IP2LOCATION™ IP-COUNTRY-REGION-CITY-LATITUDE-LONGITUDE-ISP-DOMAIN-MOBILE-USAGETYPE DATABASE

DATA FILE SPECIFICATIONS

Product:	IP2Location™ IP-Country-Region-City-Latitude-Longitude-ISP-Domain-Mobile-Usagetype Database [DB23]
File Name:	IP2Location_IP_Country_Region_City_Latitude_Longitude_ISP_Domain_Mobile_Usagetype_Specification.PDF
Total Fields:	14
Data Format Available:	i. CSV [Comma-Delimited ASCII] ii. BIN [IP2Location™Binary Format]

FIELD #	FIELD NAME	DATA TYPE	FIELD DESCRIPTION
1	IP_FROM	IPv4 DECIMAL(10) IPV6 DECIMAL(39)	Beginning of IP address range. The data is represented in IP number[1] format.
2	IP_TO	IPv4 DECIMAL(10) IPV6 DECIMAL(39)	Ending of IP address range. The data is represented in IP number[1] format.
3	COUNTRY_CODE	CHAR(2)	Two-character country code based on ISO 3166.
4	COUNTRY_NAME	VARCHAR(64)	Country name based on ISO 3166.
5	REGION	VARCHAR(128)	Region name.
6	CITY	VARCHAR(128)	City name.
7	LATITUDE	NUMERICAL (DOUBLE)	City latitude. Default to capital city latitude if city is unknown.
8	LONGITUDE	NUMERICAL (DOUBLE)	City longitude. Default to capital city longitude if city is unknown.
9	ISP_NAME	VARCHAR(256)	Network provider managing the network routing policy within this network range.
10	DOMAIN_NAME	VARCHAR(128)	Domain name assigned to Internet network.
11	MCC	VARCHAR(256)	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.

Copyright © 2002-2016 IP2Location.com. All Rights Reserved.

FIELD #	FIELD NAME	DATA TYPE	FIELD DESCRIPTION
12	MNC	VARCHAR(256)	Mobile Network Code (MNC) is used in combination with a Mobile Country Code (MCC) to uniquely identify a mobile phone operator or carrier.
13	MOBILE_BRAND	VARCHAR(128)	Commercial brand associated with the mobile carrier.
14	USAGE_TYPE	VARCHAR(11)	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

Note:

[1] IP Address to IP Number Conversion

If the IP address 161.132.13.1, then the IP number is 2709785857.

IP Number, X = 161 x (256*256*256) + 132 x (256*256) + 13 x (256) + 1
= 2709785857

In general, this is the formula to convert an IP Address to IP Number.

Let assume the IP Address is A.B.C.D.

IP Number, X = A x (256*256*256) + B x (256*256) + C x 256 + D

[2] Record Matching

First, convert the search IP Address to IP Number, X. Search a record that matches the range condition. You will get only one match per query. The country, city and ISP information is attached to country fields of the record.

IP_FROM <= X <= IP_TO

Copyright © 2002-2016 IP2Location.com. All Rights Reserved.