VITAL IMAGES INC
Form 10-K/A
November 22, 2004

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

(Amendment No. 1)

ý **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2003

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 0-22229

VITAL IMAGES, INC.

(Exact name of Registrant as specified in its charter)

Minnesota	**42-1321776**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
3300 Fernbrook Lane, N., Suite 200 Plymouth, Minnesota	**55447**
(Address of principal executive offices)	(Zip Code)

(763) 852-4100

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, $.01 par value
Preferred Stock Purchase Rights
(Title of Class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes o No ý

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to the Form 10-K. o

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the act). Yes ý No o

The aggregate market value of the common stock held by non-affiliates of the registrant computed by reference to the price at which the common stock was last sold as of June 30, 2003, the last business day of the registrant s most recently completed second fiscal quarter, was $172,873,000. The common stock is the registrant s only class of voting stock.

The number of shares outstanding of the issuer s classes of common stock as of February 28, 2004: Common stock, $.01 Par Value 11,545,258.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of registrant s definitive Proxy Statement in connection with the Annual Meeting of Shareholders held May 12, 2004 (2004 Proxy Statement) are incorporated by reference into Part III.

EXPLANATORY NOTE

Vital Images, Inc. (the *Company*) is filing this Amendment No. 1 to its Annual Report on Form 10-K for the fiscal year ended December 31, 2003, which was originally filed on March 15, 2004 (the *Form 10-K*), to restate the 2003 financial statements and related footnote disclosures to (1) correct the accounting for unrecognized deferred maintenance and service revenue in 2003 from certain maintenance and service arrangements and (2) change the classification of certain non-trade accounts receivable from accounts receivable to prepaid expenses and other current assets. The adjustment for the deferred maintenance and service revenue (a) increased maintenance and service revenue, total revenue and operating income by $524,471, (b) reduced the net tax benefit for the tax effect of the additional revenue by $194,000 and (c) increased net income by $330,471 and net income per diluted share by $0.02. The change in classification for the non-trade accounts receivable of $104,486 had no effect on the Company s previously reported revenue, operating income, net income, and net income per share. The Company also restated the disclosures to the financial statements to correct the computation of pro forma stock-based employee compensation expense by $92,167 for the year ended December 31, 2003. The impact of the previously unrecognized deferred maintenance and service revenue adjustment and the pro forma stock-based compensation expense adjustment increased pro forma net income per diluted share by $0.06. In addition, the Company has revised Item 9A to include information about the impact of the restatements on its internal controls. This Amendment No. 1 amends only the following portions of the Form 10-K; the remainder of the Form 10-K is unchanged and is not reproduced in this Amendment No. 1. This Amendment No. 1 does not reflect events occurring after the original filing date of the Form 10-K.

This Amendment No. 1 contains changes to the following disclosures:

Part I Item 1. Business

Maintenance and Support

Important Factors

Part II Item 6. Selected Financial Data

Part II Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations

Part II Item 8. Financial Statements and Supplementary Data

Part II Item 9A. Controls and Procedures

Part IV Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K

VITAL IMAGES, INC.

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Item 1. BUSINESS

Vital Images, Inc. (Vital Images or the Company) was incorporated in Iowa in September 1988. In March 1997, the Company re-incorporated under the laws of the state of Minnesota. The Company s principal executive offices are located at 3300 Fernbrook Lane N., Suite 200, Plymouth, MN 55447 (telephone (763) 852-4100, facsimile (763) 852-4110, e-mail info@vitalimages.com). From May 24, 1994 through May 11, 1997, the Company was a wholly-owned subsidiary of Bio-Vascular, Inc., now known as Synovis Life Technologies, Inc.

The Company files annual reports, quarterly reports, current reports, proxy statements, and other documents with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934 (Exchange Act). The public may read and copy any materials that the Company files with the SEC at the SEC s Public Reference Room at 450 Fifth Street N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including the Company, that file electronically with the SEC. The public can obtain any documents that the company files with the SEC at http://www.sec.gov.

The Company also makes available free of charge through its Internet website (http://www.vitalimages.com) the Company s Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements and, if applicable, amendments to those reports filed or furnished pursuant to the Exchange Act as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC.

Business Description

Vital Images develops, markets and supports 3D medical imaging software for use primarily in clinical diagnosis, disease screening and therapy planning. The Company s software applies proprietary computer graphics and image processing technologies to a wide variety of data supplied by computed tomography (CT) and magnetic resonance (MR) scanners. Vital Images products allow clinicians to create 2D, 3D and 4D views of human anatomy and to non-invasively navigate within these images to better visualize and understand internal structures and pathologies. The Company believes that its high-speed visualization technology and customized protocols cost-effectively bring 3D visualization and analysis into the routine, day-to-day practice of medicine. The Company, which operates in a single business segment, markets its products to healthcare providers and to manufacturers of diagnostic imaging systems and picture archive and communication systems (PACS) through a direct sales force in the United States and independent distributors in international markets.

Vitrea®, Vital Images advanced 3D medical imaging product for radiological and surgical applications, received FDA clearance in November 1996 and was released for sale in October 1997. Due to its speed and ease-of-use, management believes that *Vitrea* was the first 3D medical imaging product with the ability to appeal primarily to the clinical market. Historically, 3D medical imaging software was slow, difficult to use, and operated only on expensive workstations. Consequently, the functionality of such software was appealing only for research applications. The Company s *Vitrea* software combined speed with ease-of-use to enable a physician to access, manipulate and analyze 3D images, typically in less than five to ten minutes. The Company has released several updates to *Vitrea* each year, and in December 2003 released *Vitrea 2 Version 3.4*, which has improved quality, reliability and usability features to meet the diagnostic and treatment planning needs of busy radiology departments. The Company offers *Vitrea 2* both as an integrated software and hardware system, consisting of *Vitrea 2* software installed on a computer workstation, and as a stand-alone software package. To date, the Company has licensed over 1,300 copies of *Vitrea* and *Vitrea 2* to hospitals, clinics, imaging centers and other sites.

The Company believes that growing acceptance of 3D medical imaging offers Vital Images numerous market expansion opportunities. Research and development efforts are currently focused on using the Company s base of visualization technology to expand to other imaging modalities, such as x-ray angiography, as well as expanding the features and functions in the current modalities. Vital Images is also developing and enhancing its 3D medical imaging software tools for less-invasive screening applications, such as CT colonography for colon cancer screening and CT cardiac for diagnosis of heart disease.

The Company has a marketing and distribution agreement with Toshiba Medical Systems Corporation (Toshiba), which names *Vitrea 2* as Toshiba s primary 3D software for use with their CT scanners in the United States and in more than 50 countries in North and South America, Europe, the Middle East, Africa, Australia and Asia, except Japan. The agreement runs through December 31, 2004. Sales by the Company to Toshiba accounted for approximately 42%, 34% and 27% of the Company s total revenue for the years ended December 31, 2003, 2002 and 2001, respectively. See Business Marketing and Distribution and Dependence on Major Customers.

The diagnostic medical imaging market continues to expand both its geographic boundaries and its definitive boundaries. Long defined as the market for CT, MR, ultrasound and other imaging modalities, the diagnostic imaging market has grown to include both PACS and 3D imaging systems, which have become integral technologies for many radiology practices around the world.

Today, only a minority of hospitals, clinics and imaging centers use 3D medical imaging products in diagnostic imaging. Technological advances over the last several years in both computer hardware and software development have dramatically improved the cost-to-performance ratio, bringing the prices for 3D medical imaging products into the reach of most healthcare providers. In addition, increasing clinical awareness, improving utility of applications and an exponential increase in CT slice volumes are driving demand for 3D medical imaging products.

Based on an increasing number of 3D procedures being performed as a result of the growing use of imaging technology, new 3D screening procedures and broader acceptance of 3D applications, Vital Images estimates that the potential worldwide market for 3D medical imaging software and workstations, including the U.S. market, will grow to $2 billion in less than four years.

Technology

The two core technologies underlying the Company s products are customized protocols, which make *Vitrea 2* simple to use, and a visualization technique known as volume rendering. A feature critical to *Vitrea 2 s* speed and ease-of-use is its customized protocols, which provide automated 2D, 3D and 4D renderings of scanner data, optimized for individual clinical applications. Vital Images engineers and clinical collaborators have selected specific views for each type of exam *Vitrea 2* supports in order to provide immediate, useful 2D, 3D and 4D views for the user. 4D is defined as 3D images showing changes over time, such as images of a beating heart. After the selected patient data has been retrieved, *Vitrea 2* provides the clinician with up to six views with all visualization parameters pre-set for the specific type of clinical exam. The visualization settings for these views are stored in *Vitrea 2 s* software and are automatically and adaptively applied to each patient study, optimizing the views displayed. By applying this proprietary protocol technique, the system anticipates the clinician s needs and provides immediately useful views of the patient data. The use of customized protocols automates the complex and time-consuming approaches inherent in many competing 3D medical imaging products and eliminates the need for the user to be proficient in operating complex graphics programs. The Company has been issued Patent No. 5,986,662 from the U.S. Patent and Trademark Office for its mechanism for automated protocol selection, Patent No. 6,130,671 for the mechanism to calculate simulated lighting in 3D images, and Patent No. 6,219,059 for the user interface and mechanism used to control the relative transparency of 3D data in volume renderings of medical images.

Volume rendering is an advanced technique for displaying three-dimensional views on a computer monitor that the Company believes has significant advantages over the alternative technique, known as surface rendering. Volume rendering permits the direct display of all of the imaging data without mathematical modeling and allows interactive control of the level of transparency of the data. By comparison, surface rendering requires the creation of artificial surfaces based on selected imaging data, and the usefulness of the resulting visual image is largely dependent on where these surfaces are set by the clinical technician. Volume rendering is not dependent on the creation of artificial surfaces and allows visualization of varying components that might otherwise be eliminated from a surface rendered image due to surface approximation. Because volume rendering uses all of the data and information collected by the imaging equipment, the Company believes visualization processes that use volume rendering provide clinicians with better images to define and display pathology and anatomy in a more useful manner.

In the early years of medical imaging, most medical imaging companies largely overlooked volume rendering because the computer power necessary to perform volume rendering was significantly more expensive and intensive than the requirements for surface rendering. The Company s experience with volume rendering has its basis in the efforts of Vincent J. Argiro, Ph.D., the founder of the Company, who developed three-dimensional visualization software using volume rendering as an aid in his research in developmental neuroscience. Dr. Argiro focused on accelerating the performance of volume rendering on standard computer platforms. As a result of his work, he developed expertise in accelerated volume rendering, which forms the core of the Company s volume rendering technology. Because the performance of standard computer platforms has increased while the relative cost of such performance has decreased, the Company believes that volume rendering has become a more accessible imaging solution for routine clinical applications.

The Company believes the combination of customized protocols and accelerated volume rendering offered by *Vitrea 2,* together with improved computer performance, allows it to deliver a simple, fast and affordable 3D medical imaging product.

Industry Background

Medical practices in the areas of diagnostic imaging, surgery and cancer treatment have changed dramatically over the past 20 years, due in part to the introduction of a variety of new imaging, visualization, analysis, computer, networking, catheter and navigation technologies. The result has been the rapid adoption and increased use of CT and MR scanners and the incorporation of new physician-care practices based on the imaging information provided by these devices.

CT and MR imaging technologies capture data that provide a physician with a graphical representation of the inside of the human body. These images have traditionally been viewed as a series of two-dimensional, cross-sectional slices on x-ray-type film. As computer processing speed increased, software performance improved and networking technologies developed, manufacturers of scanning equipment began offering integrated systems that allowed clinicians to view, analyze and manipulate these medical images in a digital environment.

Medical imaging systems first visualized individual slices, or pictures, on a computer monitor and later provided views of multiple slices. More recently, medical imaging systems began to permit viewing and manipulation of large, multiple slice data sets as a single, three-dimensional image on a computer workstation. Today, the 3D medical imaging industry involves the creation, visualization, manipulation, analysis and communication of medical images in two, three and four dimensions (collectively, 3D medical imaging software).

Initially, the 3D medical imaging industry and the markets for 3D medical imaging products lagged the market for imaging devices due to the lack of industry standards for the generation, transmission and storage of medical imaging data and due to computer costs and performance considerations. After a time, many of the technical and cost barriers to growth in the 3D medical imaging industry and the PACS industry began to erode. In particular, the medical industry embraced an image transmission and archiving standard called

DICOM, promulgated by the American College of Radiology and the National Electronic Manufacturer s Association. This standard permits imaging, visualization, networking and archiving systems from different vendors to work cooperatively within a single network. In addition, the cost-to-performance ratio of computer products used in visualization and PACS has improved dramatically, bringing the prices for 3D medical imaging capabilities and PACS within the grasp of most healthcare providers. The Company believes that the acceptance of industry standards such as DICOM and the improvements in the cost-to-performance ratio for clinical workstations will support continued market growth in the 3D medical imaging and PACS industries.

Vital Images also expects that a number of other advantages of 3D medical imaging products will support growth in the 3D medical imaging industry:

Recent technology improvements in CT and MR scanners enable them to generate an increasing number of slices per exam, resulting in over 2,000 images, which is more than 15 times as many images as the same study less than five years ago. This makes the viewing of printed images on x-ray film, rather than in a medical imaging system, logistically impractical and expensive.

Recent reimbursement approvals by Medicare, Medicaid, private insurance companies and managed care organizations for procedures utilizing positron emission tomography (PET) scanners have greatly increased the number of procedures performed. In addition, recent advances in integrating CT and PET technologies into a single scanner have also contributed to an increase in the number of procedures performed utilizing such technology. The Company has signed an agreement with Mirada Solutions Limited (Mirada) to integrate Mirada s fusion technology into *Vitrea 2* to view images generated by PET and PET/CT scanners.

The number of planning procedures is growing. Physicians are increasingly recognizing the clinical value of 3D imaging. In addition, the Baby Boom generation has a strong interest in screening procedures for the early detection of cancer and heart disease. Accordingly, these factors are driving a demand for an increased number of scanning procedures.

Driven by a shortage of radiologists, hospital radiology departments are under pressure to perform as efficiently as possible. Thus, an increased workload must be completed with the same or fewer people. Speed in interpreting images is essential for increasing workflow productivity. Thus, there is a clear need for a fast and efficient integrated 2D, 3D and 4D visualization and analysis tools.

Diagnoses based on 2D images, or slices, require the clinician to assemble a 3D view mentally to understand the true anatomy and pathology. Given the industry pressure to produce cost-effective outcomes, 3D imaging is a valuable tool for accelerating diagnoses, potentially eliminating unnecessary tests and treatment, optimizing the use of minimally invasive surgery and therapies, and gaining additional insight needed for clinical decisions.

Spatial relationships are of paramount importance in surgery, and 3D views displaying anatomy and pathology can greatly aid in surgical planning. 3D medical imaging has the potential to promote improved surgical outcomes by giving surgeons a better road map with which to plan their operative procedures. Interactive navigation of volume data from scanners may also have the capability to spare patients from invasive procedures like endoscopy or conventional angiography.

Increased use of 3D medical imaging technology has the potential to enhance radiologists ability to communicate their findings to fellow clinicians, referring physicians and patients. In addition, the integration of these clinical disciplines through electronic visualization, networking and the Internet has the potential to provide the opportunity for greater cross-discipline coordination due to increased speed, access to information and the resulting ability to perform consultative, interactive planning and examination on computer workstations.

Markets

The Company participates in the rapidly growing 3D medical imaging market. The 3D medical imaging market also interrelates with a number of other markets such as the diagnostic imaging equipment market, the PACS market and the hospital and clinical information systems markets. 3D medical imaging software and systems have application and/or potential in diagnostic screening and radiology, remote diagnosis and consultation (e.g., telemedicine), surgical assessment, planning, navigation and follow-up, radiation and chemotherapy treatment planning and medical education. The customers for these applications include radiology, surgery and oncology departments, as well as other clinical specialists, at hospitals and research centers, diagnostic imaging and screening centers, outpatient surgery centers, clinics and physician groups.

The diagnostic medical imaging market continues to expand its boundaries. Long defined as the market for CT, MR, ultrasound and other imaging modalities, the diagnostic imaging market has grown to include both PACS and 3D imaging systems, which have become integral technologies for many radiology practices around the world.

Today, only a minority of hospitals, clinics and imaging centers use 3D medical imaging products in diagnostic imaging. Technological advances over the last several years in both computer hardware and software development have dramatically improved the cost-to-performance ratio, bringing the prices for 3D medical imaging products into the reach of most healthcare providers. In addition, increasing clinical awareness, improving utility of applications and an exponential increase in CT slice volumes are driving demand for 3D medical imaging products.

Based on an increasing number of 3D procedures being performed as a result of the growing use of imaging technology, new 3D screening procedures and broader acceptance of 3D applications, Vital Images estimates that the potential worldwide market for 3D medical imaging software and workstations, including the U.S. market, will grow to $2 billion in less than four years.

As discussed above, the overall market for 3D medical imaging software and systems is developing rapidly, as the related technology and products that define this market are relatively new and undergoing rapid change. Medical imaging software and system solutions for diagnostic radiology have existed for the last several years. The use of medical imaging software and systems to assist in surgical planning and navigation has only begun to emerge in clinical practice in the last few years. While medical imaging software and systems have been used in these applications and to support cancer treatment planning in the past, the Company believes that perspective, three-dimensional volume rendering represents an underutilized resource to practitioners for diagnostic screening and radiology, surgical planning and navigation and cancer treatment planning.

Strategy

The Company s goal is to be a leading provider of 3D medical imaging software that improves clinical outcomes and reduces costs. To achieve this goal, Vital Images intends to implement the following key strategies:

Develop and maintain leading-edge technology. The Company intends to continue its overall strategy of developing and marketing leading-edge medical 3D medical imaging software for a variety of medical applications.

As part of this strategy, the Company will continue to improve the speed and performance of its *Vitrea 2* software. In particular, the Company will be focused on developing additional protocols that enhance the ease-of-use of *Vitrea 2*, as well as increasing the number of platforms on which *Vitrea 2* will operate.

Further develop applications for the Company s 3D medical imaging technology. The Company intends to leverage its core competencies in volume rendering, computer graphics and clinical applications. The Company plans to develop and offer a full range of 3D medical

imaging software tools for diagnostic imaging, disease screening and therapy planning. The Company believes that significant new opportunities exist for the application of its innovative technologies for the diagnosis and treatment of cardiovascular disease, cancer and orthopedics.

Further penetrate the 3D medical imaging market. The Company intends to expand its sales and marketing staff and increase its marketing efforts in order to continue building momentum for the acceptance and purchase of *Vitrea 2* and its other products. A key challenge for the Company involves reaching and educating physicians and clinicians as to the benefits of the *Vitrea 2* software. By convincing the ultimate users of the benefits of its system, the Company believes that it can successfully influence purchasing decisions for medical institutions purchasing or upgrading their imaging technology. In addition, the Company will work to expand its appeal by implementing additional 2D capability as well as ensuring that its technology will easily integrate into PACS networks.

Continue to seek collaborative partnerships with leading medical institutions. The Company has historically sought out and developed collaborative relationships with several prestigious medical institutions to develop and test the Company s visualization and analysis tools. The Company will continue to pursue collaborations to focus on developing products that will improve clinical outcomes and reduce costs for the practices of medical imaging and surgery.

Continue to seek collaborative partnerships with leading medical technology companies. In addition to collaborations with medical institutions, the Company intends to selectively pursue relationships with leading medical technology companies to expand the Company s clinical, distribution, financial and/or technical capability for its 3D medical imaging software products. Examples of such relationships include the Company s development, marketing and/or distribution agreements with Toshiba; the Surgical Navigation Technologies division of Medtronic, Inc.; E-Z-EM, Inc.; R2 Technology, Inc. (R2); McKesson Information Solutions (McKesson) and Mirada. See Business-Marketing and Distribution, Intellectual Property and Manufacturing and Service.

