

## Overview

To help diagnose errors in Artena, clients are encouraged to use Charles, a web debugging proxy <http://www.charlesproxy.com/>, to capture details of the session when an error happens and to pass this to SMSS for analysis.

This document provides background information about:

- Why we want to use Charles
- Deciding how to install Charles and capture sessions
- Installation instructions

## Why use Charles

Users of Artena have experienced unexplained errors which force them to repeat work and are a serious source of frustration. These errors result in a Fatal Error dialogue box appearing on screen and have been called fatal errors as well as random errors. The message in the Fatal Error box is "error". Please note other legitimate error messages also appear in this dialogue box and are not related to this problem.

Random errors are difficult to replicate and therefore difficult to fix. SMSS developers have had very limited success repeating errors that have been reported by users but have now identified a potential solution for the problem. This solution is available in a development build for users to look at and SMSS will include the code in Artena 9.4.2 which will be available for User Testing on September 17<sup>th</sup>.

If Charles can be used during testing to capture any random errors it will help diagnosis considerably. SMSS has identified that when a random error occurs if the browser is not restarted then the same keystrokes will result in the same error. Consequently Charles can be started after the error occurs and if the same keystrokes are repeated the error details will be captured.

## How to install Charles

Full details on downloading and installing Charles are available from the website <http://www.charlesproxy.com/>.

To help your assessment of the product SMSS notes that Charles can be installed on individual machines or on a central server and this capability may steer your decision on who captures a session.

Please note Charles is not a production caching proxy and must be used with care. It utilises system resources and while recording sessions will use up memory until it runs out of it.

The free version runs for 30 minutes which is more than enough time to capture a specific error.

## Installing centrally

We imagine the process to be something like this:

- a. IT staff set up Charles on a central server
- b. User encounters a random error
- c. User contacts IT staff and they turn Charles on and start recording
- d. IT staff advises user Charles is running
- e. User configures their browser to use Charles proxy server
- f. User repeats actions causing the error to occur again
- g. User advises IT staff that error has been repeated
- h. IT staff saves the session with the captured error and turns Charles off
- i. User configures their browser for business as usual and restarts the browser and continues their work
- j. IT staff sends Charles log and user details to SMSS

## Installing locally

We imagine the process to be something like this:

- a. Charles setup on the client machine
- b. User becomes familiar how to use it, how to record and save a session and checks that they can record a session
- c. User encounters a random error.
- d. User turns Charles on
- e. User repeats actions causing the error to occur again
- f. User saves the session with the captured error and turns Charles off
- k. User restarts the browser and continues their work

## Installation instructions

There are different ways to configure Charles.

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### 2.2. [On web Server\(Centralized\)](#)

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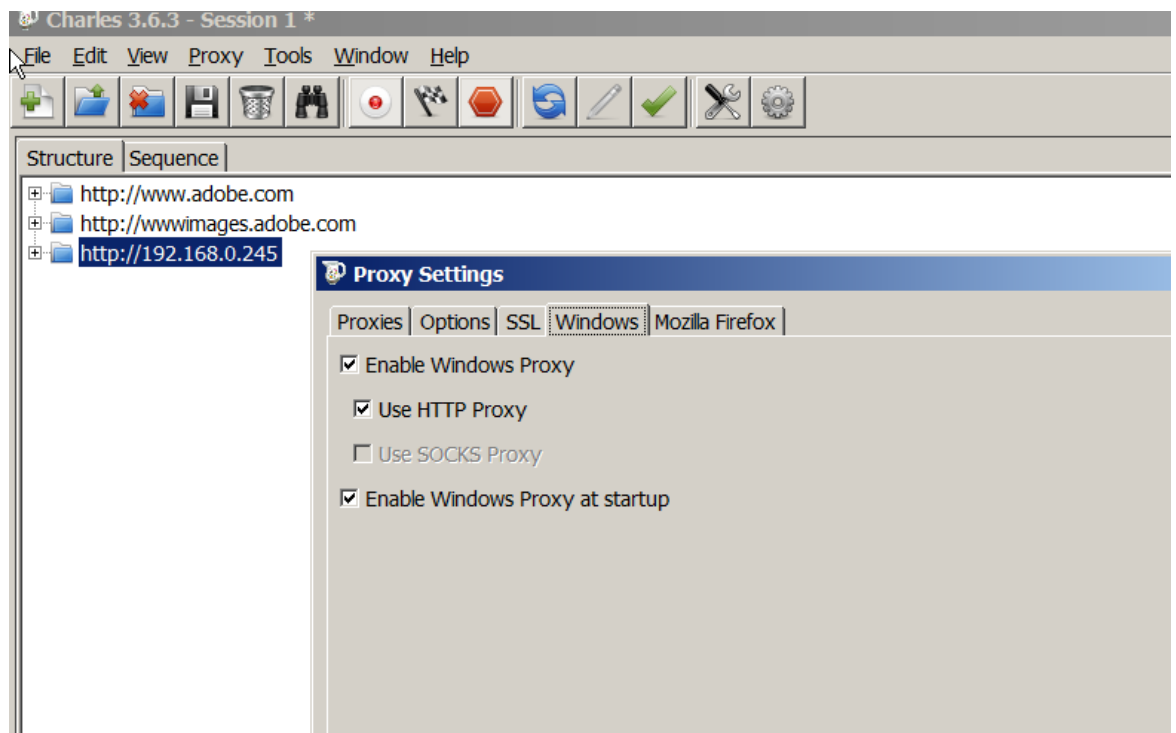
## 2.1 On Individual Machine:

