PARADINE

Success story

eCl@ss Implementation

AT&S
Austria Technologie & Systemtechnik AG

- 43 % decrease in number of spare parts (reduction from 32.000 parts to 18.000 parts)
- 20 % less capital lock up for spare parts (reduction from EUR 7 Mio. to EUR 5,6 Mio
- 47 % less suppliers (reduction from 1.500 to less than 800 suppliers)

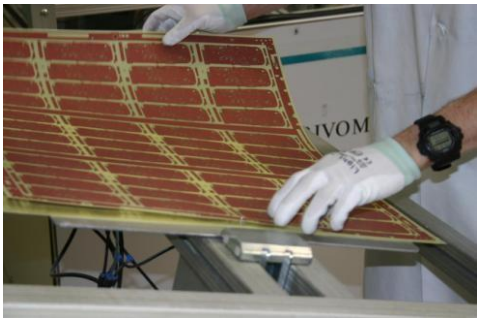
AT&S Austria Technologie & Systemtechnik AG

Location: Leoben, Austria, Sector: Electronic circuit, Member of staff: about 5.500, Internet: www.ats.net

Background and Objectives

Innovative spare parts classification methods and electronic data exchange with the company's suppliers allow for a more effective spare parts inventory management. Especially internationally active companies will profit from this. With SPICE (Spare Parts Inventory and Cost Enhancement), Paradine GmbH, Vienna has successfully implemented a project for AT&S, the largest printed circuit board manufacturer in Europe, India and China.

Internationally active companies collaborating with many suppliers encounter a problem of significant impact on their working capital. Their stock of inventory and spare parts needs to be classified and registered according to given specifications in order to allow for identification and retrieval at appropriate stages of the workflow. Using different classification systems at a company's different branches increases retrieval costs or even precludes any retrieval at all. This often leads to duplicate entries being created - generating multiple orders and ultimately causing unnecessary expenses to companies. Thus a standardized, accessible classification of spare parts is required, which is to be used mandatorily by all branches and suppliers.

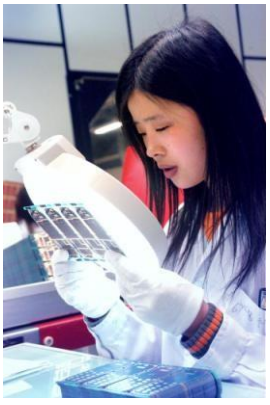


Omitting Duplicates and Excess Spare Parts

AT&S Austria Technologie & Systemtechnik AG was founded in 1987. Today AT&S is the largest manufacturer of printed circuit board in Europe and India and has a significant presence in China. For AT&S optimizing spare part management plays an important role. During the recent years AT&S recorded not only production growth but also a dramatic increase of spare parts inventory stocks. In August 2007, the spare part inventory amounted to approx. EUR 7 Mio at an average annual turnover ratio of only 1.2. In contrast, the value of manufacturing materials amounted to approx. EUR 15 Mio at an average annual turnover ratio of 13.

The low turnover ratio of the spare parts imposed a high capital commitment on the inventory. The tedious identification of available and missing spare parts prolongs supply periods and, in the worst case, can even lead to a production halt.

The main cause of these problems was differing classifications of spare parts in the various branches of the company. In the past, spare parts were structured according to the company's self-developed classification. Data administration was carried out locally and especially in the Asian plants (China, India and Korea) it was insufficient or unavailable. Eventually, after further plants had been acquired, there were three different systems of spare part management. Thus, retrieval of spare parts became increasingly difficult, if not even impossible.



In some cases, data had not been collected and maintained entirely. So it occurred frequently that only the manufacturer's product number and supplier of materials were put into the database, leaving out important information such as product name, manufactured size or type. When production facilities were discarded, it was impossible to identify and to eliminate the affected spare parts.

Generating Accurate Structural Data

To increase efficiency in spare parts management at AT&S the SPICE (Spare Parts Inventory and Cost Enhancement) project has been established. Internal sponsors of the SPICE project were both the CFO and the Director of Global Purchasing of AT&S. For implementation of SPICE and coordination of the external partners the international active Paradine GmbH, Vienna was selected. In order to choose a standardised classification system, an analysis of standard classification systems available on the market has been undertaken.

The then current version of eCl@ss (5.1.4) has been selected based on international circulation, applicability on all branches, multi-language usability (including Chinese), and availability of product descriptions in the form of characteristics tables and characteristics.

Based on a representative subset of parts a pilot classification project was implemented. The selected subset was classified and an evaluation was done based on the available eCl@ss characteristics tables. The standard characteristics tables have been pruned and extended according to AT&S's requirements. Characteristics tables have been created in case they were insufficient or lacking. Paradine involved specialists from DO-TECteam, Oberhaid in order to implement the spare parts classification. DO-TECteam performed the pre classification of parts and prepared the eCl@ss list of properties for AT&S use.

