

MELISSA ADDRESS KEY (MAK®)

Unique Address Identifier Technology



800.MELISSA (635.4772)

www.melissa.com

melissa

Address Keys Unlock the Power of Master Address Data

Any book made publicly available can be identified by an ISBN (International Standard Book Number). It's a unique identifier used worldwide by publishers, booksellers and libraries for ordering, listing and stock control activities.

Just like an ISBN, your business can utilize a unique identifier for every street address.

Introducing MAK – Melissa Address Key

MAK #5693656082

29100 SW Town Center Loop W
Suite 250
Wilsonville, OR 97070-9315

A persistent, unique, 10-digit key is assigned to each U.S., Canadian and international address.



Why Melissa Address Key?

- ✓ Optimize address updates from USPS® and other postal authorities
- ✓ Improves speed and accuracy in searching and matching records
- ✓ Ensures true anonymization for privacy
- ✓ Empowers easy linking for geo-spatial enrichments
- ✓ Covers every address in the U.S. and Canada plus many Western European countries

How MAKs Compare to Google 'Plus Codes'?

MAKs and Google 'Plus Codes' are designed to handle different challenges. While MAKs are used to identify verified street addresses, Google's technology is primarily meant to address the issue that half of the world's urban population lives on an unnamed street. So, Plus Codes work like street addresses, but they are not necessarily street addresses. Therefore, unlike MAKs, Google Plus Codes:

- Are not tied to a discrete physical address
- Do not provide detail for suites/apartments
- Are not random numbers but sequential by grid location

For companies looking to manage, enrich and map street addresses, MAKs provide a superior technological advantage.

Uses for Melissa Address Key

- Analytics Enrichment
- Mapping
- Risk Assessment
- Resource Allocation
- Utilities Planning



The Impact of Bad Addresses

Accurate address data is key to commerce, communication and customer intelligence. Without it, your business faces many challenges, including:

- Increased waste in materials, labor, time and postage
- Poor customer satisfaction associated with late or undeliverable-as-addressed mail and shipments
- Inability to communicate in a timely manner with customers for invoicing, marketing and other important correspondence
- Inability to accurately map customer locations for logistics planning, target marketing and business intelligence

Think about your current method for managing addresses. How many different applications are you using to capture addresses? Are different standards required for each field?

MAK technology helps you improve the quality and completeness of your address data, creating a standardized solution across all processes and data platforms.

Address Stats that *May Surprise You*

- USPS reports that **23.6%** of mail is addressed **incorrectly**
- USPS estimates that data quality decays **17% per year**
- Bad addresses cost the USPS **\$2 Billion per year**, and costs mailers even more



The Only Constant is Change

The USPS, as well as other international postal authorities, make changes to their address databases from month to month. In the U.S. alone, there can average between 30,000 to 40,000 changes monthly, including:

- **Corrections to USPS data**

Updates to fix misspellings, inaccuracies and to remove addresses that no longer exist (e.g. natural disasters).

- **E-911 and LACS^{Link}® Changes**

Changes to similar street names to reduce confusion for emergency response.