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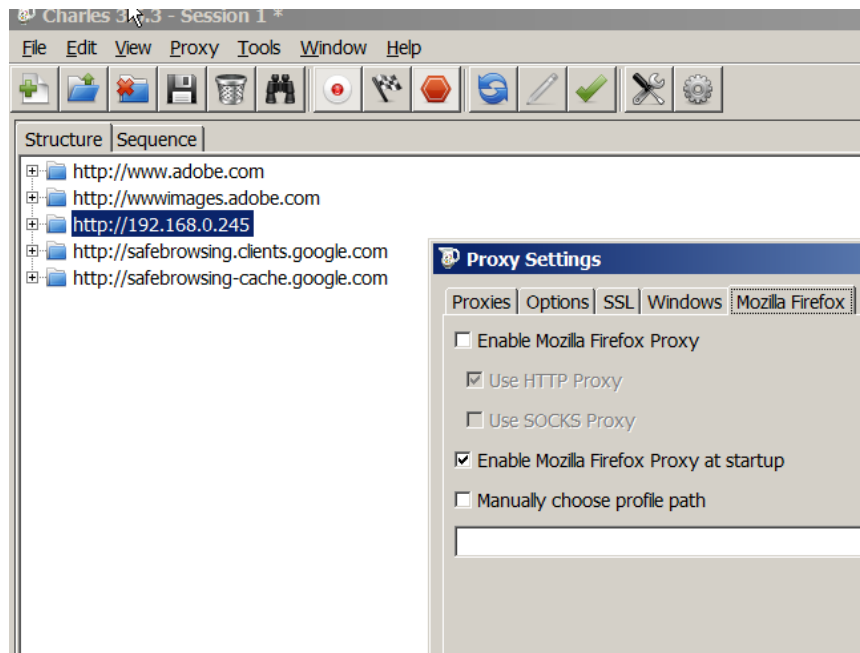
2.1.1. Run the set up programme provided to install Charles trial version on desired local machine/server. Keep Charles open when needed.

2.1.2. Make sure windows and Mozilla fire fox settings are enabled after installed.

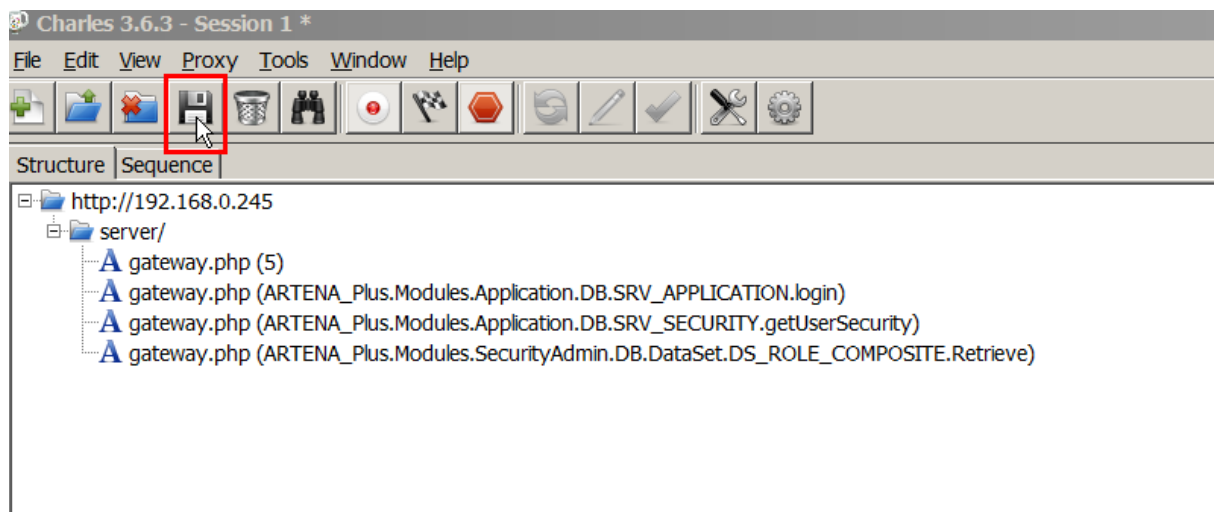
- click Proxy->Proxy Settings->Windows.