Materials were not only classified, each material was also provided with product specific features. Doing so is the only possibility to detect and eliminate real and functional duplicates. In total, 17,000 spare parts were assigned to approximately 290 classes, respectively characteristics tables and the description of all materials with a total number of 280 properties were implemented.
This procedure allowed a significant inventory cleanup. Materials, which were not being used any-more, were sold and spare parts were transferred to other plants as needed. The spare part portfolio was harmonised.

The newly created classification based on eCl@ss was the foundation for the new classification within SAP. For the integration of the classification system into SAP Paradine involved the Austrian SAP consultant Phoron Consulting GmbH into the SPICE project. The classification was implemented in SAP allowing AT&S to import and evaluate structural data and valuate materials within SAP on their own.

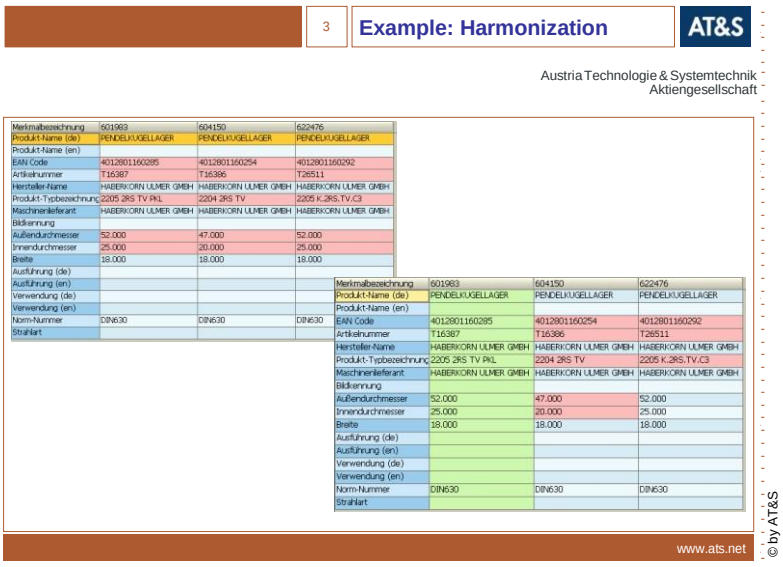
In the first step implementation of eCl@ss was done in German and English language only. The users of the Shanghai plant soon requested a version in Chinese language also. Therefore also a Chinese version of the classification was implemented.

Within the scope of the SPICE project, AT&S cooperates with approximately 150 suppliers. These suppliers were also required to deliver data of their products to the divisional-spanning standardized classification. Also smaller companies that do not operate their own data management systems should have been included.

To do so they were offered an "all-inclusive service package", that provided these companies with basic information about the eCl@ss standard as well as standardised EXCEL Sheets for capture their product data for delivery to AT&S. The delivered data could be imported easily into the SAP system. AT&S specialists ensured the support of supplier companies in case of questions and if problems appeared.

The Benefits

The implementation of the first part of the SPICE project was completed successfully after a period of only three months. Content-wise data-cleansing and harmonization of spare parts data is still ongoing and will result in further reduction of number of spare parts. At the end of the project the turnover ratio of spare parts is planned to increase from 1.2 to a level of over 3. Stock of inventory for spare parts could already be reduced significantly. Spare parts no longer needed are either returned to suppliers, sold on the market or finally scraped. Capital lockup for spare parts was considerably reduced. The newly transparency in the parts spectrum enabled a better clustering of demands in procurement and resulted in a noticeable reduction of number of suppliers. Thus the number of procurement transactions are reduced which also results in reduced costs.



These savings and the reduction of production outages with better availability of spare parts pay back the project costs rapidly. The ROI (Return on Investment) for the SPICE project was significantly below 7 months.

7 months after the end of project phase one of the SPICE project the following results were achieved:

- 43 % decrease in number of spare parts (reduction from 32.000 parts to 18.000 parts)
- 20 % less capital lockup for spare parts (reduction from EUR 7 Mio to EUR 5.6 Mio)
- 47 % less suppliers (reduction from 1.500 to less than 800 suppliers)
- 250 % more inventory turnover (increase inventory turnover from 1,2/year to more than 3/year)

Outlook

Today many processes within companies are based on unclean master data. The SPICE project showed that cleansing of master data (standard classification based on eCl@ss including usage of properties to describe products) set a solid basis for setting up business processes upon.

The successful implementation of eCl@ss for spare parts management at AT&S verified that sustainable benefit and cost reduction are enabled by well structured reliable and clean master data. For AT&S spare parts was the first step for implementation of eCl@ss. Further groups of materials will follow to be implemented with the AT&S organization.

About AT&S

Formed in 1987, AT&S today ranks among the largest manufacturers of printed circuit boards in Europe and India and has a significant presence in China. AT&S is extremely well positioned in the market for high-tech HDI Microvia printed circuit boards, which are chiefly used in mobile devices. The company is also highly successful in the automotive, industrial, and medical sectors.

About Paradine

Paradine is a privately owned Austrian software and consulting company. Paradine is a leading international supplier of online dictionaries for development and maintenance of product classifications, product data management and companyspanning master data. Paradine also supports its customers in the implementation of organization-wide master data management and classification systems.