

VITAL IMAGES INC
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PROSPECTUS SUPPLEMENT

To Prospectus dated October 27, 2006

3,000,000 Shares

VITAL IMAGES, INC.

Common Stock

\$31.00 per share

- Vital Images, Inc. is offering 3,000,000 shares.
- Trading symbol:
NASDAQ Global Market VTAL
- The last reported sale price of our common stock on November 16, 2006 was \$31.70 per share.

This investment involves risk. See Risk Factors beginning on page S-9.

	Per Share	Total
Public offering price	\$ 31.00	\$ 93,000,000
Underwriting discount	\$ 1.78	\$ 5,340,000
Proceeds, before expenses, to Vital Images, Inc.	\$ 29.22	\$ 87,660,000

The underwriters have a 30-day option to purchase up to 450,000 additional shares of common stock from us to cover over-allotments, if any.

Neither the Securities and Exchange Commission nor any state securities commission has approved of anyone's investment in these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Piper Jaffray

Wachovia Securities

Jefferies & Company

**Thomas Weisel Partners
LLC**

The date of this Prospectus Supplement is November 16, 2006.

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This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference. The second part is the accompanying prospectus, which contains more general information, some of which may not apply to this offering. To the extent that there is a conflict between the information contained in this prospectus supplement any document incorporated by reference herein, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement any document incorporated by reference herein.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement or accompanying prospectus. We have not, and the underwriters have not, authorized anyone to provide you with different information. This prospectus supplement and the accompanying prospectus are not an offer of to sell, nor are they seeking an offer to buy, these securities in any state where the offer or sale is not permitted. The information in this prospectus supplement and the accompanying prospectus is complete and accurate as of any date the information is presented, but the information may have changed since that date.

SUMMARY

The items in the following summary are described in more detail later in this prospectus supplement and the accompanying prospectus and in the information incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information you should consider before investing in our common stock. You should carefully read the more detailed information set out in this prospectus supplement, the accompanying prospectus and the financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, especially the risks of investing in our common stock that we discuss under the Risk Factors sections. References in this prospectus supplement to we, us, our and Vital Images refer to Vital Images, Inc. and its consolidated subsidiaries unless the context requires otherwise.

Our Business

We are a leading provider of enterprise-wide advanced visualization and image analysis solutions for use by medical professionals in clinical analysis and therapy planning for medical conditions. We provide software, training, software maintenance, professional services and, on occasion, third-party hardware to our customers. Our technology rapidly transforms complex data generated by diagnostic imaging equipment into functional digital images that can be manipulated and analyzed using our specialized applications to better understand internal anatomy and pathology. Our solutions are designed to improve physician workflow and productivity, enhance the ability to make clinical decisions, facilitate less invasive patient care, and complement often significant capital investments in diagnostic imaging equipment made by our customers. Our software is compatible with equipment from all major manufacturers of diagnostic imaging equipment, such as computed tomography, or CT, magnetic resonance, or MR, and positron emission tomography, or PET, scanners, and can be integrated into picture archiving and communication systems, or PACS. Many hospitals use PACS to acquire, distribute and archive medical images and diagnostic reports, reducing the need for film and increasing reliance on advanced visualization solutions such as ours. We also offer a Web-based solution that provides physicians with anywhere, anytime access to medical images and visualization tools through any Internet-enabled computer.

*Vitre*a®, our flagship software product, is an easy-to-use, intuitive, high-speed volume rendering technology that creates interactive two-dimensional, or 2D, three-dimensional, or 3D, and four-dimensional, or 4D, images from information generated by standard CT, MR or PET scanners. *Vitre*a is commonly deployed on standalone workstations, using standard computer hardware, and provides advanced visualization for radiological, cardiac, oncological and surgical applications. *Vitre*a renders vibrant, clear, color images at high speeds and enables users to interactively navigate within these images to visualize, measure and understand internal structures and disease conditions. We believe our user interfaces are intuitive, and they are specifically configured to assist physicians in optimizing their clinical workflow.

We recently introduced *Vitre*aACCESS , which provides physicians remote access to the full suite of advanced visualization and analysis tools provided by *Vitre*a software. It offers a cost effective solution designed to enable users to leverage workstations by allowing secure access to *Vitre*a applications from any personal computer in a facility or from external locations through a virtual private network, or VPN.

*Vi*TALConnect®, our Web-based solution, allows multiple physicians to collaboratively use enterprise-wide advanced visualization in their medical practices. It provides radiologists and referring physicians anywhere, anytime access to interactive 2D, 3D and 4D medical images and the ability to measure, rotate, analyze and segment those images. Our latest release includes features previously available only on multimodality workstations, such as a variety of multi-planar reformat, or MPR, modes, thick slab rendering in MPR, 3D volumetric visualization with simple point of interest navigation, 4D dataset visualization, CT/PET fusion and advanced analysis tools.

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We also offer enterprise-wide advanced visualization options that can expand the relevance of our products beyond the radiology department to referring physicians and surgical specialists, particularly in the areas of cardiology, cardiovascular, oncology, neurology and gastroenterology. Our advanced visualization options allow physicians to customize their *Vitre* software according to their unique requirements. Most options are proprietary; however, *Vitre* also serves as an integration platform for the applications offered by our visualization technology partners. *Vitre* s add-on options include:

Vitre

Option	Clinical Use
•VScore	Quantify calcium in the four major coronary arteries
•CT Brain Perfusion	Analyze the blood flow of stroke victims
•Innerview GI (virtual colonoscopy)	Locate and analyze polyps in the colon
•Automated Vessel Measurements	Characterize the course and dimensions of diseased blood vessels
•CT Cardiac	Determine the extent of obstructive coronary artery disease
•Vessel Probe	Define vascular anatomy and the extent of obstruction in vessels other than the coronary arteries
•CT Lung and Lung Tools	Visualize and measure nodules in the lungs
•ImageChecker® CT	Detect pulmonary nodules in the chest
•Fusion7D	Visualize images and fuse studies from multiple modalities, such as MR and PET
•CADstream	Analyze MR breast exams
•QMass MR	Analyze MR cardiac images
•SUREPlaque	Aid in evaluating, characterizing and quantifying plaque inside the coronary arteries

Our software solutions are highly scalable, enabling us to market our products and services to a wide range of customers, including large hospital networks, large and small hospitals, teaching hospitals, ambulatory clinics, imaging centers and cardiology centers. We have a large installed base of customers, which we believe provides us with a significant barrier to competition and a platform to sell additional *Vitre* licenses, options and upgrades. Through September 30, 2006, we had sold approximately 3,500 separate software licenses for our solutions. Our customers acquire *Vitre* under several different licensing models, including a single license for an entire enterprise, licenses usable only on specified workstations, and floating licenses. Floating licenses allow a customer to purchase a specified number of licenses that can be used on any workstation, but only the purchased number of licenses may be used concurrently.

