Tarn Technologies

MatchingObjects Product Description

Address.MatchingObjects

MatchingObjects is a general purpose data comparison engine. It has the capability to be deployed in a number of ways. This describes how the Single Customer View service is created from the CRM aligned Address variant of MatchingObjects. This is a multi level engine in that comparisons can be made at the sex, individual, family, household levels. Data can be matched across one or more address files of a heterogenous nature ie the shape of the data does not need to be of the same format between the different databases. One database could be described as 5 address lines whereas another may have the entire address in one line.

Most organisations inadvertently hold many address databases. This may be many customer address databases serviced by vertically aligned businesses, data specific to each application or departmental instances of customer data. There is nothing intrinsically wrong with this arrangement but it does limit the ability of an organisation to understand what their true customer looks like. The issue could also be hidden in that multiple instances of an address may be encoded but using slightly different text.

Tarn Technologies have long recognised this issue and have built toolsets specifically designed to deal with this. MatchingObjects uses a number of techniques to address this. This includes the use of parsing techniques coupled with reference data sets to create a logical understanding of the record. This contains context specific checking to distinguish between embedded homonyms eg St. which can refer to an address ending as in Main St. or in body descriptor eg St. Michael's Church. The reverse is also true in that the service recognises synonyms eg recognising Derry and Londonderry as equivalents.

Using this and other techniques can provide an assertion of the likelyhood of two or more addresses being the same at a user defined probability setting.

The address matching service operates in the following way.

- A data file is described to the matching engine. Data is then imported into the system and the meta-data abstracted into the MatchingObjects form. This can be repeated for other address files.
- A user defines the level of the match to be executed. The system allows for various probabilities to be described as high, medium and low.
- The service is started and the data is cross matched to each other.

- On completion of the service, the system will report the matches found. The report indicates the base address and the other address which match that address with the (user nominated) probability of this being a match.
- Where there are absolute matching criteria say a driver licence or social security number, the service will report in a true or false way (100% or 0%).

A schematic of the flow is attached below.