

WebCruiser Web Vulnerability Scanner User Guide

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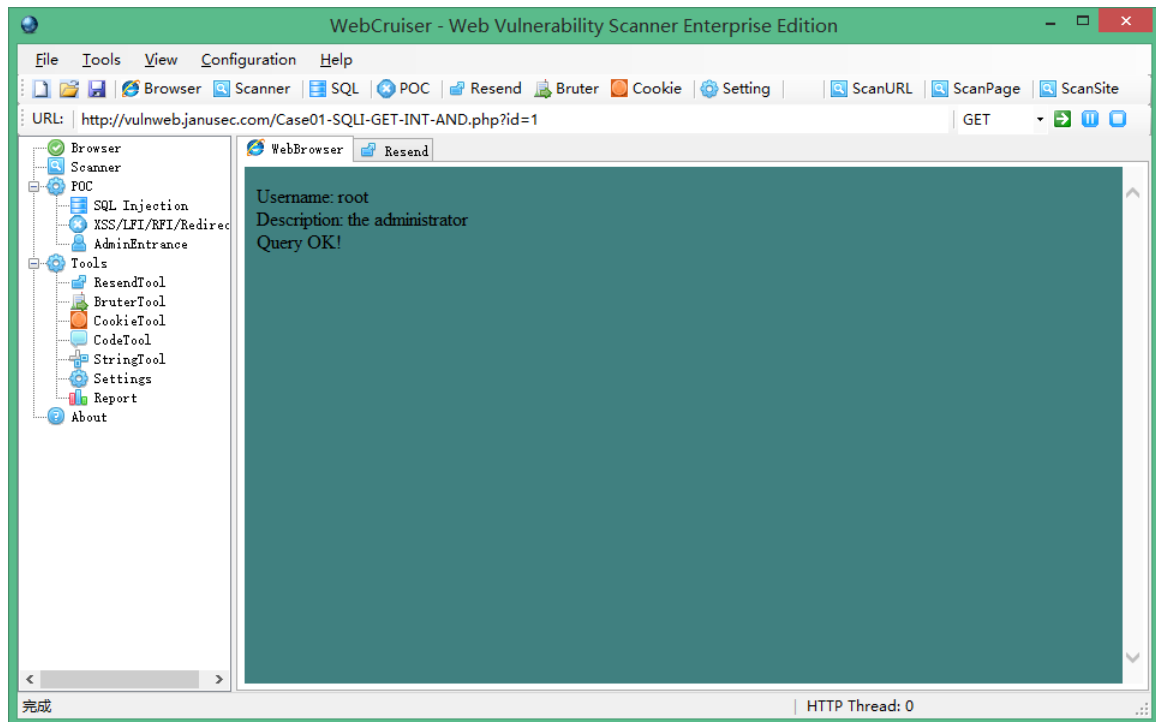
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V3.1.0 by Janusec

<http://www.janusec.com>

1. Software Introduction



WebCruiser - Web Vulnerability Scanner, a compact but powerful web security scanning tool! It has a Crawler and a Vulnerability Scanner (SQL Injection, Cross Site Scripting, XPath Injection etc.).

It can support scanning website as well as POC (Proof of concept) for web vulnerabilities: SQL Injection, Cross Site Scripting, Local File Inclusion, Remote File Inclusion, Redirect etc.

The most typical feature of WebCruiser comparing with other Web Vulnerability Scanners is that WebCruiser Web Vulnerability Scanner focuses on high risk vulnerabilities, and WebCruiser can scan a designated vulnerability type, or a designated URL, or a designated page separately, while the others usually will not.

Key Features:

- * Crawler (Site Directories and Files).
- * Vulnerability Scanner: SQL Injection, Cross Site Scripting, LFI, RFI, Redirect

etc.

- * WAVSEP v1.5 SQL Injection & XSS test cases 100% covered.
- * SQL Injection POC Tool: GET/Post/Cookie Injection POC (Proof of Concept).
- * SQL Injection for SQL Server: PlainText/Union/Blind Injection.
- * SQL Injection for MySQL: PlainText/Union/Blind Injection.
- * SQL Injection for Oracle: PlainText/Union/Blind/CrossSite Injection.
- * SQL Injection for DB2: Union/Blind Injection.
- * SQL Injection for Access: Union/Blind Injection.
- * POC Tool for XSS, LFI, RFI, Redirect etc.
- * Resend Tool.
- * Bruter Tool.
- * Cookie Tool.

Requirement: IE8+Requirement: .NET Framework 2.0+, IE8+

Software Disclaimer:

- * Authorization must be obtained from the web application owner;
- * This program will try to get each link and post any data when scanning;
- * Backup the database before scanning so as to avoid disaster.
- * Using this software at your own risk.

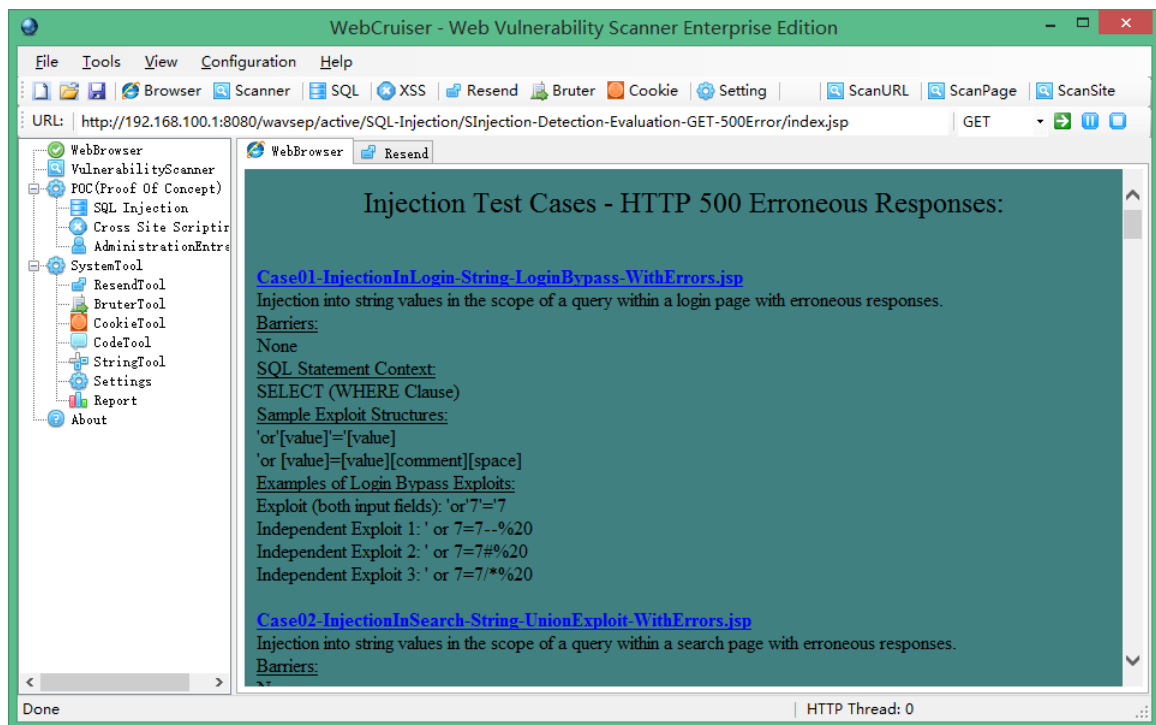
2. Main Function

2.1. Web Vulnerability Scanner

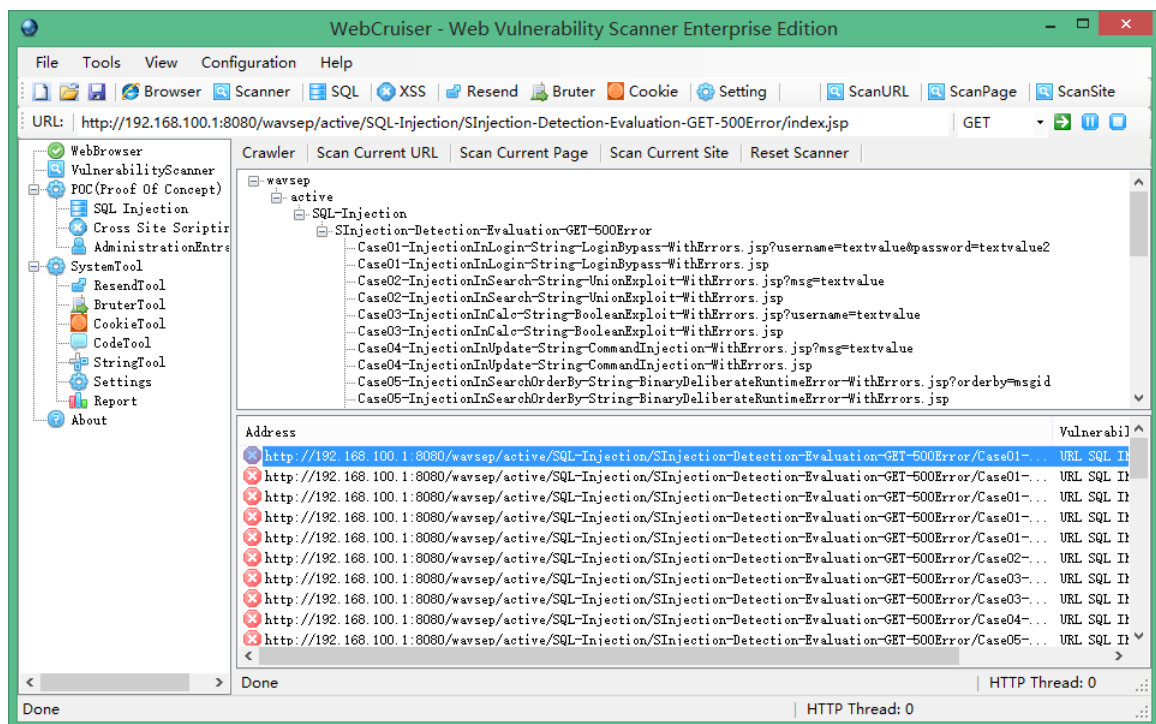
WebCruiser - Web Vulnerability Scanner provides 3 kinds of scanning mode:

- ✧ ScanURL: Scan current URL only.
- ✧ ScanPage: Scan current page and all links within it, links under other directories will be skipped.

