Zap Scan Documentation

Table of Contents

Zap Installation	2
Manual Exploration Scan	
Overview	
Scan Policy Manager	
Overview	
Editing Policies	
Setting Up a Context (Profile)	
Active Scan Using a Profile	

Zap Installation

Official OWASP Zap download page: OWASPZAP - Download (zaproxy.org)

Kali Linux:

sudo apt update sudo apt install zaproxy

CentOS

yum install owasp-zap

Ubuntu

sudo apt update
sudo apt install owasp-zap

Manual Exploration Scan

Overview

The Manual Exploration feature on Zap allows one to explore a web application through a web proxy. Zap will then scan whatever pages that are being looked through by the user. This feature is an efficient way to scan specific web pages.

<	Man	ual	Explore	Q		
This screen allows you to laun through ZAP.	ch the browser of y	our choice	so that you can explore yo	our application while proxying		
The ZAP Heads Up Display (HUD) brings all of the essential ZAP functionality into your browser.						
URL to explore:				∨ Select		
Enable HUD:	✓					
Explore your application:	Launch Browser	Firefox	~			
You can also use browsers the import the ZAP root CA certifi	•	from ZAP, I	out will need to configure t	hem to proxy through ZAP and to		

Figure 1: Manual Explore

Enabling HUD (Heads Up Display) will allow users to access tools, panels, and alerts while exploring the web proxy. An in-depth HUD tutorial option will pop-up once the browser is launched.

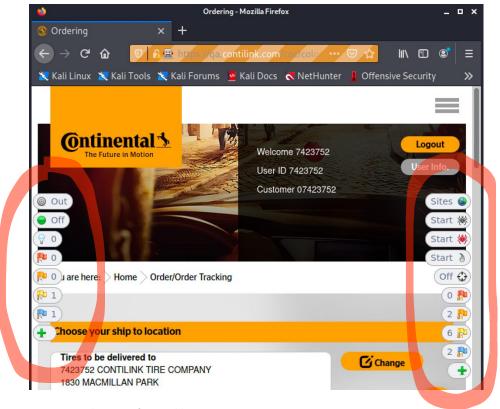


Figure 2: Web proxy after enabling HUD

Scan Policy Manager

Overview

This feature allows users to manage scan policies that define the rules when performing an active scan. Users can modify current policies or create new ones.

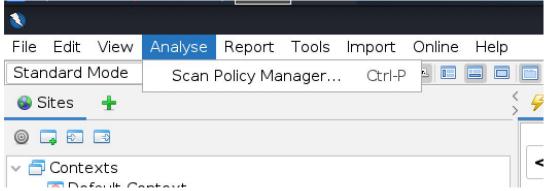


Figure 3: The Scan Policy Manager can be found under the "Analyze" tab in the menu bar.

Editing Policies

When editing a policy, users can change the threshold and strength of attacks.

Threshold: Controls how likely potential vulnerabilities will be detected.

Strength: Controls the number of attacks that will be performed.

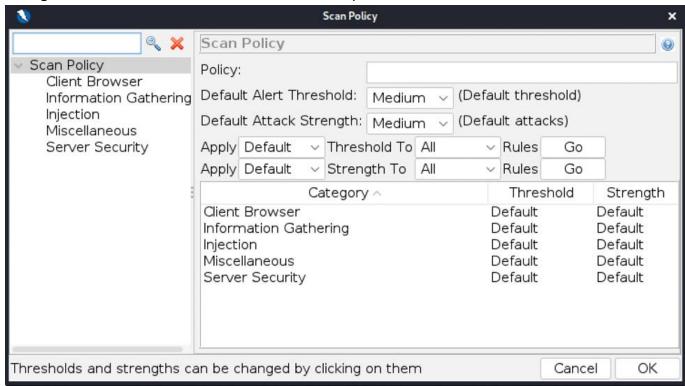


Figure 4: Creating a New Scan Policy Window

The tabs on the left window under "Scan Policy" are different categories of tests that are performed during an active scan. Users can change the threshold and strength of each test to their desired intensity.

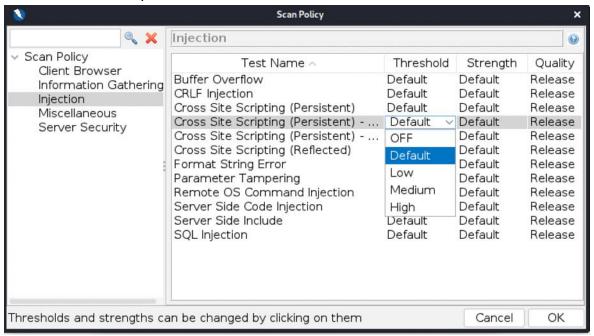


Figure 5: Each type of test can be adjusted

Setting Up a Context (Profile)

Form Authentication tutorial: https://www.youtube.com/watch?v=3u7aKXXCCKA

Step 1: Perform a Manual Explore Scan of the login page of the site.

Step 2: On Zap, find the "POST: login..." tab under your targeted website in the 'Sites' window.