We achieved significant growth in the first nine months of 2006 and 2005. Total revenue increased 39% to \$50.5 million in the first nine months of 2006 compared to \$36.4 million in the first nine months of 2005. Total revenue for the full year increased 43% to \$51.7 million in 2005 compared to \$36.1 million in 2004. Net income in the first nine months of 2006 was \$4.3 million, or \$0.31 per diluted share, which included after-tax equity-based compensation of \$2.7 million, compared to \$3.4 million, or \$0.26 per diluted share, for the same period in 2005, which included after-tax equity-based compensation of \$128,000. Results for the first nine months of both 2006 and 2005 included amortization of identified intangibles of \$1.1 million. The results for the first nine months of 2005 also included a loss on operating lease of \$493,000 related to a facilities move. Net income for the full-year 2005 was \$5.8 million, or \$0.44 per diluted share, compared to \$296,000, or \$0.02 per diluted share, in 2004. Our full-year 2005 results included amortization of identified intangibles of \$1.4 million and the loss on operating lease of \$493,000. Our 2004 results included amortization of identified intangibles of \$1.2 million and an acquired in-process research and development charge of \$1.0 million related to the acquisition of HInnovation, Inc. in February 2004. Toshiba Medical Systems, or Toshiba, our largest customer, accounted for approximately 40% of our revenues in the first nine months of 2006, 46% of our revenues in the first nine months of 2005, 47% of our full-year 2005 revenues and 50% of our 2004 revenues. We continue to develop relationships with PACS partners, such

as our 2003 joint distribution agreement with McKesson Information Systems, or McKesson, which are increasingly becoming an important source of revenue for us. McKesson accounted for approximately 10% of our revenues for the first nine months of 2006 compared to 8% of our revenues for the first nine months of 2005.

Our Market Opportunity

We believe the expansion in the number and complexity of medical imaging examinations associated with CT scanners creates a substantial opportunity for us in the radiology market. Historically, imaging equipment generated comparatively low amounts of image data that was typically viewed using film. However, current generation CT and MR scanners are capable of quickly generating up to 3,000 discrete images, or slices, in a single imaging exam, which is more than ten times as many images as were generally attained in exams as few as five years ago. This substantial data output cannot be analyzed in a timely or cost-effective manner using film or manual workflow and necessitates digital solutions capable of handling these large data sets efficiently and accurately. Radiologists, which are in short supply, require advanced visualization solutions that can quickly render 2D, 3D and 4D images to improve their productivity.

The cardiology market represents a significant and relatively new market opportunity for us. Although radiologists have historically used our cardiology and cardiovascular applications, cardiologists are beginning to own and operate their own CT scanners. Advancements in technology now allow cardiologists to perform non-invasive diagnostic imaging procedures that were previously done invasively in a cardiac catheterization clinic. This growing interest among cardiologists in cardiac CT imaging procedures expands our potential end-user market. In addition to cardiology, we believe other clinical specialties are increasingly using advanced visualization and analysis tools to improve productivity and facilitate less invasive patient care, including neurology, women's health, respiratory and pulmonary, and gastrointestinal.

We also expect to benefit as medical images are increasingly used throughout the healthcare enterprise and in new, innovative ways. Once considered the domain of radiologists, images are now being used by referring physicians to educate patients, plan treatment and monitor patient progress. Physicians also use imaging technology on an increasing basis in connection with their review of possible patient medical conditions such as lung or colon cancer. This shift has created demand for advanced visualization solutions that can be accessed by physicians throughout the enterprise. We facilitate enterprise-wide advanced visualization by distributing images and certain analysis tools directly using *ViTALConnect* and *VitreACCESS*, which allows remote access to *Vitre* s toolset, as well as through our ability to integrate with PACS.

We believe the following factors together have increased the demand for our products and will continue to drive market growth in the future:

- increasing number of imaging exams performed due to the expanded use of CT imaging procedures by physicians and an aging U.S. population;
- technological advancements enabling CT and MR scanners to generate thousands of images per exam;
- demand from radiologists and referring physicians for enterprise-wide advanced visualization solutions that can improve productivity, optimize clinical workflow and enhance treatment planning;
- increasing use of imaging technology in departments outside of radiology, in part due to the integration of advanced visualization with PACS; and
- growing importance of integrating advanced visualization and analysis tools into the clinical enterprise to facilitate collaboration among physicians, increase access to information and improve workflow productivity.

Our Strengths

One of our key competitive differentiators from other advanced visualization providers is our focus on, and investment in, developing intuitive, user-friendly software. Each of our software products is designed to automate common elements of physician visualization workflow, which makes our software simple to use and facilitates user adoption. We believe our optimized workflow automation is an important factor that customers consider when choosing our advanced visualization solutions. We believe that the following additional competitive strengths also contribute to our success:

- our compatibility with all major diagnostic imaging scanners and with most PACS and clinical enterprise software;
- our ability to render integrated 2D, 3D and 4D images at high speeds and with interactive navigation capabilities using a relatively low-cost standard computer;
- our modular products for digital equipment manufacturers, PACS vendors and end-user customers that can easily be segmented or integrated depending on the environment; and
- our ability to distribute our applications throughout a healthcare enterprise using floating licenses, PACS integration and a Web-based solution.

The advanced visualization market is highly competitive and subject to rapid change. Our products compete based on quality, performance, functionality and features, quality of support and service, reputation, brand and price. Our primary competitors include diagnostic imaging equipment manufacturers, which are typically large, multinational companies with greater financial and technical resources. These companies, including GE Healthcare, Siemens Medical Systems, Inc. and Philips Medical Systems, develop and market imaging equipment that may be purchased with integrated visualization capabilities. We also face competition from PACS vendors, which may provide visualization capabilities in addition to their image archiving and networking products. Other advanced visualization suppliers, such as TeraRecon, compete on the basis of visualization technologies, specific applications or market niches.

Our Strategy

Our goal is to be a leading provider of enterprise-wide advanced visualization and image analysis solutions that we believe can improve clinical outcomes and reduce costs. To achieve this goal, we intend to implement the following key strategies:

- develop and maintain leading-edge, enterprise-wide advanced visualization technology;
- increase penetration of our existing customer base;
- further expand our presence in the enterprise-wide advanced visualization market either selling directly or through PACS integration;
- continue to build our international direct sales and marketing efforts;
- continue to seek collaborative partnerships with leading medical technology companies; and
- selectively pursue strategic acquisitions.

Important Relationships

We market our solutions to customers directly through our own sales force and indirectly through imaging equipment manufacturers and PACS vendors, who sell our software with products they either manufacture or acquire from third parties. One of our key marketing partners is Toshiba, which markets *Vitrea* through its subsidiaries and distributors in more than 50 countries worldwide. Our agreement with Toshiba names *Vitrea* as Toshiba's primary advanced visualization software for use with its CT scanners. Sales through

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Toshiba represent a material portion of our revenues, comprising approximately 40% of our revenues for the first nine months of 2006, 46% of our revenues for the first nine months of 2005, 47% of our 2005 revenues and 50% of our 2004 revenues. Our current agreement with Toshiba runs through December 31, 2006.

In 2003, we signed a joint distribution agreement with McKesson under which each company has been granted the right to distribute the other party's products. McKesson sales are an increasingly important source of revenues for us. McKesson accounted for approximately 10% of our revenues for the first nine months of 2006 compared to 8% of revenues for the first nine months of 2005.

Risk Factors

Our business is subject to risks, as more fully described in the section entitled "Risk Factors" immediately following this summary beginning on page S-9.