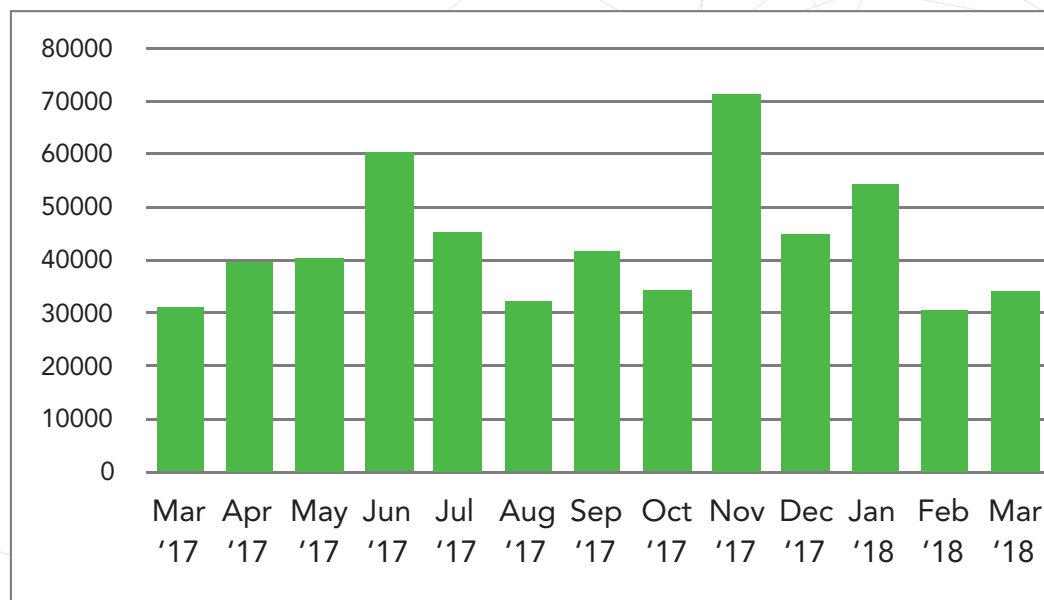
- **Street Name Changes**

Counties, cities and towns decide to rename streets for vanity reasons or to honor a veteran, celebrity or other person.

- **ZIP Code[™] and/or Plus 4 Changes**

Occurs when there is a large amount of growth in an area and the USPS needs to split a ZIP Code or rearrange ZIP+4[®] Codes to ensure efficiency in mail delivery.

Each MAK is a persistent number that does not change, even if the street name, city, house number or postal code changes. This helps you easily keep your address data up-to-date and accurate.



Total monthly changes to the USPS database.

MAK Technology Improves Address Quality

MAKs make it easier to handle crucial, often tricky, address data by:

- Automatically updating changes to addresses including new ZIP Code designations, LACS^{Link} information and vanity city names
- Providing CASSTM and SERP CertifiedTM processing to standardize addresses with Delivery Point Validation (DPV[®])
- Easily linking address data across multiple databases and enriching customer records with demographics, firmographics, geographic and property information
- Reducing processing requirements, server time and labor – only need to update MAKs that have changed in your database
- Ensuring global standardization by formatting addresses to local country requirements



MAK Tackles Domestic & International Hurdles

U.S. and Canadian Address Problem Solving

Processing your records through Melissa's Address Verification service provides each address with a MAK. Our address verification service simultaneously performs all USPS CASS and Canada Post SERP Certified address corrections to fix:

Misspellings		Incorrect or Missing Street Directionals		Inaccurate or Incomplete Postal Codes	
Input	26 AMEDIO DR Leominster, MA 01453	Input	12 TEAKWOOD DR Coventry, RI 02816	Input	412 E 78TH ST APT 4A New York, NY
Output	26 Amideo Dr Leominster, MA 01453-4103	Output	12 Teakwood Dr E Coventry, RI 02816-8546	Output	412 E 78th St Apt 4A New York, NY 10021-1622
Rural Routes (LACS ^{Link})		Missing Apartment or Suite Number (Suite ^{Link} ®)		Vanity City Names	
Input	1209 ORCA ST Anchorage, AK 99501	Input	SUSANA KAY 7630 E CHAPMAN AVE Orange, CA 92869	Input	16 FARRAGUT AVE Cranston, RI 02905
Output	1568 E 12th Ave Anchorage, AK 99501-4811	Output	SUSANA KAY 7630 E CHAPMAN AVE STE A Orange, CA 92869-3895	Output	16 Farragut Ave Providence, RI 02905-1319
Valid Addresses Not Serviced by USPS					
Input	213 ANDERSON AVE Granite Falls, WA 98252				
Output	Valid, Not Serviced by USPS				

International Address Problem Solving

International addresses face the same inaccuracies as those that affect U.S. and Canadian addresses – but many countries have additional address fields, raising issues with dependent locality, double dependent locality, administrative areas and sub administrative areas. Add to that the complication of diverse official languages with diacritics, accents, cedillas and different character sets, and the challenges of handling international addresses is multiplied tenfold.

Wouldn't it be nice to utilize a single address key for each of these international addresses?