Products and Product Development

Vitrea. In December 1995, the Company assessed its business strategy and determined that to optimize its dedicated participation in the medical field, it needed to create a new product for direct clinical application. The objective for this new product effort was to produce an easy-to-use clinical software tool to allow radiologists and other clinicians to use two- and three-dimensional visualization in their routine clinical processes. Unlike its predecessor software, *VoxelView*®, the Company set out to design this new software product for users with clinical knowledge rather than computer graphics expertise. Specifications for this new product, called *Vitrea,* were developed in early 1996, with software development beginning in late spring of that year. The Company submitted 510(k) documentation in September 1996 for *Vitrea* and was granted marketing clearance by the U.S. Food and Drug Administration (the FDA) in November 1996 for use as a clinical diagnostic and surgical planning device when used with CT and MR medical imaging data. *Vitrea* was first released for sale to customers in October 1997. In December 1999, the Company released *Vitrea 2*, a Microsoft® Windows NT compatible version of its *Vitrea* software for 2D/3D visualization and analysis of medical image data. *Vitrea 2* was Vital Images first 3D-volume medical imaging software product

available for the Microsoft Windows operating system and provides the speed and ease-of-use the medical community demands for diagnosis and treatment planning in a clinical environment. In December 2003, the Company released *Vitrea 2 Version 3.4*, which has improved usability and networking features to meet the diagnostic, screening and therapy planning needs of busy radiology departments and operates on the Microsoft Windows XP operating system.

Vitrea 2 capitalizes on the Company s experience in 3D medical imaging and provides clinicians with an easy-to-use tool for disease screening, radiological diagnosis and therapy planning. It represents the Company s

most important step to date as a provider of a range of clinical tools for broad distribution to the 3D medical imaging market. *Vitrea 2 s* primary features are its high-speed rendering capability and its ability to provide two- and three-dimensional viewing for routine diagnosis and therapy planning without requiring the user to be trained in computer graphics techniques. The Company believes that both of these features - speed and ease-of-use - now make it possible to use three-dimensional medical imaging in daily clinical routines. A *Vitrea 2* user, following a built-in clinical workflow, can view the image data in two, three or four dimensions using visualization settings based on specific clinical applications stored within the system as dedicated visualization protocols. The user may then interactively navigate around, or fly through, the image to view clinically relevant anatomies and pathologies. *Vitrea 2* software also allows the user to capture views by taking snapshots, which can be integrated into customized reports for electronic transmission and archiving through a DICOM network or sent to another location via the Internet.

Vitrea 2 software conforms to the latest medical imaging and computer industry standards, such as *OpenGL* computer graphics application programming interface and DICOM.

The Company offers *Vitrea 2* both as an integrated software and hardware system, consisting of *Vitrea 2* software installed on a personal computer (PC) and as a stand-alone software package. Pursuant to purchasing arrangements between the Company and computer resellers, the Company purchases personal computers at a nominal discount, installs its *Vitrea 2* software, and markets the package as an integrated 3D medical imaging solution. Some customers prefer to purchase their own hardware. For such customers, as well as when selling to its diagnostic imaging OEM and PACS partners, the Company sells software licenses only for use on hardware qualified by the Company for use with *Vitrea 2*. Currently, *Vitrea 2* operates on PC workstations from Omni Tech, Inc., Hewlett-Packard Company and Dell Computer Corporation. The list price for a base model integrated workstation and software package is approximately $87,000, and the list price for the *Vitrea 2* software without a workstation is approximately $75,000.

In addition to its immediate clinical applications, *Vitrea 2* software incorporates a number of additional technological advances, thereby making it adaptable to routine clinical use in surgical navigation and cancer treatment planning and for integration into diagnostic imaging equipment and PACS networks manufactured and sold by other companies. In particular, *Vitrea 2* software was written using advanced programming techniques, a modular, object-oriented design, C++ programming language, and a shared messaging structure. The Company believes these characteristics make it practical to modify *Vitrea 2* software to suit the clinical needs of surgical navigation and oncology, as well as allowing diagnostic equipment and PACS network manufacturers to integrate *Vitrea 2* software into their product offerings, thereby providing the Company with the opportunity to leverage the *Vitrea 2* software development investment into new commercial areas.

Software options. In addition to *Vitrea 2*, the Company has developed a number of value-added software options that work with the base *Vitrea 2* software platform. These options provide a variety of clinical information and have list prices ranging from $20,000 to $50,000 each.

VScore . In August 1999, the Company introduced its *VScore* software for coronary artery calcium scoring. The *VScore* software product was the Company s first add-on option to the Company s *Vitrea 2* 3D medical imaging software product. The *VScore* option adds the functionality to non-invasively quantify calcium in the four major coronary arteries using CT image data.

CT Brain Perfusion. In October 2001, the Company introduced its CT Brain Perfusion software option to assist radiologists in analyzing blood flow of stroke victims where the speed of diagnosis and treatment is often the primary

factor in determining the extent of recovery.

CT Colonography. Also, in October 2001, the Company introduced its CT Colonography software option, which generates two- and three-dimensional images of the entire colon, increasing the speed and ease of locating and analyzing polyps. The option provides a less invasive, more comfortable diagnostic procedure than previously possible, improving patient compliance for screening.

Automated Vessel Measurements. In October 2001, the Company introduced its Automated Vessel Measurements software option to assist physicians in characterizing the course and dimensions of diseased blood vessels. The Automated Vessel Measurements option is designed to support activities such as pre-surgical diagnosis, evaluation and stent planning in the abdominal aorta, carotid arteries, coronary arteries and renal arteries.

CT Cardiac. In February 2003, the Company introduced its CT Cardiac software option, which defines the coronary anatomy and the degree of luminal obstruction of the coronary arteries. It is commonly used to determine the extent of obstructive coronary artery disease and to assess the feasibility and appropriateness of various forms of therapy or surgical interventions.

Vessel Probe. In December 2003, the Company introduced its Vessel Probe option as a complementary product to its CT Cardiac option. It is used to define vascular anatomy and the degree of luminary obstruction in vessels other than the coronary arteries. With this option, physicians can determine the extent of obstructive vascular disease and assess the feasibility of various forms of therapy or surgical interventions.

Concurrent License. In December 2003, the Company introduced its Concurrent License option which gives multiple end users the ability to share a single *Vitrea 2* license within a facility. While limiting the number of simultaneous users to the number of *Vitrea 2* licenses purchased, the Concurrent License option allows *Vitrea 2* software to be accessed from multiple reading stations within an enterprise.

Lung Tools. In December 2003, the Company introduced the Lung Tools product developed by R2 for the visualization and characterization of lung nodules. Now integrated into *Vitrea 2,* this option is designed to improve the efficiency of radiologists when reviewing chest CT exams.

Maintenance and Support. In addition to its system and software products, the Company also offers maintenance and support services to its customers, as well as certain other services such as installation and training. In connection with the licensing of *Vitrea 2* software, the Company markets annual maintenance and support services for both *Vitrea 2* software and the integrated *Vitrea 2* system, pursuant to which the Company provides software updates, minor feature enhancements, error correction, telephone support and other general support services for an annual fee of approximately $9,000. Outside of these maintenance services, the Company is required by FDA regulations to provide certain levels of support to end users as a result of the use of its products as medical devices. Maintenance and support services currently marketed by the Company do not include installation, training and other services, whether on- or off-site, as such services are charged separately by the Company.

License fees accounted for 67%, 67% and 66% of total revenue in each of the fiscal years ended December 31, 2003, 2002 and 2001, respectively. Maintenance and services comprised 25%, 19% and 16% of total revenue for the years ended December 31, 2003, 2002 and 2001, respectively, while hardware sales accounted for 8%, 14% and 18% of total revenue for the years ended December 31, 2003, 2002 and 2001, respectively.

The Company charged $3.8 million, $2.9 million and $1.7 million to cost of revenue for customer support, installation and training services and expensed $5.2 million, $4.1 million and $3.4 million incurred in its research and development efforts in each of the fiscal years ended December 31, 2003, 2002 and 2001, respectively.

Collaborative Relationships

Vital Images has formed collaborative relationships with some of the leading universities and physicians in medicine and medical imaging to develop what it believes to be the most innovative and clinically relevant

medical imaging solutions. Vital Images has entered into clinical collaboration agreements with universities and physicians to:

Identify new clinical applications where 3D medical imaging can improve clinical outcomes and reduce costs;

Assist in the development of clinical routines that incorporate Vital Images 3D medical imaging software in normal diagnostic, screening and therapy planning practices;

Consult in the development of new features that facilitate and improve diagnosis and therapy planning for Vital Images future products;

Assess the clinical value of Vital Images 3D medical imaging software for given applications; and

Develop automated rendering protocols for 3D CT or MR data.

The Company s agreements with its collaborative partners do not provide such partners with any ownership of technology developed by the Company in connection with the collaboration and do not provide for the payment of any fees or royalties to such collaborators.

Competition

The 3D medical imaging market is developing and growing rapidly. It is intensely competitive, subject to rapid change and significantly affected by new product introductions and other market activities of industry participants. The Company s primary competitors are diagnostic imaging system suppliers, which are typically large, multinational companies, having far greater financial and technical resources than the Company. They also have well-established sales and distribution networks for their products. These companies, including GE Medical Systems, Siemens Medical Systems, Inc. and Philips Medical Systems, are engaged in the business of developing and marketing medical imaging systems, such as CT and MR equipment. These competitors offer 3D medical imaging capabilities integrated with their products in addition to the 2D medical imaging capabilities typically provided as a part of the operator s console on the imaging equipment itself. This medical imaging capability may be internally developed by these companies, or it may be licensed from independent vendors. In order to compete effectively with these companies, Vital Images must convince customers to separate their purchasing decisions regarding the imaging equipment itself from the selection and purchase of the 3D medical imaging workstations instead of purchasing an entire integrated system manufactured by one entity.

The Company also faces competition from other medical imaging systems and software suppliers and PACS vendors. Other medical imaging systems and software suppliers compete on the basis of volume rendering or other visualization technologies, specific applications or market niches. Most of these suppliers, including Voxar Ltd., Viatronix, Inc. and TeraRecon, Inc., are similar in size or smaller companies than Vital

Images. PACS companies sometimes provide medical imaging capability in addition to their image archiving and networking products. Vendors of hospital, clinical and radiology information systems have also diversified into the PACS and medical imaging product lines, either through internal development or business development. These companies, which may be large or small, attempt to offer an integrated system covering a full range of administrative, clinical and radiology information management capabilities to healthcare providers.

The Company s competitive strength is based on its ability to do the following:

Provide differentiated 3D medical imaging products that operate in multi-vendor network and image source environments.

Provide clinical quality, three-dimensional images, volume rendered at high speed with interactive navigation on a relatively low-cost standard computer.

Integrate clinical knowledge from its collaborative clinical partners into its products.

Leverage its visualization technology across multiple clinical disciplines, including clinical diagnosis, disease screening and therapy planning.

Offer a DICOM client product, which can operate on any DICOM network, independent of the imaging system and network provider.

Serve both original equipment manufacturers (OEMs), PACS vendors and end-user customers through the development of a modular end-user product that can easily be segmented for OEM customers or integrated into a PACS environment.

The Company believes that product quality, performance, functionality and features, quality of support and service, reputation and price are also important competitive factors. The Company believes that customers will prefer *Vitrea 2* because it is simple, fast and affordable. While price has been less significant than other factors, increasing competition in the 3D medical imaging market may result in price reductions and reduced gross margins. In particular, should one or more of the diagnostic imaging system suppliers choose to provide or distribute more competitive medical imaging products than those offered by the Company, the Company s business, financial condition and results of operations could be materially adversely affected.

Marketing and Distribution

The Company markets *Vitrea 2* both as a software package and as part of an integrated software and hardware system to radiologists, surgeons, primary care physicians and medical researchers. The Company markets its products directly to end-user customers, such as hospitals and clinics, as well as to select diagnostic imaging companies, digital imaging equipment manufacturers and PACS companies for resale as a Vital Images branded product. In November 2001, the Company signed a joint venture agreement to work collaboratively on products and services in image-guided surgery and surgical planning with the Surgical Navigation Technologies (SNT) division of Medtronic, Inc. Under this agreement, the Company s advanced visualization technology will be integrated into Medtronic SNT s image-guided surgery products, and the two companies will collaborate on new surgical planning software and service offerings. In October 2001, the Company signed an exclusive agreement with E-Z-EM, Inc. to develop and distribute a dedicated CT colonography product. In September 2000, the Company signed a marketing and distribution agreement with Toshiba America Medical Systems (TAMS), which named *Vitrea 2* as TAMS primary 3D software for use with its CT scanners in the United States. In February 2002, the Company announced that it had entered into a marketing and distribution agreement with Toshiba Medical Systems Corporation to offer *Vitrea 2* to its subsidiaries and distributors, including TAMS, in more than 50 countries in North and South America, Europe, the Middle East, Africa, Australia and Asia, except Japan. The agreement has twice been amended. Most recently, in December 2003, the Company announced that it had renewed the agreement through December 31, 2004. In July 2003, the Company signed a joint distribution agreement with McKesson where each company was granted the right to distribute the other party s products. See Business Dependence on Major Customers.

In addition, the Company markets its products directly to select OEMs on either a standard basis or, in the case of Medtronic SNT, on a customized basis. In connection with its OEM opportunities, the Company will either provide complete systems for resale by such OEMs or will provide elements of its technology for incorporation into the products and systems of such OEMs.

The Company markets its products both domestically and internationally. In the United States, the Company markets its products through its direct sales force as well as through OEMs and resellers. Internationally, the Company markets its products through OEMs and resellers. See Note 8 to the Financial Statements - Major Customers and Geographic Data for information regarding the Company s export sales. As of

December 31, 2003, the Company had 29 field salespeople in the U.S., one international reseller salesperson, one OEM customer and 11 international resellers, many of whom are also Toshiba resellers.

Customers and Customer Support

Through December 31, 2003, the Company has sold over 1,300 separate software licenses for *Vitrea*, *Vitrea 2* and InnerviewGI for use in over 1,000 different sites, including hospitals, clinics, imaging centers and other sites. Due to the advantages of the *Vitrea 2* software fast and easy-to-use - the Company s customers include large teaching hospitals in major cities in the United States as well as hospitals and clinics in smaller population areas.

The Company is committed to rapid response to customer service requests. Customer support representatives are available during the Company s business hours to answer questions about the operation, maintenance and repair of the Company s products.

Intellectual Property

Although the Company has filed patent applications with respect to certain aspects of its technology, it generally does not rely on patent protection with respect to its products and technologies. Instead, the Company relies primarily on a combination of trade secret and copyright law, employee and third-party nondisclosure agreements and other protective measures to protect intellectual property rights pertaining to its products and technologies. Because of the rapid pace of technological change in the 3D medical imaging industry, the Company believes that the knowledge, ability and experience of its personnel; new product developments and enhancements; and ongoing, reliable product maintenance and support are also significant factors in its competitive position.

The Company has been issued Patent No. 5,986,662 from the U.S. Patent and Trademark Office for its mechanism for automated protocol selection. The use of automated protocol selection within *Vitrea 2* allows the user to view image data in two or three dimensions using visualization settings based on specific clinical applications stored within the software. This unique technology adds significantly to the simplicity of use of the software a key advantage over competing technologies. The Company has been issued Patent No. 6,130,671 for the mechanism to calculate simulated lighting in 3D images. The mechanism for calculating simulated lighting in 3D images permits two-sided lighting in volume-rendered images, which is crucial for viewing image data that represents edges of bright as well as dark regions. These include producing simulated endoscopic images of contrast-filled blood vessels, the gastrointestinal tract and the urinary system. The Company has been issued Patent No. 6,219,059 for the user interface and mechanism used to control the relative transparency of 3D data in volume renderings of medical images. Volume rendering is an advanced technique for displaying two- or three-dimensional views on a computer screen. It permits the direct display of all of the imaging data without mathematical modeling and allows interactive control of the level of transparency of the data. All of the patents listed above are utilized in the *Vitrea 2* software.

The Company does not own all of the software and other technologies used in its products, but it has the licenses from third parties that the Company believes are necessary for using that technology in its current products. It may be necessary to renegotiate with such third parties for any new versions of current products or any new products. Such third party licenses may not be available on reasonable terms, or at all.

Manufacturing and Service

The Company s manufacturing efforts are limited to the production, quality assurance and distribution of its software, which is distributed on CD-ROM. The software is sent to the customer site and loaded into a personal computer. The software for *Vitrea 2* is loaded into the computer by Company personnel, as part of the Company s installation services, which are priced and billed incrementally to the software license billing, by an authorized reseller s personnel as part of their installation services or by qualified IT personnel from the customer. In addition to the loading of software into the computer, installation services generally include integrating *Vitrea 2* workstations into customers computer networks, configuring the network requirements and verifying software operability on site.

The Company relies primarily on its own software development as its core competence. The Company sources certain application and utility software from third parties (see Intellectual Property above) and the operating system for integrated computer workstations from other parties. In addition, the Company sources systems components, computers and computer peripherals from third party suppliers.

The Company has also signed reseller distribution agreements that allow it to distribute products from certain third parties. The Company currently has agreements with R2 for R2 s ImageChecker® CT software applications for the detection of lung nodules, Mindways Software, Inc. for Mindways QCT PRO BMD software for measuring bone density, and Mirada for Mirada s Fusion 7D software application for the anatomical alignment of two different image data sets from two different modalities.

Governmental Regulation

As medical devices, the Company s 3D medical imaging software products are subject to extensive and rigorous regulation by numerous governmental authorities, principally the FDA and corresponding foreign agencies. In the United States, the FDA administers the Federal Food, Drug and Cosmetic Act and its amendments. These regulations classify medical devices as either Class I, II or III devices, which are subject to general controls, special controls or pre-market approval requirements, respectively. Most Class I and II devices, as well as some Class III devices, can be cleared for marketing pursuant to a 510(k) pre-market notification. The process of obtaining a 510(k) clearance typically can take several months to a year or longer.

Class III devices generally require more stringent clinical investigation and pre-market clearance requirements. In such cases, the FDA will require that the manufacturer submit a pre-market approval (PMA) application that must be reviewed and approved by the FDA prior to the sale and marketing of the device in the United States. The process of obtaining a PMA can be expensive, uncertain and lengthy, frequently requiring anywhere from one to several years from the date of FDA submission, if approval is obtained at all. Moreover, a PMA, if granted, may include significant limitations on the indicated uses for which a product may be marketed.

Vitrea 2 is classified as a Class II medical device and has received marketing clearances from the FDA as the result of 510(k) pre-market notifications. Specifically, *Vitrea 2* and the Company s add-on options have been cleared to be marketed for use with CT and MR scanners. Future products, add-on options to existing software, and expanded claims of efficacy will likely require additional 510(k) pre-market notifications.

There can be no assurance that future FDA review processes will not involve delays or that certain clearances will be granted on a timely basis.

The Company is also increasingly becoming subject to regulation in those foreign countries in which it sells its products. Many of the regulations applicable to the Company s products in such countries are similar to those of the FDA. The Company s ability to successfully market and sell its products in foreign markets depends in large part on its ability to comply with such foreign regulatory requirements. *Vitrea 2* software has been

Conformitee Europeene (CE) marked, indicating conformance with applicable sections of the Medical Device Directive 93/42/EEC, which allows the product to be marketed in the member countries of the European Communities.

The Company is also subject to periodic inspections by the FDA and similar foreign regulatory agencies, whose primary purpose is to audit the Company s compliance with quality system regulations established by the FDA and other applicable government standards. Regulatory action may be initiated in response to audit deficiencies or to product performance problems. The Company believes that its manufacturing and quality control procedures are in essential compliance with the requirements of the FDA regulations and foreign regulatory agencies in countries to which it sells its products.

The Company has received ISO 9001 Certification that has been updated to include ISO 13485 compliance and also has an upgraded Class I Measurement CE Mark for its medical imaging software products..

The financial arrangements through which the Company markets, sells and distributes its products may be subject to certain federal and state laws and regulations in the United States with respect to the provision of services or products to patients who are Medicare or Medicaid beneficiaries. Violations of these laws and regulations may result in civil and criminal penalties, including substantial fines and imprisonment. In a number of states, the scope of these laws and regulations have been extended to include the provision of services or products to all patients, regardless of the source of payment, although there is variation from state to state as to the exact provisions of such laws or regulations. In other states and, on a national level, several health care reform initiatives have been proposed which would have a similar impact. The Company believes that its operations and its marketing, sales and distribution practices currently comply with all current fraud and abuse and physician anti-referral laws and regulations, to the extent they are applicable.