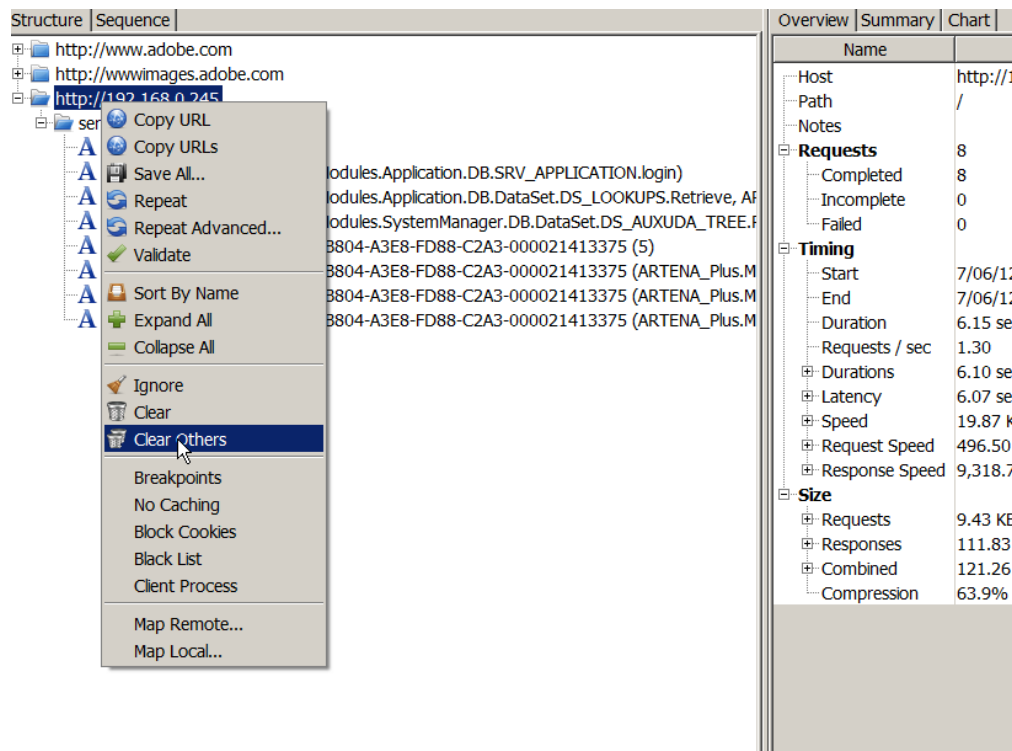
- click Proxy->Proxy Settings->Mozilla fire fox.



**2.1.3.** To save the session, click on Save.



**2.1.4.** Right click on the session that user wish to record and click **Clear Others** which clear all unwanted sessions.