✧ ScanSite: Scan the whole site with the same domain.



Scan Result (Above is Site Structure, and the following table is vulnerabilities):



4. Right click vulnerability, and then you can launch SQL Injection or Cross Site Scripting POC (Proof of Concept):

URL / Refer URL	Parameter	Type	KeyWord/ActionURL	Vulnerability
http://192.168.254...			table	POST SQL INJECTION
http://192.168.254...			http://192.168...	Cross Site Scripting (Form)

Copy URL To ClipBoard
SQL INJECTION POC
Delete Vulnerability

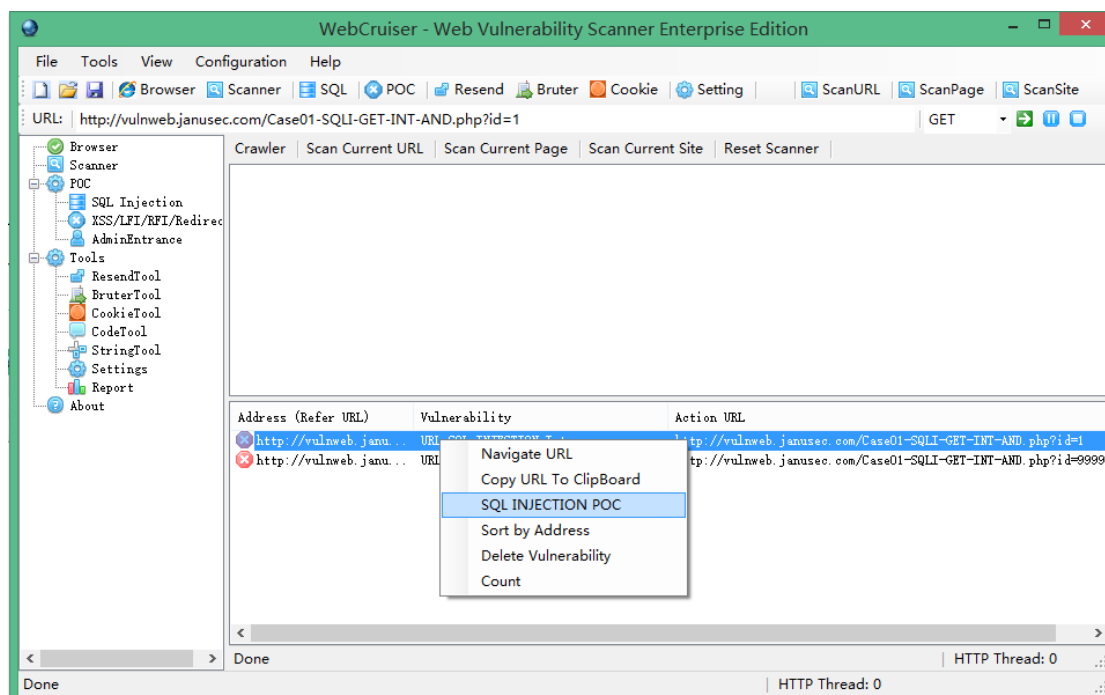
2.2. SQL Injection Tool

Scanning is not necessary for SQL Injection POC, you can launch POC by input the URL directly, or launch from the Scanner.

WebCruiser support:

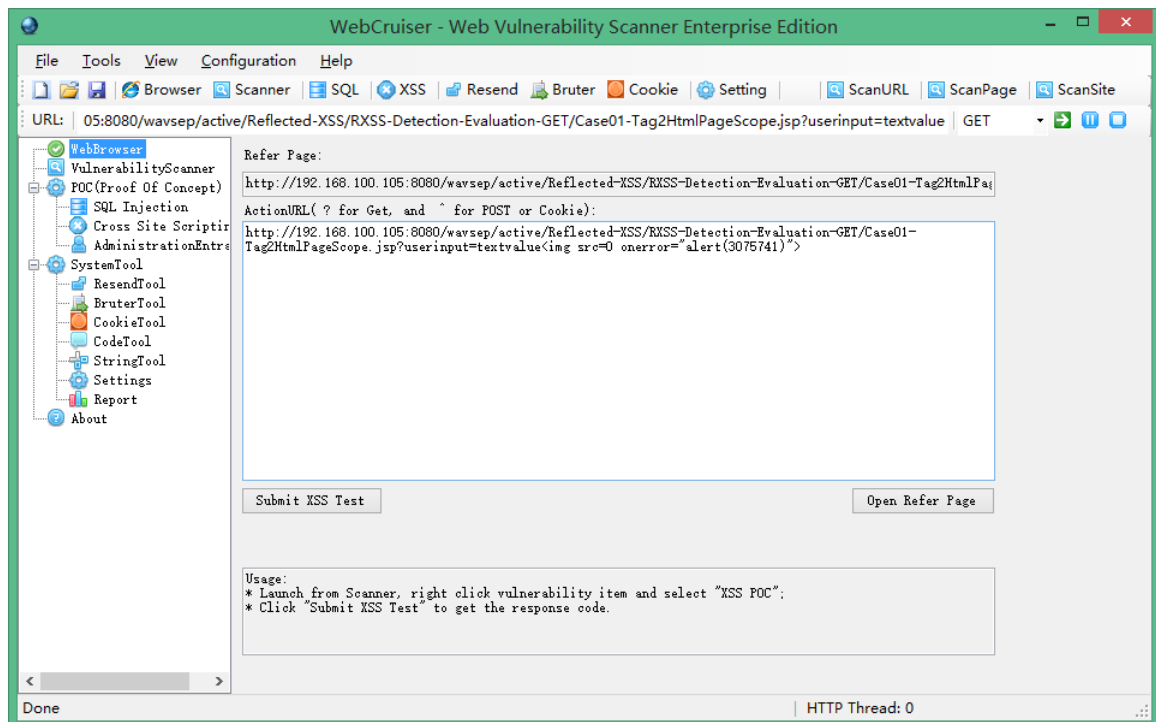
- * GET/Post/Cookie Injection;
- * SQL Server: Plaintext/FieldEcho(Union)/Blind Injection;
- * MySQL/DB2/Access: FieldEcho(Union)/Blind Injection;
- * Oracle: FieldEcho(Union)/Blind/CrossSite Injection;

Right click vulnerability, and select SQL Injection POC.

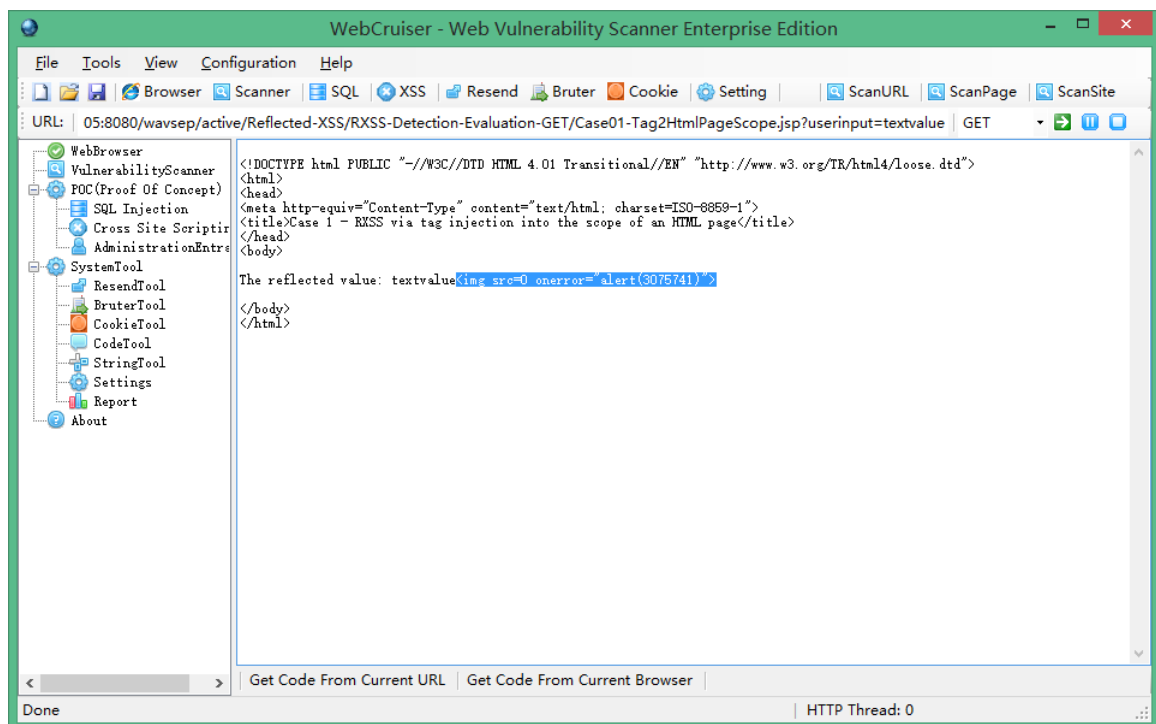


It will launch the SQL Injection POC tool and fill the relevant information.

This is a SQL Injection Demo.



