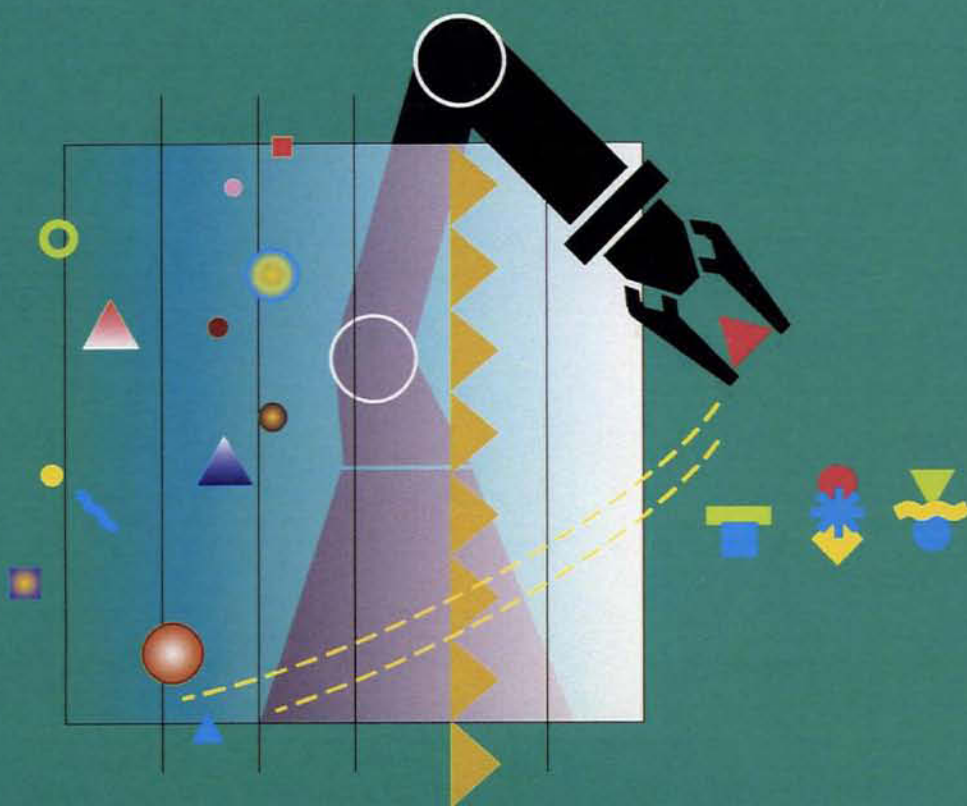


с. 2 аа

Advanced Manufacturing Technologies



Canadä



Copies of this directory are available, without charge, upon request, from:

Advanced Manufacturing Technology Directorate
Industrial and Electrical Equipment and Technology Branch
Industry, Science and Technology Canada
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 954-3264
Fax: (613) 954-3430

or any of the ISTC Business Service Centres, which are listed beginning on page 83.

Également publié en français

INDUSTRY, SCIENCE AND
TECHNOLOGY CANADA
LIBRARY

MAR 26 1991
BRRZ
BIBLIOTHÈQUE
INDUSTRIE, SCIENCES ET
TECHNOLOGIE CANADA

© Minister of Supply and Services Canada 1991
Cat. No. C21-19/3-1991E
ISBN 0-662-18760-1
PU 0183-90-01

This directory is one of three developed by Industry, Science and Technology Canada to identify for potential users the Canadian software suppliers that are engaged in the area of Advanced Manufacturing Technologies (AMT). The other directories in this series are:

- *Hardware Producers*
- *Systems Integrators*

The AMT sector includes computer-integrated manufacturing systems, services and software used in discrete manufacturing applications. Some examples of such applications include clothing, food processing, wooden furniture and millwork, rubber and plastics, metal fabrication, printing, and electrical and electronic products. This directory focuses on small and medium-sized Canadian AMT companies having sales of \$200 million or less annually.

The technologies/products/services/applications included in the directory (with some examples in parentheses) are the following groupings:

- design automation (computer-aided design/manufacturing/engineering hardware and software);
- cutting and forming (direct numerical controlled and computer numerical controlled machine tools and controllers, new forming technologies such as laser and water jet cutting, engineering data management, flexible manufacturing systems, robot welding systems, plastic injection moulding, and new tooling technologies);
- automated materials and parts handling (robots, automated guided vehicle systems, automated storage and retrieval systems);
- automated assembly and packaging systems;
- factory floor computers and communications links (industrial computers, programmable logic controllers, local area networks, manufacturing automation protocol, technical office protocol, software and systems integration);
- automated identification, test and inspection systems (vision systems, sensors, coordinate measuring machines, bar coding); and
- production control (material requirements planning, manufacturing resources planning, flexible manufacturing systems, scheduling systems, simulation).

There are four sections to this directory. The Introduction includes a section called "Diagnostic to Software Applications" to identify the primary functions of major applications (design engineering, manufacturing engineering, materials management and shop floor support). Financial applications have not been included unless they are modules that directly link with related manufacturing software. This section introduces a logical sequence of software applications and discusses the opportunities of which a manufacturer can take advantage through a proper planning and selection process. It also serves as a glossary by defining and explaining acronyms and other short forms commonly used in the computer software industry.

A second part of the Introduction, called "Approach to Implementation," offers some advice regarding a sequence for implementing computer applications. It is important that manufacturers not fall into the trap of simply automating an application at which they are particularly adept. For example, small manufacturers will sometimes automate their shop floor production

Preface

processes first because this is the area in which they are most comfortable. In doing so, they may overlook the fact that more benefit may come from upgrading other applications upstream from the shop floor, such as production planning or computer-aided design. An overall review of the operation must be conducted to identify and rank opportunities.

The second section is a list for quick reference to show whether a particular software supplier is profiled in the directory, and manufacturing software applications by those that are.

The third section profiles companies in alphabetical order, giving company name, address, telephone and facsimile numbers, contact name, a description of the company's expertise and experience in non-technical terms, its areas of specialization and the markets it serves.

As an additional aid to users of the directory, the fourth section lists the software suppliers as follows:

- by *method of manufacture* (process, repetitive or job shop) for each of the *major applications* (design engineering, manufacturing engineering, materials management and shop floor support);
- by *method of manufacture* for each of the *industry sectors* listed above; and
- in a cross reference by province in which the company has offices.

The directory is not intended to be a definitive listing, although every effort has been made to include most Canadian companies involved in the AMT sector. The company and product information contained in this guide was provided in response to a questionnaire sent early in 1990 for ISTC by the Coopers & Lybrand Consulting Group of Toronto to all companies known to be active in the AMT sector. These companies were identified from a variety of existing industry and government sources. In developing this directory, ISTC allowed the companies to provide their own descriptions of their products and/or services, which were then edited to conform with departmental writing standards and to provide some consistency in presentation. No confidential information is included, since it is the intention in publishing this directory to promote its distribution and use as widely as possible.

The publication of company names in this directory does not imply any government endorsement of a firm's capabilities and, while every effort has been made to ensure the accuracy of the information provided, this is not guaranteed. ISTC accepts no liability for consequences of any actions taken upon the information provided. Interested readers are invited to contact the firms directly, since a guide of this nature cannot fully cover all the details about a company.

This is the first edition of this directory, and it is possible that it has not captured all companies in Canada involved in the AMT software suppliers industry. The intention is to update it periodically. Companies wishing to be included in future publications are urged to contact ISTC at the address given on page ii. Suggestions for future editions will be most appreciated.

We wish to thank the companies that provided the information contained in this directory.

The tremendous growth in computer software technology for manufacturing applications confronts managers in many industry sectors with some difficult choices. Which packages to purchase and when to do so can be complicated by the variety available and the selection of applications possible.

The goal in preparing this directory of software suppliers for advanced manufacturing technologies is to promote an understanding and awareness of the products available for discrete manufacturing applications in Canada. The directory is intended to help smaller manufacturers in the following industries:

- clothing;
- food processing;
- wooden furniture and millwork;
- rubber and plastics;
- metal fabrication;
- printing; and
- electrical and electronic products.

The choice of software can be influenced by the industry sector or product produced, as well as by the method of manufacture (process, repetitive or job shop). For this reason, the suppliers listed in this directory are categorized according to the manufacturing applications offered as well as the markets served. These are Canadian sources for these products, some having been developed in Canada and others coming from foreign sources; the listed suppliers provide the domestic support.

Diagnostic to Software Applications

The APICS (American Production and Inventory Control Society) Dictionary has served as a reference in defining many of the manufacturing software applications listed below. These applications have been divided into the primary functions of design engineering, manufacturing engineering, materials management and shop floor support. The terminology and initialisms covered are:

Design Engineering

- CAD — Computer-aided design
- CAE — Computer-aided engineering

Manufacturing Engineering

- CAPP — Computer-aided process planning
- GT — Group technology
- CAM — Computer-aided manufacturing

Materials Management

- Forecasting
- Order entry
- MPS — Master production schedule
- BOM — Bills of material

Introduction

- Inventory control
- MRP — Material requirements planning
- Scheduling and capacity requirements planning
- Job order costing
- Process costing
- Shop floor control
- MRP II — Manufacturing resources planning
- DRP — Distribution requirements planning

Shop Floor Support

- Simulation
- Data collection
- QA — Quality assurance
- Maintenance

Design Engineering

CAD — Computer-aided design

CAD refers to the use of computers in interactive engineering, drawing and storage of designs. CAD applications complete the layout, geometric transformations, projections, rotations, magnifications, and internal (cross section) views of a given part plus its relationship with other parts.

The use of CAD is especially appropriate in industry sectors that produce mechanical and electrical products. CAD represents the starting point for the introduction of computer software in the design engineering department, since drafting can often be a critical bottleneck in an organization's product development cycle. The benefits of CAD come from the faster modification or correction of existing drawings and from the integration with downstream applications such as materials management and process planning. For design work that involves changes or variations on previous designs, large benefits may accrue.

For job shop environments where new parts designs are frequently introduced, CAD may not be appropriate, because first-time entry of new drawings with CAD can be slower than manual production. Nor is it suited for process-oriented industries such as printing and food processing.

CAD offers the following advantages:

- drafting productivity gains of two to four times over manual drafting in the long term;
- improved quality of drawings;
- development of a computer database library of drawings for quick access and drawing modifications;
- three-dimensional design capabilities; and
- ability to interface with bills of material to standardize engineering and production specifications.

Managers should also be aware that selecting and implementing CAD entails the following considerations:

- six-month learning curve;
- reduction in drafting productivity and drawing interpretation when there is too much detail in drawings; and
- software selection must be based on its particular capabilities (mechanical or electronics orientation) as determined by the specific application for which it is purchased.

CAE — Computer-aided engineering

CAE involves the analysis of parts designs to measure the effect of forces and stresses under a variety of operating conditions. It is especially appropriate for designing and producing mechanical and electrical operating parts.

CAE allows designers to analyse manufacturing capabilities of a device without building a prototype, thus saving the cost of expensive pilot trials. Its ability to reduce time spent in performing stress and force analysis can also increase the productivity of an engineer. In addition, functions within CAE support "design for manufacturability" considerations.

CAE can be easily integrated into already installed CAD workstations, making use of available computer hardware and, in many instances, CAD software packages already in place.

Manufacturing Engineering

CAPP — Computer-aided process planning

The process of developing a list of procedures in order to manufacture a product is known as CAPP. A process plan contains the routing and sequence of the various work centres to be involved and the time standards for set-up and running; it may also include a statement of material requirements. In the fabricated metal, electrical and plastics industry sectors, for example, the process plan includes information on tooling, operator skill levels, inspection operations and testing requirements for more explicit direction to the production floor.

CAPP can be thought of as a tool for developing a process recipe for all manufacturing industry sectors operating in a batch, repetitive or process environment. Process planning represents the starting point for the introduction of software into manufacturing engineering; CAPP produces a standardized framework for the production process. In addition, CAPP integrates with material requirements planning for scheduling and capacity requirements, and with group technology used to access the library of "recipes" for an evaluation of process similarities.

The benefits of CAPP include the following:

- increased throughput of the product and process development cycle;
- increased throughput of manufacturing and engineering change orders; and
- improved manufacturing flexibility and quality management of process information.

Introduction

GT — Group technology

The engineering and manufacturing philosophy underlying GT is to identify the "sameness" of parts, equipment or processes. GT provides rapid retrieval of existing designs and anticipates, as well as supports, a cellular-type production equipment layout.

In a job shop environment, product and process similarities may frequently change with the addition of new products. This makes it difficult to develop true cellular manufacturing on the shop floor, since equipment layout is determined, in part, by the flexibility of the material handling applications being used. However, GT enables a manufacturer to quickly classify new products into existing product or process groups.

While improvements can result from the identification of common and similar parts, they are less likely to result from layout changes. Hence GT is less suited to industry sectors that are process-oriented or that manufacture products in a continuous, straight-line method (e.g., food processing, printing, auto assembly).

CAM — Computer-aided manufacturing

CAM relates to the use of computers to program, direct and control production equipment in the fabrication of manufactured items.

The introduction of CAM is appropriate to all industry sectors outlined in this directory, because they all share the potential to introduce automated machinery into the production process. However, it is important to note that CAM requires the appropriate numerically controlled machines in place to support the software application. Moreover, it is a difficult and costly process to retrofit a machine that is manually controlled. For those industries producing mechanical or electrical products that are appropriate to CAD, the CAD application precedes CAM in sequence. This is based on the logical progression of the product development cycle.

The benefits of CAM include the following:

- Increased quality from the process and in the product through greater repeatability;
- greater flexibility and shorter changeover time required for programming equipment; and
- improved labour productivity, since operators can operate more than one machine at a time.

Materials Management

Forecasting

Forecasting is an important step in building an integrated system by tying demand to supply. In the production environment, it provides input to material requirements planning and to budgeting for financial planning.

Future demand can be forecast mathematically using historical data or estimated subjectively using informal sources. Often, forecasts are a combination of both.

A mathematical approach works well with industries that have some accurate historical sales trends from which to draw conclusions. A subjective approach must be used when there is no historical record with which to work, for example, when a new product is introduced. Costs associated with the mathematical approach to forecasting are less than those associated with the subjective method because the mathematical approach is faster and more systematic.

Firms with a large number of items to forecast would benefit from automating the process.

Order entry

Order entry is the process of accepting and translating what a customer wants into terms used by the manufacturer or distributor. This can be as simple as creating shipping documents for a finished goods product line or as complicated as a series of activities, including engineering effort, for make-to-order products. Order entry often is the most specific element of the materials management process for a company and an industry. Many companies buy an order entry module and modify it heavily, or else write their own.

MPS — Master production schedule

MPS represents what a company plans to produce, expressed in specific configurations, quantities and dates. It is an anticipated build schedule for manufacturing, which the master scheduler maintains and translates into a set of planning numbers that drive material requirements planning.

MPS acts as a benchmark for comparison of the actual production status with the forecast one. It is a sales forecast that not only represents a statement of demand, but also takes into account the forecast, the production plan and other important considerations such as backlog, availability of material, availability of capacity, management policies and company goals. Improved delivery performance is one of the many benefits of MPS.

BOM — Bills of material

BOMs are listings of all the subassemblies, intermediate parts and raw materials that go into a parent assembly, showing the quantity of each required to make the parent. They serve as a central reference for product definition.

BOMs provide input to material requirements planning, and are critical for accurate product costing. Process planning uses the BOMs to verify that the proper subassemblies are included in a process plan.

In selecting appropriate software, purchasers should verify that the software will display information in the format that is required for the particular production environment. The choices include single-level, indented, summarized and recipe formats.