Corporate Information

We were founded and incorporated in Iowa in September 1988, and we re-incorporated in Minnesota in March 1997. From May 24, 1994 through May 11, 1997, we were a wholly-owned subsidiary of Bio-Vascular, Inc., which is now known as Synovis Life Technologies, Inc. Our principal executive offices are located at 5850 Opus Parkway, Suite 300, Minnetonka, Minnesota 55343, telephone (952) 487-9500, facsimile (952) 487-9510, e-mail info@vitalimages.com. Our website is at <http://www.vitalimages.com>. The information found on or accessible through our website is not part of this prospectus supplement or the accompanying prospectus.

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The Offering

Common stock offered by Vital Images, Inc.	3,000,000 shares
Common stock outstanding after the offering	16,418,234 shares
Use of proceeds	We intend to use the net proceeds of this offering for general corporate purposes, including expanding our sales and marketing, customer service and training efforts internationally, investing in our product development resources, and acquiring or investing in business, products and technologies. See Use of Proceeds.
NASDAQ Global Market Symbol	VTAL

The number of shares of common stock to be outstanding after this offering is based on 13,418,234 shares outstanding as of September 30, 2006 and excludes:

- 1,910,113 shares of common stock subject to outstanding options as of September 30, 2006 at a weighted average exercise price of \$15.61 per share;
- 551,076 shares of common stock reserved for future grant or issuance as of September 30, 2006 under our 1997 Stock Option and Incentive Plan and our 1997 Director Stock Option Plan;
- 56,457 shares of common stock reserved for issuance as of September 30, 2006 under our 1997 Employee Stock Purchase Plan; and
- 900,000 shares of common stock reserved for issuance under our 2006 Long-Term Incentive Plan.

Except as otherwise noted, all information in this prospectus supplement and the accompanying prospectus assumes no exercise of the underwriters' over-allotment option.

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Summary Consolidated Financial Data

The following table summarizes our consolidated financial data. The statements of operations data for the nine months ended September 30, 2006 and 2005 and the balance sheet data as of September 30, 2006 have been derived from our unaudited consolidated financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus. The statements of operations data for the years ended December 31, 2003, 2004 and 2005 have been derived from our audited consolidated financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus. You should read this data together with our financial statements and related notes to those statements incorporated by reference in this prospectus supplement and the accompanying prospectus and the information under "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our Quarterly Report on Form 10-Q for the quarter ended September 30, 2006 and our Annual Report on Form 10-K for the year ended December 31, 2005.

	Year Ended December 31,			Nine Months Ended	
	2003	2004	2005	September 30,	2006
	(in thousands, except share and per share data)				
Statement of Operations Data:					
Revenue:					
License fees	\$ 18,389	\$ 24,054	\$ 35,228	\$ 24,315	\$ 34,037
Maintenance and services	6,844	9,525	14,324	10,499	15,243
Hardware	2,067	2,543	2,165	1,619	1,210
Total revenue	27,300	36,122	51,717	36,433	50,490
Cost of revenue:					
License fees	1,818	3,994	4,681	3,504	3,646
Maintenance and services	3,774	4,660	5,559	4,118	5,667
Hardware	1,479	1,793	1,319	976	859
Total cost of revenue	7,071	10,447	11,559	8,598	10,172
Gross profit	20,229	25,675	40,158	27,835	40,318
Operating expenses:					
Sales and marketing	9,318	12,205	16,932	11,577	17,630
Research and development	5,169	6,329	8,148	5,926	9,530
General and administrative	3,807	5,626	7,019	5,197	7,924
Loss on operating lease			493	493	
Acquired in-process research and development		1,000			
Total operating expenses	18,294	25,160	32,592	23,193	35,084
Operating income	1,935	515	7,566	4,642	5,234
Interest income	214	368	1,066	669	1,990
Income before income taxes	2,149	883	8,632	5,311	7,224
Provision (benefit) for income taxes, net	(6,313)	587	2,831	1,932	2,926
Net income	\$ 8,462	\$ 296	\$ 5,801	\$ 3,379	\$ 4,298
Net income per share - basic(1)	\$ 0.83	\$ 0.03	\$ 0.47	\$ 0.27	\$ 0.33
Net income per share - diluted(1)	\$ 0.71	\$ 0.02	\$ 0.44	\$ 0.26	\$ 0.31
Weighted average common shares outstanding - basic					
	10,189,114	11,632,351	12,378,815	12,291,856	13,140,168
Weighted average common shares outstanding - diluted					
	11,848,268	12,535,670	13,283,441	13,147,058	13,940,898

(Footnotes are on following page.)

	September 30, 2006	
	Actual (in thousands)	As Adjusted(2)
Balance Sheet Data:		
Cash, cash equivalents and marketable securities	\$ 63,477	\$ 151,017
Working capital	59,837	147,377
Total assets	112,661	200,201
Short-term and long-term debt		
Total stockholders' equity	86,982	174,522

(1) See Note 2 of the notes to our financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus for a description of the method used to compute basic and diluted net income per share.

(2) On an as adjusted basis to reflect the sale of 3,000,000 shares of our common stock by us in this offering at the public offering price of \$31.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

On January 1, 2006, we adopted Statement of Financial Accounting Standard No. 123 (revised 2004), *Share-Based Payment*, or SFAS No. 123(R), which requires us to determine the fair value of equity-based compensation on the grant date and to recognize the related non-cash expense over the vesting period of the grant. The preceding financial data for the years ended December 31, 2003, 2004 and 2005 do not take into account SFAS No. 123(R), and we expect that its impact will be material to our consolidated financial statements going forward. Equity-based compensation charges were approximately \$2.7 million for the nine months ended September 30, 2006. We estimate that equity-based compensation will be approximately \$3.6 million to \$3.7 million for the full-year 2006 after tax, depending on the stock price when new options are granted and the volume and timing of disqualifying dispositions of incentive stock options, all of which are difficult to predict.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors and the other information set forth or incorporated by reference in this prospectus supplement and the accompanying prospectus before deciding whether to invest in shares of our common stock. If any of the following risks actually occur, our business, financial condition and results of operations would suffer. In that case, the trading price of our common stock would likely decline, and you might lose all or part of your investment in our common stock. The risks described below are not the only ones we face. Additional risks that we currently do not know about or that we currently believe to be immaterial may also impair our operations and business results.

Risks Related to Our Business

If our *Vitre*a and *ViTALConnect* software do not continue to gain market acceptance, our financial results would be adversely affected.

Our success depends on our ability to successfully market *Vitre*a and *ViTALConnect* software for clinical use, and on the ability and willingness of physicians to use enterprise-wide advanced visualization medical imaging software in clinical analysis and therapy planning. The enterprise-wide advanced visualization software offered by *Vitre*a and *ViTALConnect* are alternatives to the conventional methods traditionally used for viewing medical images in the clinical setting. The acceptance of *Vitre*a and *ViTALConnect* by physicians and other clinicians will depend on our ability to educate those users as to the speed, ease-of-use and other benefits offered by the *Vitre*a and *ViTALConnect* systems, as well as our timely introduction of new features and functions. There can be no assurance that users will prefer advanced visualization and analysis software solutions over less expensive 2D medical imaging software or that we will succeed in our efforts to further develop, commercialize and achieve market acceptance for *Vitre*a and *ViTALConnect* or for any other product in the clinical setting. Further, all of our business in markets outside the United States currently is provided through third parties with whom we have marketing agreements. There can be no assurance that these third parties will wish to continue our relationships on an indefinite basis or under the same terms as the business is currently conducted. Further, although we plan to develop direct relationships with customers in markets outside the United States, we may not be successful in doing so. The loss of or adverse changes in our relationships with our third-party business partners, and our failure to establish direct relationships with customers outside the United States, would have a material adverse impact on our business, financial condition, and results of operations.

