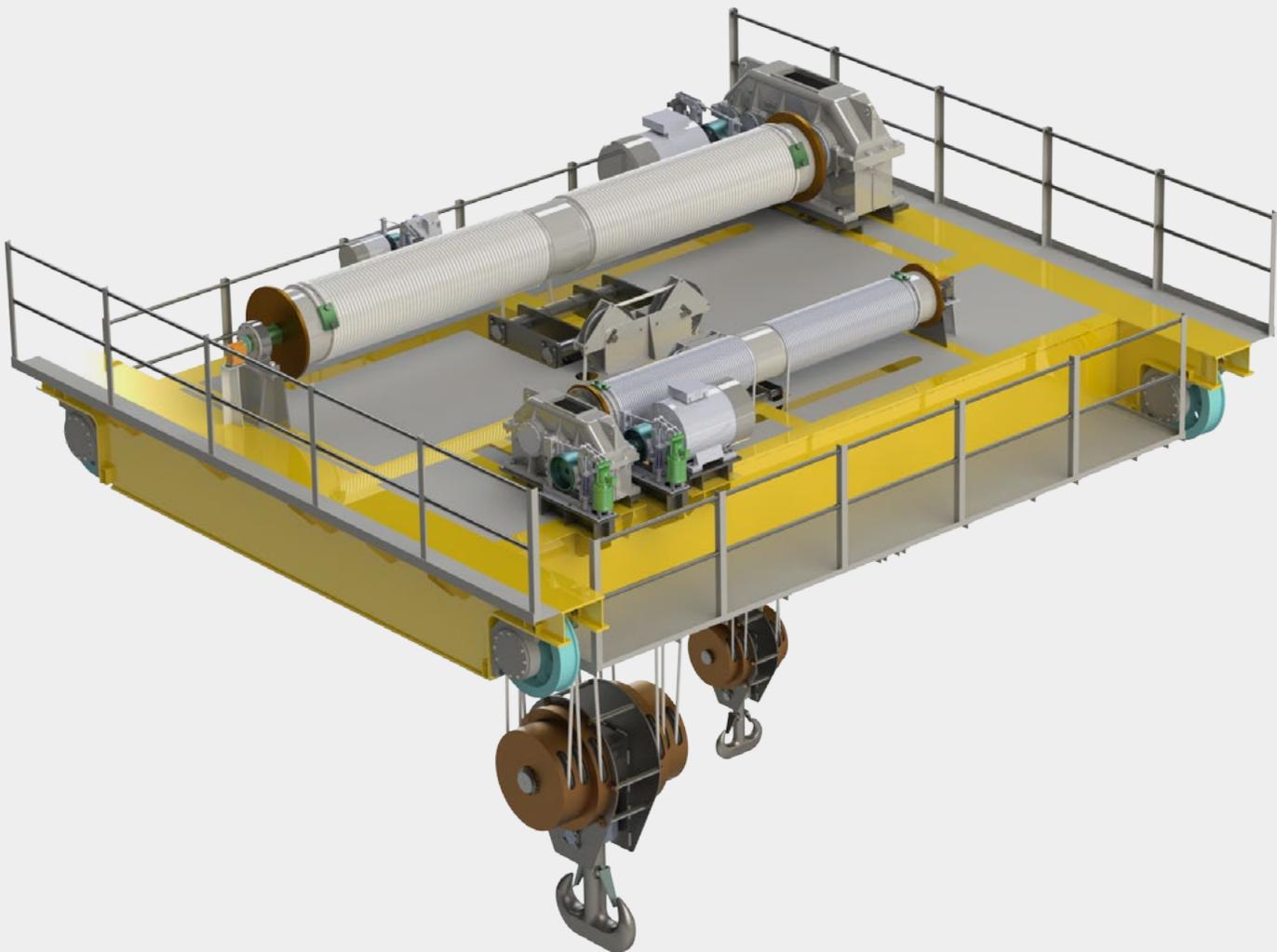


FDES TECHNOLOGIES PRIVATE LIMITED

DEVELOPING A GREATER RANGE OF DESIGN AUTOMATION
SOLUTIONS WITH SOLIDWORKS



FDES Technologies prefers to develop its automation solutions—such as the customized one used to create this crane—on the SOLIDWORKS platform. Its ability to provide robust, efficient, and cost-effective solutions is key to helping FDES and its customers achieve the level of design automation they require.

Challenge:

Develop efficient and cost-effective design automation solutions for its clients.

Solution:

Leverage SOLIDWORKS design software and the open SOLIDWORKS Application Programming Interface (API).

Benefits:

- Cut crane design time from weeks to few hours
- Reduced design automation costs by 25 percent
- Realized greater flexibility in developing automation solutions
- Enjoyed effective, responsive API support

FDES Technologies Private Limited is a leading CAD/CAM/CAE software customization company delivering technology solutions through engineering design automation, CAD customization, drawing automation, CAD productivity tools development, product catalog development, web-based product configurator development, and mobile application development. Founded in 2007, the Indian consulting firm has specialized in providing engineering design automation solutions since its inception and has developed custom applications for clients in the aerospace, manufacturing, power transmission, transportation, marine equipment, and construction industries.

The firm's expertise and knowledge of engineering design and CAD application programming interfaces (APIs) enables FDES Technologies Private Limited to automate repetitive design tasks through custom CAD macros, add-ons, and asynchronous applications. The increased productivity and higher quality that the consultant's clients realize by automating design processes translates into significant time and cost savings.

