Verdantis
DATA DRIVEN PERFORMANCE

Getting the SAP consolidation done the "RIGHT" way

In case of SAP ERP consolidation "Ignorance in NOT bliss". On one hand consolidation promises of unlocking vital synergy value but on the other hand can spell doom for enterprises if prudent approaches are not adopted.

Case in point is our customer, an International forest Products Company with annual revenues of $22.5 billion having global presence in 18 countries across the world. Over the years this company has grown into a large behemoth by aggressively acquiring multiple companies across the globe. In the process of acquisitions, this Forest Products Company inherited multiple information systems that were incompatible with each other, making it highly cost-ineffective and unwieldy to maintain and share. A global mandate emerged- Consolidate the multiple SAP ERP and various other Legacy systems-A project driven by none other than CEO of the company. Touted as THE largest SAP ERP consolid ation across North America our customer was having a smooth sailing in the consolidation exercise till it was faced with the inevitable crisis- **NON-RATIONALIZED Item/Material Masters.** An abortive attempt to manually rationalize the multiple Item masters pushed it to the brink of almost calling off the entire exercise before the saving grace of "AUTOMATION" revived the SAP ERP consolidation. Automation of the Item Master rationalization process not only revitalized the initiative but also accelerated the ERP consolidation timeframe considerably resulting in multi million dollar saving and revenue opportunities. Though at the end our customer came out with flying colours but the Item Master Rationalization process had its own share of ups and downs.
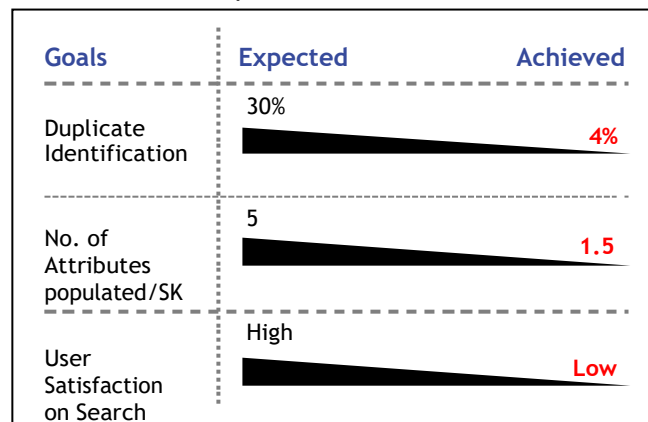
Business Pains:

The challenge was to build a single global Item Master containing classified, Attribute enriched and de-duplicated material data. Easier said than done, this involved a gigantic task of consolidating the material masters amounting to over 40l0k ine items from multiple, disconnected and disparate ERP systems spread across 19 Pulp Paper mills and 200 p ackaging locations. It was a typical scenario of a large global organization where every IT system had its unique Material Masters that catered to a specific business entity and was completely different from the Material Masters existing in other systems. Material Masters were infested with high amount of duplicates, estimated to the tune of staggering 20%! To add to the woes the data descriptions were abysmally poor. Some descriptions ranged from junk characters like "1/2" to no descriptions at all. There was lack of uniformity in the coding schemas and varied from NATO to UNSPSC to no codes at all.

The ramifications of poor quality and duplicated Item Master data were felt through out the organization. Millwrights responsible for Engineering & Maintenance activities that required extensive search for items could not locate the desired item and hence materials with same part numbers had to be issued. This led to an enormous drain of valuable time and resource. Procurement staff responsible for Procurement and Strategic Sourcing found it difficult to leverage their suppliers on a global basis due to lack of visibility into their Item and Supplier Masters leading to massive hard dollar benefit leakage. Cross plant inventory visibility of item data was extremely poor. A plant at location A did not have the slightest idea of Items existing in the Material Masters in the Plant B. Materials Management staff had a tough time to optimise their bloated inventory levels leading to escalating Inventory Carrying costs. Suppliers had a tough time recognizing the items that were ordered in the SAP systems and ended up in supplying the wrong items. Perhaps the hardes t hit was the staff involved in consolidating the multiple ERP instances. With time schedules going haywire and project costs heading sky-high, a sense of pani c ran through the organization. The concerns assumed such large proportions that our customer had to raise the red flag. The entire consolidation exercise was halted and a flurry of discussion followed among the key stakeholders to bring back the project on track. A new mandate was clearly spelt out: CLEANSE, CLASSIFY, ENRICH and DE -DUPLICATE the item masters.

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The HUNT begins:

Realizing rationalized item master data as a critical success factor for an ERP consolidation project our customer launched a massive hunt for a vendor who could classify and enrich the Item Masters. But as many other organizations, our customer too fell prey to an inferior approach to rationalize the Item Masters. This company had earlier engaged a vendor who adopted a manual means to rationalize the Item Masters. But, as guaranteed, it failed miserably. The costs of the proje ct mushroomed to over a million dollar and overshot the schedule eccentrically without any visible results. The functional effectiveness was called into question and an internal consensus was arrived at to shelve the project right away. Though shelved, our customer had reached a point of no return. On one hand there was the inevitable need to rationalize the Item Masters and on the other hand was the lack of feasible solution in the sight. This ERP consolidation exe rcise now seemed moving towards yet another colossal failure.

