacker requests this file, the file contents are sent directly to the browser.

# Autocomplete HTML Attribute Not Disabled for Password Field

TOC

## Test Type:

Application-level test

## Threat Classification:

Information Leakage

## Causes:

Insecure web application programming or configuration

## Security Risks:

It may be possible to bypass the web application's authentication mechanism

## Affected Products:

## CWE:

522

## X-Force:

85989

## Technical Description:

The "autocomplete" attribute has been standardized in the HTML5 standard. W3C's site states that the attribute has two states, "on" and "off", and that omitting it altogether is equivalent to setting it to "on".

This page is vulnerable since it does not set the "autocomplete" attribute to "off" for the "password" field in the "input"

element.

This may enable an unauthorized user (with local access to an authorized client) to autofill the username and password fields, and thus log in to the site.

## Bash Shell History File Retrieval

[TOC](#)

### Test Type:

Infrastructure test

### Threat Classification:

[Information Leakage](#)

### Causes:

The web server or application server are configured in an insecure way

### Security Risks:

It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

### Affected Products:

### X-Force:

763

### Technical Description:

The Bash shell history file contains the history of commands run by a user on the Bash shell. It may contain sensitive information about the machine, including passwords, directory structure, application versions, etc. By exploiting this issue, an attacker might gain sensitive information about the server machine, which may assist in further attacks against the site.

## Temporary File Download

[TOC](#)

### Test Type:

Infrastructure test

### Threat Classification:

[Predictable Resource Location](#)

### Causes:

Temporary files were left in production environment

### Security Risks:

It is possible to download temporary script files, which can expose the application logic and other sensitive information such as usernames and passwords

### Affected Products:

### X-Force:

52887

### References:

WASC Threat Classification: Predictable Resource Location

### Technical Description:

Web servers usually associate Common Gateway Interface (CGI) filename extensions, such as .pl, with a handler, such as Perl. When a URL path ends with .pl, the filename designated in the path is sent to Perl for execution; the file contents are not returned to the browser. However, when the script files are edited in place, the editor may save a backup copy of the edited script with a new file extension, such as .bak, .sav, .old, ~, etc. The web server usually does not have a specific handler for these extensions. If the attacker requests one of these files, the file contents are sent directly to the browser.

It is important to remove these temporary files from under the virtual directory, as they may contain sensitive information that was used for debugging purposes, or they may reveal application logic that is different than the current logic, but may still be exploited.

## Application Error

TOC

### Test Type:

Application-level test

### Threat Classification:

Information Leakage

### Causes:

- Proper bounds checking were not performed on incoming parameter values
- No validation was done in order to make sure that user input matches the data type expected

### Security Risks:

It is possible to gather sensitive debugging information

### Affected Products:

## CWE:

550

## X-Force:

52502

## References:

An example for using apostrophe to hack a site can be found in "How I hacked PacketStorm (by Rain Forest Puppy), RFP's site"

"Web Application Disassembly with ODBC Error Messages" (By David Litchfield)

CERT Advisory (CA-1997-25): Sanitizing user-supplied data in CGI scripts

## Technical Description:

If an attacker probes the application by forging a request that contains parameters or parameter values other than the ones expected by the application (examples are listed below), the application may enter an undefined state that makes it vulnerable to attack. The attacker can gain useful information from the application's response to this request, which information may be exploited to locate application weaknesses.

For example, if the parameter field should be an apostrophe-quoted string (e.g. in an ASP script or SQL query), the injected apostrophe symbol will prematurely terminate the string stream, thus changing the normal flow/syntax of the script.

Another cause of vital information being revealed in error messages, is when the scripting engine, web server, or database are misconfigured.

Here are some different variants:

- [1] Remove parameter
- [2] Remove parameter value
- [3] Set parameter value to null
- [4] Set parameter value to a numeric overflow (+/- 99999999)
- [5] Set parameter value to hazardous characters, such as ' " \ ' ) ;
- [6] Append some string to a numeric parameter value
- [7] Append "." (dot) or "[]" (angle brackets) to the parameter name

## Client-Side (JavaScript) Cookie References

TOC

### Test Type:

Application-level test

### Threat Classification:

Information Leakage

### Causes:

Cookies are created at the client side

### Security Risks:

The worst case scenario for this attack depends on the context and role of the cookies that are created at the client side

## Affected Products:

### CWE:

602

### X-Force:

52514

## References:

WASC Threat Classification: Information Leakage

## Technical Description:

A cookie is a piece of information usually created by the Web server and stored in the Web browser.

The cookie contains information used by web applications mainly (but not only) to identify users and maintain their state.

AppScan detected that the JavaScript code at the client side is used to manipulate (either create or modify) the site's cookies.

It is possible for an attacker to view this code, understand its logic, and use it to compose his own cookies, or modify existing ones, based on this knowledge.

The damage an attacker may cause depends on how the application uses its cookies, or what information it stores in them.

Among other things, cookie manipulation may lead to session hijacking or privilege escalation.

Other vulnerabilities caused by cookie poisoning contain SQL injection and Cross-Site scripting.

# Email Address Pattern Found

TOC

## Test Type:

Application-level test

## Threat Classification:

Information Leakage

## Causes:

Insecure web application programming or configuration

## Security Risks:

It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations

## Affected Products:



CWE:

359

X-Force:

52584

References:

[Definition of Spambot \(Wikipedia\)](#)

**Technical Description:**

Spambots crawl internet sites, set out to find e-mail addresses in order to build mailing lists for sending unsolicited e-mail (spam).

AppScan detected a response containing one or more e-mail addresses, which may be exploited to send spam mail

Furthermore, the e-mail addresses found may be private and thus should not be accessible to the general public.

# Application Data

## Visited URLs 39

TOC

URL
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.js">http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/modernizr.js">http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/modernizr.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/fastclick.js">http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/fastclick.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.cookie.js">http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.cookie.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/placeholder.js">http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/placeholder.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/foundation.min.js">http://openfda.wasoftware.com/OpenFDA/theme/js/foundation.min.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/lib/foundation.datepicker.js">http://openfda.wasoftware.com/OpenFDA/lib/foundation.datepicker.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.tab.js">http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.tab.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.js">http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.topbar.js">http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.topbar.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.throttle-debounce.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.throttle-debounce.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.smooth-scroll.min.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.smooth-scroll.min.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/jquery.parallax-1.1.3.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/jquery.parallax-1.1.3.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/TweenMax.min.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/TweenMax.min.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/jquery.superscrollorama.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/jquery.superscrollorama.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.backstretch.min.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.backstretch.min.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery-scrollspy.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery-scrollspy.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.shuffle.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.shuffle.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/slick.min.js">http://openfda.wasoftware.com/OpenFDA/theme/lib/slick.min.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/theme/js/agency-nyc.js">http://openfda.wasoftware.com/OpenFDA/theme/js/agency-nyc.js</a>
<a href="http://openfda.wasoftware.com/OpenFDA/?language=en">http://openfda.wasoftware.com/OpenFDA/?language=en</a>
<a href="http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons.scss">http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons.scss</a>
<a href="http://openfda.wasoftware.com/OpenFDA/?language=es">http://openfda.wasoftware.com/OpenFDA/?language=es</a>
<a href="http://openfda.wasoftware.com/OpenFDA/j_spring_security_check">http://openfda.wasoftware.com/OpenFDA/j_spring_security_check</a>
<a href="http://openfda.wasoftware.com/OpenFDA/login">http://openfda.wasoftware.com/OpenFDA/login</a>
<a href="http://openfda.wasoftware.com/OpenFDA/j_spring_security_check">http://openfda.wasoftware.com/OpenFDA/j_spring_security_check</a>
<a href="http://openfda.wasoftware.com/OpenFDA/login?language=en">http://openfda.wasoftware.com/OpenFDA/login?language=en</a>
<a href="http://openfda.wasoftware.com/OpenFDA/login?language=es">http://openfda.wasoftware.com/OpenFDA/login?language=es</a>
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>
<a href="http://openfda.wasoftware.com/OpenFDA/lib/jquery.throttle-debounce.js">http://openfda.wasoftware.com/OpenFDA/lib/jquery.throttle-debounce.js</a>

<http://openfda.wasoftware.com/OpenFDA/lib/jquery.smooth-scroll.min.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/parallax/jquery.parallax-1.1.3.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/parallax/TweenMax.min.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/parallax/jquery.superscrollorama.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/jquery.backstretch.min.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/jquery-scrollspy.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/jquery.shuffle.js>  
<http://openfda.wasoftware.com/OpenFDA/lib/slick.min.js>

## Parameters 5

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Name	Value	URL	Type
j_password	123456	<a href="http://openfda.wasoftware.com/OpenFDA/j_spring_security_check">http://openfda.wasoftware.com/OpenFDA/j_spring_security_check</a>	Password
j_username	user1	<a href="http://openfda.wasoftware.com/OpenFDA/j_spring_security_check">http://openfda.wasoftware.com/OpenFDA/j_spring_security_check</a>	Text
language	en es	<a href="http://openfda.wasoftware.com/OpenFDA/login?language=en">http://openfda.wasoftware.com/OpenFDA/login?language=en</a>	Simple Link
language	en es	<a href="http://openfda.wasoftware.com/OpenFDA/?language=en">http://openfda.wasoftware.com/OpenFDA/?language=en</a>	Simple Link
submit	Submit	<a href="http://openfda.wasoftware.com/OpenFDA/j_spring_security_check">http://openfda.wasoftware.com/OpenFDA/j_spring_security_check</a>	Submit

## Failed Requests 1

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### URL

<http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/targetf>

## Filtered URLs 15

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URL	Reason
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/normalize.css">http://openfda.wasoftware.com/OpenFDA/theme/css/normalize.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/slick/style.css">http://openfda.wasoftware.com/OpenFDA/theme/css/slick/style.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/animate.min.css">http://openfda.wasoftware.com/OpenFDA/theme/css/animate.min.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/font-awesome.min.css">http://openfda.wasoftware.com/OpenFDA/theme/css/font-awesome.min.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/lib/hovericon/css/component.css">http://openfda.wasoftware.com/OpenFDA/theme/lib/hovericon/css/component.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/foundation.css">http://openfda.wasoftware.com/OpenFDA/theme/css/foundation.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/style.css">http://openfda.wasoftware.com/OpenFDA/theme/css/style.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/theme/css/style-responsive.css">http://openfda.wasoftware.com/OpenFDA/theme/css/style-responsive.css</a>	File Extension

<a href="http://openfda.wasoftware.com/OpenFDA/css/foundation.datepicker.css">http://openfda.wasoftware.com/OpenFDA/css/foundation.datepicker.css</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/css/app.css">http://openfda.wasoftware.com/OpenFDA/css/app.css</a>	File Extension
<a href="http://openfda.wasoftware.com/">http://openfda.wasoftware.com/</a>	General Regular Expression
<a href="http://openfda.wasoftware.com/OpenFDA/img/WSI_Logo.png">http://openfda.wasoftware.com/OpenFDA/img/WSI_Logo.png</a>	File Extension
<a href="http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons/webicon-face-book.svg">http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons/webicon-face-book.svg</a>	Image Context
<a href="http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons/webicon-twitter.svg">http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons/webicon-twitter.svg</a>	Image Context
<a href="http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons/webicon-linkedin.svg">http://openfda.wasoftware.com/OpenFDA/css/webicons-master/webicons/webicon-linkedin.svg</a>	Image Context

## Comments 20

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URL	Comment
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	CSS
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	CSS Override
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Foundation Requirements
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	header Page
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	top bar section
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Before Login Menu
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Right Nav. Section
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Login Button
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Language Button
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Footer Page
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>	Landing Page Requirements
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	Override CSS
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	Foundation Requirements
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	header section
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	Left Nav. Section
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	Home Button
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	OpenFDA Data Button
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	My Data Button
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	Login/Logout Button
<a href="http://openfda.wasoftware.com/OpenFDA/welcome">http://openfda.wasoftware.com/OpenFDA/welcome</a>	Language Button with dropdown

## JavaScripts 32

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URL / Code
<a href="http://openfda.wasoftware.com/OpenFDA/">http://openfda.wasoftware.com/OpenFDA/</a>

```
$(document).ready(function() {
    document.loginForm.username.focus();
});
```

<http://openfda.wasoftware.com/OpenFDA/>

```
$(document).foundation();
```

<http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.js>

```
/*! JointJS v0.9.3 - JavaScript diagramming library 2015-02-03

This Source Code Form is subject to the terms of the Mozilla Public
License, v. 2.0. If a copy of the MPL was not distributed with this
file, You can obtain one at http://mozilla.org/MPL/2.0/.
*/
/*!
 * jQuery JavaScript Library v2.0.3
 * http://jquery.com/
 *
 * Includes Sizzle.js
 * http://sizzlejs.com/
 *
 * Copyright 2005, 2013 jQuery Foundation, Inc. and other contributors
 * Released under the MIT license
 * http://jquery.org/license
 *
 * Date: 2013-07-03T13:30Z
 */
(function( window, undefined ) {

// Can't do this because several apps including ASP.NET trace
// the stack via arguments.caller.callee and Firefox dies if
// you try to trace through "use strict" call chains. (#13335)
// Support: Firefox 18+
// "use strict";
var
    // A central reference to the root jQuery(document)
    rootjQuery,

    // The deferred used on DOM ready
    readyList,

    // Support: IE9
    // For `typeof xmlNode.method` instead of `xmlNode.method !== undefined`
    core_strundefined = typeof undefined,

    // Use the correct document accordingly with window argument (sandbox)
    location = window.location,
    document = window.document,
    docElem = document.documentElement,

    // Map over jQuery in case of overwrite
    _jQuery = window.jQuery,

    // Map over the $ in case of overwrite
    _$ = window.$,

    // [[Class]] -> type pairs
    class2type = {},

    // List of deleted data cache ids, so we can reuse them
    core_deletedIds = [],
```

```

core_version = "2.0.3",

// Save a reference to some core methods
core_concat = core_deletedIds.concat,
core_push = core_deletedIds.push,
core_slice = core_deletedIds.slice,
core_indexOf = core_deletedIds.indexOf,
core_toString = class2type.toString,
core_hasOwn = class2type.hasOwnProperty,
core_trim = core_version.trim,

// Define a local copy of jQuery
jQuery = function( selector, context ) {
    // The jQuery object is actually just the init constructor 'enhanced'
    return new jQuery.fn.init( selector, context, rootjQuery );
},

// Used for matching numbers
core_pnum = /[+-]?(?:\d*\.|)\d+(?:[eE][+-]?\d+)?/.source,

// Used for splitting on whitespace
core_rnotwhite = /\S+/g,

// A simple way to check for HTML strings
// Prioritize #id over <tag> to avoid XSS via location.hash (#9521)
// Strict HTML recognition (#11290: must start with <)
rquickExpr = /^(?:\s*(<[\w\W]+>)[^]*|#[\w-]*)$/g,

// Match a standalone tag
rsingleTag = /^<(\w+)\s*/?(?:<\/\1>)$/g,

// Matches dashed string for camelizing
rmsPrefix = /^-ms-/g,
rdashAlpha = /-([\da-z])/gi,

// Used by jQuery.camelCase as callback to replace()
fcamelCase = function( all, letter ) {
    return letter.toUpperCase();
},

// The ready event handler and self cleanup method
completed = function() {
    document.removeEventListener( "DOMContentLoaded", completed, false );
    window.removeEventListener( "load", completed, false );
    jQuery.ready();
};

jQuery.fn = jQuery.prototype = {
    // The current version of jQuery being used
    jquery: core_version,

    constructor: jQuery,
    init: function( selector, context, rootjQuery ) {
        var match, elem;

        // HANDLE: $(""), $(null), $(undefined), $(false)
        if ( !selector ) {
            return this;
        }

        // Handle HTML strings
        if ( typeof selector === "string" ) {
            if ( selector.charAt(0) === "<" && selector.charAt( selector.length - 1 ) === ">" &&
                selector.length >= 3 ) {
                // Assume that strings that start and end with <> are HTML and skip the regex
                check
                match = [ null, selector, null ];

            } else {
                match = rquickExpr.exec( selector );
            }

            // Match html or make sure no context is specified for #id
            if ( match && (match[1] || !context) ) {

                // HANDLE: $(html) -> $(array)
                if ( match[1] ) {

```

```

        context = context instanceof jQuery ? context[0] : context;

        // scripts is true for back-compat
        jQuery.merge( this, jQuery.parseHTML(
            match[1],
            context && context.nodeType ? context.ownerDocument ||
context : document,
            true     e
        ) ) ;

        // HANDLE: $(html, props)
        if ( rsingleTag.test( match[1] ) && jQuery.isPlainObject( context ) )
        {
            for ( match in context ) {
                // Properties of context are called as methods if
                possible
                if ( jQuery.isFunction( this[ match ] ) ) {
                    this[ match ]( context[ match ] );

                    // ...and otherwise set as attributes
                } else {
                    this.attr( match, context[ match ] );
                }
            }

            return this;
        }

        // HANDLE: $(#id)
        } else {
            elem = document.getElementById( match[2] );

            // Check parentNode to catch when Blackberry 4.6 returns
            // nodes that are no longer in the document #6963
            if ( elem && elem.parentNode ) {
                // Inject the element directly into the jQuery object
                this.length = 1;
                this[0] = elem;
            }

            this.cont...

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/modernizr.js>