While FDES Technologies Private Limited has experience developing engineering design automation solutions for a range of CAD, CAM, and CAE platforms—including AutoCAD®, Autodesk® Inventor®, SOLIDWORKS®, CATIA®, Unigraphics®, and ANSYS®—the custom development consultancy prefers to develop its solutions utilizing the SOLIDWORKS design platform, according to Managing Director K. Nagarjuna Reddy.

"Although most of our customers utilize SOLIDWORKS software as their preferred product development platform, that's not the only reason that we prefer to utilize SOLIDWORKS for developing design automation solutions," Reddy explains. "There are simply more advantages to working in SOLIDWORKS and leveraging its open API to create the macros, plug-ins, and automation applications that are the basis of our business.

"To start with, other CAD applications are not only more difficult to work with, they also require you to buy a development license to create automation applications," Reddy continues. "We recommend SOLIDWORKS software to our clients because it provides a more robust, efficient, and cost-effective means for realizing the level of design automation that our customers need to compete successfully in a global economy."

GREATER AUTOMATION DEVELOPMENT FLEXIBILITY

By leveraging SOLIDWORKS software and its open API for custom design automation development, FDES enjoys greater flexibility in the number of available options and approaches it can pursue to help customers achieve productivity goals through custom application development. "Our customers all have unique and highly specific application requirements," Reddy notes. "Because SOLIDWORKS is easier to use and offers more customization options than other types of CAD software, it takes less development time and we can do more to develop design automation applications for SOLIDWORKS.

"With SOLIDWORKS, there are simply a greater number of ways to integrate automation solutions than with other pieces of software because you can work with all of the features in SOLIDWORKS," Reddy continues. "For example, in SOLIDWORKS, there are several ways to select a face on a model. With other kinds of CAD software, you're forced to use just one method, which ultimately limits what you are able to do. There's also greater consistency across different versions of the SOLIDWORKS API, and the weldments API is far superior in SOLIDWORKS."



"Our business is based on helping our customers automate existing tools to boost productivity. In recommending the SOLIDWORKS platform, we're letting our customers know that the software provides the most cost-effective, flexible, and robust approach to delivering the automation solutions that they want and need."

— K. Nagarjuna Reddy, Managing Director

MORE COST-EFFECTIVE DESIGN AUTOMATION

FDES also recommends the SOLIDWORKS design platform for design automation application development because using SOLIDWORKS saves its clients money. Customers don't have to buy an additional software license, as with other software packages, and because SOLIDWORKS is easier to use and offers greater customization flexibility, application development requires less time.

Focus on FDES Technologies Private Limited

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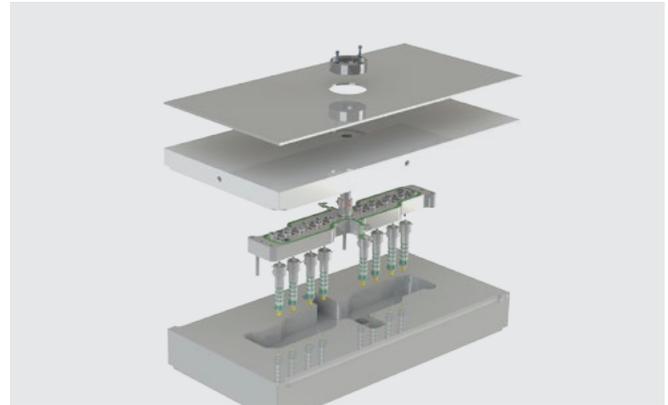
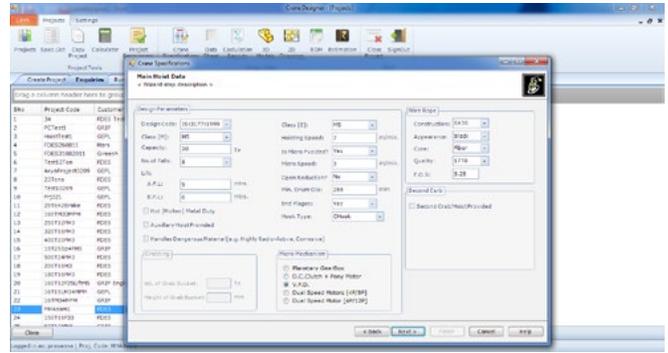
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“On average, developing design automation solutions for SOLIDWORKS is 25 percent less costly than with other design software,” Reddy stresses. “Of course, development costs depend on the complexity of features involved, but generally speaking, application development requires less actual coding time with SOLIDWORKS.

“When we do get stuck, which rarely occurs with SOLIDWORKS, we take advantage of our SOLIDWORKS Subscription Services license to tap into the high quality support provided by our SOLIDWORKS reseller,” Reddy adds.

CRANE DESIGN IN HOURS VERSUS A MONTH

In addition to developing custom design automation applications for its clients, FDES Technologies Private Limited developed its own Crane Design Automation software plug-in to SOLIDWORKS software to completely automate crane design. Based on user inputs, the plug-in automatically generates a 3D model of the crane and outputs assembly and component drawings. The plug-in reduces what would require roughly a few weeks of design and modeling time to a five-hour process.

“Our business is based on helping our customers automate existing tools to boost productivity,” Reddy says. “In recommending the SOLIDWORKS platform, we’re letting our customers know that the software provides the most cost-effective, flexible, and robust approach to delivering the automation solutions that they want and need.”

FDES Technologies leverages SOLIDWORKS and its open API to create custom macros, plug-ins and automation applications. This approach provides greater flexibility in the number of available options and approaches that FDES engineers can pursue as they work to help customers achieve productivity goals.

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