Third Party Reimbursement and Cost Containment

The Company s products are purchased primarily by hospitals, clinics, imaging centers and other users that bill various third party payers for the services provided to the patients. These payers, which include Medicare, Medicaid, private insurance companies and managed care organizations, reimburse part or all of the costs and fees associated with the diagnostic procedures utilizing the Company s products. The medical imaging services performed using the Company s software, except for disease screening procedures, are covered by current CPT codes (Current Procedural Terminology, as defined by the Centers for Medicare & Medicaid Services). As such, hospitals providing services on the Company s 3D medical imaging workstations can seek reimbursement by using existing approved CPT codes. Medicare and Medicaid reimbursement for hospitals is based on a fixed amount for admitting a patient with a specific diagnosis. Because of this fixed reimbursement method, hospitals have incentives to use less costly methods in treating Medicare and Medicaid patients, and they will frequently make capital expenditures to take advantage of less costly treatment technologies. Often, reimbursement is reduced to reflect the availability of a new procedure or technique and, as a result, hospitals are generally willing to implement new cost-saving technologies before these downward adjustments take effect. Likewise, because the rate of reimbursement for certain physicians who perform certain procedures has been, and may in the future, be reduced in the event of changes in the resource-based relative value scale method of payment calculation, physicians may seek greater cost efficiency in treatment to minimize any negative impact of reduced reimbursement. Any amendments to existing reimbursement rules and regulations which restrict or terminate the reimbursement eligibility (or the extent or amount of coverage) of medical procedures using the Company s products or the eligibility (or the extent or amount of coverage) of the Company s products could have a material adverse impact on business.

In response to the focus of national attention on rising health care costs, a number of changes to reduce costs have been proposed or have begun to emerge. There have been, and may continue to be, proposals by legislators and regulators and third party payers to reduce these costs. There has also been a significant increase in the number of Americans enrolling in some form of managed care plan and, in addition, many hospitals participate in or have agreements with HMOs. It has become a typical practice for hospitals to

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affiliate themselves with as many managed care plans as possible. Higher managed care penetration typically drives down the prices of healthcare procedures, which in turn places pressure on medical supply prices. This causes hospitals to implement tighter vendor selection and certification processes by reducing the number of vendors used, purchasing more products from fewer vendors and trading discounts on price for guaranteed higher volumes to vendors. Hospitals have also sought to control and reduce costs over the last decade by joining group purchasing organizations or purchasing alliances. The Company cannot predict what continuing or future impact these practices, the existing or proposed legislation, or such third party payer measures may have on its future business.

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The HIPAA regulations are causing customers of the Company to request that the Company sign business associate agreements with them. A business associate is a person or entity that performs certain functions or activities that involve the use or disclosure of protected health information on behalf of, or provides services to, a covered entity. By law, the HIPAA Privacy Rule applies only to covered entities health plans, health care clearinghouses, and certain health care providers. However, most health care providers do not carry out all of their health care activities and functions by themselves. Instead, they often use the services of a variety of other persons or businesses. The Privacy Rule allows covered providers and health plans to disclose protected health information to these business associates if the providers or plans obtain satisfactory assurances that the business associate will use the information only for the purposes for which it was engaged by the covered entity, will safeguard the information from misuse, and will help the covered entity comply with some of the covered entity s duties under the Privacy Rule. Covered entities may disclose protected health information to an entity in its role as a business associate *only* to help the covered entity carry out its health care functions not for the business associate s independent use or purposes, except as needed for the proper management and administration of the business associate.

Employees

As of February 29, 2004, the Company had 134 full-time employees, with 46 involved in research and development, 45 in sales and marketing, 24 in technical support functions and 19 in administrative functions. The Company is not a party to any collective bargaining agreement involving its employees and believes its relationship with its employees is good.

Acquisition of HInnovation, Inc.

On February 18, 2004, the Company completed the acquisition of HInnovation, Inc. (HInnovation) in accordance with the terms and conditions of an Acquisition Agreement and Plan of Reorganization (the Acquisition Agreement) dated as of January 8, 2004 by and among Vital Images, HInnovation Acquisition, Inc., a wholly-owned subsidiary of Vital Images (HInnovation Acquisition), HInnovation and Mr. Hui Hu and JMS Co., Ltd., the principal stockholders of HInnovation. Pursuant to the Acquistion Agreement, HInnovation was merged with and into HInnovation Acquisition, and HInnovation became a wholly-owned subsidiary of Vital Images.

The merger consideration included 376,262 newly-issued shares of common stock of Vital Images valued at $6 million and $6 million in cash. In addition, the merger consideration includes contingent milestone payments comprised of newly-issued shares of Vital Images common stock with an aggregate value of $3 million and $3 million in cash. The Company expects the contingent milestone payments to be made periodically as the milestones are achieved over a 12 to 24 month period following the date of acquisition. The merger consideration was and any contingent consideration is to be paid to the former stockholders of HInnovation. The type and amount of merger consideration was determined by arm s-length negotiation among the parties.

HInnovation was a privately-held company founded in June 2000 and is a provider of innovative and cost-effective solutions to deliver medical imaging software applications and services online. HInnovation s enabling technologies have been developed to help hospitals, clinics and industry reach a new dimension in

optimizing workflow, improving productivity, enhancing service and increasing revenue. It obtained 510(k) marketing clearance for its product, iConnection , from the FDA in November 2001. HInnovation was awarded U.S. Patent No. 6,621,918, which protects a server-based MPR/3D/4D software system and design. The iConnection software enables physicians to use existing ordinary Internet-connected PCs to access the same 2D/3D/4D imaging applications and functionalities typically only available on 3D diagnostic workstations. With iConnection software, users can review and analyze patients diagnostic images over the Internet whenever and wherever the need arises.

Important Factors

The following factors are important and should be considered carefully in connection with any evaluation of the Company s business, financial condition, results of operations and prospects. Additionally, the following factors could cause the Company s actual results to materially differ from those reflected in any forward-looking statements of the Company.

Historical Operating Losses

For the years ended December 31, 2003 and 2002, the Company had operating income of $1.9 million and $677,000. However, the Company had an operating loss of $1.1 million for the year ended December 31, 2001 and, with the exceptions of the fiscal years ended December 31, 2003 and 2002 and October 31, 1995, has incurred operating losses each year since 1990. As of December 31, 2003, the Company s accumulated deficit was $11.6 million. The Company s ability to maintain annual profitability will depend on, among other things, its ability to successfully market its products, make new product offerings, respond to competitive developments and attract and retain qualified sales, technical and management employees. The Company may not be able to continue to achieve profitable operations on an annual basis. See Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations.

Market Acceptance

The Company s success depends on its ability to successfully market its *Vitrea 2* software for clinical use, and on the ability and willingness of physicians to use 2D, 3D and 4D medical imaging software in disease screening, clinical diagnosis and therapy planning. The three-dimensional medical imaging software offered by *Vitrea 2* represents a new alternative to the conventional methods traditionally used for viewing medical images in the clinical setting. The acceptance of *Vitrea 2* by physicians and other clinicians will depend on the Company s ability to educate those users as to the speed, ease-of-use and other benefits offered by the *Vitrea 2* system, as well as the Company s timely introduction of new features and functions. There can be no assurance that users will prefer three-dimensional medical imaging software over less expensive two-dimensional medical imaging software or that the Company will succeed in its efforts to further develop, commercialize, and achieve market acceptance for its *Vitrea 2* product or for any other product in the clinical setting. See Business Technology, Industry Background, Markets and Competition.

Substantial Reliance on a Single Product

Revenue from sales of the *Vitrea 2* system constituted 96% of the Company s total revenue for the year ended December 31, 2003, 98% of the Company s total revenue for the year ended December 31, 2002, and 96% of the Company s total revenue for the year ended December 31, 2001. The Company anticipates that revenue from the sale of *Vitrea 2* will continue to account for a substantial portion of the Company s revenue for

the foreseeable future. As such, the failure of physicians to accept *Vitrea 2* would have a material adverse impact on the Company s results of operations and financial condition.

Dependence on Market Growth

The 3D medical imaging industry in which the Company markets its products is still developing due to the fairly recent availability of high performance computers at reduced prices, the recent adoption of industry standards for the generation, transmission and storage of medical imaging data, and changing medical practices. Historically, there has been a perception that three-dimensional imaging was too slow or difficult for clinical use. This perception was due largely to the relatively slower processing speed of workstations available in the past. The Company believes that the recent advances in the affordability of high performance computers and in the development of industry standards for the generation, transmission, and storage of imaging data will provide opportunities for growth in the 3D medical imaging industry. However, given the uncertainties associated with the developing stage of this industry, there can be no assurance that it will continue to develop in the manner anticipated by the Company. Accordingly, there can be no assurance that the 3D medical imaging industry will provide growth opportunities for the Company and its software products or that the Company s business strategies will be successful as the 3D medical imaging industry continues to evolve. Ultimately, if the 3D medical imaging industry fails to develop as the Company expects, the Company s business, results of operations and financial condition will be materially and adversely affected.

Highly Competitive Industry

The Company faces intense competition in the 3D medical imaging industry. The Company expects technology to continue to develop rapidly, and the Company s success will depend to a large extent on its ability to maintain a competitive position with its products. The Company s competitors in the 3D medical imaging industry include large, established manufacturers of CT and MR imaging equipment. Companies such as GE Medical Systems, Siemens Medical Systems, Inc. and Philips Medical Systems typically offer their own medical imaging software and workstations as part of their integrated imaging and scanner systems. The Company s ability to successfully market and sell its current 3D medical imaging products to prospective customers depends, in part, on its ability to persuade such customers to separate the purchase of CT or MR equipment from the selection and purchase of 3D medical imaging workstations. In addition to having significantly greater capital and staffing resources for research and development that are critical to success in the rapidly changing 3D medical imaging industry, such companies also have well-established marketing and distribution networks and have a competitive advantage in marketing 3D medical imaging tools as an integrated part of their imaging products. While price has been less significant than other factors, increasing competition may result in price reductions and reduced gross margins. Additionally, the Company faces competition from other entities, such as software suppliers and PACS vendors. The Company may not be able to compete effectively with such manufacturers or competing entities. See Business Technology, Industry Background and Competition.

Risk of Technological Obsolescence

The 3D medical imaging market is characterized by rapid innovation and technological change. The Company may be unable to compete effectively in the marketplace, and products developed by its competitors may render its products obsolete or non-competitive. Similarly, the Company s competitors may succeed in developing or marketing products that are viewed as providing superior clinical performance or are less expensive than the Company s current or future products.

Dependence on Major Customers

One of the Company s principal distribution channels is to sell its *Vitrea 2* medical imaging software for inclusion with the delivery of medical imaging equipment being sold by Toshiba. Sales by the Company to Toshiba accounted for approximately 42%, 34% and 27% of the Company s total revenue for the years ended December 31, 2003, 2002 and 2001, respectively. Toshiba s account receivable represented 7% of the

Company s accounts receivable at December 31, 2003 and 21% at December 31, 2002. Management believes a limited number of large customers may continue to account for a significant portion of the Company s

revenue during any given period for the foreseeable future. Except for its marketing and distribution agreements with Toshiba, Medtronic SNT, E-Z-EM, Inc. and McKesson, the Company currently has no long-term purchase or other agreements with any of its customers, and it generally makes sales pursuant to purchase orders. A reduction, delay, or cancellation of orders from one or more of its significant customers, or its inability to collect accounts receivable from these customers, likely would have a material adverse effect on the Company s operating results. See Business-Marketing and Distribution.

Impact of Purchase Commitments

In November 2002, the Company entered into an agreement with R2 to distribute R2 s lung nodule CAD software product in conjunction with the Company s products. During the three-year period beginning with the later of either the date R2 is able to meet CE certification requirements and produce a Declaration of Conformance for the lung CAD product or the completion of milestones in the development plan for the lung CAD product that will be distributed in Europe, the Company is required to begin purchasing the lung CAD product from R2. R2 met CE certification requirements and produced a Declaration of Conformance for the lung CAD product in 2003, and the Company completed the milestones in the development plan in January 2004 with respect to the lung CAD product that will be distributed in Europe. Accordingly, the Company will be required to begin purchasing the lung CAD product in the first half of 2004. The total purchase commitment will be a maximum of $5.6 million of product over the three-year commitment period. The purchase commitment price the Company has to pay will be reduced if the selling price of the lung CAD product when sold directly to end-users by R2 falls below a specified price. The purchase commitment units the Company is required to purchase will be reduced if R2 and its other distributors of the lung CAD product are unable to sell as many units as the Company is required to purchase. However, the Company must purchase the minimum amount under the agreement with R2 regardless of how much of the lung CAD product it sells. If the cost of the lung CAD product the Company buys is greater than the price of the lung CAD product it sells, or if the Company is unable to sell some or all of the lung CAD product it buys, its business could be adversely affected.

Fluctuations in Operating Results

The Company may experience significant fluctuations in future annual and quarterly operating results. If these fluctuations occur, they may result in volatility in the price of the Company s common stock. Quarterly revenue and operating results may fluctuate as a result of a variety of factors that are outside of our control including, but not limited to, the timing of significant orders, the timing of product enhancements and new product introductions by the Company or its competitors, the pricing of the Company s products, changes in customers budgets, and competitive conditions.

Government Regulation

The Company s products are subject to regulation by the FDA and by comparable agencies in foreign countries. In the United States, the FDA regulates the development, introduction, manufacturing, labeling and record keeping procedures for medical devices, including 3D medical imaging software and systems. The process of obtaining marketing clearance from the FDA for new products and new applications for existing products can be time-consuming and expensive. All of the current products actively marketed by the Company have received marketing clearance from the FDA pursuant to 510(k) pre-market notifications. *Vitrea 2* and the Company s add-on options have been cleared to be marketed for use with CT and MR scanners.. The FDA may not grant clearance with respect to the Company s future products or enhancements, or future FDA review may involve delays that could adversely affect the Company s ability to market such future products or enhancements. In addition, the Company s future products or enhancements may be subject to the more lengthy and expensive pre-market approval process with the FDA.

Even if the Company obtains regulatory clearances and approvals to market a product from the FDA, these approvals may entail limitations on the indicated uses of the product. Product clearances and approvals by the

FDA can also be withdrawn due to failure to comply with regulatory standards or the occurrence of unforeseen problems following initial approval. The FDA could also limit or prevent the distribution of the Company s products and has the power to require the recall of such products. FDA regulations depend heavily on administrative interpretation, and future interpretations made by the FDA or other regulatory bodies may adversely affect the Company. The FDA may inspect the Company and its facilities from time to time to determine whether the Company is in compliance with various regulations relating to specification, development, documentation, validation, testing, quality control and product labeling. If the FDA determines that the Company is in violation of such regulations, it could impose civil penalties, including fines, recall or seize products and, in extreme cases, impose criminal sanctions.

The Company markets its products both domestically and internationally. International regulatory bodies have established varying regulations governing product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. The inability or failure of the Company to comply with the varying regulations, or the imposition of new regulations, could restrict its ability to sell its products internationally and could adversely affect the Company s business. See Business Governmental Regulation.

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The HIPAA regulations are causing the Company s customers to request that the Company sign business associate agreements with them. A business associate is a person or entity that performs certain functions or activities that involve the use or disclosure of protected health information on behalf of, or that provides services to, a covered entity. By law, the HIPAA Privacy Rule applies only to covered entities health plans, health care clearinghouses, and certain health care providers. However, most health care providers do not carry out all of their health care activities and functions by themselves. Instead, they often use the services of a variety of other persons or businesses. The Privacy Rule allows covered providers and health plans to disclose protected health information to these business associates if the providers or plans obtain satisfactory assurances that the business associate will use the information only for the purposes for which it was engaged by the covered entity, will safeguard the information from misuse, and will help the covered entity comply with some of the covered entity s duties under the Privacy Rule. Covered entities may disclose protected health information to an entity in its role as a business associate only to help the covered entity carry out its health care functions not for the business associate s independent use or purposes, except as needed for the proper management and administration of the business associate. If the Company is not willing to or is unable to enter into a business associate agreement with current and potential customers, such customers may not purchase products or services from the Company, which would have a material adverse effect on the Company s results of operations and financial condition.

Uncertain Protection for Intellectual Property; Possible Claims of Others

Although the Company has filed patent applications with respect to certain aspects of its technology, it generally does not rely on patent protection with respect to its products and technologies. Instead, the Company relies primarily on a combination of trade secret and copyright law, employee and third-party nondisclosure agreements and other protective measures to protect intellectual property rights pertaining to its products and technologies. Such measures may not provide meaningful protection of the Company s trade secrets, know-how or other intellectual property in the event of any unauthorized use, misappropriation or disclosure. Others may independently develop similar technologies or duplicate any technology developed by the Company. In addition, to the extent that the Company applies for any patents, such applications may not result in issued patents or, if issued, such patents may not be valid or of value. The Company does not believe that its products and technologies infringe any existing patents or intellectual property rights of third parties. However, the Company s products and technologies may infringe existing patents or intellectual property rights of third parties. The costs of prosecuting or defending an intellectual property claim could be substantial and could adversely affect the Company s business, even if it was ultimately successful in prosecuting or defending any such claims. If the Company s products or technologies were found to infringe the rights of a

third party, the Company could be required to pay significant damages or license fees or cease production, any of which could have a material adverse effect on the Company s business. See Business Intellectual Property.

Product Liability Risk; Limited Insurance Coverage

The manufacture and sale of products used in the practice of medicine entail significant risk of product liability claims. The Company currently maintains product liability insurance in the amount of $11,000,000 per occurrence and $12,000,000 in total and errors and omissions coverage in the amount of $11,000,000 per occurrence and in total. However, the Company s coverage limits may not be adequate to protect the Company from any liabilities it might incur in connection with the sale of its products. Further, the Company may not be able to maintain this level of coverage in the future. The Company also may need increased product liability coverage as it releases additional products and updates. Such insurance is expensive and may not be available on acceptable terms, if at all. A successful product liability claim or series of such claims against the Company in excess of the Company s insurance coverage could have a material adverse effect on its business.

Need to Hire Additional Personnel

The Company s ability to enhance and develop markets for its current products and to introduce new products to the marketplace also depends on its ability to attract and retain qualified scientific and management personnel. The Company competes for such personnel with other companies, academic institutions, government entities and organizations, many of which have substantially greater capital resources, name recognition, and research and development capabilities than the Company. There can be no assurance that the Company will be successful in recruiting or retaining such personnel. The Company may not be able to recruit and retain such personnel, which would have a material adverse effect on the Company s business.

Management of Growth

The Company s ability to grow successfully requires an effective planning and management process. The expansion and growth of its business could place a significant strain on the Company s management systems, infrastructure and other resources. To manage its growth successfully, the Company must continue to improve and expand its systems and infrastructure in a timely and efficient manner. In addition, the success of any acquisition, including the Company s acquisition of HInnovation, will depend on the Company s ability to successfully integrate the acquired business with the Company s business. The Company s controls, systems, procedures and resources may not be adequate to support a changing and growing company. If the Company s management fails to respond effectively to changes and growth in its business, including acquisitions, such failure could have a material adverse effect on its business.

Dependence on Third-Party Reimbursement

The Company s products are purchased by hospitals, clinics, imaging centers and other users, which bill various third party payers, such as government health programs, private health insurance plans, managed care organizations and other similar programs, for the health care goods and services provided to their patients. There are currently Current Procedural Terminology (CPT) reimbursement codes for most of the diagnostic procedures that use the Company s products. However, the amount of such reimbursement varies by location and is subject to change. Payers may deny reimbursement if they determine that a product used in a procedure was not used in accordance with established payer

protocol regarding cost-effective treatment methods or was used for an unapproved indication. Third party payers are increasingly challenging the prices charged for medical services and, in some instances, have put pressure on service providers to lower their prices or reduce their services. The Company is unable to predict what changes will be made in the reimbursement methods used by third party healthcare payers. The procedures in which the Company s products are used may not be considered cost effective by third party payers. Reimbursement for such procedures may not be available or, if

available, payers low reimbursement levels may adversely affect the Company s ability to sell its products on a profitable basis. In addition, there have been and may continue to be proposals by legislators, regulators and third party payers to curb further these costs in the future. A failure by hospitals and other users of the Company s products to obtain reimbursement from third party payers, changes in third party payers policies toward reimbursement for procedures using the Company s products or legislative action could have a material adverse effect on the Company s business. See Business Third Party Reimbursement and Cost Containment.

