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# Intrinsyc

## Business Plan Summary

[Please reference the Company's recent Prospectus dated July 14/98 for more details]

**Intrinsyc Software, Inc. is developing the next millennium's embedded Windows and embedded Internet software technologies for license to Original Equipment Manufacturers (OEMs) in their consumer and commercial electronics product lines.**

Intrinsyc's vision encompasses a new landscape of small and low cost, yet highly sophisticated consumer **Information Appliances** and their commercial industry counterparts. This vision is driven by Intrinsyc's belief in the convergence of 3 unstoppable forces:

- (1) **Moore's law** – progressively lower cost and more powerful chips  
*(\$10 super chips in 1999; 1 billion transistors on a chip in 5 years time);*
- (2) **Windows CE** – an exciting new embedded operating system  
*( . . . from the world's largest software company that is fully committed to its long term success); and*
- (3) **The Internet** – a common language for all things electronic  
*(It's not just for desktop PCs any longer. It will become the backbone for an "embedded Internet" with 20 times the number of devices interconnected together)*

Intrinsyc sees today's 300 million desktop PCs with their Internet Web Browsers connecting to, monitoring, and controlling tomorrow's world of tiny embedded Windows and Internet enabled devices – many of which won't have their own displays or keyboards. Desktop PCs and their Browsers will become the eyes and ears of an new embedded world – a world with a focus on connectivity. Every device communicating to every other device. Seamlessly.

## Corporate Highlights



Intrinsyc was founded in 1992 and went public on the Vancouver Stock Exchange in 1996. Over the past three years, Intrinsyc has steadily gained a reputation as an embedded Windows / embedded Internet technology leader. The industry first took note of Intrinsyc when Microsoft highlighted the company at COMDEX in the fall of 1997 as one of 14 exceptional technology companies worldwide.

Intrinsyc has continued its development and licensing of key technologies that extend Microsoft's own offerings, and has established a unique position in the rapidly growing embedded software market as a visionary in the provision of leading edge technologies. With over \$5 million invested in development over the past three years, Intrinsyc has unmatched intellectual property and intellectual capital that will fuel the continual expansion of its portfolio of licensable software components in addition to its supporting development tools and design services.

Intrinsyc has assembled a world-class organization consisting of highly motivated and creative engineering and computer science professionals led by a seasoned business management team. Intrinsyc corporate headquarters are in Vancouver, British Columbia.

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## Business Focus

Intrinsyc is in the business of **developing and licensing** technologies for use in a revolutionary new class of consumer **Information Appliances** and their commercial counterparts which are built around Microsoft Windows operating systems, such as **Windows CE** and **Internet based** communications technologies. Intrinsyc licenses these technologies to a diverse range of **OEMs** and **System Integrators**. Offerings include:

- ❑ **Licensable Technologies** – that provide a foundation for the development of next generation distributed embedded systems based on Windows and the Internet;
- ❑ **Development Tools** – that simplify and accelerate embedded Windows / embedded Internet product development activities while reducing embedded system costs; and
- ❑ **Value-added Services** – to licensing customers that encompass all aspects of embedded Windows / embedded Internet development projects in support of Intrinsyc's core technologies.

Intrinsyc's combination of technologies, tools, and supporting services strike an ideal offering balance that caters to the needs of the emerging embedded Windows / embedded Internet development community. These offerings are attractive to any OEM or Systems Integrator that is embracing the mega-trend of Windows-based and Internet enabled embedded solutions.

## Embedded Windows Market



### Embedded Market Overview

An embedded system is any computer system that is physically incorporated into a product that performs a dedicated function or specific application. Consumer examples include: kitchen appliances and home entertainment systems; while commercial examples include: point-of-sale terminals, industrial process controls, and a broad range of other vertical-market applications. As products get more complex, the need for automatic control, friendly human interfaces, and system connectivity builds, so companies are designing more embedded computers into their products. The world of consumer and commercial electronics is the world of embedded computing.

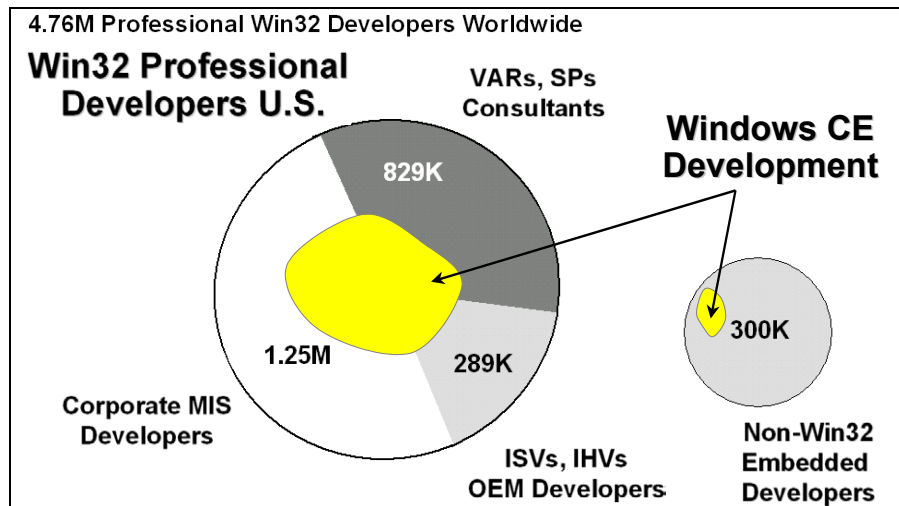
Embedded systems have traditionally been built using a wide variety of proprietary hardware and software components, but OEMs are now able to take advantage of universal platforms, well-understood architectures, high performance solutions, and abundant development tools found in the desktop PC market.

Millions of developers who use Microsoft's Windows software today need software tools and technologies that will help them to move their existing desktop products to the embedded world. In almost all cases the communication requirements center on Internet based protocols as well.

Component-based software applications built on general-purpose operating systems lead to shorter product development cycles, extended product life, increased product functionality, and reduced overall product costs. Intrinsyc is well positioned to capitalize on this overall mega-trend and capture a significant portion of the embedded Windows / embedded Internet market.

## General Market Size, Segmentation and Growth

The embedded systems market is 50 times the size of the desktop computing market in terms of # of products shipped (4.2 billion microprocessors shipped in 1997<sup>1</sup>). Industry analysts conservatively predict that the software portion of the embedded market will grow from US\$2.5 billion in 1998 to more than US\$5 billion by the year 2000<sup>2</sup>. Microsoft owns a commanding 90% of the desktop software market but has not yet been a significant force in the embedded market. With the introduction of their Windows CE operating system, Microsoft is expected to capture a significant share of the rapidly growing yet highly fragmented embedded market.