Inventory control

Inventory control provides a valuable link to purchasing management activity by determining open-order status and tracking lead times on orders. It incorporates activities and techniques for maintaining stocks of items at desired levels, whether they are raw materials, work-in-process or finished products.

Introduction

By providing a basis for recording each item, an organization can gain control over a non-value-added component of costs with an inventory control system that improves inventory accuracy and/or indicates availability.

MRP — Material requirements planning

MRP is a set of techniques that uses bills of material, inventory data and the master production schedule to calculate future requirements for materials. MRP makes recommendations to release replenishment orders for material. In addition, it makes recommendations to reschedule open orders when due dates and need dates are not in phase.

MRP is appropriate to manufacturers having a large number of products and raw materials, for example, in a job shop, where it is a useful tool to track the continual change in products. On the other hand, in very stable environments, such as in the food processing industry, where requirements for products and raw materials rarely change, MRP is not required.

Suppliers often maintain that MRP software packages are applicable to most industries, but some industry-specific packages are available for such activities as injection moulding and textiles.

Scheduling and capacity requirements planning

This activity includes establishing, measuring and adjusting limits or levels of capacity in order to set up a manufacturing schedule. In turn, scheduling assigns the starting and completion dates to operations or groups of operations to show when these must be done if the manufacturing order is to be completed on time. These dates are used in the dispatching operation.

Capacity planning and scheduling facilitate work production and help level out personnel requirements. They assist in maintaining work-in-process inventory levels and/or improving delivery performance.

The decision to introduce a scheduling and capacity requirements planning system into the work situation requires some distinctions to be made. Scheduling against available capacity is a module within manufacturing resources planning and is used to verify that forecast product requirements can in fact be met. Scheduling individual and independent work centres (repetitive and job shop) are not necessarily tied to manufacturing resources planning, but are more dependent on the nature of the manufacturing environment.

Job order costing

Job order costing allocates costs to specific jobs. This system helps with identifying and/or analysing product costs, and can be used with either actual or standard costs in the manufacture of distinguishable units or lots of products.

Process costing

Process costing collects costs by time period and averages them over all the units produced during that period. The system helps identify and/or analyse product costs, and can be used with either actual or standard costs for the manufacture of a large number of identical units.

Based on the bills of material structure and production scheduling, the costing process enables a manufacturer to monitor the costs of goods sold for comparison with pricing levels. Therefore, a proper costing software module will provide a performance monitoring tool. Process costing software does not

usually handle both process and job order costing, so manufacturers must choose the appropriate costing method for their production environment as part of the software selection.

Shop floor control

Shop floor control software includes a range of options for utilizing data from the shop floor to maintain and communicate status information on shop orders and work centres. The major subfunctions of shop floor control are:

- assigning a priority to each shop order;
- maintaining work-in-process quantity information;
- conveying shop order status information to the office;
- providing actual output data for capacity control purposes;
- providing quantity by location by shop order for work-in-process inventory and accounting purposes; and
- providing measurements of efficiency, utilization and productivity of personnel and machines.

MRP II — Manufacturing resources planning

A typical MRP II product may include many, though not necessarily all, of the applications identified under the "Materials Management" function. Bundled together as a package, MRP II offers management a comprehensive and integrated tool with which to plan and control operations.

The key to success with MRP II is integration between the various materials management, computerized and manual functions, especially the inclusion of information feedback loops at key decision points.

DRP — Distribution requirements planning

DRP is the function of determining needs in order to replenish inventory of branch warehouses. DRP software tracks and supports the supply of finished goods to the customer and closes the loop on the order entry function.

A time-phased order-point approach is used where the planned orders at the branch warehouse level are "exploded" via material requirements planning logic to become gross requirements at the supplying source. In the case of a multi-level distribution network, this explosion process can continue through the various levels of distribution centres, master warehouse and factory warehouse to ultimately become input to the master production schedule.

Shop Floor Support

Simulation

Simulation uses a computer to model the movement of materials and parts through a defined sequence of production processes. In addition, simulation can be used to model the operation and assembly of a part and its components to determine ease of production. This enables a thorough analysis of existing problems or proposed new configurations.

Expanding the traditional use of simulation strictly for shop floor material flow analysis into a broader tool for assisting design, material requirements planning and capacity planning can improve the positive impact that simulation will have on the manufacturing environment.

Introduction

Data collection

Data collection is the method of recording a transaction at the source and transmitting it to a central storage device. Options for data collection include:

- key entry (on-line/batch from cards); and
- bar code (a quicker, more accurate method).

Whether or not on-line data collection is required depends on the objectives for such a system. In addition, materials management systems must be able to support an effective link to the shop floor system.

In a just-in-time environment, for an auto parts manufacturer, for example, on-line data collection would indeed be required. Usually, in manufacturing environments that are quite volatile in nature, on-line data collection is appropriate, although next-day updates may also be adequate.

QA — Quality assurance

QA software is used for:

- statistical process control and support analysis;
- report generation and graphic display of key quality performance measurements; and
- integration with MRP II modules (process planning and shop floor control) to indicate quality defects at the root cause.

QA assists managers to define and monitor the requirements for:

- incoming quality (raw materials and purchased parts);
- work-in-process quality; and
- finished goods quality.

Maintenance

Maintenance software is an important support mechanism to production rather than merely a "crisis management" function of manufacturing.

A maintenance software program typically supports:

- the generation of preventive and emergency repair work orders;
- a database of equipment work centres;
- a database of preventive maintenance procedures by machine and tradespeople;
- an inventory control module listing spare parts for all related equipment;
- a database of past breakdowns and failures for each machine;
- the generation of labour reports for the various components of a maintenance operation (emergency, preventive, corrective and miscellaneous); and
- maintenance scheduling and capacity planning.

The decision to install a maintenance software package may depend on the importance of the following objectives to the firm:

- interfacing of maintenance work orders with production schedules;
- control of spare parts inventory;
- generation of summary reports of reasons for downtime and repair frequency to better support production availability and control maintenance costs; and
- linkage with outside maintenance contracts through purchasing.

Approach to Implementation

Before new computer software packages are added to existing production operations, it is important that managers review their situation carefully and prepare a long-term plan for implementing the various functions contemplated. In order to derive the most benefit from the additional cost, a hierarchy of requirements should be established, which will determine the priority for implementation. Only processes that add value and quality to the product should ever be automated.

In addition to, and in many instances simultaneous with, choosing appropriate computer software, there are some key considerations in the selection of computer hardware. These include:

- adequate memory to store software programs;
- processing speed capabilities;
- operating memory to manage software;
- appropriate operating platform (personal computer, mini, workstation or mainframe) for the chosen software; and
- appropriate software operating system (VMS, DOS, Macintosh) that is applicable to both the chosen software and computer hardware.

The selection of manufacturing software applications for a business should take into account characteristics that allow for an overall program of installation and implementation over the long term. These are:

- modularity — availability for purchase as required;
- integratability — ability to be linked with past and future software purchases; and
- applicability — suitability of the proposed software package to the industry sector, product or method of manufacturing.

A sound approach to integrating computerized tools into the advanced manufacturing process is to ensure that each new package (software and/or hardware) builds upon the previous one, providing the skills base and cost savings necessary to implement the next attribute of advanced manufacturing.

One suggested sequence of events in the process of improving the manufacturing environment is:

- create a climate for change — personnel in the operation must recognize a need for improvement and must be determined that such improvement be carried out;

Introduction

- simplify procedures — activities and processes that truly add value to the product or service are identified, and those that do not are eliminated;
- focus on quality — procedures and activities are revised at the source to enhance the level of product or service quality; and
- automate procedures — once the first three priorities are effectively dealt with, automation begins.

By following such steps, a company can be more certain it will not pay a penalty for automating too soon and then discover that money spent automating has been wasted.

Computer-integrated manufacturing (CIM) is often introduced as the objective in advanced manufacturing. This term defines the situation where all activities and processes are well integrated, having solid links with the information flow but not necessarily all automated. In any environment, automation may be appropriate for some functions but not others; CIM merely describes the situation where the manual and automated procedures are well integrated. Since the improvement process is continuous, more and more functions within a CIM environment may become automated.

It is generally wise to automate information handling (for example, inventory control, computer-aided design or production scheduling) before automating material handling or shop floor processes. This approach assists in establishing a framework of structured information at the management level first, which physical automation can later utilize to produce more efficiently.

Many sequences for installing and implementing the various software packages available for manufacturing are possible. The "right" one for any company can be determined only after a careful review of that company's actual requirements.

However, a generally accepted approach would be similar to the following list:

- accounting functions;
- finished goods inventory;
- order entry;
- bills of material;
- computer-aided process planning;
- product costing;
- inventory control;
- purchasing;
- master production scheduling;
- material requirements planning;
- scheduling and capacity planning;
- forecasting; and
- distribution requirements planning.

Scheduling and capacity requirements planning
Material requirements planning
Computer-aided manufacturing
Computer-aided engineering
Computer-aided design
Group technology
Bills of material
Inventory control
Data collection
Simulation
Job order costing
Maintenance management
Quality assurance
Forecasting
Distribution requirements planning
Order entry
Shop floor control

[illegible]

Hardware Platform:

- Personal Computer: MS-DOS, XENIX
- Workstation: UNIX, DOS
- Mini: UNIX
- Mainframe: UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided manufacturing
- Scheduling and capacity requirements planning
- Simulation
- Forecasting
- Order entry
- Computer-aided process planning
- Bills of material
- Inventory control
- Job order costing
- Quality assurance

Names of Software Packages: (from \$8k to \$100k)

- ALFAK, ALFERT, NEW WINDOW, Shaping/Nesting

Service Provided for Software:

- Developed by company — Modification, Other support

ALBAT + WIRSAM Software Inc. is related to ALBAT + WIRSAM Software-Vertriebs GmbH in Germany. The companies operate worldwide. The target market is the flat-glass industry, including windshield production for the automobile industry. The software is designed for the special needs in this industry sector.

ALBAT + WIRSAM Software Inc.

*Suite 204
710 Dorval Drive
OAKVILLE, Ont.
L6K 3V7
Tel.: (416) 338-5650
Fax: (416) 338-5671*

CONTACT:
*Helmut Glasbrenner
President*

ALGO DESIGN INC.

Suite 502
3090 Carrefour Boulevard
LAVAL, Que.
H7T 2J7
Tel.: (514) 681-2584
Fax: (514) 681 2589

CONTACT:
Louis Charbonneau
President

Hardware Platform:

- Workstation: UNIX
- Mainframe: UNIX
- Mini: UNIX

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Order entry
- General accounting applications
- Scheduling and capacity requirements planning
- Job order costing
- Shop floor control

Name of Software Package: (from \$2k to \$30k)

- Systèmes Comptables Ciel

Service Provided for Software:

- Developed by company — Modification, Other support

ALGO DESIGN INC.'s accounting and manufacturing software package Ciel is written in the relational database management software Informix. The system is resident in the client's machine. Base modules provide the strength for the custom fabrication system. All these products are written in French.

Hardware Platform:

- IBM and compatibles
- Personal Computer: MS-DOS, Windows 3.0
- Workstation: DOS

Manufacturing Software Applications:

- Inventory control
- Job order costing
- Data collection
- Shop floor control

Name of Software Package: (\$485)

- PERC — Production Efficiency and Reporting Control

Service Provided for Software:

- Developed by company

Ambrose Frederic Ltd. provides off-the-shelf software, custom-designed software and other consulting services to companies across Canada and the United States. Specializing in dBase, Foxbase and Clipper (including Novell networks), Ambrose Frederic Ltd. has numerous installations in the food processing and manufacturing sectors.

**Ambrose
Frederic Ltd.**

Suite 803
350 Rathburn Road West
MISSISSAUGA, Ont.
L5B 3Y2
Tel.: (416) 949-9875
Fax: (416) 949-8198

CONTACT:
A. Dus, P.Eng.
Sales Manager

American Business Computer (Canada)

Suite 205
4000 Steeles Avenue West
WOODBIDGE, Ont.
L4L 4V9
Tel.: (416) 747-6556
Fax.: (416) 856-5954

CONTACT:
Dietmar Simanowski
General Manager

Hardware Platform:

- Personal Computer: MS-DOS, OS/2, XENIX, AIX
- Mainframe: AIX, UNIX
- Workstation: UNIX, AIX
- Mini: AIX, XENIX, UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Group technology
- Bills of material
- Data collection
- Maintenance management
- Distribution requirements planning
- Shop floor control
- Bar coding and scanning
- Scheduling and capacity requirements planning
- Inventory control
- Job order costing
- Forecasting
- Order entry
- EDI (electronic data interchange)

Name of Software Package: (from \$10k to \$100k)

- ABC

Service Provided for Software:

- Developed by company

American Business Computer (ABC) and its affiliates have set up more than 5 000 customer sites in over 15 years in business. ABC is a leader in the electronic data interchange (EDI) field, having more than 1 000 installations. The company provides total software packages comprising EDI, manufacturing, distribution, financial management, bar coding and scanning for manufacturers. ABC specializes in the automotive repetitive industry segment.

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: DOS
- Mini: VMS
- Mainframe: VMS

Manufacturing Software Applications:

- Maintenance management
- Integrated logistics support
- Configuration management

Name of Software Package: (from \$50k to \$200k)

- Logistics Analysis and Management System

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification, Other support
- Licensed from foreign company — Modification, Other support

AMTEK Management Division provides professional engineering and management services to both industry and government in Canada, the United States and Europe. The key areas of AMTEK staff experience related to its business are integrated logistics support, data management systems and training systems.

AMTEK Management

Division of Atlantic Canada Research Canada Inc.

9 Slack Road
NEPEAN, Ont.
K2G 0B7
Tel.: (613) 727-5040
Fax: (613) 727-1262

CONTACT:
Scott W. Campbell
Director
Management Information
Systems

Other Addresses in Canada:

AMTEK Testware Division
5104 — 82nd Avenue
EDMONTON, Alta.
T0B 0E6
Tel.: (403) 466-6953
Fax: (403) 469-1397

Atlantic Research
Canada Inc.
102 Bank Street
OTTAWA, Ont.
K1P 5N4
Tel.: (613) 563-2554
Fax: (613) 563-4975

ANDERSEN Consulting

600 Maisonneuve
Boulevard West
MONTREAL, Que.
Tel.: (514) 848-1633
Fax.: (514) 848-9028

CONTACT:
Myriam Brel
Director
Marketing

Other Addresses in Canada:

IBM Tower
Suite 1900
TORONTO, Ont.
M5K 1B9

CONTACT:
Daniel Downey

Suite 2200
355 — 4th Avenue
Southwest
CALGARY, Alta.
T2P 0J1

Suite 2300
1055 West Hastings Street
VANCOUVER, B.C.
V6E 2J2

Suite 1200
360 Albert Street
OTTAWA, Ont.
K1R 7X7

Hardware Platform:

- Mini: AS/400
- Mainframe: MVS-VSE

Networking Capabilities:

- Modular

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Distribution requirements planning
- Shop floor control
- Scheduling and capacity requirements planning
- Data collection
- Forecasting
- Order entry

Names of Software Packages: (from \$4k to \$138k)

- MAC-PAC, MAC-PAC AS/400, MAC-PAC/D, DCS/LOG

Service Provided for Software:

- Developed by company — Modification, Other support

ANDERSEN Consulting is a major provider in the software arena. It has been developing high-quality information systems for manufacturers and is now sharing its 35 years of information systems experience in the form of packaged application systems.