Uncertainty of Health Care Reform

The levels of revenue and profitability of medical technology companies may be affected by the efforts of government and third party payers to contain or reduce the costs of health care through various means. In the United States, there have been, and the Company expects that there will continue to be, a number of federal, state, and private proposals to control health care costs. These proposals may contain measures intended to control public and private spending on health care as well as to provide universal public access to the health care system. If enacted, these proposals may result in a substantial restructuring of the health care delivery system. Significant changes in the nation s health care system could have a substantial impact on the manner in which the Company conducts its business and could have a material adverse effect on the Company s business, financial condition and results of operations.

Possible Issuances of Preferred Stock

The Company s Articles of Incorporation authorize its Board of Directors, without any action by its shareholders, to establish the rights and preferences of up to 5,000,000 shares of currently undesignated preferred stock. These shares of preferred stock could possess voting and conversion rights that could adversely affect the voting power of the holders of the common stock and may have the effect of delaying, deferring or preventing a change in control of the Company. No shares of preferred stock or other senior equity securities are currently designated, and currently the Company has no plan to designate or issue any such securities.

Anti-Takeover Considerations

The Company is subject to anti-takeover provisions of the Minnesota Business Corporation Act. In addition, the Company has adopted a Shareholder Rights Plan (the Rights Agreement) designed to protect the Company and its shareholders from unsolicited attempts to acquire the Company. These measures may deter or discourage takeover attempts and other changes in control of the Company that are not approved by its Board of Directors, and they may have a depressive effect on any market for the Company s stock. As a result, the Company s shareholders may lose opportunities to dispose of their shares at the higher prices typically available in takeover attempts or that may be available under a merger proposal. In addition, these measures may have the effect of permitting the Company s current directors to retain their positions and place them in a better position to resist changes that the Company s shareholders may wish to make if they are dissatisfied with the conduct of the Company s business.

No Dividends

The Company has not paid cash dividends on its common stock in the past, and it does not intend to do so in the foreseeable future.

Limitations on Director Liability

As permitted by Minnesota law, the Company s Articles of Incorporation provide that directors of the Company shall not be personally liable to the Company or its shareholders for monetary damages for breach of fiduciary duty as a director, with certain exceptions. These provisions may discourage shareholders from bringing suit against a director for breach of fiduciary duty and may reduce the likelihood of derivative

litigation brought by shareholders on behalf of the Company against a director. In addition, the Company s Bylaws provide for mandatory indemnification of directors and officers to the fullest extent permitted by Minnesota law.

PART II

Item 6. SELECTED FINANCIAL DATA

The following selected financial data for each of the fiscal years in the five-year period ended December 31, 2003 is derived from the audited financial statements of the Company and the notes thereto. The information set forth below should be read in conjunction with the Company s financial statements, including the notes thereto, and Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations, which are included elsewhere in this Annual Report on Form 10-K/A.

	2003 (Restated)(1)	2002	2001	2000	1999
	(In thousands, except per share amounts)				
Years ended December 31:					
Revenue	$ 27,300	$ 21,116	$ 15,196	$ 10,628	$ 6,623
Gross margin	20,229	14,808	10,723	7,168	4,303
Operating expenses:					
Selling, general and administrative	13,125	9,988	8,420	6,919	5,081
Research and development	5,169	4,143	3,358	3,036	2,525
Operating income (loss)	1,935	677	(1,055)	(2,787)	(3,303)
Net income (loss)	$ 8,462(2)	$ 790	$ (1,012)	$ (2,637)	$ (3,218)
Net income (loss) per share-basic	$ 0.83	$ 0.09	$ (0.14)	$ (0.39)	$ (0.64)
Weighted average common shares outstanding basic	10,189	8,861	7,075	6,760	5,046
Net income (loss) per share-diluted	$ 0.71	$ 0.08	$ (0.14)	$ (0.39)	$ (0.64)
Weighted average common shares outstanding diluted	11,848	9,822	7,075	6,760	5,046
At December 31:					
Working capital	$ 31,915	$ 9,219	$ 6,094	$ 2,344	$ 5,409
Total assets	53,063	18,827	13,269	7,287	8,666
Long-term debt					
Total shareholders equity	44,594	11,721	8,051	3,765	6,098

(1) See Note 14 to the financial statements for information about the restatements of 2003 amounts.

(2) Includes a net tax benefit of $6,313 resulting from the reversal of the Company s valuation allowance for its net deferred tax assets, net of other current year state and federal income taxes.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (RESTATED)

Executive Summary

2003 was a year of financial growth for Vital Images. The Company reported revenue of $27.3 million, a 29% increase over the prior year revenue of $21.1 million. Core revenue components, that is, software license fees and maintenance and services, rose 38% in 2003 to $25.2 million from $18.2 million in 2002. In 2003, most of the Company s revenue was generated from the U.S. CT market. Going forward, the Company anticipates a growing contribution from other sources, including an expanding picture archive and communication systems (PACS) market, sales of Web-based products and the Company s installed base.

Vital Images recorded net income of $8.5 million, or $0.71 per diluted share, in 2003 versus $790,000 of net income, or $0.08 per diluted share, in 2002. Full-year earnings for 2003 include a net tax benefit of $6.3 million, or $0.53 per diluted share.

In June 2003, the Company completed a private investment in public equity financing (PIPE) that netted $19.0 million from the sale of 1.5 million shares of common stock. The Company plans to use the net proceeds to expand its business. To that end, in early 2004, Vital Images acquired HInnovation, Inc., a privately-held provider of software solutions that allow physicians to use PCs or notebook computers to access 2D, 3D and 4D medical imaging applications securely over the Internet, as a significant step towards expanding its presence in the PACS and Web-based markets. The Company also generated $4.4 million in positive cash flow from operations in 2003. The PIPE and positive cash flow from operations helped increase cash, cash equivalents and marketable securities to $34.2 million as of December 31, 2003, up from $10.6 million as of December 31, 2002.

The Company has restated its financial statements and related footnote disclosures for the year ended December 31, 2003 to (1) correct the accounting for unrecognized deferred maintenance and service revenue from certain maintenance and service arrangements and (2) change the classification of certain non-trade accounts receivable from accounts receivable to prepaid expenses and other current assets. The Company has made the appropriate modifications to the balance sheet, statement of operations, statement of shareholders equity and statement of cash flows to give effect to the adjustment and change in classification. The adjustment for the previously unrecognized deferred maintenance and service revenue (a) increased maintenance and service revenue, total revenue and operating income by like amounts, (b) reduced the net tax benefit for the tax effect of the additional revenue and (c) increased net income and net income per share by the net effect of (a) and (b). The change in classification for the non-trade accounts receivable had no effect on the Company s previously reported revenue, operating income, net income or net income per share, nor did the change in classification affect the Company s statement of shareholders equity. The Company also restated the disclosures to the financial statements to correct the computation of pro forma stock-based employee compensation expense for the year ended December 31, 2003. The effects of the restatements have been reflected in the discussion of Management s Discussion and Analysis of Financial Condition and Results of Operations in this Amendment No. 1. This Amendment No. 1 to the Form 10-K does not reflect events occurring after the original filing of the Form 10-K.

Overview

Vital Images develops, markets and supports 3D medical imaging software for use primarily in clinical diagnosis, disease screening and therapy planning. The Company s software applies proprietary computer graphics and image processing technologies to a wide variety of data supplied by computed tomography (CT) and magnetic resonance (MR) scanners. Vital Images products allow clinicians to create 2D, 3D and 4D views

of human anatomy and to non-invasively navigate within these images to better visualize and understand internal structures and pathologies. The Company believes that its high-speed visualization technology and customized protocols cost-effectively bring 3D visualization and analysis into the routine, day-to-day practice of medicine. The Company, which operates in a single business segment, markets its products to healthcare providers and to manufacturers of PACS and diagnostic imaging systems through a direct sales force in the United States and independent distributors in international markets.

On October 28, 1996, the Board of Directors of Bio-Vascular, Inc. (Bio-Vascular), now known as Synovis Life Technologies, Inc., the former parent company of Vital Images, approved a plan to spin off and establish Vital Images as an independent, publicly-owned company. On May 12, 1997, Bio-Vascular distributed all of the shares of Vital Images to the shareholders of Bio-Vascular, and on that date Vital Images began operating as an independent public company. All Bio-Vascular shareholders of record as of May 5, 1997 received one share of Vital Images common stock for each two shares of Bio-Vascular stock held on that date, and cash in lieu of fractional shares. Vital Images common stock is currently traded on The NASDAQ National Market under the symbol VTAL.

Critical Accounting Policies and Estimates

Management s discussion and analysis of its financial position and results of operations are based upon the Company s financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management

to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates. The following represents those critical accounting policies and estimates where materially different amounts could be reported under different conditions or using different assumptions.

Allowance for doubtful accounts. The Company maintains an allowance for doubtful accounts that reflects the Company s estimate of losses that may result from the uncollectibility of accounts receivable. The allowance for doubtful accounts is based on an analysis of individual accounts for which the Company has information indicating the customer may not be able to pay amounts owed to the Company. In these cases, based on the available facts and circumstances, the Company estimates the amount that will be collected from such customers. The Company also evaluates the collectibility of its accounts receivable in the aggregate based on factors such as the aging of receivable amounts, customer concentrations, historical experience, and current economic trends and conditions. The allowance for doubtful accounts is adjusted when additional information is received that impacts the amount reserved. If circumstances change, the Company s estimates of the recoverability of accounts receivable could be reduced or increased by a material amount. Such a change in estimated recoverability would be accounted for in the period in which the facts that give rise to the change become known. As of December 31, 2003, the Company had an allowance for doubtful accounts of $235,000.

Deferred tax asset. The Company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. During 2003, the Company concluded that it is more likely than not that substantially all of its net deferred tax assets would be realized and the Company reversed substantially all of its valuation allowance for net deferred tax assets, which resulted in the recording of a net tax benefit in 2003. The reversal of the deferred tax assets valuation allowance is based upon the Company s historical operating performance and management s expectation that the Company will generate taxable income of at least $25 million in future periods to allow it to realize its deferred tax assets resulting from the tax benefits associated with its net operating loss carryforwards and a significant portion of its research and development tax credit carryforwards, as well as certain other tax benefits related to book and tax income timing differences. The Company recorded a net increase in deferred tax assets of $9.6 million, $6.4 million of which was recorded as a tax benefit in the statement of operations and represents the tax benefit of its net operating loss and tax credit carryforwards, as well as certain other tax benefits related to book and tax income timing differences. The remaining $3.2 million increase in deferred tax assets was recorded as additional paid-in capital and represents the amount of deferred tax assets generated from the exercise of stock options. Should the Company determine that it would not be able to realize all or part of its net deferred tax asset in the future, an adjustment to record a valuation allowance to reduce the deferred tax assets would be charged to income in the period such a determination was made.

Long-Lived Assets. The Company periodically reviews the carrying amounts of property and equipment and intangible assets purchased in the normal course of business to determine whether current events or circumstances, as defined in Statement of Financial Accounting Standard No 144, Accounting for the Impairment or Disposal of Long-Lived Assets, warrant adjustments to such carrying amounts. In reviewing the carrying values of property and equipment and intangible assets purchased in the normal course of business, the Company considers, among other things, the future undiscounted cash flows expected from the use of the asset. To the extent these future estimated undiscounted cash flows significantly change, an impairment could be identified.

Revenue Recognition. The Company licenses its software and sells products and services to end-users and also indirectly through OEMs and independent distributors. Terms offered by the Company do not generally differ based on whether the customer is an end-user, OEM or independent distributor. The Company offers terms that require payment within 30 to 90 days after product delivery. The Company does not offer rights of return, acceptance clauses or price protection to its customers.

License fees revenue is derived from the licensing of computer software. Hardware revenue is derived from the sale of system hardware, including peripheral equipment. Maintenance and service revenue is derived from hardware and software maintenance and from services consisting of telephone support, installation, training and engineering services. The Company s software licenses are always sold as part of an arrangement that includes maintenance and support and often installation and training services. Engineering services consist of software modification or development services that are sold separately to OEMs. The Company generally sells hardware as part of a system sale, but it occasionally sells hardware as part of a system upgrade or additional product sale.

The Company recognizes revenue in accordance with AICPA Statement of Position (SOP) 97-2, Software Revenue Recognition, as amended by SOP 98-4 and SOP 98-9, as well as Technical Practice Aids issued from time to time by the American Institute of Certified Public Accountants and Staff Accounting Bulletin (SAB) No. 104. The Company recognizes revenue when it is realized or realizable and earned. The Company considers revenue realized or realizable and earned when it has persuasive evidence of an arrangement, the product has been shipped or the services have been provided to the customer, the sales price is fixed or determinable, and collectibility is probable.

The Company evaluates the credit worthiness of all customers. In circumstances where the Company does not have experience selling to a customer and lacks adequate credit information to conclude collection is probable, revenue is deferred until the arrangement fees are collected and all other revenue recognition criteria in the arrangement have been met.

In addition to the aforementioned general policy, the following are the specific revenue recognition policies for services and multiple-element arrangements.

Software and Hardware

Revenue from license fees and hardware is recognized when shipment of the product has occurred, no significant Company obligations with regard to implementation remain and the Company s services are not considered essential to the functionality of other elements of the arrangement. See also Multiple Element Arrangements below for further information.

Services

Revenue from maintenance and support arrangements is deferred and recognized ratably over the term of the maintenance and support arrangements.

Revenue from training and installation services is recognized as the services are provided to customers.

Revenue from engineering services, where the Company is performing significant customization or modification of software, is recognized using contract accounting on a percentage-of-completion basis. The Company records revenue by reference to actual hours incurred to date and the estimated hours remaining to complete the services.

Multiple-Element Arrangements

The Company enters into arrangements with customers that include a combination of software products, system hardware, specified upgrades, maintenance and support, or installation and training services. For such arrangements, the Company recognizes revenue using the residual value method. The Company allocates the total arrangement fee among each element of the arrangement based on the relative fair value of each of the undelivered elements determined based on vendor-specific objective evidence. The fair value of maintenance and support services is based upon the renewal rate for continued service arrangements. The fair value of installation and training services is established based upon separate pricing for the services. In software arrangements for which the Company does not have vendor-specific objective evidence of fair value for all elements, revenue is deferred until the earlier of when vendor-specific objective evidence is determined for the undelivered elements (residual method) or when all elements have been delivered.

The following table sets forth information from the Company s Statements of Operations, expressed as a percentage of total revenue.

	For the Years Ended December 31,		
	2003 (Restated)	2002	2001
Revenue:			
License fees	67.4%	67.3%	66.4%
Maintenance and services	25.1	19.0	16.1
Hardware	7.5	13.7	17.5
Total revenue	100.0	100.0	100.0
Cost of revenue:			
License fees	6.7	5.9	4.6
Maintenance and services	13.8	13.6	10.9
Hardware	5.4	10.4	13.9
Total cost of revenue	25.9	29.9	29.4
Gross margin	74.1	70.1	70.6
Operating expenses:			
Sales and marketing	34.1	32.2	37.9
Research and development	18.9	19.6	22.1
General and administrative	14.0	15.1	17.5
Total operating expenses	67.0	66.9	77.5
Operating income (loss)	7.1	3.2	(6.9)
Interest income, net	0.8	0.6	0.3
Income (loss) before income taxes	7.9	3.8	(6.6)
Provision (benefit) for income taxes, net	(23.1)	0.1	(0.1)
Net income (loss)	31.0%	3.7%	(6.7)%

Revenue

Total revenue increased 29% to $27,300,000 in 2003 from total revenue of $21,116,000 in 2002. Total revenue increased 39% to $21,116,000 in 2002 from total revenue of $15,196,000 in 2001. The revenue growth was driven by the increase in the Company s core revenue components of software license fees and maintenance and service revenue. License fee revenue increased 29% to $18,389,000 in 2003 and increased 41% to $14,212,000 in 2002 from $10,083,000 in 2001. The increase in software license fee revenue was driven by an increase in the number of *Vitrea* 2 licenses sold, principally to Toshiba Medical Systems Corporation (Toshiba), and an increase in the number of Vitrea add-on options sold. The installed base of Vitrea customers increased from approximately 550 at December 31, 2001 to approximately 850 at December 31, 2002 to approximately 1,300 at December 31, 2003. The number of Vitrea add-on modules sold by the Company increased from approximately 70 in 2001, to 660 in 2002 and 1,200 in 2003.

For 2003, the Company generated 50% revenue growth from the sale of *Vitrea 2* options, including *VScore* , CT Colonography, Automated Vessel Measurements and CT Cardiac. The sale of *Vitrea 2* options totaled $9,035,000 for 2003 compared with $6,019,000 in 2002 and $2,448,000 in 2001. For 2003, software license fee revenue from sales to Toshiba totaled $8,323,000 compared with $6,013,000 for 2002 and $3,190,000 for 2001.

Maintenance and services revenue increased 70% to $6,844,000 for 2003 compared to $4,019,000 for 2002 and increased 64% to $4,019,000 in 2002 from $2,450,000 in 2001. Of the $2,825,000 increase for 2003 compared

to 2002, $2,079,000 consisted of an increase in maintenance revenue and $793,000 was an increase in training revenue. Of the $1,569,000 increase for 2002 compared to 2001, $716,000 consisted of an increase in maintenance revenue and $596,000 was an increase in training revenue. The increases in maintenance revenue in both 2003 and 2002 were due to the Company adding new customers to the installed base and renewing back maintenance from customers whose maintenance arrangements had lapsed. The increases in training revenue in both 2003 and 2002 were due to an overall increase in the number of training sessions sold with the customers initial purchases of software.

Hardware revenue decreased 28% to $2,066,000 in 2003 from $2,885,000 in 2002 and increased 8% to $2,885,000 in 2002 from $2,663,000 in 2001. The decrease in hardware revenue from 2002 to 2003 was due to a decrease in the number of complete system sales and lower unit pricing for hardware platforms shipped in 2003. Although total revenue grew 39% from 2001 to 2002, hardware revenue grew only 8% due to a change in the sales model with Toshiba. Prior to the third quarter of 2001, all of the Company s sales to Toshiba were complete systems sales. Beginning in the third quarter of 2001 and continuing thereafter, most of the revenue resulting from sales to Toshiba was derived from software-only sales, which resulted in a decrease in hardware revenue.

Gross Margin

The Company s gross margin percentage was 74% in 2003, up from 70% in 2002. The gross margin percentage was 71% in 2001. Revenue in 2003 included more higher margin software license fee revenue and less lower margin hardware revenue than in 2002. In addition, there was a 70% increase in maintenance and services revenue with only a 32% increase in cost of revenue for maintenance and services. The number of customer support employees increased from 17 at December 31, 2002 to 22 at December 31, 2003. The decrease in margin in 2002 compared to 2001 was due to increasing costs for customer support resulting from the Company s growth, which was partially offset by the favorable impact of sales mix. Revenue in 2002 included more of higher margin software license fee revenue than in 2001. The number of customer support employees increased from 11 at December 31, 2001 to 17 at December 31, 2002.

The *Vitrea 2* system, consisting of *Vitrea 2* software and third-party hardware and peripherals, is designed to offer end users an integrated 3D medical imaging system. The Company receives a nominal discount in purchasing the third-party hardware and peripheral components of the *Vitrea 2* system, and the Company s gross margin on the resale of these system components approximates its discount. During 2004, the Company will begin selling more third party software products, including lung visualization products from R2 Technology, Inc. (R2) and a fusion technology product from Mirada Solutions, Limited. The Company will receive a discount when purchasing these third-party software products, but such discounts will be considerably less than the gross margins the Company earns on its own internally-developed software products. Accordingly, the Company anticipates that its gross margin on software license fee revenue, as well as the overall gross margin for total revenue, will decrease in future periods.