Intrinsyc's technologies and tools are intended for use by nearly five million<sup>3</sup> Windows developers as well as the traditional embedded system developers<sup>4</sup> who currently use a wide variety of proprietary technologies and tools. Microsoft is en-route toward their development targets, but are still relatively early in the introduction of Windows CE<sup>5</sup>.

Customers are now demanding solutions built for multiple purposes with clear upgrade and replacement paths. Graphical user interfaces, remote connectivity, data sharing, and application programming interfaces normally associated with desktop software applications, have created a compelling reason to consider Windows as the embedded operating system technology of choice in the next millennium.

Embedded Windows applications can draw from the thousands of existing desktop programs to rapidly create a huge variety of consumer and commercial products. Multimedia, industrial automation, medical, computer peripherals, telecommunications, and office automation are just some of the potential target segments.

<sup>1</sup> Source: Integrated Circuit Engineering Corporation

<sup>2</sup> Source: Integrated Circuit Engineering Corporation

<sup>3</sup> Microsoft estimates that there are over 4.76 million Win32 developers worldwide.

<sup>4</sup> Industry estimates (IDC) show over 300,000 embedded systems developers are using non-Microsoft solutions.

<sup>5</sup> Microsoft estimates that there are 5,600 Windows CE Embedded Toolkits (ETKs) sold as of Q3 1998, and that they will reach total sales of 350,000 by the end of 1999.

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## **Market for the Company's Technologies, Tools and Services**

The embedded Windows / Internet technology revolution is finding immediate applications in new high-end embedded system applications where there is an emphasis on complex system functionality and high performance that has not been traditionally available from proprietary embedded systems technology sources. Embedded system applications requiring networking to other information systems or desktop PCs, graphical user interfaces, or integration with commercial-off-the-shelf components, are well suited to embedded Windows / Internet based approaches.

While the bulk of today's embedded marketplace is associated with cost constrained applications that are based on older 8 and 16 bit embedded controllers, the evolving embedded Windows / Internet market, driven by Moore's Law, will start to support a wide range of increasingly sophisticated highly embedded applications using low cost, yet high performance, 32 bit embedded controllers.

This applies to both consumer and commercial market segments including: home entertainment and security systems, manufacturing automation, telecommunications, medical equipment, transportation, test and measurement, and retail/office automation, almost all of which will become based on 32 bit embedded controllers and complex operating systems, such as Windows CE, within the next 2 years.

The embedded Windows / Internet market is still in early stages of development today with the majority of OEMs and Systems Integrators being inexperienced in Windows CE development and Internet communications. Today most OEMs are in search of licensable technology *in conjunction* with value-added tools and services to help them to initiate new development programs.

In most cases, Intrinsyc's technology licensing flows from the use of Intrinsyc tools and the provision of design services. Licensing revenues typically involve initial up-front payments that range from 25-50% of the total value of multi-year licensing agreements with the remaining payments keyed to the end of the customer's product development cycle (typically 6-9 months) when their product ships.

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## Past, Present and Future    Intrinsic has the right Stuff . . .

Since its beginning, Intrinsic has set forth an aggressive business model with substantial associated technical, marketing and financial risks and upside potential by creating key intellectual property that the Company perceives will become pivotal to the embedded systems markets in the future, rather than the present. Intrinsic has spent the last 2.5 years preparing for a new market that has generally not been recognized by potential competitors to exist in the embedded space up until now.

Intrinsic believes that its high stakes bets have already started to pay off. The mainstream press is just beginning to acknowledge the “death of the PC” and the emergence of a new class of computing products – the so called Information Appliances based on the Internet. Microsoft’s new Windows CE operating system is still in its infancy in the embedded systems space. It is not yet out of the handheld PC mold that it started from – still, the embedded market is strongly endorsing it as 1998 comes to a close.

### Intrinsic’s Vision and Execution in the Past

Comdex’96 – Microsoft announced Windows CE 1.0 for a new class of PCs coined “H/PCs”. Intrinsic announced the same month a new line of development tools for embedded Windows (Win32 based – NT and CE) applications.

Spring’97 – Intrinsic announced *Rainbow 1.0*, the world’s first and only web server for Windows CE – and still no-one else knew what the technology could be used for as no non-H/PC Windows CE devices had been developed by OEMs at that time. Intrinsic also shipped *IX for NT* in beta and showed alpha demos of *IX for CE*. Annasoft, VenturCom, Eclipse and bSquare all started to offer systems integration services to support OEMs who were looking at designing Windows CE into new products. BSquare was the only company to offer licensable technologies for Windows CE – and only for H/PCs.

Summer’97 - Intrinsic announced *WinFT for NT*, then *WinFT for CE*. Intrinsic heavily lobbied Microsoft to change course on the release of Windows CE 2.0, scheduled for the fall, to have a more “embedded” focus. Intrinsic privately met several times with key Microsoft executives to demonstrate its embedded technologies and pitch its “embedded Windows / Internet” technology roadmap.

Fall’97 – Microsoft announced that for the first time, it would be attending the Embedded West Show. This created a huge buzz about the upcoming Windows CE 2.0 release. Intrinsic partnered with Microsoft at the show and created a buzz of its own with *Rainbow*, *IX for NT* beta and *IX for CE* alpha demos. Microsoft immediately invited Intrinsic to its booth at Comdex. VenturCom started to talk openly about creating a competitive product to *IX for CE* with its customers.

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Winter'97/98 – Bill Gates stood up at the CES keynote address and proclaimed that Microsoft was going to push aggressively into the embedded systems markets and announced several high level deals with TCI, Sony, Sega and Motorola for Windows CE embedded product lines. The world took notice – all of a sudden, everyone was talking about embedded CE. Meanwhile Intrinsic was in detailed negotiations with Microsoft for its *IX for CE* tools. Intrinsic announced *DeviceCOM* for Windows CE and demo'd it at the ARC conference – Microsoft and the IA community again took notice.