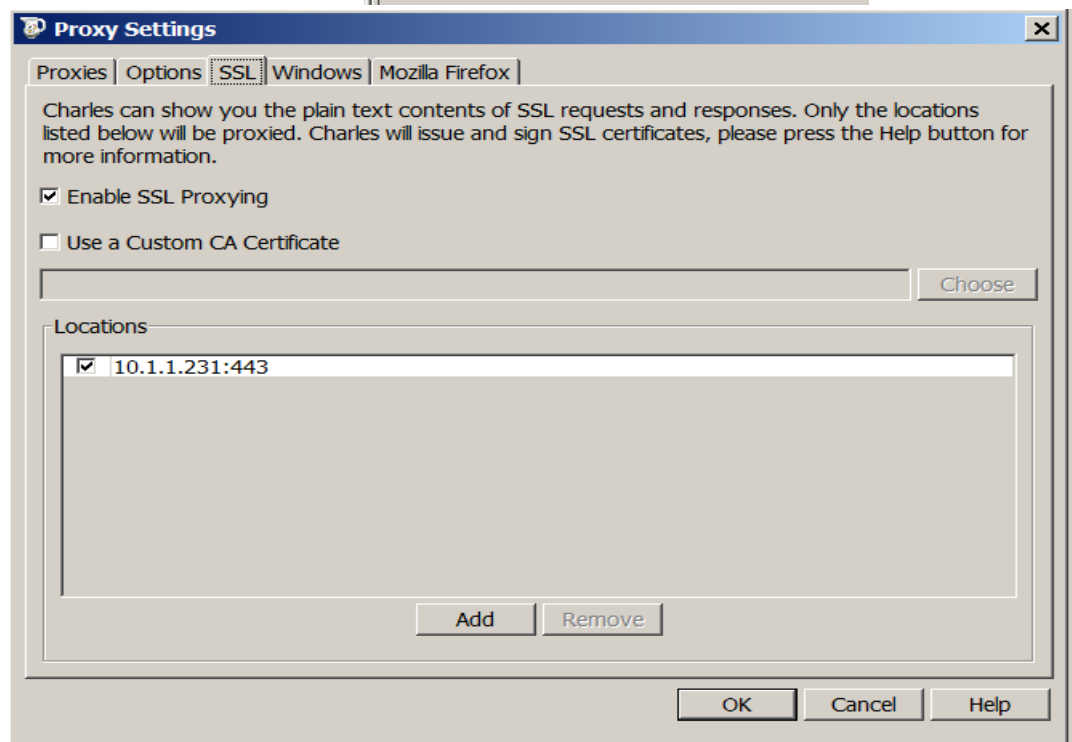
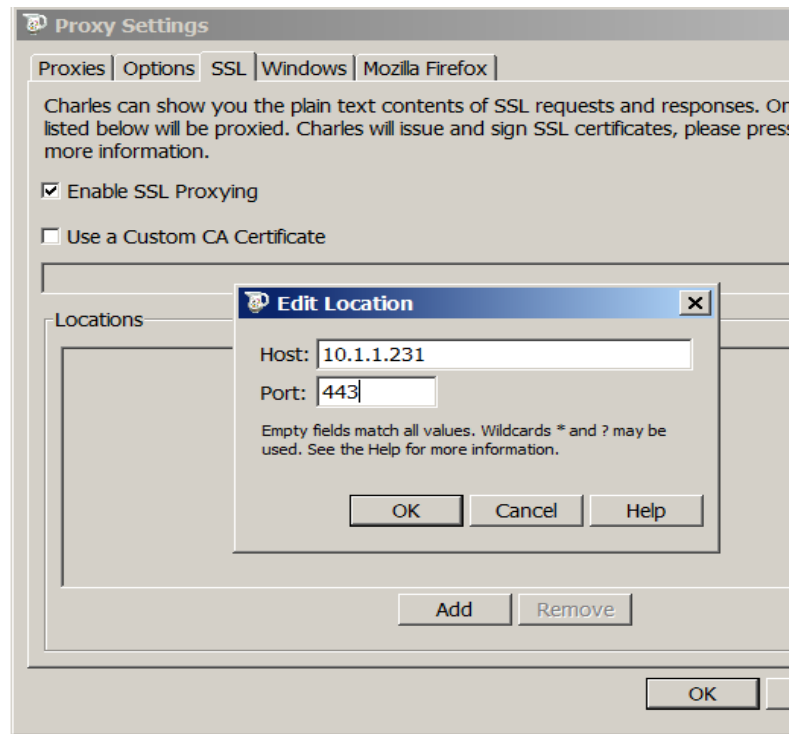


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**2.1.5.** If the application/s Uses SSL Proxy Server then add host/s to SSL Proxy in Proxy Settings. Otherwise skip this step.

## Choosing Hosts to SSL Proxy

- You must specifically identify the host names you want to enable SSL Proxying on. The list is in the Proxy Settings-> SSL tab. You