

DATABASE MANAGEMENT SERVICES

A. DATABASE HYGIENE SERVICES

I. Hygiene

The actual process of data cleansing involve removing typographical errors or validating and correcting legal company names against our master database, which contains the legal completions by country. Example: SA de CV in Mexico , LTDA in Brazil, SA in Peru, etc.

For better results for this process of validation, we usually work with the Tax Id Number and Company name by country but also with the postal code.

II. Standardization

1. Addresses:

Standardization Service is the process built to validate addresses records against the Base Master confronting the postal codes to standardize (street, location, district, department, and province). The scope of the postal code and address format depends on each country.

| Country | Scope of postal code | Address format |
|------------------|---|--|
| Argentina | A 4-digit number that identifies the address, city or neighborhood. | Address, City, Province, CPA(Postal code). |
| Chile | It is a 7-digit number of which the first 3 are a "comuna" and the next 4 numbers identify a "manzana". | Address, "Comuna", Region, Postal code. |
| Brazil | Zip codes in Brazil consisting of 8 numbers: the first digit represents the region, the second is the sub-region, third is the sector, the fourth is the sub-sector, the fifth is subsector of the divider and the last three digits represent the delivery area. | Street type, Address, Number, Complementary address, "Barrio", City, UF (state code), CEP (postal code). |
| Colombia | In Colombia nobody uses a postal code because most of the streets are divided by numerical types making easy to find them. However the government is working in a new zip code for each | Address, "Barrio", Location, "Municipio", "Departamento". |

| | | |
|---------------|--|---|
| | “departamento”. | |
| Mexico | The Mexican postal code consists of five digits. The first two identify the state or part thereof and the other 3 to the “colony”. | Address, Colony, Municipio, State, Postal code. |
| Peru | Peruvian zip codes are alphanumeric and used only for the districts of the provinces of Lima and Callao. | Street type, Address, Complementary address, Street number, Apartment number, District, Province, Department, Postal code |

This service allows the standardization of records in a database of addresses in batches.

This service is provided in three stages:

a) Automatic process

Intelligent Standardization Tool (IST), which allow to differentiate the correct data, standardize addresses and assigning the postal code. This thread will perform the following tasks: debugging, validation, standardization and allocation of the postal code. The software performs the following functions:

Identifies the syntax elements of a sentence by using a grammar that defines valid language.

Read the record and seeks similar on the Master Base, solving spelling problems and typing errors, and complete records for uniquely written. Identifies the following errors: inconsistent or incomplete addresses.

Fix, in a fast and effective way, a large percentage of database problems due to the effectiveness of this software.

b) Semi-assisted process

It is done to the records that cannot be resolved automatically. It is done with the assistance of operators who perform the search task to arrive at a solution.

With support of IST, records are not standardized in the previous step is divided into sub lots. Operators analyze the causes that prevented automatic normalization so as to find common parameters error, resolve and make a new automatic process. It

includes the following tasks: analysis, debugging, validation, standardization and allocation of the postal code.

c) Manual process

All records that have not been resolved by the above processes are analyzed by Manual process. This thread will perform the following tasks: collecting, analyzing, debugging, validation, standardization and allocation of the postal code.

This process is carried out with the assistance of specialized operators with expert knowledge of the problems of local addresses, using maps and consultation of the Postal Service from each country for resolving cases.

Manual Tool allows the assignment of batches to different analysts for processing, and the generation of sub lots for management and audit control.

2. Phone numbers:

Process input phone data and return output file with match codes. The service will check the area code and exchange to confirm it is a valid, working number.

For this, we use our Phone directory structure by country and city.

III. Suppression

In Latin America the postal service offices don't use a list of customers or prospects that have moved house or office. For companies this job is done by the Tax Official Agencies in most of the countries. MSLA may offer the following suppression flags by country:

| Country | Suppression flag |
|-----------|--|
| Argentina | Moved office (Y/N) |
| Chile | Moved office (Y/N), Economic activity status (closed or not) |
| Brazil | Moved office (Y/N), Company Tax register active (Y/N) |
| Colombia | Moved office (Y/N), Company Tax register active (Y/N) |
| Mexico | Moved office (Y/N) |
| Peru | Moved office (Y/N), Company Tax register active (Y/N) |

B. DATABASE ENRICHMENT FOR COMPANIES IN LATINAMERICA

I. DESCRIPTION:

With added understanding of your customers plus easy-to-implement applications, you can improve your marketing efforts, gain insight into location selection and increase customer loyalty. Capture your most productive audiences and accurately shape strategies with data enrichment from MSLA International.

II. PROCESS:

Our processes of data identification are based on the following activities:

- 1. Format and upload:** It is recommended that the client sends us the field “Tax Id Number” and “Company name” following the denominations for each country:

Perú: Registro Único de Contribuyente (RUC)

Colombia: Número de Identificación Tributaria (NIT)

Argentina: Clave Única de Identificación Tributaria (CUIT)

Chile: Rol Único Tributario (RUT)

México: Registro Federal de Contribuyentes (RFC)

Brazil: Cadastro de Persona Jurídica (CNPJ)

- 2. Matching of data:** meaning the tables crossing using the “key” tax identity card and company name.

Before matching, it is advisable to make a pre-grouping of the information.

- 3. Data consolidation:** When matching for the detection of duplicates has been used, frequently it is desired to fuse these records. It is named the consolidation process.

This process can be made with 2 methods: the surviving record or the improved record.

- 4. Delivery of the enriched data:**

When the complete process is over will be used our FTP box for the files download by country along with a statistical report for each stage.