The Dismal Failure:

Goals	Expected	Achieved
Duplicate Identification	30%	4%
No. of Attributes populated/SK	5	1.5
User Satisfaction on Search	High	Low

Enter Verdantis' Item Master Enrichment:

Gaining from the bitter experience in the past, our customer launched a fresh hunt. The critical difference in the new attempt was - **A firm resolution was made to shun all manual approaches and leverage Software tools to rationalize the multiple Item Masters** . Our customer firmly believed that without using software tools a clinical processing of such huge volume of data within the strict timeframe was not possible. They could clearly understand the power of Software tools and the value potential of it.

Verdantis with its state-of-the-art Artificial Intelligence based fully automated Data Classification and Data Enrichment software tools availableas a Managed infrastructure proved to be an ideal fit for the purpose.Not only the fully automated Software tools but also the Deep domainexpertise possessed by the Verdantis Domain experts was an added asset. Though Verdantis Item Master Enrichment presented itself with the most viableoption it had to go through a tough selection process. With no visiblecompetitor in sight who could mat ch Verdantis' Software capabilitiesour customer wanted to be sure before it selected Verdantis.

As a part of the selection process a etailed Master data Audit was conducted by Verdantis. The aim of the audit was to evaluate the capabilities of Software tools and build a "Proof of Concept". Involved in the Spend Data Audit was a detailed profiling of the existing material Master Data Quality, i dentification of critical commodities and unearthing the actual pain points. Key to detailed Spend Data Audit was the active collaboration of the concerned stakeholders on the customer's half. The whole process was simulated for a sample data and presented to the customer's Subject Matter Experts for approval. The client was delighted at the sample results, particularly the accuracy of the whole process and speed of the data turnover. Having fully convinced itself of the success of Verdantis capabilities cus tomer sent a green signal to roll out Item Master Enrichment exercise across the 42 plants.
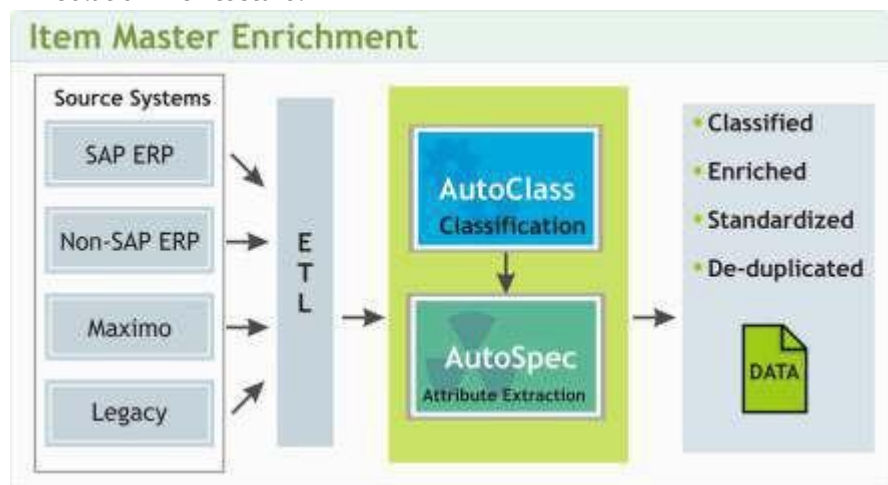
The Epic battle begins:

Everyone was fully convinced of the fact that an arduous battle lay ahead. The earlier failure made it even more critical. The only ray of hope was "AUTOMATION" enabled by sophisticated Software tools. Automation lent a semblance of hope to a seemingly impossible task.

Key Metrics:

> Total Duration: 10 months
> SLA:
  - Accuracy-90%
  - Attribute Extraction-85%
  - Duplicate Identification-25%
> Project Landscape
  - Number of Plants involved- 42
  - Number of Source systems- Multiple
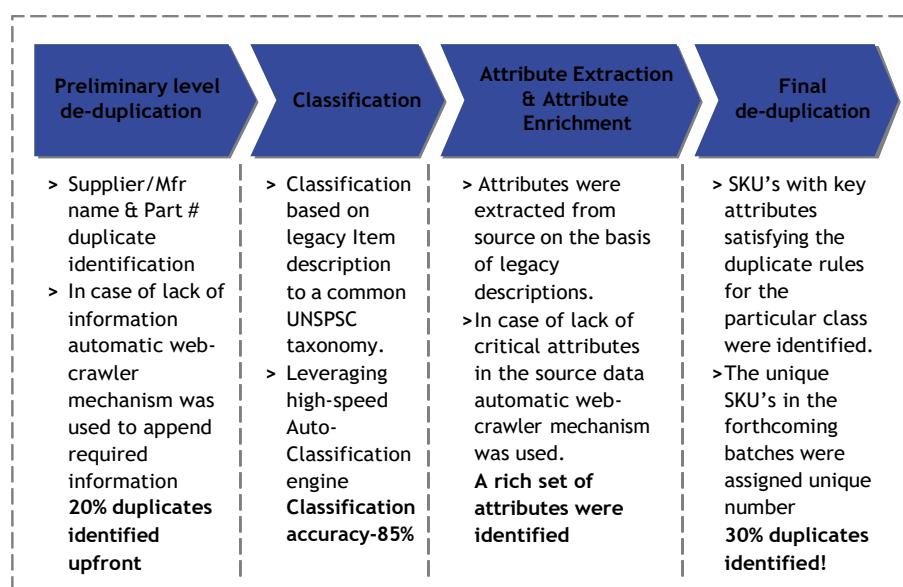 - Principle IT systems - Maximo, MP2, Custom Legacy

