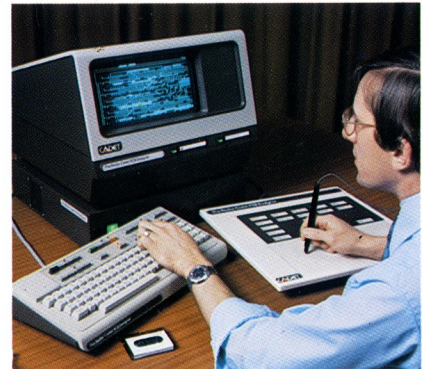# Thinking about CAD/CAM?
THINK REDAC!

RACAL
Racal-Redac, Inc.

Microprocessor based CAD systems

Redac CADET II

Redac RACAD

PCB DESIGN

The Redac CADET Family

The Redac CADET I and II are 16 bit microprocessor based CAD systems incorporating Redac's years of experience in Auto-Interactive applications specialized for PC board design. The CADET I is an extremely low-cost, fully interactive design system (not a digitizer) with the same high productivity and accuracy of higher priced CAD systems. CADET II is also low priced, yet provides a full repertoire of Automatic Design Aids for component placement, track routing, design rules checking and post processing. A large raster refresh CRT and a 9-track magnetic tape for photo-plotting are also included.

The CADET system family has been configured and priced for those firms or departments designing as few as 10 PC boards a year yet desiring the highest performance CAD System at the lowest possible price.

Redac CADET I

MECHANICAL DESIGN

The Redac RACAD

Redac's RACAD is based on the Tektronix 4054 computer graphics system and provides mechanical and 2-D drafting CAD capability at low cost. Features of the RACAD include automatic dimensioning, cross hatching, filleting, and parts library storage. The RACAD can be configured as a system with from one to ten terminals, and its design applications include mechanical design, 2-D drafting, schematics, logic diagrams, architectural and plant facility layout capabilities.

Redac has designed the RACAD for the smaller firms or departments having only two to four designers/draftsmen, and desiring the advantages of a high performance CAD system.

Minicomputer based CAD systems

ELECTRICAL DESIGN

The Redac MINI Electrical Design System

The most popular Electrical CAD system in the industry is the Redac MINI, with over 400 systems installed throughout the world. Based on the popular DEC PDP 11/34 minicomputer, the Redac MINI is available with three different graphic displays, including a large 16-color CRT. The CAD application package includes Logic Simulation, Schematics, Logic Diagrams, and Printed Circuit Board design: The Redac MINI is the CAD system against which all other systems are compared. Its fully Automatic Design Aids include automatic data checking, component placement, five different automatic track routers, design rules checking, schematic to simulator to PCB data transfer, gate and pin swapping, and the ability to produce all required engineering, manufacturing and test documentation. The Redac MINI represents the leading edge of the Auto-Interactive CAD technology, yet its low price makes it surprisingly affordable.

If your firm is in electronics, has a need for the rapid turnaround of printed circuit board design, and has a workload of 40 or more designs a year, the Redac MINI is the best CAD investment that you can make.

MECHANICAL DESIGN

The Redac CONCEPT Mechanical Design System

The CONCEPT is Redac's new system for mechanical design. Major system features include simultaneous multiple views of the object under design in both planal and orthogonal projections, user selectable projection angles, automatic dimensioning, filleting, cross hatching, nesting and library items. The CONCEPT system runs on the same hardware as the Redac MINI Electrical Design system. For medium-size firms with both electrical and mechanical design requirements, the combination of the Redac MINI and CONCEPT application software package installed on a common PDP 11/34 minicomputer provides a very cost effective solution to the design problem.