3. Usually your input will occur in the Response Code:

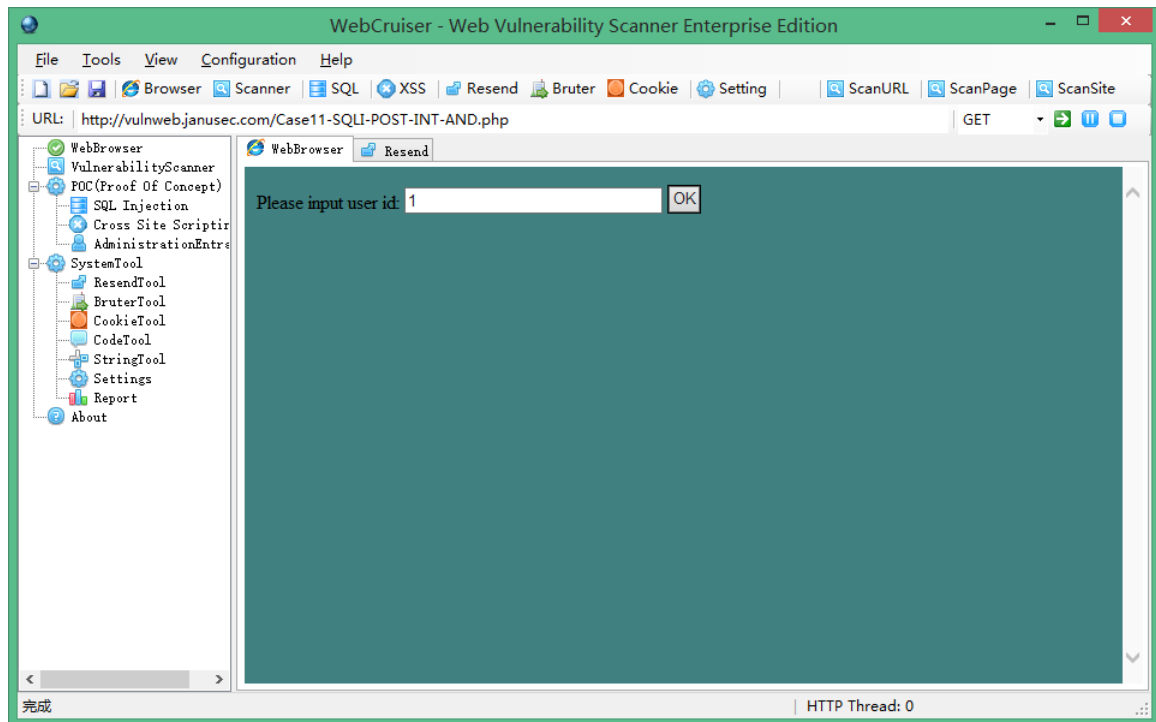


2.4. LFI/RFI/Redirect POC

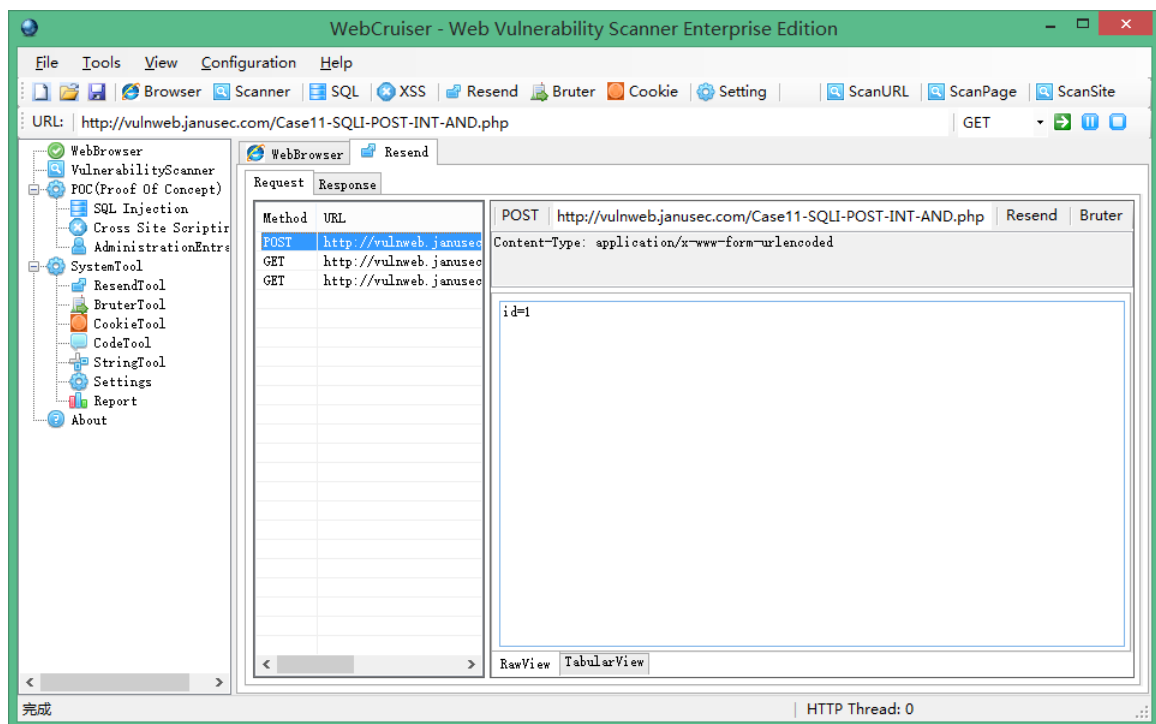
LFI/RFI/Redirect POC is the same with XSS POC.

2.5. Resend Test Tool

When you Post any data, WebCruiser will capture the Post data automatically. First, let's login a demo application:



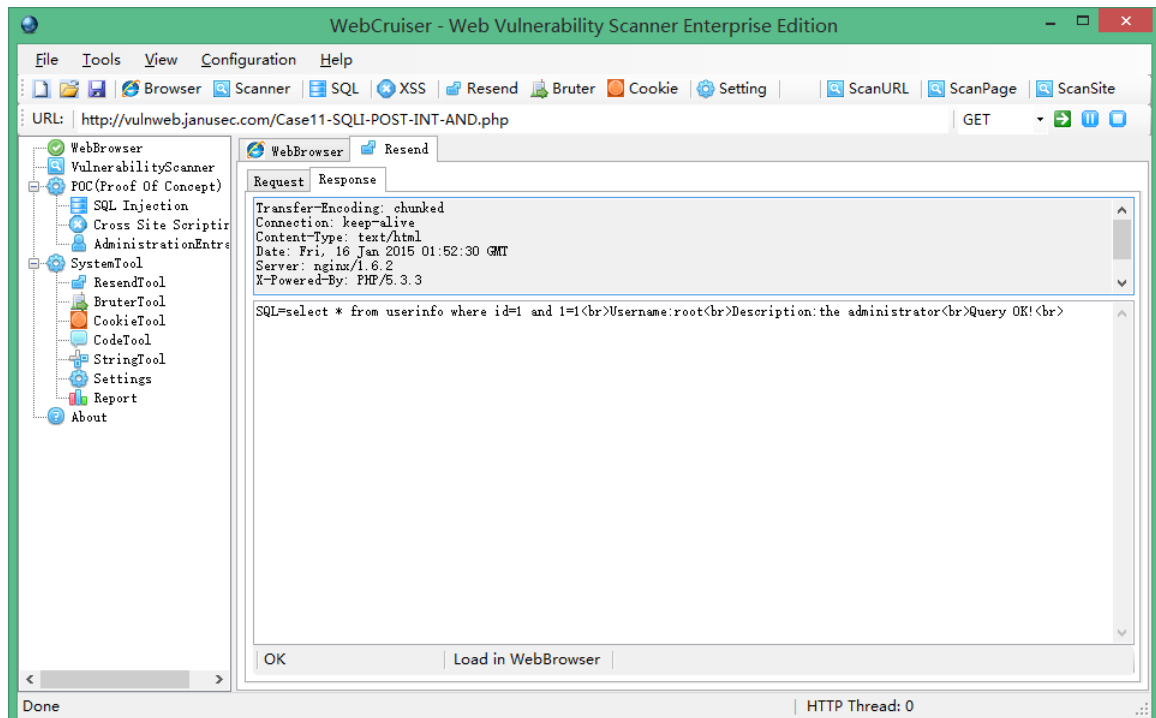
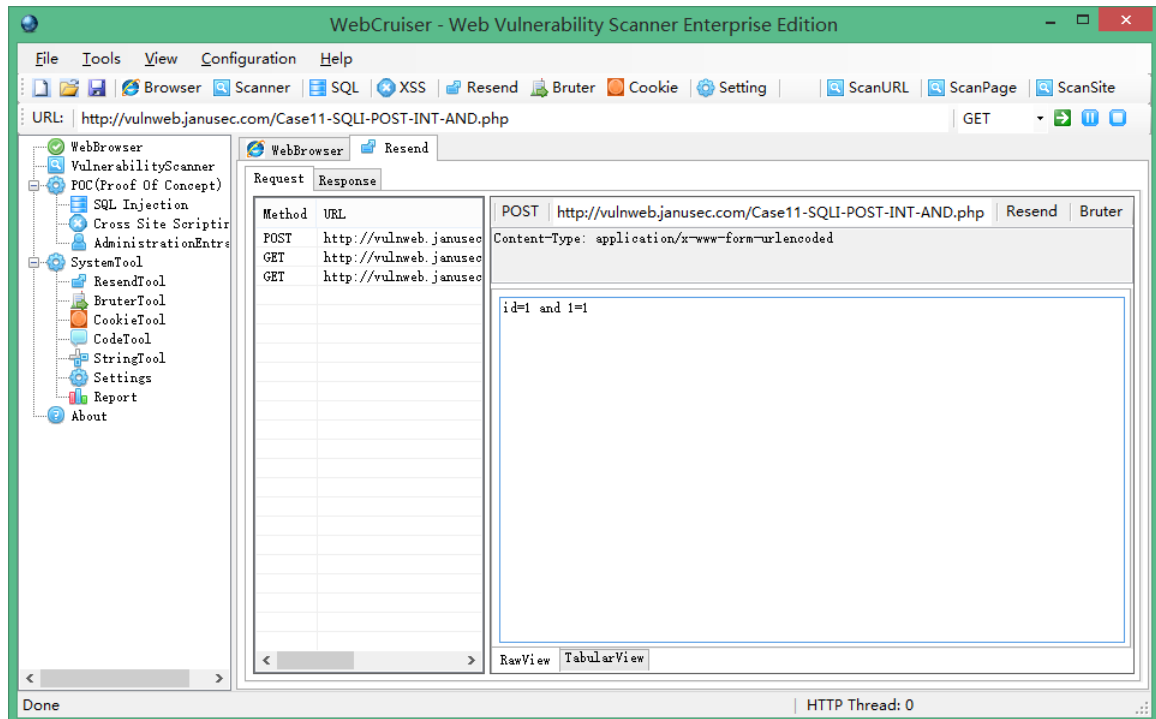
Switch to tab page "Resend", the Post data has been captured here:



