



How CAD was developed

As you have just read the first computer-aided design system was devised by Ivan Sutherland in 1963. But it was Pat Hanratty who first brought CAD to the computer creating ADAM, the progenitor¹ of modern CAD.

ComputerVision, one of the original CAD companies, incorporated ADAM into its software, which became the first three-dimensional modelling system on the market.

In the 1960s and in the 1970s, aerospace and automotive manufacturers saw the potential² of such a program, and many developed their own internal computer-aided drafting packages. But these original CAD and CAE (Computer-Aided Engineering) programs were difficult to operate, requiring engineers to memorize long lists of complex command codes.

In 1984, Autodesk introduced the first CAD program written strictly for the PC.

AutoCAD quickly became the drawing standard in many architectural and engineering companies.

But the biggest shift in CAD came in 1987 when Parametric Technology Corporation unleashed³ a parametric 3D feature-based system, setting the standard for CAD companies for years to come.

Today this is the most widely used 3D-design system, boasting over 250,000 seats.

A critical element of this step⁴ in the evolution of mechanical design technology was the concept of using a single geometric database for all applications. Two major technology advances occurred⁵ in the mid-1990s. The Internet became very popular and PCs became less expensive and increasingly more powerful. With these developments came corresponding CAD packages.

Designing by objectives, virtual prototypes, reusing existing designs, simulation, multiple CAD platforms, and instant communication are keys in today's CAD market.



GLOSSARY

- 1 ancestor
- 2 possible development
- 3 introduced
- 4 phase
- 5 took place

(Adapted from "CAD's Full Potential... Are We There Yet?",
Parametric Technology Corporation)

ACTIVITIES

- 1 Answer the following questions.
 - 1 What is ADAM?
 - 2 Why were the first CAD programs difficult to use?
 - 3 What happened in 1987?
 - 4 Why did CAD packages increasingly develop during the 1990s?
- 2 Write a short summary of the text above (max. 80 words).