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: VMS, UNIX
- Workstation: UNIX
- Mainframe: UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Inventory control
- Job order costing
- Distribution requirements planning
- Shop floor control
- Material requirements planning
- Scheduling and capacity requirements planning
- Data collection
- Maintenance management
- Order entry

Name of Software Package: (from \$10k to \$50k)

- C4-object-oriented 4GL

Service Provided for Software:

- Developed by company — Modification, Other support

Axon Development Corporation has designed systems for custom fabricators, equipment manufacturers, food processing companies and electronics manufacturers, including inventory systems as well as specialized accounting, time-and-billing, job costing, work order control, equipment maintenance and accounts receivable systems. Each application is tailored to user needs, working from an extensive library of existing programs.

Axon Development Corporation

*Suite 102
294 Venture Crescent
SASKATOON, Sask.
S7K 6M1
Tel.: (306) 652-8202
Fax: (306) 652-7733*

CONTACT:
*Ken Sparrow
President*

Berclain Inc.

Suite 200
3175 Quatre-Bourgeois
Road
SAINTE-FOY, Que.
G1W 2K7
Tel.: (418) 654-1454
Fax: (418) 654-0645

CONTACT:
Louis Tétu
Vice-President
Marketing

Other Address
in Canada:

Jean-Pierre Provençal
Hi-Tech Complex
Suite 200
1050 St. Régis Boulevard
DORVAL, Que.
H9P 2T5
Tel.: (514) 685-7960
Fax: (514) 685-7979

Hardware Platform:

- Personal Computer: UNIX, SYSTEM II, SCO UNIX
- Workstation: UNIX, DG-UX, AIX, AUX, HP-WX
- Mini: VMS, UNIX, AIX

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Simulation
- Shop floor control
- Scheduling and capacity requirements planning
- Data collection
- Order entry

Name of Software Package: (from \$30k to \$120k)

- FCSS-MOOPI — production scheduling software

Service Provided for Software:

- Developed by company — Modification, Other support

The Berclain group specializes in manufacturing technologies. It employs industrial engineers, computer analysts and experts in industrial production and manufacturing. Its systems are installed in metal fabrication and assembly companies, in aerospace companies, in specialized job shop and machining companies as well as in plastics, wire and cables, textiles, electronic fabrication and assembly companies.

Berclain's main product is called FCSS-MOOPI. FCSS stands for factory control and scheduling system; MOOPI is the equivalent short form in French. It was conceived and developed entirely by Berclain's staff. In addition to manufacturing management services offered by Berclain, the technologies actively supported by the group are:

- the MOOPI software — synchronized manufacturing software combining simulation technologies and traditional decision-making rules;
- the SYMIX software — totally integrated manufacturing management and financial management software, which has been specially adapted for Canada, as well as being bilingual; and
- three-dimensional stereolithography — the technology allowing fabrication of prototypes directly from a computer-aided design (CAD) system using photopolymers and laser technology.

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: VMX, UNIX
- Workstation: UNIX
- Mainframe: VAX/VMS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided manufacturing
- Material requirements planning
- Bills of material
- Inventory control
- Simulation
- Distribution requirements planning
- Shop floor control
- Computer-aided process planning
- Scheduling and capacity requirements planning
- Data collection
- Job order costing
- Order entry

Name of Software Package: (from \$16k to \$100k)

- Calculus Fabrication

Service Provided for Software:

- Developed by company — Modification, Other support

The manufacturing software of Calculus Cie d'Informatique Ltée is a complete bilingual management solution. Applications include general ledger, accounts receivable, accounts payable, order entry and invoicing, payroll, inventory control and production management. Each module has parameters designed for integration with other modules as well as for specific and standard forms of design.

Calculus Cie d'Informatique Ltée

3200 Laval Autoroute West
LAVAL, Que.
H7T 2H6
Tel.: (514) 682-5050
Fax: (514) 682-8671

CONTACT:
Richard Proulx
Sales Representative

Canadian Manufacturing Systems

Suite 101
9011 Leslie Street
RICHMOND HILL, Ont.
L4C 7B5
Tel.: (416) 886-4916
Fax: (416) 886-9428

CONTACT:
Barry Gibbon
President

Other Address
in Canada:

14 Winding Way
KITCHENER, Ont.
N2N 1M1
Tel.: (519) 570-2658

CONTACT:
Paul Craven
Area Manager

Hardware Platform:

- Mini: SSP, OS/400

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Simulation
- Forecasting
- Order entry
- Scheduling and capacity requirements planning
- Data collection
- Job order costing
- Quality assurance
- Shop floor control

Name of Software Package: (from \$4k to \$72k)

- CMS — Canadian Manufacturing System

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Other support
- Licensed from Foreign company — Modification, Other support

Canadian Manufacturing Systems (CMS) specializes in the development, implementation and support of software solutions on IBM computers designed specifically for job shop and repetitive manufacturing companies. With its superior products and a staff dedicated to customer service, CMS has experienced strong and consistent growth, which in turn has provided the company with a solid financial foundation.

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Data collection
- Job order costing

Name of Software Package: (from \$1k to \$2k)

- GRAND MASTER Payroll System

Service Provided for Software:

- Developed by company — Modification, Other support

Can-Pay Computer Software Ltd. specializes in Canadian payroll software for the micro and mini markets. The current customer base range is anywhere between 8 and 2 000 employees. The GRAND MASTER software was designed to accommodate most payroll requirements and competes directly with bank-type payroll services.

Can-Pay Computer Software Ltd.

*P.O. Box 86, Station F
WINNIPEG, Man.
R2L 2A5
Tel.: (204) 254-4726
Fax: (204) 254-6605*

CONTACT:
*L. W. Scammell
President*

Other Addresses in Canada:

*Suite 107
111 Davisville Avenue
TORONTO, Ont.
M4S 1G3*

Cantel Computer Corp.

Suite 1005, North Tower
433 Chabanel
Street West
MONTREAL, Que.
H2N 2J9
Tel.: (514) 383-4452
Fax: (514) 383-6415

CONTACT:
Dennis Koury
Vice-President

Hardware Platform:

- Mini: UNIX

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Inventory control
- Forecasting
- Order entry
- Bills of material
- Data collection
- Distribution requirements planning
- Shop floor control

Name of Software Package: (from \$15k to \$50k)

- CAMS — Cantel Apparel Management System

Service Provided for Software:

- Developed by company — Modification, Other support

Cantel Computer Corp. provides turnkey computer systems to the apparel industry and related fields, including apparel, footwear, textiles and retail areas. Its specially designed packages cover the manufacturing process, the importing of raw materials or finished goods, sales and distribution as well as a complete accounting function. The company also provides services in consulting, programming, training as well as hot-line and modem support, in addition to hardware integration services.

Hardware Platform:

- Mini: HP3000

Networking Capabilities:

- Networked

Manufacturing Software Applications:

- Computer-aided process planning
- Group technology
- Bills of material
- Data collection
- Job order costing
- Forecasting
- Order entry
- Material requirements planning
- Scheduling and capacity requirements planning
- Inventory control
- Simulation
- Maintenance management
- Distribution requirements planning
- Shop floor control

Name of Software Package: (from \$60k to \$1 000k)

- WORKWARE 3000

Service Provided for Software:

- Developed by company — Modification, Other support

Carleton Technologies Inc. has been addressing the needs of manufacturers for 17 years. Companies that require precise, timely reporting rely on the integrated modularity of its product, WORKWARE. Users' individual requirements are met by Carleton's design and support team.

**Carleton
Technologies
Inc.**

1 Caesar Avenue
NEPEAN, Ont.

K2G 0A8

Tel.: (613) 225-0283

Fax: (613) 225-5128

CONTACT:

Herb Osborne
President

Cimtek Automation Systems Inc.

2526 Speers Road
OAKVILLE, Ont.
L6L 5M2
Tel.: (416) 847-8811
Fax: (416) 847-8822

CONTACT:
James Egan
General Manager

Hardware Platform:

- Personal Computer: MS-DOS, OS/2, QNX
- Mini: RM Basic, UNIX
- Workstation: UNIX, RM Basic

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Data collection
- Shop floor control
- Automation control
- Quality assurance
- Automated testing equipment

Names of Software Packages: (from \$10k)

- CIM test, CIM da/c

Service Provided for Software:

- Developed by company — Modification, Other support

Cimtek Automation Systems Inc. was founded in 1986 by a team of engineers whose entrepreneurial spirit led them from Hewlett-Packard's system engineering and applications group to form a company specializing in quality control automation and data acquisition. Its proprietary software is integrated with industry-standard instrumentation and computer-hardware components, along with general automation and systems integration for manufacturing environments.

Hardware Platform:

- Mini: VMS
- Mainframe: IBM 370-MVS DOS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided process planning
- Group technology
- Bills of material
- Data collection
- Job order costing
- Computer-aided manufacturing
- Material requirements planning
- Scheduling and capacity requirements planning
- Inventory control
- Simulation

Name of Software Package:

- CONTROL:Manufacturing

Service Provided for Software:

- Developed by company — Modification, Other support

Cincom Systems of Canada can cover most manufacturers' needs. It provides consulting services including management consulting, systems implementation as well as software consulting including modification, systems integration with its manufacturing resources planning (MRP II) and financial management packages.

Cincom Systems of Canada

5th Floor
2085 Hurontario Street
MISSISSAUGA, Ont.
L5A 4G1
Tel.: (416) 279-4220
Fax: (416) 279-9655

CONTACT:
Gary Wilkinson
Account Executive

Circuit Design Corp.

8170 Mountview Road
MONTREAL, Que.
H4P 2L7
Tel.: (514) 738-7640
Fax: (514) 735-5020

CONTACT:
Jay Shatilla
President

Hardware Platform:

- Personal Computer: OS/2
- Workstation: UNIX
- Mini: UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Group technology
- Bills of material
- Inventory control
- Data collection
- Simulation
- Maintenance management
- Quality assurance
- Shop floor control

Names of Software Packages: (from \$20k to \$100k)

- MONITROL, AWSS, BOSS, PSI

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from foreign company — Modification, Other support

Circuit Design Corp. (CDC) has extensive expertise in systems integration combining software and hardware components to generate a turnkey solution. With respect to the software components, CDC has standard packages to address certain vertical market segments as well as the capacity to custom design software to satisfy specific applications.

Hardware Platform:

- Personal Computer: MS-DOS, XENIX, OS/2
- Mini: VMS, UNIX
- Workstation: UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Order entry
- Scheduling and capacity requirements planning
- Simulation
- Distribution requirements planning

Name of Software Package: (from \$2.5k to \$15k)

- Solution TDL

Service Provided for Software:

- Developed by company — Modification, Other support

CLARI Inc. now has around 1 000 customers in Canada, the United States and Africa. Its modern and user-friendly software is used in various sectors in manufacturing, distribution, construction and professional industries. Its highly portable software runs from DOS to Network, UNIX and VMS and gives high-quality documentation and support. Its staff is bilingual.

CLARI Inc.

Unit L
9620 Ignace Street
BROSSARD, Que.
J4Y 2R4
Tel.: (514) 444-0810
Fax: (514) 444-0988

CONTACT:
André Boudreault
President

Comcheq Services Limited

298 Garry Street
WINNIPEG, Man.
R3C 1H3
Tel.: (204) 947-9400
Fax: (204) 956-4026

CONTACT:
Matt Henderson
Director
Sales

Other Addresses in Canada:

1200 Eglinton Avenue East
TORONTO, Ont.
M3C 1H9
Tel.: (416) 441-3373
Fax: (416) 441-4579

Suite 110
1600 René Levesque
Boulevard West
MONTREAL, Que.
H3H 1P9
Tel.: (514) 989-5126
Fax: (514) 989-9738

1070 West Broadway
Avenue
VANCOUVER, B.C.
V6H 1E7
Tel.: (604) 734-4801
Fax: (604) 734-0607

Suite 112
1212 — 1st Street Southeast
CALGARY, Alta.
T2G 2H8
Tel.: (403) 262-6035
Fax: (403) 262-6060

Solar Court Building
10350 — 124th Street
EDMONTON, Alta.
T5N 3V9
Tel.: (403) 488-0164
Fax: (403) 482-5031

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Names of Software Packages: (from \$11k to \$50k)

- HR/Infonet, Micropay

Service Provided for Software:

- Licensed from foreign company — Modification

Comcheq Services Limited is Canada's largest independent payroll processor, with over 7 000 clients coast to coast. With a diverse customer base and experience gained over the past two decades, Comcheq provides flexible, cost-effective payroll systems that can handle virtually all types and sizes of payroll applications, backed by service and support from 18 branch offices nationwide.

Suite 102
6080 Young Street
HALIFAX, N.S.
B3K 5L2
Tel.: (902) 455-4302
Fax: (902) 454-0376

Suite 230
4715 Des Replats Street
QUEBEC, Que.
G2J 1B8
Tel.: (418) 622-8100
Fax: (418) 622-5743

121 Pretoria Avenue
OTTAWA, Ont.
K1S 1X1
Tel.: (613) 237-3095
Fax: (613) 237-3327

Suite 102
701 Evans Avenue
ETOBICOKE, Ont.
M9C 1A3
Tel.: (416) 620-9227
Fax: (416) 620-6531

2585 Skymark Avenue
MISSISSAUGA, Ont.
L4W 4H2
Tel.: (416) 238-1755
Fax: (416) 238-3410

Hardware Platform:

- Personal Computer: MS-DOS, Apple
- Workstation: UNIX-SUN, DEC, HP/Apollo
- Mini: DEC VAX, Prime 50 Series
- Mainframe: IBM, VM

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided manufacturing
- Simulation
- Plant design
- Computer-aided engineering
- Quality assurance
- Electronics design
- Engineering data management

Names of Software Packages:

- CADDs, MEDUSA, CALMA, THEDA, EDM, VERSACAD, PERSONAL DESIGNER

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from foreign company — Modification, Other support

Computervision has earned its reputation through leadership in computer-assisted engineering/design/manufacturing (CAE/CAD/CAM) technology. Computervision offers the most extensive set of solutions available for engineering and manufacturing applications. Prime's products range from computer-based software for improving productivity in discrete tasks such as drafting to comprehensive solutions that are helping leading corporations worldwide in their quest for high-quality products and a reduced time-to-market.

Computervision

A Prime Company

5915 Airport Road
MISSISSAUGA, Ont.
L4V 1T1
Tel.: (416) 678-7331
Fax: (416) 678-6591

CONTACT:
David Bandi
CAD/CAM Marketing
Manager

Other Addresses in Canada:

Suite 1601
750 West Pender Street
VANCOUVER, B.C.
V6C 2T8
Tel.: (604) 684-8383
Fax: (604) 681-8557

Suite 500
615 MacLeod Trail
Southeast
CALGARY, Alta.
T2G 4T8
Tel.: (403) 234-7913
Fax: (403) 266-1320

Suite 201
350 Oxford Street West
LONDON, Ont.
N6H 1T3
Tel.: (519) 657-4044
Fax: (519) 657-4984

Suite 201
6800 Côte de Liesse Road
SAINT-LAURENT, Que.
H4T 2A7
Tel.: (514) 735-7455
Fax: (514) 735-8887

Digital Equipment of Canada Ltd.

