

NEXX SYSTEMS, INC.

Streamlining wafer packaging equipment development with SolidWorks Enterprise



NEXX Systems more efficiently manages its increasing amounts of 3D assembly and component design data with SolidWorks Enterprise PDM.

NEXX Systems, Inc., delivers products specifically designed to meet the evolving demands of the advanced wafer-level packaging market. The company's products are ideally suited for a wide range of deposition applications that support smaller, faster electronic devices. NEXX chose SolidWorks® 3D CAD software as its preferred development platform from its very inception. As NEXX Systems continued to grow, it generated increasing amounts of 3D assembly and component design data. In order to handle the greater volume of development activity and related engineering change orders (ECOs) more efficiently, the company needed an integrated product data management (PDM) system, according to Jim Mueller, director of product engineering.

"Our growth rate made the use of traditional file management techniques insufficient," Mueller explains. "Using file-renaming approaches for managing revisions was a slow, error-prone process because of the manual effort required to maintain the data links and references within assemblies. The process took too long and resulted in a backlog of ECOs. We needed improved efficiency, accuracy, and control, so we began researching available PDM systems."

After evaluating several PDM systems and different types of solutions, NEXX Systems selected SolidWorks Enterprise PDM because it is easy to use, implement, and administer. The company also valued the software's integrated revision control, automated workflow, and web-browser access capabilities. NEXX Systems implemented 14 seats of SolidWorks Enterprise PDM to support its 11 SolidWorks 3D CAD software users as well as four seats of the SolidWorks Enterprise Web Client for non-CAD users.

Results:

- Shortened development cycles
- Eliminated backlog of ECOs
- Tightened revision control
- Improved access to and use of product design data

Fast implementation produces rapid results

After installing SolidWorks Enterprise PDM in June 2007, NEXX Systems significantly improved the accuracy of its assembly design data, which resulted in shorter development cycles and smaller amounts of scrap and rework. The company implemented the system over a long weekend, migrating between 35,000 and 40,000 files into the PDM Vault.

Even though NEXX Systems decided to undertake a fairly complex implementation that generated new part numbers and a new part-numbering scheme, the system was up and running after just one weekend. According to Paul Walsh, documentation control manager, users began working with SolidWorks Enterprise PDM almost immediately because of its intuitive user interface. "From a user perspective, the Windows® Explorer-like interface definitely helped to get us up and running. Working in SolidWorks Enterprise PDM is no different from working in a server structure or on your own desktop. Our users did not see the move as a big deal, because they immediately realized they could work with the system to help manage their design data," Walsh says. "System administration—including providing access and managing access rights—is very easy and straightforward," he adds.

Eliminating a backlog of ECOs

By implementing SolidWorks Enterprise PDM, NEXX Systems was able to work through its backlog of ECOs quickly and accelerate development through tighter revision control and improved workflow automation. "Our machines require large, welded, sheetmetal frames with a number of assemblies and subassemblies," Mueller explains. "Before we implemented SolidWorks Enterprise PDM, changing a dimension indicated in an ECO could take a lot of time and labor, because we had to rename all references and links manually. It's easier to make changes with SolidWorks Enterprise PDM because the system automatically updates all related files.

"What used to take a day, we can now do in an hour," Mueller stresses. "Now it's much easier to find the correct drawing and revision, while workflow automation allows us to eliminate manual steps. Having the ability to change revisions and all associated links automatically enables us to process ECOs more efficiently. We not only worked through our backlog of ECOs, but also leveraged workflow automation. Now we can process an ECO and make revised CAD data available within a single day."

Driving data throughout the enterprise

In addition to supporting productivity gains in Product Engineering, SolidWorks Enterprise PDM has expanded access to updated design data to other departments, including Purchasing, Sales, and Service. With the SolidWorks PDM Web Client, non-CAD personnel can access PDF files of the most current design data in the PDM Vault through a standard web browser from anywhere in the world. "Our Purchasing Department uses the system every day for quoting purposes, and our sales and service personnel frequently access the data as well," Mueller notes.

With SolidWorks Enterprise PDM, NEXX Systems plans to drive design data throughout the enterprise, thereby making engineering instructions available to Manufacturing and providing Vault access to strategic suppliers. Mueller says the company also plans to automate workflows further and make greater use of automatic email notification capabilities.

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Jim Mueller
Director of Product Engineering



With SolidWorks Enterprise PDM, NEXX Systems has accelerated product development through tighter revision control and improved workflow automation.



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