```

/* Modernizr 2.8.3 (Custom Build) | MIT & BSD
 * Build: http://modernizr.com/download/#-fontface-backgroundsize-borderimage-borderradius-boxshadow-flexbox-
hsla-multiplebgs-opacity-rgba-textshadow-cssanimations-csscolumns-generatedcontent-cssgradients-
cssreflections-csstransforms-csstransforms3d-csstransitions-applicationcache-canvas-canvastext-draganddrop-
hashchange-history-audio-video-indexeddb-input-inputtypes-localstorage-postmessage-sessionstorage-websockets-
websql-database-webworkers-geolocation-inlinesvg-smil-svg-svgclippaths-touch-webgl-shiv-cssclasses-addtest-
prefixed-teststyles-testprop-testallprops-hasevent-prefixes-domprefixes-load
 */
;

window.Modernizr = (function( window, document, undefined ) {

    var version = '2.8.3',

    Modernizr = {},

    enableClasses = true,

    docElement = document.documentElement,

    mod = 'modernizr',
    modElem = document.createElement(mod),
    mStyle = modElem.style,

    inputElem = document.createElement('input') ,

    smile = ':)',

    toString = {}.toString,

```

```

prefixes = ' -webkit- -moz- -o- -ms- '.split(' '),

omPrefixes = 'Webkit Moz O ms',

cssomPrefixes = omPrefixes.split(' '),

domPrefixes = omPrefixes.toLowerCase().split(' '),

ns = {'svg': 'http://www.w3.org/2000/svg'},

tests = {},
inputs = {},
attrs = {},

classes = [],

slice = classes.slice,

featureName,

injectElementWithStyles = function( rule, callback, nodes, testnames ) {

    var style, ret, node, docOverflow,
        div = document.createElement('div'),
        body = document.body,
        fakeBody = body || document.createElement('body');

    if ( parseInt(nodes, 10) ) {
        while ( nodes-- ) {
            node = document.createElement('div');
            node.id = testnames ? testnames[nodes] : mod + (nodes + 1);
            div.appendChild(node);
        }

        style = ['&#173;', '<style id="s', mod, '">', rule, '</style>'].join('');
        div.id = mod;
        (body ? div : fakeBody).innerHTML += style;
        fakeBody.appendChild(div);
        if ( !body ) {
            fakeBody.style.background = '';
            fakeBody.style.overflow = 'hidden';
            docOverflow = docElement.style.overflow;
            docElement.style.overflow = 'hidden';
            docElement.appendChild(fakeBody);
        }

        ret = callback(div, rule);
        if ( !body ) {
            fakeBody.parentNode.removeChild(fakeBody);
            docElement.style.overflow = docOverflow;
        } else {
            div.parentNode.removeChild(div);
        }

        return !!ret;

    },

    isEventSupported = (function() {

        var TAGNAMES = {
            'select': 'input', 'change': 'input',
            'submit': 'form', 'reset': 'form',
            'error': 'img', 'load': 'img', 'abort': 'img'
        };

        function isEventSupported( eventName, element ) {

            element = element || document.createElement(TAGNAMES[eventName] || 'div');
            eventName = 'on' + eventName;

```



```

        var isSupported = eventName in element;

        if ( !isSupported ) {
            if ( !element.setAttribute ) {
                element = document.createElement('div');
            }
            if ( element.setAttribute && element.removeAttribute ) {
                element.setAttribute(eventName, '');
                isSupported = is(element[eventName], 'function');

                if ( !is(element[eventName], 'undefined') ) {
                    element[eventName] = undefined;
                }
                element.removeAttribute(eventName);
            }
        }
        element = null;
        return isSupported;
    }
    return isEventSupported;
})();

_hasOwnProperty = ({}).hasOwnProperty, hasOwnProp;

if ( !is(_hasOwnProperty, 'undefined') && !is(_hasOwnProperty.call, 'undefined') ) {
    hasOwnProp = function (object, property) {
        return _hasOwnProperty.call(object, property);
    };
}
else {
    hasOwnProp = function (object, property) {
        return ((property in object) && is(object.constructor.prototype[property], 'undefined'));
    };
}

if (!Function.prototype.bind) {
    Function.prototype.bind = function bind(that) {

        var target = this;

        if (typeof target !== "function") {
            throw new TypeError();
        }

        var args = slice.call(arguments, 1),
            bound = function () {

                if (this instanceof bound) {

                    var F = function(){};
                    F.prototype = target.prototype;
                    var self = new F();

                    var result = target.apply(
                        self,
                        args.concat(slice.call(arguments))
                    );
                    if (Object(result) === result) {
                        return result;
                    }
                }
            };

        ...
    }
}

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/fastclick.js>

```

/**
 * @preserve FastClick: polyfill to remove click delays on browsers with touch UIs.
 *
 * @version 1.0.3
 * @codingstandard ftlabs-jsv2
 * @copyright The Financial Times Limited [All Rights Reserved]
 * @license MIT License (see LICENSE.txt)

```

```

*/
function FastClick(a,b){"use strict";function c(a,b){return function(){return a.apply(b,arguments)}}var
d;if(b=b||
{}),this.trackingClick=!1,this.trackingClickStart=0,this.targetElement=null,this.touchStartX=0,this.touchStart
Y=0,this.lastTouchIdentifier=0,this.touchBoundary=b.touchBoundary||10,this.layer=a,this.tapDelay=b.tapDelay||
200,!FastClick.notNeeded(a)){for(var e=
["onMouse","onClick","onTouchStart","onTouchMove","onTouchEnd","onTouchCancel"],f=this,g=0,h=e.length;h>g;g++)
f[e[g]]=c(f[e[g]],f);deviceIsAndroid&&
(a.addEventListener("mouseover",this.onMouse,!0),a.addEventListener("mousedown",this.onMouse,!0),a.addEventLi
stener("mouseup",this.onMouse,!0),a.addEventListener("click",this.onClick,!0),a.addEventListener("touchstart
",this.onTouchStart,!1),a.addEventListener("touchmove",this.onTouchMove,!1),a.addEventListener("touchend",thi
s.onTouchEnd,!1),a.addEventListener("touchcancel",this.onTouchCancel,!1),Event.prototype.stopImmediatePropaga
tion||(a.removeEventListener=function(b,c,d){var e=Node.prototype.removeEventListener;"click"===b?
e.call(a,b,c,hijacked)||c(d):e.call(a,b,c,d)},a.addEventListener=function(b,c,d){var
e=Node.prototype.addEventListener;"click"===b?e.call(a,b,c,hijacked)||c(hijacked=function(a)
){a.propagationStopped||c(a)},d):e.call(a,b,c,d)}),"function"===typeof a.onclick&&
(d=a.onclick,a.addEventListener("click",function(a){d(a)},!1),a.onclick=null)}var
deviceIsAndroid=navigator.userAgent.indexOf("Android")>0,deviceIsIOS=/iP(ad|hone|od)/.test(navigator.userAgen
t),deviceIsIOS4=deviceIsIOS&&OS
4\_d(\_d)?/.test(navigator.userAgent),deviceIsIOSWithBadTarget=deviceIsIOS&&OS ({6-
9})\_d(2))\_d/.test(navigator.userAgent),deviceIsBlackBerry10=navigator.userAgent.indexOf("BB10")>0;FastClick.
prototype.needsClick=function(a){"use strict";switch(a.nodeName.toLowerCase())
{case"button":case"select":case"textarea":if(a.disabled)return!0;break;case"input":if(deviceIsIOS&&"file"===a
.type||a.disabled)return!0;break;case"label":case"video":return!0}return/\bneedsclick\b/.test(a.className)},F
astClick.prototype.needsFocus=function(a){"use strict";switch(a.nodeName.toLowerCase())
{case"textarea":return!0;case"select":return!deviceIsAndroid;case"input":switch(a.type)
{case"button":case"checkbox":case"file":case"image":case"radio":case"submit":return!1}return!a.disabled&&!a.r
eadOnly;default:return/\bneedsfocus\b/.test(a.className)}},FastClick.prototype.sendClick=function(a,b){"use
strict";var
c,d=document.activeElement&&document.activeElement!==a&&document.activeElement.blur(),d=b.changedTouches[0],c
=document.createEvent("MouseEvent"),c.initMouseEvent(this.determineEventType(a),!0,!0>window,1,d.screenX,d.s
creenY,d.clientX,d.clientY,!1,!1,!1,!1,0,null),c.forwardedTouchEvent=!0,a.dispatchEvent(c)},FastClick.prototy
pe.determineEventType=function(a){"use strict";return
deviceIsAndroid&&"select"===a.tagName.toLowerCase()? "mousedown": "click"},FastClick.prototype.focus=function(a)
){"use strict";var b;deviceIsIOS&&a.setSelectionRange&&0!==a.type.indexOf("date")&&"time"===a.type?
(b=a.value.length,a.setSelectionRange(b,b)):a.focus(),FastClick.prototype.updateScrollParent=function(a)
{"use strict";var b,c;if(b=a.fastClickScrollParent,!b||!b.contains(a))
{c=a;do{if(c.scrollHeight>c.offsetHeight){b=c,a.fastClickScrollParent=c;break}c=c.parentElement}while(c)}b&&
(b.fastClickLastScrollTop=b.scrollTop)},FastClick.prototype.getTargetElementFromEventTarget=function(a){"use
strict";return a.nodeType===Node.TEXT_NODE?a.parentNode:a},FastClick.prototype.onTouchStart=function(a){"use
strict";var
b,c,d;if(a.targetTouches.length>1)return!0;if(b=this.getTargetElementFromEventTarget(a.target),c=a.targetTouc
hes[0],deviceIsIOS){if(d=window.getSelection(),d.rangeCount&&!d.isCollapsed)return!0;if(!deviceIsIOS4)
return!0;if(c.identifier&&c.identifier===this.lastTouchIdentifier)return
a.preventDefault(),!1;this.lastTouchIdentifier=c.identifier,this.updateScrollParent(b)}return
this.trackingClick=!0,this.trackingClickStart=a.timeStamp,this.targetElement=b,this.touchStartX=c.pageX,this.
touchStartY=c.pageY,a.timeStamp-
this.lastClickTime<this.tapDelay&&a.preventDefault(),!0},FastClick.prototype.touchHasMoved=function(a){"use
strict";var b=a.changedTouches[0],c=this.touchBoundary;return Math.abs(b.pageX-
this.touchStartX)>c||Math.abs(b.pageY-this.touchStartY)>c?!0:!1},FastClick.prototype.onTouchMove=function(a)
{"use strict";return this.trackingClick?
((this.targetElement!==this.getTargetElementFromEventTarget(a.target)||this.touchHasMoved(a))&&
(this.trackingClick=!1,this.targetElement=null,!0):!0),FastClick.prototype.findControl=function(a){"use
strict";return void 0!==a.control?a.control:a.htmlFor?
document.getElementById(a.htmlFor):a.querySelector("button, input:not([type=hidden]), keygen, meter, output,
pro...

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/jquery.cookie.js>

```

/*!
 * jQuery Cookie Plugin v1.4.1
 * https://github.com/carhartl/jquery-cookie
 *
 * Copyright 2013 Klaus Hartl
 * Released under the MIT license
 */
!function(a){"function"===typeof define&&define.amd?define(["jquery"],a):a("object"===typeof exports?
require("jquery"):jQuery)}(function(a){function b(a){return h.raw?a:encodeURIComponent(a)}function c(a)
{return h.raw?a:decodeURIComponent(a)}function d(a){return b(h.json?JSON.stringify(a):String(a))}function
e(a){0===a.indexOf('"')&&(a=a.slice(1,-1).replace(/\\"/g,'"').replace(/\\/g,\\));try{return
a=decodeURIComponent(a.replace(g," ")),h.json?JSON.parse(a):a}catch(b){}}function f(b,c){var d=h.raw?
b:e(b);return a.isFunction(c)?c(d):d}var g=/+\/g,h=a.cookie=function(e,g,i){if(void 0!==g&&!a.isFunction(g))
{if(i=a.extend({},h.defaults,i),"number"===typeof i.expires){var j=i.expires,k=i.expires=new

```

```
Date;k.setTime(+k+864e5*j)}return document.cookie=[b(e),"=",d(g),i.expires?";":
expires="+i.expires.toUTCString()+";",i.path?"; path="+i.path:""; domain="+i.domain:""; i.secure?";
secure=""];"".join(""));for(var l=e?void 0:{};m=document.cookie?document.cookie.split("; "):
[],n=0,o=m.length;o>n;n++){var p=m[n].split("="),q=c(p.shift()),r=p.join("=");if(e&&e===q)
{l=f(r,g);break;}e|void 0===r?f(r)||l[q]=r)return 1;h.defaults={},a.removeCookie=function(b,c){return
void 0===a.cookie(b)?!:(a.cookie(b),"",a.extend({},c,{expires:-1})),!a.cookie(b))};
```

<http://openfda.wasoftware.com/OpenFDA/theme/js/vendor/placeholder.js>

```
/*! http://mths.be/placeholder v2.0.8 by @mathias */
!function(a,b,c){function d(a){var b={};d=/^jQuery$/;return c.each(a.attributes,function(a,c)
{c.specified&&d.test(c.name)&&(b[c.name]=c.value)}),b}function e(a,b){var
d=this,e=c(d);if(d.value==e.attr("placeholder")&&e.hasClass("placeholder"))if(e.data("placeholder-password"))
{if(e.hide().next().show().attr("id").e.removeAttr("id").data("placeholder-id"),a===!0)return
e[0].value=b;e.focus()}else d.value="",e.removeClass("placeholder"),d=g()&&d.select()}function f(){var
a,b=this,f=c(b),g=this.id;if("=="b.value){if("password"==b.type){if(!f.data("placeholder-textinput"))
{try(a=f.clone().attr({type:"text"}))catch(h){a=c("<input>").attr(c.extend(d(this),
{type:"text"}))}a.removeAttr("name").data({"placeholder-password":f,"placeholder-
id":g}).bind("focus.placeholder",e),f.data({"placeholder-textinput":a,"placeholder-
id":g}).before(a)}f.removeAttr("id").hide().prev().attr("id",g).show()}f.addClass("placeholder"),f[0].value
=f.attr("placeholder")}else f.removeClass("placeholder")}function g(){try{return b.activeElement}catch(a)
{}}var h,i,j="object OperaMini"==Object.prototype.toString.call(a.operamini),k="placeholder"in
b.createElement("input")&&!j,l="placeholder"in
b.createElement("textarea")&&!j,m=c.fn,n=c.valHooks,o=c.propHooks;k&&l?(i=m.placeholder=function(){return
this,i.input=i.textarea=!0):(i=m.placeholder=function(){var a=this;return a.filter((k?"textarea":"input")+
[placeholder]).not(".placeholder").bind({"focus.placeholder":e,"blur.placeholder":f}).data("placeholder-
enabled",!0).trigger("blur.placeholder"),a),i.input=k,i.textarea=l,h={get:function(a){var
b=c(a),d=b.data("placeholder-password");return d?d[0].value:b.data("placeholder-
enabled")&&b.hasClass("placeholder")?"":a.value},set:function(a,b){var d=c(a),h=d.data("placeholder-
password");return h?h[0].value=b:d.data("placeholder-enabled")?"":b?
(a.value=b,a!=g()&&f.call(a)):d.hasClass("placeholder")?e.call(a,!0,b)||
(a.value=b):a.value=b,d:a.value=b}},k||(n.input=h,o.value=h),l||(n.textarea=h,o.value=h),c(function()
{c(b).delegate("form","submit.placeholder",function(){var
a=c(".placeholder",this).each(e);setTimeout(function()
{a.each(f),10})}),c(a).bind("beforeunload.placeholder",function(){c(".placeholder").each(function()
{this.value=""})})})}(this,document,jQuery);
```

<http://openfda.wasoftware.com/OpenFDA/theme/js/foundation.min.js>

