DevCom

The Future Comes with the Solar Power:
The Solar Project

PRODUCT
DESCRIPTION

The solar power software solution is a full-service ERP
system that enables users to effectively run solar power panels.
The solution calculates shadows and panel exposure to the sun in order to get
precise performance predictions.

BUSINESS CHALLENGE

In the solar panels market, the competition was fierce and margins were relatively low. **In order to differentiate from competitors, our customer required a superior software solution with an outstanding Shadow Calculation system.** Moreover, the system was meant to be 35% less expensive than similar software systems.

PROJECT DESCRIPTION

The client addressed DevCom with a task of finalizing their solar system performance software. In a nutshell, DevCom had to either create from scratch or participate in the development of the following software elements:

Shadow Calculation Algorithm
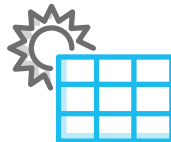
Insulation and Exposure Calculation

High Data Processing Performance

The Shadow Calculation Algorithm was heart and soul of the project providing users with a High Data Processing Performance. Lastly, the Insulation and Exposure Calculation had to be quick and responsive in order to make the general feel of the software as smooth as possible.

DEVELOPED SOLUTION

In the finalized version of the platform, a user can customize the Solar System Performance Software solution adding objects that produce shade, such as trees, chimneys or adjacent buildings. The software then creates an animation of a 24-hour cycle with the visible shadow effect. The system calculates performance so that a user knows what are the most ideal panel and inverter positioning for a situation.

For development purposes, software engineers at DevCom heavily relied on Data Science methodologies. The methodologies included physical and mathematical calculations that use position, absolute time, and a 3D model of surface.

"The communication with DevCom was very effective. We didn't need to have long calls to understand our mutual interest."
said the client

Finally, the 3D model has been designed using Google maps API making the solution responsive and swift. The user of the system can enter coordinates into Google Street View and get information about the most effective solar panel exposure. Not to mention that the Solar System Performance Software is able to serve up to 1000 calculations per day. *1 calculation time is under 100 milliseconds.

ABOUT DEVCOM

Established in 2000, DevCom proves to be a reliable custom software development provider for clients worldwide. We understand the value of technology is in the benefits it yields to our clients. Therefore, we select from the best state-of-the-art technologies to engineer solutions that fit client needs.

We comply with the latest technology standards and specialize in software development based on Java, .NET, PHP, C++ and much more.

Finally, DevCom has adapted industry standard Agile methodologies designed to create lean, timely and effective solutions that achieve our client's goals.

Have a project in mind?
REACH OUT