A substantial portion of our revenue is derived from sales of our *Vitre*a system, and any decline in the sales of our *Vitre*a system would have a material adverse effect on our results of operations and financial condition.

Revenue related to sales of our *Vitre*a system constituted 96% of our total revenues for the nine months ended September 30, 2006, 95% of our total revenues for the nine months ended September 30, 2005, 95% of our total revenues for the year ended December 31, 2005, 96% of our total revenues for the year ended December 31, 2004, and 98% of our total revenues for the year ended December 31, 2003. We anticipate that revenue from the sale of *Vitre*a will continue to account for a substantial portion of our revenue for the foreseeable future. As such, any decline in sales of our *Vitre*a system would have a material adverse impact on our business, financial condition, and results of operations. Sales of our *Vitre*a system could decline for a number of reasons including, the availability of alternative products that may be, or may be perceived to be, more effective, safer, easier to use or less costly than our *Vitre*a system; any reduction or discontinuance of reimbursement from healthcare payors for procedures using our *Vitre*a system; the failure of physicians to adopt our *Vitre*a system; or other reasons discussed in these risk factors.

We presently depend on Toshiba Medical Systems Corporation, or Toshiba, for a significant portion of our total revenues. A reduction in the business from Toshiba Medical Systems Corporation could adversely affect our revenues and could seriously harm our business.

One of our principal distribution channels is to sell our *Vitrea* medical imaging software in connection with medical imaging equipment sold by Toshiba. Sales to Toshiba accounted for 40% of our total revenues in the nine months ended September 30, 2006, 46% of our total revenues in the nine months ended September 30, 2005, 47% of our total revenues for the year ended December 31, 2005, 50% of our total revenues for the year ended December 31, 2004, and 42% of our total revenues for the year ended December 31, 2003. Toshiba's account receivable represented 39% of our accounts receivable at September 30, 2006, 36% at December 31, 2005 and 23% at December 31, 2004. A limited number of large customers may continue to account for a significant portion of our revenue during any given period for the foreseeable future. Except for our agreement with Toshiba, we have no long-term purchase commitments from any of our customers or business partners, and we generally make sales pursuant to individual transactions. Although our agreement with Toshiba has been extended by amendment three times, most recently through December 31, 2006, we can provide no assurance that our agreement with Toshiba will be extended beyond December 31, 2006. A reduction, delay or cancellation of orders from Toshiba, in particular, or from one or more of our other significant customers, or our inability to collect accounts receivable from these customers, likely would have a material adverse effect on our financial condition and operating results.

We are obligated to purchase a minimum volume of product from R2 Technology, Inc., or R2, and the revenue we generate from the sale of the product has been and could be less than our minimum commitment for the product.

As part of our business, we may offer third party products as components within our products or as optional modules to our products. As a condition of entering into these agreements, or for other business reasons, the third parties may require us to commit to purchase a certain volume of their products, irrespective of the amount of their products that we sell to our customers. If we enter into such a volume commitment with a third party but do not sell a sufficient volume of its products, then we may be required to pay the third party directly for the deficit in sales. We incurred such an event during the fourth quarter of 2005 and the second quarter of 2006, in which we did not sell a sufficient volume of our partner R2's lung nodule computer-aided-diagnosis software product to meet our quarterly purchase commitment under our contract with R2, resulting in a loss of approximately \$410,000 in the fourth quarter of 2005, of which \$236,000 was reversed in the first quarter of 2006, and a loss of approximately \$167,000 in the second quarter of 2006. There can be no assurance that we will not have similar deficits in future quarters under commitments we may have made to R2 or other providers of third party products. Based on information available to us, R2 has not generated any product sales through any other sales, marketing and distribution channels, other than sales generated from customers under our agreement with them. As a result, the applicable minimum for the quarter ended September 30, 2006 was \$0. Product sales for the quarter ended September 30, 2006 were approximately \$135,000. As a result, the applicable minimum for the quarter ending December 31, 2006 will also be \$0.

Regarding R2, our commitment was for approximately \$414,000 per quarter through the quarter ended March 31, 2006. After March 31, 2006, the contractual commitments continue through the quarter ended June 30, 2008, but if we do not meet the applicable minimum in any particular quarter, they may be reduced to the lower of: (i) the quarterly commitment of the preceding quarter multiplied by the percent by which the revenue we generated in the preceding quarter fell below that quarter's quarterly commitment, up to a maximum decline of 23%; or (ii) two times the R2 Lung CAD product revenue generated by R2 during the preceding quarter through all other sales, marketing and distribution channels; provided, that if at any time during the remainder of the agreement the quarterly commitment is less than

\$414,000 and R2 Lung CAD product revenue for a quarter exceeds \$414,000, our quarterly commitment for the next quarter will again be \$414,000, and the quarterly commitment for the following quarters may again be subject to the above adjustment. Additionally, at the end of every fourth quarter under the R2 agreement, if the aggregate revenue generated under the agreement in the previous four quarters exceeded the aggregate applicable minimums, the remaining quarterly commitments shall be reduced by the amount of excess divided by the number of quarters remaining under the agreement. As of September 30, 2006, the remaining potential aggregate contractual commitment ranges from a minimum of \$0 to a maximum of approximately \$2.5 million. The timing of sales of the R2 Lung CAD product and the revenue resulting from such sales is difficult to accurately forecast. We may not generate sufficient revenue to meet the minimum contractual commitment for any particular quarter, and thus may have to pay cash to R2 for the deficit. If we foresee that we will not be able to attain the minimum contractual commitment on a continued basis, we may have to take a larger charge to our earnings, which could be up to the amount of our maximum remaining total commitment.

We depend upon growth in the enterprise-wide advanced visualization market. If that market does not grow as we expect, our business, results of operations and financial condition will be adversely affected.

The enterprise-wide advanced visualization industry in which we market our products is still developing due to:

- the fairly recent availability of high-resolution CT, MR and combined CT-PET scanners and 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 enterprise-wide advanced visualization was too slow, unresolved or difficult for clinical use. This perception was due largely to the relatively slower processing speed of available workstations and the reality that true volumetric acquisition was not previously available. We believe that recent advances in scanner acquisition resolution, increasing affordability of high-performance computers and the development of industry standards for the generation, transmission, and storage of imaging data will provide opportunities for substantial growth in the medical software industry. However, given the uncertainties associated with the developing stage of this market, there can be no assurance that it will continue to develop in the manner we anticipate. Accordingly, there can be no assurance that the enterprise-wide advanced visualization industry will provide growth opportunities for us and our software products or that our business strategies will be successful as the industry continues to evolve. Ultimately, if the enterprise-wide advanced visualization industry fails to develop as we expect, our business, results of operations and financial condition will be materially and adversely affected.

We participate in a highly competitive industry. If we fail to compete effectively, our results of operations and financial condition would be adversely affected.