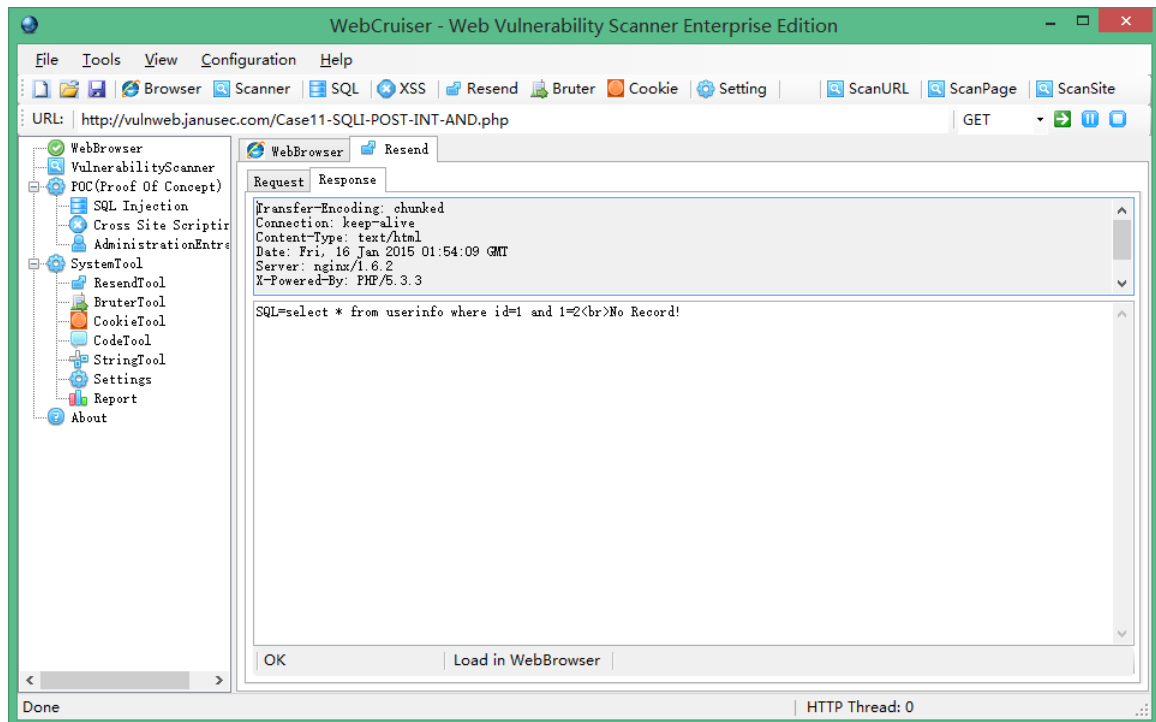
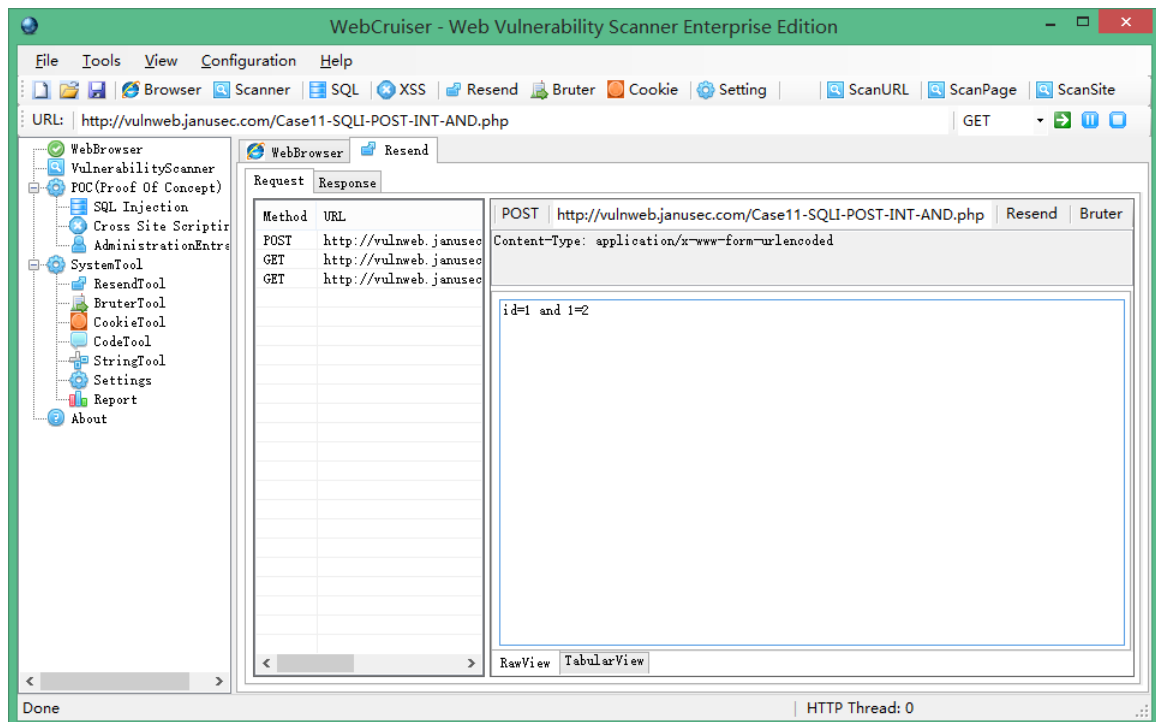
Now, you can modify the post data and resend them.

Let's try to use it for SQL Injection:

First, modify the value of id to *1 and 1=1*



Second, modify the value of id to *1 and 1=2*



We got different response. It means that this application has a vulnerability of SQL Injection.

3. DVWA Demo

DVWA (Damn Vulnerable Web Application) V1.8 Test Demo with WebCruiser.

3.1. Environment

Environment:

OS: Windows 8.1 or Windows 7

Runtime: .Net Framework 3.5

PHP+MySQL: XAMPP V3.2.1

DVWA settings in config.inc.php:

```
$_DVWA[ 'db_server' ] = 'localhost';
```

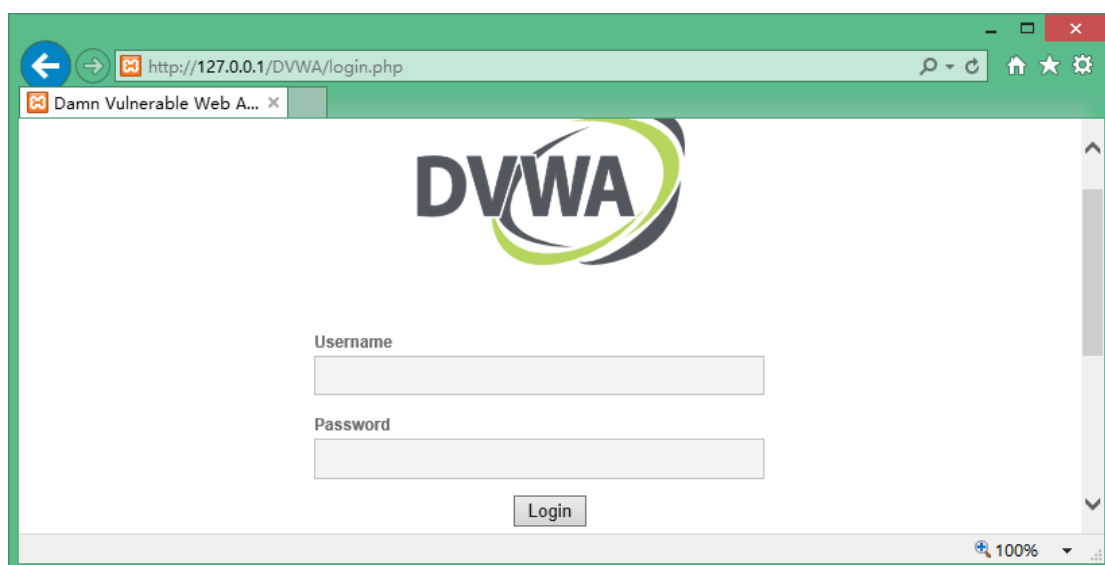
```
$_DVWA[ 'db_database' ] = 'dvwa';
```

```
$_DVWA[ 'db_user' ] = 'root';
```

```
$_DVWA[ 'db_password' ] = '123456';
```