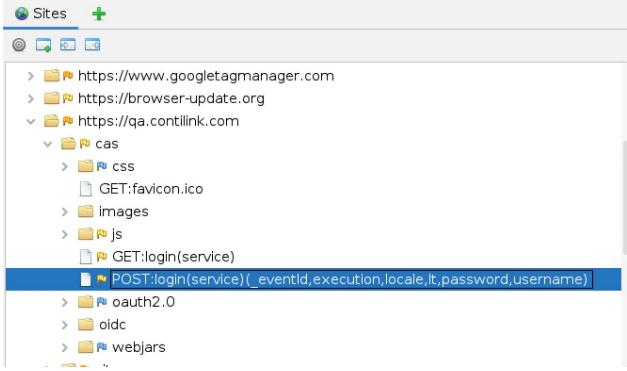


Figure 6: Locating "POST:login..." for https://qa.contilink.com

Step 3: Right click on "POST:login..." -> Include in Context -> New Context

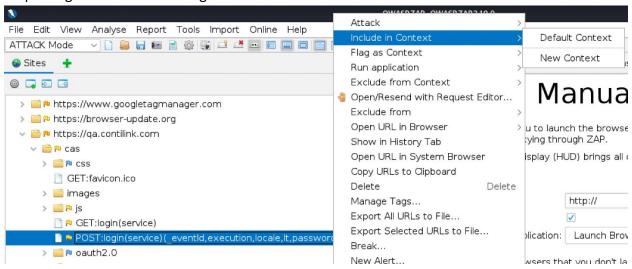


Figure 7: Creating a New Context

- Step 4: Change the name of the context to make it identifiable.
- Step 5: Under the Authentication tab, change the authentication method to "Form-based Authentication".
- Step 6: Set the Login Form Target URL to the "POST:login..." site that was found earlier.
- Step 7: Make sure the Username Parameter is set to username and the Password Parameter is set to password.
- Step 8: Add the Regex pattern for the Logged Out message (tutorial on finding the regex pattern: https://youtu.be/3u7aKXXCCKA?t=24)

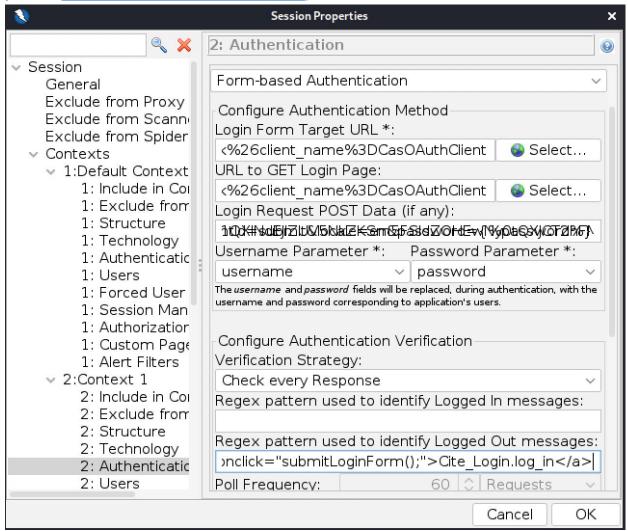
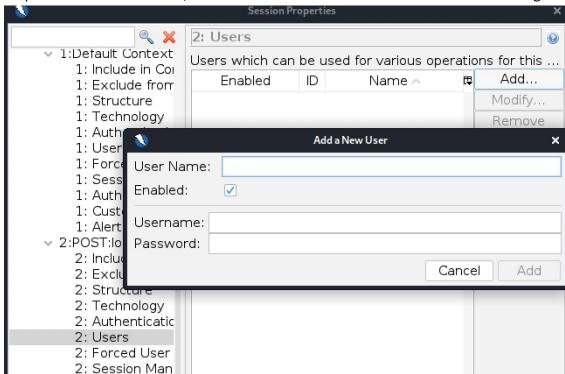


Figure 8: Authentication settings from the Session Properties Window



Step 9: Under the Users tab, add a new user and enter credentials for the site's login.

Figure 9:Entering credentials for a new user

Step 10: Exit the Session Properties window by clicking "OK" on the bottom right corner.

*A context has now been created. Proceed with the rest of the steps to perform an active scan with the newly created profile *

Active Scan Using a Profile

Step 11: Click on the "Forced User Mode" once to enable. This button can be found around the top right area of the Zap application.

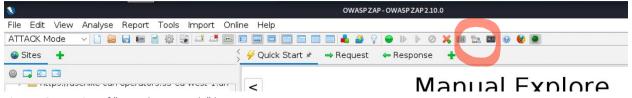


Figure 10: Location of "Forced User Mode" button

Step 12: Right click on the desired site to perform a scan and click on "Flag as Context", then click on the context you have just created (make sure it includes: "form-based auth login request").

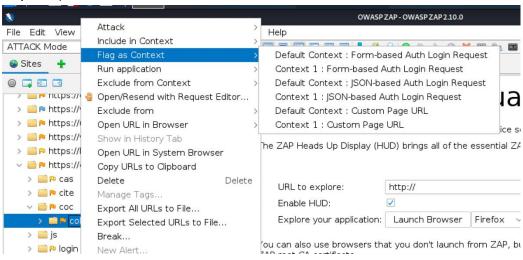


Figure 11: Flag as Context

- Step 13: Right click again on the same site and go the "Attack", then "Active Scan...".
- Step 14: Select the desired Policy, Context, and User for the active scan.
- Step 15: Click on "Start Scan".

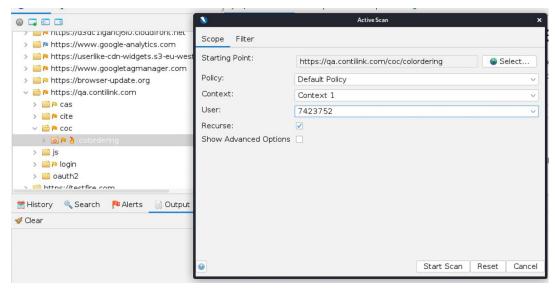


Figure 12: Select the correct settings before starting an active scan