Sales and Marketing

Sales and marketing expenses were $9,318,000, $6,795,000 and $5,761,000 for 2003, 2002 and 2001, respectively. The increases were mostly due to increases in compensation costs as a result of additional personnel required to support recent growth and increased sales commissions as a result of increased revenue. Compensation costs, including commissions, increased $1,515,000 from 2002 to 2003 and $679,000 from 2001 to 2002. There were 40, 33 and 27 sales and marketing personnel as of December 31, 2003, 2002 and 2001, respectively. Due to the increase in the number of personnel from 2002 to 2003, travel and entertainment expenses increased $280,000 and hiring costs increased $141,000. There was a $356,000 increase in expenses related to utilizing outside consultants to help sell and promote *Vitrea 2* and related options for 2003 as compared to 2002. Tradeshow and marketing brochure costs increased $65,000 and

$147,000 from 2002 to 2003 and 2001 to 2002, respectively, due to the Company purchasing more space at

tradeshows and attending additional tradeshows. The Company expects sales and marketing costs to increase in future periods as a result of the cost of additional sales and marketing personnel.

Research and Development

Research and development expenses were up 25% to $5,169,000 in 2003 from $4,143,000 in 2002. Of the $1,026,000 expense increase, $492,000 was due to increased compensation costs resulting from additional personnel supporting the development of *Vitrea 2*. Total research and development personnel increased from 33 at December 31, 2002 to 38 at December 31, 2003. Due to the increase in personnel, hiring costs increased $41,000 in 2003 as compared to 2002. Due to more training and increased personnel, training costs increased $64,000 from 2002 to 2003. There was a $189,000 expense increase due to a decrease in expenses classified in cost of revenue in connection with engineering services provided to certain third parties under various product development agreements in 2003 as compared to 2002. In addition, depreciation expense increased by $68,000 from 2002 to 2003 as the result of equipment purchases to support the additional personnel and to upgrade computer equipment.

Total research and development expenses increased from $3,359,000 in 2001 to $4,143,000 in 2002. Of the $784,000 increase in expense, $794,000 was due to increased compensation costs resulting from additional personnel supporting the development of *Vitrea 2*. Total research and development personnel increased from 24 at December 31, 2001 to 33 at December 31, 2002. The compensation increase from 2001 to 2002 was partially offset by a $211,000 increase in expenses classified in cost of revenue during 2002 in connection with engineering services provided to certain third parties under various product development agreements. There was also a $59,000 increase in annual depreciation expense from 2001 to 2002 as the result of equipment purchases to support the additional personnel and to upgrade computer equipment.

The Company anticipates that research and development costs will increase in future periods as the Company develops software tools for applications with large potential markets, such as cardiovascular disease, disease screening applications such as colon cancer, and surgical and therapy planning.

General and Administrative

General and administrative expenses were $3,807,000, $3,193,000 and $2,658,000 in 2003, 2002 and 2001, respectively. Of the $614,000 increase from 2002 to 2003, $263,000 was due to an increase in compensation costs related to additional personnel. Total general and administrative personnel increased from 17 at December 31, 2002 to 21 at December 31, 2003. Legal fees increased $227,000 during 2003 as compared to 2002 due to business development, patent work and SEC filings related to the registration statement covering the resale of shares from a private placement in June 2003. In addition, registration and filing fees increased $104,000 in 2003 as compared to 2002, which includes a $100,000 NASDAQ National Market registration fee. This registration fee was paid for the first time in June 2003 when the Company qualified for listing on the NASDAQ National Market. There was also a $54,000 increase in 2003 as compared to 2002 due to higher audit costs, including assistance with SEC filings. These increases were partially offset by a $230,000 decrease due to severance costs paid in 2002 to the Company s former chief executive officer. The $535,000 increase from 2001 to 2002 was largely due to severance costs of $230,000 for the Company s former chief executive officer, an increase in consulting fees of $73,000, travel costs of $79,000 related to investor relations and business development and a $52,000 increase in insurance costs due to the growth of the Company and premium rate increases. The decreases in general and administrative expenses as a percentage of revenue during these periods reflect the Company s ability to limit operating costs while increasing revenue. The Company believes that general and administrative expenses will increase in future periods due to increased infrastructure costs as the business grows but that they will remain unchanged or decrease from the current percentage of total revenue.

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Operating Income (Loss)

The increasing revenue from *Vitrea 2* and add-on software options and related service revenues, net of the increased expenses attributable to the development of the Company s infrastructure and the development and promotion of the *Vitrea 2* product, resulted in operating income of $1,935,000 for 2003 compared with $677,000 for 2002 and an operating loss of $1,055,000 for 2001.

Interest Income

There was $214,000 of interest income for 2003, compared with $135,000 in 2002 and $55,000 in 2001. The increases in interest income from 2001 to 2002 and from 2002 to 2003 were primarily due to increases in cash, cash equivalents and marketable securities. The increases in cash, cash equivalents and marketable securities were due to the increased cash flows from operations from 2001 to 2002 and from 2002 to 2003, the $18,991,000 of cash generated from the private placement in June 2003, and the exercise of warrants for the purchase of common stock, which generated $1,725,000 and $4,491,000 in proceeds for the years ended December 31, 2002 and 2001, respectively.

Income Taxes

During 2003, the Company concluded that it is more likely than not that substantially all of its net deferred tax assets would be realized, and the Company reversed substantially all of its valuation allowance for net deferred tax assets, which resulted in the recording of a net tax benefit in 2003. The reversal of the deferred tax assets valuation allowance is based upon the Company s historical operating performance and management s expectation that the Company will generate taxable income of at least $25 million in future periods to allow it to realize its deferred tax assets resulting from the tax benefits associated with its net operating loss (NOL) carryforwards and a significant portion of its research and development tax credit carryforwards, as well as certain other tax benefits related to book and tax income timing differences. The reversal of the valuation allowance resulted in a tax benefit of $7,171,000. This reversal net of other current year state and federal income taxes resulted in a net tax benefit of $6,313,000 in 2003. The Company has a valuation allowance of $147,000 as of December 31, 2003.

As of December 31, 2003, the Company had available NOL carryforwards of approximately $22.6 million and research and development tax credit carryforwards of approximately $1.1 million expiring in varying amounts from 2004 through 2023.

The income tax provision for 2002 and 2001 consists solely of certain state minimum fees. As a result of the Company s history of generating net operating losses, the Company had established a valuation allowance to completely reserve for the deferred tax asset of the Company at December 31, 2002.

Liquidity and Capital Resources

As of December 31, 2003, the Company had $30.1 million in cash and cash equivalents, $4.1 million in marketable securities, working capital of $31.9 million and no borrowings.

Cash provided by operations was $4.4 million for 2003 compared with cash provided by operations of $2.4 million for 2002 and $771,000 for 2001. During 2003, $14.1 million of cash was generated from increases in net income, deferred revenue, accounts payable and non-cash expenses for depreciation and the tax benefit from stock option transactions. These increases were partially offset by a $9.6 million increase in the deferred income tax benefit. During 2002, $3.7 million of cash from operations was generated from increases in net income, deferred revenue, non-cash depreciation and accrued expenses and other current liabilities. These increases were partially offset by a $1.4 million increase in accounts receivable. During 2001, $2.6 million of cash was generated from operations as a result of increases in deferred revenue, non-cash depreciation expense

and accrued expenses and other current liabilities. These increases were offset by a combined $1.7 million increase in net loss and accounts receivable.

Of the $699,000, $1.6 million and $1.1 million increases in deferred revenue for the years ended 2003, 2002 and 2001, respectively, $364,000, $841,000 and $605,000, respectively, were due to volume increases in *Vitrea 2* sales and renewals of annual maintenance. For the years ended 2003, 2002 and 2001, $335,000, $717,000 and $569,000, respectively, of the increase in deferred revenue was due to volume increases in training and installation from increased sales of *Vitrea 2*. The $500,000 increase in accounts payable for 2003 was due to the timing of payments and the increasing level of expenses. The $1.4 million increase and $728,000 increase in accounts receivable for 2002 and 2001, respectively, were due to revenue increases. The days sales outstanding improved from 92 days at December 31, 2001 to 86 days and 65 days at December 31, 2002 and 2003, respectively. The $384,000 and $714,000 increases in accrued expenses and other liabilities in 2002 and 2001, respectively, were primarily due to increases in incentive bonuses and sales commissions directly related to increased revenue and profitability.

The Company used $3.4 million, $4.0 million and $1.5 million of cash in investing activities in 2003, 2002 and 2001, respectively, of which $1.9 million, $1.5 million and $769,000, respectively, was used for purchases of property and equipment. The purchases for all periods were principally to upgrade computer equipment and to purchase computer equipment for new personnel. In addition, the Company purchased furniture and fixtures and leasehold improvements related to expansions of the Company s offices in 2003 and 2002. Management anticipates that the Company will continue to purchase property and equipment necessary in the normal course of the Company s business. The amount and timing of these purchases and the related cash outflows in future periods is difficult to predict and depends on a number of factors, including the hiring of employees and the rate of change of computer hardware. The Company used $6.8 million and $8.0 million to purchase investments in marketable securities during 2003 and 2002, respectively. The Company realized $5.2 million and $5.5 million of proceeds from maturities of marketable securities during 2003 and 2002, respectively. The marketable securities are invested in U.S. government obligations, U.S. government agency obligations, corporate commercial obligations and certificates of deposits.

On February 18, 2004, the Company completed the acquisition of HInnovation, Inc. in accordance with the terms and conditions of an Acquisition Agreement and Plan of Reorganization dated as of January 8, 2004. The merger consideration included 376,262 newly-issued shares of common stock of Vital Images valued at $6 million and $6 million in cash. In addition, the merger consideration includes contingent milestone payments comprised of newly-issued shares of Vital Images common stock with an aggregate value of $3 million and $3 million in cash. The Company expects the contingent milestone payments to be made periodically as the milestones are achieved over a 12 to 24 month period following the date of the acquisition.

Cash provided by financing activities totaled $21.1 million, $2.9 million and $5.3 million for 2003, 2002 and 2001, respectively. Of the cash provided during 2003, $19.0 million consisted of net proceeds, after deducting offering costs of $1.3 million, from the Company s private placement of 1.5 million shares of common stock at $13.50 per share. A registration statement covering the resale of these shares was declared effective on September 29, 2003 by the Securities and Exchange Commission.

In December 2001, the Company announced its decision to exercise its right to redeem, if not exercised, its outstanding redeemable, five-year common stock warrants issued in its December 1999 private placement. The warrant holders exercised all of the outstanding warrants in December 2001 and January 2002. Cash provided by financing activities from the purchases of common stock resulting from the exercise of

warrants generated $1.7 million and $4.5 million in 2002 and 2001, respectively. In addition, the exercise of the broker warrants issued in 1999 in connection with the private placement generated $248,000, $6,000 and $22,000 of cash, in 2003, 2002 and 2001, respectively.

During October 2001, the Company sold 82,332 shares of newly-issued common stock to E-Z-EM, Inc. for $552,000.

The remaining $1.8 million, $1.1 million and $245,000 of cash provided by financing activities was generated from the sale of common stock upon the exercise of stock options in 2003, 2002 and 2001, respectively.

The Company has never paid or declared any cash dividends and does not intend to pay dividends in the near future.

The following summarizes our contractual obligations, including purchase commitments, at December 31, 2003, and the effect such obligations are expected to have on our liquidity and cash flow in future periods.

	2004	2005	2006	2007
Operating leases	$ 434,000	$ 274,000	$ 19,000	$
Purchase commitment(1)	$ 1,050,000	$ 1,995,000	$ 2,030,000	$ 525,000
HInnovation acquisition(2)	$ 6,000 000	$	$	$

(1) Assumes the R2 s lung nodule CAD software product will be available for sale in Europe in the first quarter of 2004 and in the U.S. beginning in the fourth quarter of 2004. The Company completed its development work to integrate the lung nodule CAD software into *Vitrea 2* in January 2004. The first purchase under the agreement is required on or before April 1, 2004. The total purchase commitment will be a maximum of $5.6 million worth of product over a three-year commitment period. The purchase commitment price the Company has to pay will be reduced if the selling price of the lung CAD product when sold directly to end-users by R2 falls below a specified price. The purchase commitment units the Company is required to purchase will be reduced if R2 and its other distributors of the lung CAD product are unable to sell as many as the Company is required to purchase.

(2) The merger consideration of HInnovation includes contingent milestone cash payments of up to $3 million. The Company expects the contingent milestone cash payments to be made as certain milestones are achieved over a 12 to 24 month period following the date of the acquisition.

The Company had no significant outstanding purchase orders as of December, 31 2003. The Company has entered into a number of technology licensing agreements that provide for the payment of royalties when the Company sells *Vitrea 2*. Except for the R2-purchase commitment discussed above, the Company is not obligated for any minimum payments under such agreements.

Management believes that its cash and cash equivalents should be sufficient to satisfy the Company s cash requirements for at least the next 12 months.

Foreign Currency Transactions

Substantially all of the Company s foreign transactions are negotiated, invoiced and paid in U.S. dollars.

Inflation

Management believes inflation has not had a material effect on the Company s operations or on its financial condition.

Recent Accounting Pronouncements

In May 2003, the FASB issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity. SFAS No. 150 requires that an issuer classify certain financial instruments within its scope as a liability (or an asset in some circumstances). Effective July 1, 2003, the Company adopted SFAS No. 150. Adoption of this interpretation did not have an impact on the Company s financial position or results of operations.

In May 2003, Emerging Issues Task Force (EITF) No. 00-21, Accounting for Revenue Arrangements with Multiple Deliverables, was finalized. This issue addresses certain aspects of accounting by a vendor for arrangements under which it will perform multiple revenue-generating activities. The guidance in EITF 00-21 is effective for revenue arrangements entered into in fiscal periods beginning after June 15, 2003. In December 2003, the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) No. 104, Revenue Recognition, which codifies and rescinds certain sections of SAB No. 101, Revenue Recognition, in order to make this interpretive guidance consistent with EITF No. 00-21. Adoption of this interpretation did not have an impact on the Company s financial position or results of operations.

Forward-Looking Statements

This Annual Report on Form 10-K/A contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and information that is based on management s beliefs as well as on assumptions made by, and upon information currently available to, management. When used in this Annual Report on Form 10-K/A, the words expect, anticipate, intend, plan, believe, seek, and estim similar expressions are intended to identify such forward-looking statements. However, this Annual Report on Form 10-K/A also contains other forward-looking statements. Forward-looking statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions including, but not limited to, the following factors, which could cause the Company s future results and shareholder values to differ materially from those expressed in any forward-looking statements made by or on behalf of the Company: the dependence on market growth of the industry in which the Company operates; the extent to which the Company s products gain market acceptance; the potential for litigation regarding patent and other intellectual property rights; the introduction of competitive products by others; dependence on major customers; fluctuations in quarterly results; the progress of product development; the availability of third party reimbursement; and the receipt and timing of regulatory approvals and other factors detailed from time to time in the Company s filings with the Securities and Exchange Commission, including those set forth under the heading Important Factors included in Item 1 of this Annual Report on Form 10-K/A.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (RESTATED)

The Company s financial statements, supplemental schedule and Report of Independent Registered Public Accounting Firm thereon, all of which are included in this Annual Report on Form 10-K/A, are listed in Item 15(a) (1) of this Form 10-K/A.

ITEM 9A. CONTROLS AND PROCEDURES

As of the end of the period covered by this report, an evaluation was performed by the Company s management, including its principal executive officer and principal financial officer, of the effectiveness of the design and operation of the Company s disclosure controls and procedures. Based on that evaluation, the Company s management, including its principal executive officer and principal financial officer, concluded that the Company s disclosure controls and procedures were effective as of December 31, 2003. However, as described below in Compliance with Section 404 of the Sarbanes-Oxley Act of 2002, management later determined that the Company s disclosure controls and procedures were not effective as of December 31, 2003 because the Company had a material weakness over the reporting of revenue from maintenance and services and a material weakness over the reporting of pro forma stock-based employee compensation expense in Note 2 to the financial statements.

There were no changes in the Company s internal controls over financial reporting that occurred during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company s internal controls over financial reporting.

Compliance with the Sarbanes-Oxley Act of 2002

Vital Images is in the process of documenting and testing its internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 (the Act). Beginning with the Company s Annual Report on Form 10-K for the year ending December 31, 2004, Section 404 of the Act requires annual management assessments of the effectiveness of the Company s internal controls over financial reporting and a report by its independent registered public accounting firm addressing these assessments.

As part of the preparation and testing of controls, the Company determined that it had a material weakness over the reporting of revenue from maintenance and services. Due to the manual procedures for identifying maintenance and service activity, revenue was not recognized for some maintenance and services that had actually been provided. In addition, there were not sufficient review procedures in place to identify older deferred revenue balances and errors in the detailed schedules for deferred revenue. The Company has designed new procedures and controls that it will immediately implement to improve the process for recognizing revenue from services, and to review deferred revenue schedules on a timely basis. By implementing its planned internal control improvements, the Company expects to remediate this material weakness by December 31, 2004.

During its procedures for preparing this Form 10-K/A, the Company determined that it had a material weakness over the accounting for pro forma stock-based employee compensation expense required to be disclosed under Statement of Financial Accounting Standards (SFAS) No. 123, Accounting for Stock-Based Compensation. The amount previously disclosed by the Company in the notes to the financial statements was in error due to a misapplication of SFAS No. 123. The Company recently hired additional finance and accounting personnel that are experienced in applying the provisions of SFAS No. 123 and implemented additional review procedures to properly account for pro forma stock-based employee compensation expense. By implementing its planned internal control improvements, the Company expects to remediate

this material weakness by December 31, 2004.

During the course of its other documentation and testing, the Company may identify deficiencies that it may not be able to remediate in time to meet the deadline imposed by the Act for compliance with the requirements of Section 404 or it may identify one or more material weaknesses such that it will be unable to assert its internal control is effective. If the Company is unable to assert that its internal control over financial reporting is effective as of December 31, 2004, or if the Company is unable to complete its evaluation on a timely enough basis for its independent registered public accounting firm to complete their assessment of the Company s internal controls over financial reporting by the due date for the Company s 2004 Annual Report on Form 10-K, the Company could lose investor confidence in its internal controls over financial reporting, which in turn could have an adverse effect on its stock price.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

The following financial statements and supplemental schedule of Vital Images, Inc. and Report of Independent Registered Public Accounting Firm thereon are included herein:

(a) (1) FINANCIAL STATEMENTS

(a) (2) SCHEDULE II. VALUATION AND QUALIFYING ACCOUNTS

All other schedules to the financial statements required by Article 12 of Regulation S-X are not required under the related instructions or are inapplicable and therefore have been omitted.

(a) (3) LISTING OF EXHIBITS

The Exhibits required to be a part of this Report are listed in the Index to Exhibits, which follows the Financial Statement Schedule on page 65.

(c) REPORTS ON FORM 8-K

During the quarter ended December 31, 2003, and during the period from December 31, 2003 until the original filing date of this Report, the Company filed or furnished the following Current Reports on Form 8-K:

On October 21, 2003, the Company furnished the SEC with a Current Report on Form 8-K announcing the issuance of a press release on October 21, 2003 regarding Vital Images financial results for the three and nine months ended September 30, 2003.

On December 15, 2003, the Company filed with the SEC with a Current Report on Form 8-K announcing the extension of the marketing and distribution agreement with Toshiba Medical Systems Corporation.

On January 8, 2004, the Company filed with the SEC with a Current Report on Form 8-K announcing the acquisition of HInnovation, Inc. and furnished to the SEC information on the financial results for the fourth quarter and for the year ended December 31, 2003.

On January 27, 2004, the Company furnished the SEC with a Current Report on Form 8-K announcing that Jay D. Miller, president and CEO, and Gregory S. Furness, vice president, finance and CFO, would be presenting at the Piper Jaffray Health Care Conference on January 27, 2004.

On February 11, 2004, the Company furnished the SEC with a Current Report on Form 8-K announcing the financial results for the fourth quarter and the full-year 2003.

On February 26, 2004, the Company filed with the SEC with a Current Report on Form 8-K announcing the completion of the acquisition of Hinnovation, Inc.

On March 3, 2004, the Company furnished the SEC with a Current Report on Form 8-K announcing that Jay D. Miller, president and CEO, and Gregory S. Furness, vice president, finance and CFO, would be presenting at the Wall Street Analyst Forum on March 3, 2004.