Example - Canadian Address in English and French

English

37 du Radar Allee
L'Étang-Du-Nord QC G4T 3L7

French-Canadian

37 Allée du Radar
L'Étang-Du-Nord QC G4T 3L7

Example - Irish Address in English and Gaelic

English

LITHUANIAN CHAMBER OF COMMERCE IN IRELAND LIMITED
18/19 COLLEGE GREEN
DUBLIN 2
D02 VH77

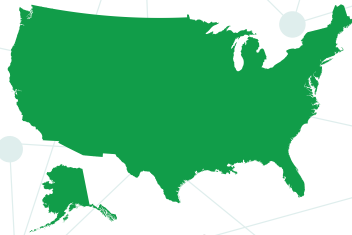
Gaelic

LITHUANIAN CHAMBER OF COMMERCE IN IRELAND LIMITED
18/19 FAICHE AN CHOLÁISTE
BAILE ÁTHA CLIATH 2
D02 VH77



MAK Technology Provides Complete Address Coverage

A unique MAK is assigned for every U.S. and Canadian address, with support for many countries around the world.



USA

- 120+ million street addresses
- 22+ million P.O. Boxes
- 51+ million apartments/suites
- 5+ million addresses not deliverable by USPS
- 6+ million undeveloped addresses



Canada

- 15+ million street addresses



Western Europe

- 23+ million German addresses
- 32+ million UK addresses
- 25+ million French addresses
- 8+ million Spanish addresses
- 25+ million Italian addresses

Visit www.melissa.com/mak-wiki for the most up-to-date country support and address counts.



MAK Improves Data Management

Because MAKs are simple 10-digit, 64-bit integers, they are inherently easier to manage and utilize in applications. Additionally, MAKs provide the following data management benefits.

Process Data More Efficiently

Melissa automatically updates MAKs monthly with the most accurate USPS and other postal data. By utilizing a MAK, you don't need to worry about outdated address information. Compare your database to our MAK delta change file, to find out the addresses that have changed in your database. Then, simply process those required records – no need to submit your entire database for processing.

Easily retrieve changes to:

- ZIP Codes and Plus 4s
- Street Names
- City Names
- Latitude/Longitude (Geopoints)

Let's say your database contains 100 million addresses. It is likely that 30-50 thousand of those addresses have changed over the last quarter. A process that used to take hours or days can now be done in minutes.

You can also easily link MAKs (instead of the address data itself) across multiple information silos for easier management and updating.



Date	MAK	Old Address	New Address	Result Codes (Changes)
1/15/2015	1000093093	RR 1 Box 247A Shelbyville IL 62565-9611	1182 County Highway 6 Shelbyville IL 62565-4227	AC08,AC10,AC20
2/15/2015	1000044910	1710 Marable Pl Shelby NC 28150-9708	1701 Marables Pl Shelby NC 28150-9708	AC10
2/15/2018	6976610214	5309 Winner Rd Kansas City MO 64127-1753	5309 Winner Rd Kansas City MO 64127-1738	AC08,AC99
3/15/2018	1704012551	1058 Foster Square Ln San Mateo CA 94404-2582	1058 Foster Square Ln Foster City CA 94404-2582	AC03

Descriptions for all Address Change (AC) result codes are available at www.melissa.com/resultcodes

Ensure Customer Privacy and Anonymization

MAK numbers are randomly generated, non-sequential and carry no personally identifiable information (PII). They cannot be reverse engineered. Only a query to a Melissa service or secondary database can decode a MAK number. This makes them the ideal vehicle to share with vendors and partners while maintaining true data anonymity to ensure your customer data is not exposed unnecessarily.

Name	Company	MAK
	Melissa Data	8008006245
	CRITICAL MASS MEDIA	2683002248
	CONVERT-IT	4467056935
Ray Melissa	Melissa Data	2763312108