We face intense competition in the enterprise-wide advanced visualization industry. We expect technology to continue to develop rapidly, and our success will depend to a large extent on our ability to maintain a competitive position with our products. Our competitors in the enterprise-wide advanced visualization industry include large, established manufacturers of CT and MR imaging equipment. Companies such as GE Healthcare, Siemens Medical Systems, Inc. and Philips Medical Systems typically offer their own enterprise-wide advanced visualization software and workstations as part of their integrated imaging and scanner systems. Our software works on the products offered by each of these companies. To win business against equipment manufacturers, we must convince customers to buy our software solutions separately from their purchase of imaging equipment instead of buying integrated systems from our competitors.

In addition to having a competitive advantage in marketing enterprise-wide advanced visualization tools as an integrated part of their imaging products, our competitors have significantly greater capital and staffing resources for research and development that are critical to success in the dynamic enterprise-wide advanced visualization industry, more recognizable brand names, and more well-established marketing and distribution networks. Although price has been less significant than other factors, increasing competition may result in price reductions and reduced gross margins. Additionally, we face competition from other entities, such as PACS vendors and developers of competitive or ancillary software packages. We may not be able to compete effectively with such manufacturers or competing entities on each or any particular factor, including price, features and service.

Our products may become obsolete or non-competitive, which would result in reduced revenue and profit margins.

The enterprise-wide advanced visualization market is characterized by rapid innovation and technological change. For example, as scanners become faster and generate more and more slices, our software must maintain its capability to handle the increased data volumes generated by the more powerful scanners. We may be unable to compete effectively in the marketplace, and products developed by our competitors may render our products obsolete or non-competitive. Similarly, our competitors may succeed in developing or marketing products that are viewed as providing superior clinical performance or are less expensive than our current or future products.

We may make future acquisitions, which may be difficult to integrate, divert management resources, result in unanticipated costs or dilute our shareholders.

Part of our continuing business strategy is to make acquisitions of, or investments in, companies, products or technologies that complement our current products, enhance our market coverage or technical capabilities, or offer growth opportunities. Future acquisitions could pose numerous risks to our operations, including:

- we may have difficulty integrating the purchased operations, technologies or products;
- we may incur substantial unanticipated integration costs;
- assimilating the acquired businesses may divert significant management attention and financial resources from our other operations and could disrupt our ongoing business;
- acquisitions could result in the loss of key employees, particularly those of the acquired operations;
- we may have difficulty retaining or developing the acquired businesses' customers;
- acquisitions could adversely affect our existing business relationships with suppliers and customers;
- we may fail to realize the potential cost savings or other financial benefits and/or the strategic benefits of the acquisitions; and
- we may incur liabilities from the acquired businesses for infringement of intellectual property rights or other claims, and we may not be successful in seeking indemnification for such liabilities or claims.

In connection with these acquisitions or investments, we could incur debt, amortization expenses related to intangible assets, large and immediate write-offs, assume liabilities, or issue stock that would dilute our current shareholders' percentage of ownership. We may not be able to complete acquisitions or integrate the operations, products or personnel gained through any such acquisition without a material adverse effect on our business, financial condition and results of operations.

We sell our products internationally and are subject to various risks relating to such international activities, which could harm our international sales and profitability.

During the nine months ended September 30, 2006 and September 30, 2005, 16% and 17% of our total revenues were attributable to international sales. During the years ended December 31, 2003, December 31, 2004 and December 31, 2005, 13%, 17% and 16% of our total revenues were attributable to international sales. Toshiba has been the primary source of our international sales. We are also developing direct international sales and marketing efforts. By doing business in international markets, we are exposed to risks separate and distinct from those we face in our domestic operations. Our international business may be adversely affected by changing economic conditions in foreign countries. Because most of our sales are currently denominated in U.S. dollars, if the value of the U.S. dollar increases relative to foreign currencies, our products could become more costly to the international consumer and therefore less competitive in international markets, which could adversely affect our profitability. Furthermore, although currently only a small percentage of our sales are denominated in non-U.S. currency, this percentage may increase in the future, in which case fluctuations in exchange rates could affect demand for our products. Engaging in international business inherently involves a number of other difficulties and risks, including:

- export restrictions and controls relating to technology;
- the availability and level of reimbursement within prevailing foreign healthcare payment systems;
- pricing pressure that we may experience internationally;
- required compliance with existing and new foreign regulatory requirements and laws;
- laws and business practices favoring local companies;
- longer payment cycles;
- difficulties in enforcing agreements and collecting receivables through foreign legal systems;
- political and economic instability;
- potentially adverse tax consequences, tariffs and other trade barriers;
- international terrorism and anti-American sentiment;
- difficulties and costs of staffing and managing foreign operations;
- changes in currency exchange rates; and
- difficulties in enforcing intellectual property rights.

Our exposure to each of these risks may increase our costs, lengthen our sales cycle and require significant management attention. We cannot assure you that one or more of these factors will not harm our business.

If our internal control over financial reporting is found to be inadequate, our financial results may not be accurate, raising concerns for investors and potentially adversely affecting our stock price.

Under Section 404 of the Sarbanes-Oxley Act of 2002, we are required to evaluate and determine the effectiveness of our internal controls over financial reporting. We have dedicated a significant amount of time and resources to ensure compliance with this legislation for the years ended December 31, 2006 and 2005 and will continue to do so for future fiscal periods. We may encounter problems or delays in completing the review and evaluation, the implementation of improvements and the receipt of a positive attestation, or any attestation at all, from our independent registered public accounting firm. In addition, our assessment of our internal controls may identify deficiencies that need to be addressed in our internal

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controls over financial reporting or other matters that may raise concerns for investors and therefore adversely affect our stock price.

We may experience fluctuations in operating results, which may result in volatility in the price of our common stock.

We have in the past experienced, and may in the future experience, significant fluctuations in annual and quarterly operating results. If these fluctuations occur, they may result in volatility in the price of our 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 us or our competitors, the pricing of our products, changes in customers' budgets and competitive conditions. Our quarterly license and services revenue may fluctuate and may be difficult to forecast for a variety of reasons, including the following:

- a significant number of our existing and prospective clients' decisions regarding whether to enter into license agreements with us are made within the last few weeks or days of each quarter;
- the size and number of license transactions can vary significantly;
- our dependence on Toshiba for a significant portion of our revenues;
- a decrease in license fee revenue may likely result in a decrease in services revenue in the same or subsequent quarters;
- clients may unexpectedly postpone or cancel projects due to changes in their strategic priorities, project objectives, budget or personnel;
- the uncertainty caused by potential business combinations in the software industry may cause clients and prospective clients to cancel, postpone or reduce capital spending projects on software;
- client evaluations and purchasing processes vary significantly from company to company, and a client's internal approval and expenditure authorization process can be difficult and time consuming to complete, even after selection of a vendor;
- the number, timing and significance of software product enhancements and new software product announcements;
- existing clients may decline to renew support for our products, and market pressures may limit our ability to increase support fees or require clients to upgrade from older versions of our products;
- prospective clients may decline or defer the purchase of new products or releases if we do not have sufficient client references for those products; or
- we may have to defer revenues under our revenue recognition policies.

We are subject to government regulation, which can result in additional costs or restrict our ability to market our products.