can also right-click on a host name in the structure view and turn on or off SSL Proxying.



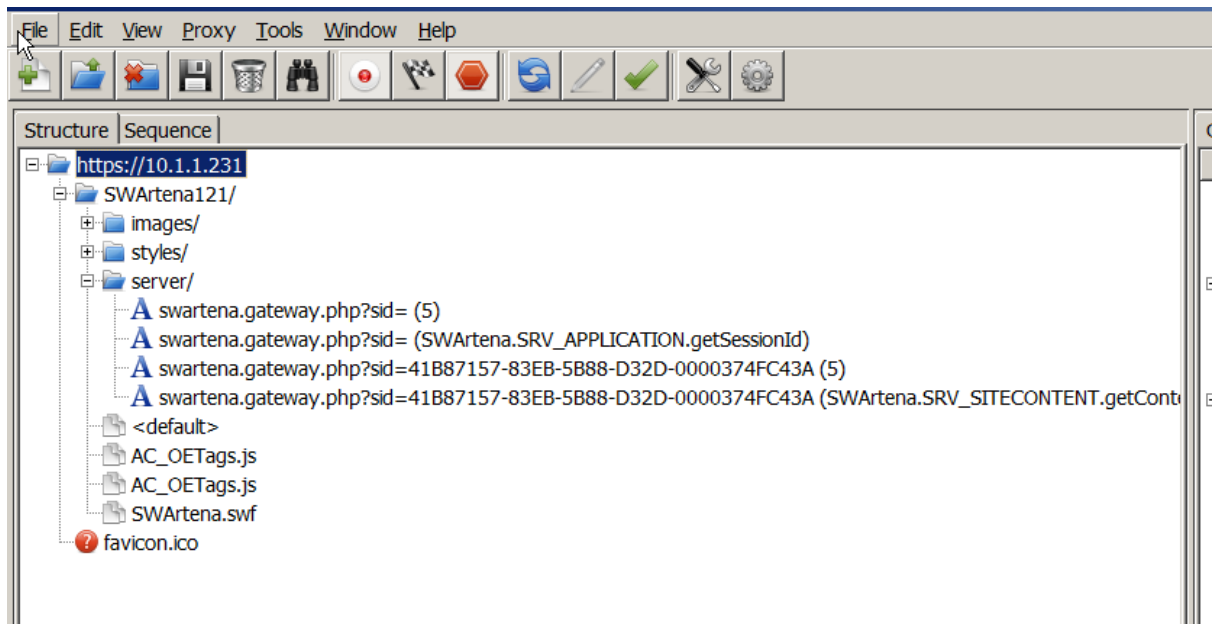
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- After adding a host name to the SSL Proxying list you may need to restart Charles for existing browser sessions to change.
- If you want to SSL Proxy all host names then enter \* into the host names list in the Proxy Settings-> SSL tab.