> Material/Item Master data landscape
  - Data Language: English
  - Data Volume: 450k
  - Taxonomy: Custom, NATO, UNSPSC
  - Data Domain: MRO
  - Data Quality: Average
> Solution Architecture:

An ETL tool extracted data from the multiple sources and fed the Material/Item Master data into the Verdantis Item Master Enrichment Managed Infrastructure. Data was then processed by Auto Class and AutoSpec in sequence and was presented for de- duplication. Once the Item Masters were classified, Attribute enriched and de- duplicated a single global enriched item Master was formed and the same was loaded by the ETL tool on to the single consolidated instance.

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> Overall process:- The whole exercise of Item Master Enrichment involved multiple steps and included

Multi-step Item Master Enrichment process

Preliminary level de-duplication	Classification	Attribute Extraction & Attribute Enrichment	Final de-duplication
> Supplier/Mfr name & Part # duplicate identification > In case of lack of information automatic web-crawler mechanism was used to append required information **20% duplicates identified upfront**	> Classification based on legacy Item description to a common UNSPSC taxonomy. > Leveraging high-speed Auto-Classification engine **Classification accuracy-85%**	> Attributes were extracted from source on the basis of legacy descriptions. > In case of lack of critical attributes in the source data automatic web-crawler mechanism was used. **A rich set of attributes were identified**	> SKU's with key attributes satisfying the duplicate rules for the particular class were identified. > The unique SKU's in the forthcoming batches were assigned unique number **30% duplicates identified!**

Project Challenges

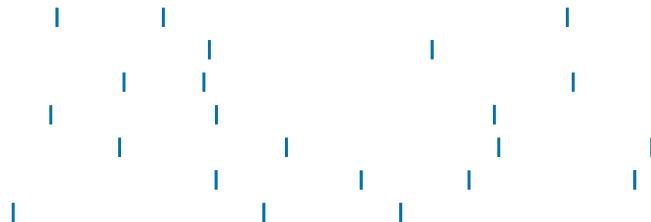| Challenges	Solution
Huge Volumes of data	Process "AUTOMATION" was the key. Unlike humans Software tools having high processing speed don't have to sweat and bleed and are largely independent of volumes
Poor Quality of data	The ability of the software tools to read poor and cryptic descriptions coupled with the rich knowledge base built over a period of time and the skilled domain experts turned over the poor data successfully
As is adopted	Verdantis Domain experts conducted an in-depth analysis of the
Taxonomy without Business-fit validation	existing taxonomy . Critical classification of groups was made on the basis of "volumes of procurement", "Cost of Items" & "Lead time of Procurement". Finally a taxonomy was suggested that suited the client's business and facilitated the whole process
Involvement of stake holders /Black Box approach	A specification sheet for each commodity was made in close consultation with client SMEs. Thereafter Data enrichment was done by cross referencing supplier catalogs and

About Verdantis

Verdantis is the first to offer Master Data Management solutions that bring real ROI and Business Value by focusing on the business use and application of organizational Master data. Verdantis uniquely offers end-to-end automated ERP MDM solutions driven by our suite of Artificial Intelligence (AI) based solutions and business roles and rules. Our easy-to-use solutions are easily configured to fit enterprise requirements for classification, enrichment, screens, fields, security, attachments, workflow approvals, languages and more.

Verdantis Harmonize® is a high-speed automated material /item data quality improvement tool that uses internal knowledge assets to master legacy data. Harmonize assures a globally unified, standardized, de-duplicated and enriched material master for uploading into a customer's ERP, EAM as well as Verdantis Integrity.

Verdantis Integrity® is a data governance tool that manages the quality of the material/item/prodcut master data on an on-going basis. Powered by a strong workflow engine and a guided item creation process, it keeps a cleansed and harmonized material master permanently pristine. It prevents data duplication and enhances organization-wide parts discovery, visibility and compliance.

Leading global companies have chosen Verdantis solutions for the following reasons:

- In-depth industry and data specific domain expertise with a robust project methodology
- End-to-end automated processes to harmonize & enrich historical master data
- Ability to ensure semantic and structural data integrity and quality
- Ability to handle large volumes of cryptic and complex data in multiple languages
- Delivery of higher quality and volume than manual/ database centric approaches
- Flexible engagement models with a single focus on customer success

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