# **Delcam**

#### Delcam Ltd





Industry Computer-aided design, Computer-aided

manufacturing

1965 (as a team within Cambridge

Founded <u>University</u> Engineering Department)

1989 (as Delcam International)

**Birmingham** 

Headquarters

England, UK

Area served Worldwide

Pete Baxter (Vice President)

Ed Lambourne (<u>Technical Director</u>)

**Key people** Kulwant Singh (Finance Director)

Bart Simpson (Commercial Director)

Steve Hobbs (Development Director)

Products Engineering Software, Turnkey cells

**Services** Maintenance, <u>Bespoke</u> solutions

Website www.delcam.com

**Delcam** is a supplier of advanced <u>CAD/CAM</u> software for the manufacturing industry. <sup>[1]</sup> The company has grown steadily since being founded formally in 1977, after initial development work at <u>Cambridge University</u>, UK. <sup>[2]</sup> It is now a global developer of product design and manufacturing software, with subsidiaries and joint ventures in North America, South America, Europe and Asia with a total staff of over 800 people and local support provided from over 300

re-seller offices worldwide. It was listed on the London Stock Exchange until 6 February 2014, when it was acquired by <u>Autodesk</u>. [3] It now operates as a wholly owned, independently operated subsidiary of Autodesk.

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## **History**

#### Overview



Headquarters of Delcam Ltd. in Birmingham

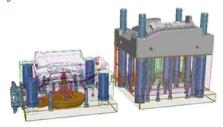
In 1965, <u>Donald Welbourn</u> <sup>[4]</sup> saw the possibility of using computers to help pattern makers solve the problems of modelling difficult 3D shapes. He persuaded the <u>Science Research Council</u> to support research at the Cambridge University Engineering Department. Early sponsorship was provided by <u>Ford</u> and Control Data in Germany, whose customers included <u>Volkswagen</u> and <u>Daimler-Benz</u>. In 1974 the Delta Group seconded Ed Lambourne (now <u>Technical Director</u> at Delcam) to the Cambridge Team. After Lambourne returned to Delta, a Birmingham-based development centre was established in 1977.

In 1989, the company was bought from Delta Group in a buyout led by <u>Managing Director</u> Hugh Humphreys and Ed Lambourne. The company was renamed Delcam International in 1991 and

moved to a new purpose-built office in <u>Small Heath</u>. In July 1997, Delcam Ltd was floated on the <u>Alternative Investment Market</u> to expand international operations and increase the investment development.

The company now have over 300 offices assisting 90,000 users worldwide with an annual turnover of over £100 million with the largest development team in the industry. <sup>[5]</sup> Clive Martell was chief executive from August 2009. <sup>[6]</sup> In February 2015, Pete Baxter, former vice president of sales and country manager for Autodesk in the UK, was appointed vice president. <sup>[7]</sup>

### **Key Dates**



3D model of a mould from PowerSHAPE

1960s

Initial research at Cambridge University

1970s

Development taken over by Delta Group

1980s

Software sales start

1989

Staff purchase company

1991

New HQ, Birmingham, UK

1997

Delcam floats on UK Market

2001

Alcami Joins Delcam

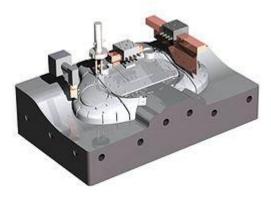
2005

EGS (FeatureCAM) joins Delcam 2006 IMCS (PartMaker) joins Delcam 2007 Crispin joins Delcam 2008 25,000th Customer 2009 30,000th Customer 2010 35,000th Customer 2012 40,000th Customer 2013 45,000th Customer 2014 Acquired by Autodesk 2015 50,000th Customer 2018 upon request to comm. dep.: Autodesk did not continue to develop and supporting the

# **Products**

(Footwear) software; beside Powershape

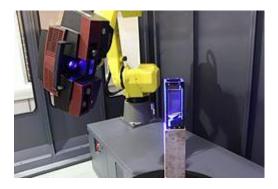
## **Advanced Manufacturing Solutions**



Render of 3D model assembly on PowerSHAPE.

### **PowerSHAPE**

## **PowerSHAPE**



Robot scan using PowerINSPECT.

Is a 3D <u>CAD</u> (Computer-aided Design) solution that runs on <u>Microsoft Windows</u> which allows for the design of 3D complex models using surfaces, solids and triangles. The software allows for the import of 3D <u>point cloud</u> data to <u>reverse engineer</u> 3D models. [8] PowerSHAPE is used for a variety of applications including Modelling for manufacture, electrode design, mould and toolmaking. [9] The code of PowerSHAPE originates from the DUCT software.

