

Why is EDM/PDM Relevant?

By Todd Cummings

Over the years many different types of solutions have come and gone for managing data within an organization but Engineering Data Management/Product Data Management (EDM/PDM) remains relevant today for three key reasons: its ability to search for information using metadata, to manage inter-relationships or virtual information, and to foster collaboration across geographies.

In our fast-paced, information-laden design and engineering business environment, we have to be able to get pertinent and accurate information quickly. It's absolutely critical to being successful in our professional careers.

Searching and Retrieving Information with Metadata

EDM/PDM provides access to engineering design data in ways that are very specific and focused. Google, for example, has done a great job of making the first page of web searches relevant to the key words that we type in. In reality we have a million hits at our disposal, and I know very few people who go past the first one or two pages.

Unlike Google, EDM/PDM organizes information about the documents and designs based on metadata. Any valuable information that describes an attribute of the product can be classified as metadata. For example, search criterion could encompass product name, part or client name or revision date. This allows searching and retrieval to be extremely focused. The relevance factor of organizing information by metadata as opposed to organizing by full text search is paramount to making smart business decision based on accurate

PDM as a Virtual Bridge to Information

Part and parcel to tracking and retrieving documents using metadata, EDM/PDM systems are tightly integrated with one or multiple CAD applications. These 2D and 3D design, include simple and complex file inter-relationships, such as drawings and xrefs, or in a 3D modeling environment, parts and assemblies. That inter-relationship between a part and an assembly is not an actual file or document – it is a “virtual construct.” This means that the only way that you know a particular screw or a bolt is related to a nut, is because there is this virtual construct called an “inter-relationship” between the two. EDM/PDM systems are critical for managing the complex inter-relationship between parts and their assemblies, that when combined properly, make up the products that we design, engineer and manufacture.

There is another popular buzzword in our industry called PLM—product or project lifecycle management. Often when talking about PLM, we'll hear the words supply chain, downstream, upstream or cross stream, all of which are important concepts for PLM. The key to any successful PLM initiative, is at its core the EDM/PDM system. In fact, PLM does not exist in any shape or form without the EDM/PDM component to serve up accurate design/engineering data. From this standpoint, EDM/PDM is absolutely crucial and relevant—more than ever before.

Cross-Geographic Collaboration

Since EDM/PDM is critical to any PLM system, today's EDM/PDM systems must have the ability to collaborate between inter- and intra-departmental users. For example, if the design team is working in a 3D modeling package designing data, a true EDM/PDM package will provide the ability for engineers to access that data without needing the design application installed on their workstations. They will be able to access, view and manipulate the native 3D model as if they were looking at it in the tool in which it was created.

EDM/PDM systems also provide a platform through which geographically remote teams can work on product design and engineering together. It provides the backbone and cohesion for teams to get accurate data to make informed business decisions about the products they design. It's not uncommon in today's world for EDM/PDM systems to connect at the design and engineering level teams from multiple locations in North America or in multiple locations across the world. It's a critical aspect of what EDM/PDM systems provide. The cross-geographical capabilities of EDM/PDM systems make these solutions more relevant because it's an absolute business requirement that this level of collaboration take place.

EDM/PDM systems have withstood the test of time. Their strength lies in very focused tracking, managing and retrieval of information based on metadata. Further, its role at the core of any PLM system is why deploying EDM/PDM is truly one of the most relevant initiatives that can be undertaken in any firm today. And finally, any organization that has distributed design, engineering and manufacturing teams needs EDM/PDM for collaboration and quick, accurate retrieval of the current revisions of documents so that everybody is absolutely sure that they are working on the latest and greatest information. In today's world, there's not a single factor that makes EDM/PDM more relevant than that driving business need.

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