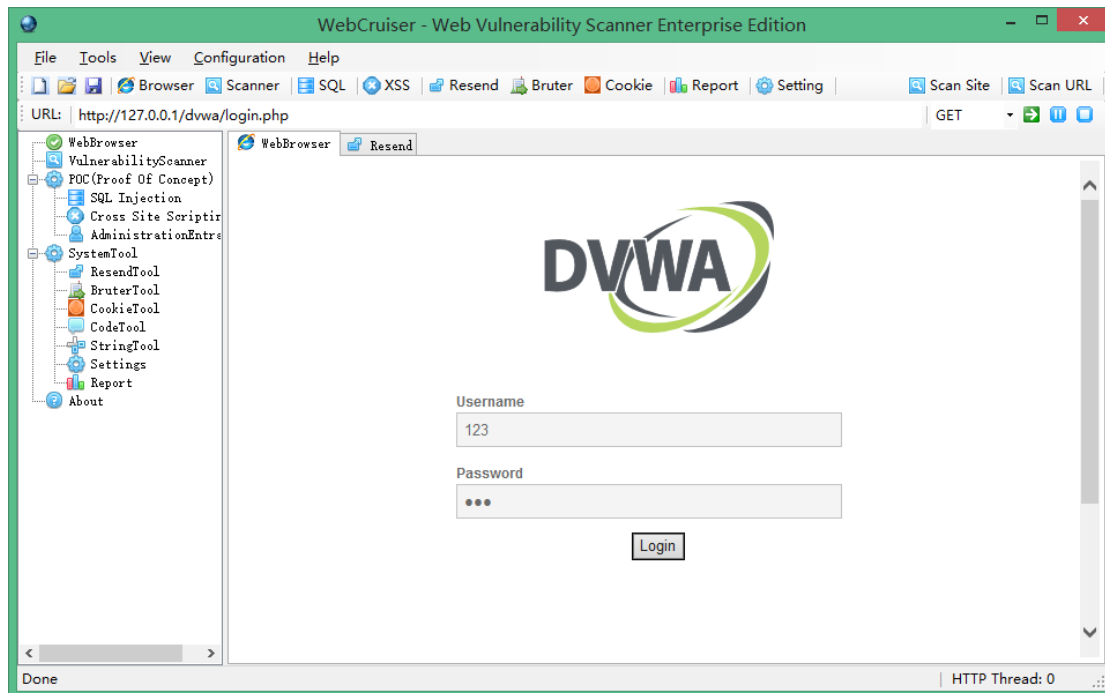
```
$_DVWA[ 'default_security_level' ] = "low";
```

Open <http://127.0.0.1/DVWA/login.php>

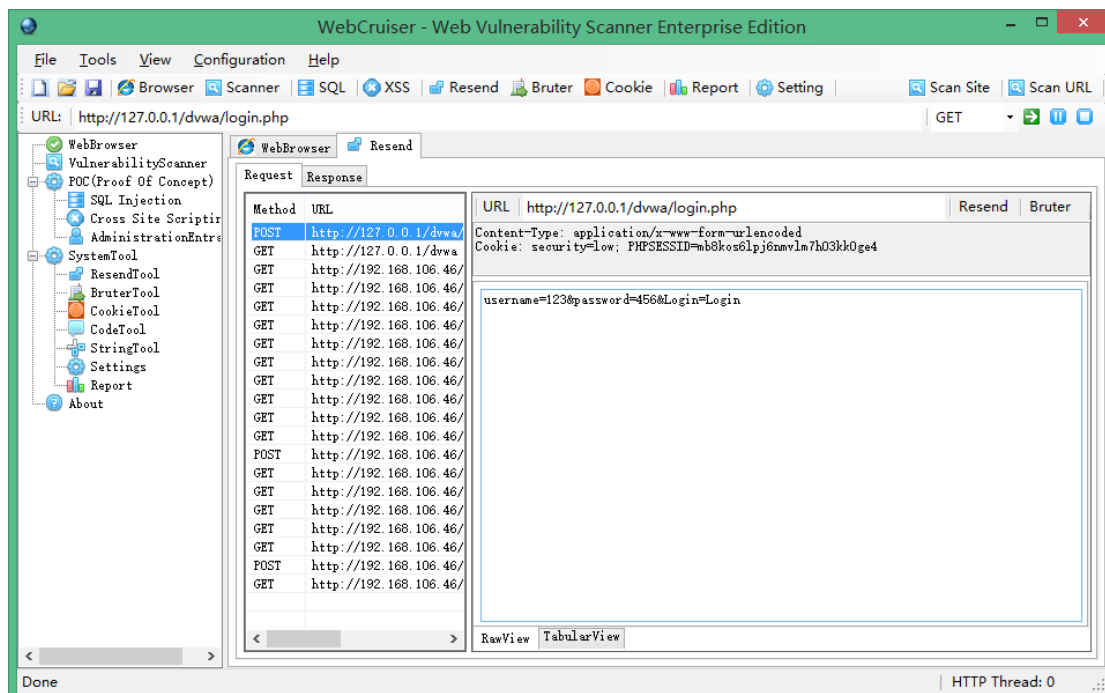


3.2. Brute Force

First, input any username and password which are wrong, here we input 123 and 456:

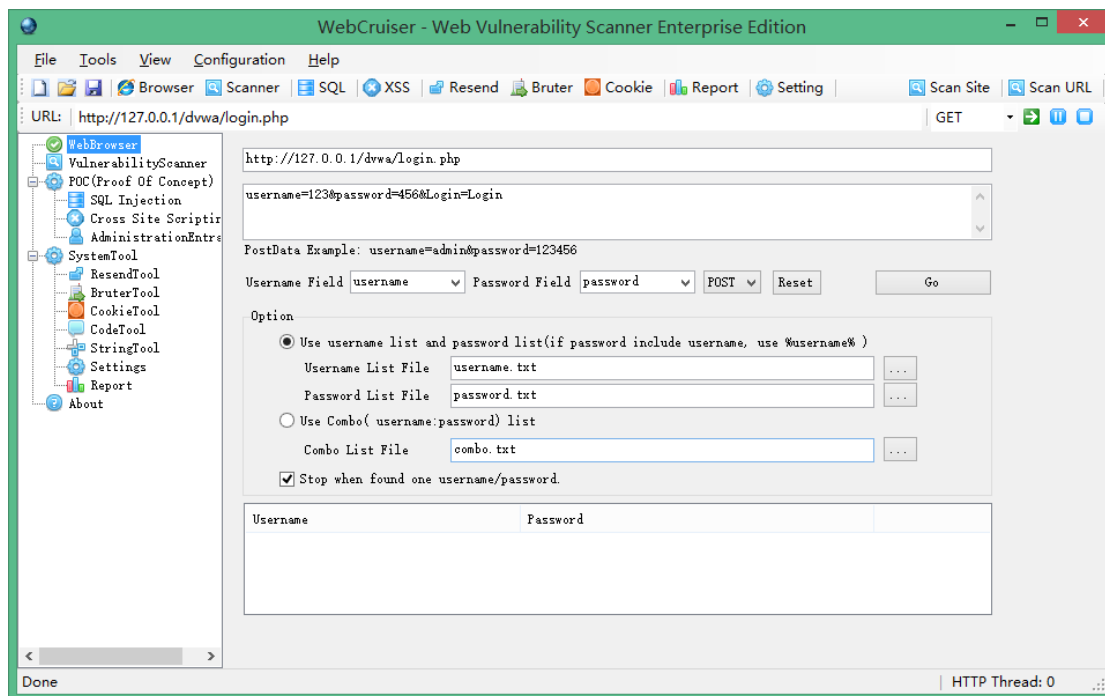


submit it and switch to the "Resend" tab.



Here lists http requests, and the top one is the newest one, just click it and then

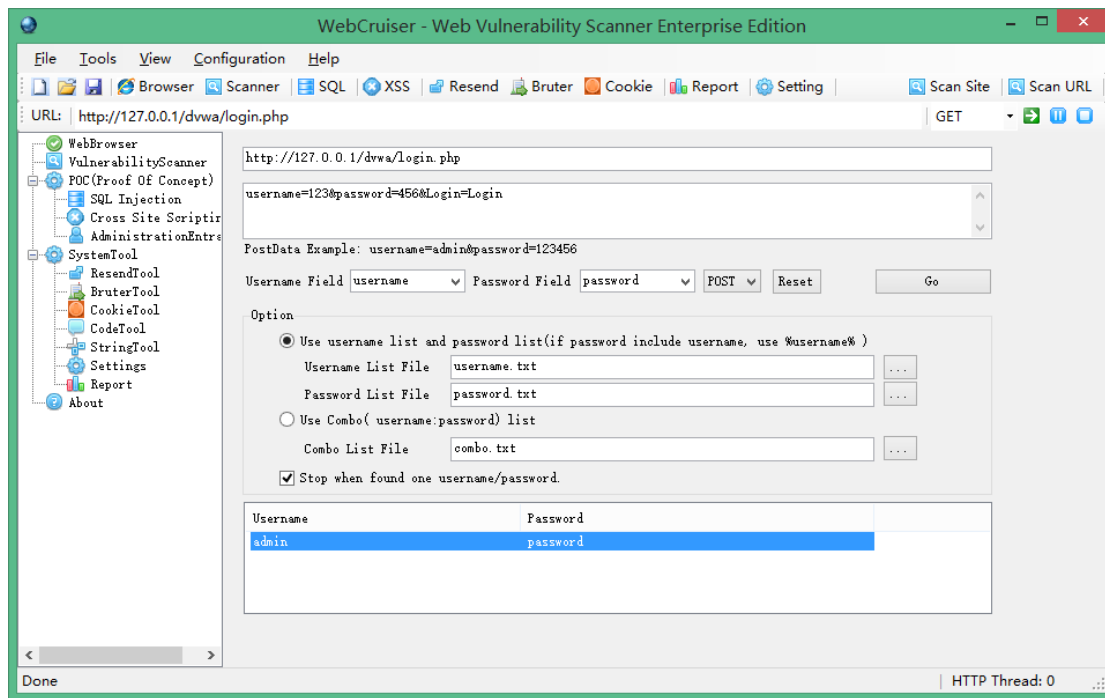
the right panel will show the detailed message. Click “Bruter” to launch the bruter.



If the form uses “username” and “password” as the parameter name, they will be filled in the selectable fields automatically, if not, select them manually.

