CREATING THE ULTIMATE INFORMATION ENVIRONMENTS FOR PEOPLE . . .
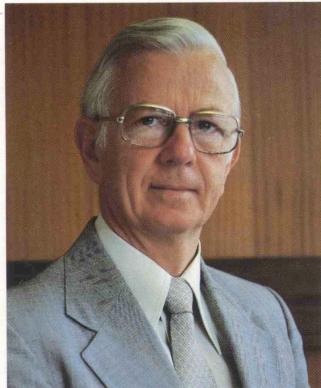
PROGENI

SOLUTION PROVEN SOFTWARE

CONTENTS

TOWARD TOMORROW

T E Lawrence said "the dreamers of the day are dangerous men, for they may act their dream with open eyes, to make it possible".

The men and women of PROGENI are in this mould in the sense that they take the aspirations of our clients, add the technology and "make it happen". Anyone can have an idea but the art and science of making an idea a reality which can be used by ordinary people is the province of few people and few organisations. PROGENI is one of these.

Our expertise lies not just in being at the forefront of our chosen areas of technology but in our ability to understand the needs and capabilities of the people in an organisation. This means that the whole complex task of analysing the requirements, designing, implementing the system and training the users can be accomplished smoothly, reliably and economically.

PROGENI's role is that of innovator, integrator and implementor of systems of many kinds. Technological transfer capabilities, professional excellence, organisational ability and understanding combined with project management ability of a high order have been our hallmarks over many years. We not only build integrated systems containing computers or components from many suppliers, if necessary, we build systems economically. We build systems that work and that keep on working. We will continue to do so.

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An Environment Hard Won Through Experience

It is essential to balance any organisation's past against its present when assessing the future. Only by charting accomplishment can a value judgment be formed about its integrity and likely performance.

PROGENI has shown over considerable time an enviable result in both performance, endurance, and integrity traits; which some others in the computer industry have often failed to develop.

This stability is also remarkable because it has been expressed on an international scale.

Founded in 1968, without formal affiliation to any supplier of mainframe hardware (an independence preserved to this day), PROGENI began as it intended to continue.

Now a source of high technology computer systems, applications software and peripherals, this foremost systems house has always answered the needs of automated information processing ahead of time.

In the late 1960s and early 1970s PROGENI software realised for users the benefits of mainframe computers.
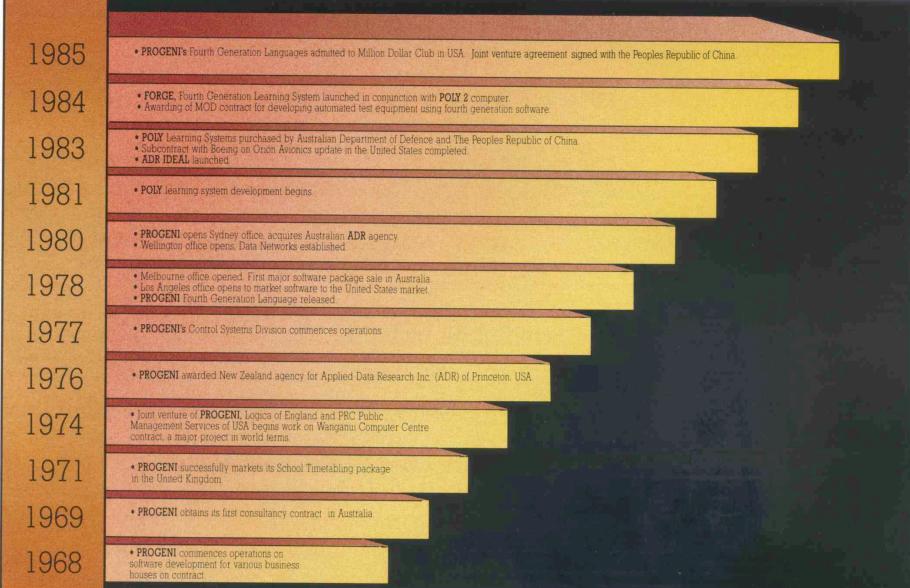
PROGENI's forte was the development of task specific software programs for commerce, industry and government agencies, and the complete design and implementation of major mainframe database system projects.