```
!function(a,b,c,d){function e(a){return("string"==typeof a||a instanceof String)&&
(a=a.replace(/^[^\w]+|(\s?)+|['\\"/"]+$/g,"")),a}var f=function(b){for(var c=b.length,d=a("head");c--
;0===d.has("."+"b[c]").length&&d.append('<meta class="'+b[c]+'"/>');f(["foundation-mq-small","foundation-mq-
medium","foundation-mq-large","foundation-mq-xlarge","foundation-mq-xxlarge","foundation-data-attribute-
namespace"]),a(function(){!typeof FastClick&&"undefined"!typeof
c.body&&FastClick.attach(c.body)});var g=function(b,d){if("string"==typeof b){if(d){var e;if(d.jquery)
{if(e=d[0],!e)return d}else e=d;return a(e.querySelectorAll(b))}return a(c.querySelectorAll(b))}return
a(b,d)},h=function(a){var b=[];return
a||b.push("data"),this.namespace.length>0&&b.push(this.namespace),b.push(this.name),b.join("-")
},i=function(a){for(var b=a.split("-"),c=b.length,d=[];c--;)0!==(c?d.push(b[c]):this.namespace.length>0?
d.push(this.namespace,b[c]):d.push(b[c]));return d.reverse().join("-"),j=function(b,c){var
d=this,e=!g(this).data(this.attr_name(!0));return g(this.scope).is("[ "+this.attr_name()+"]")?
(g(this.scope).data(this.attr_name(!0))+"-
init",a.extend({},this.settings,c||b,this.data_options(g(this.scope)))),e&&this.events(this.scope):g("
["+this.attr_name()+"]",this.scope).each(function(){var e=!g(this).data(d.attr_name(!0))+"-
init");g(this).data(d.attr_name(!0))+"-
init",a.extend({},d.settings,c||b,d.data_options(g(this))),e&&d.events(this)}),"string"==typeof b?
this[b].call(this,c):void 0},k=function(a,b){function c(){b(a[0])}function d(){if(this.one("load",c),/MSIE
(\d+\.\d+)/.test(navigator.userAgent)){var a=this.attr("src"),b=a.match(/\?/)?"&":"&";b+="random="+(new
Date).getTime(),this.attr("src",a+b)}}return a.attr("src")?void(a[0].complete||4===a[0].readyState?
c():d.call(a):void 0);b.matchMedia=b.matchMedia||function(a){var
b,c=a.documentElement,d=c.firstChild||c.firstChild,e=a.createElement("body"),f=a.createElement("div");
return f.id="mq-test-1",f.style.cssText="position:absolute;top:-
100em",e.style.background="none",e.appendChild(f),function(a){return f.innerHTML='<shy;<style media="'+a+'">
#mq-test-1 { width: 42px; }</style>',c.insertBefore(e,d),b=42===f.offsetWidth,c.removeChild(e),
{matches:b,media:a}}}(c,function(){function a(){c&&(f(a),h&&jQuery.fx.tick())}for(var c,d=0,e=
["webkit","ms"],f=b.requestAnimationFrame,g=b.cancelAnimationFrame,h="undefined"!typeof
jQuery.fx;d<e.length&&f;d++)f=b[e[d]+"RequestAnimationFrame"],g=g||b[e[d]+"CancelAnimationFrame"]||b[e[d]+"C
ancelRequestAnimationFrame"];f?(b.requestAnimationFrame=f,b.cancelAnimationFrame=g,h&&
```

```

(jQuery.fx.timer=function(b){b()&&jQuery.timers.push(b)&&!c&&(c=!0,a())},jQuery.fx.stop=function(){c=!1}):
(b.requestAnimationFrame=function(a){var c=(new Date).getTime(),e=Math.max(0,16-(c-
d)),f=b.setTimeout(function(){a(c+e)},e);return d=c+e,f},b.cancelAnimationFrame=function(a)
{clearTimeout(a)})(jQuery),b.Foundation={name:"Foundation",version:"5.4.1",media_queries:
{small:g("foundation-mq-small").css("font-family").replace(/^[\\\/\']|(\s?)+|
[\\\/\']+$|g,""),medium:g("foundation-mq-medium").css("font-family").replace(/^[\\\/\']|(\s?)+|
[\\\/\']+$|g,""),large:g("foundation-mq-large").css("font-family").replace(/^[\\\/\']|(\s?)+|
[\\\/\']+$|g,""),xlarge:g("foundation-mq-xlarge").css("font-family").replace(/^[\\\/\']|(\s?)+|
[\\\/\']+$|g,""),xxlarge:g("foundation-mq-xxlarge").css("font-family").replace(/^[\\\/\']|(\s?)+|
[\\\/\']+$|g,"")},stylesheet:a("<style></style>").appendTo("head")[0].sheet,global:
{namespace:d},init:function(a,c,d,e,f){var h=[a,d,e,f],i=
[];if(this.rtl=/rtl/i.test(g("html").attr("dir")),this.scope=a||this.scope,this.set_namespace(),c&&"string"==
typeof c&&!/reflow/i.test(c))this.libs.hasOwnProperty(c)&&i.push(this.init_lib(c,h));else for(var j in
this.libs)i.push(this.init_lib(j,c));return g(b).load(function()
{g(b).trigger("resize.fndtn.clearing").trigger("resize.fndtn.dropdown").trigger("resize.fndtn.equalizer").tri
gger("resize.fndtn.interchange").trigger("resize.fndtn.joyride").trigger("resize.fndtn.magellan").trigger("re
size.fndtn.topbar").trigger("resize.fndtn.slider")},a),init_lib:function(b,c){return
this.libs.hasOwnProperty(b)?(this.patch(this.libs[b]),c&&c.hasOwnProperty(b)?("undefined"!=typeof
this.libs[b].settings?a.extend(!0,this.libs[b].settings,c[b]):"undefined"!=typeof
this.libs[b].defaults&&a.extend(!0,this.libs[b].defaults,c[b]),this.libs[b].init.apply(this.libs[b],
[this.scope,c[b]])):c=c instanceof Array?c:new Array(c),this.libs[b].init.apply(this.libs[b],c)):function()
{}}),patch:function(a)
{a.scope=this.scope,a.namespace=this.global.namespace,a.rtl=this.rtl,a.data_options=this.utils.data_options,a
.attr_name=h,a.add_namespace=i,a.bindings=j,a.S=this.utils.S,inherit:function(a,b){for(var c=b.split("
"),d=c.length-d--;)this.utils.hasOwnProperty(c[d])&&(a[c[d]]=this.utils[c[d]]),set_namespace:function(){var
b=this.global.namespace===d?a("foundation-data-attribute-namespace").css("font...

```

<http://openfda.wasoftware.com/OpenFDA/lib/foundation.datepicker.js>

```

/**
 * Created by ehung on 6/25/2015.
 */
/* =====
 * foundation-datepicker.js
 * Copyright 2013 Peter Beno, najlepsiwebdesigner@gmail.com, @benopeter
 * project website http://foundation-datepicker.peterbeno.com
 *
 * original project:
 *     bootstrap-datepicker.js
 *     http://www.eyecon.ro/bootstrap-datepicker
 *
 *     =====
 *     Copyright 2012 Stefan Petre
 *     Improvements by Andrew Rowls
 *
 * Licensed under the Apache License, Version 2.0 (the "License");
 * you may not use this file except in compliance with the License.
 * You may obtain a copy of the License at
 *
 * http://www.apache.org/licenses/LICENSE-2.0
 *
 * Unless required by applicable law or agreed to in writing, software
 * distributed under the License is distributed on an "AS IS" BASIS,
 * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
 * See the License for the specific language governing permissions and
 * limitations under the License.
 * ===== */

!function( $ ) {

    function UTCDate(){
        return new Date(Date.UTC.apply(Date, arguments));
    }
    function UTCToday(){
        var today = new Date();
        return UTCDate(today.getUTCFullYear(), today.getUTCMonth(), today.getUTCDate());
    }

    // Picker object

    var Datepicker = function(element, options) {
        var that = this;

        this.element = $(element);

```

```

        this.closeButton = options.closeButton;
        this.language = options.language || this.element.data('date-language') || "en";
        this.language = this.language in dates ? this.language : this.language.split('-')[0]; //Check if "de-
DE" style date is available, if not language should fallback to 2 letter code eg "de"
        this.language = this.language in dates ? this.language : "en";
        this.isRTL = dates[this.language].rtl || false;
        this.format = DPGlobal.parseFormat(options.format || this.element.data('date-
format') || dates[this.language].format || 'mm/dd/yyyy');
        this.isInline = false;
        this.isInput = this.element.is('input');
        this.component = this.element.is('.date') ? this.element.find('.prefix, .postfix') : false;
        this.hasInput = this.component && this.element.find('input').length;

        this.onRender = options.onRender || function () {};
        if(this.component && this.component.length === 0)
            this.component = false;

        this._attachEvents();

        this.forceParse = true;
        if ('forceParse' in options) {
            this.forceParse = options.forceParse;
        } else if ('dateForceParse' in this.element.data()) {
            this.forceParse = this.element.data('date-force-parse');
        }

        this.picker = $(DPGlobal.template)
            .appendTo(this.isInline ? this.element : 'body')
            .on({
                click: $.proxy(this.click, this),
                mousedown: $.proxy(this.mousedown, this)
            });
        if (this.closeButton) {
            this.picker.find('a.datepicker-close').show();
        }

        if(this.isInline) {
            this.picker.addClass('datepicker-inline');
        } else {
            this.picker.addClass('datepicker-dropdown dropdown-menu');
        }
        if (this.isRTL) {
            this.picker.addClass('datepicker-rtl');
        }
        $(document).on('mousedown', function (e) {
            // Clicked outside the datepicker, hide it
            if ($(e.target).closest('.datepicker.datepicker-inline, .datepicker.datepicker-dropdown').length
=== 0) {
                that.hide();
            }
        });

        this.autoclose = true;
        if ('autoclose' in options) {
            this.autoclose = options.autoclose;
        } else if ('dateAutoclose' in this.element.data()) {
            this.autoclose = this.element.data('date-autoclose');
        }

        this.keyboardNavigation = true;
        if ('keyboardNavigation' in options) {
            this.keyboardNavigation = options.keyboardNavigation;
        } else if ('dateKeyboardNavigation' in this.element.data()) {
            this.keyboardNavigation = this.element.data('date-keyboard-navigation');
        }

        this.viewMode = this.startViewMode = 0;
        switch(options.startView || this.element.data('date-start-view')){
            case 2:
            case 'decade':
                this.viewMode = this.startViewMode = 2;
                break;
            case 1:
            case 'year':
                this.viewMode = this.startViewMode = 1;
                break;

```

```

    }

    this.todayBtn = (options.todayBtn||this.element.data('date-today-btn')||false);
    this.todayHighlight = (options.todayHighlight||this.element.data('date-today-highlight')||false);

    this.calendarWeek...

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.tab.js>

```

;(function ($, window, document, undefined) {
  'use strict';

  Foundation.libs.tab = {
    name : 'tab',

    version : '5.5.2',

    settings : {
      active_class : 'active',
      callback : function () {},
      deep_linking : false,
      scroll_to_content : true,
      is_hover : false
    },

    default_tab_hashes : [],

    init : function (scope, method, options) {
      var self = this,
          S = this.S;

      // Store the default active tabs which will be referenced when the
      // location hash is absent, as in the case of navigating the tabs and
      // returning to the first viewing via the browser Back button.
      S('[' + this.attr_name() + '] > .active > a', this.scope).each(function () {
        self.default_tab_hashes.push(this.hash);
      });

      // store the initial href, which is used to allow correct behaviour of the
      // browser back button when deep linking is turned on.
      self.entry_location = window.location.href;

      this.bindings(method, options);

      this.handle_location_hash_change();
    },

    events : function () {
      var self = this,
          S = this.S;

      var usual_tab_behavior = function (e, target) {
        var settings = S(target).closest('[' + self.attr_name() + ']').data(self.attr_name(true) + '-init');
        if (!settings.is_hover || Modernizr.touch) {
          e.preventDefault();
          e.stopPropagation();
          self.toggle_active_tab(S(target).parent());
        }
      };

      S(this.scope)
        .off('.tab')
        // Key event: focus/tab key
        .on('keydown.fndtn.tab', '[' + this.attr_name() + '] > * > a', function(e) {
          var el = this;
          var keyCode = e.keyCode || e.which;
          // if user pressed tab key
          if (keyCode == 9) {
            e.preventDefault();
            // TODO: Change usual_tab_behavior into accessibility function?
            usual_tab_behavior(e, el);
          }
        })
    }
  };

```

```

        // Click event: tab title
        .on('click.fndtn.tab', '[' + this.attr_name() + ']' > * > a', function(e) {
            var el = this;
            usual_tab_behavior(e, el);
        })
        // Hover event: tab title
        .on('mouseenter.fndtn.tab', '[' + this.attr_name() + ']' > * > a', function (e) {
            var settings = S(this).closest('[' + self.attr_name() + ']').data(self.attr_name(true) + '-init');
            if (settings.is_hover) {
                self.toggle_active_tab(S(this).parent());
            }
        });

        // Location hash change event
        S(window).on('hashchange.fndtn.tab', function (e) {
            e.preventDefault();
            self.handle_location_hash_change();
        });
    },

    handle_location_hash_change : function () {

        var self = this,
            S = this.S;

        S('[' + this.attr_name() + ']', this.scope).each(function () {
            var settings = S(this).data(self.attr_name(true) + '-init');
            if (settings.deep_linking) {
                // Match the location hash to a label
                var hash;
                if (settings.scroll_to_content) {
                    hash = self.scope.location.hash;
                } else {
                    // prefix the hash to prevent anchor scrolling
                    hash = self.scope.location.hash.replace('fndtn-', '');
                }
                if (hash != '') {
                    // Check whether the location hash references a tab content div or
                    // another element on the page (inside or outside the tab content div)
                    var hash_element = S(hash);
                    if (hash_element.hasClass('content') && hash_element.parent().hasClass('tabs-content')) {
                        // Tab content div
                        self.toggle_active_tab($('[' + self.attr_name() + ']' > * > a[href=' + hash + '']).parent());
                    } else {
                        // Not the tab content div. If inside the tab content, find the
                        // containing tab and toggle it as active.
                        var hash_tab_container_id = hash_element.closest('.content').attr('id');
                        if (hash_tab_container_id != undefined) {
                            self.toggle_active_tab($('[' + self.attr_name() + ']' > * > a[href='#' + hash_tab_container_id + '']).parent(), hash);
                        }
                    }
                } else {
                    // Reference the default tab hashes which were initialized in the init function
                    for (var ind = 0; ind < self.default_tab_hashes.length; ind++) {
                        self.toggle_active_tab($('[' + self.attr_name() + ']' > * > a[href=' +
self.default_tab_hashes[ind] + '']).parent());
                    }
                }
            }
        });
    },

    toggle_active_tab : function (tab, location_hash) {
        var self = this,
            S = self.S,
            tabs = tab.closest('[' + this.attr_name() + ']'),
            tab_link = tab.find('a'),
            anchor = tab.children('a').first(),
            target_hash = '#' + anchor.att...

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.js>

```

/*
 * Foundation Responsive Library
 * http://foundation.zurb.com
 * Copyright 2014, ZURB
 * Free to use under the MIT license.
 * http://www.opensource.org/licenses/mit-license.php
 */

(function ($, window, document, undefined) {
  'use strict';

  var header_helpers = function (class_array) {
    var i = class_array.length;
    var head = $('head');

    while (i--) {
      if (head.has('.' + class_array[i]).length === 0) {
        head.append('<meta class="' + class_array[i] + '" />');
      }
    }
  };

  header_helpers([
    'foundation-mq-small',
    'foundation-mq-small-only',
    'foundation-mq-medium',
    'foundation-mq-medium-only',
    'foundation-mq-large',
    'foundation-mq-large-only',
    'foundation-mq-xlarge',
    'foundation-mq-xlarge-only',
    'foundation-mq-xxlarge',
    'foundation-data-attribute-namespace']);

  // Enable FastClick if present

  $(function () {
    if (typeof FastClick !== 'undefined') {
      // Don't attach to body if undefined
      if (typeof document.body !== 'undefined') {
        FastClick.attach(document.body);
      }
    }
  });

  // private Fast Selector wrapper,
  // returns jQuery object. Only use where
  // getElementById is not available.
  var S = function (selector, context) {
    if (typeof selector === 'string') {
      if (context) {
        var cont;
        if (context.jquery) {
          cont = context[0];
          if (!cont) {
            return context;
          }
        } else {
          cont = context;
        }
        return $(cont.querySelectorAll(selector));
      }

      return $(document.querySelectorAll(selector));
    }

    return $(selector, context);
  };

  // Namespace functions.

  var attr_name = function (init) {
    var arr = [];
    if (!init) {
      arr.push('data');
    }
    if (this.namespace.length > 0) {
      arr.push(this.namespace);
    }
  };

```



```

    }
    arr.push(this.name);

    return arr.join('-');
  };

  var add_namespace = function (str) {
    var parts = str.split('-'),
        i = parts.length,
        arr = [];

    while (i--) {
      if (i !== 0) {
        arr.push(parts[i]);
      } else {
        if (this.namespace.length > 0) {
          arr.push(this.namespace, parts[i]);
        } else {
          arr.push(parts[i]);
        }
      }
    }

    return arr.reverse().join('-');
  };

  // Event binding and data-options updating.

  var bindings = function (method, options) {
    var self = this,
        bind = function () {
          var $this = S(this),
              should_bind_events = !$this.data(self.attr_name(true) + '-init');
          $this.data(self.attr_name(true) + '-init', $.extend({}, self.settings, (options || method),
            self.data_options($this)));

          if (should_bind_events) {
            self.events(this);
          }
        };

    if (S(this.scope).is([' ' + this.attr_name() + ''])) {
      bind.call(this.scope);
    } else {
      S([' ' + this.attr_name() + ''], this.scope).each(bind);
    }