### **PowerMILL**

A <u>CAM</u> solution for the programming of tool paths for 2 to 5 axis CNC Milling (<u>Computer Numerical Control</u>).

**PowerINSPECT** 

**PowerINSPECT** 

A <u>CAD</u> based inspection <u>solution</u> package for use with many types of inspection hardware, <sup>[10]</sup> including manual and CNC CMMs, portable arms, optical measuring devices and CNC machine tools (OMV). Developed for use on <u>Microsoft Windows</u>, the software is sold to a wide range of industries.

In 2004 Delcam won a Queen's award [11] [12] for innovation for PowerINSPECT and by 2008 PowerINSPECT was Delcam's second biggest selling product.

PowerMILL Robot Interface

A software package for the programming of machining robots with up to 8 axes.

**FeatureCAM** 

## **FeatureCAM**

A feature-based CAM solution for milling, turning, and wire EDM.

PartMaker

A CAM software for programming of turn-mill equipment bar-fed mills and Swiss-type lathes.

Delcam for SolidWorks

A CAM solution based on PowerMILL and FeatureCAM embedded into SolidWorks.

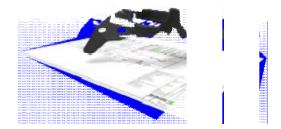
Delcam Exchange

A CAD data translator for reading and writing all commonly used CAD format files.

Delcam Electrode

An integrated software within <u>PowerSHAPE</u> for automatic generation of solid electrode models for <u>EDM</u> with optional tool path generation in <u>PowerMILL</u>.

#### **Metrology Solutions**



3D Rendered model from PowerSHAPE

On-Machine Verification

A package for measurement of complex parts directly on the machine tools.

#### **Artistic CADCAM Solutions**

ArtCAM JewelSmith

A specialist 3D design and manufacture solution for jewelers.

ArtCAM Pro

A complete solution for the design and manufacture of 2D Artwork & 3D Reliefs.

ArtCAM Insignia

Is for production-level layout and manufacture of 2D Artwork & 3D Reliefs.

**ArtCAM Express** 

Is a low cost introductory design and machining solution.

After acquisition by Autodesk in 2014, Artcam has been discontinued or "killed".

### **Footwear Solutions**

OrderManager

Is a web-based workflow management tool for tracking orders remotely.

OrthoMODEL

Is a software package for the design of custom orthotic insoles.

OrthoMILL

Is a software package for the manufacture of custom orthotic insoles.

iQube Scanner

Is a foot, plaster cast and foambox scanner

LastMaker

Is a software package for 3D last modification and 3D last grading.

ShoeMaker

Is a software package for the 3D design of footwear. SoleEngineer Is software for 3D sole unit engineering and grading. Engineer Pro Is software for 2D pattern engineering and grading. PatternCut Is software for 2D pattern part nesting and cutting. KnifeCut Is software for 2D pattern part nesting and cutting for projection cutting machines. ShoeCost Is software for total footwear costing. TechPac Is a technical documentation software package **Awards** 1991 Queen's Award for International Trade 2003 Queen's Award for Innovation awarded for ArtCAM 2004 Queen's Award for Innovation awarded for PowerINSPECT 2005 Queen's Award for International Trade 2010

Queen's Award for Innovation awarded for Dental CADCAM Software [13]

2011

Queen's Award for International Trade[14]

2011

Ringier Technology Innovation Award for 'Delcam for SolidWorks' from International Metalworking News<sup>[15]</sup>

2012

MTA Manufacturing Industry Award for Best Supplier Partnership for its relationship with Coventry Engineering Group<sup>[16]</sup>

2014

MWP Awards 2014 – Best CADCAM or Control System<sup>[17]</sup>

2014

Asian Manufacturing Awards 2014 - Best CAM Systems Provider [18]

## **Graduate Programme**

Delcam operates a development scheme for engineering and software graduates. The graduate programme consists of five 10-week rotations across different functions of the company. Functions include Professional Services, international support, marketing, ArtCAM, PowerINSPECT, and training. Graduates also have the opportunity to work at Delcam USA in Philadelphia or Salt Lake City. [19]

## **Boris**

Delcam's logo incorporates a computer-modelled spider named Boris. This was produced as an experiment to render hairs in Delcam's CAD software in 1984. Upon seeing a machined version at a show, the <u>Managing Director</u> Hugh Humphreys decided to take it home and use it within the company's logo. [20]