Spring'98 – Intrinsic and Microsoft could not agree to licensing terms for *IX for CE* and the deal was called off. Microsoft announced that it would license C/I from VenturCom for Windows NT and would be contracting them to create a future enhancement for the Windows CE ETK. Further details indicated that it may not be in direct competition to Intrinsic's tools. Intrinsic shipped *IX for CE* beta the same day Microsoft announced its deal with VenturCom with a beta release date 1 year hence. Intrinsic locked down its first volume licensing deals for *Rainbow* and *WinFT*.

Summer'98 – Intrinsic shipped *DeviceCOM* in beta, new versions of *Rainbow for CE 2.1* with enhanced server extensions, closed more licensing deals for *Rainbow*. Started to work for Eaton on TruckPC spec, E-video for WebTV spec, and worked on closing the Annasoft acquisition.

### **Intrinsic's Present State**

Fall'98 – Intrinsic as gold sponsor with Microsoft at the Embedded West Show. Ships *IX for CE* in volume production, *DeviceCOM* soon thereafter. At an OEM briefing, Microsoft lays out plans for Windows CE 3.0 which is to include some form of DCOM support, as well as real-time capabilities in 3Q99. Also confirms that the C/I enhanced ETK will ship in beta in the Summer'99. A huge industry ground swell of support for Windows CE is taking hold and OEMs start to talk in earnest about embedded Internet appliances using Windows CE – enter Intrinsic with Hitachi at ESC West and Comdex'98 together with *CErfBoard*. Intrinsic is finally in a strong position in the market with completed tools and technologies for OEMs who are in a new hurry to get embedded Windows based products to market. Annasoft acquisition cancelled due to general market conditions. Still no news of a competitor to *Rainbow* other than Sun's own Java based server which will run on Windows CE along with the CE JVM (large and bulky – not very embedded application friendly).

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## The Road Ahead

Winter/Spring'98/99 – Intrinsic expects to close deals like Eaton, as well as significant *DeviceCOM* licensing and services deals. Also expects *IX for CE* to grab 20-30% of the ETK market. Projects that 50% of revenues will come from services until late Spring. Will ship new versions of *CErfboard* with other processor types, and will look into its first “products” based on this technology for specific markets – probably transportation. Intrinsic to push very strongly for at least 2 strategic alliances/joint ventures in specific verticals along with investments from these partners. New real-time versions of *DeviceCOM* to be released along with an IDL compiler and bridges to other RTOSes – possibly via a Java based COM compiler technology.

Summer/Fall/Winter'99 – Intrinsic expects to see licensing revenues climb dramatically while services revenues grow slower - leveling off near the end of the year at 33% of revenues. More vertical market based products in the offing. More vertical focus to technology development work and licensing as Microsoft moves to consolidate technologies such as Rainbow. Intrinsic will continue to position *DeviceCOM* and its associated bridges to other RTOSes as a key strategic initiative for the company. Will have to address and possibly re-release *IX for CE* in reaction to the expected new ETK shipment from Microsoft. Same for *DCOM* in *CE 3.0*.

2000 – Intrinsic as a key player in the embedded Internet markets with key technologies in communications middleware in addition to various product lines in conjunction with its strategic partners in various embedded verticals. Again, it is Intrinsic's partners and major OEM accounts that have helped shape and focus its technology roadmap from this point forward.

At all times, Intrinsic's future has been and will continue to be in the hands of its key developers and technical management who continue to pursue a path of excellence and creativity in addressing in an aggressive manner, the anticipated needs of the embedded Windows / Internet market.

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## Licensable Technologies

*"Intrinsyc's technology extends the capabilities of Windows CE in the industrial-control market," said Graham Clark, Director, Product Industries at Microsoft.*



## A Foundation for the Development of Internet based Embedded Systems

Intrinsyc has implemented several key technologies for use in the development of Internet/Intranet based distributed systems. These technologies solve complex problems associated with interoperability, data transfer, synchronization and data exchange, data storage, signal processing, and reliability using industry standards so that OEMs can focus on their unique requirements.

### Interoperability

Microsoft's Component Object Model (COM) is the most widely used component software model in the world. It provides the richest set of integrated services, the widest choice of easy-to-use tools, and the largest set of available applications. In addition, it provides the only currently viable market for reusable, off-the-shelf, client and server components. Distributed COM (DCOM) extends COM to support communication among objects on different computers running Windows NT/95/98.

Intrinsyc's *DeviceCOM™* further extends the Microsoft offerings by providing DCOM support on the Windows CE operating system. With *DeviceCOM*, OEMs can leverage their investment in COM-based applications, components, tools, and knowledge to develop standards-based distributed solutions on the Windows CE operating system.

*DeviceCOM* is compatible with DCOM at the object level, and it is completely transparent to COM clients and servers. *DeviceCOM* uses an optimized underlying mechanism that addresses known technical limitations in the standard DCOM and makes *DeviceCOM* a much better framework for industrial Windows CE as well as Windows NT connectivity.

Intrinsyc intends to extend similar *DeviceCOM* interoperability support to other proprietary real-time operating systems (e.g. VxWorks, EPOC, OS9, pSOS, etc.) building a common integrated technology that will unify the embedded community. *DeviceCOM* will also be offered in a real-time version for the future Windows CE 3.0 release which will have real-time capabilities.

### Remote Control, Configuration, Data Transfer, and Maintenance

Internet technology opens enormous new opportunities for businesses. It allows them to reach into new geographical markets, provide better service to customers, and streamline and improve collaboration and communications with employees and partners. The World Wide Web takes on a whole new dimension with the potential to connect users to millions of Internet-enabled embedded devices.





***"With products like Rainbow, Windows CE can be deployed in many new targeted product categories for embedded systems", said Tony Barbagallo, business marketing manager, Windows CE at Microsoft.***

Intrinsic's *Rainbow*<sup>TM</sup> bridges the gap between the desktop and the embedded world by providing industry standard HTTP services plus powerful server extension capabilities on platforms running Microsoft's Windows CE operating system. This highly efficient and compact web server software lets businesses deploy and manage dynamic, secure, extensible Web sites for monitoring and controlling embedded systems.

*Rainbow* is the embedded industry's only currently available web server for Windows CE. With its powerful server extensions, any low cost *Rainbow* enabled Windows CE device can be remotely monitored, controlled, serviced and supported by a desktop PC running a standard Internet Browser from anywhere in the world. File systems, registry data, applications and even the complete core operating system can be remotely updated and managed at will, with complete security.

*Rainbow* creates new possibilities for embedded systems by removing the need for costly user interfaces and associated product packaging. Letting desktop PCs communicate with and control an unlimited number of embedded devices in the home or in a commercial setting opens truly immense opportunities for OEMs with their new product plans.