    // # Patch to fix #5043 to move this *after* the if/else clause in order for Backbone and similar
    // frameworks to have improved control over event binding and data-options updating.
    if (typeof method === 'string') {
      return this[method].call(this, options);
    }
  };

  var single_image_loaded = function (image, callback) {
    function loaded () {
      callback(image[0]);
    }

    function bindLoad () {
      this.one('load', loaded);

      if (/MSIE (\d+\.\d+)/.test(navigator.userAgent)) {
        var src = this.attr('src'),
            param = src.match(/(?:\?|&) ? '&' : '?';

        param += 'random=' + (new Date()).getTime();
        this.attr('src', src + param);
      }
    }

    if (!image.attr('src')) {
      loaded();
      return;
    }

    if (image[0].complete || image[0].readyState === 4) {
      loaded();
    }
  };

```

```

    } else {
        bindLoad.call(image);
    }
};

/*! matchMedia() polyfill - Test a CSS media type/query in JS. Authors & copyright (c) 2012: Scott Jehl,
Paul Irish, Nicholas Zakas, David Knight. Dual MIT/BSD license */

window.matchMedia || (window.matchMedia = function() {
    "use strict";

    // For browsers that support matchMedium api such as IE 9 and webkit
    var styleMedia = (window.styleMedia || window.media);

    // For those that don't support matchMedium
    if (!styleMedia) {
        var style
            = document.createElement('style'),
            script
            = document.getElementsByTagName('script')[0],
            info
            = null;

        style.type = 'text/css';
        style.id = 'matchmediajs-test';

        script.parentNode.insertBefore(style, script);

        // 'style.currentStyle' is used by IE <= 8 and 'window.getComputedStyle' for all other browsers
        info = ('getComputedStyle' in window) && window.getComputedStyle...
    }
});

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/foundation/foundation.topbar.js>

```

;(function ($, window, document, undefined) {
    'use strict';

    Foundation.libs.topbar = {
        name: 'topbar',

        version: '5.5.2',

        settings: {
            index: 0,
            start_offset: 0,
            sticky_class: 'sticky',
            custom_back_text: true,
            back_text: 'Back',
            mobile_show_parent_link: true,
            is_hover: true,
            scrolltop: true, // jump to top when sticky nav menu toggle is clicked
            sticky_on: 'all',
            dropdown_autoclose: true
        },

        init: function (section, method, options) {
            Foundation.inherit(this, 'add_custom_rule register_media throttle');
            var self = this;

            self.register_media('topbar', 'foundation-mq-topbar');

            this.bindings(method, options);

            self.S('[' + this.attr_name() + ']', this.scope).each(function () {
                var topbar = $(this);
                settings = topbar.data(self.attr_name(true) + '-init'),
                section = self.S('section', topbar, settings);
                topbar.data('index', 0);
                var topbarContainer = topbar.parent();
                if (topbarContainer.hasClass('fixed') || self.is_sticky(topbar, topbarContainer, settings)) {
                    self.settings.sticky_class = settings.sticky_class;
                    self.settings.sticky_topbar = topbar;
                    topbar.data('height', topbarContainer.outerHeight());
                    topbar.data('stickyoffset', topbarContainer.offset().top);
                } else {
                    topbar.data('height', topbar.outerHeight());
                }
            });
        }
    };

```

```

        if (!settings.assembled) {
            self.assemble(topbar);
        }

        if (settings.is hover) {
            self.S('.has-dropdown', topbar).addClass('not-click');
        } else {
            self.S('.has-dropdown', topbar).removeClass('not-click');
        }

        // Pad body when sticky (scrolled) or fixed.
        self.add_custom_rule('.f-topbar-fixed { padding-top: ' + topbar.data('height') + 'px }');

        if (topbarContainer.hasClass('fixed')) {
            self.S('body').addClass('f-topbar-fixed');
        }
    });
},

is_sticky : function (topbar, topbarContainer, settings) {
    var sticky      = topbarContainer.hasClass(settings.sticky_class);
    var smallMatch  = matchMedia(Foundation.media_queries.small).matches;
    var medMatch    = matchMedia(Foundation.media_queries.medium).matches;
    var lrgMatch    = matchMedia(Foundation.media_queries.large).matches;

    if (sticky && settings.sticky_on === 'all') {
        return true;
    }
    if (sticky && this.small() && settings.sticky_on.indexOf('small') !== -1) {
        if (smallMatch && !medMatch && !lrgMatch) { return true; }
    }
    if (sticky && this.medium() && settings.sticky_on.indexOf('medium') !== -1) {
        if (smallMatch && medMatch && !lrgMatch) { return true; }
    }
    if (sticky && this.large() && settings.sticky_on.indexOf('large') !== -1) {
        if (smallMatch && medMatch && lrgMatch) { return true; }
    }

    return false;
},

toggle : function (toggleEl) {
    var self = this,
        topbar;

    if (toggleEl) {
        topbar = self.S(toggleEl).closest('[ ' + this.attr_name() + ' ]');
    } else {
        topbar = self.S('[ ' + this.attr_name() + ' ]');
    }

    var settings = topbar.data(this.attr_name(true) + '-init');

    var section = self.S('section, .top-bar-section', topbar);

    if (self.breakpoint()) {
        if (!self.rtl) {
            section.css({left : '0%'});
            $('>.name', section).css({left : '100%'});
        } else {
            section.css({right : '0%'});
            $('>.name', section).css({right : '100%'});
        }

        self.S('li.moved', section).removeClass('moved');
        topbar.data('index', 0);

        topbar
            .toggleClass('expanded')
            .css('height', '');
    }

    if (settings.scrollToTop) {
        if (!topbar.hasClass('expanded')) {
            if (topbar.hasClass('fixed')) {
                topbar.parent().addClass('fixed');
            }
        }
    }
}

```

```

        topbar.removeClass('fixed');
        self.S('body').addClass('f-topbar-fixed');
    }
} else if (topbar.parent().hasClass('fixed')) {
    if (settings.scrolltop) {
        topbar.parent().removeClass('fixed');
        topbar.addClass('fixed');
        self.S('body').removeClass('f-topbar-fixed');

        window.scrollTo(0, 0);
    } else {
        topbar.parent().removeClass('expanded');
    }
}
} else {
    if (self.is_sticky(topbar, topbar.parent(), settings)) {
        topbar.parent().addClass('fixed');
    }

    if (topbar.parent().hasClass('fixed')) {
        if (!topbar.hasClass('expanded')) {
            topbar.removeClass('fixed');
            topbar.parent().removeClass('expanded');
            self.update_sticky_positioning();
        } else {
            ...

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.throttle-debounce.js>

```

/#!/
* jQuery throttle / debounce - v1.1 - 3/7/2010
* http://benalman.com/projects/jquery-throttle-debounce-plugin/
*
* Copyright (c) 2010 "Cowboy" Ben Alman
* Dual licensed under the MIT and GPL licenses.
* http://benalman.com/about/license/
*/

// Script: jQuery throttle / debounce: Sometimes, less is more!
//
// *Version: 1.1, Last updated: 3/7/2010*
//
// Project Home - http://benalman.com/projects/jquery-throttle-debounce-plugin/
// GitHub       - http://github.com/cowboy/jquery-throttle-debounce/
// Source       - http://github.com/cowboy/jquery-throttle-debounce/raw/master/jquery.ba-throttle-debounce.js
// (Minified)   - http://github.com/cowboy/jquery-throttle-debounce/raw/master/jquery.ba-throttle-debounce.min.js (0.7kb)
//
// About: License
//
// Copyright (c) 2010 "Cowboy" Ben Alman,
// Dual licensed under the MIT and GPL licenses.
// http://benalman.com/about/license/
//
// About: Examples
//
// These working examples, complete with fully commented code, illustrate a few
// ways in which this plugin can be used.
//
// Throttle - http://benalman.com/code/projects/jquery-throttle-debounce/examples/throttle/
// Debounce  - http://benalman.com/code/projects/jquery-throttle-debounce/examples/debounce/
//
// About: Support and Testing
//
// Information about what version or versions of jQuery this plugin has been
// tested with, what browsers it has been tested in, and where the unit tests
// reside (so you can test it yourself).
//
// jQuery Versions - none, 1.3.2, 1.4.2
// Browsers Tested  - Internet Explorer 6-8, Firefox 2-3.6, Safari 3-4, Chrome 4-5, Opera 9.6-10.1.
// Unit Tests       - http://benalman.com/code/projects/jquery-throttle-debounce/unit/
//
// About: Release History

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.smooth-scroll.min.js>

```

/!
* Smooth Scroll - v1.5.0 - 2014-08-11
* https://github.com/kswedberg/jquery-smooth-scroll
* Copyright (c) 2014 Karl Swedberg
* Licensed MIT (https://github.com/kswedberg/jquery-smooth-scroll/blob/master/LICENSE-MIT)
*/
(function(t){function e(t){return t.replace(/(:|\.)/g,"\\$1")}var l="1.5.0",o={},s={exclude:[],excludeWithin:
[],offset:0,direction:"top",scrollElement:null,scrollTarget:null,beforeScroll:function()
{}},afterScroll:function({}),easing:"swing",speed:400,autoCoefficient:2,preventDefault:!0},n=function(e){var
l=[],o=!1,s=e.dir&&"left"===e.dir?"scrollLeft":"scrollTop";return this.each(function()
{if(this!==document&&this!==window){var e=t(this);e[s]()>0?l.push(this):(e[s](l),o=e[s]
())>0,o&&l.push(this),e[s]({})}}),l.length||this.each(function(){if("BODY"===this.nodeName&&(l=
[this])),"first"===e.el&&l.length>1&&(l=[l[0]]),l);t.fn.extend({scrollable:function(t){var e=n.call(this,
{dir:t});return this.pushStack(e)},firstScrollable:function(t){var e=n.call(this,{el:"first",dir:t});return
this.pushStack(e)},smoothScroll:function(l,o){if(l=l||{},"options"===l)return o?this.each(function(){var
e=t(this),l=t.extend(e.data("ssOpts")||{}),o;t(this).data("ssOpts",l)}):this.first().data("ssOpts");var
s=t.extend({},t.fn.smoothScroll.defaults,l),n=t.smoothScroll.filterPath(location.pathname);return
this.unbind("click.smoothscroll").bind("click.smoothscroll",function(l){var
o=this,r=t(this),i=t.extend({},s,r.data("ssOpts")||{}),c=s.exclude,a=i.excludeWithin,f=0,h=0,u=!0,d=
{}},p=location.hostname===o.hostname||!o.hostname,m=i.scrollTarget||
(t.smoothScroll.filterPath(o.pathname)||n)===n,S=e(o.hash);if(i.scrollTarget||p&&m&&S)
{for(;u&&c.length>f;){r.is(e(c[f++]))&&(u=!1);for(;u&&a.length>h;){r.closest(a[h++]).length&&(u=!1)}else
u=!1;u&&(i.preventDefault&&l.preventDefault(),t.extend(d,i,
{scrollTarget:i.scrollTarget||S,link:o}),t.smoothScroll(d)}),this}},t.smoothScroll=function(e,l)
{if("options"===e&&"object"===typeof l)return t.extend(o,l);var s,n,r,i,c,a=0,f="offset",h="scrollTop",u={},d=
{};"number"===typeof e?(s=t.extend({link:null},t.fn.smoothScroll.defaults,o),r=e):(
s=t.extend({link:null},t.fn.smoothScroll.defaults,e||{}),o.s.scrollElement&&
(f="position","static"===s.scrollElement.css("position")&&s.scrollElement.css("position","relative")),h="lef
t"===s.direction?"scrollLeft":h,s.scrollElement?(n=s.scrollElement,/^(:?HTML|BODY)$/i.test(n[0].nodeName)||
(a=n[h]())):n=t("html, body").firstScrollable(s.direction),s.beforeScroll.call(n,s),r="number"===typeof e?
e:l||t(s.scrollTarget)[f]()&&t(s.scrollTarget)[f]()[s.direction]||0,u[h]=r+a+s.offset,i=s.speed,"auto"===i&&
(c=u[h]-n.scrollTop(),0>c&&(c=-1),i=c/s.autoCoefficient),d={duration:i,easing:s.easing,complete:function()
{s.afterScroll.call(s.link,s)},s.step&&(d.step=s.step),n.length?
n.stop().animate(u,d):s.afterScroll.call(s.link,s)},t.smoothScroll.version=l,t.smoothScroll.filterPath=functi
on(t){return t=t||""}.replace(/^\//,"").replace(/(?:index|default)\.([a-zA-Z]{3,4})$/,"").replace(/\/$/,""),t.fn.smoothScroll.defaults=s})(jQuery);

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/jquery.parallax-1.1.3.js>

```

/*
Plugin: jQuery Parallax
Version 1.1.3
Author: Ian Lunn
Twitter: @IanLunn
Author URL: http://www.ianlunn.co.uk/
Plugin URL: http://www.ianlunn.co.uk/plugins/jquery-parallax/

Dual licensed under the MIT and GPL licenses:
http://www.opensource.org/licenses/mit-license.php
http://www.gnu.org/licenses/gpl.html
*/

(function( $ ){
    var $window = $(window);
    var windowHeight = $window.height();

    $window.resize(function () {
        windowHeight = $window.height();
    });

    $.fn.parallax = function(xpos, speedFactor, outerHeight) {
        var $this = $(this);
        var getHeight;
        var firstTop;
        var paddingTop = 0;

        //get the starting position of each element to have parallax applied to it
        $this.each(function(){
            firstTop = $this.offset().top;
        });

        if (outerHeight) {
            getHeight = function(jqo) {

```

```

        return jqo.outerHeight(true);
    }
    ;
} else {
    getHeight = function(jqo) {
        return jqo.height();
    }
    ;
}

// setup defaults if arguments aren't specified
if (arguments.length < 1 || xpos === null) xpos = "50%";
if (arguments.length < 2 || speedFactor === null) speedFactor = 0.1;
if (arguments.length < 3 || outerHeight === null) outerHeight = true;

// function to be called whenever the window is scrolled or resized
function update(){
    var pos = $window.scrollTop();

    $this.each(function(){
        var $element = $(this);
        var top = $element.offset().top;
        var height = getHeight($element);

        // Check if totally above or totally below viewport
        if (top + height < pos || top > pos + windowHeight) {
            return;
        }

        $this.css('backgroundPosition', xpos + " " + Math.round((firstTop - pos) *
speedFactor) + "px");
    })
    ;

    $window.bind('scroll', update).resize(update);
    update();
};
})(jQuery);

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/TweenMax.min.js>

```

/*!
 * VERSION: beta 1.9.7
 * DATE: 2013-05-16
 * UPDATES AND DOCS AT: http://www.greensock.com
 *
 * Includes all of the following: TweenLite, TweenMax, TimelineLite, TimelineMax, EasePack, CSSPlugin,
RoundPropsPlugin, BezierPlugin, AttrPlugin, DirectionalRotationPlugin
 *
 * @license Copyright (c) 2008-2013, GreenSock. All rights reserved.
 * This work is subject to the terms at http://www.greensock.com/terms_of_use.html or for
 * Club GreenSock members, the software agreement that was issued with your membership.
 *
 * @author: Jack Doyle, jack@greensock.com
 **/
(window._gsQueue||(window._gsQueue=[])).push(function(){"use strict";window._gsDefine("TweenMax",
["core.Animation","core.SimpleTimeline","TweenLite"],function(t,e,i){var s=[],r=function(t,e,s)
{i.call(this,t,e,s),this._cycle=0,this._yoyo=this.vars.yoyo===!0,this._repeat=this.vars.repeat||0,this._repea
tDelay=this.vars.repeatDelay||0,this._dirty=!0},n=function(t){return
t.jquery||t.length&&t[0]&&t[0].nodeType&&t[0].style},a=r.prototype=i.to({},.1,{}),o=
[];r.version="1.9.7",a.constructor=r,a.kill()._gc=!1,r.killTweensOf=r.killDelayedCallsTo=i.killTweensOf,r.get
TweensOf=i.getTweensOf,r.ticker=i.ticker,a.invalidate=function(){return
this._yoyo=this.vars.yoyo===!0,this._repeat=this.vars.repeat||0,this._repeatDelay=this.vars.repeatDelay||0,th
is._uncache(!0),i.prototype.invalidate.call(this)},a.updateTo=function(t,e){var
s,r=this.ratio,e&&this.timeline&&this._startTime<this._timeline._time&&
(this._startTime=this._timeline._time,this._uncache(!1),this._gc?
this._enabled(!0,!1):this._timeline.insert(this,this._startTime-this._delay));for(s in
t)this.vars[s]=t[s];if(this._initted)if(e)this._initted=!1;else
if(this._notifyPluginsOfEnabled&&this._firstPT&&i._onPluginEvent("onDisable",this),this._time/this._duration
>.998){var n=this._time;this.render(0,!0,!1),this._initted=!1,this.render(n,!0,!1)}else if(this._time>0)
{this._initted=!1,this._init();for(var a,o=1/(1-r),h=this._firstPT;h;)a=h.s+h.c,h.c*=o,h.s=a-
h.c,h=h.next}return this},a.render=function(t,e,i){var s,r,n,a,h,l,_u=this._dirty?
this._totalDuration():this._totalDuration,p=this._time,f=this._totalTime,c=this._cycle;if(t>=_u?
(this._totalTime=_u,this._cycle=this._repeat,this._yoyo&&0!==(1&this._cycle)?
(this._time=0,this.ratio=this._ease._calcEnd?this._ease.getRatio(0):0):