Our products are subject to regulation by the United States Food and Drug Administration, or 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. Our medical devices require clearance or approval by the FDA before they can be commercially distributed in the United States. Modifications and enhancements to a medical device also require a new FDA clearance or approval if they could significantly affect its safety or effectiveness or would constitute a major change in its intended use, design or manufacture. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review any manufacturer's decision and may require a new clearance or approval for the modification if it disagrees with the decision. If the FDA requires us to seek clearance or approval for the modification of a previously cleared product for which we have concluded that new clearances or approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties, which could have a material adverse effect on our financial results and competitive position. 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 our current products are marketed pursuant to 510(k) pre-market clearance from the FDA. *Vitrea* and *VITALConnect* and our add-on options have been cleared to be marketed for use with CT, MR and PET scanners. The FDA may not grant clearance with respect to our future products or enhancements, or future FDA review may involve delays that could adversely affect our ability to market such future products or enhancements. In addition, our future products or enhancements may be subject to a more lengthy and expensive pre-market approval process with the FDA.

Even if we obtain 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 our 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 us. The FDA may inspect our facilities and operations to determine whether we are in compliance with various regulations relating to specification, development, documentation, validation, testing, quality control and product labeling. If the FDA determines that we are in violation of such regulations, it could impose civil penalties, including fines, recall or seize products and, in extreme cases, impose criminal sanctions.

We market our 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. Our inability or failure to comply with the varying regulations, or the imposition of new regulations, could restrict our ability to sell our products internationally and could adversely affect our business.

We are subject to various federal and state fraud and abuse laws, and, if we are unable to fully comply with such laws, we could face substantial penalties, which may adversely affect our business.

We are subject to various federal and state laws pertaining to health care fraud and abuse, including the following:

- the federal Anti-Kickback Statute, which prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce

either the referral of an individual, or furnishing or arranging for a good or service, for which payment may be made under federal health care programs (such as Medicare and Medicaid);

- the federal False Claims Act, which prohibits anyone from knowingly presenting or causing to be presented a false or fraudulent claim for payment to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits executing a scheme to defraud any health care benefit program;
- the federal False Statements Statute, which prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for health care benefits, items or services; and
- state law equivalents to these federal laws, which may not be limited to government reimbursed items, and may not contain identical exceptions.

If our past or present operations are found to be in violation of any of the laws described above or the other similar governmental regulations to which we are subject, we may be subject to the applicable penalty associated with the violation, including civil and criminal penalties, damages, fines, exclusion from federal health care programs and/or the curtailment or restructuring of our operations. Similarly, if the physicians or other providers or entities with whom we do business are found to be non-compliant with applicable laws, they may be subject to sanctions, which could also have a negative impact on us. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that their provisions are open to a variety of interpretations and are subject to further legal or regulatory change. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, fines and other penalties, divert our management's attention from the operation of our business and damage our reputation.

The imposition of requirements under the Health Insurance Portability and Accountability Act of 1996, or HIPAA, could adversely affect our business.

The HIPAA regulations are causing our customers to request that we 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, healthcare clearinghouses, and certain healthcare providers. However, most healthcare providers do not carry out all of their healthcare 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 healthcare functions not for the business associate's independent use or purposes, except as needed for the proper management and administration of the business associate. These agreements are necessary for us in the normal course of servicing and supporting our products and may require us to incur liabilities if we disclose protected health information in a manner not allowed under any respective agreement. Our potential liabilities may include indemnifying our customer against any damages resulting from the disclosure. If we are not willing to or are unable to enter into a business associate agreement with current and potential customers, such customers may not purchase our products or services, which would have a material adverse effect on our business, financial condition, or results of operations.

The protection of our intellectual property may be uncertain, and we may face possible claims of others.

Although we have received patents and have filed patent applications with respect to certain aspects of our technology, we generally do not rely on patent protection with respect to our products and technologies. Instead, we rely 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 our products and technologies. Such measures may not provide meaningful protection of our 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 our technologies. In addition, to the extent that we apply for any patents, such applications may not result in issued patents or, if issued, such patents may not be valid or of value. Third parties could, in the future, assert infringement or misappropriation claims against us with respect to our current or future products and technologies, or we may need to assert claims of infringement against third parties. Any infringement or misappropriation claim by us or against us could place significant strain on our financial resources, divert management's attention from our business and harm our reputation. The costs of prosecuting or defending an intellectual property claim could be substantial and could adversely affect our business, even if we are ultimately successful in prosecuting or defending any such claims. If our products or technologies are found to infringe the rights of a third party, we could be required to pay significant damages or license fees or cease production, any of which could have a material adverse effect on our business.

We face the risk of product liability claims, and our product liability and errors and omissions insurance coverage may not be adequate to pay products liability claims, which could have a material adverse effect on our financial condition.

Our business exposes us to the risk of product liability claims that is inherent in the manufacturing and marketing of medical devices, including those which may arise from the misuse or malfunction of, or design flaws in, our products. We may be subject to product liability claims if our products cause, or merely appear to have caused, an injury. Claims may be made by patients, healthcare providers or others selling our products. Although we have product liability and errors and omissions insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, the coverages may not be adequate to protect us against any future product liability claims. Further, if additional products are approved for marketing, we may seek additional insurance coverage. If we are unable to obtain insurance at an acceptable cost or on acceptable terms with adequate coverage or otherwise protect against potential product liability claims, we will be exposed to significant liabilities, which may harm our business. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could result in significant costs and significant harm to our business.

If we fail to attract and retain qualified personnel, our business would be harmed.

We expect to rapidly expand our operations and grow our sales, research and development and administrative operations. This expansion is expected to place a significant strain on our management and will require hiring a significant number of qualified personnel. Accordingly, recruiting and retaining such personnel in the future will be critical to our success. There is intense competition from other companies, research and academic institutions, government entities and other organizations for qualified personnel in the areas of our activities. If we fail to identify, attract, retain and motivate these highly skilled personnel, we may be unable to continue our marketing and development activities.

If we do not effectively manage changes in our business, these changes could place a significant strain on our management and operations and, as a result, our business might not succeed.

Our ability to grow successfully requires an effective planning and management process. The expansion and growth of our business could place a significant strain on our management systems, infrastructure and other resources. To manage our growth successfully, we must continue to improve and expand our systems and infrastructure in a timely and efficient manner. Our controls, systems, procedures and resources may not be adequate to support a changing and growing company. If our management fails to respond effectively to changes and growth in our business, including acquisitions, such failure could have a material adverse effect on our business.

We depend on third-party reimbursement. A reduction or other change in reimbursement from third parties could negatively affect our business.

Our 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 healthcare goods and services provided to their patients. There are currently Current Procedural Terminology, or CPT, reimbursement codes that describe most of the diagnostic procedures that use our products. However, the amount of reimbursement from third-party payers varies by site of service and geographic 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. We are unable to predict what changes will be made in the reimbursement methods used by third-party healthcare payers. Third-party payers may not consider as cost effective the procedures in which our products are used. Reimbursement for such procedures may not be available or, if available, payers' low reimbursement levels may adversely affect our ability to sell our products on a profitable basis. In addition, there have been and may continue to be changes and proposals by legislators, regulators and third-party payers to curb further these costs in the future. For example, the Deficit Reduction Act of 2005, or the DRA, which was signed into law on February 8, 2006, imposes caps on Medicare payment rates for certain imaging services, including MR and PET, furnished in physicians offices and other non-hospital based settings. Under the caps, payments for specified imaging services cannot exceed the hospital outpatient payment rates for these services. This change is to apply to services furnished on or after January 1, 2007. The DRA also codifies a reduction in Medicare payments for certain multiple images performed on contiguous body parts, which was previously established in the 2006 Physician Fee Schedule final rule. A failure by hospitals and other users of our products to obtain reimbursement from third-party payers, changes in third-party payers' policies toward reimbursement for procedures using our products or legislative action could have a material adverse effect on our business, financial condition and results of operations.