Maintaining such work into the late 1970s and beyond, this second decade found PROGENI specialists pioneering development in the area of software internationally accepted today as Fourth Generation Language (4GL), but then a dramatic new dimension in programming automation.

PROGENI's 4GL brought factory-type production line automation to the preparation of software code, greatly simplifying and speeding previously laborious, time-intensive aspects of repetitive coding within programs.

There are now many similar systems in use, including those PROGENI itself has brought to the fields of training and instructional support. Nevertheless, the fact that the original Fourth Generation product, is now increasingly sought after demonstrates that the product was well ahead of its time when it was released in 1978.

No division of the PROGENI operation ever stands still, or rests on past laurels. In the run up to today, the company has successfully initiated a considerable diversity of products, services and projects, covering all facets of information processing. Whatever people have expected from systems automation, PROGENI has striven to provide. Its total professionalism is as ready today for tomorrow as it was when it first began.

Year	Event
1985	• **PROGENI's** Fourth Generation Languages admitted to Million Dollar Club in USA. Joint venture agreement signed with the Peoples Republic of China.
1984	• **FORGE**, Fourth Generation Learning System launched in conjunction with **POLY 2** computer. • Awarding of MOD contract for developing automated test equipment using fourth generation software.
1983	• **POLY** Learning Systems purchased by Australian Department of Defence and The Peoples Republic of China. • Subcontract with Boeing on Orion Avionics update in the United States completed. • **ADR IDEAL** launched.
1981	• **POLY** learning system development begins.
1980	• **PROGENI** opens Sydney office, acquires Australian **ADR** agency. • Wellington office opens. Data Networks established.
1978	• Melbourne office opened. First major software package sale in Australia. • Los Angeles office opens to market software to the United States market. • **PROGENI** Fourth Generation Language released.
1977	• **PROGENI's** Control Systems Division commences operations.
1976	• **PROGENI** awarded New Zealand agency for Applied Data Research Inc. (ADR) of Princeton, USA.
1974	• Joint venture of **PROGENI**, Logica of England and PRC Public Management Services of USA begins work on Wanganui Computer Centre contract, a major project in world terms.
1971	• **PROGENI** successfully markets its School Timetabling package in the United Kingdom.
1969	• **PROGENI** obtains its first consultancy contract in Australia.
1968	• **PROGENI** commences operations on software development for various business houses on contract.

## Designers, Integrators and Implementors in Every Sphere

Australasia's leading computer software and communication systems resource, PROGENI is applying practical solutions to the opportunities created by diverse technologies emerging from the information age.

The company has won considerable international recognition for its work in advancing information engineering technologies without geographical constraint, and fosters at all times a mutually beneficial flow of 'leading edge' concepts to and from high technology centres spread over two hemispheres.

Similiarly, PROGENI **people** are to be found everywhere there is a demand for their services.

While Australasia has the main concentration of permanent offices and operational sites, strong demand for PROGENI software services in the Northern Hemisphere now support regional offices in the United States.

Dedicated to excellence in all the services it performs, PROGENI from its inception in 1968 has maintained this policy as its operations have evolved in keeping with the fast-paced changes in computing.