#### More Industry Quotes about Rainbow:

*Bob Trott, editor of InfoWorld Electric stated on June 12/97, "Intrinsic Software is working on what apparently is the first Web server based on Microsoft's Windows CE platform that is specifically geared for embedded computer applications. Intrinsic's Web Server could provide a major boost to Windows CE, a platform for which Microsoft has big plans. The operating system eventually will be incorporated into phones, hand-held terminals, point-of-sale devices, automotive applications, and other technologies, [Microsoft] officials said. The OS also will be a key component of the company's [Microsoft's] Windows NT multiuser technology, Hydra, as well as a centerpiece of future Web television innovations that come about as a result of Microsoft's pending acquisition of WebTV."*

*"We see Windows CE as a real opportunity to open up sensors and controllers, and using things like Rainbow will definitely make that information available," said Bill Thompson, a senior analyst at Automation Research Corp. in Dedham, Mass. "To serve that information up onto a standard Internet/intranet format is definitely exciting. It also goes along with Microsoft's push to make their Windows solution scalable downward as well as upward," Thompson said.*

*Client Server News of New York stated on June 9/97, "Intrinsic Software Inc. says it's got a working web server that can run on top of Microsoft's Windows CE, the first of its genre and a key function Redmond [Microsoft] needs in its battle to defeat Java in the embedded controls market. Intrinsic's Rainbow server, still at the alpha stage, will let embedded computers running CE dish up information that can be accessed by any standard browser. It could deliver, for instance, details of what a CE-controlled drill press is doing or details of a sale by a CE-controlled gasoline pump. Java's been heavily touted for such applications, handled now almost exclusively by custom mini-OSes, but Redmond's [Microsoft] just as loudly touting NT-based networks with CE on the controllers."*

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***“With Intrinsic’s DeviceCOM, we are one step closer to providing customers with what they’ve been looking for,” said Adrian Dumitrescu, Vice-President of Dynapro Software Business Unit.***

## **Synchronization and Data Exchange**

Component-based solutions provide tremendous benefits over monolithic centralized solutions including economy, performance, reliability, incremental growth, and distributed architecture. While this type of architecture has many obvious advantages, embedded systems developers are still concerned with the challenges involved in creating and coordinating the actions of software components.

Intrinsic’s *DeviceCOM Event Service* builds on the communications infrastructure of *DeviceCOM* to provide application developers with a powerful yet simple framework for synchronizing activities and sharing data between software components. With this framework, embedded systems developers can expect to simplify application development, reduce application/service dependencies, and conserve system resources.

## **Data Storage**

Embedded systems have a wide variety of data storage requirements related to saving, organizing, selecting, presenting, and searching data. Some systems may collect data that simply needs to be forwarded on to a central location on a regular basis. Others may require configuration or control data from a central repository in order to perform their dedicated functions. Others may simply store and process data as needed to independently operate. Many of these requirements can be satisfied by standard database technology, but it is often impractical or infeasible to simply use a general-purpose database in the resource-constrained environment of an embedded system platform. Intrinsic has developed technology and expertise that can help customers to select or create an ideal data storage solution for their embedded application.

## **Signal Processing**

Intrinsic has expertise and an extensive source code base for the development of custom applications for data acquisition, processing, display, output and control. This technology can be traced back to the origin of the company and its roots in the signal processing industry. Drawing from proven algorithms and years of expertise in the development of Windows-based signal processing systems, Intrinsic can rapidly prototype, build, test, and deploy custom applications.

## **Reliability**

Embedded systems are often intended to operate for extended periods of time without supervision. Unlike the desktop environment where it is acceptable to prompt the user when a failure has occurred, embedded applications must be able to detect and correct faults caused by software and hardware failures.

Intrinsic’s *WinFT™* allows developers to quickly and easily build fault tolerant features into new and legacy embedded Windows applications. It also allows administrators to configure and monitor their fault tolerant systems to ensure optimal performance.



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## Low-Cost Embedded Internet Reference Platforms

Developers of Windows based embedded products need simple solutions to help them quickly Internet-enable their products. Most reference platforms for Windows CE development are intended to provide a comprehensive platform with support for general purpose computing applications. Consequently, the average Windows CE reference platform has unnecessary capabilities and is likely too expensive for simple Internet applications.



Intrinsyc's *CErfBoard™* is a family of Embedded Internet Reference Platforms with a low-cost design comprised of simple hardware without built-in display, keyboard or pointer support. It includes basic serial and digital I/O, minimum memory, and a high-performance Hitachi SH3 processor. *CErfBoard* has a small Windows CE image (300K to 1MB), and built-in HTTP and remote management support. *CErfBoard* optionally includes the *DeviceCOM*, *IX* and *WinFT* developer kits.

Intrinsyc's *CErfBoard* products are the ideal compliment to Intrinsyc's licensable technologies and development tools as they offer immediate "plug-in and play" capabilities from which OEMs can create a wide range of embedded Internet applications "out of the box" using Windows CE.

# Development Tools

## Simplify and Accelerate Embedded Windows Development Activities while Reducing System Costs

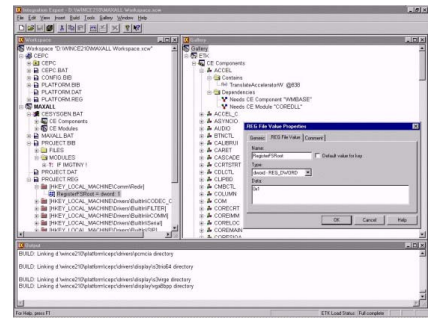
Intrinsyc introduced the *Integration Expert (IX)* product line to enhance the desktop industry standard tools offered by Microsoft for use in embedded systems applications. The *IX* tools offer unique features for embedded systems developers that is expected to create sales revenues that will grow in parallel with Microsoft's own complimentary tool sales for the embedded market which should in turn propel Intrinsyc's technology offerings quickly into volume licensed usage.



