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THE PERFORMANCE ADVANTAGE

Manufacturer Automates AutoCAD BOMs

Osmonics, based in Minnetonka, Minn., pioneered the commercial development of reverse osmosis and ultrafiltration technologies. The company provides a breadth of products and services for industrial processing and power, potable water, health care, food and electronic manufacturing markets. The mission of Osmonics is to help industrial, institutional and commercial customers worldwide ensure fluid purity in their products and processes. They have steadily expanded their ability to manufacture membranes, products and equipment to meet any fluid purification, separation or handling requirement. The company maintains manufacturing locations throughout the U.S.

One of the biggest internal challenges Osmonics faced was how to manage and leverage the volume of information associated with the creation of bill of materials (BOMs). The main goal the company set for itself was to improve enterprise productivity by eliminating redundancy and manual generation of bill of materials in the design department. Says Ed Enquist, engineering manager, "Our CAD group was manually counting thousands of pieces of purchased and fabricated parts, verifying part numbers, and reworking them into a report. Double entry of part data was common, therefore we spent a lot of time verifying our MRP and CAD databases." To automate the creation of bill of materials, Enquist implemented BOMLink software (previously AimaBOM) from AimaSoft Inc., San Rafael, Calif.

Lisa Burmeister, drafting/documentation supervisor at Osmonics, says, "Before implementing BOMLink, our AutoCAD users had no access to an online catalog to choose parts to incorporate in their design. BOMLink has automated this process using point-and-click operations. Now we use BOMLink in every drawing that needs a bill, to generate BOMs, or even combine parts from multiple drawing files to create composite multilevel bill of materials. Per custom assembly, it used to take us four days to manually complete the process, but now we can produce in 30 minutes."

The company's return on investment was realized within three months after implementation. Burmeister says, "We can now easily calculate the exact quantity of each part in the drawing. We can change the drawing and update the bill simply by choosing the update button."

In addition to automatically creating bill of materials, BOMLink also makes the design drawings intelligent by connecting graphical parts or entities inside AutoCAD to a single central repository — Microsoft Access database.

An important factor for Osmonics is that no additional hardware or environment settings were required for BOMLink. Using a navigating toolbar, as usual, every designer just plugs and places parts in AutoCAD. The drafter then inserts the 3-D parts into the assembly, and assigns the part number in BOMLink. This process is further automated by Osmonics to

assign part numbers automatically upon insertion with BOMLink's API calls. Any changes made in the drawings are automatically reflected in the common database. Likewise, any changes in the database are reflected in the drawing bill of materials.

Once a bill of materials is generated, without reworking the drawing or data, the engineering department can synchronize electronically with other downstream applications that need the data. The net results are increased productivity and shorter product development cycles. Additional benefits of integrating MRP with CAD include improved inventory control, reduced time to market, and better management of changes in the engineering process. ■

AimaSoft's DesignDesk Suite provides Integrated Design Management (IDM) for managing CAD drawings, bill of materials, part data and product structure with tools that are simple to install & use and provide an immediate return on their software investment. DesignDesk Suite (BOMLink, TitleLink & ViewLink) provides you with the ability to quickly automate redundant manual data entry processes and ensure that engineering & manufacturing are synchronized throughout the enterprise.

For more information on AimaSoft, please call us at 1-800-473-7638, visit www.aimasoft.com, or email to sales@aimasoft.com