(c) EXHIBITS

Included in Item 15(a)(3) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Form 10-K/A to be signed on its behalf by the undersigned, thereunto duly authorized, in Minneapolis, Minnesota, on the 22nd day of November, 2004.

VITAL IMAGES, INC.

By: /s/Gregory S. Furness
Gregory S. Furness
Chief Financial Officer and
Vice President-Finance
(Chief Financial Officer and
Chief Accounting Officer)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Vital Images, Inc.:

In our opinion, the financial statements listed in the index appearing under Item 15(a)(1) present fairly, in all material respects, the financial position of Vital Images, Inc. (the Company) at December 31, 2003 and 2002, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related financial statements. These financial statements and financial statement schedule are the responsibility of the Company s management; our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States), which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 14 to the financial statements, the Company has restated its financial statements as of and for the year ended December 31, 2003.

/s/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota
February 6, 2004, except Note 16 as to which the date is February 18, 2004, and except

Note 14 as to which the date is November 19, 2004

VITAL IMAGES, INC.
BALANCE SHEETS

	As of December 31,	
	2003 (Restated)	**2002**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 30,111,613	$ 8,122,547
Marketable securities	4,078,587	2,508,113
Accounts receivable, net of allowance for doubtful accounts of $235,000 and $240,000 as of December 31, 2003 and 2002, respectively	4,877,876	4,971,079
Deferred income taxes	275,000	
Prepaid expenses and other current assets	776,558	498,692
Total current assets	40,119,634	16,100,431
Property and equipment, net	3,043,239	2,156,835
Licensed technology, net	450,000	570,000
Deferred income taxes	9,306,000	
Other assets	144,346	
TOTAL ASSETS	$ 53,063,219	$ 18,827,266
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities:		
Accounts payable	$ 1,485,451	$ 757,715
Accrued payroll	1,347,464	1,486,654
Deferred revenue	4,530,333	3,870,958
Accrued royalties	556,494	546,593
Other current liabilities	285,121	219,036
Total current liabilities	8,204,563	6,880,956
Deferred revenue	264,691	225,539
Total liabilities	8,469,554	7,106,495
Commitments (Notes 5, 13 and 15)		
Shareholders equity:		
Preferred stock: $0.01 par value; 5,000,000 shares authorized; none issued or outstanding as of December 31, 2002 and 2001		
Common stock: $0.01 par value; 20,000,000 shares authorized; 11,140,380 and 8,987,009 shares issued and outstanding as of December 31, 2003 and 2002, respectively	111,404	89,870
Additional paid-in capital	56,108,590	31,719,371
Accumulated deficit	(11,626,329)	(20,088,470)
Total shareholders equity	44,593,665	11,720,771
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	$ 53,063,219	$ 18,827,266

(The accompanying notes are an integral part of the financial statements.)

VITAL IMAGES, INC.
STATEMENTS OF OPERATIONS

	For the Years Ended December 31,		
	2003 (Restated)	**2002**	**2001**
Revenue:			
License fees	$ 18,388,794	$ 14,211,640	$ 10,082,897
Maintenance and services	6,844,470	4,019,639	2,450,037
Hardware	2,066,454	2,884,795	2,662,702
Total revenue	27,299,718	21,116,074	15,195,636
Cost of revenue:			
License fees	1,818,353	1,250,426	703,593
Maintenance and services	3,773,794	2,862,459	1,656,207
Hardware	1,478,914	2,195,182	2,112,982
Total cost of revenue	7,071,061	6,308,067	4,472,782
Gross margin	20,228,657	14,808,007	10,722,854
Operating expenses:			
Sales and marketing	9,317,766	6,795,377	5,761,416
Research and development	5,168,695	4,143,257	3,358,506
General and administrative	3,806,914	3,192,735	2,657,998
Total operating expenses	18,293,375	14,131,369	11,777,920
Operating income (loss)	1,935,282	676,638	(1,055,066)
Interest income, net	213,859	134,870	55,089
Income (loss) before income taxes	2,149,141	811,508	(999,977)
Provision (benefit) for income taxes, net	(6,313,000)	22,000	12,000
Net income (loss)	$ 8,462,141	$ 789,508	$ (1,011,977)
Net income (loss) per share basic	$ 0.83	$ 0.09	$ (0.14)
Weighted average common shares outstanding basic	10,189,114	8,861,132	7,074,906
Net income (loss) per share diluted	$ 0.71	$ 0.08	$ (0.14)
Weighted average common shares outstanding diluted	11,848,268	9,821,798	7,074,906

(The accompanying notes are an integral part of the financial statements.)

VITAL IMAGES, INC.
STATEMENTS OF SHAREHOLDERS EQUITY

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Total Shareholders Equity
Balances as of December 31, 2000	6,823,106	$ 68,231	$ 23,562,444	$ (19,866,001)	$ 3,764,74
Stock-based compensation			10,447		10,447
Issuance of common stock upon exercise of stock options	49,520	495	153,073		153,568
Issuance of common stock under Employee Stock Purchase Plan	25,487	255	91,397		91,652
Issuance of common stock upon exercise of stock warrants	1,205,647	12,057	4,478,744		4,490,801
Issuance of common stock (Note 11)	82,332	823	550,801		551,624
Net and comprehensive loss				(1,011,977)	(1,011,977)
Balances as of December 31, 2001	8,186,092	81,861	28,846,906	(20,877,978)	8,050,789
Stock-based compensation			18,279		18,279
Issuance of common stock upon exercise of stock options	288,008	2,880	1,003,321		1,006,201
Issuance of common stock under Employee Stock Purchase Plan	24,539	245	130,363		130,608
Issuance of common stock upon exercise of stock warrants	488,370	4,884	1,720,502		1,725,386
Net and comprehensive income				789,508	789,508
Balances as of December 31, 2002	8,987,009	89,870	31,719,371	(20,088,470)	11,720,771
Stock-based compensation			137,485		137,485
Issuance of common stock upon exercise of stock options	559,006	5,590	1,690,005		1,695,595
Tax benefit related to exercise of stock options			3,189,000		3,189,000
Issuance of common stock under Employee Stock Purchase Plan	12,995	130	150,437		150,567
Issuance of common stock upon exercise of stock warrants	81,370	814	246,777		247,591
Issuance of common stock in connection with private placement, net of offering costs (Note 12)	1,500,000	15,000	18,975,515		18,990,515
Net and comprehensive income (Restated)				8,462,141	8,462,141
Balances as of December 31, 2003 (Restated)	11,140,380	$ 111,404	$ 56,108,590	$ (11,626,329)	$ 44,593,665

(The accompanying notes are an integral part of the financial statements.)

VITAL IMAGES, INC.
STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
	2003 (Restated)	**2002**	**2001**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	$ 8,462,141	$ 789,508	$ (1,011,977)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation	1,220,468	894,814	746,727
Stock-based compensation	137,485	18,279	10,447
Provision for uncollectible accounts receivable	46,000	64,000	114,000
Tax benefit from stock option transactions	3,189,000		
Deferred income taxes	(9,581,000)		
Amortization of licensed technology	120,000	120,000	60,000
Changes in operating assets and liabilities:			
Accounts receivable	47,203	(1,397,125)	(727,655)
Prepaid expenses and other current assets	(277,866)	59,141	(116,333)
Other assets	(144,346)		
Accounts payable	499,981	(106,670)	(155,513)
Deferred revenue	698,527	1,611,323	1,137,477
Accrued expenses and other current liabilities	(63,204)	383,822	714,136
Net cash provided by operating activities	4,354,389	2,437,092	771,309
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	(1,879,117)	(1,499,533)	(769,155)
Payment for licensed technology			(750,000)
Purchases of marketable securities	(6,775,592)	(8,047,536)	
Sales of marketable securities	5,205,118	5,539,423	
Net cash used in investing activities	(3,449,591)	(4,007,646)	(1,519,155)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from sale of common stock, net of offering costs	18,990,515		551,624
Proceeds from sale of common stock under stock plans	1,846,162	1,136,809	245,220
Proceeds from sale of common stock under stock warrants	247,591	1,725,386	4,490,801
Net cash provided by financing activities	21,084,268	2,862,195	5,287,645
NET INCREASE IN CASH AND CASH EQUIVALENTS	21,989,066	1,291,641	4,539,799
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	8,122,547	6,830,906	2,291,107
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 30,111,613	$ 8,122,547	$ 6,830,906
SUPPLEMENTAL CASH FLOW INFORMATION:			
Cash paid during the year for interest	$	$	$ 17,730
Cash paid during the year for income taxes	$ 68,157	$ 57,974	$ 9,042
Purchases of property and equipment with accounts payable	$ 227,755	$	$

(The accompanying notes are an integral part of the financial statements.)

VITAL IMAGES, INC.
NOTES TO FINANCIAL STATEMENTS

(1) Business Description and Background

Business Description

Vital Images develops, markets and supports 3D medical imaging software for use primarily in clinical diagnosis, disease screening and therapy planning. The Company s software applies proprietary computer graphics and image processing technologies to a wide variety of data supplied by computed tomography (CT) and magnetic resonance (MR) scanners. Vital Images products allow clinicians to create 2D, 3D and 4D views of human anatomy and to non-invasively navigate within these images to better visualize and understand internal structures and pathologies. The Company believes that its high-speed visualization technology and customized protocols cost-effectively bring 3D visualization and analysis into the routine, day-to-day practice of medicine. The Company, which operates in a single business segment, markets its products to healthcare providers and to manufacturers of diagnostic imaging systems and picture archive and communication systems (PACS) through a direct sales force in the United States and independent distributors in international markets.

Background

On October 28, 1996, the Board of Directors of Bio-Vascular, Inc. (Bio-Vascular), now known as Synovis Life Technologies, Inc., the former parent company of Vital Images, approved a plan to spin off and establish Vital Images as an independent, publicly-owned company. On May 12, 1997 (the Distribution Date), Bio-Vascular distributed all of the shares of Vital Images to the shareholders of Bio-Vascular (the Distribution), and on that date Vital Images began operating as an independent public company. All Bio-Vascular shareholders of record as of May 5, 1997 received one share of Vital Images common stock for each two shares of Bio-Vascular stock held on that date and cash in lieu of fractional shares.

(2) Summary of Significant Accounting Policies

Use of Estimates

The preparation of the Company s financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Cash Equivalents and Marketable Securities

Cash equivalents consist principally of money market funds as well as corporate bonds and certificates of deposits with original maturities of three months or less at the date of purchase. Marketable securities consist of U.S. government agency securities and certificates of deposit.

Management determines the appropriate classification of marketable securities at the time of purchase and reevaluates such designation at each balance sheet date. Marketable securities as of December 31, 2003 are classified as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in a separate component of shareholders equity. As of December 31, 2003 and 2002, the Company had no unrealized gains and losses. The cost of debt securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion is included in interest income. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in net income. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income.

Concentration of Credit Risk

Cash and cash equivalents are primarily maintained with one financial institution. Deposits with the bank may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and, therefore, bear minimal risk. Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of marketable securities. Marketable securities consist of U.S. government agency notes and certificates of deposits. The Company s investment policy, approved by the Board of Directors, limits the amount the Company may invest in any one type of investment, thereby reducing credit risk concentrations.

The Company s customer base is generally concentrated with a small number of customers. The Company reviews the creditworthiness of its customers prior to product shipment and generally does not require collateral.

Trade Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are initially recorded at a selling price, which approximates fair value upon the sale of goods or services to customers. They are stated net of allowances for uncollectible accounts, which represent estimated losses resulting from the inability of customers to make the required payments. When determining the allowances for uncollectible accounts, management takes several factors into consideration, including the overall composition of accounts receivable aging, prior history of accounts receivable write-offs, the type of customer and day-to-day knowledge of specific customers. The allowance for doubtful accounts is adjusted when additional information is received that impacts the amount reserved. If circumstances change, the Company s estimates of the recoverability of accounts receivable could be reduced or increased by a material amount. Such a change in estimated recoverability would be accounted for in the period in which the facts that give rise to the change become known. As of December 31, 2003, the Company had an allowance for doubtful accounts of $235,000. Changes in the allowances for uncollectible accounts are recorded as bad debt expense and are included in general and administrative expense in the statements of operations.

Property and Equipment

Property and equipment are recorded at cost. Depreciation is computed using the straight-line method over the related asset s estimated useful life, generally three to seven years. Depreciation expense was $1,220,000, $895,000 and $747,000 for each of the years ended December 31, 2003, 2002 and 2001, respectively. Leasehold improvements are amortized over the shorter of their estimated useful lives or the remaining terms of the related leases. The asset cost and related accumulated depreciation or amortization are adjusted for asset retirement or disposal with the resulting gain or loss, if any, credited or charged to results of operations.

Impairment of Long-Lived Assets

The Company periodically reviews the carrying amounts of property and equipment and intangible assets purchased in the normal course of business, to determine whether current events or circumstances, as defined in Statement of Financial Accounting Standards No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, warrant adjustments to such carrying amounts. In reviewing the carrying values of

property and equipment and intangible assets, the Company considers, among other things, the future undiscounted cash flows expected from the use of the asset. The Company reviews its intangible assets purchased in the normal course of business and other long-lived assets for impairment whenever an event or change in circumstances indicates that the carrying value of an asset may not be recoverable. If such an event or change in circumstances occurs and potential impairment is indicated because the carrying values exceed the estimated future undiscounted cash flows, the Company would measure the impairment loss as the amount by which the carrying value of the asset exceeds its fair value.

Comprehensive Income (Loss)

Comprehensive income (loss) as defined by SFAS No. 130, Reporting Comprehensive Income , includes net income (loss) and items defined as other comprehensive income. SFAS No. 130 requires that items defined as other comprehensive income, such as foreign currency translation adjustments and unrealized gains and losses on certain marketable securities, be separately classified in the financial statements. Comprehensive income (loss) is equal to the net income (loss) for each of the three years in the period ended December 31, 2003.

Revenue Recognition

The Company licenses its software and sells products and services to end-users and also indirectly through OEMs and independent distributors. Terms offered by the Company do not generally differ based on whether the customer is an end-user, OEM or independent distributor. The Company offers terms that require payment within 30 to 90 days after product delivery. The Company does not offer rights of return, acceptance clauses or price protection to its customers.

License fees revenue is derived from the licensing of computer software. Hardware revenue is derived from the sale of system hardware, including peripheral equipment. Maintenance and service revenue is derived from hardware and software maintenance and from services consisting of telephone support, installation, training and engineering services. The Company s software licenses are always sold as part of an arrangement that includes a maintenance and support arrangement and often installation and training services. Engineering services consist of software modification or development services that are sold separately to OEMs. The Company generally sells hardware as part of a system sale, but occasionally sells hardware as part of a system upgrade or additional product sale.

The Company recognizes revenue in accordance with AICPA Statement of Position (SOP) 97-2, Software Revenue Recognition, as amended by SOP 98-4 and SOP 98-9, as well as Technical Practice Aids issued from time to time by the American Institute of Certified Public Accountants and Staff Accounting Bulletin (SAB) No. 104. The Company recognizes revenue when it is realized or realizable and earned. The Company considers revenue realized or realizable and earned when it has persuasive evidence of an arrangement, the product has been shipped or the services have been provided to the customer, the sales price is fixed or determinable and collectibility is probable.

The Company evaluates the credit worthiness of all customers. In circumstances where the Company does not have experience selling to a customer and lacks adequate credit information to conclude collection is probable, revenue is deferred until the arrangement fees are collected and all other revenue recognition criteria in the arrangement have been met.

In addition to the aforementioned general policy, the following are the specific revenue recognition policies for services and multiple-element arrangements.

Software and Hardware. Revenue from license fees and hardware is recognized when shipment of the product has occurred, no significant Company obligations with regard to implementation remain and the Company s services are not considered essential to the functionality of other elements of the arrangement. See also Multiple Element Arrangements below for further information.

Services. Revenue from maintenance and support arrangements is deferred and recognized ratably over the term of the maintenance and support arrangements.

Revenue from training and installation services is recognized as the services are provided to customers.

Revenue from engineering services, where the Company is performing significant customization or modification of software, is recognized using contract accounting on a percentage-of-completion basis. The Company records revenue by reference to actual hours incurred to date and the estimated hours remaining to complete the services.

Multiple-Element Arrangements. The Company enters into arrangements with customers that include a combination of software products, system hardware, specified upgrades, maintenance and support or installation and training services. For such arrangements, the Company recognizes revenue using the residual value method. The Company allocates the total arrangement fee among each element of the arrangement based on the relative fair value of each of the undelivered elements determined based on vendor-specific objective evidence. The fair value of maintenance and support services is based upon the renewal rate for continued service arrangements. The fair value of installation and training services is established based upon separate pricing for the services. In software arrangements for which the Company does not have vendor-specific objective evidence of fair value for all elements, revenue is deferred until the earlier of when vendor-specific objective evidence is determined for the undelivered elements (residual method) or when all elements have been delivered.

Research and Development Costs

Costs related to research, design and development of products are charged to research and development expense as incurred. Software development costs are capitalized beginning when a product s technological feasibility has been established and ending when a product is available for general release to customers. The Company uses the working model approach to determine technological feasibility. Generally, the Company s products are released soon after technological feasibility has been established. As a result, the Company has not capitalized any software development costs, since such costs have not been significant.

Income Taxes

The Company accounts for income taxes using the asset and liability method. Deferred income tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Computation of Net Income (Loss) Per Share

Net income (loss) per share - basic is computed using the weighted average common shares outstanding during the period. Net income (loss) per share diluted is computed using the weighted average common shares outstanding and common share equivalents shares outstanding during the period. Common share equivalents are not included in the net income (loss) per share calculations if they are anti-dilutive. Common share equivalents consist of warrants and options.

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The computations for basic and diluted net income (loss) per share for each year are as follows:

	For the Years Ended December 31,		
	2003 (Restated)	2002	2001
Numerator:			
Net income (loss)	$ 8,462,141	$ 789,508	$ (1,011,977)
Denominator:			
Denominator for weighted average common shares outstanding basic	10,189,114	8,861,132	7,074,906
Dilution associated with common stock warrants	59,389	59,984	
Dilution associated with the company s stock based compensation plans	1,599,765	900,682	
Denominator:			
Denominator for weighted average common shares outstanding diluted	11,848,268	9,821,798	7,074,906
Net income (loss) per share basic	$ 0.83	$ 0.09	$ (0.14)
Net income (loss) per share diluted	$ 0.71	$ 0.08	$ (0.14)

Options to purchase 172,000 and 94,000 shares in 2003 and 2002, respectively, and options and warrants to purchase 2,892,000 shares in 2001 were not included in the computation of earnings per share assuming dilution because their effect on earnings per share would have been antidilutive. All common share equivalents are antidilutive in periods where the Company generates a net loss.

Stock-Based Compensation

The Company has stock-based employee and director compensation plans, which are described more fully in Note 6. The Company accounts for these plans under the recognition and measurement principles of APB Opinion No. 25, *Accounting for Stock Issued to Employees,* and related Interpretations. No stock-based employee and director compensation cost is reflected in net income (loss), as all options granted under those plans had an exercise price equal to the market value of the underlying common stock on the date of grant. The following table illustrates the effect on net income (loss) and net income (loss) per share had the Company applied the fair value recognition provisions of FASB Statement No. 123, *Accounting for Stock-Based Compensation,* to stock-based employee and director compensation.

	For the Years Ended December 31,		
	2003 (Restated)	2002	2001
Net income (loss), as reported	$ 8,462,141	$ 789,508	$ (1,011,977)
Deduct: Total stock-based employee compensation expense determined under fair value method for all awards, net of related tax effects	(1,387,174)	(1,560,508)	(1,210,023)
Pro forma net income (loss)	$ 7,074,967	$ (771,000)	$ (2,222,000)
Net income (loss) per share - basic			
As reported	$ 0.83	$ 0.09	$ (0.14)
Pro forma	$ 0.69	$ (0.09)	$ (0.31)
Net income (loss) per share - diluted			
As reported	$ 0.71	$ 0.08	$ (0.14)
Pro forma	$ 0.62	$ (0.09)	$ (0.31)

The pro forma effects on the net income (loss) for 2003, 2002 and 2001 are not necessarily representative of the pro forma effect that may occur on the net income (loss) in future periods.