*"With Intrinsyc's new IX, current embedded developers for Windows CE will now experience enhanced productivity while first time users will be up and running with new projects quickly and easily," said Tony Barbagallo, group product manager, Windows CE at Microsoft Corp.*

### Integration Expert for Windows CE

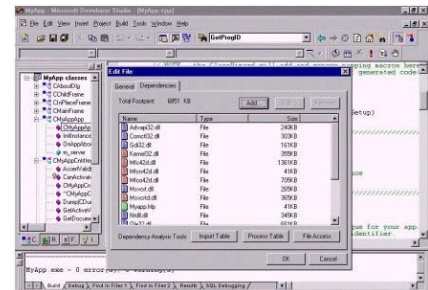
*Integration Expert™ (IX)* for Windows® CE is an essential tool for developers of Windows CE-based embedded systems. *IX* builds on the foundations laid by the Microsoft® Windows CE Embedded Toolkit (ETK), providing powerful configuration, analysis, optimization, and build tools that can significantly reduce development time and costs.



Integration Expert for Windows CE can be sold to every user of the Microsoft ETK. The component gallery supported by *IX* also provides opportunities for product promotion for other companies, furthering Intrinsyc's reputation as an Embedded Windows technology leader.

### Integration Expert for Windows NT

*Integration Expert (IX)* for Windows NT provides everything developers need to define, analyze, integrate, and deploy NT based embedded systems. The innovative tools provided by *IX* combined with the industry standard Microsoft Visual Studio compiler tools make it easy to get powerful results fast.



Unlike the tools developed by VenturCom and now licensed exclusively to Microsoft as part of the future Impala (Embedded NT) toolkit, which are restricted to a single version of NT Workstation, *IX for NT* can work on any version of NT and is not database driven – rather, *IX* has fully automated analysis capabilities. Consequently, developers who wish to create NT Server solutions, and those developers who do not understand the intricacies of the NT operating system, will be particularly interested in *IX for NT*.

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## Services



### A Full-Service Offering for Embedded Windows / Internet Development Projects

In addition to leading-edge technologies, Intrinsic has the requisite experience, personnel, and methodologies to offer a wide range of design and engineering services to OEMs. These services include:

- ❑ **Requirements Analysis** – Identification of key requirements associated with the system, drawing from customer-supplied product plans, feasibility studies, target market surveys, applicable standards, and a variety of other information sources;
- ❑ **System Design** – Definition and documentation of the technical solution, including the creation and assignment of work packages for the complete development project;
- ❑ **Platform Development** – Hardware design, simulation, testing/validation, Windows CE OAL adaptations, custom drivers, BIOS modifications, communications protocols, low-level APIs, custom manufacturing services;
- ❑ **Application Development** – Implementation of custom application software components, add-on technologies, and interfaces to commercial products as defined in product requirements and work package specifications;
- ❑ **Integration** – Combining of hardware and software components including those potentially delivered by multiple subcontractors and suppliers to incrementally form the final deliverable system;
- ❑ **Test & Acceptance** – Planning and execution of a phased delivery including factory acceptance and onsite acceptance tests used to measure and formally sign-off contract deliverables; and
- ❑ **Post-Delivery Support** – Provision of warranty, post-delivery technical support, and troubleshooting services.

### Best-in-Class Methodologies

Intrinsic has created a highly efficient development methodology, drawing from best-in-class practices at major product and system development companies. A common objective of OEMs is to enter target markets with a product that can capture major market share, block competitive entry, and accelerate customer adoption. Key elements of this strategy include:

- ❑ **Incremental Development** – allows OEMs to create prototypes that demonstrate key features and support field testing, while also facilitating successful product launch with reduced overall time to market;
- ❑ **Systems Engineering Process** – ensures that the right product is built in the best possible manner; and
- ❑ **Quality and Commitment** – is demonstrated throughout all stages of product and custom system development, from initial concepts to final shipment and ongoing customer support.

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## Competition in the Market

### Competition for Intrinsic's Technologies and Tools

There are currently two principal competitive threats to Intrinsic's technologies: (1) alternatives to embedded Windows and (2) alternatives to Intrinsic's technologies and tools.

#### Alternatives to embedded Windows

Since Intrinsic is wholly dependent on the success of the embedded Windows operating systems in the embedded systems market, alternatives to them constitute indirect competition to the Company.

New product offerings from Sun Microsystems, Inc. ("Sun") may create a serious competitive threat to Windows CE for many embedded applications in 1999 onwards. The Company believes that Sun's Java technology, in its current state, is complementary to Windows CE as an add-on internet communications technology. Microsoft has recently introduced a suite of Java extensions to Windows CE and the Company supports Java within its *Rainbow* Web Technologies. Java, as an operating system, does not currently represent a viable alternative to Windows CE because of its large codebase memory size (the amount of memory required to store and execute the program) and its inefficient operation. Sun is, however, expected to release new versions of Java in 1998 which will overcome these limitations.

Currently, the Company has no product development initiatives that address the use of Java as an alternative to Windows CE.

#### Alternatives to Intrinsic's Technologies and Tools

*IX* - The Company is not aware of any product offerings that compete with *IX* except for Component Integrator ("C/I") which is offered by VenturCom, Inc., a private U.S. company. VenturCom has released a Windows NT version of C/I that sells for approximately US\$2,500. Recently VenturCom licensed C/I to Microsoft. Microsoft has committed to incorporating C/I into the next major release of its Windows CE embedded toolkit ("ETK") which is expected in the third calendar quarter of 1999. Microsoft currently sells its Windows CE ETK for US\$495. The Company believes that *IX* compares favourably to Component Integrator by virtue of having greater functionality and greater support for third party components. The lack of other competition is due to the fact that the market is in the early stages of development. Competition is expected to intensify as the market matures. The Company believes that being early to market will represent a competitive advantage to the Company when others begin introducing competitive offerings.

*Rainbow* - The Company's principal competition comes from Spyglass Inc. (Microserver), emWare Inc. (emGateway) and Dundas Software Ltd. (Ultimate TCP/IP), all of which are more established, benefit from greater market recognition and have substantially greater technical, financial, and marketing resources.

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The Spyglass MicroServer is a Web server for non-Windows systems that can be embedded in devices. Prepaid royalty packages are available with royalties less than \$1 per device in large quantities. Although MicroServer is for non-Windows based products only, it can be used to create embedded products which could compete with both Microsoft's WinCE operating system and the Company's *Rainbow* technology. In addition, Spyglass acquired technology in 1997 which will enable it to develop a Windows CE web server.

The emWare EMIT 2.0 Software Developers Kit, which provides point-to-point, Internet or intranet communication between web browsers and electronic devices, sells for US\$2,950. Prepaid royalty packages are available with royalties ranging from \$100 to less than \$1 per device in large quantities. Although EMIT 2.0 Software Developers Kit is for non-Windows based products only, it can be used by developers to create embedded products which could compete with both Microsoft's Windows CE operating system and the Company's *Rainbow* technology.