Bruter has two ways to get the username/password, one is using separate username list and password list, another is using combo list which is composed of username:password.

Click “Go” to launch it.



After a while, it found it: admin/password .

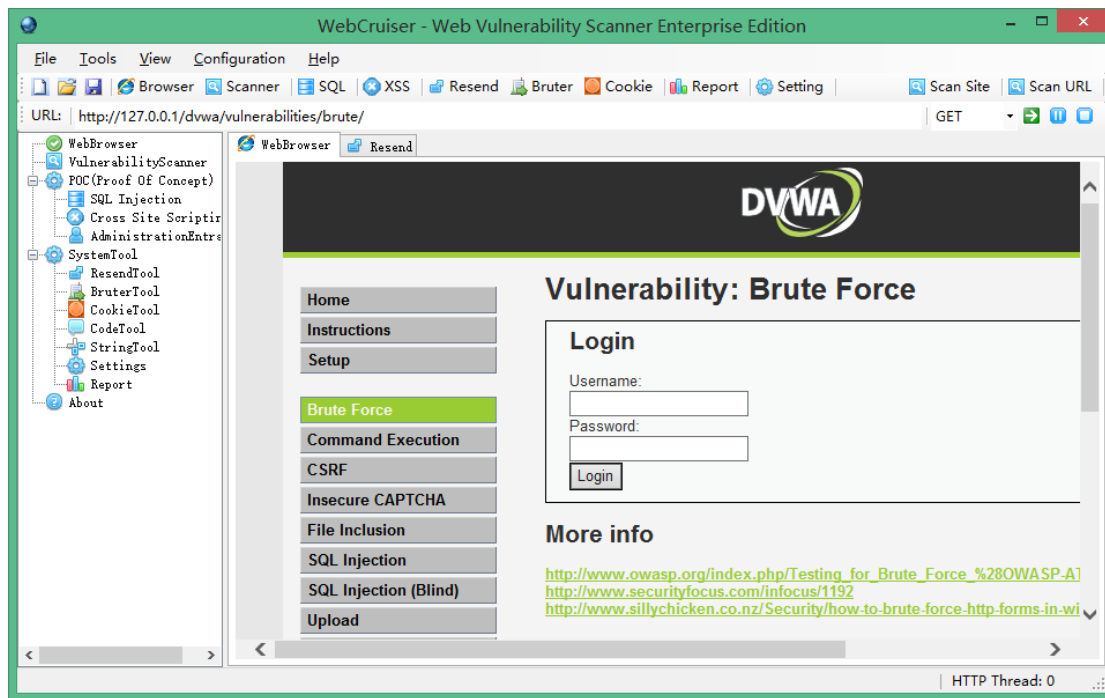
Switch to WebBrowser, input the username and password.



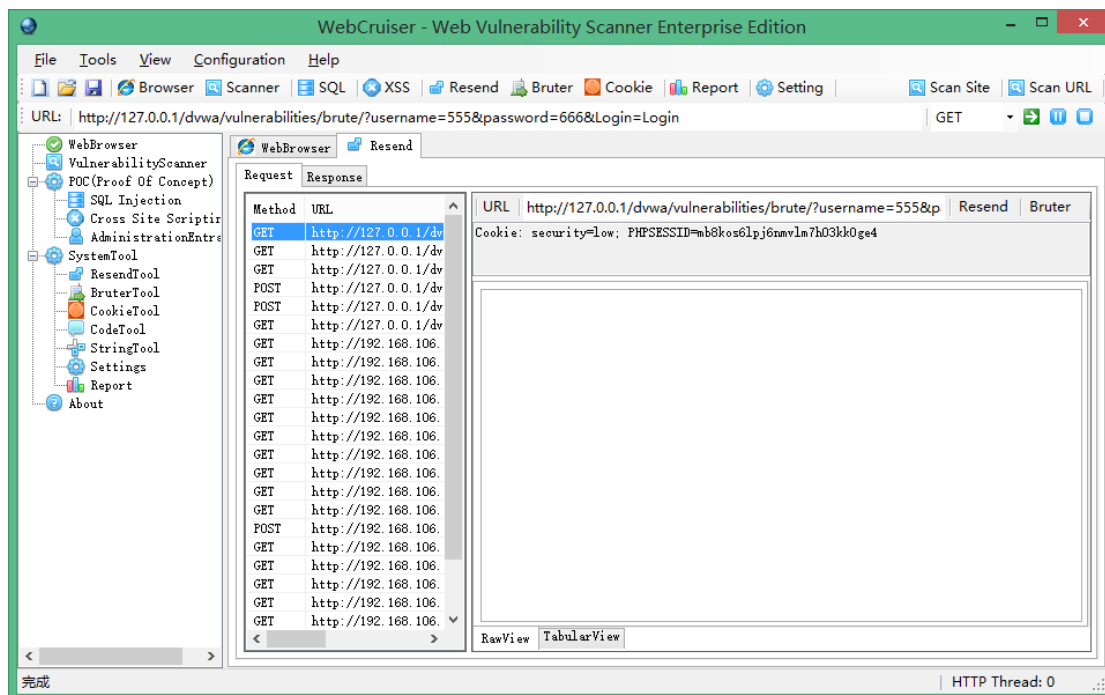
After logged in, check the "DVWA Security" page, make sure the security level is low.

Now, begin the test.

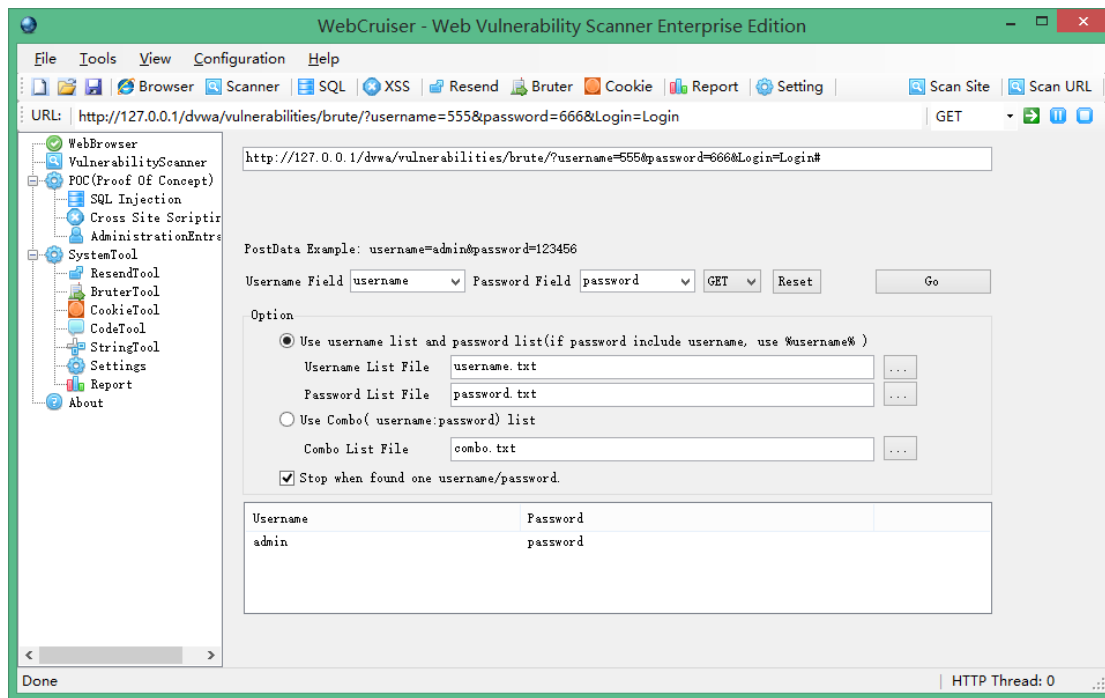
The first test within the DVWA is another Brute Force.



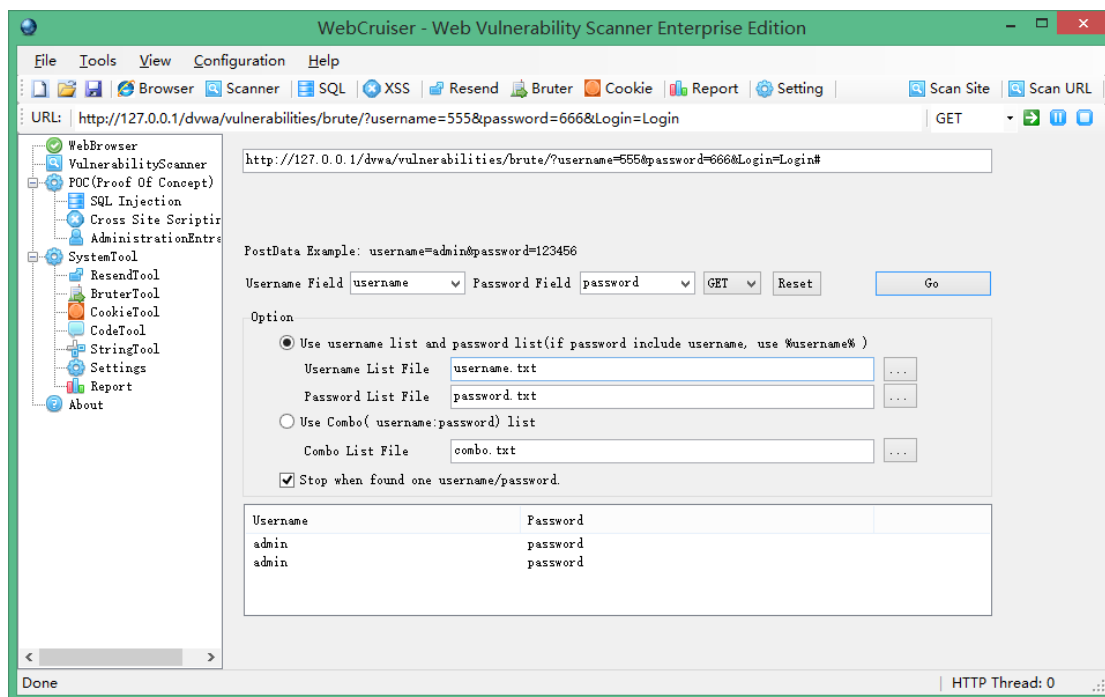
Like the login form, input any username and password, and then switch to "Resend":



