

IP2Location™

ISAPI FILTER

User Manual

Developed by Hexasoft Development Sdn. Bhd.

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Visit our Web site at
<http://www.ip2location.com>

INTRODUCTION

IP2Location™ ISAPI Filter is an Internet Server Application Programming Interface (ISAPI) plug-in that can be used with any web server running IIS, which enables you to discover in real-time, where your web visitors are coming from by IP address. You can determine what country they are by IP address. IP2Location™ ISAPI Filter used server variable dynamically tailor the content of your site based on your visitors *country origin, region, city, latitude, longitude, ZIP code, ISP, domain name, timezone, connection speed, IDD code, area code, weather station code, and weather station name, mobile country code (MCC), mobile network code (MNC) and carrier brand*. This ISAPI Filter is using a fast and self-contained lookup engine. No remote query or database connection required. This documentation provides detailed information to help you quickly get up to speed with our products and master it in no time at all.

Developers use this .NET component for projects related to:

- Redirect based on country
- Digital rights management
- Reduce credit card fraud
- Display native language and currency
- Prevent password sharing and abuse of service
- Web log stats and analysis
- Auto-selection of country on forms
- Filter access from countries you do not do business with
- Geo-targeting for increased sales and click-through

IP2Location™ ISAPI Filter is written for any web server running IIS and optimized for Windows® operating system performance.

IP2Location™ ISAPI Filter Features

- Gets IP Information
IP2Location ISAPI Filter makes it easy to collect IP Information from everyone visiting your web site. Such as country, region or state, city, latitude, longitude, US zip code, time zone, ISP, domain name and net speed.
- Instantly Redirect Visitors based on their Country
IP2Location ISAPI Filter includes a feature called Redirection Filters that allows website redirection based on the website visitor's country location.
- Support for Microsoft IIS 6, 7, 7.5
IP2Location ISAPI Filter works on all Windows platforms that support IIS and ISAPI filter plug-in. It works with older versions of Microsoft IIS as well.
- Standalone GUI Interface
IP2Location ISAPI Filter comes with a standalone GUI configuration tool that allows you to configure all the settings. It's easy to use and has support for simple migration of settings from one server to another.
- Logging
IP2Location ISAPI Filter includes detailed logging messages behind the scenes and provides you information that tells you exactly what IP2Location ISAPI Filter has done.

Platform Requirements

- Microsoft® Windows Server 2003 family
- Microsoft® Windows Server 2008 family
- Microsoft® Windows Vista
- Microsoft® Windows 7

Minimum Configuration Requirements

Scenario	CPU Required	RAM Required
Client	Pentium 90 MHz*	32 MB**
Server	Pentium 133 MHz*	128 MB**

* Or the minimum CPU required running the operating system, whichever is higher.

** Or the minimum RAM required running the operating system, whichever is higher.

Quick Start Guide

In this document, you will go through these basic steps to use IP2Location™ ISAPI Filter:

1. Download and installing IP2Location ISAPI Filter.
2. Configuring IIS using ISAPI Filter.
3. Purchase license to remove 30-days demo version
4. Purchase license to remove random 5 second delay in demo version
5. Update IP2Location™ database

Note: For demo version, you will have 30-day trial period. You may register to remove 30-days trial period.

Note: Please visit <http://www.ip2location.com> for online order.

1. DOWNLOAD AND INSTALLING IP2LOCATION ISAPI FILTER

1.1 Download Setup File

Please use the following URL to download the latest IP2Location™ ISAPI Filter together with sample database.

<http://www.ip2location.com/download/ip2location-isapi-filter.zip>

1.2 Component Installation

Installing the IP2Location™ ISAPI Filter system is very easy. You just need to extract the ZIP file to your local machine and double-click on the IP2LocationSetup.msi file to run it.

2. TESTING IP2LOCATION™ .NET COMPONENT

2.1 Folders and Files Structure

You should find the following folders and files in the installation directory. The default installation directory is C:\Program Files\IP2Location ISAPI\.

- /samples/asp/
- /samples/vbnet/
- /samples/c#/
- /samples/php/
- /database/IP-COUNTRY-SAMPLE.BIN
- IP2LocationISAPI.dll
- IP2LocationCP.exe
- MyConfig.ini
- IP2LOCATION_LICENSE_AGREEMENT.PDF
- ip2location_isapi_filter_usermanual.pdf

2.2 Component Testing using WebForm

Please copy the sample to a web directory that has configured to run web scripts. Then run these samples using your browser from local web server.