4110 Yonge Street
WILLOWDALE, Ont.
M2P 2C7
Tel.: (416) 730-7170
Fax: (416) 730-7070

CONTACT:
Leo Ditschun
Manufacturing Industries
Marketing

Other Main Addresses in Canada:

Queen Square
Suite 1600
45 Alerney Street
DARTMOUTH, N.S.
B2Y 2N6
Tel.: (902) 464-4500
Fax: (902) 464-4553

2 Constellation Crescent
NEPEAN, Ont.
K2G 5J9
Tel.: (613) 723-3600
Fax: (613) 723-3937

Suite 600
6505 TransCanada
Highway
SAINT-LAURENT, Que.
H4T 2A8
Tel.: (514) 748-5222
Fax: (514) 748-3777

505 University Avenue
TORONTO, Ont.
M5G 2H2
Tel.: (416) 597-3100
Fax: (416) 597-3113

3390 South Service Road
BURLINGTON, Ont.
L7N 3J5
Tel.: (416) 333-2000
Fax: (416) 333-2098

Suite 130
10711 Cambie Road
RICHMOND, B.C.
V6X 3C9
Tel.: (604) 276-6900
Fax: (604) 276-6993

Hardware Platform:

- Personal Computer: MS-DOS, OS/2
- Workstation: VMS, UNIX
- Mini: VMS, UNIX
- Mainframe: VMS, UNIX

Networking Capabilities:

- Modular
- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided engineering
- Computer-aided manufacturing
- Computer-aided process planning
- Material requirements planning
- Scheduling and capacity requirements planning
- Group technology
- Inventory control
- Bills of material
- Simulation
- Data collection
- Maintenance management
- Job order costing
- Quality assurance
- Forecasting
- Order entry
- Distribution requirements planning
- Shop floor control

Names of Software Packages: (from \$5k to \$1 000k)

- Wide variety of packages

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification, Other support
- Licensed from foreign company — Modification, Other support

Digital Equipment of Canada Ltd. is a wholly owned subsidiary of Digital Equipment Corp., a major world-class computer supplier and a leader in networking and systems integration services. As a major manufacturer of high-technology equipment and a major supplier to industry, Digital has acquired a broad range of expertise.

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: DOS

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Scheduling and capacity requirements planning
- Inventory control
- Forecasting
- Order entry
- Group technology
- Bills of material
- Job order costing
- Distribution requirements planning
- Shop floor control

Service Provided for Software:

- Licensed from foreign company — Modification, Other support

Eastern Seaboard Software Manufacturing Ltd. provides custom-designed software training and support in the Atlantic region of Canada. Its mainstay is the distribution of asset software, including single-user versions and a larger multi-user multi-tasking package. Sales are made through a dealer network. Eastern Seaboard then supports the users directly with its training and technical staff.

Eastern Seaboard Software Manufacturing Ltd.

599 Main Street
MONCTON, N.B.
E1C 1C8
Tel.: (506) 858-1003
Fax: (506) 858-7897

CONTACT:
Andy Levesque
President

Eidetic Systems Corporation

P.O. Box 13340

KANATA, Ont.

K2K 1X5

Tel.: (613) 832-3755

Fax: (613) 591-1806

CONTACT:

E. A. Tromanhauser

Owner

Hardware Platform:

- Personal Computer: MS-DOS, XENIX
- Mini: UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided manufacturing
- Scheduling and capacity requirements planning
- Data collection
- Order entry
- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Shop floor control

Names of Software Packages: (from \$25k to \$200k)

- SYMIX (formerly Syman), Operations Planner

Service Provided for Software:

- Licensed from Canadian company — Modification
- Licensed from foreign company — Modification, Other support

Eidetic Systems Corporation provides consulting services in general management and operation management to small and medium-sized manufacturing concerns. It offers software and hardware products to automate management information systems. Eidetic provides specialized software for simulation and production planning using a personal computer.

Hardware Platform:

- Personal Computer: OS/2, IBM/VAX
- Mini: UNIX, OS/2
- Workstation: UNIX, OS/2
- Mainframe: OS/2, UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Scheduling and capacity requirements planning
- Job order costing
- Quality assurance
- Order entry
- Inventory control
- Data collection
- Maintenance management
- Distribution requirements planning
- Shop floor control

Names of Software Packages:

- Various packages available

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification, Other support

Epic Data Inc. designs, manufactures and markets data collection hardware and software internationally to provide fully integrated system solutions. Its terminals, controllers and software incorporate modular design, ensuring both reliability and flexibility.

Epic Data Inc.

7280 River Road
RICHMOND, B.C.
V6X 1X5
Tel.: (604) 273-9146
Fax: (604) 273-1830

CONTACT:
Rick Eppich
Manager
Marketing Support

Other Address in Canada:

Unit 11
100 Westmore Drive
REXDALE, Ont.
M9V 5C3

**Expert
Perspective
Consulting
Inc.**

*Suite 3100
3300 Bloor Street West
TORONTO, Ont.
M8X 2X3
Tel.: (416) 234-0991
Fax: (416) 239-9526*

*CONTACT:
Charles Best
President*

Hardware Platform:

- Personal Computer: MS-DOS

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Inventory control
- Forecasting
- Order entry
- Material requirements planning
- Scheduling and capacity requirements planning
- Job order costing
- Distribution requirements planning
- Shop floor control

Name of Software Package: (from \$1.2k to \$1.8k)

- MSIM — Manufacturing System Implementation Methodology

Service Provided for Software:

- Developed by company — Modification, Other support

Expert Perspective Consulting Inc. provides services and products relating to manufacturing system project planning and education to firms in the process, job shop and repetitive manufacturing sectors. Its MSIM line of products is designed to help these firms implement manufacturing systems the right way the first time. MSIM is a comprehensive implementation methodology.

Hardware Platform:

- Workstation: VAX/VMS
- Mainframe: VAX/VMS
- Mini: VAX/VMS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Accounts payable
- Maintenance management
- Cost accounting

Name of Software Package: (from \$60k to \$1 870k)

- PMIS — Plant Management Information System

Service Provided for Software:

- Developed by company — Modification, Other support

Fleming Systems Corporation (FSC) was founded to satisfy the information systems requirements of industrial plants and large institutions. The company was among the first to recognize the need for industry to reduce its maintenance costs. FSC developed the Plant Management Information System (PMIS), which serves facilities maintenance, stores, purchasing, accounts payable and cost accounting requirements.

Fleming Systems Corporation

Suite 402, Plaza 2
2000 Argentia Road
MISSISSAUGA, Ont.
L5N 1V8
Tel.: (416) 567-4733
Fax: (416) 567-4737

CONTACT:
George K. Fleming
President

Other Address in Canada:

1118 Roland Street
THUNDER BAY, Ont.
P7B 5M4
Tel.: (807) 623-2310
Fax: (807) 622-4251

H. G. Engineering

400 Carlingview Drive
ETOBICOKE, Ont.
M9W 5X9
Tel.: (416) 674-8505
Fax: (416) 674-8520

CONTACT:
A. Firmin
Vice-President

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: HP BASIC, UNIX

Manufacturing Software Applications:

- Computer-aided engineering
- Simulation

Names of Software Packages: (from \$1.2k to \$7.5k)

- ANTOL, FEDESK

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification

H. G. Engineering is a consulting engineering company that provides services to heavy industry. It also offers an advanced analysis capability for engineering design.

Hardware Platform:

- Personal Computer: MS-DOS, OS/2, DEC/VAX
- Workstation: UNIX, DOS, OS/2, VAX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Order entry
- Accounts payable
- General ledger
- Scheduling and capacity requirements planning
- Job order costing
- Shop floor control
- Accounts receivable

Name of Software Package:

- OPICS

Service Provided for Software:

- Developed by company — Modification, Other support

Hitek Computer Systems provides professional and complete computer solutions to small and medium-sized companies in the manufacturing sectors of the economy. Hitek's experienced staff have successfully developed and implemented software projects ranging from \$5 000 to over \$1 million.

Hitek Computer Systems

*Unit C 4
1 Wilkinson Road
BRAMPTON, Ont.
L6T 4M6
Tel.: (416) 452-0461
Fax: (416) 452-1324*

CONTACT:
*Kiran Kataria
President*

IBM Canada Ltd.

251 Consumers Road
NORTH YORK, Ont.
M2J 4R3
Tel.: (416) 758-3096
Fax: (416) 758-4224

CONTACT:
M. G. Kahan
Manager
National Factory
Automation Centre

**Other Addresses
in Canada:**

CONTACT:
Local IBM Branch Office

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided manufacturing
- Material requirements planning
- Bills of material
- Inventory control
- Simulation
- Maintenance management
- Quality assurance
- Shop floor control
- Computer-aided engineering
- Computer-aided process planning
- Scheduling and capacity requirements planning
- Data collection
- Job order costing
- Forecasting
- Order entry

Name of Software Package:

- CIM Advantage — a series

IBM Canada Ltd., through its CIM Advantage, provides a flexible framework as well as solutions that allow enterprises to further their implementation plans for computer-integrated manufacturing (CIM). In addition, IBM shares with customers its own CIM experiences. It provides a full range of services, including systems engineering and systems integration.

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: VMS
- Workstation: UNIX
- Mainframe: VM/MVS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided manufacturing
- Scheduling and capacity requirements planning
- Job order costing
- Shop floor control
- Computer-aided engineering
- Computer-aided process planning
- Bills of material
- Simulation
- Forecasting

Names of Software Packages: (from \$1k to \$50k)

- Various packages available

Service Provided for Software:

- Developed by company — Modification
- Licensed from Canadian company — Modification, Other support
- Licensed from foreign company — Modification

ICAM is a leading manufacturing software company, having developed and supported 28 different software products for discrete parts manufacturers in the automotive, aerospace, electronics and machinery sectors. The products include computer-aided design/manufacturing/engineering (CAD/CAM/CAE) and computer-integrated manufacturing in several user-interface languages.

ICAM

1900 Sources Road
POINTE-CLAIRE, Que.
H9R 4Z3
Tel.: (514) 697-8033
Fax: (514) 697-8621

CONTACT:
John J. Nassr, Jr.
Vice-President

Other Address in Canada:

Suite 317
CIIT Building
1135 Ellice Avenue
WINNIPEG, Man.
R3B 1Y6

Infonet

Suite 800
2005 Sheppard
Avenue East
WILLOWDALE, Ont.
M2J 5B4
Tel.: (416) 496-0500
Fax: (416) 499-8756

CONTACT:
J. Gregory Seale
Director
Marketing

Other Addresses in Canada:

350 Sparks Street
Suite 220
OTTAWA, Ont.
K1R 7S8

2055 Peel Street
Suite 1100
MONTREAL, Que.
H3A 3B8

Data Centre (Operations)
801 Progress Avenue
SCARBOROUGH, Ont.
M1H 2X4

Hardware Platform:

- Personal Computer: MS-DOS
- Mainframe: PICK MVS, UNIX
- Mini: PICK, UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Inventory control
- Simulation
- Maintenance management
- Quality assurance
- Order entry
- Material requirements planning
- Scheduling and capacity requirements planning
- Data collection
- Job order costing
- Forecasting
- Distribution requirements planning
- Shop floor control

Names of Software Packages:

- MPAC, MPAC 2000, MAN-FACT II

Service Provided for Software:

- Licensed from foreign company — Modification, Other support

The Integrated Manufacturing Systems (IMS) division of Infonet provides Canadian companies with Information system solutions incorporating proven advances in manufacturing systems automation. Its solutions apply at the plant level or for production support and include manufacturing resources planning (MRP II), shop floor data collection, maintenance management, electronic data interchange, etc.

Hardware Platform:

- Personal Computer: MS-DOS, MAC

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided process planning
- Group technology
- Bills of material
- Data collection
- Job order costing
- Forecasting
- Distribution requirements planning
- Shop floor control
- Material requirements planning
- Scheduling and capacity requirements planning
- Inventory control
- Simulation
- Maintenance management
- Quality assurance
- Order entry

Name of Software Package: (from \$110k to \$350k)

- I-Manufacturer

Service Provided for Software:

- Developed by company — Modification, Other support

INFO-POWER Software Corporation is dedicated to developing, implementing and supporting world-class software solutions for manufacturing, distribution and facilities maintenance. Its application systems are totally integrated using the ORACLE fourth generation language and relational database management system, which provides full portability across numerous hardware platforms and offers flexibility as well as compatibility.

INFO-POWER Software Corporation

5759 Coopers Avenue
MISSISSAUGA, Ont.
L4Z 1R9
Tel.: (416) 507-2100
Fax: (416) 507-2108

CONTACT:
Dr. Prabir Dutt
CEO

Instrumar Ltd.

P.O. Box 13246, Station A
ST. JOHN'S, Nfld.
A1A 2R1
Tel.: (709) 726-8460
Fax: (709) 726-8613

CONTACT:
David Prince
Applications Consultant

Hardware Platform:

- Personal Computer: MS-DOS, OS/2

Manufacturing Software Applications:

- Data collection
- Shop floor control
- Quality assurance

Name of Software Package: (from \$100 to \$200)

- COLORMET Data Collection

Service Provided for Software:

- Developed by company — Modification

Instrumar Ltd. designs and manufactures intelligent electronic sensors using innovative sensing techniques. The company, located in St. John's, Nfld., has a staff of electronics engineers, physicists and manufacturing personnel who, as a team, bring new techniques involving physical sensors from concept to market.

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: UNIX

Manufacturing Software Applications:

- Computer-aided engineering

Names of Software Packages: (from \$4k to \$25k)

- ELECTRO, MAGNETO, COULOMB and AMPERES

Service Provided for Software:

- Developed by company — Modification, Other support

Integrated Engineering Software Inc. specializes in computer-aided engineering programs for solving electrical and magnetic field problems. ELECTRO (two-dimensional) and COULOMB (three-dimensional) software packages are used in the design and analysis of electrical and electronic equipment such as insulators, bushings and communication cables. MAGNETO (two-dimensional) and AMPERES (three-dimensional) software packages are used in the design and analysis of electromagnetic devices and components such as transformers and motors.

Integrated Engineering Software Inc.

Suite 347
435 Ellice Avenue
WINNIPEG, Man.
R3B 1Y6
Tel.: (204) 942-5636
Fax: (204) 942-8010

CONTACT:
Bennetta Benson
Manager
Sales and Marketing

IPEXO Control System Ltd.

Suite 1400
1122 — 4th Street
Southwest
CALGARY, Alta.
T2R 1M1
Tel.: (403) 269-8378
Fax: (403) 269-9065

CONTACT:
Loran Stewart
Manager
Marketing

Hardware Platform:

- Personal Computer: MS-DOS, OS/2
- Workstation: UMS, VMS
- Mini: UMS, VMS, UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided process planning
- Bills of material
- Inventory control
- Simulation
- Maintenance management
- Distribution requirements planning
- Shop floor control
- Computer-aided engineering
- Material requirements planning
- Scheduling and capacity requirements planning
- Data collection
- Job order costing
- Forecasting
- Order entry

Names of Software Packages: (from \$7k to \$100k)

- MECHANICAL ADVANTAGE, ADVANTAGE, COST

Service Provided for Software:

- Licensed from foreign company — Modification, Other support

IPEXO Control System Ltd. is a "UNIX/open systems" systems integration (SI) group that has been servicing the Canadian manufacturing marketplace utilizing PROGRESS (fourth generation language) and COBOL-based applications from its Calgary offices for the past eight years. It provides consulting, systems analysis, configuration, implementation, training and ongoing support services — that is, turnkey solutions.

Hardware Platform:

- Personal Computer: MS-DOS, Novell
- Mini: VMS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Maintenance management

Names of Software Packages: (from \$15k to \$100k)

- Logimaint Industrial 3000, Logimaint Vehicle 2000

Service Provided for Software:

- Developed by company — Modification, Other support

Logimaint Maintenance Consultants provides complete services in maintenance management, including software, technical training and consulting services in the organization of maintenance departments.