Ultimate TCP/IP 2.0 from Dundas Software includes web server support for WinNT that facilitate the development of web servers that run as WinNT services. Dundas includes C++ source code for US\$500. Although Ultimate TCP/IP 2.0 is for WinNT only, it can be used as a starting point by developers to create Windows CE versions which could compete with the Company's *Rainbow* technology.

*Rainbow* differentiates itself from these competitive offerings by providing compatibility with WinNT web server extensions, as well as providing a much smaller product that is tailored for embedded applications. *Rainbow* enables customers to reduce development and integration costs for their embedded Windows applications by allowing for the use of the well known and supported Microsoft WinNT web server extension specifications.

*WinFT* - Competition for Windows FT based embedded systems comes indirectly from Microsoft with its Wolfpack technology which allows duplicate personal computers to be networked together to provide hardware based redundant backup systems. *WinFT* differs from Wolfpack by being a low cost software based solution that cannot protect from a hardware failure while Wolfpack provides more costly, yet more reliable hardware based fault tolerance. In most cases the technologies are complementary rather than competitive because of the difference in cost between the two approaches.

A number of companies are currently offering various levels of Windows CE and Windows NT systems integration services to embedded systems OEMs, including bSquare Corporation, VenturCom, Inc. and Annabooks Software LLC. The only significant differentiation among these competitors is that only VenturCom has stated its intention to offer products that have the potential to compete with the Company's current and planned product offerings.

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## Product Sales & Marketing

Intrinsyc product sales and marketing functions include product planning, advertising, public relations, distribution, order processing, and support.

### Product Marketing Plans

Intrinsyc's technologies are designed, developed, and positioned to address the evolving Embedded Windows market requirements. New products are defined in a product requirements specification, which includes goals and long term vision for the product combined with specific features (functional requirements) offered by the product. Pricing, promotion, and distribution plans are created by the Product Manager and coordinated with the Product Development Lead to ensure success of the product.

### Advertising

Intrinsyc's technologies are promoted to the embedded industry as part of a general advertising program to promote Intrinsyc's product and solution offerings. Intrinsyc places advertisements in the leading Windows CE publications including:

- ❑ **Windows CE Tech Journal** – a Miller Freeman publication that includes technical columns, feature stories, and advertising for Windows CE technology and solution providers;
- ❑ **Microsoft Embedded Review** – a Microsoft publication that includes approximately ten 2-page technical articles, Microsoft information, and various third-party product and corporate advertisements distributed with EE times on a quarterly basis.

### Direct and Web-based Marketing

Intrinsyc has participated in Microsoft direct mailings and Windows CE ETK distribution programs including:

- ❑ **Microsoft Direct Mailings** – Product notices sent to all subscribers to Microsoft's weekly e-mail newsletters; and
- ❑ **Microsoft Windows CE ETK Sampler CDs** – White papers shipped on Microsoft ETK sampler.

Intrinsyc supplies articles and review materials to web sites that host Windows CE product or solution information, including product announcements, demonstrations, and links to the Intrinsyc site.

### Distribution, Partnerships, and Third-Party Marketing

Intrinsyc has established non-exclusive distribution channels for the company's products through Annasoft Corporation for North America, Wizard Information Systems for Europe and the Middle East, Allan Crawford Associates for Canada, and is currently negotiating an agreement with Kanematsu and Unidux for Japan.



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Intrinsyc has also forged partnerships with a number of original OEMs, system integrators, and independent software vendors in order to facilitate further distribution of Intrinsyc's technologies and tools as well as to accelerate the development of focused applications for several vertical markets. The company's strategic relationship with RadiSys Corporation (a world-class manufacturer of PC-compatible embedded computer solutions) and a close working relationship with Microsoft's technical and marketing teams helps position the company for a wide variety of future business opportunities.

Intrinsyc's partnerships with Microsoft include Windows CE First-Wave Partner, Windows CE Launch Partner, and Windows CE Systems Integrator. Intrinsyc works closely with several divisions at Microsoft including:

- ❑ **Consumer Platforms Division** – a rapidly growing division that includes the Windows CE operating system and tools, targeted products (Handheld PC, Palm-size PC, AutoPC), and home/entertainment (WebTV) divisions. Intrinsyc has good working relations with the management of each of these business units, but is seen as a rival by the tools and core OS technical teams.
- ❑ **OEM Sales** – a small but highly influential team responsible for technology licensing and dedicated business development for Microsoft. This group regularly refers customers to Intrinsyc as a supplier of DCOM and HTTP technologies
- ❑ **Microsoft Consulting Services, Advanced Technology** – provides consulting services to large OEMs. Their role is to find new ways to satisfy OEM requirements using Microsoft technologies. These tend to be very focused engagements with extremely high levels of visibility and PR. Intrinsyc has developed strong relations with the Industrial Automation and Enterprise solutions teams.
- ❑ **Developer Relations** – evangelists in this division host conferences and help to coordinate activities between Microsoft and third parties.

## Order Processing and Support

Intrinsyc has just production released Integration Expert for Windows CE and will release DeviceCOM soon<sup>6</sup>. Both of these products are expected to generate significant sales volume, consequently Intrinsyc plans to create a streamlined department to handle order processing and customer support via telephone, fax, and e-mail.

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<sup>6</sup> Integration Expert for Windows CE was released on October 24, 1998. DeviceCOM will be released in early November 1998. Both development programs started in fall 1997 and have completed on schedule relative to original targets set in Q1 1998.

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## Solutions Sales & Marketing

Intrinsyc solution sales and marketing functions include market segment planning, target account business development, pursuit management, and contract negotiation. Intrinsyc offers custom system development services for vertical markets including Vehicle Computing, Industrial Automation, Office Automation, and Home and Entertainment.

Solutions are comprised of existing internal and third-party commercial technologies plus custom software and hardware as specified on a case-by-case basis by the end customer. These offerings require a strategic marketing approach with high emphasis on market awareness, technical innovation, systems engineering process, and management of available resources.

### Market Segment Planning

Intrinsyc's supporting solution services are targeted at selected vertical markets that are large, rapidly growing, and open to the introduction of new products built on Microsoft technologies. Solution offerings are defined in a market segment plan, which includes market analysis data, offerings, technologies employed, competitive analysis, partnerships, positioning, communication strategies, packaging and fulfillment, PR, advertising, other promotion, target accounts, pricing, success metrics, schedule, resources, and budget.

