# **Defence Division**



**RC Computer** 





Headquarter at Lautrupbjerg in Ballerup

#### RC Computer A/S

(Regnecentralen) is Denmarks largest private computer company and provides all types of computer equipment and services ranging from terminals and microcomputers to medium sized mainframes.

RC Computer employs more than 700 people, of which 170 are engaged in research and development, 210 in production and logistics, 110 in technical service, 30 in technical training and education, 110 in sales and marketing and 100 in administration. RC Computer develops and produces its own computer systems both hardware and softwarewise. Major products of today are:

- Local Area Networks
- Packet Switched Data Networks
- Information Retrieval Systems
- Library Systems
- Process Control Systems
- Public and Private Administrative Systems
- Microcomputer Systems
- Terminal Systems.

RC Computer has more than 30 years of experience within the computer field. It has developed all computer generations from the tube-based computer to today's VLSI-systems. Customdesigned components are used to reduce space requirements and costs and to increase reliability.

The company has developed computers, operating systems, database management tools, datacommunication networks and a vast number of user applications.

Product design places special emphasis on reliability, maintainability, high performance, data integrity and security, ergonomics and user-friendliness. Factors which contribute to high quality and low cost of ownership.

In the production pass a thorough quality control and assurance ensure that the RC equipment meets today's highest standards.

RC Computer installs and services systems all over the world. Extensive training in Copenhagen and post development support further ensure that the user is fully capable of operating and maintaining the systems and that system assistance is always at the disposal of the user.

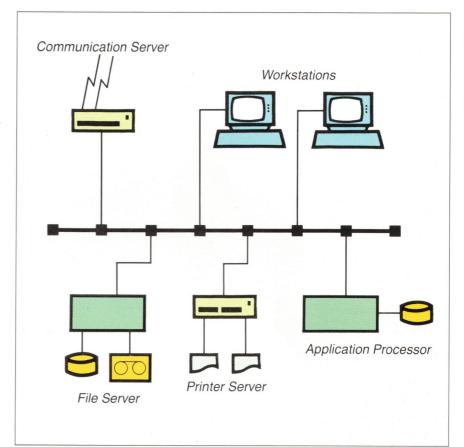
#### Local Area Networks.

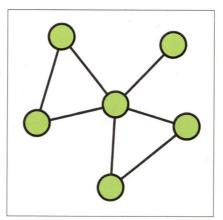
RC Computer has longstanding experience in the implementation and installation of local area networks (LAN). At present the LAN's are based on the IEEE 802.3 standard as used in Ethernet. More than 1000 LAN's have been installed, mainly for the interconnection of microcomputers in multi-processor/multi-user environments where disc files, printers and communication gateways may be shared by a multitude of programs running on the network.

One network may serve up to as many as 300 users simultaneously using 1 MHz transmission speed on a LAN co-axial cable. With a 10 MHz system the number of simultaneous users connected to the LAN becomes practically unlimited. RC's LAN-concept also offers gateway functions for synchronous and asynchronous terminal traffic. Protocols such as IBM 3270 BSC and SNA/SDLC, Univac UT400, ICL CO3, SIEMENS TRANSDATA 9750 and DEC VT 100 are fully supported as well as Videotext (Prestel, CEPT), Telex and Teletex.

#### Data Communication/Packet Switched Data Networks.

RC Computer has established large private and public packet switched data networks since the mid 70's. Today the Danish public X25-services as offered by the Danish telephone administrations use RC Computer hardware and software developed in a cooperation between these telephone administrations and RC Computer. The network conforms to the Open System Interconnection model defined by ISO. An extensive network management centre is provided for monitoring the network as to configuration, condition and traffic volumes and for testing and simulation. RC's packet switched data network includes a number of standard X25-services such as X3/X28/X29 and X25 DCE and specialised specific services such as IBM 3270 and TTY terminal interfaces.







Packet Switched Data Networks

Information Retrieval Systems.

RC Computer has special expertise in the creation of large Information Retrieval Systems with exceptionally low response times and user-friendly search languages. These systems are highly reputed for their reliability. The database is always accessible, even when handling more than 1000 on-line terminals. Powerful demands met by RC's quality hardware and software installed today in many public offices, labour unions and telephone companies.

#### Library Systems.

RC Computer also markets a complete library system which includes catalogizations, search, circulation control and acquisition. the RC library system can store and retrieve virtually any type of structured or non-structured information.