```

```

(this._time=this._duration,this._ratio=this._ease._calcEnd?this._ease._getRatio(1):1),this._reversed||
(s=!0,r="onComplete"),0===this._duration&&((0===t||0>this._rawPrevTime)&&this._rawPrevTime!=t&&
(i=!0,this._rawPrevTime>0&&(r="onReverseComplete",e&&(t=-1))),this._rawPrevTime=t)):1e-7>t?
(this._totalTime=this._time=this._cycle=0,this._ratio=this._ease._calcEnd?this._ease._getRatio(0):0,
(0!==f||0===this._duration&&this._rawPrevTime>0)&&(r="onReverseComplete",s=this._reversed),0>t?
(this._active=!1,0===this._duration&&(this._rawPrevTime>0&&(i=!0),this._rawPrevTime=t)):this._initiated||
(i=!0)):this._totalTime=this._time=t,0!==this._repeat&&
(a=this._duration+this._repeatDelay,this._cycle=this._totalTime/a>>0,0!==this._cycle&&this._cycle===this._totalTime/a&&this._cycle--,this._time=this._totalTime-this._cycle*a,this._yoyo&&0!==(1&this._cycle)&&
(this._time=this._duration-this._time),this._time>this._duration?this._time=this._duration:0>this._time&&
(this._time=0)),this._easeType?(h=this._time/this._duration,l=this._easeType,_=this._easePower,
(1===l||3===l&&h>=.5)&&(h=1-h),3===l&&(h*=2),1===_?h*=h:2===_?h*=h*h:3===_?h*=h*h*h:4===_&&
(h*=h*h*h*h),this._ratio=1===l?1-h:2===l?h:.5*this._time/this._duration?h/2:1-
h/2):this._ratio=this._ease._getRatio(this._time/this._duration)),p===this._time&&!i)return
f!=this._totalTime&&this._onUpdate&&
(e||this._onUpdate.apply(this.vars.onUpdateScope||this,this.vars.onUpdateParams||o)),void
0;if(!this._initiated){if(this._init(),!this._initiated)return;this._time&&!s?
this._ratio=this._ease._getRatio(this._time/this._duration):s&&this._ease._calcEnd&&
(this._ratio=this._ease._getRatio(0===this._time?0:1))}for(this._active||this._paused||
(this._active=!0),0===f&&(this._startAt&&(t>=0?this._startAt.render(t,e,i):r||
(r="dummyGS"))),this.vars.onStart&&(0!==this._totalTime||0===this._duration)&&
(e||this.vars.onStart.apply(this.vars.onStartScope||this,this.vars.onStartParams||o))),n=this._firstPT;n.f
?n.t[n.p](n.c*this._ratio+n.s):n.t[n.p]=n.c*this._ratio+n.s,n=n._next;this._onUpdate&&
(0>t&&this._startAt&&this._startAt.render(t,e,i),e||this._onUpdate.apply(this.vars.onUpdateScope||this,this.v
ars.onUpdateParams||o)),this._cycle!=c&&
(e||this._gc||this.vars.onRepeat&&this.vars.onRepeat.apply(this.vars.onRepeatScope||this,this.vars.onRepeatPa
rams||o)),r&&(this._gc||0>t&&this._startAt&&this._onUpdate&&this._startAt.render(t,e,i),s&&
(this._timeline.autoRemoveChildren&&this._enabled(!1,!1),this._active=!1,!e&&this.vars[r]&&this.vars[r].appl
y(this.vars[r+"Scope"]||this,this.vars[r+"Params"]||o))),r.to=function(t,e,i){return new
r(t,e,i)},r.from=function(t,e,i){return i.runBackwards=!0,i.immediateRender=0!=i.immediateR...

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/parallax/jquery.superscrollorama.js>

```

/*
  SUPERSROLLORAMA - The jQuery plugin for doing scroll animations
  by John Polacek (@johnpolacek)

  Powered by the Greensock Tweening Platform
  http://www.greensock.com
  Greensock License info at http://www.greensock.com/licensing/

  Dual licensed under MIT and GPL.

  Thanks to Jan Paepke (@janpaepke) for making many nice improvements
  */

(function($) {

  $.superscrollorama = function(options) {

    var superscrollorama = this;
    var defaults = {
      isVertical:true,           // are we scrolling vertically or horizontally?
      triggerAtCenter: true,    // the animation triggers when the respective Element's
      origin is in the center of the scrollarea. This can be changed here to be at the edge (-> false)
      playoutAnimations: true,   // when scrolling past the animation should they be
      played out (true) or just be jumped to the respective last frame (false)? Does not affect animations where
      duration = 0
      reverse: true              // make reverse configurable so you don't have to
    }
    // pass it in for every tween to reverse globally
    superscrollorama.settings = $.extend({}, defaults, options);
    var $window = $(window);

    // PRIVATE VARS

    var animObjects = [],
        pinnedObjects = [],
        scrollContainerOffset = {x: 0, y: 0},
        doUpdateOnNextTick = false,
        targetOffset,
        i
  };

```



```

// PRIVATE FUNCTIONS

function init() {
    // set event handlers
    $window.scroll(function() {
        doUpdateOnNextTick = true;
    });
    TweenLite.ticker.addEventListener("tick", tickHandler);
}

function cssNumericPosition ($elem) { // return 0 when value is auto
    var obj = {
        top: parseFloat($elem.css("top")),
        left: parseFloat($elem.css("left"))
    };
    if (isNaN(obj.top)) {
        obj.top = 0;
    }
    if (isNaN(obj.left)) {
        obj.left = 0;
    }
    return obj;
}

function tickHandler() {
    if (doUpdateOnNextTick) {
        checkScrollAnim();
        doUpdateOnNextTick = false;
    }
}

// reset a pin Object
function resetPinObj (pinObj) {
    pinObj.el.css('position', pinObj.origPositioning.pos);
    pinObj.el.css('top', pinObj.origPositioning.top);
    pinObj.el.css('left', pinObj.origPositioning.left);
}

// set a Tween Progress (use totalProgress for TweenMax and TimelineMax to include repeats)
function setTweenProgress(tween, progress) {
    if (tween) {
        if (tween.totalProgress) {
            tween.totalProgress(progress).pause();
        } else {
            tween.progress(progress).pause();
        }
    }
}

function checkScrollAnim() {
    var currScrollPoint = superscrollorama.settings.isVertical ? $window.scrollTop() +
    scrollContainerOffset.y : $window.scrollLeft() + scrollContainerOffset.x;
    var offsetAdjust = superscrollorama.settings.triggerAtCenter ?
    (superscrollorama.settings.isVertical ? - $window.height()/2 : - $window.width()/2) : 0;
    var i, startPoint, endPoint;

    // check all animObjects
    var numAnim = animObjects.length;
    for (i=0; i<numAnim; i++) {
        var animObj = animObjects[i],
            target = animObj.target,
            offset = animObj.offset;

        if (typeof(target) === 'string') {
            targetOffset = $(target).offset() || {};
            startPoint = superscrollorama.settings.isVertical ? targetOffset.top
            + scrollContainerOffset.y : targetOffset.left + scrollContainerOffset.x;
            offset += offsetAdjust;
        } else if (typeof(target) === 'number') {
            startPoint = target;
        } else if ($.isFunction(target)) {
            startPoint = target.call(this);
        } else {
            targetOffset = target.offset();
            startPoint = superscrollorama.settings.isVertical ? targetOffset.top +
            scrollContainerOffset.y : targetOffset.left + scrollContainerOffset.x;
            offset += offsetAdjust;
        }
    }
}

```

```

        startPoint += offset;
        endPoint = startPoint + animObj.dur; // if the duration is 0 the animation
        should autoplay (forward going from BEFORE to AFTER and reverse going from AFTER to BEFORE)

        if ((currScrollPoint > startPoint && currScrollPoint < endPoint) &&
animObj.state !== 'TWEENING') {
            // if it should be TWEENING and isn't..
            animObj.state = 'TWEENING';
            animObj.start = startPoint;
            animObj.end = endPoint;
        }
        if (currScrollPoint < startPoint && animObj.state !== 'BEFORE' &&
animObj.reverse) {
            // if it should be at the BEFORE tween state and isn't..
            if (superscrollorama.settings.playoutAnimations || animObj.dur === 0)
{
                animObj.tween.reverse();
            } else {
                setTweenProgress(animObj.tween, 0);
            }
            animObj.state = 'BEFORE';
        } else if (currScrollPoint > endPoint && animObj.state !== 'AFTER') {
            // if it should be at the AFTER tween state and isn't..
            if (superscrollorama.settings.playoutAnimations || animObj.dur === 0)
{
                animObj.tween.play();
            } else {
                setTweenProgress(animObj.tween, 1);
            }
            animObj.state = 'AFTER';
        } else if (animObj.state === 'TWEENING') {
            ..
        }
    }
}

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.backstretch.min.js>

```

/*! Backstretch - v2.0.4 - 2013-06-19
* http://srobbin.com/jquery-plugins/backstretch/
* Copyright (c) 2013 Scott Robbin; Licensed MIT */
(function(a,d,p){a.fn.backstretch=function(c,b){(c===p||0===c.length)&&a.error("No images were supplied for
Backstretch");0===a(d).scrollTop()&&d.scrollTo(0,0);return this.each(function(){var
d=a(this),g=d.data("backstretch");if(g){if("string"===typeof c&&"function"===typeof g[c]){g[c]
(b);return}b=a.extend(g.options,b);g.destroy(!0);g=new
q(this,c,b);d.data("backstretch",g)}});a.backstretch=function(c,b){return
a("body").backstretch(c,b).data("backstretch");a.expr[":"].backstretch=function(c){return
a(c).data("backstretch")!==p;a.fn.backstretch.defaults={centeredX:!0,centeredY:!0,duration:5E3,fade:0};var
r={left:0,top:0,overflow:"hidden",margin:0,padding:0,height:"100%",width:"100%",zIndex:-999999},s=
{position:"absolute",display:"none",margin:0,padding:0,border:"none",width:"auto",height:"auto",maxHeight:"no
ne",maxWidth:"none",zIndex:-999999},q=function(c,b,e){this.options=a.extend({},a.fn.backstretch.defaults,e||
{});this.images=a.isArray(b)?b:[b];a.each(this.images,function(){a("<img />")
[0].src=this});this.isBody=c===document.body;this.$container=a(c);this.$root=this.isBody?1?
a(d):a(document):this.$container;c=this.$container.children(".backstretch").first();this.$wrap=c.length?
c:a("<div class='backstretch'></div>").css(r).appendTo(this.$container);this.isBody||
(c=this.$container.css("position"),b=this.$container.css("zIndex"),this.$container.css({position:"static"===c
?"relative":c,zIndex:"auto"===b?0:b,background:"none"}),this.$wrap.css({zIndex:-
999998}));this.$wrap.css({position:this.isBody&&1?"fixed":"absolute"});this.index=0;this.show(this.index);a(d
).on("resize.backstretch",a.proxy(this.resize,this)).on("orientationchange.backstretch",a.proxy(function()
{this.isBody&&0===d.pageYOffset&&(d.scrollTo(0,1),this.resize())},this));q.prototype={resize:function()
{try{var a={left:0,top:0},b=this.isBody?this.$root.width():this.$root.innerWidth(),e=b,g=this.isBody?
d.innerHeight:d.innerHeight:this.$root.height():this.$root.innerHeight(),j=e/this.$img.data("ratio"),f;j>g?
(f=(j-g)/2,this.options.centeredY&&(a.top="-"+f+"px")):(j=g,e=j*this.$img.data("ratio"),f=(e-
b)/2,this.options.centeredX&&(a.left="-
"+f+"px"));this.$wrap.css({width:b,height:g}).find("img:not(.deleteable)").css({width:e,height:j}).css(a)}cat
ch(h){}return this},show:function(c){if(!(Math.abs(c)>this.images.length-1)){var
b=this,e=b.$wrap.find("img").addClass("deleteable"),d=
{relatedTarget:b.$container[0]},b.$container.trigger(a.Event("backstretch.before",d),
[b,c]);this.index=c;clearInterval(b.interval);b.$img=a("<img />").css(s).bind("load",function(f){var
h=this.width|a(f.target).width():f=this.height|a(f.target).height():a(this).data("ratio",h/f);a(this).fadeI
n(b.options.speed|b.options.fade,function()
{e.remove();b.paused|b.cycle();a(["after","show"]).each(function()
{b.$container.trigger(a.Event("backstretch."+this,d),
[b,c])});b.resize()}).appendTo(b.$wrap);b.$img.attr("src",b.images[c]);return b}),next:function(){return
this.show(this.index<this.images.length-1?this.index+1:0)},prev:function(){return this.show(0===this.index?

```

```

this.images.length-1:this.index-1)},pause:function(){this.paused=!0;return this},resume:function()
{this.paused=!1;this.next();return this},cycle:function(){1<this.images.length&&
(clearInterval(this.interval),this.interval=setInterval(a.proxy(function()
{this.paused||this.next();}),this),this.options.duration));return this},destroy:function(c)
{a(d).off("resize.backstretch
orientationchange.backstretch");clearInterval(this.interval);c||this.$wrap.remove();this.$container.removeDat
a("backstretch")});var l,f=navigator.userAgent,m=navigator.platform,e=f.match(/AppleWebKit\/([0-
9]+)/),e=!e&&e[1],h=f.match(/Fennec\/([0-9]+)/),h=!h&&h[1],n=f.match(/Opera Mobi\/([0-
9]+)/),t=!n&&n[1],k=f.match(/MSIE ([0-9]+)/),k=!k&&k[1];l=!((-1<m.indexOf("iPhone")||-
1<m.indexOf("iPad")||-1<m.indexOf("iPod"))&&e&&534>e||d.operamini&&"[object OperaMini]"===
{}).toString.call(d.operamini)||n&&7458>t||-1<f.indexOf("Android")&&e&&533>e|h&&6>h||"palmGetResource"in
d&&e&&534>e||-1<f.indexOf("MeeGo")&&-1<f.indexOf("NokiaBrowser/8.5.0")||k&&6>=k)})(jQuery>window);

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery-scrollspy.js>

```

/*!
 * jQuery Scrollspy Plugin
 * Author: @sxalexander
 * Licensed under the MIT license
 */

;(function ( $, window, document, undefined ) {

    $.fn.extend({
        scrollspy: function ( options ) {

            var defaults = {
                min: 0,
                max: 0,
                mode: 'vertical',
                buffer: 0,
                container: window,
                onEnter: options.onEnter ? options.onEnter : [],
                onLeave: options.onLeave ? options.onLeave : [],
                onTick: options.onTick ? options.onTick : []
            }

            var options = $.extend( {}, defaults, options );

            return this.each(function (i) {

                var element = this;
                var o = options;
                var $container = $(o.container);
                var mode = o.mode;
                var buffer = o.buffer;
                var enters = leaves = 0;
                var inside = false;

                /* add listener to container */
                $container.bind('scroll', function(e){
                    var position = {top: $(this).scrollTop(), left: $(this).scrollLeft()};
                    var xy = (mode == 'vertical') ? position.top + buffer : position.left + buffer;
                    var max = o.max;
                    var min = o.min;

                    /* fix max */
                    if($.isFunction(o.max)){
                        max = o.max();
                    }

                    /* fix min */
                    if($.isFunction(o.min)){
                        min = o.min();
                    }

                    if(max == 0){
                        max = (mode == 'vertical') ? $container.height() : $container.outerWidth() +
                        $(element).outerWidth();
                    }

                    /* if we have reached the minimum bound but are below the max ... */

```

```

        if(xy >= min && xy <= max){
            /* trigger enter event */
            if(!inside){
                inside = true;
                enters++;

                /* fire enter event */
                $(element).trigger('scrollEnter', {position: position})
                if($.isFunction(o.onEnter)){
                    o.onEnter(element, position);
                }
            }

            /* trigger tick event */
            $(element).trigger('scrollTick', {position: position, inside: inside, enters: enters,
leaves: leaves})

            if($.isFunction(o.onTick)){
                o.onTick(element, position, inside, enters, leaves);
            }
        }else{

            if(inside){
                inside = false;
                leaves++;
                /* trigger leave event */
                $(element).trigger('scrollLeave', {position: position, leaves:leaves})

                if($.isFunction(o.onLeave)){
                    o.onLeave(element, position);
                }
            }
        }
    });
});
}

})( jQuery, window );

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/jquery.shuffle.js>

```

/*!
 * Shuffle.js by @Vestride
 * Categorize, sort, and filter a responsive grid of items.
 * Dependencies: jQuery 1.9+, Modernizr 2.6.2+
 * @license MIT license
 * @version 2.1.2
 */
(function (factory) {
    if (typeof define === 'function' && define.amd) {
        define(['jquery.shuffle', 'modernizr'], factory);
    } else {
        factory(window.jQuery, window.Modernizr);
    }
})(function($, Modernizr, undefined) {

    'use strict';

    // Validate Modernizr exists.
    // Shuffle requires `csstransitions`, `csstransforms`, `csstransforms3d`,
    // and `prefixed` to exist on the Modernizr object.
    if (typeof Modernizr !== 'object') {
        throw new Error('Shuffle.js requires Modernizr.\n' +
            'http://vestride.github.io/Shuffle/#dependencies');
    }

    /**