### Business Development

Intrinsyc will continue to build a growing market position through ongoing business development activities, including:

- ❑ **Direct Marketing Conversations** – includes cold calls, research, and surveys performed by each of the solutions market segment leaders;
- ❑ **Product Follow-up** – involves proactive analysis of product sales performed by the solutions market segment leaders and/or sales account managers; and
- ❑ **Service inquiries** – including all direct inquiries by customers.

Intrinsyc selects target accounts with the intention of creating a sustainable mix of solutions delivered to a long-term customer base. Target accounts are evaluated by the following characteristics:

- ❑ **Software Competency** – Targets currently have Windows NT products and plan to migrate to Windows CE;
- ❑ **Connectivity Requirements** – Targets require standard protocol support including DCOM or HTTP;
- ❑ **Business Type** – Primary targets include System Suppliers, Manufacturers, and Enterprise Solution Suppliers;
- ❑ **Company/Department Size** – Targets should be medium-sized businesses (50-200 people) so that contracts can be approved within a 3-6 month sales cycle; and
- ❑ **Cost of End System** – Targets who are developing systems with a final price of greater than \$500 per unit are more likely serviced by a

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Windows CE solution. This assumes a breakdown of OS (\$45) + H/W (\$100) + Apps (\$200) + margin (50%) = \$500.

## Direct Sales

Intrinsyc solutions are sold to target OEMs using a strategic sales process as outlined in the sales and marketing process and corporate operations plans. The key to solution sales is in creating an offer that addresses the concerns of the customer, providing them with a solution that promises a future that they desire and are willing to purchase. Intrinsyc has exceptional talents for proposal generation and pursuit management, and will be able to scale the business around a proven strategic sales methodology.

## Vehicle Computing



The vehicle computing market is large, rapidly growing, and open to the introduction of new products built on embedded Windows / Internet technologies. The transportation logistics market includes any kind of systems used to control, monitor, and manage the transportation of people and goods. The market is huge and estimated at over US\$650 Billion for Transportation Logistics (US Market) including 3% ships, 3.9% trains, 14.4% aircraft, 78.7% trucking.

Spending on Information Technology is estimated at over US\$4.7 Billion including 8% ships, 14% trains, 57% aircraft, 21% trucking. This means that trucking is a particularly good area as there is a clear discrepancy between overall spending versus that for IT solutions. Automotive applications include a logistics element, but also have a focus on entertainment and personal productivity. Intrinsyc will focus on both logistics and in-vehicle functions associated with vehicle computing.

Traditional solutions for transportation logistics and in-vehicle functions are based on a wide variety of proprietary technologies. A large part of the logistics market is simply not automated, or done in a non-scalable manner using special-purpose proprietary products. There is an opportunity to consolidate and dramatically grow the IT portion of this market by providing more general-purpose vehicle computing solutions. Microsoft has recognized this trend and is pushing into the embedded market with an initial focus on the automotive sector<sup>7</sup> and more recently on the transportation sector<sup>8</sup>.

The general expectation of vehicle computing systems suppliers is that Windows CE is gaining momentum and that there is a need to move with Microsoft as they push into the embedded market. There is an expectation that going with Windows CE will lead to reduced costs and increased compatibility, but may be more expensive and technically challenging in the short term. Since this market is very early in its development, most of the players are still working out their product plans and are in need of help on everything from system definition to development and deployment.

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<sup>7</sup> Microsoft introduced the AutoPC in 1997 as one of the Windows CE targeted products, and has formed a broad range of alliances for this initiative.

<sup>8</sup> Microsoft Consulting Services, Advanced Technology is working with PACCAR and others on a vision strategy that promotes Windows CE adoption in the transportation sector.



## Industrial Automation

The Industrial Automation (IA) market includes factory automation, building automation, and utilities segments. Factory Automation is the largest of the IA segments and comprises all aspects of plant operations using Information Technology (IT) tools and software components to automate factories and production processes.

Building Automation comprises all aspects of building monitoring and control and shares several IT tools and software components with the Factory Automation sub-segment. It is distinct in terms of remote access, security, surveillance and networking requirements.

The Utilities segment comprises all aspects of monitoring and control of common Utilities (power, gas, and water) subscriber plants and shares several IT tools and software components with the other IA sub-segments. It is distinct in terms of remote access, geographical scope and networking requirements.

Intrinsyc is a member of the OPC Foundation, a consortium of leading industrial automation hardware and software vendors, and is also a member of OMAC (Open Modular Architecture Controls). Intrinsyc's DeviceCOM product is used to deliver OPC (OLE for Process Control) support for Windows CE based process control systems, standardizing the interaction between process control software and control and acquisition devices.



## Office Automation, Home & Entertainment, and Other Vertical Markets

Intrinsyc has supplied Rainbow Embedded Web Server technology to several major corporations for use in the development of next generation office products built on Windows CE. Examples include video conferencing systems, peripherals, and imaging products.



Intrinsyc is working on a variety of projects involving WebTV and other home systems. These systems typically incorporate the Rainbow Embedded Web Server technology or custom application software designed and developed by Intrinsyc's experts.

Intrinsyc is currently investigating other vertical markets that can benefit from distributed technologies, including: Retail Point Of Sale (POS), Mobile Data Solutions, and Distributed Security Systems.

## Sample Customers

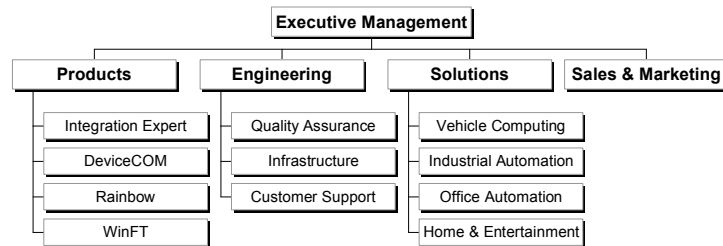
Intrinsyc has received outstanding reviews from its growing customer base. Although many of Intrinsyc's most important tools and technologies have only recently been released, Intrinsyc has made sales to companies such as:

- **Tools** – Intel, RadiSys, Kodak, Unisys, Ecton, Data General, OA, Dynapro, and many more;

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- ❑ **Technology Licensees** – Intermec (Bar-coding systems), Philips Multimedia (Video Conferencing), Canon (Office Products), PictureTel (Video Conferencing); and
  - ❑ **Services** – Eaton (TruckPC), E-Video (WebTV).

