

Product information management (PIM) is a challenging process that involves combing through thousands, sometimes millions, of products, then logically grouping them. Maintaining an accurate product classification process is a critical challenge for many organizations.

Failure to preserve and maintain an accurate classification of product data can result in the following problems:

- New product introductions are delayed due to slow manual classification processes.
- E-commerce sales results are hampered by an inability to provide a reliable single product catalog that can be sold in all geographies.
- Products in one region are sold by the same company under a different name in another region.
- Settlement processes (e.g., promotions and prices) become disorganized and inefficient.
- Invoice and purchase order price inconsistencies can lead to a requirement for costly renegotiations.
- Financial staff find it impossible to determine and study profitability across multiple products.
- Poor integration between companies and their applications due to weak integration yields differing definitions and affects service levels and availability of goods at retail sites.
- Brand managers are given confusing and conflicting information about product performance.

Despite efforts to “cleanse” data sources before they are incorporated, the classification process is still often a manual one that consumes a significant amount of time and resources. Creating an automated way of aggregating all product data into a Master Product Index would be a much more cost-effective solution.

Classifying Product Data: A Bottom Line Issue

Inventory and resource management across an enterprise, no matter the size, is a nearly universal problem. From simple Operations Resource Management (ORM) to wider scale tracking of parts and products, countless dollars are wasted on ordering, cataloging, and warehousing similar or duplicate items.

EXAMPLE 1

Company A is an international manufacturer of widgets. The company works with multiple suppliers to provide the parts required to manufacture the widgets. Company A has selected several preferred vendors for various parts. However, different regional offices have struck up side deals with local vendors to supply similar parts. The result is that Company A is now using several identical parts in the manufacturing process, all having been bought for various prices and each having spare parts warehoused at several different storage facilities. If Company A had a means of aggregating all the part data and grouping all the duplicate parts, they could make and implement intelligent decisions as to the sourcing of each individual part.

EXAMPLE 2

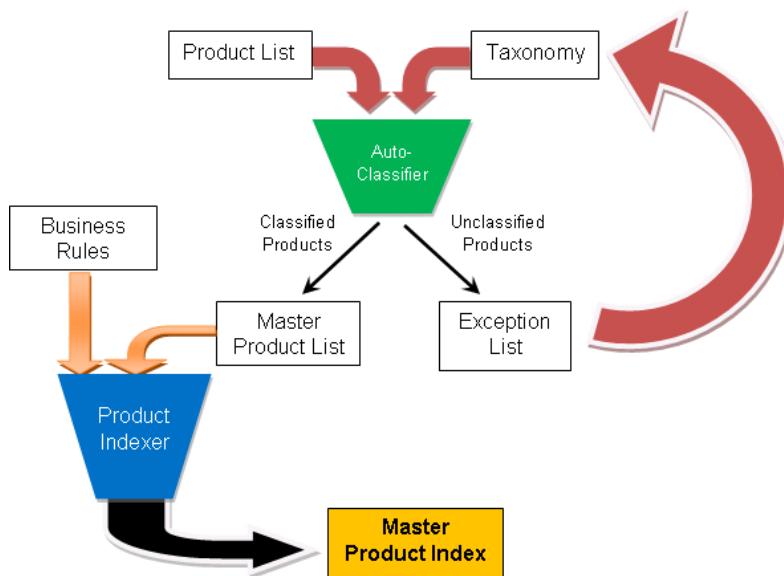
Company B is a software company operating out of a single office. They have four different people in charge of ordering office supplies, each of whom prefers to order through different vendors. Each of the office supply cabinets thus contains several varieties of identical equipment ordered from each of the different vendors. If Company B could use a master product index, they could improve their ORM by having more efficient management of their inventory and controlling costs.



AUTO-CLASSIFICATION USING IDENTITY RESOLUTION ENGINE (IRE)

Infoglide Software Corporation has created IRE Auto-Classification to automatically search, analyze, and classify product data. The solution is based on Infoglide's patented Identity Resolution Engine™ (IRE), which applies sophisticated similarity algorithms to provide not just exact matches, but similar matches as well. It is able to search dirty data – both internal and external – and automatically and accurately classify product records in real time.

IRE Auto-Classification is comprised of two components: the Auto-Classifier and the Product Indexer. Creating a Master Product Index using IRE begins with a product list and a taxonomy describing the components of the product. Given a list of part descriptions, Auto-Classifier examines and scores similar products for each item in the list using patented search analytics, then auto-classifies each item. Any products not classified are added to an exception list. After updating the taxonomy using the exception list, the unclassified products are then re-run through the classification process to produce a master product list.



The Product Indexer then combines this list with specific business rules to create a Master Product Index. Used with the supply chain ordering process, the Master Product Index selects the most appropriate product number for use when ordering. For example, when an employee ordering office supplies selects pens, the Master Product Index would draw on the business rules to learn that the Bic Blue Ball Point Penstick has been specified as the default pen, so the order would then be filled correctly.

With IRE Auto-Classification, complex matching between product items with varying formats and terminology becomes automatic, and the costs of manual classification disappear.

Unique Capabilities, Proven Results

In a recent proof of concept with a Product Information Management (PIM) provider, IRE Auto-Classification proved to be an invaluable tool for:

- ▶ Searching complex strings of comma-separated product descriptions (with many abbreviations, acronyms, irregular spacing, hyphenation and other punctuation) containing very domain-specific terms and measurements
- ▶ Comparing raw product data against standardized long product descriptions
- ▶ Comparing raw product data against industry-standard standards and specifications
- ▶ Matching product attributes to taxonomy attributes
- ▶ Classifying product descriptions against taxonomies and identifying the strength of match
- ▶ Identifying products not currently classified in a standard taxonomy

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