## Trusting Charles's SSL Certificates

- Charles generates its own certificates for sites, which it signs using the Charles CA Certificate. You will see a warning in your browser, or other application, when it receives that certificate because the Charles CA Certificate is not in your list of trusted root certificates.

**2.1.6.** Log on to Artena and make sure Charles is recording the sessions.

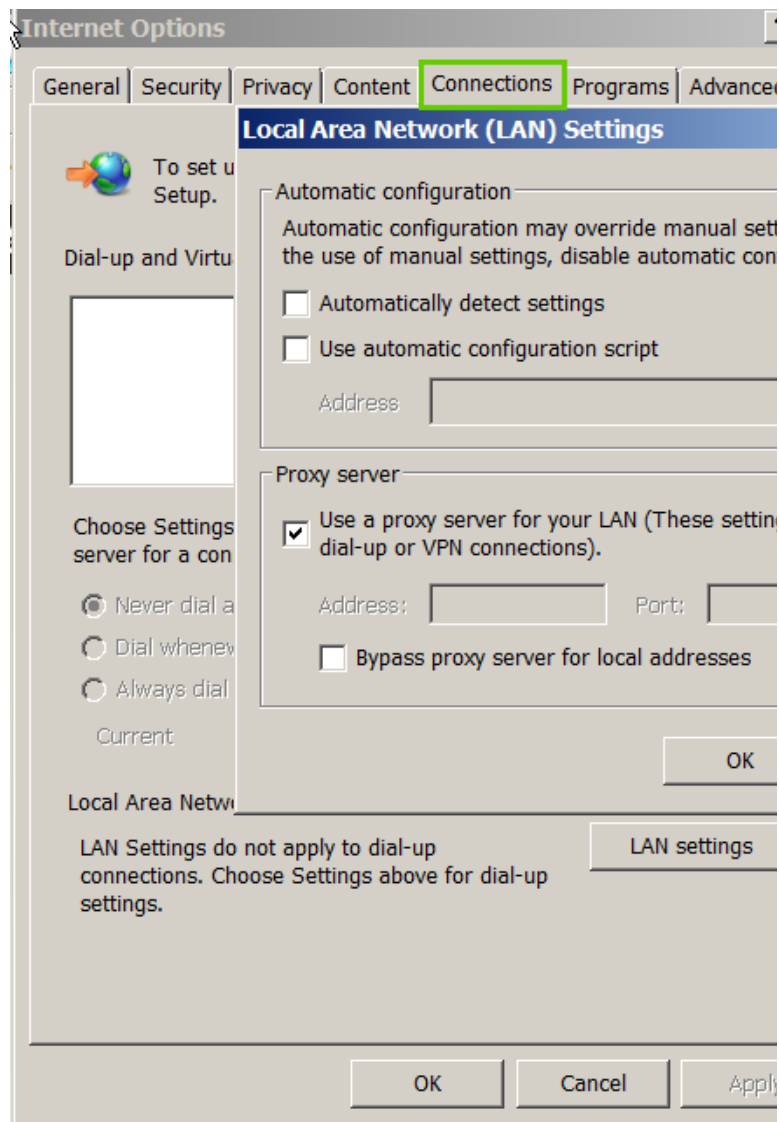


## 2.2. On Web Server (Centralized)

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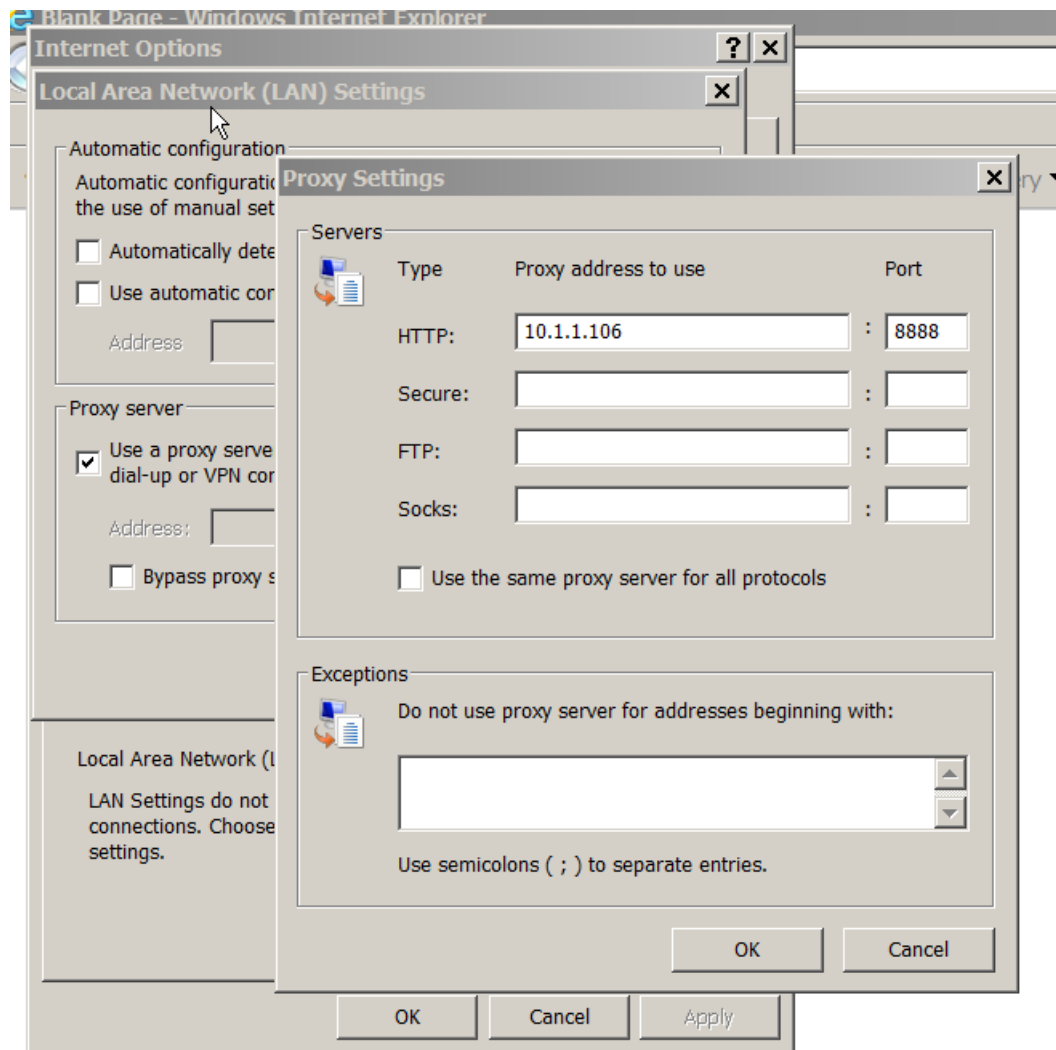
**2.2.3.** After Installing Charles on the web server,

- Set up the proxy settings on the other hosts **to the one (web server)** that Charles instance is running on. to do this, open the browser that you wish to run your application. locate LAN Settings-> Proxy Server.
- For example, in IE (8.0)
- Click on Tools-> Internet options ->Connections tab->click LAN Settings->under Proxy Server.





- Click Advanced-> Set up the server->click ok. something like this.



- Try running the application and check whether Charles is recording the session.