Store and Transmit Data More Efficiently

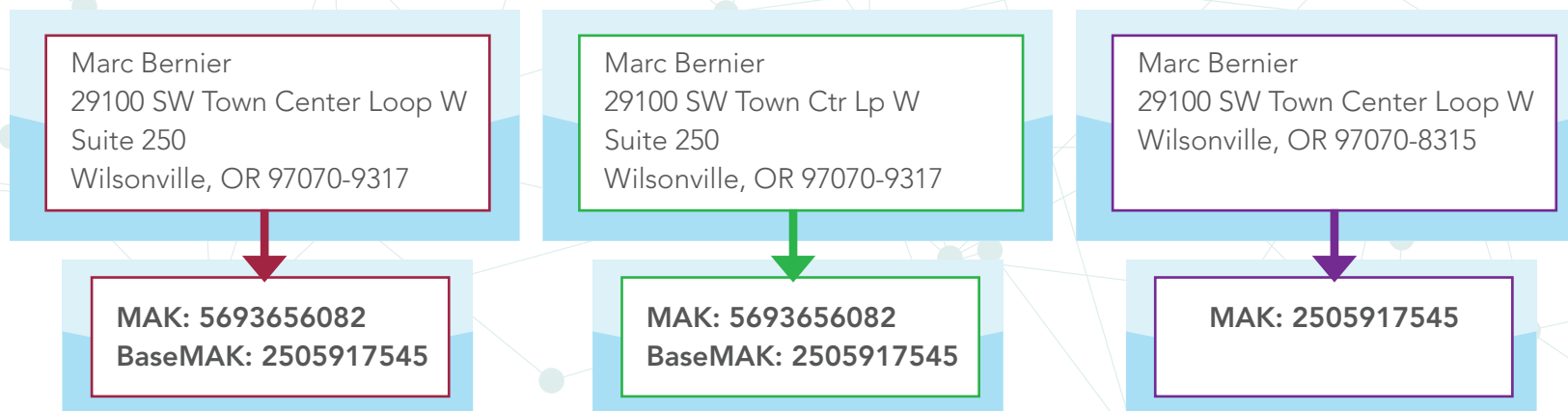
MAKs provide storage and transmission savings for all of your contact records. A MAK is a 64-bit integer, so it only requires 8 bytes of storage while a fully described address can require 10 times that amount. This can lead to a 4-fold improvement in data storage, indices, backups and I/O during data transfers.

Typical Contact Record = 70 Bytes						
First	Last	Address	Suite	City	State	ZIP
Marc	Bernier	29100 SW Town Center Loop W	Suite 250	Wilsonville	OR	97070

Typical MAK = 20 Bytes		
First	Last	MAK
Marc	Bernier	5693656082

Accurately Match, Household and Dedupe Records

Traditional deduplication techniques are prone to false negatives due to subtle differences in the address. With MAK technology, it is very easy to identify and group duplicate records that have the same BaseMAK.



In addition, deduplication can be done between a suite or apartment address and the same address lacking the specific suite or apartment, or to identify all suites in one complex.

MAK	Address	City	State	Postal Code	BaseMak
9812699894	5316 Warrensville Center Rd	Maple Heights	OH	44137-1900	
4010120394	5316 Warrensville Center Rd Ste 200	Maple Heights	OH	44137-1900	9812699894
4577728068	5316 Warrensville Center Rd Ste 201	Maple Heights	OH	44137-1900	9812699894

Notice that all the suite numbers in the building have a BaseMak of 9812699894, which happens to be the MAK number of the address with no suite. The building has a MAK of 9812699894 – the suites have MAK numbers unrelated to 9812699894, but the suites all have the same BaseMAK. With this information, you can group the addresses together to find the ones that are under the same roof.

Enrich Data Easily

A MAK can tie together comprehensive geographic, demographic, firmographic and property information associated with a particular address. Some of the enrichments available with a MAK include:

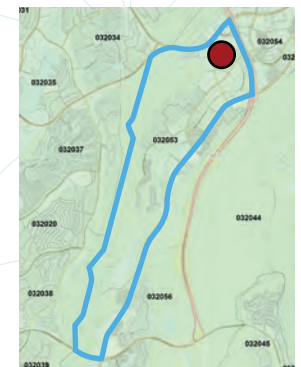
- Latitude and longitude coordinates
- FIPS, tract and block, and other demographics
- Property and mortgage data, including lot size and building square footage, parcel shape, current value and more
- Hazard data for wind, water, earth and wildfire risks



In this example, MAK 8008006245 is displayed as a dark red spot. Utilizing the MAK, a call to the Melissa Property API can be made to identify property information and shape.



The MAK also identifies which census block it falls into (which can be used to get valuable demographic information about the neighborhood).



Or the Census Tract. The tract contains hundreds of parcels and blocks.