Recent Accounting Pronouncements

In May 2003, the FASB issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity. SFAS No. 150 requires that an issuer classify certain financial instruments within its scope as a liability (or an asset in some circumstances). Effective July 1, 2003, the Company adopted SFAS No. 150. Adoption of this interpretation did not have an impact on the Company s financial position or results of operations.

In May 2003, Emerging Issues Task Force (EITF) No. 00-21, Accounting for Revenue Arrangements with Multiple Deliverables, was finalized. This issue addresses certain aspects of accounting by a vendor for arrangements under which it will perform multiple revenue-generating activities. The guidance in EITF 00-21 is effective for revenue arrangements entered into in fiscal periods beginning after June 15, 2003. In December 2003, the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) No. 104, Revenue Recognition, which codifies and rescinds certain sections of SAB No. 101, Revenue Recognition, in order to make this interpretive guidance consistent with EITF No. 00-21. Adoption of this interpretation did not have an impact on the Company s financial position or results of operations.

(3) Property and Equipment, net

Property and Equipment consisted of the following at December 31:

	2003	2002
Equipment	$ 3,725,849	$ 4,361,806
Furniture and fixtures	1,474,485	1,034,641
Computer software	580,986	680,190
Leasehold improvements	273,924	172,323
Total property and equipment	6,055,244	6,248,960
Less accumulated depreciation and amortization	(3,012,005)	(4,092,125)
Property and equipment, net	$ 3,043,239	$ 2,156,835

(4) Deferred Revenue

Deferred revenue consists primarily of service revenue, which is recognized as the services are performed, and maintenance and support revenue, which is recognized on a straight-line basis over the term of the arrangement.

(5) Commitments

The Company leases its office facilities in Plymouth, Minnesota pursuant to terms of a non-cancelable operating lease, as amended, that expires on July 31, 2005 with the exception of a small portion of the space that is under lease until May 2006. Under the terms of the lease, the Company is required to pay a portion of the lessor s operating costs.

Total rent expense, including an allocation of the lessor s operating costs, was $678,000, $596,000 and $554,000 for the years ended December 31, 2003, 2002 and 2001, respectively.

Scheduled minimum lease payments for the next five years are approximately as follows:

Year Ending December 31,	
2004	434,000
2005	274,000
2006	19,000
Total	$ 727,000

Under general contract terms, the Company includes an indemnification clause in its software licensing agreement that indemnifies the licensee against liability and damages arising from any claims of patent, copyright, trademark or trade secret infringement by the Company s software. The Company has incurred insignificant costs as a result of this type of indemnification clause and the Company does not maintain a product warranty liability related to such indemnification clauses.

The Company has entered into various employment agreements with certain executives of the Company, which provide for severance payments subject to certain conditions and events.

(6) Shareholders Equity

Stock Option Plans

In connection with the Distribution, Bio-Vascular, as the sole shareholder of the Company, approved and adopted several option plans and stand-alone option grants, which covered employees of both Vital Images and Bio-Vascular. The adopted plans include the Incentive Stock Option Adjustment Plan, the 1990 Management Incentive Stock Option Plan, the 1992 Director Stock Option Adjustment Plan, the 1992 Stock Option Plan, and the 1995 Stock Incentive Adjustment Plan (collectively, the Mirror Plans). Each of these plans is intended to mirror the provisions of a corresponding Bio-Vascular plan that was in effect at the time of the Distribution. As each Bio-Vascular option plan generally provided for the termination of options following termination of employment, each of the Mirror Plans, as well as each of the stand-alone option grants (the Mirror Grants), were approved and adopted to provide that the Distribution would not cause a termination of any Vital Images employee for the purposes of such plans or option grant, and that Bio-Vascular options held by Vital Images employees following the Distribution would remain exercisable following the Distribution, so long as such employees remain employed by Vital Images or any subsidiary. Similar provisions were also adopted with respect to Vital Images options held by Bio-Vascular employees. On the Distribution Date, options to purchase 608,534 shares were issued in connection with the Mirror Plans and the Mirror Grants (collectively, the Mirror Options). These options had vesting periods ranging from less than one year up to four years and terms ranging from less than one year up to ten years. No additional grants may be made pursuant to any of the Mirror Plans.

In May 1997, Bio-Vascular, as the sole shareholder of the Company, approved and adopted the Vital Images, Inc. 1997 Stock Option and Incentive Plan (the Stock Option Plan), which became effective on the Distribution Date. Under the terms of the plan, the Board of Directors may grant options and other stock-based awards to key employees to purchase shares of the Company s common stock at an option exercise price equal to or greater than 85% of the fair market value on the date of grant. The options are exercisable at such times, in installments or otherwise, as the Board of Directors may determine. Generally, these options are incentive stock options with a term of eight years and are exercisable as to 28% of the total grant one year after the date of grant and 2% per month thereafter. In May 2003, the shareholders of the Company approved an increase of 500,000 common shares, bringing the total number of shares of common stock that may be issued or awarded under the Stock Option Plan to 3,500,000. As of December 31, 2003, there were 920,051 shares available for the grant of awards under the Stock Option Plan.

Also in May 1997, Bio-Vascular, as the sole shareholder of the Company, approved and adopted the Vital Images, Inc. 1997 Director Stock Option Plan (the Director Plan) (together with the Stock Option Plan, the 1997 Plans), which became effective on the Distribution Date. The Director Plan provides non-employee directors with automatic grants of stock options and allows the Board of Directors to make additional discretionary option grants to any or all directors. Options that are granted under the Director Plan are granted with an option price equal to the fair market value on the date of grant, with a term of eight years, are non-qualified options and become exercisable in three equal annual installments beginning on the first occurring December 31 after the date of grant. In May 2002, the shareholders of the Company approved an increase of 90,000 common shares, bringing the total number of shares of common stock that may be issued or awarded under the Director Plan to 300,000. As of December 31, 2003, there were 43,000 shares available for the grant of awards under the Director Plan.

Certain non-plan options were granted to certain officers of the Company in 1998, 1999 and 2002. In February 1998, the Company reserved and granted non-qualified, non-plan options to purchase 300,000 shares to an officer of the Company. These non-plan options had a term of eight years, vested over a two-year period and were granted at exercise prices at least equal to fair market value of the Company s common stock on the date of grant. Of these non-plan options, the Company cancelled options to purchase 100,000 shares in December 1999, and the officer exercised the remaining options to purchase 200,000 shares in August 2003. In

December 1999, the Company granted non-qualified, non-plan options to purchase 175,000 shares to another officer of the Company. These non-plan options had a term of eight years, were exercisable as to 28% of the total grant one year after the date of grant and 2% per month thereafter and were granted at exercise prices at least equal to fair market value of the Company s common stock on the date of grant. Of these non-plan options, the Company cancelled options to purchase 80,500 shares in February 2002, and the officer exercised the remaining options to purchase 94,500 shares in 2002. In March 2002, the Company granted non-qualified, non-plan options to purchase 165,000 shares to another officer of the Company. These non-plan options have a term of eight years, are exercisable as to 28% of the total grant one year after the date of grant and 2% per month thereafter and were granted at exercise prices at least equal to fair market value of the Company s common stock on the date of grant. As of December 31, 2003, these options were still outstanding.

Non-Employee Options

In December 2000, the Company granted options to purchase 10,000 shares to a non-employee consultant. Options to purchase 5,000 shares vest over a four-year period, and the remaining options vested immediately when a specified milestone was achieved, which occurred in May 2003. The options to purchase 5,000 shares that vested in May 2003 were exercised in June 2003. In December 2001, the Company granted options to purchase a total of 4,000 shares to two non-employee consultants and in December 2002, the Company granted options to purchase an additional 4,000 shares to two non-employee consultants. These options vest over a four-year period. All of the non-plan options have a term of eight years and were granted at exercise prices at least equal to fair market value of the Company s common stock on the date of grant. The Company records compensation expense related to these arrangements based upon the fair values of the options during the periods the consultants provide services. Such fair values are measured using the Black-Scholes option-pricing model. The Company recorded $137,000, $18,000 and $10,000 of compensation expense related to these options for each of the years ended December 31, 2003, 2002 and 2001, respectively.

The following table summarizes stock option activity for 2003, 2002 and 2001:

	Shares Underlying Options	Weighted-Average Exercise Price Per Share
Total outstanding as of December 31, 2000	2,076,024	$ 3.87
Options granted	323,250	5.43
Options exercised	(50,013)	3.07
Options canceled	(60,805)	4.93
Total outstanding as of December 31, 2001	2,288,456	4.08
Options granted	677,750	7.21
Options exercised	(288,008)	3.49
Options canceled	(216,354)	4.44
Total outstanding as of December 31, 2002	2,461,844	4.98
Options granted	618,750	12.04
Options exercised	(574,381)	3.55
Options canceled	(65,241)	7.31
Total outstanding as of December 31, 2003	2,440,972	$ 7.05
Options exercisable as of:		
December 31, 2001	1,462,761	$ 3.41
December 31, 2002	1,505,069	$ 3.83
December 31, 2003	1,407,347	$ 5.09

Various price ranges and weighted average information for options outstanding and exercisable as of December 31, 2003 are as follows:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding as of Dec 31, 2003	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable as of Dec 31, 2003	Weighted Average Exercise Price
$1.13 - 2.75	426,616	1.84 years	$ 2.19	426,616	$ 2.19
3.51 - 5.70	543,573	4.19 years	4.87	477,253	4.83
5.75 - 7.25	564,573	6.16 years	7.12	237,878	7.13
7.34 - 9.24	299,210	4.75 years	7.56	241,600	7.48
9.60 - 19.13	607,000	7.26 years	12.09	24,000	17.52
	2,440,972	5.06 years	$ 7.05	1,407,347	$ 5.09

Employee Stock Purchase Plan

The 1997 Employee Stock Purchase Plan (the ESPP) was approved and adopted by Bio-Vascular, as the sole shareholder of the Company, in May 1997. The ESPP, which became effective on July 1, 1997, enables eligible employees to purchase the Company s common stock at 85% of the fair market value of the stock on the date an offering period commences or on the date an offering period terminates, whichever is lower. The ESPP covers an aggregate of up to 250,000 shares of common stock that can be issued and sold to participating employees of the Company through a series of three-month offering periods, beginning July 1, 1997. The

ESPP covers substantially all employees, subject to certain limitations. Each employee may elect to have up to 10% of his or her base pay withheld and applied toward the purchase of shares in each such offering period. Purchases under the ESPP for 2003 were 12,995 shares, generating proceeds to the Company of $151,000 at an average purchase price of $11.59; purchases for 2002 were 24,539 shares, generating proceeds to the Company of $131,000 at an average purchase price of $5.32; and for 2001, there were 25,487 shares purchased, generating proceeds to the Company of $92,000 at an average purchase price of $3.60. As of December 31, 2003, there are 101,453 shares of common stock reserved for purchases under the ESPP.

Stock-Based Compensation

For purposes of calculating the fair value of options under FASB Statement No. 123, the weighted average fair values of options granted were:

	For the Years Ended December 31,		
	2003	**2002**	**2001**
Options under the 1997 Plans	$ 8.20	$ 5.03	$ 4.19
Non-plan options		$ 5.13	$ 6.02
Options under ESPP	$ 2.04	$ 0.94	$ 0.64

The weighted average fair values for the 1997 Plans and the non-plan options were based on the fair values on the dates of grant. The fair values for the 1997 Plans and the non-plan employee options were calculated using the Black-Scholes option-pricing model with the following assumptions:

	For the Years Ended December 31,		
	2003	**2002**	**2001**
Expected option life	5.0 years	5.0 years	6.0 years
Expected volatility factor	84.7%	85.9%	90.8%
Expected dividend yield	0%	0%	0%
Risk-free interest rate	3.07%	4.69%	4.93%

The fair values for the non-employee options were calculated using the Black-Scholes option-pricing model with the following assumptions:

	For the Years Ended December 31,		
	2003	**2002**	**2001**
Expected option life	5.9 years	8.0 years	8.0 years
Expected volatility factor	84.5%	85.9%	90.8%
Expected dividend yield	0%	0%	0%
Risk-free interest rate	2.66%	2.81%	5.00%

The fair values of shares under the ESPP were based on the 15 percent purchase discount.

Warrants

In December 1999, the Company completed a private placement of 1,650,000 units at $3.25 per unit. Each unit consisted of one share of the Company s common stock and a redeemable, five-year warrant to purchase an additional share of common stock at $3.75 per share. The warrants were immediately exercisable with an expiration date in December 2004. The warrants could be redeemed by the Company at any time before December 2004 at a redemption price of $.01 per warrant, upon notice of such redemption, provided that (i) the closing bid price of the Company s common stock exceeded $5.75 per share for any thirty consecutive trading days prior to such notice and (ii) a registration statement covering the resale of the warrant shares had been filed by the Company with the Securities and Exchange Commission and was effective as of the date of such notice. The Company satisfied the conditions for redemption of the warrants on December 7, 2000. In

December 2001, the Company called for redemption of all outstanding warrants. As of December 31, 2003, all 1,650,000 warrants had been exercised, generating proceeds of $1,719,000 and $4,460,000 during 2002 and 2001, respectively.

The Company also issued warrants to the selling agent for the December 1999 private placement to purchase 163,651 shares of the Company s common stock at $3.25 per share. The warrants were immediately exercisable and expire in December 2004. During 2003, 2002 and 2001, 83,063, 42,492 and 18,940, respectively, of these warrants were exercised and converted into a total of 125,387 shares of common stock. These warrant exercises generated proceeds of $248,000, $6,000 and $22,000 for the years ended December 31, 2003, 2002 and 2001, respectively. In conjunction with these exercises, during 2003, 2002 and 2001, 1,693, 12,559 and 4,856 shares, respectively, were forfeited as part of cashless exercises. As of December 31, 2003, 19,156 of these warrants remained outstanding.

Rights Plan

In April 1997, the Company declared a dividend distribution of one Preferred Stock Purchase Right for each outstanding share of the Company s common stock (the Rights). With certain exceptions, the Rights become exercisable only if one of the following events occurs: (i) an acquiring party accumulates 15% or more of the Company s common stock, (ii) a party announces an offer to acquire 15% or more of the Company s common stock, or (iii) the acquisition of a substantial amount of the Company s common stock by a person whom the Board of Directors has determined is an Adverse Person as defined in the underlying Rights Agreement. Each Right entitles the holder to purchase one-thousandth of a share of the Company s Series A Junior Preferred Stock at a price of $20.00 (the Exercise Price). If a person or group becomes the beneficial owner of 15% or more of the Company s common stock or the Board of Directors determines that a person is an Adverse Person, each holder of a Right shall thereafter have the right to receive preferred stock having a fair market value equal to two times the Exercise Price. Upon the occurrence of certain mergers, combinations or acquisitions of the Company s assets, each holder of a Right shall thereafter have the right to receive that number of shares of common stock of the acquiring company which equals the Exercise Price of the Right divided by one-half of the current market price of such common stock as of the date of the occurrence of the event. The Company is generally entitled to redeem the Right at $.001 per Right at any time until ten days following the acquisition of 15% or more of the Company s common stock or ten days after the point at which the Company s Board of Directors determines that a person is an Adverse Person, as defined by the Rights Agreement. The Rights expire on April 30, 2007, if not previously redeemed or exercised.

(7) Income Taxes

The income tax provision (benefit) for the years ended December 31, 2003, 2002 and 2001 include the following components:

	For the Years Ended December 31,		
	2003	**2002**	**2001**
	(Restated)		
Current income taxes:			
Federal	$	$	$
State	79,000	22,000	12,000
Deferred income taxes:			
Federal	(7,657,000)		
State	1,265,000		
Provision (benefit) for income taxes	$ (6,313,000)	$ 22,000	$ 12,000

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The significant components of the Company s tax-effected net deferred tax assets, based on an assumed effective tax rate of 37% in 2003 and 40% in 2002, are:

	December 31, 2003 (Restated)	2002
Net operating loss carryforwards	$ 8,101,000	$ 6,830,000
Research and development tax credit carryforwards	1,063,000	995,000
Depreciation	287,000	322,000
Accrued expenses and allowances	276,000	246,000
Deferred compensation		230,000
Other, net	1,000	(25,000)
Net deferred tax assets before valuation allowance	9,728,000	8,598,000
Less valuation allowance	(147,000)	(8,598,000)
Net deferred tax assets	$ 9,581,000	$

A reconciliation of the Company s income tax provision (benefit) computed using the federal statutory rate to the tax provision reported in the Company s statements of operations is as follows:

	For the Years Ended December 31,		
	2003 (Restated)	2002	2001
Tax provision (benefit) computed at the federal statutory rate	$ 726,000	$ 276,000	$ (340,000)
State taxes, net of federal benefit	116,000	24,000	(52,000)
Increase (decrease) in tax from:			
Research and development tax credits	(85,000)	(186,000)	(147,000)
Business meals and entertainment	34,000	26,000	20,000
Change in valuation allowance (1)	(7,171,000)	(111,000)	545,000
Other, net	67,000	(7,000)	(14,000)
Provision (benefit) for income taxes	$ (6,313,000)	$ 22,000	$ 12,000

(1) Excludes $269,000 and $21,000 of valuation allowance established in 2002 and 2001, respectively, relating to certain stock option exercises that did not generate an income tax benefit for financial reporting purposes.

During 2003, the Company concluded that it is more likely than not that substantially all of its net deferred tax assets would be realized, and the Company reversed substantially all of its valuation allowance for net deferred tax assets, which resulted in the recording of a net tax benefit in 2003. The reversal of the deferred tax assets valuation allowance is based upon the Company s historical operating performance and management s expectation that the Company will generate taxable income of at least $25 million in future periods to allow it to realize its deferred tax assets resulting from the tax benefits associated with its net operating loss (NOL) carryforwards and a significant portion of its research and development tax credit carryforwards, as well as certain other tax benefits related to book and tax income timing differences. The reversal of the valuation allowance resulted in a tax benefit of $7,171,000. This reversal net of other current year state and federal income taxes resulted in a net tax benefit of $6,313,000 in 2003.

The Company s net operating loss and research and development tax credit carryforwards of $22.4 million and $1.1 million, respectively, will expire in varying amounts between 2004 and 2023.

Under the Internal Revenue Code (Code) Section 382, certain stock transaction which significantly change ownership, including sale of stock and the granting of options to purchase stock, could limit the amount of net operating loss carryforwards that may be utilized on an annual basis to offset taxable income in future periods.

As a result of Bio-Vascular s acquisition of the Company in May 1994, the Company experienced an ownership change as defined by Section 382 of the Code. Under the Code, the amount of pre-acquisition net operating loss carryforwards and research and development credits that can be used to offset future taxable

income and income taxes will be limited. As of the date of the Company s acquisition by Bio-Vascular, the Company had approximately $1,600,000 of net operating loss carryforwards and $137,000 of research and experimentation credits, both of which will be subject to limitation under the Code.

(8) Major Customers and Geographic Data (Restated)

Customers accounting for more than 10 percent of the Company s total revenue are as follows:

	Significant Customer	Revenue	Percentage of Total Revenue
Year ended December 31, 2003	Toshiba Medical Systems Corporation	$ 11,554,000	42%
Year ended December 31, 2002	Toshiba Medical Systems Corporation	$ 7,246,000	34%
Year ended December 31, 2001	Toshiba Medical Systems Corporation	$ 4,163,000	27%

The Company s accounts receivable are generally concentrated with a small base of customers. As of December 31, 2003, no single customer accounted for more than 10% of accounts receivable, while as of December 31, 2002, Toshiba Medical Systems Corporation accounted for 21% of accounts receivable.

All long-lived assets of the Company are located in the United States.

Export revenue accounted for 13%, 10% and 8% of total revenue for the years ended December 31, 2003, 2002 and 2001, respectively. Substantially all of the Company s export sales are negotiated, invoiced and paid in U.S. dollars.

