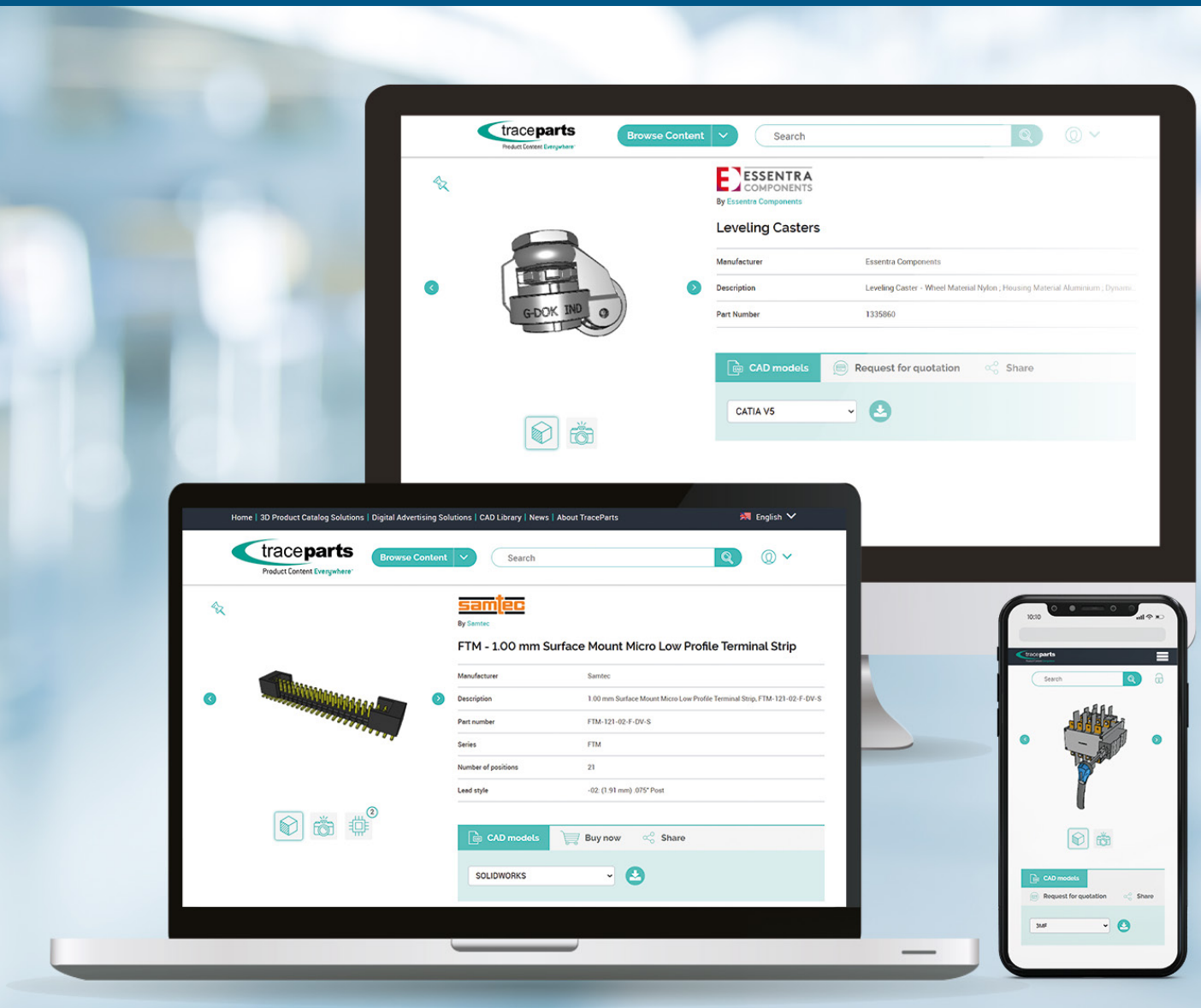
# TRACEPARTS CASE STUDY

## AMPLIFYING 3D WEB VIEWER CAPABILITIES




**Market**
CAD

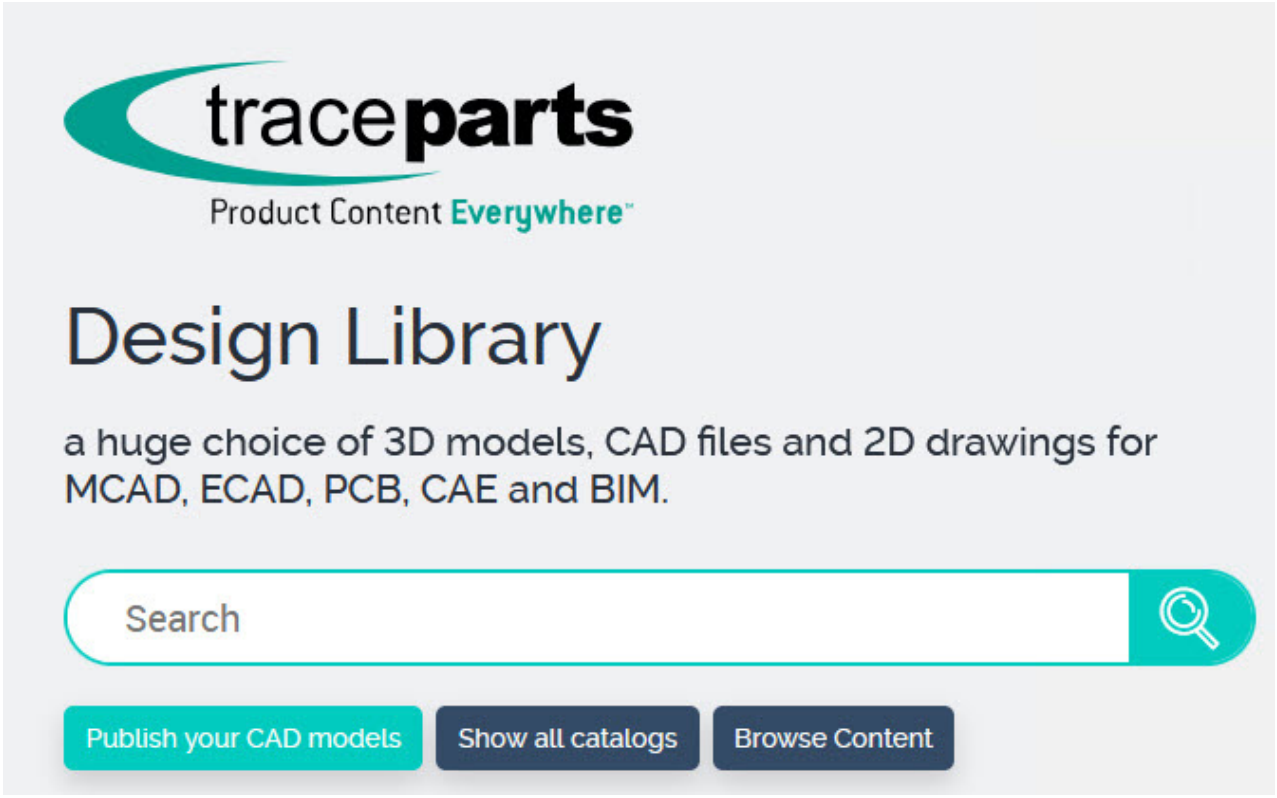
**Product & Services**
HOOPS Communicator, 3D ACIS Modeler, 3D InterOp

# 3D Visualization SDK Adds Value to Popular CAD Content Platform

TraceParts, a well-known CAD content supplier, integrates robust 3D visualization into their online 3D part viewer to enhance customer ordering experience.


## SUMMARY

Proven Software Development Kits from Spatial offer a browser-based 3D modeling and cloud CAD solution for high-quality rendering of CAD parts for engineering, industrial equipment, and machine design.


## THE COMPANY

Founded in 2001, TraceParts is a leading supplier of CAD content for engineering, industrial equipment, and machine design worldwide. The company has over 5.7 million registered members from 1.3 million companies actively sourcing product information and technical data from over 195 countries. As of early 2025, TraceParts has over 2,100 product catalogs of industrial components and over 238 million downloads.

TraceParts is a CAD content platform offering billions of CAD models from industrial components in 60+ 2D and 3D formats. The company provides highly targeted marketing exposure to customers of all sizes and industries via powerful cloud-based API and SaaS applications such as CAD part libraries, product catalogs, and configurators.