Developments have involved so much ground-breaking work in all industry sectors that PROGENI can claim a priceless and almost unique advantage for its diverse, in-depth and vigorous skills; skills balanced by operational maturity based on long experience.
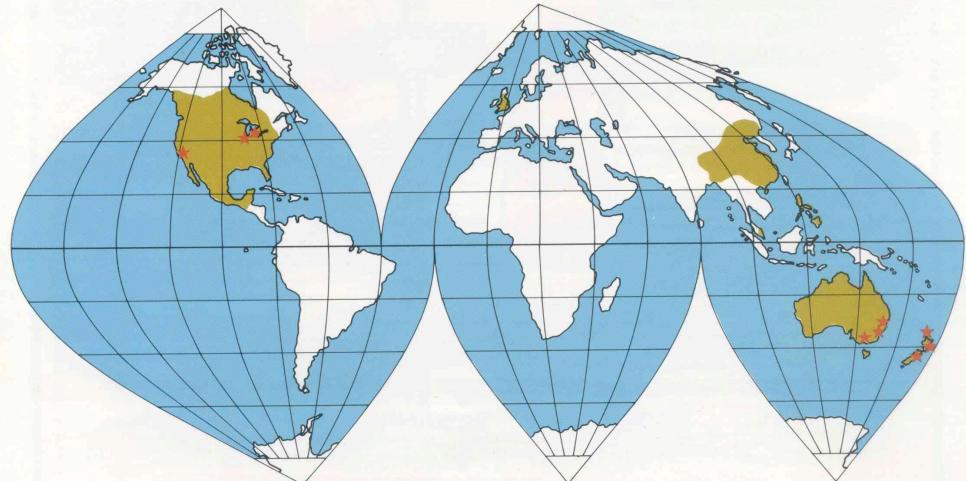
This practical reality supports all PROGENI activities. Systems design and implementation; industrial control systems; learning support and training systems; communications and data networks; consultancy and facilities management.

PROGENI is unequalled in Australasia in terms of its innovative solutions and creative approaches to problems. Our work consistently enlarges the boundaries of the growing science of information engineering.

With specialist staff exhibiting highly — developed levels of skill, expertise and professionalism, we believe as Designers, Integrators and Implementors of complete system solutions that we deliver practical working benefits to the user. Evolving in such a climate has led to the current advances in fourth generation software environments being applied by PROGENI to commerce, industry and training long before their potential had suggested itself to others.

★ PROGENI SITE OFFICES   PROGENI CUSTOMER SITE AREAS

Team Solutions Appropriate to the Situation

A lot of creative people stand behind PROGENI's uncommon ability to innovate. They also contribute a tried and proven operational structure which ensures the proper execution of assignments.

PROGENI attracts and maintains a large body of highly motivated, qualified and experienced consultant and technical staff, who work within a goals oriented structure of great depth.

This essential creative resource underpins all project, product and general service activities across the company and throughout its divisions, wherever they are to be found.
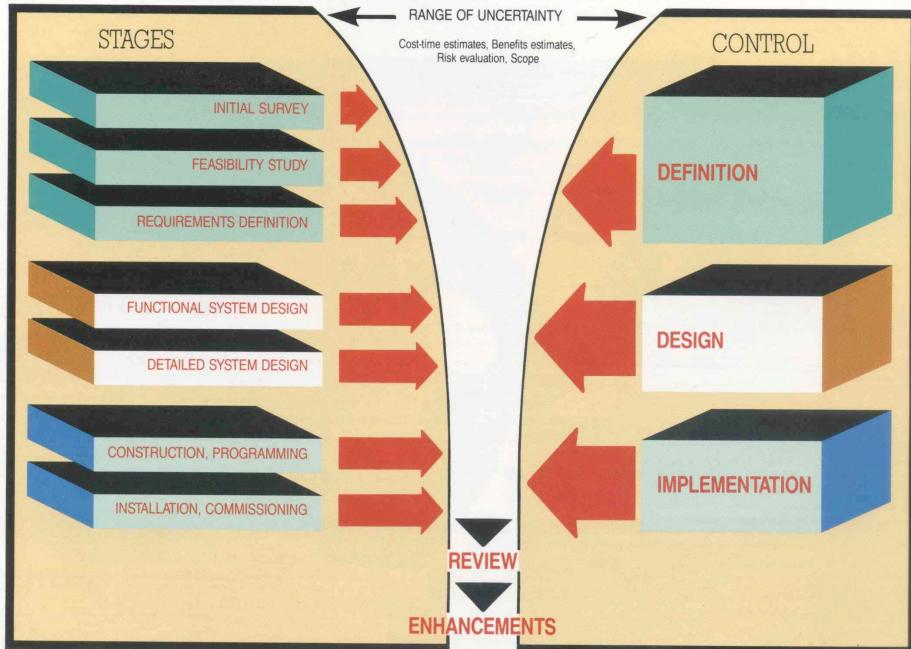
At this operational core, PROGENI applies proven system development methods to the definition, design, documentation, implementation, user training, acceptance testing, maintenance, and on-going operational support accorded to every service bearing its name.