Logimaint Maintenance Consultants

Suite 300
1100 Cremazle East
MONTREAL, Que.
H2P 2X2
Tel.: (514) 374-9221
Fax: (514) 376-7813

CONTACT:
Nigel Hamer
Director

MAI Canada Ltd.

140 Allstate Parkway
UNIONVILLE, Ont.
L3R 5Y8
Tel.: (416) 475-6030
Fax: (416) 475-2349

CONTACT:
E. R. Anderson
Director

Other Addresses in Canada:

216 Worthington Drive
P.O. Box 37
BRANTFORD, Ont.
N3T 1M5

Suite 130
106 Colonnade
Road North
NEPEAN, Ont.
K2E 7L6

3rd Floor, Central Place
4370 Dominion Street
BURNABY, B.C.
V5G 4L7

Suite 100
4207 — 98th Street
EDMONTON, Alta.
T6E 5R7

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: UNIX
- Mini: UNIX

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Computer-aided process planning
- Group technology
- Bills of material
- Data collection
- Job order costing
- Forecasting
- Distribution requirements planning
- Shop floor control
- Material requirements planning
- Scheduling and capacity requirements planning
- Inventory control
- Simulation
- Maintenance management
- Quality assurance
- Order entry

Name of Software Package: (from \$3k to \$300k)

- BFMS

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from foreign company — Modification, Other support

MAI Canada Ltd. is a wholly owned subsidiary of MAI Basic Four, Inc. The company integrates, markets and services business information systems for specific industry groups throughout Canada. With more than 300 employees and 3 700 customers, the company provides sales and service in all provinces of Canada from 10 sales offices and 30 service locations.

Hardware Platform:

- Mini: AS/400

Manufacturing Software Applications:

- Computer-aided process planning
- Group technology
- Bills of material
- Simulation
- Order entry
- Material requirements planning
- Scheduling and capacity requirements planning
- Inventory control
- Job order costing
- Shop floor control

Name of Software Package: (from \$80k to \$500k)

- Prism

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification, Other support

Marcam Corporation Canada's software package Prism is the only manufacturing application designed from the ground up specifically for process manufacturers. Using a production model concept, Prism actually models the production flow and process cost from traditional, time-phased labour-intensive bills of material/routing systems designed for discrete manufacturers.

**Marcam
Corporation
Canada**

Suite 325
251 Consumers Road
WILLOWDALE, Ont.
M2J 4R3
Tel.: (416) 499-0972
Fax: (416) 499-9699

CONTACT:
Neil Hamilton
General Manager

**Maritime
Nuclear
(Division of
AECL)**

231 Regent Street
FREDERICTON, N.B.
E3B 4Y2
Tel.: (506) 458-3188
Fax: (506) 458-3167

CONTACT:
John E. Smith
General Manager
and Chief

*Other Address
in Canada*

Atomic Energy of
Canada Ltd.
Sheridan Park Research
Community
MISSISSAUGA, Ont.
L5K 1C6

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Networked

Manufacturing Software Applications:

- Computer-aided design
- Data collection
- Simulation
- Shop floor control

Name of Software Package: (from \$5k to \$15k)

- GCMS — General Control/Monitoring System

Service Provided for Software:

- Developed by company — Modification, Other support

Maritime Nuclear (Division of AECL), based in Fredericton, N.B., is the regional office for Atomic Energy of Canada Limited (AECL). Programming and engineering staff are engaged in the design and development of real-time, computer-based systems for the control of power stations and industrial processes. The system software is designed to achieve an economical, reliable, flexible, high-quality control and monitoring system.

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Bills of material
- Job order costing
- Shop floor control
- Inventory control
- Order entry

Name of Software Package: (from \$1.1k to \$15k)

- Realworld Accounting Software

Service Provided for Software:

- Developed by company — Modification
- Licensed from Canadian company — Modification
- Licensed from foreign company — Modification

Microstructure Inc. is a value-added reseller of computer business specializing in UNIX/XENIX-based environments. The owner of the company has more than 15 years of experience in product design, systems, standards design, engineering and data processing in a manufacturing environment. Its systems are supported and built in a variety of environments based on work experience as well as the UNIX/XENIX systems.

Microstructure Inc.

171 Pilgrim Avenue
WINNIPEG, Man.
R2M 0L5
Tel.: (204) 233-7732
Fax: (204) 237-5156

CONTACT:
Doug Anderson
President

MINIMICRO INC.

P.O. Box 1482
BELLEVILLE, Ont.
K8N 5J2
Tel.: (613) 967-2300
Fax: (613) 967-1067

CONTACT:
Bill Mound
Marketing Manager

*Other Addresses
in Canada:*

KINGSTON, Ont.

TORONTO, Ont.
(opening August 1991)

Hardware Platform:

- Personal Computer: PICK
- Mini: PICK
- Workstation: PICK
- Mainframe: PICK

Networking Capabilities:

- Modular
- Multi-user

Manufacturing Software Applications:

- Bills of material
- Order entry
- Report generator
- Purchase orders
- Inventory control
- Accounting
- Work orders

Name of Software Package: (\$895 and up)

- QCS Manufacturing System

Service Provided for Software:

- Developed by company — Modification

From initial analysis to after-sales service and support, MINIMICRO INC. can provide solutions to fit clients' exact requirements. Clients can take advantage of numerous built-in features, such as multiple warehousing and multiple currency. The software is transportable from mini to micro to mainframe hardware platforms, with vertical application integration and a direct spreadsheet interface.

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: DOS

Networking Capabilities:

- Modular
- Networked

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Job order costing
- Shop floor control
- Scheduling and capacity requirements planning
- Simulation
- Forecasting
- Interface to MRP and other systems

Names of Software Packages: (from \$10k to \$42k)

- RSS — Resource Scheduling System
- CALMS — Computer Assisted Loss Management System

Service Provided for Software:

- Developed by company — Modification, Other support

Northern Computer Systems Inc. has developed a highly successful, finite capacity scheduling package. Its large users report achieving work-in-progress reductions of 50 percent or more as well as productivity improvements of 25 percent in job shop environments. The company's software system has recently been introduced into the United States.

The Computer Assisted Loss Management System (CALMS), introduced in mid-1990, is the world's first series of comprehensive computer systems for recording, tracking and analysing safety, health, fire and loss control management activities. CALMS is based on the International Safety Rating System (ISRS) developed by the International Loss Control Institute of Loganville, Georgia, and is used around the world. CALMS results are impressive in terms of paperwork reduction, compliance to procedures and regulations and reduction in operating costs through such burdens as insurance premiums and claims.

RSS and CALMS run stand-alone or on personal computer networks. Users interface these products with mid-range and mainframe systems very effectively.

Northern Computer Systems Inc.

93 James Street
PARRY SOUND, Ont.
P2A 1T7
Tel.: (705) 746-5873
Fax: (705) 746-5178

CONTACT:
John V. Cox
Vice-President

Numetrix Ltd.

Suite 1700
2 Bloor Street West
TORONTO, Ont.
M4W 3W2
Tel.: (416) 323-3744
Fax: (416) 323-3116

CONTACT:
Paul Watzinger
Manager

Hardware Platform:

- Personal Computer: XENIX/UNIX
- Workstation: UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Scheduling and capacity requirements planning
- Simulation
- Supply chain management
- Distribution requirements planning
- Logistics network optimization

Names of Software Packages: (from \$55k to \$72k)

- Schedulex, Linx

Service Provided for Software:

- Developed by company — Modification, Other support

Numetrix Ltd. helps manufacturers optimize their supply chain planning from sourcing through production to distribution, and is a leading supplier of finite capacity scheduling software for the process industries. Its clients have become more competitive by improving response times and customer service, reducing inventories and improving productivity. Clients include P&G, Coors, Nestlé, Unilever, Union Carbide, Scott Paper Canada and Bristol-Myers-Squibb.

Hardware Platform:

- Mini: AS/400

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Distribution requirements planning
- Shop floor control
- Scheduling and capacity requirements planning
- Data collection
- Forecasting
- Order entry
- CIM applications

Name of Software Package:

- PRMS — Pansophic Resource Management System

Service Provided for Software:

- Developed by company — Modification

**Pansophic
Systems of
Canada, Ltd.**

Suite 700, West Tower
2700 Matheson
Boulevard East
MISSISSAUGA, Ont.
L4W 4V9
Tel.: (416) 602-1060
Fax: (416) 602-1045

CONTACT:
Bruce Carrick
Sales Consultant

**Other Address
in Canada:**

Suite 504
755 Saint-Jean Boulevard
POINTE-CLAIRE, Que.
H9R 5M9
Tel.: (514) 697-9221
Fax: (514) 697-8435

Paul Ahrens & Associates Ltd.

*Suite 203
7 Duke Street West
KITCHENER, Ont.
N2H 6N7
Tel.: (519) 742-4540
Fax: (519) 742-3441*

CONTACT:
*Paul Ahrens
President*

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: UNIX, DOS

Networking Capabilities:

- Networked

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Forecasting
- Order entry
- Scheduling and capacity requirements planning
- Job order costing
- Distribution requirements planning

Service Provided for Software: (from \$5k to \$20k)

- Developed by company — Modification, Other support

Paul Ahrens & Associates Ltd. provides services in the manufacturing and distribution sectors, including data processing, systems consulting and software application. Its main emphasis is on providing management information solutions through computer systems design, implementation, training and support.

Hardware Platform:

- Mini: AS/400, UNIX

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Bills of material
- Data collection
- Maintenance management
- Quality assurance
- Order entry
- Inventory control
- Job order costing
- Forecasting
- Distribution requirements planning
- Shop floor control

Name of Software Package: (from \$50k to \$250k)

- SMARTS

Service Provided for Software:

- Developed by company — Modification, Other support

P. M. Sulcs & Associates Ltd. is based in western Canada and provides expertise and services in the mini and super-mini computer markets. The company specializes in on-line, interactive, screen-oriented business application solutions.

P. M. Sulcs & Associates Ltd.

Suite 201
4240 Manor Street
BURNABY, B.C.
V5G 1B2
Tel.: (604) 437-4494
Fax: (604) 439-9419

CONTACT:
Dale Monrad
Sales Manager

Other Address
in Canada:

Suite 1506
141 Adelaide Street West,
TORONTO, Ont.
M5H 3L5

Probe Software Sciences Ltd.

Suite 800
666 Sherbrooke
Street West
MONTREAL, Que.
H3A 1E7
Tel.: (514) 842-8141
Fax: (514) 842-1250

CONTACT:
Adriano G. Russo
President and CEO

Hardware Platform:

- Mini: HP3000 MPE

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Inventory control
- Job order costing
- Quality assurance
- Order entry
- Material requirements planning
- Scheduling and capacity requirements planning
- Data collection
- Forecasting
- Distribution requirements planning

Name of Software Package: (from \$50k to \$200k)

- SIP 3000

Service Provided for Software:

- Developed by company — Modification, Other support

Over the years, Probe Software Sciences Ltd. has invested several million dollars in research and development. This has enabled the company to develop a software package that is rapidly becoming the standard in the process industry.

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: AS/400

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Inventory control
- Job order costing
- Order entry

Name of Software Package: (from \$5k to \$200k)

- Lumber Production and Sales System

Service Provided for Software:

- Developed by company — Modification, Other support

Progisys Inc. is a software developer and a data-processing consulting organization. It specializes in sawmill management software and metal shop software as well as software for accounting, payroll and human resources systems. It is an IBM agent for the AS/400 line of computers and the PS/2. Progisys designs and installs turnkey solutions.

Progisys Inc.

Suite 220
5055 Wilfrid-Hamel
Street West
QUEBEC, Que.
G2E 2G6
Tel.: (418) 871-4880
Fax: (418) 871-9755

CONTACT:
Denis Plante
Vice-President
Marketing

Promac Inc.

1375 Morningside Avenue
SCARBOROUGH, Ont.
M1B 3C5
Tel.: (416) 284-8440
Fax: (416) 284-8147

CONTACT:
Hans J. Hansen
General Manager

Hardware Platform:

- Mini: AOS

Manufacturing Software Applications:

- Bills of material
- Job order costing
- Inventory control
- Shop floor control

Name of Software Package: (from \$50k to \$100k)

- PROMICS

Service Provided for Software:

- Developed by company — Modification, Other support

Promac Inc. works mainly in design and systems integration. The main emphasis is on manufacturing. Today, Promac manufactures a wide range of electronic products for use in process control. This has led to the design and implementation of the powerful PROMICS software package, which has been characterized by accountants from three firms as "the best they have seen" for inventory control.

Hardware Platform:

- Workstation: VMS, DEC Net
- Mini: VMS

Networking Capabilities:

- Networked

Manufacturing Software Applications:

- Computer-aided manufacturing
- Material requirements planning
- Bills of material
- Inventory control
- Simulation
- Maintenance management
- Quality assurance
- Shop floor control
- Computer-aided process planning
- Scheduling and capacity requirements planning
- Data collection
- Job order costing
- Forecasting
- Order entry

Name of Software Package: (from \$150k to \$500k)

- PROMIS

Service Provided for Software:

- Developed by company — Modification, Other support

PROMIS Systems Corporation has developed PROMIS 5.1, a comprehensive software package that directs, controls and plans all aspects of a manufacturing shop floor. PROMIS 5.1 is particularly valuable where stringent operating procedures exist, where regulatory compliance and traceability are crucial and where real-time transactions are required. PROMIS 5.1 is the market leader in this field, with a decade of experience and a well-established user base. The company's target markets are industries that use batch-based processes, such as electronics, semiconductor, pharmaceutical, food and beverage, and fire chemicals industries.

PROMIS Systems Corporation

175 Bloor Street East
TORONTO, Ont.
M4W 3R8
Tel.: (416) 960-0960
Fax: (416) 960-1222

CONTACT:
Edward A. Tomlinson
Marketing Director

PROSIG Informatique Inc.

Suite 201
2323 Versant
Boulevard North
SAINTE-FOY, Que.
G1N 4P4
Tel.: (418) 688-9828
Fax: (418) 688-9908

CONTACT:
Tony Haddad
Account Manager

Hardware Platform:

- Mini: VMS, UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Inventory control
- Distribution requirements planning
- Shop floor control
- Material requirements planning
- Scheduling and capacity requirements planning
- Quality assurance
- Order entry

Name of Software Package:

- PRO-MRP

Service Provided for Software:

- Developed by company — Modification, Other support

PROSIG Informatique Inc. is a data-processing consulting firm that specializes in management information systems, more specifically in integrated administrative, manufacturing and distribution systems. All of its software products are developed around relational database management systems (RDBMS) using fourth generation languages (4GL).

Hardware Platform:

- Workstation: UNIX

Manufacturing Software Applications:

- Simulation

Names of Software Packages: (from \$17k to \$70k)

- BoardScan, Greenfield

Service Provided for Software:

- Developed by company — Modification, Other support

Quantic Laboratories Inc. was formed as a spin-off from the Numerical Methods Research Laboratory of the University of Manitoba. Quantic Laboratories specializes in the computational solution of electromagnetic problems. The company is a leading developer of analogue simulation software for the electronics market worldwide.

**Quantic
Laboratories
Inc.**

Suite 200
281 McDermot Avenue
WINNIPEG, Man.
R3B 0S9
Tel.: (204) 943-2552
Fax: (204) 957-1158

CONTACT:
Curtis Rebizant
Manager
Product Marketing

**RPT GROUP
T. W. Rogers
Consulting
Inc.**

Suite 310
29 Gervais Drive
DON MILLS, Ont.
M3C 1Y9
Tel.: (416) 391-1778
Fax: (416) 391-1781

CONTACT:
Tom Rogers, CA
President

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Forecasting
- Shop floor control
- Scheduling and capacity requirements planning
- Data collection
- Maintenance management
- Order entry

Name of Software Package: (from \$20k to \$50k)

- RPT Management Series (15 separate modules)

Service Provided for Software:

- Developed by company — Modification, Other support

The RPT GROUP has a special staff of consultants, programmers, technicians and trainers who appreciate the real needs of the graphic arts industry. As a professional team, the RPT consultants possess a unique combination of financial accreditation and computer experience in the printing industry, which enables them to recommend, install and implement solutions.