Redac designer station

Multi-terminal CAD systems
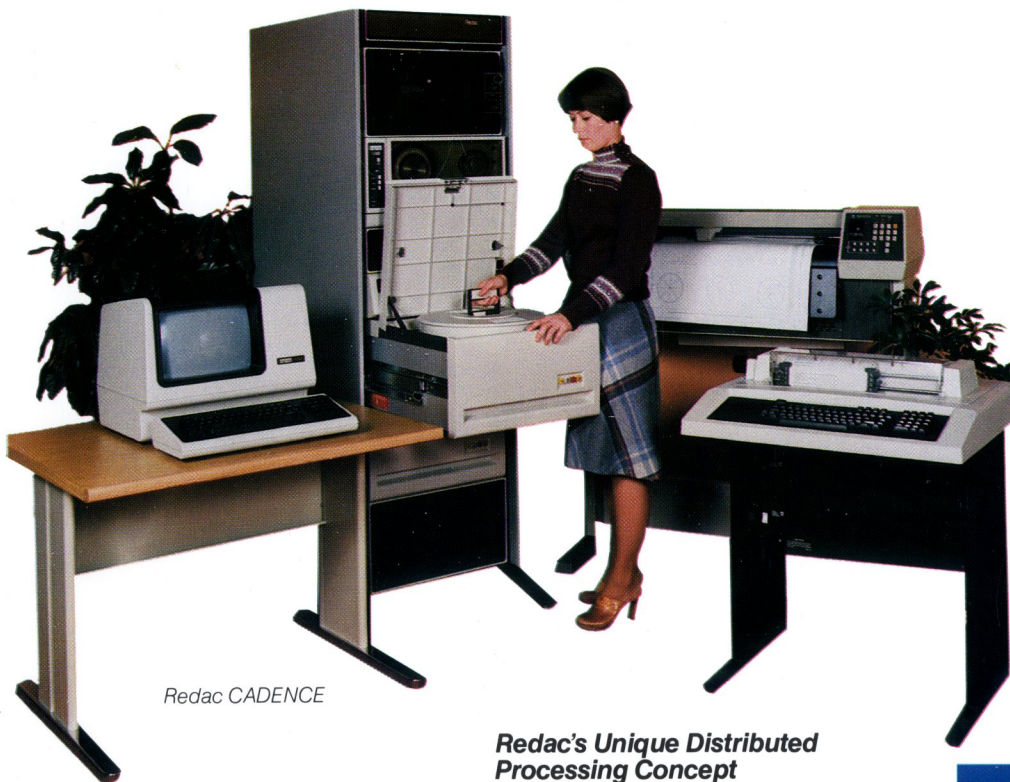
Redac CADENCE

Redac's Multiple Terminal CAD Systems VANTAGE and CADENCE

For those firms with large workloads, Redac now offers two multiple terminal CAD Systems using a distributed processing network concept unique in the industry.

The Redac CADENCE multi-terminal electrical design system uses a PDP 11/34 as the central computer and supports up to six intelligent Design Terminals. Each intelligent terminal has local processing and graphics display capability to eliminate the degradation inherent in multi-user CAD systems. The central computer acts as library manager and peripheral controller, while at the same time providing data entry and post processing capability. All the well-known Redac Automatic Aids for schematics and logic diagram creation, printed circuit board design and mechanical applications are available on these intelligent Design Terminals.

The Redac VANTAGE is a multiple terminal, multiple-application system using DEC's VAX 11/780 or 11/750 as the central host CPU, with a capability of up to ten intelligent design terminals. The low CPU demand of Redac's design terminals on the central VAX allows the VAX to be used for other engineering, manufacturing, and business applications within the firm.

Redac's Unique Distributed Processing Concept

Redac's multiple terminal systems are configured to share the design workload between the intelligent design terminal and the central CPU in a true distributed processing fashion: each design terminal has its own graphics and data processor, local disk storage, and resident application software. The central host CPU is used for routine background tasks such as library management, file storage, post processing, etc. This distribution of tasks provides several advantages over conventional time sharing, single CPU CAD systems:

○ Since each design terminal has its own graphics processor, CPU, and application software, there is absolutely none of the terminal degradation associated with time sharing systems.

○ The intelligent terminals with self-contained application software can continue the design tasks in the event the central CPU is undergoing maintenance or diverted to other non-design functions.