Healthcare reform may negatively impact our business.

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 healthcare through various means. In the United States, there have been, and we expect that there will continue to be, a number of federal, state and private proposals to control healthcare costs. These proposals include legislative, regulatory and other initiatives and may contain measures intended to control public and private spending on healthcare as well as to provide universal public access to the healthcare system. If enacted, these proposals may result in a substantial restructuring of the healthcare delivery system. Significant changes in the nation's healthcare

system could have a substantial impact on the manner in which we conduct business and could have a material adverse effect on our business, financial condition and results of operations.

Changes in or interpretations of accounting rules and regulations, such as expensing of stock options, could result in unfavorable accounting charges or require us to change our compensation policies.

Accounting methods and policies for business and market practices, including policies regarding expensing stock options, are subject to further review, interpretation and guidance from relevant accounting authorities, including the Securities and Exchange Commission, or SEC. For example, we were previously not required to record equity-based compensation charges if the employee's stock option exercise price equals or exceeds the fair value of our common stock at the date of grant. In December 2004 and as amended in April 2005, the Financial Accounting Standards Board, or FASB, issued Statement of Financial Accounting Standard No. 123 (revised 2004), *Share-Based Payment*, or SFAS No. 123(R), which requires all equity-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values beginning for the year ending December 31, 2006. We adopted SFAS No. 123(R) using the modified prospective application method under which we apply SFAS No. 123(R) to new awards granted after the January 1, 2006 date of our adoption of SFAS No. 123(R) and to any portion of existing awards that were granted after December 15, 1994 and had not vested by January 1, 2006. We expect the impact of the adoption of SFAS No. 123(R) to be material to our consolidated financial statements. We rely heavily on stock options to compensate existing employees and attract new employees. Our adoption of SFAS No. 123(R) may cause us to reduce our reliance on stock options as a compensation tool. If we reduce our use of stock options, it may be more difficult for us to attract and retain qualified employees. We estimate that equity-based compensation charges in 2006 will be approximately \$3.6 million to \$3.7 million after tax, depending on the stock price when new options are granted and the volume and timing of disqualifying dispositions of incentive stock options, all of which are difficult to predict. These factors could also affect our effective tax rate.

We may issue shares of preferred stock without the consent of our holders of common stock, which could adversely affect the rights of the holders of our common stock.

Our Articles of Incorporation authorize our Board of Directors, without any action by our holders of common stock, 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 or dilute their ownership rights, and they may have the effect of delaying, deferring or preventing a change in control of our company. No shares of preferred stock or other senior equity securities are currently designated, and currently we have no plan to designate or issue any such securities.

We are subject to certain laws and plans which may discourage takeover attempts that could be beneficial for shareholders.

We are subject to anti-takeover provisions of the Minnesota Business Corporation Act. In addition, we have adopted a shareholder rights plan designed to protect against unsolicited attempts to acquire our company. These measures may deter or discourage takeover attempts and other changes in control that are not approved by our Board of Directors, and they may have a depressive effect on any market for our stock. As a result, our 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 our current directors to retain their positions and place them in a better position to resist changes that our shareholders may wish to make if they are dissatisfied with the conduct of our business.

We have never paid any cash dividends and, therefore, our shareholders only opportunity to achieve a return on their investment in our common stock is if the price of our common stock appreciates.

We have not paid cash dividends on our common stock in the past, and we do not intend to do so in the foreseeable future. Consequently, our shareholders only opportunity to achieve a return on their investment in our common stock will be if the market price of our common stock appreciates and they sell their shares at a profit. There is no guaranty that the price of our common stock that will prevail in the market after this offering will ever exceed the price that a buyer of the shares in this offering will pay.

Our directors may not be held personally liable for certain actions, which could discourage shareholder suits against them.

As permitted by Minnesota law, our Articles of Incorporation provide that members of our Board of Directors shall not be personally liable to our company or our 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 our company against a director. In addition, our Bylaws provide for mandatory indemnification of directors and officers to the fullest extent permitted by Minnesota law.

Risks Related to this Offering

The exercise of outstanding options may adversely affect our stock price.

Options to purchase 1,910,113 shares of our common stock were outstanding as of September 30, 2006, of which options to purchase 1,098,729 shares were exercisable. These options are likely to be exercised at a time when the market price for our common stock is higher than the exercise prices of the options. If holders of these outstanding options sell the common stock received upon exercise, it may have a negative effect on the market price of our common stock.

We have broad discretion in the use of the net proceeds we receive from this offering and may not use them effectively.

We cannot specify with certainty the particular uses of the net proceeds we will receive from this offering. Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in Use of Proceeds. Accordingly, you will have to rely upon the judgment of our management with respect to the use of the net proceeds, with only limited information concerning management's specific intentions. Our management may spend a portion or all of the net proceeds we receive from this offering in ways that our shareholders may not desire or that may not yield a favorable return. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds we receive from this offering in a manner that does not produce income or that loses value.

The market price for our common stock is likely to be volatile and could result in a decline in the value of your investment.

Our stock price is likely to continue to be volatile. The stock market in general and the securities of medical device companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the public offering price. The following factors, in addition to other risk factors described in this section and general market and economic conditions, may have a significant impact on the market price of our common stock:

- results of our research and development efforts;

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- volume and timing of orders for our products;
- the announcement of new products or product enhancements by us or our competitors;
- regulatory developments in the United States and foreign countries;
- changes in financial estimates or recommendations by securities analysts;
- developments or disputes concerning patents or other proprietary rights;
- product liability claims and litigation against us or our competitors;
- the departure of key personnel;
- changes in the structure of and third-party reimbursement in the United States and other countries;
- changes in accounting principles or practices; and
- future sales of our common stock.

A decline in the market price of our common stock could cause you to lose some or all of your investment and may adversely impact our ability to attract and retain employees and raise capital. In addition, shareholders may initiate securities class action lawsuits if the market price of our stock drops significantly. Whether or not meritorious, litigation brought against us could result in substantial costs and could divert the time and attention of our management. Our insurance to cover claims of this sort may not be adequate.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

All statements contained in this prospectus supplement, the accompanying prospectus and in the documents we incorporate by reference that are not statements of historical fact are forward-looking statements. Sometimes these statements contain words like believe, belief, plan, anticipate, expect, estimate, may, will, intends, predicts or similar terms, which are intended to identify forward-looking statements. Forward-looking statements involve known or unknown uncertainties and other factors that could cause actual results to be materially different from historical results or from any future results expressed or implied by the forward-looking statements. The Risk Factors section of this prospectus supplement, beginning on page S-9, summarizes the material risks and uncertainties that could cause our actual results, performance or achievements to differ materially from what we have said in this prospectus supplement, the accompanying prospectus and in the documents we incorporate by reference. The risk factors apply to all of our forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements, which speak only as of the dates of this prospectus supplement and the accompanying prospectus. We will not revise these forward-looking statements to reflect events or circumstances after such dates or to reflect the occurrence of unanticipated events.

