PARADINE

Success Story

SIEMENS

Siemens E - Content Classification Portal

The Siemens E - Content Classification Portal implements a central product master data server for cross-system classification that is standardized across the sector and also description of product master data and structures on the basis of the eptos™ solution from Paradine.

Siemens eptos™ Success Story

The Siemens E - Content Classification Portal implements a central product master data server for cross-system classification that is standardized across the sector and also description of product master data and structures. In addition to SAP, classification and product description data are also provided for the PLM solution (Teamcenter), engineering systems (Comos) and other company applications. The collaboration with Paradine commenced in 2009 with the first steps of process harmonization within the central SAP solution of Siemens AG.

Status quo and problem definition

As one of the leading players in a global market, the Power Generation Division of the Siemens Energy Sector offers its customers with world-class technologies, services and solutions to improve their flexibility, efficiency and profitability in the Power Generation business. In recent years, the Division has acquired a range of companies

(e.g. Westinghouse, Delaval, Mannesmann Demag, Alstom, KK&K, HV-Turbo, Bennex and Poseidon, etc.). Each of these companies brought its own culture and its own products and business processes. Since 2007, the Power Generation Division has been consistently pursuing the goal of harmonizing the heterogeneous process and system landscape. Globally standardized orientation will make business processes faster, more flexible and more productive and considerably improve collaboration, especially between individual sites. The data management processes are to be reworked within the framework of projects and adapted to the strategic orientation of the entity.

”We are performing ground work with the Siemens E - Content Classification Portal. We are creating a sound basis on which to build business processes – along the entire product lifecycle and in communication with our customers and suppliers.”

Jörg Naumann, Classification Program Manager

In consequence, the projects “ATLAS” for harmonizing business processes and standardization of the ERP systems (SAP) and “GloBus” for developing an integrated engineering platform (Teamcenter) for product lifecycle management (PLM) were initiated.
It rapidly became clear that harmonization at material master data level that goes beyond site, language and system limits was also necessary. Standardized material master data is absolutely essential for creation of a solid basis for structured electronic exchange of product data between systems and to suppliers and customers.

Challenges

The Power Generation Division has millions of material master records across its various sites. These were kept in various systems, depending on site, in various languages and in non-standardized structures.

”Whoever believes that master data management is just incidental work should keep away from it. It is not for nothing that ISO13584 and IEC61360 are based upon a solid mathematical foundation. Deviating from this foundation involves the danger of being incapable of explaining and creating in-house non-coordinated solutions with a great deal of outlay and many compromises.“

Gerd Koziel, Head of Classification

In consequence, the projects “ATLAS” for harmonizing business processes and standardization of the ERP systems (SAP) and “GloBus” for developing an integrated engineering platform (Teamcenter) for product lifecycle management (PLM) were brought into being.
It rapidly became clear that harmonization at material master data level that goes beyond site, language and system limits was also necessary. Standardized material master data is absolutely essential for creation of a solid basis for structured electronic exchange of product data between systems and to suppliers and customers.

Challenges that resulted from this situation included:

- High level of site-specific maintenance outlay for material master data
- No comparability of information – own interpretation was necessary
- Ambiguity of classes and property naming
- Many individual classes, based on internal needs
- High number of duplicates
- No sector-wide bundling options in procurement
- High outlay with cross-site product documentation

A high sustainable savings potential results from this situation due to longstanding service contracts with customers (up to 30 years).

The Siemens E - Content Classification Portal solution

The third strategic harmonization project “Siemens Classification System” to introduce a uniform classification standard for material and document master data was initiated based on the

requirements and knowledge gained from ERP and PLM harmonization. Within the framework of this project, a central product master data server – the “Siemens E – Content Classification Portal” – was established, based on the eptos™ solution from Paradine, as well as a central office for the classification and maintenance of master data.

The basis for consolidated classification of material master data is formed by eCl@ss, as an established, cross-sector and multi-lingual classification standard. A class structure adapted to the requirements of Siemens is derived for consistent classification and description of material master data based on the eCl@ss standard. In doing this, non-required classes are set as inactive, properties and values used are defined and creation rules for the automatic generation of short texts and procurement texts (long texts) were specified.

