SIEMENS
Ingenuity for life

Energywin Technologies

Solid Edge helps Energywin achieve reliable on-time delivery

Product

Solid Edge

Business challenges

Delays in delivery times

Inefficient 2D-based design process

Inefficient manual creation of bills of materials

Keys to success

Use of Solid Edge software

Synchronous technology

Re-use of existing designs in new projects

Support from local partner

Results

50 percent faster delivery times

80 percent reduction in production errors

70 percent productivity gains

50 percent reduction in project completion costs

Faster customer approvals

New customers

## Efficiencies of 3D-based process boost productivity and accelerate design

Moving to 3D design

Energywin Technologies was founded in 2011 by a team of committed professionals with broad experience in the design and development of embedded systems and solutions for energy management, remote management, secure radio-frequency identification (RFID), and asset management.

The company's energy management solutions include solar power inverters, power conditioners, charge controllers, solar conversion kits for uninterruptible power supplies (UPSs) and solar pump controllers.

Energywin also develops total power solutions for telecommunication cell sites that optimize the energy delivered from electrical grid, diesel generator and solar sources.

Energywin's expertise in RFID asset management has led to innovative products that include antennas, readers and SkoolSmart, a system that automatically tracks student and staff school attendance and bus transportation and sends immediate alerts via a simple messaging service (SMS), keeping parents and teachers aware and feeling at close range with their loved ones throughout the school day. The company has 35 employees.
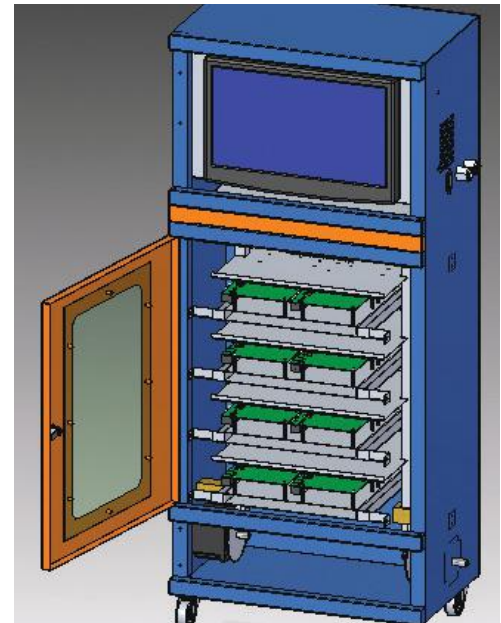
In the past, Energywin outsourced its designs, which were documented only in 2D drawings. The 2D drawing-based process required the company to manually compile product bills of materials (BOMs) for their suppliers, which delayed deliveries, affected project schedule targets, and introduced errors. The company had problems communicating product designs to customers using only 2D drawings, and release of production drawings was also frequently delayed by error-prone and time-consuming drawing revisions. Furthermore, Energywin engineers could not easily use data from past projects in new designs.
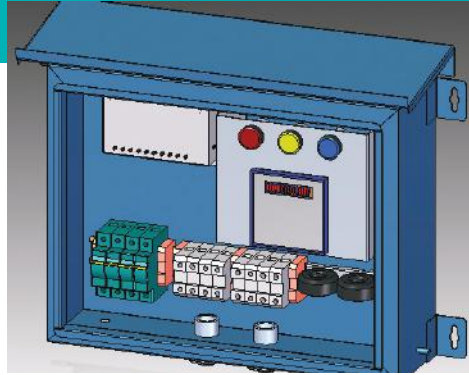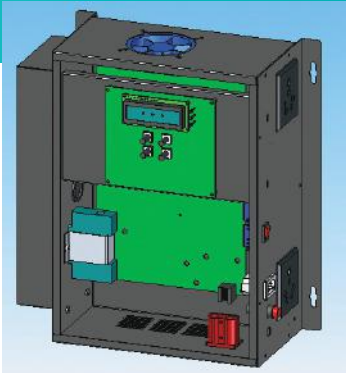
Solid Edge for 3D design

To address these inefficiencies and bottlenecks, Energywin began looking for a 3D computer-aided design (CAD) solution. In 2014, Energywin began working with MEKSOL India Engineering Solutions Pvt. Ltd., a channel sales partner of product lifecycle management (PLM) specialist Siemens PLM Software. MEKSOL India analyzed Energywin's development process and engineering requirements, and proposed Solid Edge® software as a 3D solution for product design.