Professional project management techniques take pride of place. These set tough standards of excellence related to schedules of materials or components to be delivered; formal milestones (key stages of assignment completion); critical path forecasting and progress monitoring; 'on-demand' or regular progress reporting in project operations and providing deadlines for fixed total reviews of each assignment by experienced consultants **not** already involved in the work.

The team approach used for performing the tasks provides for continued growth in capability of highly selected personnel in a disciplined environment. The range of tasks carried out by the company includes virtually all brands of machines, programming languages and operating systems. That means, as we noted earlier, total independence in client advice; PROGENI recommends only the most appropriate hardware for a particular assignment, **everytime.**

SYSTEM DEVELOPMENT METHOD

RANGE OF UNCERTAINTY

Cost-time estimates, Benefits estimates, Risk evaluation, Scope

STAGES

- INITIAL SURVEY
- FEASIBILITY STUDY
- REQUIREMENTS DEFINITION
- FUNCTIONAL SYSTEM DESIGN
- DETAILED SYSTEM DESIGN
- CONSTRUCTION, PROGRAMMING
- INSTALLATION, COMMISSIONING

CONTROL

- DEFINITION
- DESIGN
- IMPLEMENTATION

REVIEW
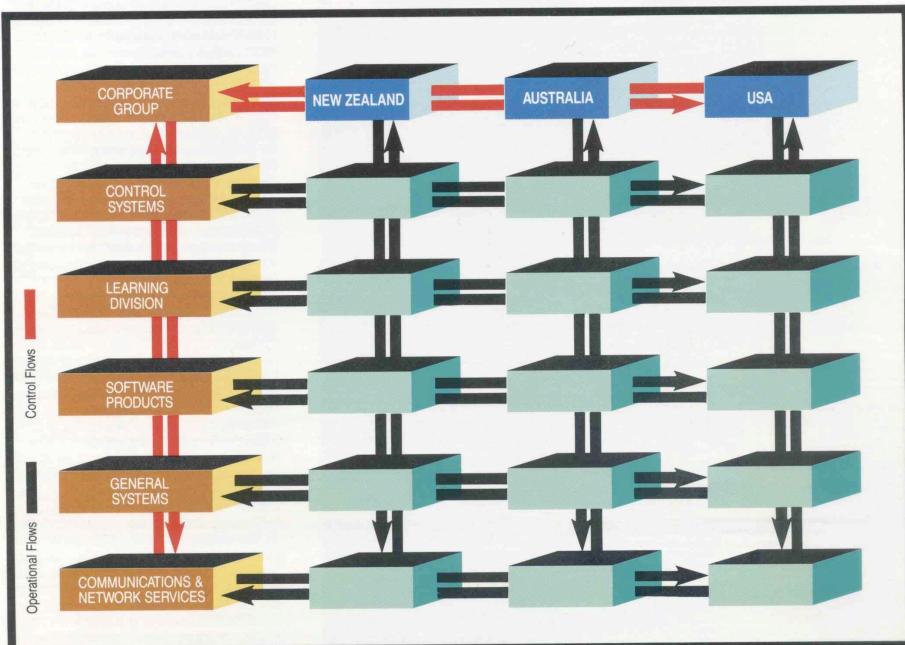
ENHANCEMENTS

Having examined the strengths of PROGENI in people terms, it is also appropriate to describe the company's operational infrastructure for it is of considerable importance to the quality of performance.

A predisposition toward the matrix working format encouraged the founders of PROGENI, in common with those in other 'knowledge' related industries, to adopt this kind of environment.

The matrix has proven a superb stimulus to creative thinking and expression, and it has resulted in a free-ranging working environment which greatly benefits all clients of the PROGENI organisation.

Although stereotyped rigid administration practices are considered inappropriate to PROGENI, active management control is as essential as in any other well-run company.

PROGENI applies such management control by applying its own technology to enable the proper functioning of this matrix organisation. This allows the discreet but effective supervision essential in a rapidly-changing commercial environment.

It permits the full drive and creativity of high-performance professionals to be brought to bear on defined goals with the necessary minimum of control and frustration.

Classical Corporate functions are restricted to a handful of senior executives.