○ The intelligent terminals can be remotely located from the central CPU allowing these terminals to be placed with the user —not in a centralized computer facility.

○ The central CPU runs under standard DEC multi-tasking operating systems (either RSX11 or VMS), allowing it to be used for other non-CAD tasks.
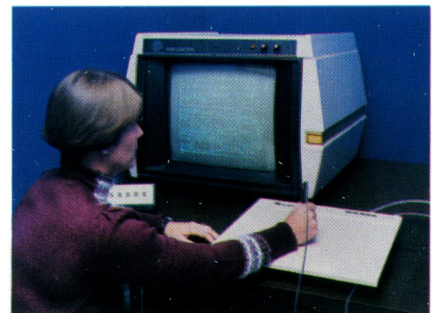
Redac large screen option

Gate Array/LSI Design System

Redac's new Gate Array and LSI system is a radical departure from conventional graphic IC design systems. Employing a hierarchical architecture, the system allows the user to create the design from small building blocks. Features include variable grid size to keep ahead of change in the industry, automatic interconnection routing for 1, 2, or 3 metalization layers, macro-cell library capability, automatic placement aids, and design rules checking capability. The use of a structured, electrical data base, rather than the purely graphical data base of other IC design CAD systems, makes the Redac LSI design system the new industry leader for IC and gate array design.

RACAL-REDAC, Inc.

For over eight years, the electronics industry has looked to Redac for the high performance Computer-Aided-Design systems for electronics applications. Racal-Redac, Inc., a U.S. subsidiary of Racal Electronics now has a broad line of CAD/CAM products to fill the needs of any size company—large or small, and for all engineering/manufacturing applications.

In the 1970's Redac pioneered the concept of "Auto-Interactive" CAD—the optimum marriage of the computer with its AUTOmatic design power and a skilled designer INTERACTing with the computer through high-speed display graphics. Today, Redac's auto-interactive philosophy is the state-of-the-art in CAD/CAM systems.

For the 80's, Redac is again leading the way for the rest of the CAD industry—in microprocessor technology for CAD systems. The result: a price breakthrough in CAD systems that are affordable by even very small firms without sacrificing performance.

We invite you to review our product line summary and then contact the nearest Redac center for a demonstration or a performance measuring benchmark.

Our commitment to CAD
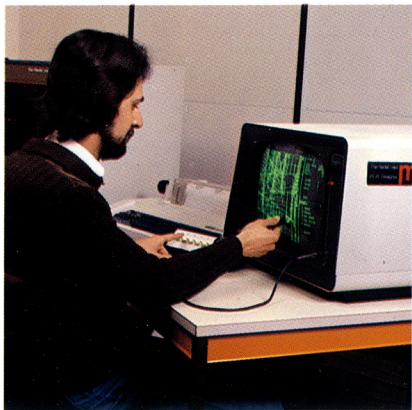
Redac's new line of CAD products is the result of a major commitment to CAD. As part of a billion-dollar electronics company, Redac has the resources to translate this commitment into advanced products to meet the needs of the design community. With a world-wide engineering staff of over 400 people, Redac's development teams are well able to meet these ever-changing needs with systems tailored to every type of design problem, as evidenced by our pioneering efforts in auto-interactive and microprocessor systems.

For more information, call or write Redac TODAY!
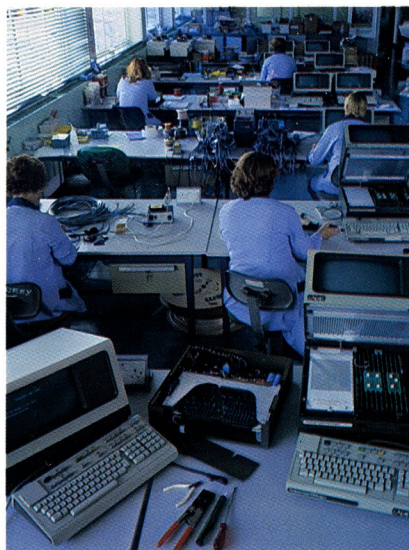
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