MEKSOL India had previously implemented Solid Edge and provided training at a company where one of the Energywin designers had worked, and the success of that project had built confidence in the partner's capabilities. Energywin was also impressed with the ease of use and broad functionality of Solid Edge, and the cost of the software was within budget. The company made the decision to license

Solid Edge for 3D design and the integrated Solid Edge Wire Harness Design application for modeling, routing and organization of wires, cables and bundles.

With easy-to-use part and assembly modeling capabilities, Solid Edge was well-suited to replace the 2D system and methodology in use at Energywin. The company realized that designing in 3D had several advantages in speed and efficiency. With complete and precise 3D models, Energywin can easily communicate details of designs to suppliers and customers. Solid Edge includes the capability to create 3D PDF files, and the free Solid Edge Viewer offers another option that streamlines customer design reviews and approvals. "The Solid Edge Viewer helps me to get faster approvals from customers and enables us to more quickly release designs for production," says Prashanth Narayana, chief technical officer, Energywin.

Because Solid Edge creates drawings from 3D models, the drawings update automatically as changes are made to designs. The streamlined drawing creation capabilities help Energywin create, modify and release drawings more quickly than with 2D CAD, and also improve drawing accuracy and eliminate errors.

"Synchronous technology in Solid Edge is ideal for handling multi-CAD or foreign data. We can save time by making the changes, instead of asking our suppliers to make them."

Krishna Prasad
Senior Technical Architect
Systems Design
Energywin

Solutions/Services

Solid Edge
www.siemens.com/solidedge

Customer's primary business

Energywin Technologies designs and develops embedded systems and solutions for energy management, remote management, secure RFID, and asset management. The company develops innovative and creative solutions through use of technology to drive value and efficiencies to customers in the renewable energy, power and industrial sectors.
www.energywin.in

Customer location

Bangalore
India

Partner

MEKSOL India Engineering Solutions Pvt. Ltd.
www.meksolindia.com

With easy-to-use part and assembly modeling capabilities, Solid Edge was well-suited to replace the 2D system and methodology in use at Energywin.

Energywin also values the automatic parts list creation and BOM generation tools of Solid Edge, which eliminate the time-consuming and error-prone manual process that often caused delays with suppliers. "With Solid Edge, I can export a Bill of Materials to Excel to share with the purchasing team, which makes my job much easier," says Krishna Prasad, senior technical architect, systems design at Energywin.

Efficient design and re-use with synchronous technology

One of the most compelling features of Solid Edge for Energywin is synchronous technology, which streamlines creation and editing of CAD models and drawings. With synchronous modeling techniques, engineers can readily edit models and update drawings, even with data from suppliers and partners who are using other CAD systems. "Synchronous technology in Solid Edge is ideal for handling multi-CAD
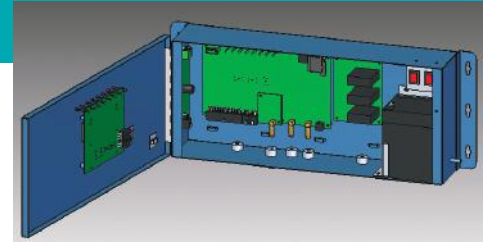
or foreign data," says Prasad. "We can save time by making the changes, instead of asking our suppliers to make them."

Synchronous technology is also a key enabler for design re-use, which enables Energywin to base new projects on past projects, reducing development timelines for its customers. Using Solid Edge, Energywin designers can directly open AutoCAD files from previous projects, and use them as the basis for new designs. With synchronous technology, designers can directly modify AutoCAD drawings, and use automated 2D-to-3D conversion tools in Solid Edge to convert the 2D drawing geometry and dimensions into 3D part models.

"With Solid Edge, I can export a Bill of Materials to Excel to share with the purchasing team, which makes my job much easier."

Krishna Prasad
Senior Technical Architect
Systems Design
Energywin