How to Consume a MAK

The ability to link other data sets is central to the utility of MAKs. Melissa has multiple on-premises and Cloud APIs that accept a MAK as the input, making it a breeze to enrich records. You can easily join the data from these other services together through a MAK and be certain that the information is accurate and up-to-date.



Global Address API

Provides address verification for 240+ countries, corrects and adds missing postal elements, and standardizes addresses to local country format.



U.S. Property API

Enriches records with mortgage and property data for 140+ million U.S. properties. 160 available data elements including building information, calculated value, deed information and others.



Business Coder API

Appends firmographic data on 25+ million U.S. businesses including company name, SIC/NAICS code, sales volume, number of employees and more.



GeoCoder API

Converts street addresses in U.S., Canada and international countries into a precise (roof-top level) latitude and longitude coordinate for accurate visualization and mapping.



Personator API

Leverages a multisourced dataset of billions of consumer records to verify that a name matches address, phone number is callable and email address is active. Ideal for consumer verification and fraud prevention.



SmartMover API

Compares customer records to the USPS NCOA^{Link®} Change of Address file and/or Canada Post NCOA[®] file and returns an updated address for individuals, families and companies that have moved within the last 48 months (72 months for Canada NCOA).

Free trials of all of our APIs are available at www.melissa.com/api

Complete Your Master Address File

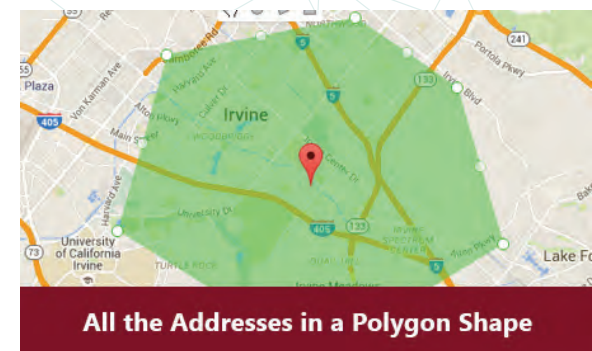
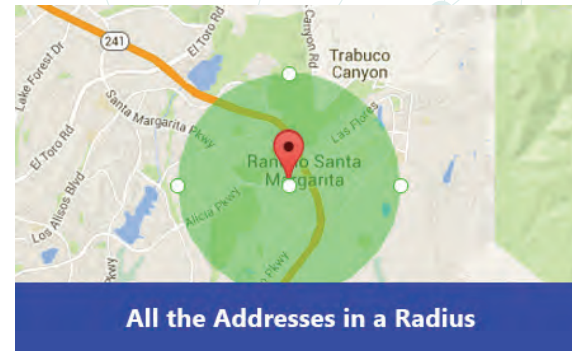
The Global Address Database (GAD) is a unique product that allows you to “keyring” groups of MAKs. It’s a great way to find all of the existing addresses in a specific area, for instance, school district, ZIP Code (or group of ZIP Codes), city, state or any shape-based search like a radius or polygon.

It’s the ideal way to fuel your GIS applications with complete location-based information for:

- Optimized route planning and reduced response times for first responders
- More efficient utilities management like waste collection and water allocation
- More accurate analytics for risk management, route planning and sales intelligence

When you purchase the GAD, you get complete coverage, and complete intelligence, on all of the valid addresses within a given area. Fully customizable ordering online, plus subscriptions available to keep your GAD table up-to-date with changes or additions.

View counts and order here: www.melissa.com/gad





WHY MELISSA?

Data is one of the most valuable assets you have. Accurate, high quality customer data empowers you to drive sales, uncover business insight and improve customer satisfaction. Since 1985, more than 10,000 companies around the world have counted on Melissa to harness the value of their Big Data, Legacy Data and People Data (name, address, phone and email) to realize their data-driven business goals.

Here's what sets us apart:

- Free unlimited worldwide tech support
- 99% uptime and Service Level Agreements (SLAs) as needed
- Free trials with absolutely no risk or obligation



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GERMANY

+49 (0) 221 97 58 92 40

INDIA

+91 (0)80 4854 0142

CANADA

800 635 4772

UK

+44 (0)20 7718 0070

AUSTRALIA

+61 02 8091 6000

SINGAPORE

+65 8 2997442

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www.Melissa.com | 800.MELISSA (635-4772)