Sample WebForm Written in ASP

/samples/webform/asp/

Sample WebForm Written in VB.NET

/samples/webform/vbnet/

Sample WebForm Written in C#

/samples/webform/c#/

Sample WebForm Written in PHP

/samples/webform/php/

3. IMPLEMENTING IP2LOCATION™ .NET COMPONENT

3.1 IP2Location™ ISAPI Filter Configuration

Configuring IIS Using IP2Location ISAPI

1. Run IP2Location ISAPI.
2. Select Basic Configuration Tab.
3. Click Add "ISAPI to Web Server" button.
4. Click "Yes" to restart IIS.

Configuring IIS Manually

1. Start -> Control Panel -> Administrator Tools -> Internet Services Manager.
2. Right-click on the server that ISAPI Filter will be installed on and select Properties.
3. Select the IP2Location™ ISAPI Filters tab.
4. Click on the "Add" button to add IP2LocationISAPI to the list of filters IIS uses.
5. In the Filter Properties dialog enter the following information:
6. Under Filter Name, enter "IP2LocationISAPI".
7. Enter the location of the IP2LocationISAPI.dll file. (Note: The default path of IP2LocationISAPI.dll (C:\Program Files\IP2LocationISAPI\IP2LocationISAPI.dll)
8. Click "OK" until you return to the Internet Information Services configuration tools.
9. Right-click on the server and select Restart IIS. When the restart is complete, IIS is ready to work with IP2LocationISAPI.

3.2 Sample Codes in Visual Basic .NET (WinForm)

- All settings for IP2Location™ ISAPI Filter can be configured by IP2Location™ ISAPI Filter Control Panel. The control panel has several tabs which are Basic Configuration, Advanced Configuration, Redirection, Domain Filter and Backup/Restore Management. All the settings allow you to meet the needs of any web server.

3.3 Basic Configuration

Internet Information Services (IIS) Setup

- The “Add to Web Server” button allows you to add IP2Location™ ISAPI Filter to IIS automatically.
- The “Remove from Web Server” button allows you to remove IP2Location™ ISAPI Filter from IIS.

Priority

- Choose priority of IP2Location ISAPI Filter running by IIS.

Licensing

- You may obtain the license key from our order page. Fill out the online form and choose the correct number of licenses. Once your order has been approved, you will receive your license key immediately through email.

Copy and paste the license key into License Key field and click “Verify” button. If the correct license key is detected, IP2Location™ ISAPI Filter will remove 30-days Trial Period. Please visit <http://www.ip2location.com> for online order.

3.4 Advanced Configuration

Page Extensions

Page Extensions are important resource for IP2Location™ ISAPI Filter. The page extensions allow IP2Location™ ISAPI Filter to know which file extensions should get country information for. For example .htm, .html, .asp, .aspx, .php, .pl, .cgi, .exe and so on.

Logging

This feature allows the generation of log files in the log file directory. The log files contain information on all the operations of IP2Location™ ISAPI Filter during execution. By default, this feature has been turned off.

IP Database Directory

This option allows you to select the directory of IP2Location™ .BIN database.

(Default: C:\Program Files\IP2Location\ISAPI\Database\IP-COUNTRY-SAMPLE.BIN)

3.5 Redirection

Adding a Redirection Filter

Click “Add” button to create a new filter item. The tool will prompt a dialog box. Enter all properties of the item you want to create.

Example 1: Redirect to another page with same domain

Domain: www.mydomain.com

Original URL: /default.aspx

Country: US

Redirect To: /us.aspx

Example 2: Redirect to another domain

Domain: www.mydomain.com

Original URL: /default.aspx

Country: MY

Redirect To: http://www.mydomain.com.my

Editing Redirection Filter

To edit an item that has already been added, select the item in the list and click the "Edit" button. The Properties dialog will appear with the item's information already entered. Change the information that needs changing and click "OK" button to modify the item, or click "Cancel" button to discard any changes.

Removing Redirection Filter

To remove an item from the list of active filters, select the filter and click the "Remove" button.