Beyond these people, the PROGENI matrix structure applies to the operations of each of the divisions acting in concert with the country and office organisation which is in contact with the client.

Currently, these divisions provide services in proprietary software, learning support, industrial control systems, general projects and communications and network systems.

PROGENI offices in North America, Australia and New Zealand provide a varied mix of services according to customer demand experienced at the specific location. This method of focussing a full range of professional expertise on the client's problems epitomises the spirit of the matrix concept.

The company also places its project management and technical staff on location in areas outside the permanent office network to cater for international assignment operations.

The Proven Assurance of Previous Performance

As befits any leader of its industry, the PROGENI organisation can lay claim to a diverse operational experience.

Much of this has been ground-breaking work in areas lacking previous contact with a systems approach. From major development projects to facilities management and 'turnkey' work PROGENI has exhibited consistent innovation appropriate to the assignment. A brief cross-section of past assignments illustrates the point.

Through a joint venture, PROGENI was responsible for developing software for the Wanganui Computer Centre. This is one of the world's most comprehensive computer-based criminal justice information systems. The centrally-located large database system services a nationwide on-line enquiry network and supports the short and long-term work of all New Zealand Government agencies involved in law enforcement.

In similar vein, the company used its extensive systems abilities to design and develop a specialised information and communications system for the Victorian Police in Australia. It also created around this time a unique switching system for Australasia's two leading radio networks. The switching over of programmes at key points of transmission now occurs to a completely computer programmed format.

In a most significant assignment, PROGENI staff worked in North America as subcontractors to the Boeing company on the development of software for on-board aircraft computers for the RNZAF Orion aircraft.

In other areas of defence support, PROGENI has supplied a considerable number of POLY learning support microcomputers to the Army School of Signals in Australia. Installing its own micro hardware and software, PROGENI also 'trained the trainers' in charge of the new equipment.
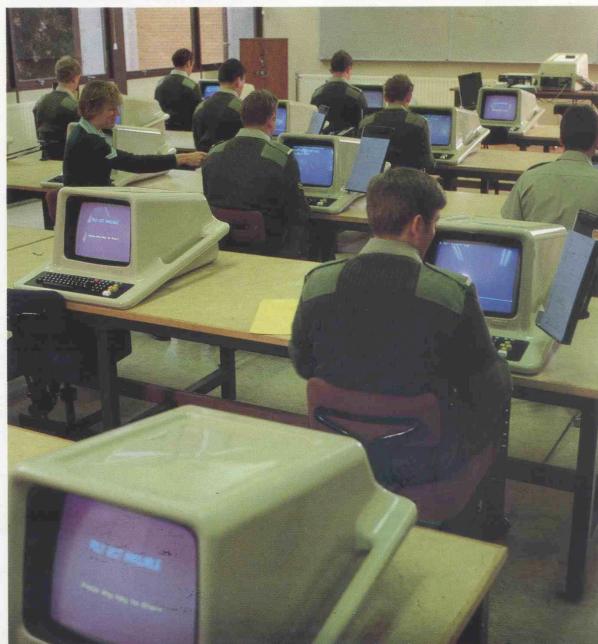
TESTMATE an automatic test equipment system has become another milestone in PROGENI

Control Systems development.
Designed primarily to automate the
testing of electronic
communications equipment for the
military, TESTMATE has ably
demonstrated that any organisation
involved in electronic
manufacturing, servicing or
process control will directly benefit
from the time and cost savings it
provides.

PROGENI is an active marketer of
software products as well as
consultancy and one-off services.
The chosen products are mostly
ones which improve efficiency,
productivity, ease of use or
reliability for professionals and end
users alike rather than fixed
application packages. The
company's own Fourth Generation
Language Systems are used by
clients in every spectrum of
business, especially in North
America. They vastly improve the
output of programming personnel
or users especially in complex, on-
line and database situations.

Communications services are
especially vital to a commercial
operation. For a major New
Zealand investment society,
PSIS , PROGENI operates a
comprehensive resource which
includes packet switching facilities
— a sophisticated communications
method which gives maximum
efficiency in the use of telephone
lines. This installation also includes
a total on-line banking system
designed and built completely by
PROGENI to the PSIS
requirements.