```

```

* Returns css prefixed properties like `-webkit-transition` or `box-sizing`
* from `transition` or `boxSizing`, respectively.
* @param {(string|boolean)} prop Property to be prefixed.
* @return {string} The prefixed css property.
*/
function dashify( prop ) {
  if (!prop) {
    return '';
  }

  // Replace upper case with dash-lowercase,
  // then fix ms- prefixes because they're not capitalized.
  return prop.replace(/[A-Z]/g, function( str, ml ) {
    return '-' + ml.toLowerCase();
  }).replace(/^-ms-/, '-ms-');
}

// Constant, prefixed variables.
var TRANSITION = Modernizr.prefixed('transition');
var TRANSITION_DELAY = Modernizr.prefixed('transitionDelay');
var TRANSITION_DURATION = Modernizr.prefixed('transitionDuration');
var TRANSITIONEND = {
  'WebkitTransition' : 'webkitTransitionEnd',
  'transition' : 'transitionend'
}[ TRANSITION ];
var TRANSFORM = Modernizr.prefixed('transform');
var CSS_TRANSFORM = dashify(TRANSFORM);

// Constants
var CAN_TRANSITION_TRANSFORMS = Modernizr.csstransforms && Modernizr.csstransitions;
var HAS_TRANSFORMS_3D = Modernizr.csstransforms3d;
var SHUFFLE = 'shuffle';

// Configurable. You can change these constants to fit your application.
// The default scale and concealed scale, however, have to be different values.
var ALL_ITEMS = 'all';
var FILTER_ATTRIBUTE_KEY = 'groups';
var DEFAULT_SCALE = 1;
var CONCEALED_SCALE = 0.001;

// Underscore's throttle function.
function throttle(func, wait, options) {
  var context, args, result;
  var timeout = null;
  var previous = 0;
  options = options || {};
  var later = function() {
    previous = options.leading === false ? 0 : $.now();
    timeout = null;
    result = func.apply(context, args);
    context = args = null;
  };
  return function() {
    var now = $.now();
    if (!previous && options.leading === false) {
      previous = now;
    }
    var remaining = wait - (now - previous);
    context = this;
    args = arguments;
    if (remaining <= 0 || remaining > wait) {
      clearTimeout(timeout);
      timeout = null;
      previous = now;
      result = func.apply(context, args);
      context = args = null;
    } else if (!timeout && options.trailing !== false) {
      timeout = setTimeout(later, remaining);
    }
    return result;
  };
}

// Used for unique instance variables
var id = 0;

```

```

/**
 * Categorize, sort, and filter a responsive grid of items.
 *
 * @param {Element|jQuery} element An element or a jQuery collection which
 *   is the parent container for the grid items.
 * @param {Object} [options=Shuffle.options] Options object.
 * @constructor
 */
var Shuffle = function( element, options ) {
  options = options || {};
  $.extend( this, Shuffle.options, options, Shuffle.settings );

  this.$el = $(element);
  this.$window = $(window);
  this.unique = 'shuffle_' + id++;

  this._fire( Shuffle.EventType.LOADING );
  this._init();

  // Dispatch the done event asynchronously so that people can bind to it after
  // Shuffle has been initialized.
  setTimeout( $.proxy(function() {
    this.initialized = true;
    this._fire( Shuffle.EventType.DONE );
  }, this), 16 );
};

/**
 * Events the container element emits with the .shuffle namespace.
 * For example, "done.shuffle".
 * @enum {string}
 */
Shuffle.EventType = {
  LOADING: 'loading',
  DONE: 'done',
  SHRINK: 'shrink',
  SHRUNK: 'shrunk',
  FILTER: 'filter',
  FILTERED: 'filtered',
  SORTED: 'sorted',
  LAYOUT: 'layout',
  REMOVED: 'removed'
};

Shuffle.prototype = {
  _init : function() {
    var self = this,
        containerCSS,
        containerWidth,
        resizeFunction = $.proxy( self._onResize, self ),
        debouncedResize = self.throttle ?
          self.throttle( resizeFunction, self.throttleTime ) :
          resizeFunction,
        sort = self.initialSort ? self.initialSort : null;

    self._layoutList = [];
    self._shrinkList = [];

    self._setVars();

    // Zero out all columns
    self._resetCols();

    // Add classes and invalidate styles
    self._addClasses();

    // Set initial css for each item
    self._ini...
  }
};

```

<http://openfda.wasoftware.com/OpenFDA/theme/lib/slick.min.js>

```

!function(a){"use strict";"function"==typeof define&&define.amd?define(["jquery.shuffle"],a):a(jQuery)}
(function(a){"use strict";var b=window.Slick||{};b=function(){function c(c,d){var f,g,e=this;if(e.defaults=
{accessibility:!0,appendArrows:a(c),arrows:!0,asNavFor:null,prevArrow:'<button type="button" data-role="none"
class="slick-prev">Previous</button>',nextArrow:'<button type="button" data-role="none" class="slick-
next">Next</button>',autoplay:!1,autoplaySpeed:3e3,centerMode:!1,centerPadding:"50px",cssEase:"ease",customPa
ging:function(a,b){return'<button type="button" data-role="none">'>(b+1)+"
</button>"},dots:!1,dotsClass:"slick-
dots",draggable:!0,easing:"linear",fade:!1,focusOnSelect:!1,infinite:!0,lazyLoad:"ondemand",onBeforeChange:nu
ll,onAfterChange:null,onInit:null,onReInit:null,pauseOnHover:!0,pauseOnDotsHover:!1,responsive:null,rtl:!1,sl
ide:"div",slidesToShow:1,slidesToScroll:1,speed:300,swipe:!0,touchMove:!0,touchThreshold:5,useCSS:!0,vertical
:!1},e.initials=
{animating:!1,dragging:!1,autoPlayTimer:null,currentSlide:0,currentLeft:null,direction:1,$dots:null,listWidth
:null,listHeight:null,loadIndex:0,$nextArrow:null,$prevArrow:null,slideCount:null,slideWidth:null,$slideTrack
:null,$slides:null,sliding:!1,slideOffset:0,swipeLeft:null,$list:null,touchObject:
{}},transformsEnabled:!1),a.extend(e,e.initials),e.activeBreakpoint=null,e.animProp=null,e.animType=null,e.bre
akpoints=[],e.breakpointSettings=
[],e.cssTransitions=!1,e.paused=!1,e.positionProp=null,e.$slider=a(c),e.$slidesCache=null,e.transformType=nul
l,e.transitionType=null,e.windowWidth=0,e.windowTimer=null,e.options=a.extend({},e.defaults,d),e.originalSett
ings=e.options.responsive||null,f&&f.length>1){for(g in f)f.hasOwnProperty(g)&&
(e.breakpoints.push(f[g].breakpoint),e.breakpointSettings[f[g].breakpoint]=f[g].settings);e.breakpoints.sort(
function(a,b){return b-
a})}e.autoPlay=a.proxy(e.autoPlay,e),e.autoPlayClear=a.proxy(e.autoPlayClear,e),e.changeSlide=a.proxy(e.chang
eSlide,e),e.selectHandler=a.proxy(e.selectHandler,e),e.setPosition=a.proxy(e.setPosition,e),e.swipeHandler=a.
proxy(e.swipeHandler,e),e.dragHandler=a.proxy(e.dragHandler,e),e.keyHandler=a.proxy(e.keyHandler,e),e.autoPla
yIterator=a.proxy(e.autoPlayIterator,e),e.instanceUid=b++,e.htmlExpr=/^(?:\s*(<[\w\W]+>)[^>]*)$/e.init(){var
b=0;return c}(),b.prototype.addSlide=function(b,c,d){var e=this;if("boolean"==typeof c)d=c,c=null;else
if(0<c||c>=e.slideCount)return!1;e.unload(),"number"==typeof c?0===c&&0===e.$slides.length?
a(b).appendTo(e.$slideTrack):d?a(b).insertBefore(e.$slides.eq(c)):a(b).insertAfter(e.$slides.eq(c)):d===!0?
a(b).prependTo(e.$slideTrack):a(b).appendTo(e.$slideTrack),e.$slides=e.$slideTrack.children(this.options.slid
e),e.$slideTrack.children(this.options.slide).detach(),e.$slideTrack.append(e.$slides),e.$slides.each(function(
n,b,c){a(c).attr("index",b)}),e.$slidesCache=e.$slides,e.reinit()},b.prototype.animateSlide=function(b,c){var
d={},e=this;e.options.rtl===!0&&e.options.vertical===!1&&(b=-b),e.transformsEnabled===!1?
e.options.vertical===!1?
e.$slideTrack.animate({left:b},e.options.speed,e.options.easing,c):e.$slideTrack.animate({top:b},e.options.sp
eed,e.options.easing,c):e.cssTransitions===!1?a({animStart:e.currentLeft}).animate({animStart:b},
{duration:e.options.speed,easing:e.options.easing,step:function(a){e.options.vertical===!1?
(d[e.animType]="translate("+a+"px, 0px)",e.$slideTrack.css(d)):
(d[e.animType]="translate(0px, "+a+"px)",e.$slideTrack.css(d))},complete:function(){c&&c.call()}}):
(e.applyTransition(),d[e.animType]=e.options.vertical===!1?"translate3d("+b+"px, 0px,
0px)": "translate3d(0px, "+b+"px, 0px)",e.$slideTrack.css(d),c&&setTimeout(function()
{e.disableTransition(),c.call(),e.options.speed})),b.prototype.applyTransition=function(a){var b=this,c=
{};c[b.transitionType]=b.options.fade===!1?b.transformType+" "+b.options.speed+"ms
"+b.options.cssEase:"opacity "+b.options.speed+"ms "+b.options.cssEase,b.options.fade===!1?
b.$slideTrack.css(c):b.$slides.eq(a).css(c)},b.prototype.autoPlay=function(){var
a=this;a.autoPlayTimer&&clearInterval(a.autoPlayTimer),a.slideCount>a.options.slidesToShow&&a.paused!==!0&&
(a.autoPlayTimer=setInterval(a.autoPlayIterator,a.options.autoplaySpeed)),b.prototype.autoPlayClear=function
(){var a=this;a.autoPlayTimer&&clearInterval(a.autoPlayTimer)},b.prototype.autoPlayIterator=function(){var
b=this,c=null!=b.options.asNavFor?a(b.options.asNavFor).getSlick():null;b.options.infinite===!1?
1===b.direction?(b.currentSlide+1===b.slideCount-1&&
(b.direction=0),b.slideHandler(b.currentSlide+b.options.slidesToScroll),null!=c&&c.slideHandler(c.currentSlid
e+c.options.slidesToScroll)):0===b.currentSlide-1&&(b.direction=1),b.slideHandler(b.currentSlide-
b.options.slidesToScroll),null!=c&&c.slideHandler(c.currentSlide-c.options.slidesToScroll)):
(b.slideHandler(b.currentSlide+b.options.slidesToScroll),null!=c&&c.slideHandler(c.currentSlide+c.options.sli
desToScroll)),b.prototype.buildArrows=function(){var b=this;b.options.arrows===!0&&b.s...

```

<http://openfda.wasoftware.com/OpenFDA/theme/js/agency-nyc.js>

```

$(document).ready(function() {

    /** SMOOTH SCROLL */
    $('#top-main-nav ul.scroll-nav a').smoothScroll({
        easing: 'swing',
        speed: 500
    });
    $('#back-top a').smoothScroll({
        easing: 'swing',
        speed: 500
    });

    /** BACK TO TOP */
    $('#back-top').hide();

```

```

/** BACK TO TOP FADE IN */
$(function() {
    $(window).scroll(function() {
        if ($(this).scrollTop() > 100) {
            $('#back-top').fadeIn();
        } else {
            $('#back-top').fadeOut();
        }
    });
});

/** SLICK CAROUSEL */
$('.carousel-inner').slick({
    dots: true,
    arrows: false,
    autoplay: true,
    autoplaySpeed: 3000
});

/** PARALLAX */
$('#quote').parallax("50%", 0.05);

/** PORTFOLIO SHUFFLE */
PortfolioShuffle.init();
});

var PortfolioShuffle = (function( $ ) {
    'use strict';

    var $grid = $('#portfolio-grid'),
        $filterOptions = $('.filter-options li'),
        $sizer = $grid.find('.shuffle__sizer'),

    init = function() {

        // None of these need to be executed synchronously
        setTimeout(function() {
            addInlineClass();
            listen();
            setupFilters();
            setupSorting();
            setupSearching();
        }, 100);

        // You can subscribe to custom events.
        // shrink, shrunk, filter, filtered, sorted, load, done
        $grid.on('loading.shuffle done.shuffle shrink.shuffle shrunk.shuffle filter.shuffle filtered.shuffle sorted.shuffle layout.shuffle', function(evt, shuffle) {
            // Make sure the browser has a console
            if ( window.console && window.console.log && typeof window.console.log === 'function' ) {
                console.log( 'Shuffle:', evt.type );
            }
        });

        // instantiate the plugin
        $grid.shuffle({
            itemSelector: '.picture-item',
            sizer: $sizer
        });

        // Destroy it! o_o
        // $grid.shuffle('destroy');
    },

    // Set up button clicks
    setupFilters = function() {
        var $btns = $filterOptions.children();
        $btns.on('click', function() {
            var $this = $(this),
                isActive = $this.hasClass( 'active' ),
                group = isActive ? 'all' : $this.data('group');

            // Hide current label, show current label in title
            if ( !isActive ) {
                $('.filter-options .active').removeClass('active');
            }

            $this.toggleClass('active');
        });
    }
});

```



```

        // Filter elements
        $grid.shuffle( 'shuffle', group );
    });

    $btns = null;
},

setupSorting = function() {
    // Sorting options
    $('sort-options').on('change', function() {
        var sort = this.value,
            opts = {};

        // We're given the element wrapped in jQuery
        if ( sort === 'date-created' ) {
            opts = {
                reverse: true,
                by: function($el) {
                    return $el.data('date-created');
                }
            };
        } else if ( sort === 'title' ) {
            opts = {
                by: function($el) {
                    return $el.data('title').toLowerCase();
                }
            };
        }

        // Filter elements
        $grid.shuffle('sort', opts);
    });
},

setupSearching = function() {
    // Advanced filtering
    $('js-shuffle-search').on('keyup change', function() {
        var val = this.value.toLowerCase();
        $grid.shuffle('shuffle', function($el, shuffle) {

            // Only search elements in the current group
            if (shuffle.group !== 'all' && $.inArray(shuffle.group, $el.data('groups')) === -1) {
                return false;
            }

            var text = $.trim( $el.find('picture-item__title').text() ).toLowerCase();
            return text.indexOf(val) !== -1;
        });
    });
},

addInlineClass = function(){
    $('#portfolio-grid li.picture-item').each(function(){
        $(this).css("display","inline-block").css('opacity',1);
    });
},

// Re layout shuffle when images load. This is only needed
// below 768 pixels because the .picture-item height is auto and therefore
// the height of the picture-item is dependent on the image
// I recommend using imagesloaded to determine when an image is loaded
// but that doesn't support IE7
listen = function() {
    var debouncedLayout = $.throttle( 300, function() {
        $grid.shuffle('update');
    });

    // Get all images inside shuffle
    $grid.find('img').each(function() {
        var proxyImage;

        // Image already loaded
        if ( this.complete && this.naturalWidth !== undefined ) {
            return;
        }

        // If none of the checks above matched, simulate loading on detached element.

```

```

    proxyImage = new Image();
    $( proxyImage ).on('load', function() {
        $(this).off('load');
        debouncedLayout();
    });

    proxyImage.src = this.src;
});

// Because this method doesn't seem to be perfect.
S...

```

<http://openfda.wasoftware.com/OpenFDA/welcome>

```
$(document).foundation();
```

<http://openfda.wasoftware.com/OpenFDA/lib/jquery.throttle-debounce.js>

```

/*!
 * jQuery throttle / debounce - v1.1 - 3/7/2010
 * http://benalman.com/projects/jquery-throttle-debounce-plugin/
 *
 * Copyright (c) 2010 "Cowboy" Ben Alman
 * Dual licensed under the MIT and GPL licenses.
 * http://benalman.com/about/license/
 */

// Script: jQuery throttle / debounce: Sometimes, less is more!
//
// *Version: 1.1, Last updated: 3/7/2010*
//
// Project Home - http://benalman.com/projects/jquery-throttle-debounce-plugin/
// GitHub       - http://github.com/cowboy/jquery-throttle-debounce/
// Source        - http://github.com/cowboy/jquery-throttle-debounce/raw/master/jquery.ba-throttle-debounce.js
// (Minified)    - http://github.com/cowboy/jquery-throttle-debounce/raw/master/jquery.ba-throttle-debounce.min.js (0.7kb)
//
// About: License
//
// Copyright (c) 2010 "Cowboy" Ben Alman,
// Dual licensed under the MIT and GPL licenses.
// http://benalman.com/about/license/
//
// About: Examples
//
// These working examples, complete with fully commented code, illustrate a few
// ways in which this plugin can be used.
//
// Throttle - http://benalman.com/code/projects/jquery-throttle-debounce/examples/throttle/
// Debounce  - http://benalman.com/code/projects/jquery-throttle-debounce/examples/debounce/
//
// About: Support and Testing
//
// Information about what version or versions of jQuery this plugin has been
// tested with, what browsers it has been tested in, and where the unit tests
// reside (so you can test it yourself).
//
// jQuery Versions - none, 1.3.2, 1.4.2
// Browsers Tested  - Internet Explorer 6-8, Firefox 2-3.6, Safari 3-4, Chrome 4-5, Opera 9.6-10.1.
// Unit Tests       - http://benalman.com/code/projects/jquery-throttle-debounce/unit/
//
// About: Release History
//
// 1.1 - (3/7/2010) Fixed a bug in <jQuery.throttle> where trailing callbacks
//              executed later than they should. Reworked a fair amount of internal
//              logic as well.