Clear All Redirection Filter

Use the "Clear All" button to clear all of the filters from the list.

3.6 Domain Filters

Adding a Domain Filter

Click "Add" button to create a new allow domain filter item. The tool will prompt user a dialog box. Enter a domain name you want to be supported. The filter will only filter the address with the domain listed in the domain filter.

*** Note: Redirection only works with the domain name listed in the domain filter**

Example:

www.mydomain.com

Editing Domain Filter

Select the item you want to edit. Click "Edit" button, a dialog box prompt. Change the domain name you want. Click "Apply" button to modify the item, or click "Cancel" button to discard change.

Removing Domain Filter

To remove an item from the list of domain filters, select the domain and click the "Remove" button.

Clear All Domain Filter

Use the "Clear All" button to clear all of the allow domain from the list.

3.7 Backup/Restore Management

Restore configuration file

You can restore your previous configuration from existed configuration file.

Backup configuration file

Save current configuration to be use on other machine or keep as backup.

3.8 IP2Location™ Server Variable Reference

Parameter	Description
HTTP_X_COUNTRY_SHORT	Two-character country code based on ISO 3166.
HTTP_X_COUNTRY_LONG	Country name based on ISO 3166.
HTTP_X_COUNTRY_REGION	Region or state name.
HTTP_X_COUNTRY_CITY	City name.
HTTP_X_COUNTRY_LATITUDE	City latitude.
HTTP_X_COUNTRY_LONGITUDE	City longitude.
HTTP_X_COUNTRY_ZIPCODE	US ZIP Code.
HTTP_X_COUNTRY_TIMEZONE	UTC time zone.
HTTP_X_COUNTRY_ISP	Internet Service Provider or company's name.
HTTP_X_COUNTRY_DOMAIN	Internet domain name associated to IP address range.
HTTP_X_COUNTRY_NETSPEED	Internet connection type. DIAL = dial up, DSL = broadband/cable, COMP = company/T1
HTTP_X_COUNTRY_IDD_CODE	The IDD prefix to call the city from another country.
HTTP_X_COUNTRY_AREA_CODE	A varying length number assigned to geographic areas for call between cities.
HTTP_X_COUNTRY_WEATHER_CODE	The special code to identify the nearest weather observation station.
HTTP_X_COUNTRY_WEATHER_NAME	The name of the nearest weather observation station.
HTTP_X_COUNTRY_MCC	Mobile Country Codes (MCC) as defined in ITU E.212 for use in identifying mobile stations in wireless telephone networks, particularly GSM and UMTS networks.
HTTP_X_COUNTRY_MNC	Mobile Network Code (MNC) is used in combination with a Mobile Country Code (MCC) to uniquely identify a mobile phone operator or carrier.
HTTP_X_COUNTRY_MOBILE_BRAND	Commercial brand associated with the mobile carrier.
HTTP_X_COUNTRY_ELEVATION	Average height of city above sea water in meters (m).
HTTP_X_COUNTRY_USAGE_TYPE	Usage type classification of ISP or company (COM) Commercial, (ORG) Organization, (GOV) Government, (MIL) Military, (EDU) University/College/School, (LIB) Library, (CDN) Content Delivery Network, (ISP) Fixed Line ISP, (MOB) Mobile ISP, (DCH) Data Center/Web Hosting/Transit, (SES) Search Engine Spider & (RSV) Reserved

3.9 Sample Codes in ASP

```
<html>
  <head>
    <title>IP2Location ISAPI Filter</title>
  </head>
  <body>
    <%=Request.ServerVariables("REMOTE_ADDR") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_SHORT") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_LONG") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_REGION") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_CITY") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_LATITUDE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_LONGITUDE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_ZIPCODE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_TIMEZONE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_ISP") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_DOMAIN") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_NETSPEED") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_IDD_CODE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_AREA_CODE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_WEATHER_CODE") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_WEATHER_NAME") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_MCC") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_MNC") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_MOBILE_BRAND") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_ELEVATION") & "<br>"%>
    <%=Request.ServerVariables("HTTP_X_COUNTRY_USAGE_TYPE") & "<br>"%>
  </body>
</html>
</body>
</html>
```


