KEYWORDS: Amplifier Subsystems; Amplifiers; Control Circuitry; Extended Interaction Klystrons; Klystrons; Millimeter Wave Subsystems; Power Amplifiers; Power Klystrons; Power Supplies; Pulsers; Reflex Klystrons; Satellite Communications Power Amp; Solid State Devices; Travelling Wave Tubes; Waveguides; Laser Power Supplies; X-Ray Power Supplies.

REVISED: January 88

VICTRIX Ltd

ADDRESS: Box 1807
Guelph, Ontario, Canada
N1H 7A1

CONTACT: Mr H Lawry, Vice President – (519) 836-1480

HISTORY: Incorporated in 1975 (100% Canadian owned).

CAPABILITY: Approximately 80% of their R&D and manufacturing is for the Canadian Department of National Defense. Typical engineering projects include:

- Technical investigations and engineering services to DND on marine weapon systems drives and controls.
- Engineering services to industry on control systems for machinery and large winches.
- Engineering services to industry on sound and vibration problems in gear systems.
- Designed and developed 1.2 m plastic parabolic antenna for 11.6 GHz satellite receiving.
- Developed production techniques for fabrication of outdoor unit to house LNA of satellite receiving antenna.
- Investigated dielectric feed horn problems and developed modifications.
- Engineering services on avionics flight surfaces control systems.

Manufacturing capability include the following items:

- Amplifiers, reactors, special transformers, & RF coils
- Fiberglass microwave dish antennas
- Small gears and gear reducer assemblies
- Extrusion and molding of miscellaneous plastic and rubber parts
- Aircraft smoke signal markers pyrotechnics
- Cable assemblies
- Marine projectile line throwing devices
- Inflatable mast antennas
- Marine weapon system drive and controls
- Modular practice bombs

Victrix also has an R&O capability for radar duplexers, precision electronic components and power supplies.

AVERAGE WORK FORCE: Engineering & Technical – 10
Machinists – 5
Production People – 10 to 30
Quality Control Manager – 1

GROSS SALES: 1986 – $4.50M
1987 – $4.75M

PLANT SIZE: 30,000 Sq Ft (2 locations)

EQUIPMENT: Machining (CNC), vacuum molding, fiberglass layup and forming, & electronic laboratory to 20 GHz measurement, and pyrotechnic manufacturing.

EXPERIENCE: DND:

- Marine Weapon System Drive Controls
- Aircraft Smoke Signal Markers
- Marine Line Throwing Device
- Portable Antenna Masts
- Modular Practice Bombs

DOC:

- Satellite M/W Parabolic Dishes

KEYWORDS: Ground Station Antennas; Modular Practice Bomb; Plastic Fabrication; Portable Antenna Masts (Surface); Practice Bomb; Pyrotechnics; Smoke Markers; Weapon System Controls; Machining.

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VIRTUAL PROTOTYPES Inc

ADDRESS: 5252 de Maisonneuve West, Suite #318
Montreal, Quebec, Canada
H4A 3S5

CONTACT: Mr Eugene Joseph, President – (514) 483-4712

HISTORY: Virtual Prototypes is a privately-owned Canadian company incorporated in November 1980 under the name of Softec Consulting. The company changed its name to Virtual Prototypes Inc in 1985 to reflect its commitment to develop and promote its proprietary Virtual Prototyping technology. The company has a US subsidiary, Virtual Prototypes Inc, located in Dayton, OH.

CAPABILITY: Virtual Prototypes has developed a unique technology for rapid prototyping of control and display systems called VAPS (the Virtual Prototyping system). By using VAPS crewstations, cockpits and consoles are represented with touch sensitive graphics and driven by real time simulation. These 'virtual prototypes' have the same functionality as their real counterparts and may be connected to an existing customer simulation. The key benefit of the technology lies in its flexibility and ease of use. VAPS can be used by non-programmers to perform tasks that would normally require programming.

VAPS is used in such diverse applications as cockpit prototyping, submarine combat system design and the design of command, control and communications consoles. Multiple VAPS systems can be interconnected to simulate larger systems, requiring cooperating operators. For flight applications, Virtual Prototypes Inc can supply a generic flight simulation model that can be parameterized to fly any type of fixed-wing aircraft.

VAPS has applications in concept exploration, visualization, and training. The company delivers VAPS as an off-the-shelf product. Virtual Prototypes Inc also provides engineering services involving the application of its technology to particular customer problems and training services.

AVERAGE WORK FORCE: Engineers – 20
Others – 10

GROSS SALES: 1987 – $1.4M

PLANT SIZE: 7,000 Sq Ft

EQUIPMENT: Silicon graphics superworkstation network, Virtual Prototyping System Design software, and simulation software.

EXPERIENCE: Present customers include various Canadian government departments, and industries in Canada, the US and overseas. Major customers include Northrop Corporation (Aircraft Division), USAF (Flight Dynamics Lab, WPAFB), General Dynamics (Ft Worth Division), USN (Naval Underwater Systems Center), Boeing Military Aircraft Co, Texas Instruments, RCA, Raytheon Co, McDonnell Douglas Helicopters, Computing Devices Corp, and the Canadian Department of National Defence.

KEYWORDS: Rapid Prototyping; Man/Machine Interface; Computer Graphics; Expert Systems; Flight Simulation; Crew Station Design; Automatic Code Generation; Software Rehosting; Digital Terrain; Operability Prototype; Tactical Console; Virtual Cockpits; Human