## Organization

Intrinsyc is organized to efficiently deliver technologies, tools and services to its customers. The products unit is responsible for product definition, development, packaging, release management, and publicity for tools and licensable technologies. The solutions unit is responsible for planning, sales and marketing, solutions development, resource allocation, budgets, and revenue generation for each of the selected vertical markets. Engineering provides a resource pool from which to staff the products and solutions operations while also providing dedicated support functions including quality assurance, system administration, and documentation.



### Highly Skilled and Experienced Personnel

A critical element contributing to the ultimate success of any technology company is the intellectual capital it employs, and Intrinsyc's position at the leading edge has enabled the Company to attract the very best. Intrinsyc is proud to have assembled an excellent management team and a talented dynamic group of developers, and have received numerous outstanding reviews from its growing customer base.

Members of the Intrinsyc development staff include highly skilled Windows CE/NT Win32 C++ Application Developers, Systems/Tools Developers, Device Driver Developers, QA Test Specialists, and support staff. Intrinsyc's developers typically have a degree in Engineering or Computer Science, with an average of 6-8 years Visual C++ and Win32 programming experience.

Intrinsyc has gained a reputation for solving complex development problems in record time. This reputation has been created through the ongoing demonstration of talent and commitment throughout the development organization.

### Executive Team

Intrinsyc senior management has diverse international experience in business operations, systems engineering, product development, marketing, and research in the information technology industry. The management team has demonstrated a track record of delivering solutions on time and within budget. Drawing from their experiences at major product and systems companies, Intrinsyc managers have adopted best-in-class practices to produce results that consistently exceed the expectations of their customers.



**Derek W. Spratt**  
*President and  
Chief Executive Officer*

**Derek W. Spratt** brings a broad range of public company and technical leadership talents and experience to Intrinsic. Mr. Spratt came to Intrinsic from PCS Wireless, a microcellular active antenna technology business, which he co-founded. As executive vice president from 1993 - 1996, he was instrumental in all aspects of executing the corporate startup, securing financing, negotiating strategic alliances and sales contracts, as well as managing daily operations and public company issues. As vice president of Nexus Engineering, 1991-1993, Mr. Spratt managed OEM contracts, including the development of the world's first digital satellite TV receiver with General Instrument. Previous to this, Mr. Spratt held various management positions with Motorola's Wireless Data Products and Customer Service divisions, was a founding member of Integra Systems, and worked in other emerging technology businesses. Mr. Spratt holds a bachelor's degree in electrical engineering from Queens University and is a registered Professional Engineer.



**William Tsu-Cheng Yu**  
*Chief Financial Officer*

**William Tsu-Cheng Yu** worked in a variety of finance-related fields prior to joining Intrinsic first as a Director and then as the Chief Financial Officer. As an Associate of Corporate Finance with Marleau, Lemire Securities from July 1994 to December 1995, he handled many aspects of corporate finance, reverse takeovers, and initial public offerings on behalf of technology-based companies. Previous to this, he was a Portfolio Manager with Discovery Enterprises Inc., a venture capital company with over \$30 million invested in technology-based start up companies from 1991 to mid 1994. William was responsible for deal sourcing, due diligence, negotiations, documentation, and post-investment monitoring and divestitures. He was an Associate at Trilon Pacific Corp/China Canada Investments & Development, a Trans-Pacific merchant banking firm from 1989 - 1991. William has Mechanical Engineering and Masters in Business Administration degrees from Queens University.



**Dr. Bruce Forde**  
*Executive Vice President and  
General Manager*

**Bruce Forde** has diverse international experience in business management, product development, marketing, contracts, and research in several sectors of the information technology industry. Before joining Intrinsic Software in January 1997, he was responsible for product management within MacDonald Dettwiler, a leading systems integration firm specializing in geographic information, aviation, and space and defense systems. Dr. Forde was responsible for business planning, pursuit management, and project management for information infrastructures, earth observation networks, and high-resolution image data systems. In addition, he provided the technical and business vision for the development and marketing of next generation distributed object computing systems. Dr. Forde held a number of key positions in MacDonald Dettwiler's Ottawa office (1990-1994), including Strategic Business Development Engineer, Engineering Manager, and Project Engineer. He has worked for a number of engineering companies since 1978, in capacities ranging from junior engineer to senior systems consultant. His education includes doctorate, master, and bachelor degrees in Applied Sciences from the University of British Columbia.

## Finances

The following selected statements of operations data for the years ended August 31, 1996 and 1997 and the six months ended February 28, 1997 and February 28, 1998 and the balance sheet data as of August 31, 1996 and 1997 and February 28, 1998 are derived from corporate financial statements.

	Six Months Ended February 28,	Six Months Ended February 28,	Years Ended August 31,	
	1998	1997	1997	1996
<b>Statement of Operations Data:</b>				
Revenues:				
Sales .....	28,703	58,849	69,036	82,472
Cost of Sales.....	4,359	10,020	35,368	101,372
Gross profit (loss) .....	24,344	48,829	33,668	(18,900)
Operating expenses:				
Marketing and Sales .....	412,638	77,875	381,695	102,884
Administration .....	547,517	281,817	833,787	287,577
Research and development .....	673,752	258,476	888,425	193,567
Total operating expenses .....	1,633,907	618,168	2,103,907	584,028
Loss for the year .....	1,609,563	569,339	2,070,239	602,928
Loss per share	0.11	0.07	0.16	0.09
<b>Balance Sheet Data:</b>				
	February 28, 1998	August 31, 1997	August 31, 1996	
Working capital.....	730,949	28,864	120,142	
Technology rights and licenses.....	313,647	407,487	-	
Shareholders' equity (deficiency) ...	1,258,140	(11,119)	(79,297)	

On May 31, 1998, there were 14,451,287 Common Shares issued and outstanding, none of which are subject to escrow. Upon exercise of the outstanding Special Warrants, a total of 16,418,832 Common Shares will be issued and outstanding, assuming no exercise of outstanding warrants, options or other rights to acquire Common Shares.

## Revenue Projections

Intrinsyc Software will make financial proformas available upon request to parties that have signed the appropriate non-disclosure agreements.

### For more information contact:

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The information contained in this document represents the current view of Intrinsyc on the issues discussed as of the date of publication. Because Intrinsyc must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Intrinsyc, and Intrinsyc cannot guarantee the accuracy of any information presented after the date of publication. This document is for informational purposes only.



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