

Multi-County Max Documentation

Multi-County Max

Introduction:

The Multi-County Max data product is a solution borne out of the need to accurately identify the appropriate county for an address using a database of manageable size.

Zip codes are found in two formats: 5-digit zip codes and Zip+4 codes also known as 9-digit zip codes. The format for the Zip+4 codes consists of the five-digit zip code, followed by a dash and 4 more digits (12345-6789). The extra 4 digits help the post office sort the mail more accurately. Basically, in a residential area, one side of a street may have one Zip+4 and the other side of a street may have another.

The US Postal Service has address records which include: street address range, corresponding Zip+4 digits and county for each range. For instance, one record may have from 1 – 100 Main Street, odd numbers. The Zip+4 would be 33331-1000 to 33331-1200. All of these records will be coded as belonging to one county.

We consolidate the file so that all of the zips in a certain range are assigned to the same county. For instance, if we have the following records:

Zip Code	Beginning Range	Ending Range	County
12345	0001	1000	DeKalb
12345	1001	1500	DeKalb
12345	1501	2500	DeKalb
12345	2501	4500	Fulton
12345	4501	8800	Fulton
12345	8801	9999	Clayton

We will consolidate the records into the following (note: we use the county FIPs, not the county name, in the actual file—the name is used here for illustration):

Zip Code	Beginning Range	Ending Range	County
12345	0001	2500	DeKalb
12345	2501	8800	Fulton
12345	8801	9999	Clayton



We also discard erroneous and unnecessary records resulting in a file size of about 270,000 records (from over 40 million records).

Data File Names:

The file names let you know exactly what's in the file.

- The names of all data files in this product begin with 'mcmax'.
- Next, is a word for the *type of file*. Below are the 3 files included in the product:
 - The zip code file has '-zips'.
 - The states file has '-states'.
 - The counties file has '-counties'.
- The zip code file will be followed by '-full' or '-demo' so you know if you have all records or a subset. Note: the demo version includes all New England states.
- All files have a suffix of '.csv' (comma-separated value).

File Layouts:

The **Zip Code file** has a header record followed by detail records. The field layout is as follows:

- 1. A 5-digit **Zip Code** is the first field.
- 2. A 4-digit **Beginning +4 Number**. This is the starting range for the Zip+4 code.
- 3. A 4-digit **Ending +4 Number**. This is the ending range for the Zip+4 code.
- 4. The **State Abbreviation** is next and is 2 characters long.
- 5. A 3-digit County FIPS Code follows and is a number assigned to every county.
- 6. The **Place Name** (city or town) is last and is up to 30 characters long.

The **States file** has a header record followed by detail records. The detail records are sorted by the State Abbreviation. The field layout is as follows:

- 1. The **State Abbreviation** is the first field and is 2 characters long.
- 2. A 2-digit **State FIPS** code is next.
- 3. The **State Name** is last. It's 20 characters long.



The **Counties file** has a header record followed by detail records. The detail records are sorted by the State FIPS, and then the County FIPS. The field layout is as follows:

- 1. The **State Abbreviation** is the first field and is 2 characters long.
- 2. A 2-digit **State FIPS** code is next.
- 3. A 3-digit County FIPS Code follows and is a number assigned to every county.
- 4. The **County Name** field is last. It's 30 characters long. Note that it is our own standard spelling of the county. If you need to match up records with data from other sources, use the FIPS codes, if possible, because their name may not match ours. For instance, we have O'Brien, IA as a county, but some sources may not have apostrophes.