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: UNIX
- Mini: UNIX, DEC VAX

Networking Capabilities:

- Networked

Manufacturing Software Applications:

- Scheduling and capacity requirements planning
- Simulation
- Forecasting
- Job order costing
- Activity-based costing of products/services
- Process modelling
- Scenario playing/decision support
- Profitability analysis

Names of Software Packages:

- NetProphet (from \$6.5k)
- NetProphet Educational Version (\$500)

Service Provided for Software:

- Developed by company — Modification, Other support

Sapling Software Aided Planning Corporation is a Canadian company specializing in business planning and cost management systems, including the internationally used activity-based modelling tool NetProphet. Unlike conventional planning methods or spreadsheets, NetProphet simultaneously addresses both the operational and financial considerations relevant to a business. NetProphet models are based on a thorough knowledge of the processes, activities and policies that define a company.

Using demands for products or services, the model calculates the required operational flow of activities, including materials, resources and overheads, taking into consideration options and constraints. Financial results are then automatically developed by tracking the costs of the associated operational flow. Sapling's services include specialized consulting, training and training packages, software development and systems integration. It also provides upgrades, a telephone hot-line with extended customer support and training workshops that can be customized on request.

Sapling Software Aided Planning Corporation

400 Carlingview Drive
ETOBICOKE, Ont.
M9W 5X9
Tel.: (416) 674-8737
Fax: (416) 674-8520

CONTACT:
Derek Sandison
President

SEA Limited

Box 13606, Station A
2 Dundee Avenue
ST. JOHN'S, Nfld.
A1B 4G1
Tel.: (709) 364-2075
Fax: (709) 364-7098

CONTACT:
Jim Duggan
Vice-President
Data

Other Address in Canada:

2 Bluewater Road
BEDFORD, N.S.
B4B 1G7

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Data collection

Name of Software Package: (from \$10k to \$250k)

- SEA 1000 Weighscale Automation System

Service Provided for Software:

- Developed by company — Modification, Other support

SEA Limited is an authorized distributor for the Zenith line of computer products in Newfoundland and Labrador. It markets a complete line of peripheral equipment and software for Zenith computers as well as IBM personal computers and compatibles. SEA Limited is an instrumentation, control and microprocessor systems house for the industrial, marine, offshore, defence and institutional sectors.

Hardware Platform:

- Personal Computer: MS-DOS
- Workstation: DOS

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Data collection
- Job order costing
- Order entry
- Shop floor control

Names of Software Packages: (from \$595)

- Various packages available

Service Provided for Software:

- Licensed from foreign company — Modification, Other support

Settler Computer Technologies Inc. is a Saskatchewan-based research and development company dedicated to the development and distribution of quality software for business and agriculture. It is the Canadian distributor for the very successful Red Wing line of business software.

Settler Computer Technologies Inc.

101C Hodsman Road
REGINA, Sask.
S4N 5W5
Tel.: (306) 721-7949
Fax: (306) 721-1981

CONTACT:
Joan Stricker
Office Manager

Soft Warehouse Ltd.

4695 Hastings Street
BURNABY, B.C.
V5C 2K6
Tel.: (604) 294-4004

CONTACT:
Daye Dancer
President

Hardware Platform:

- Personal Computer: PICK
- Mini: PICK
- Workstation: PICK
- Mainframe: PICK

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Bills of material
- Job order costing
- Inventory control
- Order entry

Name of Software Package: (\$5 000 per user including hardware)

- ZELDA

Service Provided for Software:

- Developed by company — Other support

Soft Warehouse Ltd.'s software package ZELDA, a multi-user sales and inventory system, is designed to serve customers and to make sales people productive and administration lean through total control of sales as well as invoicing, inventory and general ledger requirements.

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Modular
- Networked

Manufacturing Software Applications:

- Computer-aided design
- Computer-aided manufacturing
- Bills of material
- Inventory control
- Simulation
- Job order costing
- Shop floor control

Name of Software Package: (from \$30k to \$50k)

- Steelcad

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from foreign company — Other support

Steelcad International Inc. was a structural-steel drafting company that got into computer programming. It now sells programs in Canada and the United States, and will shortly begin selling in Europe. It has the largest customer base of firms offering similar programs. The system works in metric and Imperial measure, and meets all Canadian standards and design requirements.

Steelcad International Inc.

Suite 201
550 Alden Road
MARKHAM, Ont.
L3R 6A8
Tel.: (416) 479-0399
Fax: (416) 513-0155

CONTACT:
Bob Pettitt
President

SYMTEC INTERNATIONAL

3253 Lacombe Street
MONTREAL, Que.
H3T 1L6
Tel.: (514) 343-4571
Fax: (514) 342-6248

CONTACT:
Michel Virard
President

Hardware Platform:

- Personal Computer: MS-DOS
- Mini: HP3000, UNIX
- Workstation: UNIX
- Mainframe: VMS, UNIX

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Order entry
- Scheduling and capacity requirements planning
- Simulation
- Shop floor control

Names of Software Packages: (from \$3k to \$250k)

- SIMSOFT, PRODSTAR

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from foreign company — Modification, Other support

SYMTEC INTERNATIONAL provides Canadian manufacturers with proven and standard solutions to their problems involving inventory management, production management, scheduling, costing, short- and long-term planning and material flow planning. Once this sound base is operating, SYMTEC can provide custom-designed additions to meet specific needs.

Hardware Platform:

- Mini: IBMS38, A/S 400

Networking Capabilities:

- Modular
- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Maintenance management
- Distribution requirements planning
- Shop floor control
- Scheduling and capacity requirements planning
- Job order costing
- Forecasting
- Order entry

Names of Software Packages: (from \$3.5k to \$550k)

- DCS/38 and DCS for IBM AS/400, DCS/LOGISTIC

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification, Other support
- Licensed from foreign company — Modification, Other support

Synerlogic Inc. is one of Canada's largest full-service information systems consulting firms. Its branch offices span Canada from coast to coast. The expertise of its staff ranges from computer programming to full systems design, testing, commissioning and facilities management.

Synerlogic Inc.

Suite 2200
1969 Upper Water Street
HALIFAX, N.S.
B3J 3R7
Tel.: (902) 421-1722
Fax: (902) 423-0469

CONTACT:
John Compton-Smith
Senior Consultant

Other Address in Canada:

Suite 2020
535 — 4th Avenue
Southwest
CALGARY, Alta.
T2T 0J1
Tel.: (403) 237-6500
Fax: (403) 269-1363

Syspro (Canada) Inc.

Suite 202
4190 Lougheed Highway
BURNABY, B.C.
V5C 3Y5
Tel.: (604) 298-8200
Fax: (604) 298-3430

CONTACT:
Phillip Patton
President

Other Addresses in Canada:

Syspro — Ontario
KITCHENER, Ont.

Source Data Products
TORONTO, Ont.

CSB Systems Ltd.
EDMONTON, Alta.

Phoenix Systems
NEWMARKET, Ont.

Hardware Platform:

- Personal Computer: MS-DOS, OS/2
- Workstation: UNIX, DOS, AIX
- Mini: UNIX

Networking Capabilities:

- Modular
- Networked
- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Order entry
- Estimating for job shoppers
- Scheduling and capacity requirements planning
- Data collection
- Distribution requirements planning
- Shop floor control
- All accounting modules

Name of Software Package: (from \$2k to \$50k)

- IMPACT IV

Service Provided for Software:

- Licensed from foreign company — Modification

The core package by Syspro International was developed in the United Kingdom. All changes specific to Canada and the United States are written and supported by Syspro (Canada) Inc., a Canadian-owned and -operated company.

Hardware Platform:

- Personal Computer: MS-DOS, OS/2
- Workstation: UNIX, DOS, OS/2
- Mini: UNIX
- Mainframe: UNIX

Networking Capabilities:

- Modular
- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided engineering
- Computer-aided process planning
- Material requirements planning
- Scheduling and capacity requirements planning
- Bills of material
- Data collection
- Inventory control
- Job order costing
- Simulation
- Forecasting
- Maintenance management
- Shop floor control

Names of Software Packages: (from \$5k to \$200k)

- Dynamic*Manufacturing, Dynamic*Distribution

Service Provided for Software:

- Developed by company — Modification, Other support

System Dynamics Corporation has been providing business software solutions to computer users since 1975. The company sells its manufacturing/distribution software to run on a host of hardware platforms. The company's Dynamic* Manufacturing and Dynamic*Distribution applications are geared toward customers in the pharmaceutical, food processing, chemical, beverage and bottling industries.

System Dynamics provides a wide range of integrated solutions for accounting, distribution, manufacturing, project management and preventive maintenance. All software is available in both COBOL and ORACLE, the fourth generation language and relational database product.

System Dynamics Corporation

151 Esna Park Drive
MARKHAM, Ont.
L3R 3B1
Tel.: (416) 475-5155
Fax: (416) 475-9378

CONTACT:
Frank Ciacci
President

TAVEL Limited

38 Fielding Ave
DARTMOUTH, N.S.
B3B 1E4
Tel.: (902) 468-2344
Fax: (902) 468-2457

CONTACT:
William Apold
President

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Modular
- Networked

Manufacturing Software Applications:

- Data collection
- Forecasting
- Quality assurance
- Shop floor control

Names of Software Packages:

- QUASAR, Dynamic*Manufacturing, INCENTIVE

Service Provided for Software:

- Developed by company — Modification, Other support

TAVEL Limited provides engineering and automation consulting as well as products to the tool and light manufacturing industries. TAVEL's strengths are in process engineering and software development.

Hardware Platform:

- Personal Computer: MS-DOS, Waterloo Port
- Workstation: DOS, Waterloo Port

Networking Capabilities:

- Networked

Name of Software Package: (from \$8k to \$30k)

- Electronic Time Card System

Service Provided for Software:

- Developed by company — Modification, Other support
- Licensed from Canadian company — Modification, Other support

Time Terminals of Canada is a division of Comcheq Services Ltd., Canada's largest independent payroll processing company. Time Terminals is involved in the manufacture and sales of the Electronic Time Card (ETC) terminal and its associated microcomputer-based software, which collect labour cost data and time and attendance information at the employee's workstation using the low-cost ETC terminal.

Time Terminals of Canada

298 Garry Street
WINNIPEG, Man.
R3C 1H3
Tel.: (204) 947-9500
Fax: (204) 956-4026

CONTACT:
Bill Loewen
Product Manager

TXBASE Systems Inc.

Suite 101
20 Valleywood Drive
MARKHAM, Ont.
L3R 6G1
Tel.: (416) 477-1238
Fax: (416) 470-8593

CONTACT:
Ray Talwar
President

Hardware Platform:

- Personal Computer: OS/2¹
- Mini: VMS,² UNIX
- Workstation: UNIX, OS/2

Networking Capabilities:

- Multi-user
- Networked

Manufacturing Software Applications:

- Computer-aided process planning
- Bills of material
- Inventory control
- Job order costing
- Distribution requirements planning
- Shop floor control
- Material requirements planning
- Scheduling and capacity requirements planning
- Data collection
- Forecasting
- Order entry

Name of Software Package: (from \$50k to \$150k)

- TXBASE Manufacturing System

Service Provided for Software:

- Developed by company — Modification, Other support

TXBASE Systems Inc., a Canadian developer and marketer of manufacturing resources planning (MRP II) software packages on SYBASE, relational database management systems and fourth generation language tools, using computer-aided software engineering (CASE) tools and client/server techniques. The TXBASE manufacturing system offers all the services required by most manufacturing companies. Software can be customized and interfaced with data collection devices.

¹ awaiting porting by SYBASE

² planned, second quarter of 1991

Hardware Platform:

- Mini: PICK
- Mainframe: PICK, UNIX

Networking Capabilities:

- Multi-user

Manufacturing Software Applications:

- Material requirements planning
- Bills of material
- Inventory control
- Job order costing
- Distribution requirements planning
- Shop floor control
- Scheduling and capacity requirements planning
- Data collection
- Forecasting
- Order entry

Name of Software Package: (from \$80k to \$2 000k)

- Ultimate Business Management System

Service Provided for Software:

- Developed by company — Modification, Other support

Ultimate Canada Inc. is a wholly owned subsidiary of The Ultimate Corp. Ultimate Canada is a value-added reseller, providing complete information management systems to the agriculture, automotive, manufacturing and trucking sectors.

Ultimate Canada Inc.

40 Bathurst Drive
WATERLOO, Ont.
N2V 1V6
Tel.: (416) 622-4442
Fax: (416) 885-0999

CONTACT:
June Carby
Sales Manager

Other Addresses in Canada:

Suite 219
1069 Wellington
Road South
LONDON, Ont.
N6E 2H6

Suite 105
5401 Eglinton Avenue
ETOBICOKE, Ont.
M9C 5K6

Voisys Incorporated

298 Garry Street
WINNIPEG, Man.
R3C 1H3
Tel.: (204) 956-5800
Fax: (204) 943-2261

CONTACT:
Barry Clark
Vice-President
Sales

Hardware Platform:

- Personal Computer: Waterloo Port

Networking Capabilities:

- Networked

Name of Software Package: (from \$25k to \$100k)

- VoicePort

Service Provided for Software:

- Developed by company — Modification

Voisys Incorporated offers a turnkey solution for voice processing system needs. VoicePort allows access to most computers via a touch-tone or rotary-dial telephone. In a manufacturing environment, this has many applications, including shipment inquiries, inventory checks and customer service assistance.

Hardware Platform:

- Personal Computer: MS-DOS

Networking Capabilities:

- Modular

Manufacturing Software Applications:

- Scheduling and capacity requirements planning
- Inventory control
- Shop floor control
- Forecasting
- Factory modelling

Name of Software Package: (to \$30k)

- WATTPASS: The Scheduler's Assistant

Service Provided for Software:

- Developed by company — Other support
- Licensed from Canadian company — Other support

Waterloo Engineering Software markets several engineer applications software programs. Its strengths include quality products that are advanced in their field and supported by extensive research, after-sales service and support, an expanding VAR distributor network, and development of a user-friendly environment. Its planning software is specifically designed to address finite capacity requirements.