3.10 Sample Codes in ASP.NET (VB)

```
Private Sub ShowServerVariable()  
    Response.Write(Request.ServerVariables("REMOTE_ADDR") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_SHORT") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_LONG") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_REGION") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_CITY") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_LATITUDE") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_LONGITUDE") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_ZIPCODE") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_TIMEZONE") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_ISP") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_DOMAIN") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_NETSPEED") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_IDD_CODE") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_AREA_CODE") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_WEATHER_CODE") &  
"<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_WEATHER_NAME") &  
"<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_MCC") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_MNC") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_MOBILE_BRAND") &  
"<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_ELEVATION") & "<br>")  
    Response.Write(Request.ServerVariables("HTTP_X_COUNTRY_USAGE_TYPE") & "<br>")  
End Sub
```

3.11 Sample Codes in ASP.NET (C#)

```
private void ShowServerVariable()
{
    Response.Write(Request.ServerVariables["REMOTE_ADDR"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_SHORT"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_LONG"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_REGION"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_CITY"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_LATITUDE"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_LONGITUDE"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_ZIPCODE"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_IDD_CODE"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_AREA_CODE"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_WEATHER_CODE"] +
"\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_WEATHER_NAME"] +
"\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_MCC"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_MNC"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_MOBILE_BRAND"] +
"\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_ELENATION"] + "\n");
    Response.Write(Request.ServerVariables["HTTP_X_COUNTRY_USAGE_TYPE"] + "\n");
}
```

3.12 Sample Codes in PHP

```
<html>
  <head>
    <title>IP2Location ISAPI Filter</title>
  </head>
  <body>
    <?php
      Echo $_SERVER['REMOTE_ADDR'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_SHORT'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_LONG'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_REGION'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_CITY'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_LATITUDE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_LONGITUDE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_ZIPCODE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_TIMEZONE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_ISP'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_DOMAIN'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_NETSPEED'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_IDD_CODE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_AREA_CODE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_WEATHER_CODE'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_WEATHER_NAME'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_MCC'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_MNC'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_MOBILE_BRAND'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_ELEVATION'] . "<br>";
      Echo $_SERVER['HTTP_X_COUNTRY_USAGE_TYPE'] . "<br>";
    ?>
  </body>
</html>
```

3.13 Sample Codes in Coldfusion

```
<cfoutput>#CGI.REMOTE_ADDR#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_SHORT</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_LONG']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_REGION']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_CITY']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_LATITUDE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_LONGITUDE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_ZIPCODE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_TIMEZONE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_ISP']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_DOMAIN']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_NETSPEED']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_IDD_CODE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_AREA_CODE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_WEATHER_CODE']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_WEATHER_NAME'] #</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_MCC']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_MNC']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_MOBILE_BRAND']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_ELEVATION']#</cfoutput>
<cfoutput>#CGI.HTTP_X_COUNTRY_USAGE_TYPE'] #</cfoutput>
```

4. PURCHASE IP2LOCATION™ .NET COMPONENT

4.1 License Agreement

A license is required for each machine the product is installed on, including development or staging machines. Please refer to the end of this document for the complete license agreement.

4.2 Purchase Instructions

Proceed to our order page. Fill out the online form and choose the correct number of licenses. Once your order has been approved, you will receive your license key immediately through email. Execute IP2Location™ ISAPI Filter configuration application copy and paste the license key to remove the 30-day trial period.

Please visit <http://www.ip2location.com> for online order.

5. UPDATE COMPONENT DATABASE

5.1 Update Component Internal Database

The IP2Location™ ISAPI Filter depends to an internal database for lookup purpose. All users with valid license will be allowed to download the monthly updates from the IP2Location™ download area during subscription period. To update, users need to replace the BIN database with the latest one from the download area. The ISAPI Filter will use the latest database once the local copy has been updated. Please refer to the welcome email for more information regarding download updates and account information.

6. UPDATE OR UNINSTALL COMPONENT

6.1 Upgrade Component

To upgrade a new version of IP2Location ISAPI Filter, you need to download and extract the new zip file.

6.2 Update Database

To update the latest database, you can just replace the existing database binary file at C:\Programs Files\IP2Location ISAPI\.

6.3 Uninstall Component

To uninstall IP2Location™ ISAPI Filter, you need to delete the whole folder.