Export sales by geographic area are summarized as follows:

	For the Years Ended December 31,		
	2003 (Restated)	2002	2001
Europe	$ 2,421,000	$ 1,094,000	$ 706,000
Asia-Pacific	846,000	709,000	300,000
Canada	75,000	161,000	207,000
Other foreign countries	312,000	49,000	14,000
	$ 3,654,000	$ 2,013,000	$ 1,227,000

(9) Employee Benefit Plan

The Company maintains the Vital Images, Inc. Salary Savings Plan (the Plan), which is intended to qualify under Section 401(k) of the Internal Revenue Code, as amended. The Plan covers substantially all employees. Each employee may elect to contribute to the Plan through payroll deductions of up to 25% of his or her salary, subject to certain limitations. At the discretion of the Board of Directors, the Company may make matching contributions equal to a percentage of the salary reduction contributions or other discretionary amounts. There were no contributions to the Plan by the Company in 2003, 2002 and 2001.

(10) Licensed Technology

In July 2001, the Company entered into an agreement to license technology from a third party. The Company paid an aggregate of $750,000 to the licensor in 2001. The Company recorded this $750,000 purchase as licensed technology and is amortizing it over the estimated useful life of the technology of 75 months. This amortization expense is reported as cost of revenue for license fees. As part of this agreement, the Company is also obligated to pay the licensor royalties on the sales of certain products as defined in the agreement. During 2003, 2002 and 2001, $772,000, $608,000 and $211,000, respectively, of such royalties were incurred and were reported as cost of revenue for license fees.

(11) Development Agreements

In November 2001, the Company entered into a development and license agreement with Surgical Navigation Technologies, Inc., a division of Medtronic, Inc. (SNT), to integrate certain Company technology into SNT s image-guided surgery products and to develop products and services for surgical planning which will be marketed and sold through SNT. The Company received $400,000 upon execution of the agreement, which was included in deferred revenue on the balance sheet as of December 31, 2001. During 2002, the Company completed all services required under this agreement and recognized the entire $400,000 as service revenue using the percentage of completion method.

In 2001, the Company entered into an agreement with E-Z-EM, Inc. Under the agreement, the Company developed a single application CT Colonography product called InnerviewGI , which is marketed and sold through E-Z-EM, Inc. During 2001, the Company recorded service revenue totaling $348,000 under this agreement. In addition, E-Z-EM, Inc. purchased 82,332 shares of newly-issued common stock of Vital Images, Inc. for $552,000 cash.

(12) Private Placement

In June 2003, the Company completed a private placement of 1,500,000 shares of common stock at $13.50 per share for total gross proceeds of $20,250,000. After deducting offering costs of $1,259,000, the Company received net proceeds of $18,991,000. A registration statement covering the resale of these shares was declared effective on September 29, 2003 by the Securities and Exchange Commission.

(13) Purchase Commitments

In November 2002, the Company entered into an agreement with R2 Technology, Inc. (R2) to distribute R2 s lung nodule CAD software product in conjunction with the Company s products. Upon the later of either the date on which R2 is able to meet CE certification requirements and produce a Declaration of Conformance for the lung CAD product or the completion of the milestones in the development plan with respect to the lung CAD product that will be distributed in Europe, the Company is required to begin purchasing the lung CAD product over the next three years. R2 met CE certification requirements and produced a Declaration of Conformance for the lung CAD product in 2003 and in January 2004 the Company completed the milestones in the development plan with respect to the lung CAD product that will be distributed in Europe. Accordingly, the Company will be required to begin purchasing the lung CAD product in the first half of 2004. The total purchase commitment will be a maximum of $5.6 million worth of product over the three-year commitment period. The purchase commitment price the Company has to pay will be reduced if the selling price of the lung CAD product when sold directly to end-users by R2 falls below a specified price. The purchase commitment units the Company is required to purchase will be reduced if R2 and its other distributors of the lung CAD product are

unable to sell as many units as the Company is required to purchase.

(14) Restatements and Change in Classification

The Company has restated its financial statements and related footnote disclosures for the year ended December 31, 2003 to (1) correct the accounting for unrecognized deferred maintenance and service revenue from certain maintenance and service arrangements and (2) change the classification of certain non-trade accounts receivable from accounts receivable to prepaid expenses and other current assets. The Company has made the appropriate modifications to the balance sheet, statement of operations, statement of shareholders equity and statement of cash flows to give effect to the adjustment and change in classification. The adjustment for the previously unrecognized deferred maintenance and service revenue (a) increased maintenance and service revenue, total revenue and operating income by like amounts, (b) reduced the net tax benefit for the tax effect of the additional revenue and (c) increased net income and net income per share by the net effect of (a) and (b). As a result of the maintenance and service revenue restatement, the Company also restated the disclosures to the financial statements to increase revenue from Toshiba Medical Systems by $354,000 and increase revenue from export sales by $101,000 for the year ended December 31, 2003. The change in classification for the non-trade accounts receivable had no effect on the Company s previously reported revenue, operating income, net income or net income per share, nor did the change in classification affect the Company s statement of shareholders equity. The Company also restated the disclosures to the financial statements to correct the computation of pro forma stock-based employee compensation expense for the year ended December 31, 2003. The following statements present the effect of the adjustments and change in classification for the year ended December 31, 2003:

Balance Sheet:

	As of December 31, 2003		
	As Reported	Adjustments	As Restated
ASSETS			
Current assets:			
Cash and cash equivalents	$ 30,111,613	$	$ 30,111,613
Marketable securities	4,078,587		4,078,587
Accounts receivable, net	4,982,362	(104,486)	4,877,876
Deferred income taxes	275,000		275,000
Prepaid expenses and other current assets	672,072	104,486	776,558
Total current assets	40,119,634		40,119,634
Property and equipment, net	3,043,239		3,043,239
Licensed technology, net	450,000		450,000
Deferred income taxes	9,500,000	(194,000)	9,306,000
Other assets	144,346		144,346
TOTAL ASSETS	$ 53,257,219	$ (194,000)	$ 53,063,219
LIABILITIES AND SHAREHOLDERS EQUITY			
Current liabilities:			
Accounts payable	$ 1,485,451	$	$ 1,485,451
Accrued payroll	1,347,464		1,347,464
Deferred revenue	5,054,804	(524,471)	4,530,333
Accrued royalties	556,494		556,494
Other current liabilities	285,121		285,121
Total current liabilities	8,729,334	(524,471)	8,204,863
Deferred revenue	264,691		264,691
Total liabilities	8,994,025	(524,471)	8,469,554
Shareholders equity:			
Preferred stock			

Common stock	111,404		111,404
Additional paid-in capital	56,108,590		56,108,590
Accumulated deficit	(11,956,800)	330,471	(11,626,329)
Total shareholders equity	44,263,194	330,471	44,593,665
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	$ 53,257,219	$ (194,000)	$ 53,063,219

Statement of Operations:

	For the Year Ended December 31, 2003		
	As Reported	Adjustments	As Restated
Revenue:			
License fees	$ 18,388,794	$	$ 18,388,794
Maintenance and services	6,319,999	524,471	6,844,470
Hardware	2,066,454		2,066,454
Total revenue	26,775,247	524,471	27,299,718
Cost of revenue:			
License fees	1,818,353		1,818,353
Maintenance and services	3,773,794		3,773,794
Hardware	1,478,914		1,478,914
Total cost of revenue	7,071,061		7,071,061
Gross margin	19,704,186	524,471	20,228,657
Operating expenses:			
Sales and marketing	9,317,766		9,317,766
Research and development	5,168,695		5,168,695
General and administrative	3,806,914		3,806,914
Total operating expenses	18,293,375		18,293,375
Operating income	1,410,811	524,471	1,935,282
Interest income	213,859		213,859
Income before income taxes	1,624,670	524,471	2,149,141
Income taxes	(6,507,000)	194,000	(6,313,000)
Net income	$ 8,131,670	$ 330,471	$ 8,462,141
Net income per share basic	$ 0.80	$ 0.03	$ 0.83
Weighted average common shares outstanding basic	10,189,114		10,189,114
Net income per share diluted	$ 0.69	$ 0.02	$ 0.71
Weighted average common shares outstanding diluted	11,848,268		11,848,268

Statement of Cash Flows:

	For the Year Ended December 31, 2003		
	As Reported	Adjustments	As Restated
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 8,131,670	$ 330,471	$ 8,462,141
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	1,220,468		1,220,468
Stock-based compensation	137,485		137,485
Provision for uncollectible accounts receivable	46,000		46,000
Tax benefit from stock option transactions	3,189,000		3,189,000
Deferred income taxes	(9,775,000)	194,000	(9,581,000)
Amortization of licensed technology	120,000		120,000
Changes in operating assets and liabilities:			
Accounts receivable	(57,283)	104,486	47,203
Prepaid expenses and other current assets	(173,380)	(104,486)	(277,866)
Other assets	(144,346)		(144,346)
Accounts payable	499,981		499,981
Deferred revenue	1,222,998	(524,471)	698,527
Accrued expenses and other current liabilities	(63,204)		(63,204)
Net cash provided by operating activities	4,354,389		4,354,389
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	(1,879,117)		(1,879,117)
Purchases of marketable securities	(6,775,592)		(6,775,592)
Sales of marketable securities	5,205,118		5,205,118
Net cash used in investing activities	(3,449,591)		(3,449,591)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from sale of common stock, net of offering costs	18,990,515		18,990,515
Proceeds from sale of common stock under stock plans	1,846,162		1,846,162
Proceeds from sale of common stock under stock warrants	247,591		247,591
Net cash provided by financing activities	21,084,268		21,084,268
NET INCREASE IN CASH AND CASH EQUIVALENTS	21,989,066		21,989,066
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	8,122,547		8,122,547
CASH AND CASH EQUIVALENTS, END OF PERIOD	$ 30,111,613	$	$ 30,111,613

Pro Forma Stock-Based Employee Compensation:

	As of December 31, 2003		
	As Reported	Adjustments	As Restated
Net income, as reported	$ 8,131,670	$ 330,471	$ 8,462,141
Deduct: Total stock-based employee compensation expense determined under fair value method for all awards, net of related	(1,479,341)	92,167	(1,387,174)

tax effects			
Pro forma net income	$ 6,652,329	$ 422,638	$ 7,074,967
Net income per share - basic			
As reported	$ 0.80	$ 0.03	$ 0.83
Pro forma	$ 0.65	$ 0.04	$ 0.69
Net income per share - diluted			
As reported	$ 0.69	$ 0.02	$ 0.71
Pro forma	$ 0.56	$ 0.06	$ 0.62

(15) Quarterly Financial Data (Unaudited) (Restated)

The following summarized unaudited quarterly financial data has been prepared using the financial statements of Vital Images, Inc.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2003:				
Total revenue As previously reported	$ 6,791,000	$ 7,529,000	$ 7,243,000	$ 5,212,000
Total revenue As restated	6,945,000	7,660,000	7,404,000	5,291,000
Gross margin As previously reported	5,176,000	5,496,000	5,466,000	3,566,000
Gross margin As restated	5,330,000	5,627,000	5,627,000	3,645,000
Net Income As previously reported	654,000	666,000	6,805,000	7,000
Net income As restated	801,000	790,000	6,814,000	57,000
Earnings per share basic As previously reported	0.07	0.07	0.62	0.00
Earnings per share basic As restated	0.09	0.08	0.62	0.01
Earnings per share diluted As previously reported	0.06	0.06	0.53	0.00
Earnings per share diluted As restated	0.08	0.07	0.53	0.00
2002:				
Total revenue	$ 4,443,000	$ 4,874,000	$ 5,593,000	$ 6,206,000
Gross margin	3,094,000	3,331,000	4,034,000	4,349,000
Net income (loss)	(247,000)	201,000	419,000	417,000
Earnings (loss) per share basic	(0.03)	0.02	0.05	0.05
Earnings (loss) per share diluted	(0.03)	0.02	0.04	0.04

(16) Subsequent Event

On February 18, 2004, the Company completed the acquisition of HInnovation, Inc. (HInnovation) in accordance with the terms and conditions of an Acquisition Agreement and Plan of Reorganization (the Acquisition Agreement) dated as of January 8, 2004. HInnovation is a provider of software solutions that allow physicians to use PCs or notebook computers to access 2D, 3D and 4D medical imaging applications securely over the Internet. The acquisition of HInnovation was made to acquire products and technology that will enable the Company to more effectively compete in the Web-enabled market for 3D medical imaging software.

The merger consideration included 376,262 newly-issued shares of common stock of Vital Images and $6 million in cash. Terms of the Acquisition Agreement provide for the payment of up to $6 million of additional consideration contingent upon achievement of certain operating milestones. The Company expects the contingent milestone payments to be made periodically as the milestones are achieved over a 12 to 24 month period following the date of the acquisition.

The Company will account for this acquisition using the purchase method of accounting. Accordingly, the purchase price will be allocated to the assets acquired and liabilities assumed based upon their estimated fair values. The excess of the purchase price over the fair value of the net assets acquired will be recorded as goodwill. The purchase price allocation for this business combination has not been finalized.

SCHEDULE II

VITAL IMAGES, INC.

VALUATION AND QUALIFYING ACCOUNTS

Description	Balance as of Beginning of Period	Charges to Cost and Expenses	Deductions/ Write-Offs	Balance as of End of Period
Allowance for doubtful accounts:				
Year ended December 31, 2003	$ 240,000	$ 46,000	$ 51,000	$ 235,000
Year ended December 31, 2002	$ 185,000	$ 64,000	$ 9,000	$ 240,000
Year ended December 31, 2001	$ 215,000	$ 114,000	$ 144,000	$ 185,000

VITAL IMAGES, INC.
FORM 10-K/A

INDEX TO EXHIBITS

Item No.	Description
2.1	Acquisition Agreement and Plan of Reorganization by and among Vital Images, Inc., HInnovation Acquisition, Inc., HInnovation, Inc. and Hui Hu and JMS Co. Ltd. Dated as of January 8, 2004 (incorporated by reference to Exhibit 2.1 to the Company s Current Report on Form 8-K filed on February 26, 2004 (File No. 0-22229)).
3.1	Articles of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company s registration statement on Form 10 (File No. 0-22229)).
3.2	By-laws of the Company (incorporated by reference to Exhibit 3.2 to the Company s registration statement on Form 10 (File No. 0-22229)).
4.1	Form of common stock certificate of the Company (incorporated by reference to Exhibit 4.3 to the Company s registration statement on Form 10 (File No. 0-22229)).
4.2	Rights Agreement, dated effective as of May 1, 1997, between the Company and American Stock Transfer and Trust Company, which includes as Exhibit B the form of Rights Certificate (incorporated by reference to Exhibit 4.4 to the Company s registration statement on Form 10 (File No. 0-22229)).
4.3	Certificate of Designation, Preferences and Rights of Series A Junior Preferred Stock of the Company (incorporated by reference to Exhibit 4.5 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.1	Form of Distribution Agreement, effective as of May 2, 1997, between Bio-Vascular, Inc. and the Company (incorporated by reference to Exhibit 10.1 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.2	Form of Employee Benefits Agreement, effective as of May 2, 1997, between Bio-Vascular, Inc. and the Company** (incorporated by reference to Exhibit 10.2 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.3	Form of Tax Sharing Agreement, effective as of May 2, 1997, between Bio-Vascular, Inc. and the Company (incorporated by reference to Exhibit 10.3 to the Company s registration statement on Form 10 (File No. 0-22229)).

10.4	Form of Transition Services Agreement, effective as of May 2, 1997, between Bio-Vascular, Inc. and the Company (incorporated by reference to Exhibit 10.4 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.5	Incentive Stock Option Adjustment Plan** (incorporated by reference to Exhibit 10.5 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.6	1990 Stock Option Plan** (incorporated by reference to Exhibit 10.6 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.7	1992 Stock Option Plan** (incorporated by reference to Exhibit 10.7 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.8	1992 Director Stock Option Adjustment Plan** (incorporated by reference to Exhibit 10.8 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.9	1995 Stock Incentive Adjustment Plan** (incorporated by reference to Exhibit 10.9 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.10	Employee Stock Purchase Plan** (incorporated by reference to Exhibit 10.10 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.11	1997 Stock Option and Incentive Plan** (incorporated by reference to Exhibit 10.11 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.12	1997 Director Stock Option Plan** (incorporated by reference to Exhibit 10.12 to the Company s registration statement on Form 10 (File No. 0-22229)).
10.26	Lease agreement dated October 19, 1999 between St. Paul Properties, Inc. and the Company (incorporated by reference to Exhibit 10.27 to the Company s Form 10-Q for the quarter ended September 30, 1999 (File No. 0-22229)).
10.27	Vital Images, Inc. and Toshiba America Medical Systems, Inc. Reseller Agreement * (incorporated by reference to Exhibit 10.27 to the Company s Form 10-Q for the quarter ended September 30, 2000 (File No. 0-22229)).
10.30	Form of Change in Control Agreement between the Company and Gregory S. Furness** (incorporated by reference to Exhibit 10.30 to the Company s Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-22229)).

10.31	Form of Change in Control Agreement between the Company and Vincent J. Argiro, Ph.D., Steven P. Canakes, David M. Frazee, Jay D. Miller and Robert C. Samec** (incorporated by reference to Exhibit 10.31 to the Company s Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-22229)).
10.32	Technology License Agreement between PointDX, Inc. and Vital Images, Inc.* (incorporated by reference to Exhibit 10.32 to the Company s Form 10-Q for the quarter ended September 30, 2001 (File No. 0-22229)).
10.33	Development, Supply, Marketing and Distribution Agreement between Vital Images, Inc. and E-Z EM, Inc.* (incorporated by reference to Exhibit 10.33 to the Company s Form 10-Q for the quarter ended September 30, 2001 (File No. 0-22229)).
10.34	Development and License Agreement between Vital Images, Inc. and Surgical Navigation Technologies, Inc. (incorporated by reference to Exhibit 10.34 to the Company s Annual Report on Form 10-K for the year ended December 31, 2001 (File No. 0-22229)).
10.35	Marketing and Distribution Agreement between Vital Images, Inc. and Toshiba Corporation, Medical Systems Company * (incorporated by reference to Exhibit 10.35 to the Company s Form 10-Q for the quarter ended March 31, 2002 (File No. 0-22229)).
10.36	Severance Agreement dated February 9, 2002 between the Company and Albert Emola (incorporated by reference to Exhibit 10.36 to the Company s Form 10-Q for the quarter ended March 31, 2002** (File No. 0-22229)).
10.37	Marketing and Distribution Agreement between Vital Images, Inc. and Toshiba Corporation, Medical Systems Company* (incorporated by reference to Exhibit 10.37 to the Company s Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-22229)).
10.38	Product Distribution Agreement between Vital Images, Inc. and R2 Technology, Inc.* (incorporated by reference to Exhibit 10.38 to the Company s Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-22229)).
10.39	Employment Agreement dated February 9, 2002 between the Company and Jay D. Miller** (incorporated by reference to Exhibit 10.39 to the Company s Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-22229)).

10.40	Form of Change in Control Agreement between the Company and Jay D. Miller** (incorporated by reference to Exhibit 10.40 to the Company s Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-22229)).
10.41	Non-qualified Stock Option Agreement dated December 28, 2002 between the Company and Jay D. Miller** (incorporated by reference to Exhibit 10.41 to the Company s Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-22229)).
10.43	Value Added Reseller Agreement between Vital Images, Inc. and McKesson Information Solutions LLC. (incorporated by reference to Exhibit 10.43 to the Company s Annual Report on Form 10-K for the year ended December 31, 2003 (File No. 0-22229)) (Confidential treatment has been requested for portions of this exhibit).
10.44	Marketing and Distribution Agreement between Vital Images, Inc. and Toshiba Corporation, Medical Systems Company (incorporated by reference to Exhibit 10.44 to the Company s Annual Report on Form 10-K for the year ended December 31, 2003 (File No. 0-22229)) (Confidential treatment has been requested for portions of this exhibit).
23.1	Consent of PricewaterhouseCoopers LLP (filed herewith electronically).
31.1	Certification of Chief Executive Officer Pursuant to Rules 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934 and Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith electronically).
31.2	Certification of Chief Financial Officer Pursuant to Rules 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934 and Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith electronically).
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith electronically).
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith electronically).

* Portions of such exhibit are treated as confidential pursuant to a request for confidential treatment filed with the Commission by the Registrant.

** Indicates a management contract or compensatory plan or arrangement.