```

<http://openfda.wasoftware.com/OpenFDA/lib/jquery.smooth-scroll.min.js>

90

<http://openfda.wasoftware.com/OpenFDA/lib/parallax/jquery.parallax-1.1.3.js>

7/1/2015

```

        return jqo.height();
    }
    ;
}

// setup defaults if arguments aren't specified
if (arguments.length < 1 || xpos === null) xpos = "50%";
if (arguments.length < 2 || speedFactor === null) speedFactor = 0.1;
if (arguments.length < 3 || outerHeight === null) outerHeight = true;

// function to be called whenever the window is scrolled or resized
function update(){
    var pos = $window.scrollTop();

    $this.each(function(){
        var $element = $(this);
        var top = $element.offset().top;
        var height = getHeight($element);

        // Check if totally above or totally below viewport
        if (top + height < pos || top > pos + windowHeight) {
            return;
        }

        $this.css('backgroundPosition', xpos + " " + Math.round((firstTop - pos) *
speedFactor) + "px");
    })
    ;

}

$window.bind('scroll', update).resize(update);
update();
};
})(jQuery);

```

<http://openfda.wasoftware.com/OpenFDA/lib/parallax/TweenMax.min.js>

```

/*!
 * VERSION: beta 1.9.7
 * DATE: 2013-05-16
 * UPDATES AND DOCS AT: http://www.greensock.com
 *
 * Includes all of the following: TweenLite, TweenMax, TimelineLite, TimelineMax, EasePack, CSSPlugin,
 * RoundPropsPlugin, BezierPlugin, AttrPlugin, DirectionalRotationPlugin
 *
 * @license Copyright (c) 2008-2013, GreenSock. All rights reserved.
 * This work is subject to the terms at http://www.greensock.com/terms_of_use.html or for
 * Club GreenSock members, the software agreement that was issued with your membership.
 *
 * @author: Jack Doyle, jack@greensock.com
 **/
(window._gsQueue||(window._gsQueue=[])).push(function(){"use strict";window._gsDefine("TweenMax",
["core.Animation","core.SimpleTimeline","TweenLite"],function(t,e,i){var s=[].slice,r=function(t,e,s)
{i.call(this,t,e,s),this._cycle=0,this._yoyo=this.vars.yoyo===!0,this._repeat=this.vars.repeat||0,this._repea
tDelay=this.vars.repeatDelay||0,this._dirty=!0},n=function(t){return
t.jquery||t.length&&t[0]&&t[0].nodeType&&t[0].style},a=r.prototype=i.to({},.1,{}),o=
[];r.version="1.9.7",a.constructor=r,a.kill()._gc=!1,r.killTweensOf=r.killDelayedCallsTo=i.killTweensOf,r.get
TweensOf=i.getTweensOf,r.ticker=i.ticker,a.invalidate=function(){return
this._yoyo=this.vars.yoyo===!0,this._repeat=this.vars.repeat||0,this._repeatDelay=this.vars.repeatDelay||0,th
is._uncache(!0),i.prototype.invalidate.call(this)},a.updateTo=function(t,e){var
s,r=this._ratio,e&&this._timeline&&this._startTime<this._timeline._time&&
(this._startTime=this._timeline._time,this._uncache(!1),this._gc?
this._enabled(!0,!1):this._timeline.insert(this,this._startTime-this._delay));for(s in
t)this.vars[s]=t[s];if(this._initted)if(e)this._initted=!1;else
if(this._notifyPluginsOfEnabled&&this._firstPT&&i._onPluginEvent("onDisable",this),this._time/this._duration
>.998){var n=this._time;this.render(0,!0,!1),this._initted=!1,this.render(n,!0,!1)}else if(this._time>0)
{this._initted=!1,this._init();for(var a,o=1/(1-r),h=this._firstPT;h;a=h.s+h.c,h.c*=o,h.s=a-
h.c,h=h.next}return this},a.render=function(t,e,i){var s,r,n,a,h,l,_u=this._dirty?
this._totalDuration():this._totalDuration,p=this._time,f=this._totalTime,c=this._cycle;if(t>=_u?
(this._totalTime=u,this._cycle=this._repeat,this._yoyo&&0!==(1&this._cycle)?
(this._time=0,this._ratio=this._ease._calcEnd?this._ease.getRatio(0):0):
(this._time=this._duration,this._ratio=this._ease._calcEnd?this._ease.getRatio(1):1),this._reversed||
(s=!0,r="onComplete"),0===this._duration&&((0===t||0>this._rawPrevTime)&&this._rawPrevTime!=t&&
(i=!0,this._rawPrevTime>0&&(r="onReverseComplete",e&&(t=-1))),this._rawPrevTime=t)):1e-7>t?
(this._totalTime=this._time=this._cycle=0,this._ratio=this._ease._calcEnd?this._ease.getRatio(0):0,

```

```

(0!==f||0===this._duration&&this._rawPrevTime>0)&&(r="onReverseComplete",s=this._reversed),0>t?
(this._active=!1,0===this._duration&&(this._rawPrevTime>0&&(i=!0),this._rawPrevTime=t)):this._initied||
(i=!0):(this._totalTime=this._time=t,0!==this._repeat&&
(a=this._duration+this._repeatDelay,this._cycle=this._totalTime/a>>0,0!==this._cycle&&this._cycle===this._totalTime/a&&this._cycle--,this._time=this._totalTime-this._cycle*a,this._yoyo&&0!==(1&this._cycle)&&
(this._time=this._duration-this._time),this._time>this._duration?this._time=this._duration:0>this._time&&
(this._time=0)),this._easeType?(h=this._time/this._duration,1=this._easeType,_=this._easePower,
(1===1||3===1&&h>=.5)&&(h=1-h),3===1&&(h*=2),1===_?h*=h:2===_?h*=h*h:3===_?h*=h*h*h:4===_&&
(h*=h*h*h*h),this._ratio=1===1?1-h:2===1?h:.5>this._time/this._duration?h/2:1-
h/2):this._ratio=this._ease.getRatio(this._time/this._duration)),p===this._time&&!i) return
f!==this._totalTime&&this._onUpdate&&
(e||this._onUpdate.apply(this.vars.onUpdateScope||this,this.vars.onUpdateParams||o)),void
0;if(!this._initied){if(this._init(),!this._initied)return;this._time&&!s?
this._ratio=this._ease.getRatio(this._time/this._duration):s&&this._ease._calcEnd&&
(this._ratio=this._ease.getRatio(0===this._time?0:1))}for(this._active||this._paused||
(this._active=!0),0===f&&(this._startAt&&(t>=0?this._startAt.render(t,e,i):r||
(r="dummyGS")),this.vars.onStart&&(0!==this._totalTime||0===this._duration)&&
(e||this.vars.onStart.apply(this.vars.onStartScope||this,this.vars.onStartParams||o))),n=this._firstPT;n.f
?n.t[n.p](n.c*this._ratio+n.s):n.t[n.p]=n.c*this._ratio+n.s,n=n._next;this._onUpdate&&
(0>t&&this._startAt&&this._startAt.render(t,e,i),e||this._onUpdate.apply(this.vars.onUpdateScope||this,this.v
ars.onUpdateParams||o)),this._cycle!-=c&&
(e||this._gc||this.vars.onRepeat&&this.vars.onRepeat.apply(this.vars.onRepeatScope||this,this.vars.onRepeatPa
rams||o)),r&&(this._gc||0>t&&this._startAt&&!this._onUpdate&&this._startAt.render(t,e,i),s&&
(this._timeline.autoRemoveChildren&&this._enabled(!1,!1),this._active=!1),!e&&this.vars[r]&&this.vars[r].appl
y(this.vars[r+"Scope"]||this,this.vars[r+"Params"]||o))),r.to=function(t,e,i){return new
r(t,e,i)},r.from=function(t,e,i){return i.runBackwards=!0,i.immediateRender=0!=i.immediateR...

```

<http://openfda.wasoftware.com/OpenFDA/lib/parallax/jquery.superscrollorama.js>

```

/*
  SUPERSROLLORAMA - The jQuery plugin for doing scroll animations
  by John Polacek (@johnpolacek)

  Powered by the Greensock Tweening Platform
  http://www.greensock.com
  Greensock License info at http://www.greensock.com/licensing/

  Dual licensed under MIT and GPL.

  Thanks to Jan Paepke (@janpaepke) for making many nice improvements
  */

(function($) {

  $.superscrollorama = function(options) {

    var superscrollorama = this;
    var defaults = {
      isVertical:true,           // are we scrolling vertically or horizontally?
      triggerAtCenter: true,    // the animation triggers when the respective Element's
      origin is in the         // center of the scrollarea. This can be changed here to be at the edge (-> false)
      playlistAnimations: true, // when scrolling past the animation should they be
      played out (true) or just be jumped to the respective last frame (false)? Does not affect animations where
      duration = 0
      reverse: true             // make reverse configurable so you don't have to
    }
    pass it in for every tween to reverse globally
    }
    ;
    superscrollorama.settings = $.extend({}, defaults, options);
    var $window = $(window);

    // PRIVATE VARS

    var animObjects = [],
        pinnedObjects = [],
        scrollContainerOffset = {x: 0, y: 0},
        doUpdateOnNextTick = false,
        targetOffset,
        i
        ;

    // PRIVATE FUNCTIONS

    function init() {
      // set event handlers

```

```

        $window.scroll(function() {
            doUpdateOnNextTick = true;
        });
        TweenLite.ticker.addEventListener("tick", tickHandler);
    }

    function cssNumericPosition ($elem) { // return 0 when value is auto
        var obj = {
            top: parseFloat($elem.css("top")),
            left: parseFloat($elem.css("left"))
        };
        if (isNaN(obj.top)) {
            obj.top = 0;
        }
        if (isNaN(obj.left)) {
            obj.left = 0;
        }
        return obj;
    }

    function tickHandler() {
        if (doUpdateOnNextTick) {
            checkScrollAnim();
            doUpdateOnNextTick = false;
        }
    }

    // reset a pin Object
    function resetPinObj (pinObj) {
        pinObj.el.css('position', pinObj.origPositioning.pos);
        pinObj.el.css('top', pinObj.origPositioning.top);
        pinObj.el.css('left', pinObj.origPositioning.left);
    }

    // set a Tween Progress (use totalProgress for TweenMax and TimelineMax to include repeats)
    function setTweenProgress (tween, progress) {
        if (tween) {
            if (tween.totalProgress) {
                tween.totalProgress(progress).pause();
            } else {
                tween.progress(progress).pause();
            }
        }
    }

    function checkScrollAnim() {

        var currScrollPoint = superscrollorama.settings.isVertical ? $window.scrollTop() +
        scrollContainerOffset.y : $window.scrollLeft() + scrollContainerOffset.x;
        var offsetAdjust = superscrollorama.settings.triggerAtCenter ?
        (superscrollorama.settings.isVertical ? - $window.height()/2 : - $window.width()/2) : 0;
        var i, startPoint, endPoint;

        // check all animObjects
        var numAnim = animObjects.length;
        for (i=0; i<numAnim; i++) {
            var animObj = animObjects[i],
                target = animObj.target,
                offset = animObj.offset;

            if (typeof(target) === 'string') {
                targetOffset = $(target).offset() || {};
                startPoint = superscrollorama.settings.isVertical ? targetOffset.top
                + scrollContainerOffset.y : targetOffset.left + scrollContainerOffset.x;
                offset += offsetAdjust;
            } else if (typeof(target) === 'number') {
                startPoint = target;
            } else if ($.isFunction(target)) {
                startPoint = target.call(this);
            } else {
                targetOffset = target.offset();
                startPoint = superscrollorama.settings.isVertical ? targetOffset.top +
                scrollContainerOffset.y : targetOffset.left + scrollContainerOffset.x;
                offset += offsetAdjust;
            }

            startPoint += offset;
            endPoint = startPoint + animObj.dur; // if the duration is 0 the animation
            should autoplay (forward going from BEFORE to AFTER and reverse going from AFTER to BEFORE)
        }
    }

```

```

        if ((currScrollPoint > startPoint && currScrollPoint < endPoint) &&
animObj.state !== 'TWEENING') {
            // if it should be TWEENING and isn't..
            animObj.state = 'TWEENING';
            animObj.start = startPoint;
            animObj.end = endPoint;
        }
        if (currScrollPoint < startPoint && animObj.state !== 'BEFORE' &&
animObj.reverse) {
            // if it should be at the BEFORE tween state and isn't..
            if (superscrollorama.settings.playoutAnimations || animObj.dur === 0)
            {
                animObj.tween.reverse();
            } else {
                setTweenProgress(animObj.tween, 0);
            }
            animObj.state = 'BEFORE';
        } else if (currScrollPoint > endPoint && animObj.state !== 'AFTER') {
            // if it should be at the AFTER tween state and isn't..
            if (superscrollorama.settings.playoutAnimations || animObj.dur === 0)
            {
                animObj.tween.play();
            } else {
                setTweenProgress(animObj.tween, 1);
            }
            animObj.state = 'AFTER';
        } else if (animObj.state === 'TWEENING') {
            ..
        }
    }
}

```

<http://openfda.wasoftware.com/OpenFDA/lib/jquery.backstretch.min.js>

```

/*! Backstretch - v2.0.4 - 2013-06-19
* http://srobbin.com/jquery-plugins/backstretch/
* Copyright (c) 2013 Scott Robbin; Licensed MIT */
(function(a,d,p){a.fn.backstretch=function(c,b){(c===p||0===c.length)&&a.error("No images were supplied for
Backstretch");0===a(d).scrollTop()&&d.scrollTo(0,0);return this.each(function(){var
d=a(this),g=d.data("backstretch");if(g){if("string"===typeof c&&"function"===typeof g[c]){g[c]
(b);return}b=a.extend(g.options,b);g.destroy(!0)}g=new
q(this,c,b);d.data("backstretch",g)}});a.backstretch=function(c,b){return
a("body").backstretch(c,b).data("backstretch");a.expr[":"].backstretch=function(c){return
a(c).data("backstretch")!==p};a.fn.backstretch.defaults={centeredX:!0,centeredY:!0,duration:5E3,fade:0;var
r={left:0,top:0,overflow:"hidden",margin:0,padding:0,height:"100%",width:"100%",zIndex:-999999},s=
{position:"absolute",display:"none",margin:0,padding:0,border:"none",width:"auto",height:"auto",maxHeight:"no
ne",maxWidth:"none",zIndex:-999999},q=function(c,b,e){this.options=a.extend({},a.fn.backstretch.defaults,e||
{});this.images=a.isArray(b)?b:[b];a.each(this.images,function(){a("<img />")
[0].src=this});this.isBody=c===document.body;this.$container=a(c);this.$root=this.isBody?1:
a(d):a(document):this.$container;c=this.$container.children(".backstretch").first();this.$wrap=c.length?
c:a("<div class='backstretch'></div>").css(r).appendTo(this.$container);this.isBody||
(c=this.$container.css("position"),b=this.$container.css("zIndex"),this.$container.css({position:"static"===c
?"relative":c,zIndex:"auto"===b?0:b;background:"none"}),this.$wrap.css({zIndex:-
999998}));this.$wrap.css({position:this.isBody&&1?"fixed":"absolute"});this.index=0;this.show(this.index);a(d
).on("resize.backstretch",a.proxy(this.resize,this)).on("orientationchange.backstretch",a.proxy(function()
{this.isBody&&0===d.pageYOffset&&(d.scrollTo(0,1),this.resize()),this.show(this.index)}),this));q.prototype={resize:function()
{try{var a={left:0,top:0},b=this.isBody?this.$root.width():this.$root.innerWidth(),e=b,g=this.isBody?
d.innerHeight:d.innerHeight:this.$root.height():this.$root.innerHeight(),j=e/this.$img.data("ratio"),f;j>=g?
(f=(j-g)/2,this.options.centeredY&&(a.top="-"+f+"px")):(j=g,e=j*this.$img.data("ratio"),f=(e-
b)/2,this.options.centeredX&&(a.left="-"+f+"px"));this.$wrap.css({width:b,height:g}).find("img:not(.deleteable)").css({width:e,height:j}).css(a)}cat
ch(h){}return this},show:function(c){if(!(Math.abs(c)>this.images.length-1)){var
b=this,e=b.$wrap.find("img").addClass("deleteable"),d=
{relatedTarget:b.$container[0]};b.$container.trigger(a.Event("backstretch.before",d),
[b,c]);this.index=c;clearInterval(b.interval);b.$img=a("<img />").css(s).bind("load",function(f){var
h=this.width|a(f.target).width();f=this.height|a(f.target).height();a(this).data("ratio",h/f);a(this).fadeI
n(b.options.speed|b.options.fade,function()
{e.remove();b.paused|b.cycle();a(["after","show"]).each(function()
{b.$container.trigger(a.Event("backstretch."+this,d),
[b,c])});b.resize()}).appendTo(b.$wrap);b.$img.attr("src",b.images[c]);return b}),next:function(){return
this.show(this.index<this.images.length-1?this.index+1:0)},prev:function(){return this.show(0===this.index?
this.images.length-1:this.index-1)},pause:function(){this.paused=!0;return this},resume:function()
{this.paused=!1;this.next();return this},cycle:function(){1<this.images.length&&
(clearInterval(this.interval),this.interval=setInterval(a.proxy(function()
{this.paused|this.next(),this},this),this.options.duration));return this},destroy:function(c)