## 2.2.6. Check the result:

1. Make Sure the Charles is recording the sessions for different machines.

**Note:** You may get warnings (mostly one time) when different hosts are trying to access Charles. Just click on Allow.

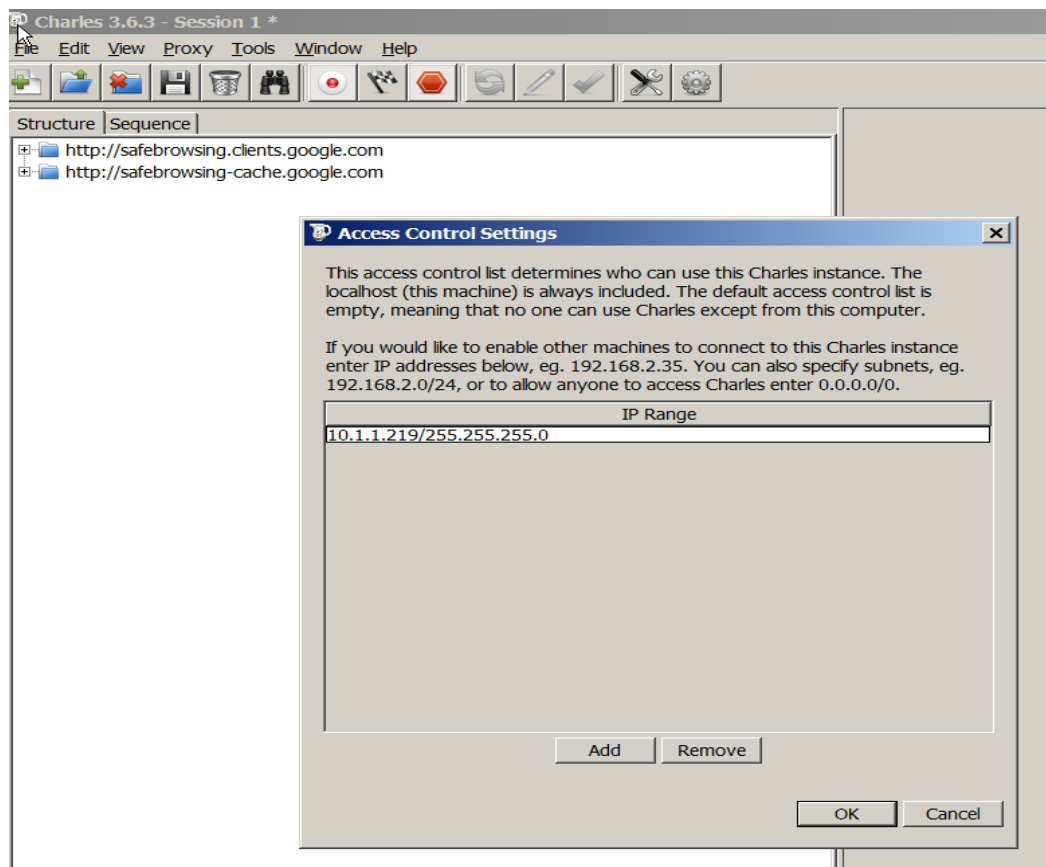
## 2. 3. Access Control:

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Access control settings helps other hosts on **your network** to use Charles as their proxy; perhaps you are testing from multiple computers and want to view results back in your one instance of Charles.

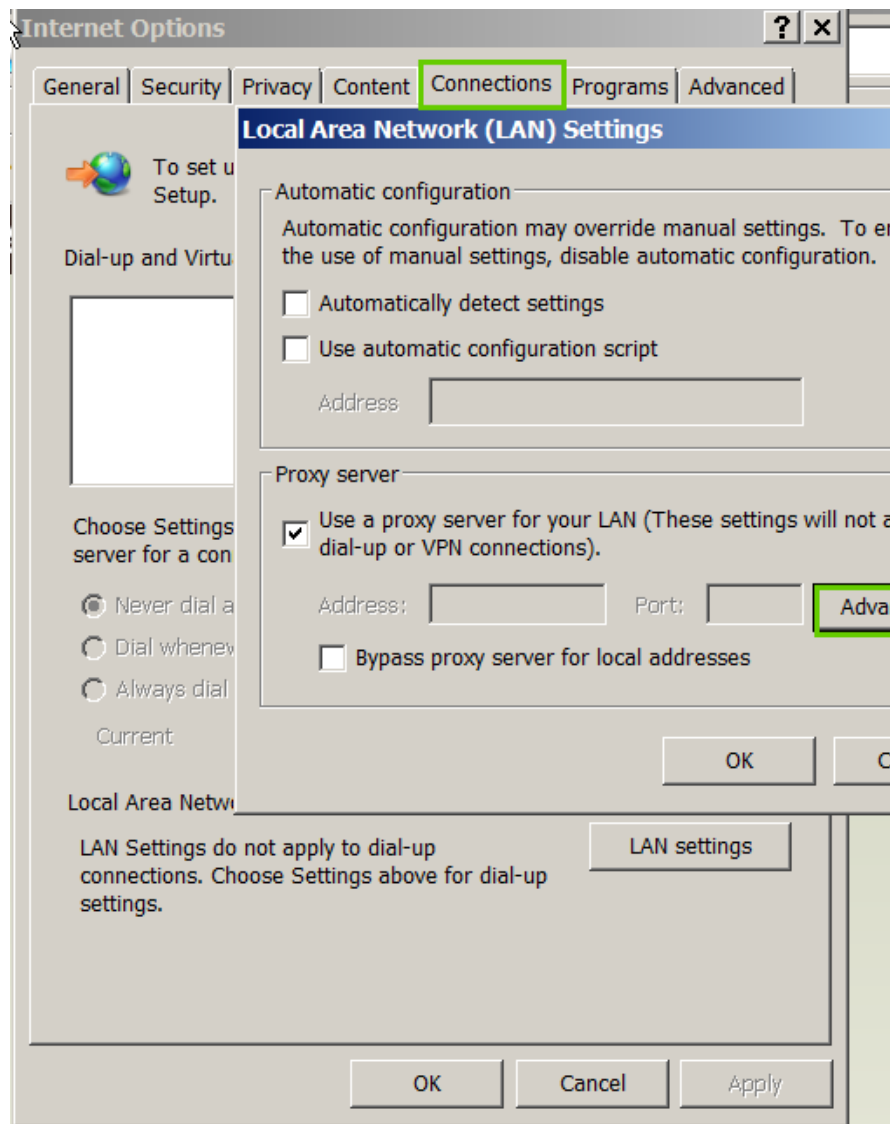
**2.3.3.** Go to the machine that you want to monitor the results for multiple computers. click proxy on menu-> Access Control Settings.

