The 5 Biggest Pitfalls of Managing Electronic Part Data In-House

A White Paper on the top five pitfalls of Managing Electronic Part Data In-House and the benefits of using third party tools instead.

Abstract

Many electronics original equipment manufacturers (OEMs) choose to manage their part data in-house. This paper outlines the five biggest pitfalls of doing so, and demonstrates how the use of third-party tools and services can alleviate those concerns.

The five pitfalls we will cover are:

1. Wasted Time and Resources
2. Poor Part Selection
3. Inefficient Obsolescence Management
4. Non-Measurable Processes
5. Getting Lost in the Data

By exploring these pitfalls and their consequences, we will make the case that subscribing to a third-party service will result in lower costs, improved resource efficiency, and better end products.

The Risks of Managing Part Data In-House

There are a number of reasons why some OEMs might choose to manage part data internally. While in-house data management may appear to be more cost-effective and convenient, a deeper dive exposes the truth: managing part data internally results in a number of pitfalls that will deprive businesses of precious time, money, and resources.

Here are the five biggest problems OEMs face by managing part data in-house.

No. 1: Wasted Time and Resources

Managing part data is a time-consuming process. OEMs will need to dedicate time and resources toward researching parts, making part selection decisions, forecasting obsolescence, interpreting PCNs, and more. That's time and resources that could be spent on tasks that generate revenue, like designing new products or investing in Research & Development.

Switching to a third-party part data management model will free up those resources and allow OEMs to focus more on the business tasks that drive profits.

No. 2: Poor Part Selection

In-house part data management can be extremely prone to error. Incorrect or incomplete part numbers, missing information on various part attributes, and a host of other inconveniences and errors can occur. The resulting bad or incomplete data will invariably lead to poor part selection decisions.

The risks of poor part selection are great. OEMs may wind up selecting a part that's soon to be obsolete, violates environmental standards, or simply does not perform as well as a similarly priced alternative. These issues slow down time-to-market, and can even bring entire production runs to a halt.

A third-party tool reduces the risk for error, ensuring that OEMs select optimal parts for their design. Third parties offer detailed part data, risk analysis, obsolescence forecasting, and cross reference information to help improve the part selection process. While certainly not immune to error, third parties are in the business of developing data, and have quality analysis teams dedicated to nothing but ensuring their data is as correct and current as possible. Their standards for quality will always be higher than that of the OEMs, which have many other things to worry about.

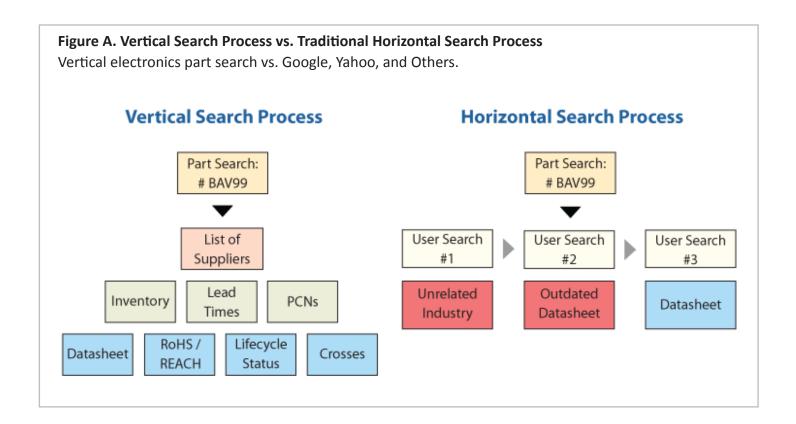### No.3: Inefficient Obsolescence Management

Invariably, one of the parts used by an OEM will become obsolete. Managing part data in-house makes it difficult to plan for obsolescence issues, as forecasts are often based on data that is inaccurate or incomplete. Parts may also slip through the cracks, resulting in costly surprises.

Third parties can bring years of obsolescence forecasting experience to the table, helping OEMs put a plan into motion well before their part goes obsolete. Third parties also may have access to data that OEMs do not, giving them a better chance of accurately predicting the future of parts.

No. 4: Non-Measurable Processes

Many electronics manufacturers who manage part data in-house rely on unsustainable, non-measurable methods. One such method is the use of traditional search engines, such as Google, to find part data (See Figure A). Google is great for making broad searches across a wide variety of topics. But for something as

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Figure A. Vertical Search Process vs. Traditional Horizontal Search Process
Vertical electronics part search vs. Google, Yahoo, and Others.

specific as electronics part search, it simply doesn't provide the depth of information or the context required to be a useful tool.

Another common unsustainable method is the use of spreadsheet applications such as Microsoft Excel (See Figure B). Manually maintaining part data via Excel or other spreadsheet applications can result in costly typos, wasted man hours, and versioning issues.

Subscribing to a third-party tool can help eliminate errors associated with non-measurable

processes. They can help OEMs make smarter decisions based on accurate, proven data, and can put all the part information they need in one easy-to-access, easy-to-maintain location.

No. 5: Getting Lost in the Data

It is impossible to keep track of every electronic part in the market. Even if an OEM could maintain a comprehensive list of every part in the world, it would require endless dedication and man hours to keep up-to-date.

Figure B. Common issues with manually managing BOMs through Excel
Manually managing BOMs with Excel can result in costly typos, wasted man hours, and versioning issues.

To effectively manage part data in-house, OEMs will need to: 1) find and organize data sheets, PCNs, product brochures, and more, 2) comb through those documents for the information that pertains to the correct parts, and 3) analyze that data and draw conclusions from it. That's a lot to ask of an in-house team. Data on these parts is also not accessible at all times, making it extremely difficult to obtain and manage such information.

A third-party solution can do the legwork from their side, saving the OEM countless man-hours. They'll sift through the data and come back with what OEMs really need: intelligent analysis to make better decisions.

Third-Party Part Management Tools: The Right Way to Go

Subscribing to a third-party part management service can help free OEMs to focus on what really matters: the reliability and longevity of end products. No more Google searches for parts, no more confusing, clunky Excel spreadsheets, and no more relying on non-measurable methods to make part selection decisions.

Instead, OEMs will gain access to all the data they need, all in one place. They'll optimize part selection, plan ahead for obsolescence, and never get lost in the data again. They'll

direct human and capital resources previously dedicated to part data towards initiatives that drive revenue and innovation. In the end, that will lead to better products, cost savings, and improved customer satisfaction.

Founded in 2000, SiliconExpert Technologies is a provider of electronic component data and parts management software to the electronics industry. SiliconExpert's software and data are used daily by thousands of electronic engineers, supply chain and procurement managers at leading Fortune 500 companies.

SiliconExpert Technologies' Electronic Parts Database is one of the most accurate, comprehensive and current in the industry covering more than 185 million electronic components in hundreds of product lines from over 10,000 suppliers. End-of-life (EOL) forecasting, finding Cross References (form, fit and function alternatives), Lifecycle statuses, Parametric Data and Product Change Notice (PCN) alerts are a few of the features of SiliconExpert's suite of products that provide Part Search, BOM Management and Obsolescence mitigation solutions. Find out more about SiliconExpert's Part Search tool at http://www.siliconexpert.com/partsearch