```



```
{a(d).off("resize.backstretch
orientationchange.backstretch");clearInterval(this.interval);c||this.$wrap.remove();this.$container.removeDat
a("backstretch")});var l,f=navigator.userAgent,m=navigator.platform,e=f.match(/AppleWebKit\/([0-
9]+)/),e=!e&&e[1],h=f.match(/Fennec\/([0-9]+)/),h=!h&&h[1],n=f.match(/Opera Mobi\/([0-
9]+)/),t=!n&&n[1],k=f.match(/MSIE ([0-9]+)/),k=!k&&k[1];l=!((-1<m.indexOf("iPhone"))|-
1<m.indexOf("iPad"))|-1<m.indexOf("iPod"))&&e&&534>e||d.operamini&&"[object OperaMini]"===
{}).toString.call(d.operamini)||n&&7458>t||-1<f.indexOf("Android")&&e&&533>e||h&&6>h||"palmGetResource"in
d&&e&&534>e||-1<f.indexOf("MeeGo")&&-1<f.indexOf("NokiaBrowser/8.5.0")||k&&6>=k)})(jQuery,window);
```

<http://openfda.wasoftware.com/OpenFDA/lib/jquery-scrollspy.js>

```
/*!
 * jQuery Scrollspy Plugin
 * Author: @sxalexander
 * Licensed under the MIT license
 */

;(function ( $, window, document, undefined ) {

    $.fn.extend({
        scrollspy: function ( options ) {

            var defaults = {
                min: 0,
                max: 0,
                mode: 'vertical',
                buffer: 0,
                container: window,
                onEnter: options.onEnter ? options.onEnter : [],
                onLeave: options.onLeave ? options.onLeave : [],
                onTick: options.onTick ? options.onTick : []
            }

            var options = $.extend( {}, defaults, options );

            return this.each(function (i) {

                var element = this;
                var o = options;
                var $container = $(o.container);
                var mode = o.mode;
                var buffer = o.buffer;
                var enters = leaves = 0;
                var inside = false;

                /* add listener to container */
                $container.bind('scroll', function(e){
                    var position = {top: $(this).scrollTop(), left: $(this).scrollLeft()};
                    var xy = (mode == 'vertical') ? position.top + buffer : position.left + buffer;
                    var max = o.max;
                    var min = o.min;

                    /* fix max */
                    if($.isFunction(o.max)){
                        max = o.max();
                    }

                    /* fix min */
                    if($.isFunction(o.min)){
                        min = o.min();
                    }

                    if(max == 0){
                        max = (mode == 'vertical') ? $container.height() : $container.outerWidth() +
                        $(element).outerWidth();
                    }

                    /* if we have reached the minimum bound but are below the max ... */
                    if(xy >= min && xy <= max){
                        /* trigger enter event */
                        if(!inside){
                            inside = true;

```

```

        enters++;

        /* fire enter event */
        $(element).trigger('scrollEnter', {position: position})
        if ($.isFunction(o.onEnter)){
            o.onEnter(element, position);
        }

    }

    /* trigger tick event */
    $(element).trigger('scrollTick', {position: position, inside: inside, enters: enters,
leaves: leaves})

    if ($.isFunction(o.onTick)){
        o.onTick(element, position, inside, enters, leaves);
    }
    }else{

        if (inside){
            inside = false;
            leaves++;
            /* trigger leave event */
            $(element).trigger('scrollLeave', {position: position, leaves:leaves})

            if ($.isFunction(o.onLeave)){
                o.onLeave(element, position);
            }
        }
    }
    });
    });
    })

    })( jQuery, window );

```

<http://openfda.wasoftware.com/OpenFDA/lib/jquery.shuffle.js>

```

/*!
 * Shuffle.js by @Vestride
 * Categorize, sort, and filter a responsive grid of items.
 * Dependencies: jQuery 1.9+, Modernizr 2.6.2+
 * @license MIT license
 * @version 2.1.2
 */
(function (factory) {
    if (typeof define === 'function' && define.amd) {
        define(['jquery', 'modernizr'], factory);
    } else {
        factory(window.jQuery, window.Modernizr);
    }
})(function($, Modernizr, undefined) {

'use strict';

// Validate Modernizr exists.
// Shuffle requires `csstransitions`, `csstransforms`, `csstransforms3d`,
// and `prefixed` to exist on the Modernizr object.
if (typeof Modernizr !== 'object') {
    throw new Error('Shuffle.js requires Modernizr.\n' +
        'http://vestride.github.io/Shuffle/#dependencies');
}

/**
 * Returns css prefixed properties like `-webkit-transition` or `box-sizing`
 * from `transition` or `boxSizing`, respectively.
 * @param {(string|boolean)} prop Property to be prefixed.
 * @return {string} The prefixed css property.
 */

```

```

*/
function dashify( prop ) {
  if (!prop) {
    return '';
  }

  // Replace upper case with dash-lowercase,
  // then fix ms- prefixes because they're not capitalized.
  return prop.replace(/[A-Z]/g, function( str, ml ) {
    return '-' + ml.toLowerCase();
  }).replace(/^ms-/,'-ms-');
}

// Constant, prefixed variables.
var TRANSITION = Modernizr.prefixed('transition');
var TRANSITION_DELAY = Modernizr.prefixed('transitionDelay');
var TRANSITION_DURATION = Modernizr.prefixed('transitionDuration');
var TRANSITIONEND = {
  'WebkitTransition' : 'webkitTransitionEnd',
  'transition' : 'transitionend'
}[ TRANSITION ];
var TRANSFORM = Modernizr.prefixed('transform');
var CSS_TRANSFORM = dashify(TRANSFORM);

// Constants
var CAN_TRANSITION_TRANSFORMS = Modernizr.csstransforms && Modernizr.csstransitions;
var HAS_TRANSFORMS_3D = Modernizr.csstransforms3d;
var SHUFFLE = 'shuffle';

// Configurable. You can change these constants to fit your application.
// The default scale and concealed scale, however, have to be different values.
var ALL_ITEMS = 'all';
var FILTER_ATTRIBUTE_KEY = 'groups';
var DEFAULT_SCALE = 1;
var CONCEALED_SCALE = 0.001;

// Underscore's throttle function.
function throttle(func, wait, options) {
  var context, args, result;
  var timeout = null;
  var previous = 0;
  options = options || {};
  var later = function() {
    previous = options.leading === false ? 0 : $.now();
    timeout = null;
    result = func.apply(context, args);
    context = args = null;
  };
  return function() {
    var now = $.now();
    if (!previous && options.leading === false) {
      previous = now;
    }
    var remaining = wait - (now - previous);
    context = this;
    args = arguments;
    if (remaining <= 0 || remaining > wait) {
      clearTimeout(timeout);
      timeout = null;
      previous = now;
      result = func.apply(context, args);
      context = args = null;
    } else if (!timeout && options.trailing !== false) {
      timeout = setTimeout(later, remaining);
    }
    return result;
  };
}

// Used for unique instance variables
var id = 0;

/**
 * Categorize, sort, and filter a responsive grid of items.
 *
 * @param {Element|jQuery} element An element or a jQuery collection which

```

```

*      is the parent container for the grid items.
* @param {Object} [options=Shuffle.options] Options object.
* @constructor
*/
var Shuffle = function( element, options ) {
  options = options || {};
  $.extend( this, Shuffle.options, options, Shuffle.settings );

  this.$el = $(element);
  this.$window = $(window);
  this.unique = 'shuffle_' + id++;

  this._fire( Shuffle.EventType.LOADING );
  this._init();

  // Dispatch the done event asynchronously so that people can bind to it after
  // Shuffle has been initialized.
  setTimeout( $.proxy(function() {
    this.initialized = true;
    this._fire( Shuffle.EventType.DONE );
  }, this), 16 );
};

/**
 * Events the container element emits with the .shuffle namespace.
 * For example, "done.shuffle".
 * @enum {string}
 */
Shuffle.EventType = {
  LOADING: 'loading',
  DONE: 'done',
  SHRINK: 'shrink',
  SHRUNK: 'shrunk',
  FILTER: 'filter',
  FILTERED: 'filtered',
  SORTED: 'sorted',
  LAYOUT: 'layout',
  REMOVED: 'removed'
};

Shuffle.prototype = {
  _init : function() {
    var self = this,
        containerCSS,
        containerWidth,
        resizeFunction = $.proxy( self._onResize, self ),
        debouncedResize = self.throttle ?
          self.throttle( resizeFunction, self.throttleTime ) :
          resizeFunction,
        sort = self.initialSort ? self.initialSort : null;

    self._layoutList = [];
    self._shrinkList = [];

    self._setVars();

    // Zero out all columns
    self._resetCols();

    // Add classes and invalidate styles
    self._addClasses();

    // Set initial css for each item
    self._initItems()...
  }
};

```

<http://openfda.wasoftware.com/OpenFDA/lib/slick.min.js>

```

!function(a){"use strict";"function"==typeof define&&define.amd?define(["jquery"],a):a(jQuery)}(function(a)
{"use strict";var b=window.Slick||{};b=function(){}function c(c,d){var f,g,e=this;if(e.defaults=

```

```

{accessibility:!0,appendArrows:a(c),arrows:!0,asNavFor:null,prevArrow:'<button type="button" data-role="none"
class="slick-prev">Previous</button>',nextArrow:'<button type="button" data-role="none" class="slick-
next">Next</button>',autoplay:!1,autoplaySpeed:3e3,centerMode:!1,centerPadding:"50px",cssEase:"ease",customPa
ging:function(a,b){return'<button type="button" data-role="none">'+(b+1)+'
</button>'},dots:!1,dotsClass:"slick-
dots",draggable:!0,easing:"linear",fade:!1,focusOnSelect:!1,infinite:!0,lazyLoad:"ondemand",onBeforeChange:nu
ll,onAfterChange:null,onInit:null,onReInit:null,pauseOnHover:!0,pauseOnDotsHover:!1,responsive:null,rtl:!1,sl
ide:"div",slidesToShow:1,slidesToScroll:1,speed:300,swipe:!0,touchMove:!0,touchThreshold:5,useCSS:!0,vertical
:!1},e.initials=
{animating:!1,dragging:!1,autoplayTimer:null,currentSlide:0,currentLeft:null,direction:1,$dots:null,listWidth
:null,listHeight:null,loadIndex:0,$nextArrow:null,$prevArrow:null,slideCount:null,slideWidth:null,$slideTrack
:null,$slides:null,sliding:!1,slideOffset:0,swipeLeft:null,$list:null,touchObject:
{}},transformsEnabled:!1},a.extend(e,e.initials),e.activeBreakpoint=null,e.animType=null,e.animProp=null,e.bre
akpoints=[],e.breakpointSettings=
[],e.cssTransitions=!1,e.paused=!1,e.positionProp=null,e.$slider=a(c),e.$slidesCache=null,e.transformType=nu
ll,e.transitionType=null,e.windowWidth=0,e.windowTimer=null,e.options=a.extend({},e.defaults,d),e.originalSett
ings=e.options,f=e.options.responsive||null,f&&f.length>-1){for(g in f)f.hasOwnProperty(g)&&
(e.breakpoints.push(f[g].breakpoint),e.breakpointSettings[f[g].breakpoint]=f[g].settings);e.breakpoints.sort(
function(a,b){return b-
a})}e.autoPlay=a.proxy(e.autoPlay,e),e.autoPlayClear=a.proxy(e.autoPlayClear,e),e.changeSlide=a.proxy(e.chang
eSlide,e),e.selectHandler=a.proxy(e.selectHandler,e),e.setPosition=a.proxy(e.setPosition,e),e.swipeHandler=a.
proxy(e.swipeHandler,e),e.dragHandler=a.proxy(e.dragHandler,e),e.keyHandler=a.proxy(e.keyHandler,e),e.autoPla
yIterator=a.proxy(e.autoPlayIterator,e),e.instanceUid=b++,e.htmlExpr=/^(?!\s*<[\w\W]+>)[^]*$/e,e.init(){var
b=0;return c}(),b.prototype.addSlide=function(b,c,d){var e=this;if("boolean"===typeof c)d=c,c=null;else
if(0<c||c===e.slideCount)return!1;e.unload(),e.$slidesCache=null,e.$slides.length?
a(b).appendTo(e.$slideTrack):d?a(b).insertBefore(e.$slides.eq(c)):a(b).insertAfter(e.$slides.eq(c)):d===!0?
a(b).prependTo(e.$slideTrack):a(b).appendTo(e.$slideTrack),e.$slides=e.$slideTrack.children(this.options.sli
de),e.$slideTrack.children(this.options.slide).detach(),e.$slideTrack.append(e.$slides),e.$slides.each(function(
n,b,c){a(c).attr("index",b)}),e.$slidesCache=e.$slides,e.reinit()},b.prototype.animateSlide=function(b,c){var
d={},e=this;e.options.rtl===!0&&e.options.vertical===!1&&(b=-b),e.transformsEnabled===!1?
e.options.vertical===!1?
e.$slideTrack.animate({left:b},e.options.speed,e.options.easing,c):e.$slideTrack.animate({top:b},e.options.sp
eed,e.options.easing,c):e.cssTransitions===!1?a({animStart:e.currentLeft}).animate({animStart:b},
{duration:e.options.speed,easing:e.options.easing,step:function(a){e.options.vertical===!1?
(d[e.animType]="translate("+a+"px, 0px)",e.$slideTrack.css(d)):
(d[e.animType]="translate(0px,"+a+"px)",e.$slideTrack.css(d))},complete:function(){c&&c.call()}}):
(e.applyTransition(),d[e.animType]=e.options.vertical===!1?"translate3d("+b+"px, 0px,
0px)":e.$slideTrack.css(d),c&&setTimeout(function()
{e.disableTransition(),c.call(),e.options.speed})),b.prototype.applyTransition=function(a){var b=this,c=
{};c[b.transitionType]=b.options.fade===!1?b.transformType+" "+b.options.speed+"ms
"+b.options.cssEase:"opacity "+b.options.speed+"ms "+b.options.cssEase,b.options.fade===!1?
b.$slideTrack.css(c):b.$slides.eq(a).css(c)},b.prototype.autoPlay=function(){var
a=this;a.autoPlayTimer&&clearInterval(a.autoPlayTimer),a.slideCount>a.options.slidesToShow&&a.paused!==!0&&
(a.autoPlayTimer=setInterval(a.autoPlayIterator,a.options.autoPlaySpeed)),b.prototype.autoPlayClear=function()
{var a=this;a.autoPlayTimer&&clearInterval(a.autoPlayTimer)},b.prototype.autoPlayIterator=function(){var
b=this,c=null!=b.options.asNavFor?a(b.options.asNavFor).getSlick():null;b.options.infinite===!1?
1===b.direction?(b.currentSlide+1===b.slideCount-1&&
(b.direction=0),b.slideHandler(b.currentSlide+b.options.slidesToScroll),null!=c&&c.slideHandler(b.currentSlid
e+c.options.slidesToScroll)):0===b.currentSlide-1&&(b.direction=1),b.slideHandler(b.currentSlide-
b.options.slidesToScroll),null!=c&&c.slideHandler(b.currentSlide-c.options.slidesToScroll)):
(b.slideHandler(b.currentSlide+b.options.slidesToScroll),null!=c&&c.slideHandler(b.currentSlide+c.options.sli
desToScroll))},b.prototype.buildArrows=function(){var b=this;b.options.arrows===!0&&b.slideCoun...

```

## Cookies 1

TOC

Name	First Set	Domain	Secure
Value	Requested URL		Expires
JSESSIONID	http://openfda.wasoftware.com/OpenFDA/j_sprn_g_security_check	openfda.wasoftware.com	False
AC62FBADEBDA24C54DE2CC6C99FA78EC	http://openfda.wasoftware.com/OpenFDA/		