TraceParts offers a unique modeling technology that directly re-uses existing product CAD models and turns them into virtually any format while keeping the customer's intellectual property safe. The customer simply uploads their 3D files and product data and TraceParts does the rest. TraceParts can also parametrically model customer products from scratch using their product datasheets and specifications. The result is true-to-scale CAD models in 60+ different output native and neutral formats, and design-related rich product information.

Since 2010, certain TraceParts' output CAD formats have used Spatial's 3D ACIS modeling kernel and 3D InterOp Software Development Kits. 3D ACIS Modeler delivers the technological capabilities needed to create high-quality applications, supporting various industrial modeling approaches, including direct and history-based modeling. 3D InterOp enables TraceParts' application to work seamlessly with an extensive breadth of CAD formats.

## CHALLENGE

### Providing a crowd-pleasing and high-functioning online 3D viewer

Machine design optimization has never been so critical in today's fast-moving market. Manufacturing industries want to reduce their time to market and industrial designers and engineers continually tackle design challenges. TraceParts aims to save design time with their innovative CAD content platform.

As part of the online ordering process, customers can preview their selected part in TraceParts 3D Viewer Pro. The 3D preview function needed to perform seamlessly for the customer and allow them to manipulate the part on screen. They required a robust browser-based 3D modeling and cloud CAD solution for high-quality rendering.

Additionally, TraceParts wanted to bring more advanced CAD features into their online viewer such as interactive measurements, multiple cutting planes, and exploded views on assemblies. This allows their customers to go beyond visualization and offer their promise of gaining productivity by working faster and better.

## SOLUTION

### 3D web visualization through seamless integration and high-quality rendering

TraceParts' 15-year relationship with Spatial had already formed the foundation for a successful partnership. The company's use of 3D ACIS Modeler and 3D InterOp has proven the high-quality of Spatial's Software Development Kits (SDKs) working within TraceParts' application. As TraceParts faced new challenges, it became the right time to bring the powerful 3D web visualization component, HOOPS Communicator, on board.

> "We trust Spatial's technology and appreciate the unwavering support from their technical and R&D teams, ensuring seamless integration into our workflows and business processes."
>
> ~ Gabriel Guigue, TraceParts CEO

Critical to the TraceParts team's decision was that HOOPS Communicator can be seamlessly integrated throughout the rest of the Spatial data processing workflow. The integration process involved generating HOOPS models (.scs files) using a HOOPS bridge provided by the Spatial team. The bridge can be utilized in two ways: using only the ACIS kernel to generate .scs files from ACIS entities in memory, or using 3D InterOp to convert an existing .sat or .step file to a .cs file or any other CAD format.

Following that process, based on a specific option in the definition of each customer contract, TraceParts can instantly replace the legacy TraceParts basic viewer with the new TraceParts 3D Viewer Pro directly on the customer product catalog pages. HOOPS Communicator is also offered as a contract option to TraceParts customers when they want to embed interactive 3D viewing on their product pages seamlessly.

The full integration of the HOOPS Communicator took only two months, and the Spatial Technical Account Managers worked alongside TraceParts' developers to provide proactive support along the way.

Traceparts content options

## KEY INSIGHTS

### SDKs complement each other to provide comprehensive solution

When the new TraceParts 3D Viewer Pro with HOOPS Communicator was launched, it bridged a gap in the company's product offerings.

The seamless integration of the HOOPS SDK with the existing 3D ACIS Modeler and 3D InterOp saved TraceParts implementation time, and had the added bonus of a trusted partner and known support. Now, the TraceParts 3D Viewer Pro has expanded the capabilities of the CAD content company, enabling customers to access thousands of 3D industrial models for engineers.

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SPATIAL

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## About Spatial Corp

Spatial Corp, a Dassault Systèmes subsidiary, is the leading provider of 3D software development toolkits for technical applications across a broad range of industries. Spatial **3D modeling**, **3D visualization**, **3D Meshing** and **CAD translation software development toolkits** help application developers deliver market-leading products, maintain focus on core competencies, and reduce time-to-market. For over 35 years, Spatial's 3D software development toolkits have been adopted by many of the world's most recognized software developers, manufacturers, research institutes, and universities. Headquartered in Broomfield, Colorado, Spatial has offices in the USA, France, Germany, Japan, China, and the United Kingdom. For more information on Spatial's latest updates and product offerings, please visit **www.spatial.com.**



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