Finally, PROGENI's custom-built
systems 'packages' are marketed
to a wide range of end-users, with
principal emphasis falling on the
food processing sector in both New
Zealand and Australia.

The systems cover set-weight
carton monitoring; production
reporting; automatic carton
identification; weighing and
labelling; automatic constituent
measuring; mixing and processing
to formula; voice-activated data
registration and radio/television
line switching. New 'packages' are
being constantly added to the
overall product selection.

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SOFTWARE PRODUCTS

The Software Products Division of PROGENI provides the distribution, installation and on-going support of software package products represented by the company in Australasia. The Division is also responsible for the delivery of PROGENI Fourth Generation Language Systems in that marketplace.

Much of this activity is associated with the comprehensive product range of software giant ADR (Applied Data Research Inc. of Princeton, New Jersey).

ADR products are world leaders, designed to support the three "centres" of system software operation — the information centre, the development centre and the production centre using IBM or IBM-compatible equipment.

ADR's information centre concept gives management instantaneous access to complete and current information, accessed and analysed with ADR's query and decision support software.

By contrast, the development centre caters for greater application development productivity through fourth generation products. ADR offers, through PROGENI, an array of thoroughly-integrated productivity tools suited to the professional developer — fourth generation language IDEAL; on-line programming and program

management systems from ADR serve these functions.

The Production Centre concept is based on relational database and active datadictionary products which provide the basic foundation of all system software environments. The ADR production centre database is unique in that it can simultaneously support development centre and information centre processing. PROGENI's Software Products Division is also responsible for the following proprietary software:—
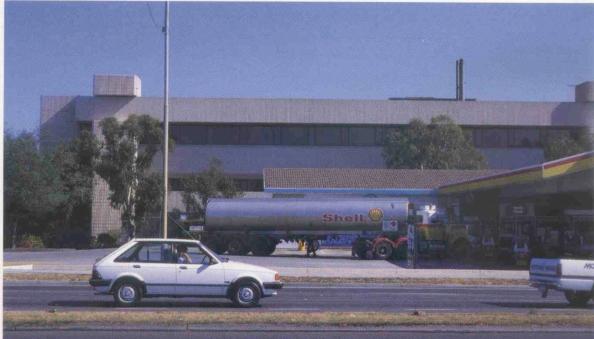
SYNCSORT
A high performance efficient sort program for IBM mainframes. Faster than IBM sort, Syncsort is used by 75% of all MVS sites.

USERTAB/FILETAB
From NCC of Great Britain PROGENI offers Usertab and Filetab — highly sophisticated tools for computer professionals and end-users in ICL and IBM environments.

PROGENI FOURTH GENERATION LANGUAGES
A particularly powerful Burroughs software generation aid which simplifies and enhances programming work with an emphasis on in-house situations.

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CONTROL SYSTEMS

Active in the specialist area of industrial control systems, PROGENI's Control Systems Division are increasing manufacturing productivity throughout Australasia. The Division employs "state of the art" high technology devices in its products which combine advanced software development and hardware skills for optimum automation in industrial processes and information systems. PROGENI's unique ability to provide custom-built systems ensures that problems concerned with manufacturing productivity, quality control and industrial automation are effectively solved.

PROGENI is a recognised pioneer in many of the automated systems and their functions include:—
- Product weight monitoring
- Production reporting
- Automatic product identification
- Weighing and labelling
- Automated batching through constituent measuring
- Mixing and processing to formula
- Voice activated data registration
- Radio/television line switching
- Precise liquid measurement
- Alarm annunciation
- Control of energy usuage
- Ink jet labelling facilities
- Weighbridge goods receipt
- Quality control and reporting

The extensive capabilities, reliability and cost efficiency of PROGENI industrial control systems results from the dramatic advances in microprocessor and software program development. PROGENI's specialist-trained systems engineers who design and develop them are experienced capable technical specialists whose abilities range from basic consultancy to utilising the latest high-tech devices in developing optimum systems in the area of industrial automation.