Using the eCl@ss standard enables electronic product data exchange with suppliers for take over of catalogs and the forwarding of data to customers.

The “Siemens E - Content Classification Portal” fulfills the following functions:

- Central product master data server to establish a consolidated classification structure based on eCl@ss
- Restriction of eCl@ss classes to those classes that are actually used and extension by own classes where needed
- Generation and maintenance of class-specific templates for specification of (different) description detail of the material master data for target systems (SAP, Teamcenter, etc.)
- Provision of classification and material description information for further company applications (e.g. Comos, TDM, etc.)
- Mapping to old classifications
- Mapping of units of measures for target systems
- Multi-lingual terminology database for naming catalogs and values lists
- Support for automated upgrade to higher eCl@ss releases
- Reference system for transfer of supplier catalog data
- Platform for capturing change and extension requests for classification, material description and terminology

A central team for classification was established and installed in the Business Excellence team of Energy Power Generation. This ensures that the standardized structure and maintenance of the classification and material description is sustainable on a long-term basis.

This team guarantees that the established classification and product description structure is continuously adapted and updated with respect to internal (Siemens) and external (market) requirements. Enhancement requirements in eCl@ss from Siemens perspective are structured via this team, communicated to eCl@ss and proposed in the eCl@ss content development platform. Members of the classification team are also active on various eCl@ss committees.

Suppliers are also involved in the classification process of material master data. The future goal is to receive high quality classified material master data described with standardized properties in electronic form directly from suppliers and manufacturers.

Results and benefits

After establishment of the eCl@ss-based Siemens classification structure incl. material description at class level, the classification structure was approved and gradually released to the individual sites within the framework of roll-outs of the SAP systems or the Teamcenter PLM solution. Change and enhancement requests are captured, agreed and rolled out within the framework of the planned releases.

The already-classified and consolidated material master data brings transparency to the material master data and allows business processes to be built on solid data. The results up to now:

- Roll-out of the new classification structure has already taken place at the German sites of Duisburg, Görlitz and Nuremberg. International roll-outs have taken place at the sites of Finspong (Sweden), Brno (Czech Republic), Hengelo (The Netherlands) and Perm (Russia)
- Almost 1 million material master records have already been classified and about 450,000 record sets have been evaluated with properties
- Material master record preparation for the target systems has been carried out in German, English and Czech language. However, 16 languages are already currently available for searching within the Siemens E - Content Classification Portal
- Overall, about 2,500 eCl@ss classes are required, of which approx. 900 eCl@ss classes are currently being actively used
- It has been possible to reduce the private classes to approx. 2,400 classes at present
- Overall, there is a reduction from approx. 7,000 proprietary classes to approx. 4,900 classes in accordance with the eCl@ss standard
- The basis has been created for a sector-wide search for material master data
- Bundling of demands and evaluation can already be carried out across the sector in a much better manner
- Lower internal maintenance outlay; in part, classification is carried out by the manufacturer
- Solid comparability of external and internal information; no own interpretation is necessary
- Clear, standardized class and feature designations
- Easy integration of material master data and system connections is possible for purchased companies
- Mappings to legacy classifications are available and can be used for search requests
- Multiple classifications are possible (eCl@ss, product structures, etc.)
- Change requests are structured by the end user, captured in the system and processed transparently via workflows

Outlook

In addition to working on contents for classification and consolidation of further material master data records for the individual sites, the team is working on other subjects of the Siemens E - Content Classification Portal:

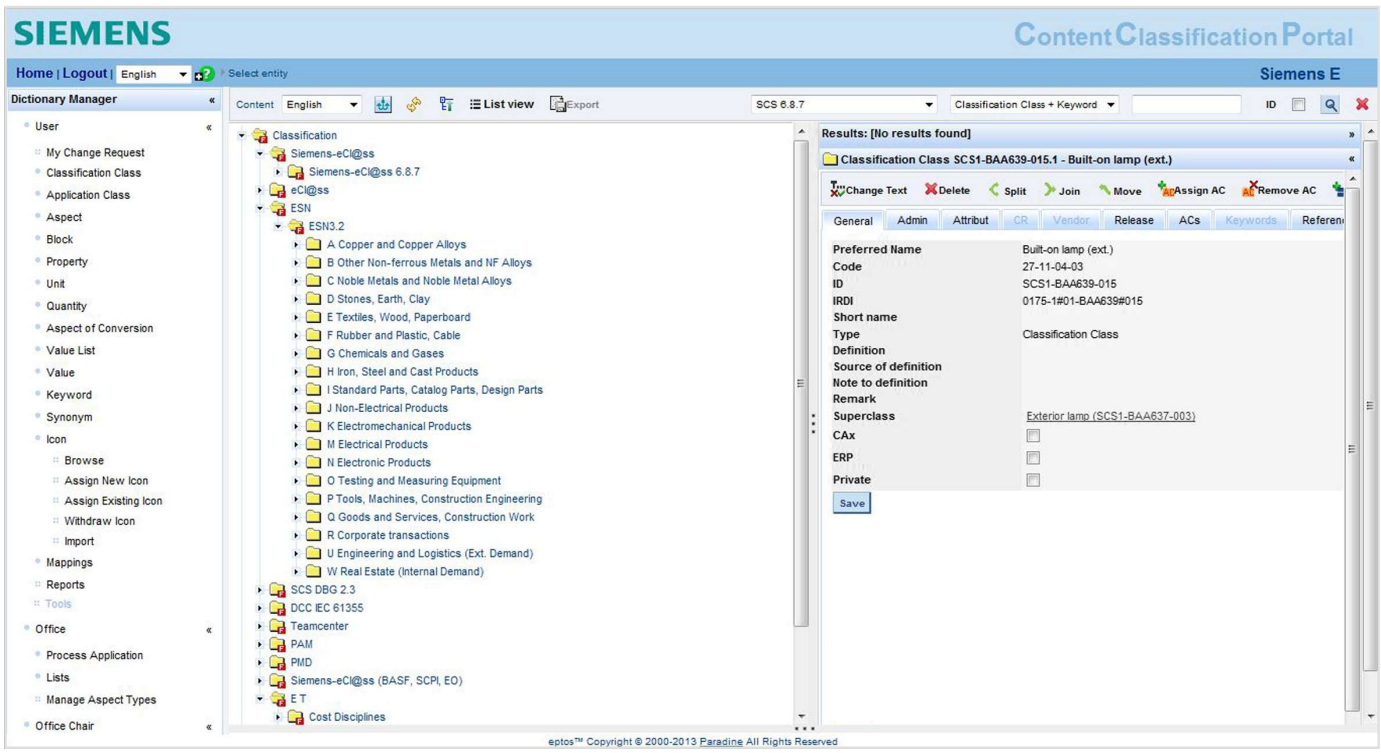
- Within the next year, the old classification of a product line is to be replaced with a platform concept (in the product master data server)
- Flexible use of the eptos product master data server allows integrative use as a data backbone for product data
- Harmonization of material master data record integration of other product lines into the Energy Power Generation network
- Expansion of the structural unit classification into a cross-divisionally active competence center (e.g. expansion of the training provision and the tool landscape)
- The Siemens Energy - Content Classification Portal will form the basis for the structures and their relationships to one another and also transfer into the Siemens internal systems via standardized interfaces

About Siemens AG – Energy Sector

The company Siemens AG is a global leader in electronics and electrical technology. The Energy Sector is one of the world's leading suppliers of a wide spectrum of products, solutions and services in the sector of Energy Technology. Siemens Energy employs almost 86,000 staff around the world. In the 2012 financial year, the sector achieved a turnover of about 27.5 billion Euro and a profit of about 2.2 billion Euro.

About Paradine

Paradine GmbH is an internationally active consultancy, service and software company with key competencies in company-wide, multi-lingual, cross-system, standardized product master data management, product classification and structured, electronic product data exchange. Paradine supports companies in enterprise-wide material master data consolidation from the analysis phase up to implementation and also offers software solution for implementation. The eptos™ product master data repository is an internationally leading solution for the development of central product master data servers with deep integration in the company IT landscape.



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