Click Add-> You can enter individual IP addresses or IP addresses with subnet masks. You can enter subnet masks as an IP address followed by the number of mask bits, eg. 192.168.0.0/16 or as an IP address followed by a subnet mask, eg. 192.168.0.0/255.255.0.0.

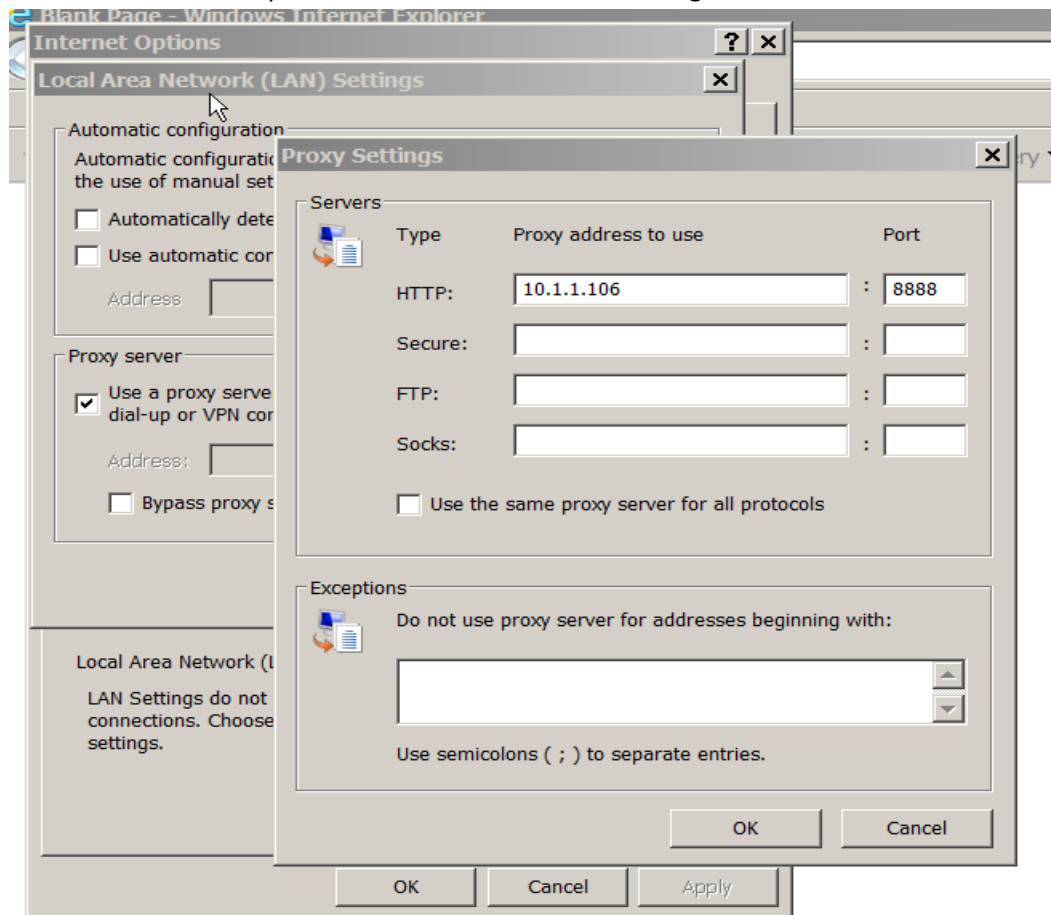


**2.3.4.** Make sure to set up proxy settings on **individual** Systems(hosts mentioned under range). To check this.

- Go to tools on your browser, find the Internet connections and set up the proxy server **to the one** that Charles instance is running on.
- For example, in IE (8.0)
- Click on Tools-> Internet options ->Connections tab->click LAN Settings->under Proxy Server.



- Click Advanced->Set up the server and click ok. something like this.



## 2.3.5. How to check the result:

1. Restart the Charles instance on the main system.
2. Try running the application on individual machines.
3. Make Sure the Charles is recording the sessions for different machines.

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