**Waterloo
Engineering
Software**

22 Dupont Street East
WATERLOO, Ont.
N2J 2G9
Tel.: (519) 885-2450
Fax: (519) 746-7931

CONTACT:
Bruce Macdonald

**List of
Suppliers of
Manufacturing
Software by
Method of
Manufacture
and by Major
Application**

| <i>Design Engineering</i> | Process | Repetitive | Job shop |
|--|----------------|-------------------|-----------------|
| Cincom Systems of Canada | • | • | • |
| Computervision | | • | • |
| Digital Equipment of Canada Ltd. | • | • | • |
| H. G. Engineering | • | • | • |
| IBM Canada Ltd. | • | • | • |
| ICAM | | • | • |
| Integrated Engineering Software Inc. | • | | |
| IPEXO Control System Ltd. | • | • | • |
| Maritime Nuclear (Division of AECL) | • | • | • |
| RPT GROUP T. W. Rogers Consulting Inc. | | | • |
| Steelcad International Inc. | • | • | • |
| System Dynamics Corporation | • | • | • |

| <i>Manufacturing Engineering</i> | Process | Repetitive | Job shop |
|--|----------------|-------------------|-----------------|
| ALBAT + WIRSAM Software Inc. | • | • | • |
| American Business Computer (Canada) | • | • | • |
| Axon Development Corporation | • | • | • |
| Calculus Cie d'Informatique Ltée | • | • | • |
| Carleton Technologies Inc. | | • | • |
| Cincom Systems of Canada | • | • | • |
| Circuit Design Corp. | • | • | • |
| Computervision | | • | • |
| Digital Equipment of Canada Ltd. | • | • | • |
| Eastern Seaboard Software Manufacturing Ltd. | • | • | • |
| Eldetic Systems Corporation | • | • | • |
| Expert Perspective Consulting Inc. | • | • | • |
| IBM Canada Ltd. | • | • | • |
| ICAM | | • | • |
| Infonet | • | • | • |
| INFO-POWER Software Corporation | • | • | • |
| IPEXO Control System Ltd. | • | • | • |
| MAI Canada Ltd. | • | • | • |
| Marcam Corporation Canada | • | • | • |
| Northern Computer Systems Inc. | | • | • |
| Pansophic Systems of Canada, Ltd. | • | • | • |
| Probe Software Sciences Ltd. | • | | |
| PROMIS Systems Corporation | • | • | • |
| PROSIG Informatique Inc. | • | • | • |
| RPT GROUP T. W. Rogers Consulting Inc. | | | • |
| Steelcad International Inc. | • | • | • |
| Syspro (Canada) Inc. | | • | • |

| | | | |
|-----------------------------|---|---|---|
| System Dynamics Corporation | . | . | . |
| TXBASE Systems Inc. | . | . | . |

Materials Management

| | Process | Repetitive | Job shop |
|--|---------|------------|----------|
| ALBAT + WIRSAM Software Inc. | . | . | . |
| ALGO DESIGN INC. | | . | . |
| Ambrose Frederic Ltd. | . | . | . |
| American Business Computer (Canada) | . | . | . |
| AMTEK Management | . | . | . |
| ANDERSEN Consulting | . | . | . |
| Axon Development Corporation | | | . |
| Berclain Inc. | | . | . |
| Calculus Cie d'Informatique Ltée | . | . | . |
| Canadian Manufacturing Systems | | . | . |
| Can-Pay Computer Software Ltd. | . | . | . |
| Cantel Computer Corp. | . | . | . |
| Carleton Technologies Inc. | | . | . |
| Cimtek Automation Systems Inc. | . | . | . |
| Cincom Systems of Canada | . | . | . |
| Circuit Design Corp. | . | . | . |
| CLARI INC. | . | . | . |
| Digital Equipment of Canada Ltd. | . | . | . |
| Eastern Seaboard Software Manufacturing Ltd. | . | . | . |
| Eldetic Systems Corporation | . | . | . |
| Epic Data Inc. | . | . | . |
| Expert Perspective Consulting Inc. | . | . | . |
| Fleming Systems Corporation | . | . | . |
| Hitek Computer Systems | . | . | . |
| IBM Canada Ltd. | . | . | . |
| ICAM | | . | . |
| Infonet | . | . | . |
| INFO-POWER Software Corporation | . | . | . |
| Instrumar Ltd. | . | . | . |
| IPEXO Control System Ltd. | . | . | . |
| MAI Canada Ltd. | . | . | . |
| Marcam Corporation Canada | . | . | . |
| Maritime Nuclear (Division of AECL) | . | . | . |
| Microstructure Inc. | . | . | . |
| MINIMICRO INC. | . | | . |
| Northern Computer Systems Inc. | | . | . |
| Numetrix Ltd. | . | . | |
| Pansophic Systems of Canada, Ltd. | . | . | . |
| Paul Ahrens & Associates Ltd. | | . | . |

List of Suppliers of Manufacturing Software by Method of Manufacture and by Major Application

List of Suppliers of Manufacturing Software by Method of Manufacture and by Major Application

| | | | |
|---|---|---|---|
| P. M. Sulcs & Associates Ltd. | • | • | • |
| Probe Software Sciences Ltd. | • | | |
| Proglsys Inc. | | • | • |
| Promac Inc. | | • | • |
| PROMIS Systems Corporation | • | • | |
| PROSIG Informatique Inc. | • | • | • |
| RPT GROUP T. W. Rogers Consulting Inc. | | | • |
| Sapling Software Aided Planning Corporation | • | • | • |
| Seftler Computer Technologies Inc. | • | • | • |
| Soft Warehouse Ltd. | • | • | • |
| Steelcad International Inc. | • | • | • |
| SYMTEC INTERNATIONAL | • | • | |
| Synerlogic Inc. | | | |
| Syspro (Canada) Inc. | | • | • |
| System Dynamics Corporation | • | • | • |
| TAVEL Limited | • | • | • |
| TXBASE Systems Inc. | • | • | • |
| Ultimate Canada Inc. | | • | • |
| Waterloo Engineering Software | | • | • |

Shop Floor Support

| | Process | Repetitive | Job shop |
|-------------------------------------|---------|------------|----------|
| ALBAT + WIRSAM Software Inc. | • | • | • |
| Ambrose Frederic Ltd. | • | • | • |
| American Business Computer (Canada) | • | • | • |
| AMTEK Management | • | • | • |
| ANDERSEN Consulting | • | • | • |
| Axon Development Corporation | | | • |
| Berclain Inc. | | • | • |
| Calculus Cie d'Informatique Ltée | • | • | • |
| Canadian Manufacturing Systems | | • | • |
| Can-Pay Computer Software Ltd. | • | • | • |
| Cantel Computer Corp. | • | • | • |
| Carleton Technologies Inc. | | • | • |
| Cimtek Automation Systems Inc. | • | • | • |
| Cincom Systems of Canada | • | • | • |
| Circuit Design Corp. | • | • | • |
| CLARI INC. | • | • | • |
| Computervision | | • | • |
| Digital Equipment of Canada Ltd. | • | • | • |
| Eldetic Systems Corporation | • | • | • |
| Epic Data Inc. | • | • | • |
| Fleming Systems Corporation | • | • | • |
| H. G. Engineering | • | • | • |

| | | | |
|---|---|---|---|
| IBM Canada Ltd. | • | • | • |
| ICAM | | • | • |
| Infonet | • | • | • |
| INFO-POWER Software Corporation | • | • | • |
| Instrumar Ltd. | • | • | • |
| IPEXO Control System Ltd. | • | • | • |
| LoglmaInt Maintenance Consultants | • | • | • |
| MAI Canada Ltd. | • | • | • |
| Marcam Corporation Canada | • | • | • |
| Maritime Nuclear (Division of AECL) | • | • | • |
| Northern Computer Systems Inc. | | • | • |
| Numerix Ltd. | • | • | • |
| Pansophic Systems of Canada, Ltd. | • | • | • |
| P. M. Sulcs & Associates Ltd. | • | • | • |
| Probe Software Sciences Ltd. | • | | |
| PROMIS Systems Corporation | • | • | |
| PROSIG Informatique Inc. | • | • | • |
| Quantic Laboratories Inc. | • | | |
| Sapling Software Aided Planning Corporation | • | • | • |
| SEA Limited | • | • | • |
| Settler Computer Technologies Inc. | • | • | • |
| Soft Warehouse Ltd. | • | • | • |
| Steelcad International Inc. | • | • | • |
| SYMTEC INTERNATIONAL | • | • | |
| Synerlogic Inc. | | | |
| Syspro (Canada) Inc. | | • | • |
| System Dynamics Corporation | • | • | • |
| TAVEL Limited | • | • | • |
| TXBASE Systems Inc. | • | • | • |
| Ultimate Canada Inc. | | • | • |

List of Suppliers of Manufacturing Software by Method of Manufacture and by Major Application

**List of
Suppliers of
Manufacturing
Software by
Method of
Manufacture
and by
Industry
Sector**

| <i>Clothing</i> | Process | Repetitive | Job shop |
|--|----------------|-------------------|-----------------|
| American Business Computer (Canada) | | • | |
| AMTEK Management | • | • | • |
| ANDERSEN Consulting | • | • | • |
| Axon Development Corporation | | | • |
| Can-Pay Computer Software Ltd. | • | • | • |
| Cantel Computer Corp. | • | • | • |
| Cincom Systems of Canada | • | • | • |
| Comcheq Services Limited | • | | • |
| Eastern Seaboard Software Manufacturing Ltd. | • | • | • |
| Eldetic Systems Corporation | • | • | • |
| Expert Perspective Consulting Inc. | • | • | • |
| Hitek Computer Systems | • | • | • |
| IBM Canada Ltd. | • | • | • |
| Infonet | | • | • |
| INFO-POWER Software Corporation | | • | |
| Instrumar Ltd. | • | • | |
| IPEXO Control System Ltd. | • | • | • |
| Logimaint Maintenance Consultants | • | • | • |
| MAI Canada Ltd. | • | • | • |
| Numetrix Ltd. | • | • | |
| Pansophic Systems of Canada, Ltd. | | • | |
| PROSIG Informatique Inc. | • | • | • |
| Sapling Software Aided Planning Corporation | | • | |
| Settler Computer Technologies Inc. | • | • | • |
| SYMTEC INTERNATIONAL | | • | |
| TAVEL Limited | • | • | • |
| Time Terminals of Canada | • | • | • |
| TXBASE Systems Inc. | | | • |
| Volsys Incorporated | • | • | • |

| <i>Food Processing</i> | Process | Repetitive | Job shop |
|-------------------------------------|----------------|-------------------|-----------------|
| Ambrose Frederic Ltd. | • | • | • |
| American Business Computer (Canada) | • | • | |
| AMTEK Management | • | • | • |
| ANDERSEN Consulting | • | • | • |
| Axon Development Corporation | | | • |
| Berclain Inc. | | • | |
| Calculus Cie d'Informatique Ltée | • | • | |
| Can-Pay Computer Software Ltd. | • | • | • |
| Carleton Technologies Inc. | | • | |
| Cimtek Automation Systems Inc. | • | | |

| | | | |
|--|---|---|---|
| Cincom Systems of Canada | • | • | • |
| Circuit Design Corp. | • | • | • |
| CLARI INC. | | • | |
| Comcheq Services Limited | • | | • |
| Digital Equipment of Canada Ltd. | • | | |
| Eastern Seaboard Software Manufacturing Ltd. | • | • | |
| Eldetic Systems Corporation | • | • | • |
| Expert Perspective Consulting Inc. | • | • | • |
| Fleming Systems Corporation | • | | |
| IBM Canada Ltd. | • | • | • |
| Infonet | • | • | • |
| INFO-POWER Software Corporation | • | | |
| Instrumar Ltd. | • | • | |
| IPEXO Control System Ltd. | • | • | • |
| Logimaint Maintenance Consultants | • | • | • |
| MAI Canada Ltd. | • | | |
| Marcam Corporation Canada | • | • | • |
| Numerix Ltd. | • | • | |
| Pansophic Systems of Canada, Ltd. | • | • | • |
| P. M. Sulcs & Associates Ltd. | • | • | • |
| Probe Software Sciences Ltd. | • | | |
| PROMIS Systems Corporation | • | | |
| Sapling Software Aided Planning Corporation | • | | |
| SEA Limited | • | • | • |
| Settler Computer Technologies Inc. | • | • | • |
| Soft Warehouse Ltd. | • | • | |
| SYMTEC INTERNATIONAL | • | • | |
| Syspro (Canada) Inc. | | • | |
| System Dynamics Corporation | • | | |
| TAVEL Limited | • | • | • |
| Time Terminals of Canada | • | • | • |
| TXBASE Systems Inc. | • | • | |
| Volsys Incorporated | • | • | • |

List of Suppliers of Manufacturing Software by Method of Manufacture and by Industry Sector

Wooden Furniture and Millwork

| | Process | Repetitive | Job shop |
|-------------------------------------|---------|------------|----------|
| ALGO DESIGN INC. | | • | • |
| American Business Computer (Canada) | | • | • |
| AMTEK Management | • | • | • |
| ANDERSEN Consulting | • | • | • |
| Berclain Inc. | | | • |
| Canadian Manufacturing Systems | | • | • |
| Can-Pay Computer Software Ltd. | • | • | • |
| Carleton Technologies Inc. | | • | • |

**List of
Suppliers of
Manufacturing
Software by
Method of
Manufacture
and by
Industry
Sector**

| | | | |
|--|---|---|---|
| Cincom Systems of Canada | o | o | o |
| Circuit Design Corp. | o | o | o |
| CLARI INC. | o | o | o |
| Comcheq Services Limited | o | | o |
| Computervision | | o | o |
| Digital Equipment of Canada Ltd. | | | o |
| Eastern Seaboard Software Manufacturing Ltd. | o | o | |
| Eldetic Systems Corporation | o | o | o |
| Expert Perspective Consulting Inc. | o | o | o |
| Hitek Computer Systems | o | o | o |
| IBM Canada Ltd. | o | o | o |
| ICAM | | o | |
| Infonet | | o | o |
| INFO-POWER Software Corporation | | | o |
| IPEXO Control System Ltd. | o | o | o |
| Logimaint Maintenance Consultants | o | o | o |
| MAI Canada Ltd. | | o | o |
| Microstructure Inc. | o | o | o |
| MINIMICRO INC. | o | | |
| Numerix Ltd. | | o | |
| Pansophic Systems of Canada, Ltd. | o | o | |
| Paul Ahrens & Associates Ltd. | | o | o |
| Proglsys Inc. | o | o | o |
| PROSIG Informatique Inc | o | o | o |
| Settler Computer Technologies Inc. | o | o | o |
| Soft Warehouse Ltd. | | o | |
| SYMTEC INTERNATIONAL | | o | |
| Syspro (Canada) Inc. | | o | |
| System Dynamics Corporation | | o | |
| TAVEL Limited | o | o | o |
| Time Terminals of Canada | o | o | o |
| TXBASE Systems Inc. | | | o |
| Ultimate Canada Inc. | | o | o |
| Voisys Incorporated | o | o | o |
| Waterloo Engineering Software | | o | o |

Rubber and Plastics

| | Process | Repetitive | Job shop |
|-------------------------------------|---------|------------|----------|
| ALBAT + WIRSAM Software Inc. | o | o | o |
| American Business Computer (Canada) | | o | o |
| AMTEK Management | o | o | o |
| ANDERSEN Consulting | o | o | o |
| Berclain Inc. | | o | o |
| Calculus Cie d'Informatique Ltée | o | o | |

| | | | |
|--|---|---|---|
| Canadlan Manufacturing Systems | . | . | . |
| Can-Pay Computer Software Ltd. | . | . | . |
| Cincom Systems of Canada | . | . | . |
| Circuit Design Corp. | . | . | . |
| Comcheq Services Limited | . | . | . |
| Computervision | . | . | . |
| Digital Equipment of Canada Ltd. | . | . | . |
| Eastern Seaboard Software Manufacturing Ltd. | . | . | . |
| Eldetic Systems Corporation | . | . | . |
| Expert Perspective Consulting Inc. | . | . | . |
| Fleming Systems Corporation | . | . | . |
| H. G. Engineering | . | . | . |
| Hitek Computer Systems | . | . | . |
| IBM Canada Ltd. | . | . | . |
| ICAM | . | . | . |
| Infonet | . | . | . |
| INFO-POWER Software Corporation | . | . | . |
| Instrumar Ltd. | . | . | . |
| IPEXO Control System Ltd. | . | . | . |
| Loglmaint Maintenance Consultants | . | . | . |
| MAI Canada Ltd. | . | . | . |
| Marcam Corporation Canada | . | . | . |
| Maritime Nuclear (Division of AECL) | . | . | . |
| Microstructure Inc. | . | . | . |
| MINIMICRO INC. | . | . | . |
| Northern Computer Systems Inc. | . | . | . |
| Numetrix Ltd. | . | . | . |
| Pansophic Systems of Canada, Ltd. | . | . | . |
| Paul Ahrens & Associates Ltd. | . | . | . |
| P. M. Sulcs & Associates Ltd. | . | . | . |
| Probe Software Sciences Ltd. | . | . | . |
| PROSIG Informatique Inc. | . | . | . |
| Sapling Software Aided Planning Corporation | . | . | . |
| Settler Computer Technologies Inc. | . | . | . |
| SYMTEC INTERNATIONAL | . | . | . |
| Syspro (Canada) Inc. | . | . | . |
| System Dynamics Corporation | . | . | . |
| TAVEL Limited | . | . | . |
| Time Terminals of Canada | . | . | . |
| TXBASE Systems Inc. | . | . | . |
| Ultimate Canada Inc. | . | . | . |
| Volsys Incorporated | . | . | . |
| Waterloo Engineering Software | . | . | . |