Click "Bruter" to continue:



This is a GET request, click "Go":

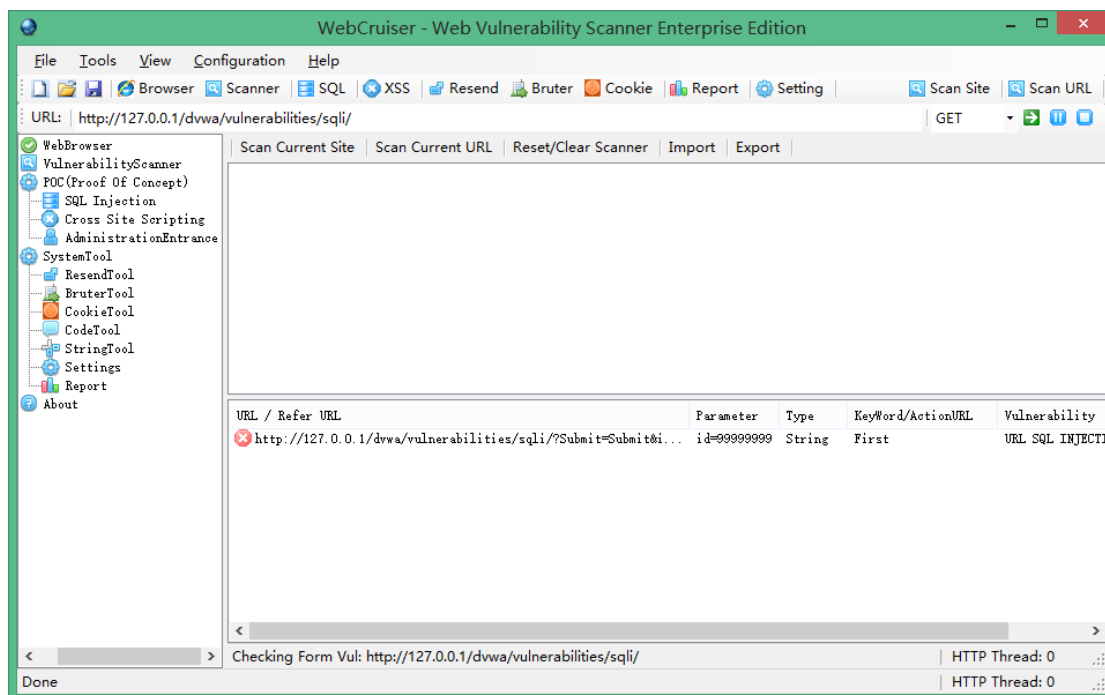


Found username/password: admin/password.

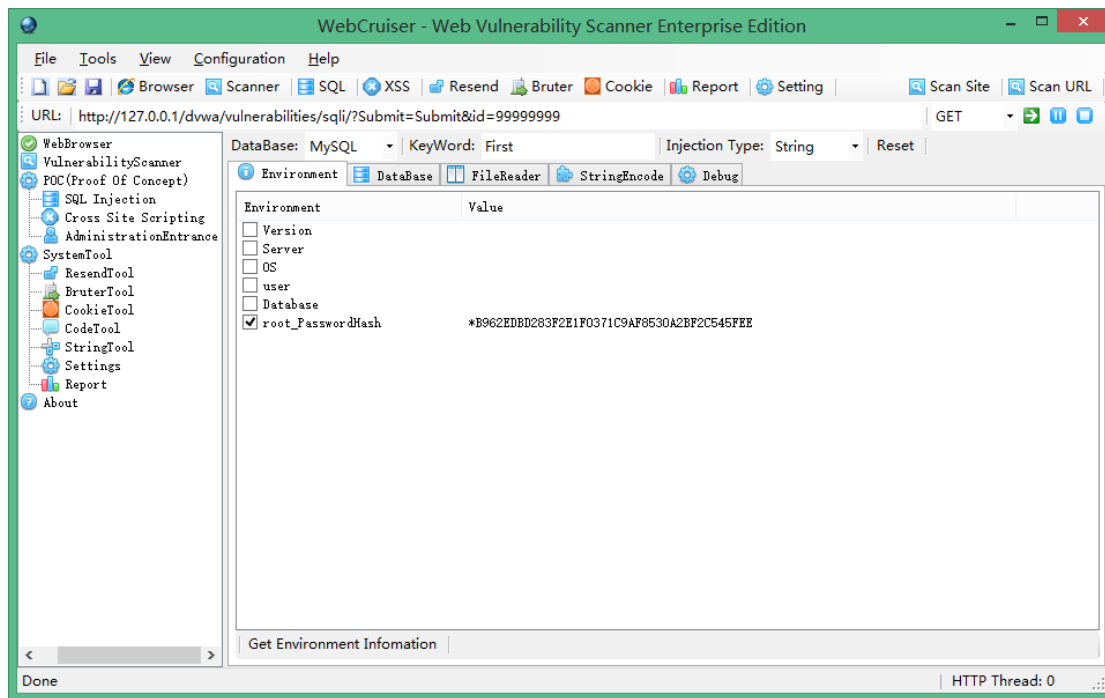
3.3. SQL Injection



Click "Scan URL" at the top right menu:



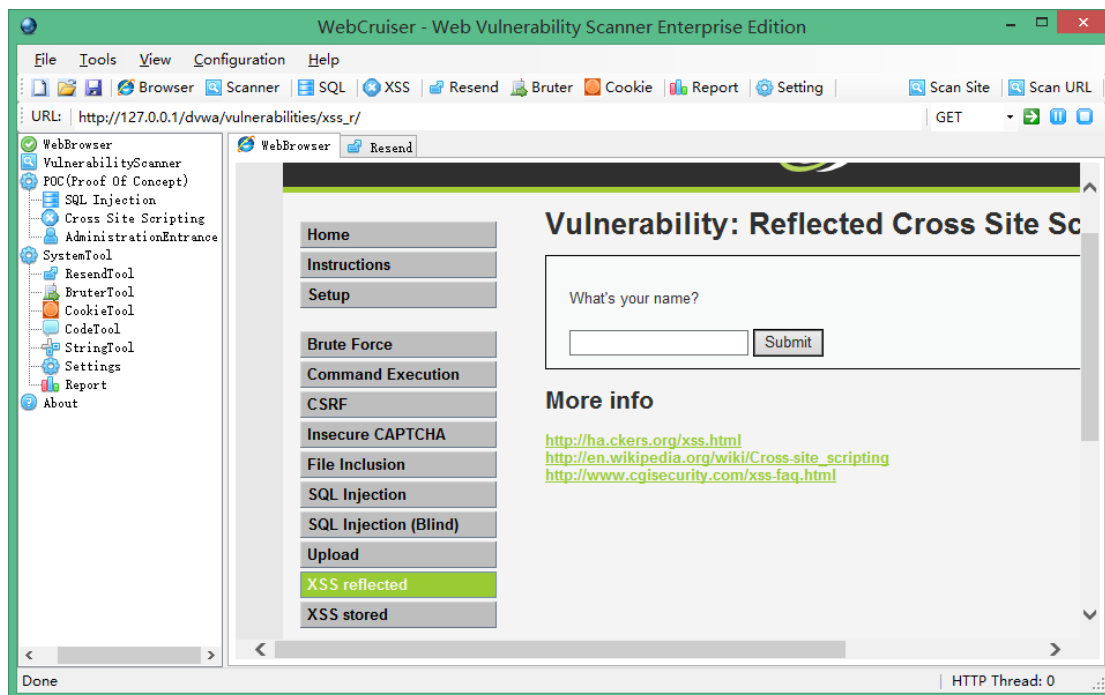
Right click the vulnerability and select "SQL INJECTION POC":



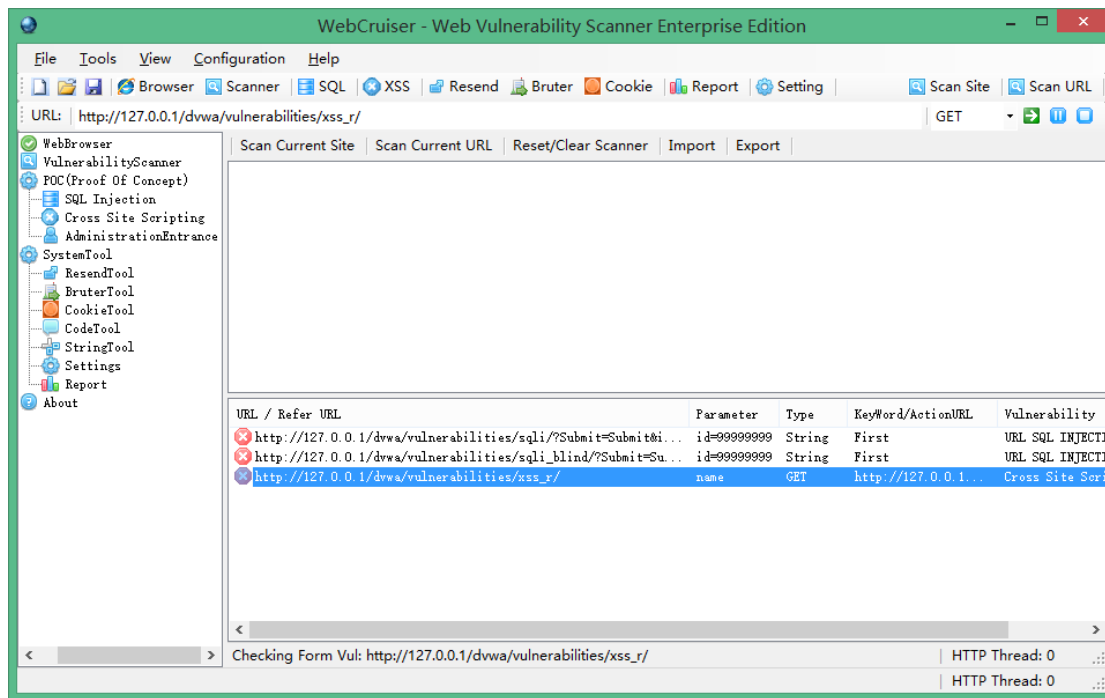
Oh, we got the encrypted password of root.