Database response times are typically below 1 second and are practically independent of the database size.

## Process Control.

As a special niche product RC Computer supplies process control systems to electric power stations. This system monitors power station operations, provides calculations and reports on these operations for short and long term optimization and reports fast and specific information when corrective actions need to be taken.







## Public and Private

Administrative Systems. RC Computer has developed complete systems for municipal government and private enterprise administration featuring facilities such as accounting systems, welfare subsidies and civil registration systems, financial analysis, accounting, stock control, production control, order booking and invoicing.

#### Microcomputer Systems.

RC Computer's product line also features industry-standard microand supermicrocomputer systems, namely the RC750 Partner and the RC39 Office Automation System, based on the renowned Concurrent DOS and XENIX multi-user/multi-tasking operating systems respectively.





RC39 Office Automation System RC750 Partner

These systems are well-suited to both technical and administrative applications and may be interconnected via the RC LAN-system for added capacity and resource sharing purposes.

Flexible datacommunication is a special keyword for these systems which can communicate with virtually any type of mainframe as for instance IBM, Univac, ICL, SIEMENS, DEC and of course RC Computer. Standard applications include word processing, spread sheet, database management, electronic mail, telex, teletex, telephone directory and business systems.

Furthermore the RC750 Partner supports full high resolution graphics and features several graphics applications in addition to a graphics user interface.

#### Terminal Systems.

RC Computer has developed a series of stylish and advanced ergonomic terminals called the RC45 Display Station.

The terminals are multifunctional in the true sense of the word, featuring simultaneous communication with two host computers of different makes. Terminal functionality is changed dynamically as new terminal protocols are down-line loaded from a communication controller which handles the modem connection to the host.

Up to 32 terminals may be connected to the communication controller and each terminal may have a printer attached to it.

All terminals are connected to the communication controller via one single cable, thus avoiding the traditional star network with many co-axial cables.

The terminals feature 15" amber or paper white screens with a refresh rate of 60 or 73 Hz respectively for completely flickerfree operation.



For added comfort and convinience the terminal includes tilt and swivel features and the low-profile keyoard, separated from the screen, may be graduated from 0 to 15 degrees.

Screen parameters such as contrast, light intensity and audible alarm are regulated from the keyboard.

The keys are separated into five recognizable groups, i.e. control, alphanumeric, cursor movement, numeric and 24 programmable functionkeys and feature tactile feeling facility with optional audio output for control of correct activation.

## **Defence Division**

In 1985 RC Computer made a strategic move to exploit its vast computer experience in the areas of defence and formed a separate division, the RC Computer Defence Division. The Defence Division responsibilities comprise:

- Feasibility Studies
- Specification Projects
- System Design
- Programme Management
- Hardware Development
- Software Development
- Production
- Installation
- Maintenance
- Spare Parts Supply
- Post Development Support
- Education and Training
- Sales and Marketing

The Defence Division and the Quality Assurance Department work in close collaboration to ensure that product development and production is in accordance with the Allied Quality Assurance Programmes.

RC's Defence Division offers specific expertise in the following areas:

- Command, Control, Communication and Information Systems
- Local Area Networks
- Wide Area Networks
- Voice and Video Distribution
- Signal Processing and Correlation
- Systems Modelling and Simulation
- Image Processing
- Process Control
- Database Management
- Document Handling
- Inventory Control
- Computerized Training
- Project Management



Special emphasis has been placed on:

#### **Data Integrity**

- Transmission Theory
- Sampling
- Communication Protocols
- Error Correction and Detection
- Electro Magnetic Interference
- (EMI)

## Data Security

- Access Control/Authorization
- Encyption
- Archiving
- Signal Emission (TEMPEST)

#### Reliability

- Fault Tolerance
- Fault Prevention
- Testability
- Quality

### Man/Machine Interface

- Graphics Input/Output
- Data Presentation
- Command Structures
- Help Systems
- Built-In Test Equipment (BITE)

#### **Expert Systems**

- Artificial Intelligence
- Knowledge Database

RC's Defence Division has participated in the specification of a C3-System for ships of the Royal Danish Navy. It has also developed a fast access multilevel database system with data encryption facilities.

Furthermore the RC Defence Division offers advanced seminars on topics such as:

- Error Control
- EMC
- Local Area Networks
- Wide Area Networks
- Project Management







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