COMMUNICATIONS & NETWORK SERVICES
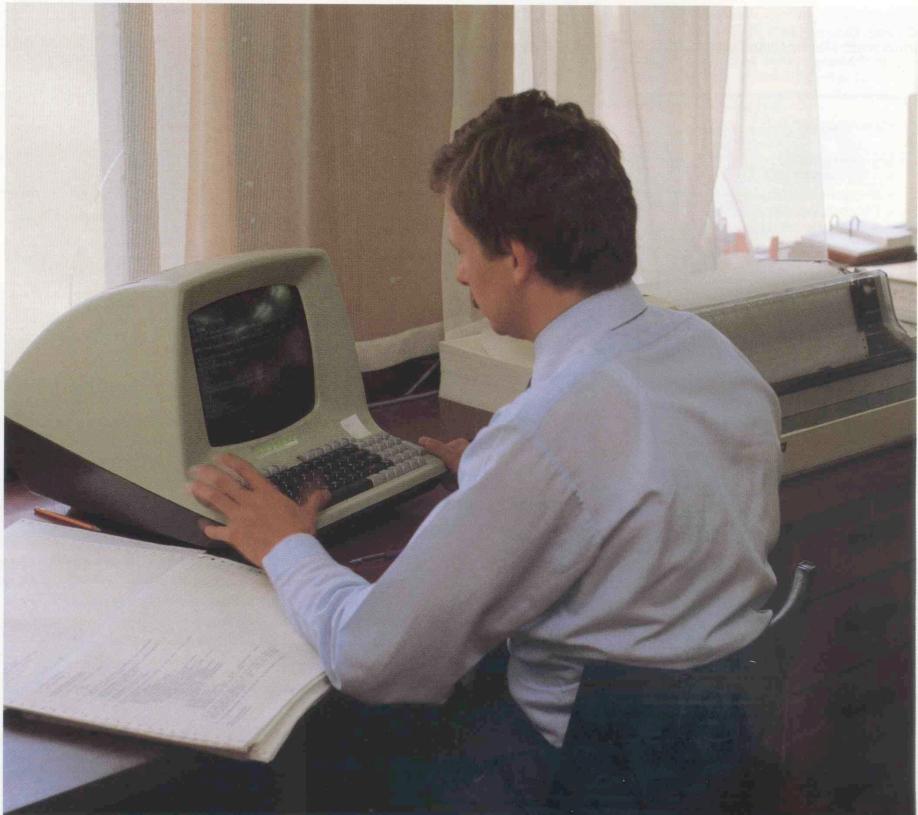
PROGENI has placed a great deal of importance on the development of a comprehensive real time network and bureau service, linking all major New Zealand cities and towns to a central computer site located in Wellington.

Data Networks, a part owned PROGENI subsidiary, operates the facility catering for the off-site computer needs of the business community. This nationwide system operates through a set of geographically distributed mini computers each of which acts independently of the mainframe facility.

Users located anywhere in the country can communicate with other offices in their organisation and also draw on the full power of the central facility as required. Many application packages are available, alternatively the software expertise of PROGENI can be engaged to develop a system to the client's precise requirements.

Using the Burroughs mainframe equipment and Perkin Elmer nodes as a distributed system enables Data Networks to offer full computer resources 'on tap' without the operational and cost overhead premiums of in-house facilities.

PROGENI CUSTOMERS WORLDWIDE

Accident Compensation Commission
Allied Computer Processors Ltd
Arthur Yates & Company Ltd
ACI Computer Services
Ambulance Service Melbourne
Air New Zealand
Ansett Airlines of Australia
Auckland Regional Authority
Australian Broadcasting Corporation
Australian Department of Health
Australian Fertilizers Ltd
Australian Iron & Steel Pty Ltd
Australian Paper Manufacturers
Australian Department of Defence
Australian Pharmaceutical Industries Ltd
Australia & NZ Banking Group Ltd
Avon Products Pty Ltd
BP Australia
Ballins Industries Ltd
Berl Publications Ltd
Birmingham Metropolitan District Council
Bureau of Meteorology, Australia
Building Research Association
    of New Zealand
BNZ Finance
Broadcasting Corporation of New Zealand
Burroughs Ltd
Caltex Oil Aust. Pty Ltd
Central Institute of Technology
Cone Mills Inc, USA
Charge Card Services
Comalco Aluminium Ltd — Weipa
Consolidated Motor Distributors Ltd
Dairyman's Cooperative, USA
Data Networks
Diners Club Ltd, Australia
Dulux Australia Ltd
Dulux New Zealand Ltd
Durham County Council
Education Department, Western Australia
Electric Power Transmission, Australia
Fluor Australia Ltd
Fiji Sugar Corporation
Fletcher Residential Ltd
General Motors Holden (Australia)
Glaxo Laboratories (NZ) Ltd
Gough, Gough & Hamer Ltd
Guardian Royal Exchange Assurance
    of New Zealand
Guthrie Bowron & Co. Ltd
Gear Meat Company Ltd
Guest & Bell
Hartford-Monarch Insurance
Health Insurance Commission (Australia)