3.4. XSS

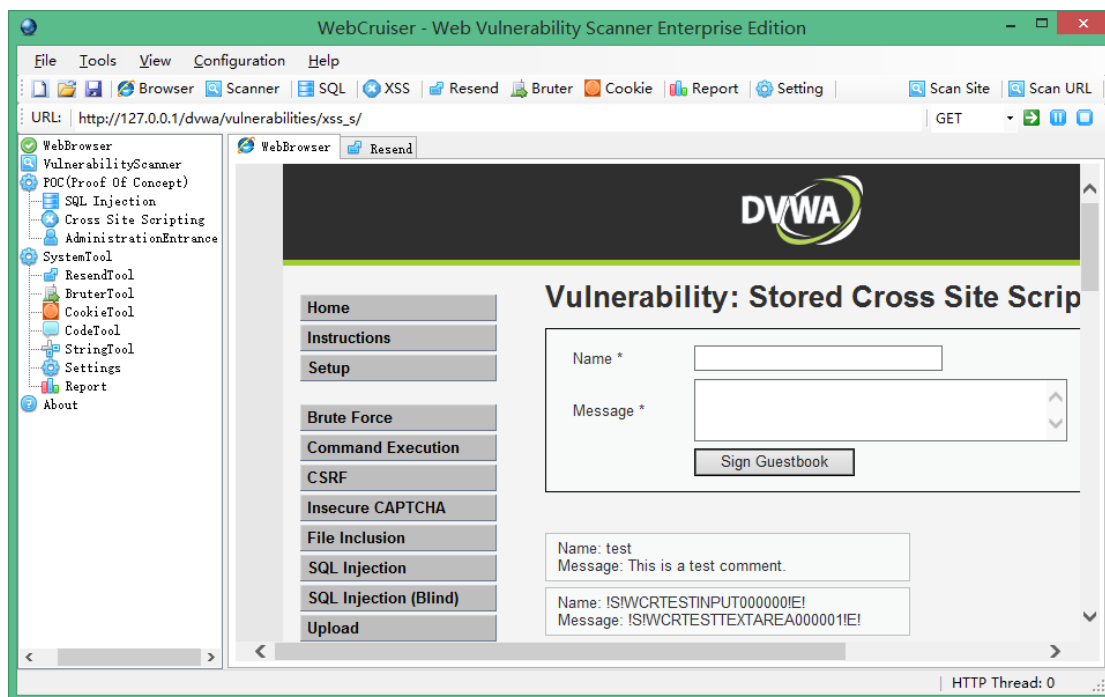
XSS Reflected, "Scan URL":



Found one XSS:



Continue stored XSS, "Scan URL":



We got it.

4. WAVSEP Test Report

WAVSEP v1.5 all SQL Injection & XSS test cases 100% covered, test report is

available here:

http://www.janusec.com/download/WebCruiser_Web_Vulnerability_Scanner_Test_Report.pdf

4.1. Product and Test Cases

WAVSEP (Web Application Vulnerability Scanner Evaluation Project) v1.5

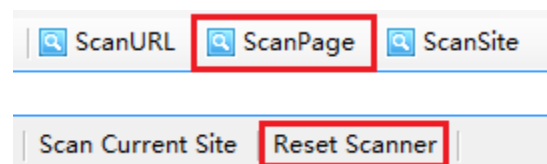
WAVSEP Environment: Windows8.1 + XAMPP (Tomcat + MySQL)

WebCruiser Web Vulnerability Scanner Enterprise Edition V3.1.0

4.2. Test Method

In order to get the test results quickly, we use a new feature of WebCruiser Web Vulnerability Scanner, which is "Scan Page", which means it will scan all links in a page once a time. This function requires that the links locate under the same or sub directory, links under other directories will be skipped.

When start a new page scan, click "Reset Scanner" to clear previous result, and navigate to new page, and then click "ScanPage"



4.3. SQL Injection Test Report

Input Vector	Test Cases	Cases Count	Report	Pass Rate
GET Input	Erroneous 500	19	19	100%

Vector	Responses			
	Erroneous 200 Responses	19	19	100%
	200 Responses With Differentiation	19	19	100%
	Identical 200 Responses	8	8	100%
POST Input Vector	Erroneous 500 Responses	19	19	100%
	Erroneous 200 Responses	19	19	100%
	200 Responses With Differentiation	19	19	100%
	Identical 200 Responses	8	8	100%
GET Input Vector – Experimental	Insert / Delete / Other	1	1	100%
POST Input Vector - Experimental	Insert / Delete / Other	1	1	100%

4.4. XSS Test Report

Input Vector	Test Cases	Cases Count	Report	Pass Rate
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GET Vector	Input	ReflectedXSS	32	32	100%
POST Vector	Input	ReflectedXSS	32	32	100%
Cookie Vector	Input -	ReflectedXSS	1	1	100%
GET Vector	Input -	ReflectedXSS	11	11	100%
POST Vector	Input -	ReflectedXSS	11	11	100%
GET Vector	Input -	DomXSS	4	4	100%
Experimental					

4.5. LFI Test Report

Input Vector	Test Cases	Cases Count	Report	Pass Rate
Get Input Vector	Erroneous HTTP 500 Responses	68	68	100%
	Erroneous HTTP 404	68	68	100%

	Responses			
	Erroneous HTTP 200 Responses	68	68	100%
	HTTP 302 Redirect Responses	68	68	100%
	HTTP 200 Responses With Differentiation	68	68	100%
	HTTP 200 Responses with Default File on Error	68	68	100%
POST Input Vector	Erroneous HTTP 500 Responses	68	68	100%
	Erroneous HTTP 404 Responses	68	68	100%
	Erroneous HTTP 200 Responses	68	68	100%
	HTTP 302 Redirect Responses	68	68	100%
	HTTP 200 Responses With Differentiation	68	68	100%
	HTTP 200 Responses with Default File on Error	68	68	100%

4.6. RFI Test Report

Input Vector	Test Cases	Cases Count	Report	Pass Rate
Get Input Vector	Erroneous HTTP 500 Responses	9	9	100%
	Erroneous HTTP 404 Responses	9	9	100%
	Erroneous HTTP 200 Responses	9	9	100%
	HTTP 302 Redirect Responses	9	9	100%
	HTTP 200 Responses With Differentiation	9	9	100%
	HTTP 200 Responses with Default File on Error	9	9	100%
POST Input Vector	Erroneous HTTP 500 Responses	9	9	100%
	Erroneous HTTP 404 Responses	9	9	100%
	Erroneous HTTP 200 Responses	9	9	100%
	HTTP 302 Redirect	9	9	100%

	Responses			
	HTTP 200 Responses With Differentiation	9	9	100%
	HTTP 200 Responses with Default File on Error	9	9	100%

4.7. Redirect Test Report

Input Vector	Test Cases	Cases Count	Report	Pass Rate
Get Input Vector	HTTP 302 Redirect Responses	15	15	100%
	HTTP 200 Responses With Javascript Redirect	15	15	100%
POST Input Vector	HTTP 302 Redirect Responses	15	15	100%
	HTTP 200 Responses With Javascript Redirect	15	15	100%

4.8. False Positive Test Report

False Vuln	Test Cases	Cases Count	Report	Pass Rate
SQL Injection	False Positive	10	0	100%
XSS	False Positive	7	0	100%

5. Order/Registration

WebCruiser - Web Vulnerability Scanner Order page:

<http://www.janusec.com/downloads/>

If you like it, you can order it from MyCommerce or Avangate:

Professional Edition (Non-Commercial License):

<https://shopper.mycommerce.com/checkout/product/25854-1>

<https://secure.avangate.com/order/checkout.php?PRODS=4540814&QTY=1&CART=1>

Enterprise Edition (Commercial License):

<https://shopper.mycommerce.com/checkout/product/25854-2>

<https://secure.avangate.com/order/checkout.php?PRODS=4540841&QTY=1&CART=1>

MyCommerce or Avangate will send you the Registration Code.

Thank you for choosing WebCruiser.

6. FAQ

Q: Why I can not run WebCruiser on my computer?

A: It need Windows with .Net Framework 2.0 or above, if you have not installed .Net Framework, please downloads it from Microsoft web site. Usually, Windows XP and earlier has not .Net Framework installed, but Windows Vista and Windows 7 has .Net Framework Integrated already. The URL for .Net Framework 2.0 (3.5) is:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en>

Q: What is the difference between the Free, Professional and Enterprise Edition?

A: They are different in License type.

- ✧ Professional Edition is for security professionals, masters of individual websites etc., non-commercial purpose, 12-month update and support service;
- ✧ Enterprise Edition is for enterprises, institution, or commercial organizations, 12-month update and support service with top priority.

Q: What is the most typical feature of WebCruiser comparing with other Web Vulnerability Scanners?

A: First, WebCruiser Web Vulnerability Scanner focuses on high risk vulnerabilities. Second, WebCruiser can scan a designated vulnerability type, or a designated URL, or a designated page separately, while the others usually will not.

<http://www.janusec.com/documentation/>

Support Web Site:

<http://www.janusec.com>

Support E-mail: janusecurity#gmail.com