List of Suppliers of Manufacturing Software by Method of Manufacture and by Industry Sector

**List of
Suppliers of
Manufacturing
Software by
Method of
Manufacture
and by
Industry
Sector**

| <i>Metal Fabrication</i> | Process | Repetitive | Job shop |
|--|----------------|-------------------|-----------------|
| ALGO DESIGN INC. | | • | • |
| American Business Computer (Canada) | | • | • |
| AMTEK Management | • | • | • |
| ANDERSEN Consulting | • | • | • |
| Axon Development Corporation | | | • |
| Berclain Inc. | | • | • |
| Calculus Cie d'Informatique Ltée | • | • | • |
| Canadian Manufacturing Systems | | • | • |
| Can-Pay Computer Software Ltd. | • | • | • |
| Carleton Technologies Inc. | | • | • |
| Cimtek Automation Systems Inc. | • | • | • |
| Cincom Systems of Canada | • | • | • |
| Circuit Design Corp. | • | • | • |
| Comcheq Services Limited | • | | • |
| Computervision | | • | • |
| Digital Equipment of Canada Ltd. | • | • | • |
| Eastern Seaboard Software Manufacturing Ltd. | • | | |
| Eldetic Systems Corporation | • | • | • |
| Epic Data Inc. | • | • | • |
| Expert Perspective Consulting Inc. | • | • | • |
| Fleming Systems Corporation | | • | • |
| H. G. Engineering | • | • | |
| Hitek Computer Systems | • | • | • |
| IBM Canada Ltd. | • | • | • |
| ICAM | | • | • |
| Infonet | | • | • |
| INFO-POWER Software Corporation | | • | • |
| IPEXO Control System Ltd. | • | • | • |
| Logimaint Maintenance Consultants | • | • | • |
| MAI Canada Ltd. | • | • | • |
| Microstructure Inc. | • | • | • |
| MINIMICRO INC. | | | • |
| Northern Computer Systems Inc. | | • | • |
| Numetrix Ltd. | • | • | |
| Pansophic Systems of Canada, Ltd. | • | • | |
| Paul Ahrens & Associates Ltd. | | • | • |
| P. M. Sulcs & Associates Ltd. | • | • | • |
| Progsys Inc. | | | • |
| PROSIG Informatique Inc. | • | | • |
| Sapling Software Aided Planning Corporation | • | • | • |
| Settler Computer Technologies Inc. | • | • | • |
| Soft Warehouse Ltd. | • | • | • |
| Steelcad International Inc. | • | • | • |

| | | | |
|-------------------------------|---|---|---|
| SYMTEC INTERNATIONAL | . | | |
| Syspro (Canada) Inc. | . | . | |
| System Dynamics Corporation | . | . | |
| TAVEL Limited | . | . | . |
| Time Terminals of Canada | . | . | . |
| TXBASE Systems Inc. | . | . | |
| Ultimate Canada Inc. | . | | |
| Voisys Incorporated | . | . | . |
| Waterloo Engineering Software | . | . | |

List of Suppliers of Manufacturing Software by Method of Manufacture and by Industry Sector

| Printing | Process | Repetitive | Job shop |
|--|----------------|-------------------|-----------------|
| American Business Computer (Canada) | . | . | |
| ANDERSEN Consulting | . | . | . |
| Axon Development Corporation | | | . |
| Berclain Inc. | | | . |
| Calculus Cie d'Informatique Ltée | . | . | . |
| Can-Pay Computer Software Ltd. | . | . | . |
| Carleton Technologies Inc. | | . | . |
| Cincom Systems of Canada | . | . | . |
| Circuit Design Corp. | . | . | . |
| Comcheq Services Limited | . | | . |
| Eidetic Systems Corporation | . | . | . |
| Epic Data Inc. | . | . | . |
| Expert Perspective Consulting Inc. | . | . | . |
| IBM Canada Ltd. | . | . | . |
| Infonet | . | . | . |
| INFO-POWER Software Corporation | . | | |
| Instrumar Ltd. | . | . | . |
| IPEXO Control System Ltd. | . | . | . |
| Logimaint Maintenance Consultants | . | . | . |
| MAI Canada Ltd. | | | . |
| Northern Computer Systems Inc. | | . | . |
| Pansophic Systems of Canada, Ltd. | . | . | |
| RPT GROUP T. W. Rogers Consulting Inc. | | | . |
| Settler Computer Technologies Inc. | . | . | . |
| SYMTEC INTERNATIONAL | | . | |
| Syspro (Canada) Inc. | | . | . |
| TAVEL Limited | | . | . |
| Time Terminals of Canada | . | . | . |
| TXBASE Systems Inc. | | | . |
| Ultimate Canada Inc. | | | . |
| Voisys Incorporated | . | . | . |

**List of
Suppliers of
Manufacturing
Software by
Method of
Manufacture
and by
Industry
Sector**

Electrical and Electronic Products

| | Process | Repetitive | Job shop |
|--|---------|------------|----------|
| American Business Computer (Canada) | | • | • |
| AMTEK Management | • | • | • |
| ANDERSEN Consulting | • | • | • |
| Axon Development Corporation | | | • |
| Berclain Inc. | | • | • |
| Canadian Manufacturing Systems | | • | • |
| Can-Pay Computer Software Ltd. | • | • | • |
| Carleton Technologies Inc. | | • | • |
| Cimtek Automation Systems Inc. | • | • | • |
| Cincom Systems of Canada | • | • | • |
| Circuit Design Corp. | • | • | • |
| Comcheq Services Limited | • | | • |
| Computervision | | • | • |
| Digital Equipment of Canada Ltd. | • | • | • |
| Eastern Seaboard Software Manufacturing Ltd. | • | • | |
| Eldetic Systems Corporation | • | • | • |
| Epic Data Inc. | • | • | • |
| Expert Perspective Consulting Inc. | • | • | • |
| H. G. Engineering | • | • | • |
| Hitek Computer Systems | • | • | • |
| IBM Canada Ltd. | • | • | • |
| ICAM | | • | • |
| Infonet | | • | • |
| INFO-POWER Software Corporation | | • | • |
| Integrated Engineering Software Inc. | • | | |
| IPEXO Control System Ltd. | • | • | • |
| Logimaint Maintenance Consultants | • | • | • |
| MAI Canada Ltd. | | • | • |
| Maritime Nuclear (Division of AECL) | • | • | • |
| Microstructure Inc. | • | • | • |
| MINIMICRO INC. | | | • |
| Northern Computer Systems Inc. | | • | • |
| Numetrix Ltd. | | • | |
| Pansophic Systems of Canada, Ltd. | • | • | |
| Paul Ahrens & Associates Ltd. | | • | • |
| P. M. Sulcs & Associates Ltd. | • | • | • |
| Promac Inc. | | • | • |
| PROMIS Systems Corporation | • | • | |
| PROSIG Informatique Inc. | • | • | • |
| Quantic Laboratories Inc. | • | | |
| Sapling Software Aided Planning Corporation | | • | |
| Settler Computer Technologies Inc. | • | • | • |
| SYMTEC INTERNATIONAL | | • | |

| | | |
|-----------------------------|---|---|
| Syspro (Canada) Inc. | . | . |
| System Dynamics Corporation | . | . |
| TAVEL Limited | . | . |
| Time Terminals of Canada | . | . |
| TXBASE Systems Inc. | . | . |
| Ultimate Canada Inc. | . | . |
| Volsys Incorporated | . | . |

**List of
Suppliers of
Manufacturing
Software by
Method of
Manufacture
and by
Industry
Sector**

Cross Reference of Company Location by Province

◦ *British Columbia*

Comcheq Services Limited
Computervision
Epic Data Inc.
P. M. Sulcs & Associates Ltd.
Soft Warehouse Ltd.
Syspro (Canada) Inc.

◦ *Alberta*

AMTEK Management
ANDERSEN Consulting
Comcheq Services Limited
Computervision
IPEXO Control System Ltd.
Synerlogic Inc.

◦ *Saskatchewan*

Axon Development Corporation
Settler Computer Technologies Inc.

◦ *Manitoba*

Can-Pay Computer Software Ltd.
Comcheq Services Limited
ICAM
Integrated Engineering Software Inc.
Microstructure Inc.
Quantic Laboratories Inc.
Time Terminals of Canada
Volsys Incorporated

◦ *Ontario*

ALBAT + WIRSAM Software Inc.
Ambrose Frederic Ltd.
American Business Computer (Canada)
AMTEK Management
ANDERSEN Consulting
Canadian Manufacturing Systems
Can-Pay Computer Software Ltd.
Carleton Technologies Inc.
Cimtek Automation Systems Inc.
Cincom Systems of Canada
Comcheq Services Limited
Computervision

Cross Reference of Company Location by Province

Digital Equipment of Canada Ltd.
Eidetic Systems Corporation
Epic Data Inc.
Expert Perspective Consulting Inc.
Fleming Systems Corporation
H. G. Engineering
Hitek Computer Systems
IBM Canada Ltd.
Infonet
INFO-POWER Software Corporation
MAI Canada Ltd.
Marcam Corporation Canada
Maritime Nuclear (Division of AECL)
MINIMICRO INC.
Northern Computer Systems Inc.
Numetrix Ltd.
Pansophic Systems of Canada, Ltd.
Paul Ahrens & Associates Ltd.
P. M. Sulcs & Associates Ltd.
Promac Inc.
PROMIS Systems Corporation
RPT GROUP T. W. Rogers Consulting Inc.
Sapling Software Aided Planning Corporation
Steelcad International Inc.
Syspro (Canada) Inc.
System Dynamics Corporation
TXBASE Systems Inc.
Ultimate Canada Inc.
Waterloo Engineering Software

• **Quebec**

ALGO DESIGN INC.
ANDERSEN Consulting
Berclain Inc.
Calculus Cle d'informatique Ltée
Cantel Computer Corp.
Circuit Design Corp.
CLARI Inc.
Comcheq Services Limited
Computervision
ICAM
Infonet
Logimaint Maintenance Consultants
Pansophic Systems of Canada, Ltd.

**Cross
Reference
of Company
Location by
Province**

Probe Software Sciences Ltd.
Progsys Inc.
PROSIG Informatique Inc.
SYMTEC INTERNATIONAL

◦ ***New Brunswick***

Eastern Seaboard Software Manufacturing Ltd.
Maritime Nuclear (Division of AECL)

◦ ***Nova Scotia***

Comcheq Services Limited
SEA Limited
Synerlogic Inc.
TAVEL Limited

◦ ***Newfoundland***

Instrumar Ltd.
SEA Limited

These centres have been established at headquarters and in every regional office to provide clients with a gateway into the complete range of ISTC services, information products, programs and expertise.

REGIONAL OFFICES

NEWFOUNDLAND

ISTC
5th Floor
Atlantic Place
215 Water Street
P.O. Box 8950
ST. JOHN'S, Nfld.
A1B 3R9
Tel.: (709) 772-ISTC
Fax: (709) 772-5093

PRINCE EDWARD ISLAND

ISTC
Suite 400
National Bank Tower
Confederation Court Mall
134 Kent Street
P.O. Box 1115
CHARLOTTETOWN, P.E.I.
C1A 7M8
Tel.: (902) 566-7400
Fax: (902) 566-7450

NOVA SCOTIA

ISTC
5th Floor
Central Guaranty Trust Tower
1801 Hollis Street
P.O. Box 940, Station M
HALIFAX, N.S.
B3J 2V9
Tel.: (902) 426-ISTC
Fax: (902) 426-2624

NEW BRUNSWICK

ISTC
12th Floor
Assumption Place
770 Main Street
P.O. Box 1210
MONCTON, N.B.
E1C 8P9
Tel.: (506) 857-ISTC
Fax: (506) 851-6429

QUEBEC

ISTC
Suite 3800
Tour de la Bourse
800 Victoria Place
P.O. Box 247
MONTREAL, Que.
H4Z 1E8
Tel.: (514) 283-8185
or 1-800-361-5367
Fax: (514) 283-3302

ONTARIO

ISTC
4th Floor
Dominion Public Building
1 Front Street West
TORONTO, Ont.
M5J 1A4
Tel.: (416) 973-ISTC
Fax: (416) 973-8714

MANITOBA

ISTC
8th Floor
330 Portage Avenue
P.O. Box 981
WINNIPEG, Man.
R3C 2V2
Tel.: (204) 983-ISTC
Fax: (204) 983-2187

SASKATCHEWAN

ISTC
401 - 119 4th Avenue South
SASKATOON, Sask.
S7K 5X2
Tel.: (306) 975-4386
Fax: (306) 975-5334

**Industry,
Science and
Technology
Canada
Business
Service
Centres**

**Industry,
Science and
Technology
Canada
Business
Service
Centres**

ALBERTA
ISTC
Room 540
Canada Place
9700 Jasper Avenue
EDMONTON, Alta.
T5J 4C3
Tel.: (403) 495-ISTC
Fax: (403) 495-4507

ISTC
Suite 1100
510 - 5th Street Southwest
CALGARY, Alta.
T2P 3S2
Tel.: (403) 292-4575
Fax: (403) 292-4578

BRITISH COLUMBIA
ISTC
Suite 900
Scotia Tower
650 West Georgia Street
P.O. Box 11610
VANCOUVER, B.C.
V6B 5H8
Tel.: (604) 666-0266
Fax: (604) 666-0277

YUKON
ISTC
Suite 301
108 Lambert Street
WHITEHORSE, Y.T.
Y1A 1Z2
Tel.: (403) 668-4655
Fax: (403) 668-5003

NORTHWEST TERRITORIES
ISTC
10th Floor
Precambrian Building
P.O. Bag 6100
YELLOWKNIFE, N.W.T.
X1A 2R3
Tel.: (403) 920-8568
Fax: (403) 873-6228

HEADQUARTERS

ISTC
1st Floor, East Tower
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 952-ISTC
Fax: (613) 957-7942

**Publication
Inquiries**

For individual copies of ISTC publications, contact your nearest Business Service Centre. Should you wish to obtain more than one copy, please contact:

Communications Branch
Industry, Science and Technology Canada
Room 208D, West Tower
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 954-5716
Fax: (613) 954-6436

TS1837.A3/no.3
Canada. Industrial and El
Advanced manufacturing
technologies : software
BRRZ c. 2 aa ISTC

DATE DUE - DATE DE RETOUR

[illegible]

ISTC 1551 (2/90)

INDUSTRY CANADA/INDUSTRIE CANADA



69390