Henry Simon (Australia)
Hindmarsh Building Society
Home Building Society
Hooker Corporation Ltd
Hospital Benefits Association Ltd
Hampshire County Council
Henry H. York & Co. Ltd
Hume Industries (NZ) Ltd
ICI Limited (Australia)
ICI Limited (NZ)
Inner London Education Authority
Internorth Inc, USA
James Hardie Ltd
John Fairfax & Sons
John Lysaght (Australia) Ltd
Joint Services Pty Ltd
Keebler Company Inc, USA
Kiwi Cooperative Dairies Ltd
Lane Walker Rudkin Ltd
London Borough of Croydon
London Borough of Hillingdon
Metropolitan Permanent Building Society
Metropolitan Water Sewerage &
    Drainage Board
Monash University
Michigan State Government
M. Y. Walls & Associates
Mobil Oil Australia Ltd
Manawatu Cooperative Dairy
Moa Nui Dairy Company
New York State Higher Education
    Authority
NZ Aluminium Smelters Ltd
NZ Apple & Pear Marketing Board
NZ Electricity Division
NZ Industrial Gases Ltd
NZ Kennel Club (Inc)
NZ Meat Producers Board
NZ Motor Corporation Ltd
NZ Nursing Council
NZ Post Office
NZ Silencers Ltd
NZ Thoroughbred Breeders
    Association Inc.
Northern Union Life Insurance Society
Nottinghamshire County Council
NRM Feeds Ltd
Norman Ross Stores Pty Ltd (Australia)
Northern Trustee Computerbank
Peacocks Ladieswear Ltd
Philips Electrical Industries NZ Ltd
Pilkington Bros NZ Ltd
Public Works Department of Victoria
Public Service Investment Society

Queensland Independent
    Wholesalers Ltd
R.A.C.V. (Victoria)
Readers Digest (Australia) Services
    Pty Ltd
Repco (Australia)
Radio New Zealand
R A Jarden & Company
Reserve Bank of New Zealand
Rheem Industries
Rowntree Hoadley (Australia)
Rexon Pty Ltd (Australia)
Reckitt & Coleman Ltd (Australia)
Rangitaiki Plains Dairy Company
San Diego County Education Authority
Shell Co (Aust) Ltd
Shell Oil NZ Ltd
South British Insurance Company
Spedding Ltd
Sperry Univac NZ Ltd
Sentry Holdings Ltd
State Electricity Commission of Victoria
State Services Commission
Department of Statistics, NZ Government
Supervalue Stores Inc.
Sun Alliance Insurance (Australia)
Statewide Building Society
State Insurance (Australia)
Society Systems (Victoria)
State Electricity Commission (Victoria)
Totalisator Board of Western Australia
Tegel Poultry
Tooheys Ltd
Turnbull & Jones Ltd
TNL Group Limited
Undercale C.A.E.
University of Canterbury
University of Otago
University of Sydney
Unilever NZ Ltd
Victorian Police Department
Victoria State Insurance
Wattie Industries Ltd
Wellington Hospital Board
Wellington Polytechnic
Westinghouse Credit Corporation
Wellington Regional Planning Authority
Wigan Metropolitan District Council
Wiltshire County Council
W.R. Grace Australia Ltd
Westpac Banking Corporation
Waikato Valley Authority
Waikato University

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