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USE OF PROCEEDS

We estimate the net proceeds of the sale of 3,000,000 shares of common stock that we are selling in this offering will be approximately \$87.5 million, based on the public offering price of \$31.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' over-allotment option is exercised in full, we estimate we will receive net proceeds of approximately \$100.7 million.

We expect to use the net proceeds of this offering for general corporate purposes, including expanding our sales and marketing, customer service and training efforts internationally and investing in our product development resources. We also intend to use the net proceeds for the acquisition of or investment in businesses, products and technologies that are complementary to our current products, can enhance our market coverage or technical capabilities, or offer growth opportunities.

Pending application of the net proceeds for the purposes described above, we intend to invest the net proceeds in investment-grade, interest-bearing securities. We cannot predict whether the net proceeds will yield a favorable return.

DIVIDEND POLICY

We have not paid any dividends on our common stock since our inception and do not anticipate paying any dividends on our common stock in the foreseeable future.

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PRICE RANGE OF COMMON STOCK

Our common stock is traded on The NASDAQ Global Market under the symbol VTAL. The following table sets forth, for the calendar periods indicated, the high and low sale prices per share of the common stock as reported on The NASDAQ Global Market:

	High	Low
Year Ended December 31, 2004		
First Quarter	\$20.10	\$ 9.19
Second Quarter	14.94	9.15
Third Quarter	12.68	9.71
Fourth Quarter	16.99	11.59
Year Ended December 31, 2005		
First Quarter	\$16.82	\$13.28
Second Quarter	19.20	14.12
Third Quarter	23.00	16.91
Fourth Quarter	28.37	20.21
Year Ending December 31, 2006		
First Quarter	\$35.51	\$25.58
Second Quarter	36.09	20.74
Third Quarter	32.08	19.52
Fourth Quarter (through November 16, 2006)	32.15	31.31

The last reported sale price of our common stock on The NASDAQ Global Market on November 16, 2006 was \$31.70 per share. As of October 31, 2006, there were 853 holders of record of our common stock.

CAPITALIZATION

You should read this capitalization table together with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and with the financial statements and related notes to those statements, all of which are incorporated by reference from our Quarterly Report on Form 10-Q for the quarter ended September 30, 2006.

The following table sets forth our capitalization as of September 30, 2006:

- on an actual basis; and
- on an as adjusted basis to reflect the closing of this offering and the receipt of the estimated net proceeds from the sale of 3,000,000 shares of common stock by us in this offering at the public offering price of \$31.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

	September 30, 2006	
	Actual	As Adjusted
	(in thousands, except share and per share data)	
Cash, cash equivalents and marketable securities	\$ 63,477	\$ 151,017
Stockholders' equity		
Preferred stock, \$0.01 par value, 5,000,000 shares authorized, no shares issued or outstanding, actual and as adjusted	\$	\$
Common stock, \$0.01 par value, 20,000,000 shares authorized, actual and as adjusted, 13,418,234 and 16,418,234 shares issued and outstanding, respectively	134	164
Additional paid-in capital	88,083	175,593
Accumulated deficit	(1,232)	(1,232)
Accumulated other comprehensive loss	(3)	(3)
Total stockholders' equity	\$ 86,982	\$ 174,522

The information in the table above excludes, as of September 30, 2006:

- 1,910,113 shares of common stock subject to outstanding options as of September 30, 2006 at a weighted average exercise price of \$15.61 per share;
- 551,076 shares of common stock reserved for future grant or issuance as of September 30, 2006 under our 1997 Stock Option and Incentive Plan and 1997 Director Stock Option Plan;
- 56,457 shares of common stock reserved for issuance as of September 30, 2006 under our 1997 Employee Stock Purchase Plan; and
- 900,000 shares of common stock reserved for issuance under our 2006 Long-Term Incentive Plan.

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UNDERWRITING

The underwriters named below have agreed to buy, subject to the terms of the purchase agreement, the number of shares listed opposite their names below. Piper Jaffray & Co. is acting as sole book-running manager and, together with Wachovia Capital Markets, LLC, Jefferies & Company, Inc. and Thomas Weisel Partners LLC, is acting as a representative of the underwriters. The underwriters are committed to purchase and pay for all of the shares if any are purchased, other than those shares covered by the over-allotment option described below.

Underwriters	Number of Shares
Piper Jaffray & Co.	1,575,000
Wachovia Capital Markets, LLC	525,000
Jefferies & Company, Inc.	450,000
Thomas Weisel Partners LLC	450,000
Total	3,000,000

The underwriters have advised us that they propose to offer the shares to the public at \$31.00 per share. The underwriters propose to offer the shares to certain dealers at the same price less a concession of not more than \$1.06 per share. The underwriters may allow and the dealers may reallow a concession of not more than \$0.10 per share on sales to certain other brokers and dealers. After the offering, these figures may be changed by the underwriters.

We have granted to the underwriters an option to purchase up to an additional 450,000 shares of common stock from us at the same price to the public, and with the same underwriting discount, as set forth above. The underwriters may exercise this option any time during the 30-day period after the date of this prospectus supplement, but only to cover over-allotments, if any. To the extent the underwriters exercise the option, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of the additional shares as it was obligated to purchase under the purchase agreement.

We estimate that the total fees and expenses payable by us, excluding underwriting discounts and commissions, will be approximately \$120,000. The following table shows the underwriting fees to be paid to the underwriters by us in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the over-allotment option.

	No Exercise	Full Exercise
Per share	\$ 1.78	\$ 1.78
Total	\$ 5,340,000	\$ 6,141,000

We have agreed to indemnify the underwriters against certain liabilities, including civil liabilities under the Securities Act, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have informed us that neither they, nor any other underwriter participating in the distribution of the offering, will make sales of the common stock offered by this prospectus supplement and the accompanying prospectus to accounts over which they exercise discretionary authority without the prior specific written approval of the customer.

All of our directors and executive officers are subject to lock-up agreements that prohibit them from offering for sale, selling, contracting to sell, granting any option for the sale of, transferring or otherwise disposing of any shares of our common stock, options or warrants to acquire shares of our common stock or any security or instrument related to such common stock, option or warrant for a period of at least

90 days following the date of this prospectus supplement without the prior written consent of Piper Jaffray. These agreements do not apply to a total of 72,780 shares that are subject to existing 10b5-1 trading plans of certain of our executive officers, a substantial portion of which could be sold under these plans during the 90-day lock-up period. In addition, we are subject to a lock-up agreement that prohibits us from offering for sale, selling, contracting to sell, granting any option for the sale of, pledging, transferring, establishing an open put equivalent position or otherwise disposing of any shares of our common stock, options or warrants to acquire shares of our common stock or any security or instrument related to such common stock, option or warrant for a period of at least 90 days following the date of this prospectus supplement without the prior written consent of Piper Jaffray. The lock-up provisions do not prevent us from selling shares to the underwriters pursuant to the purchase agreement, granting options to acquire securities under our existing stock option plans or issuing shares upon the exercise or conversion of securities outstanding on the date of this prospectus supplement.

The 90-day lock-up period in all of the lock-up agreements is subject to extension if (i) during the last 17 days of the lock-up period we issue an earnings release or material news or a material event relating to us occurs or (ii) prior to the expiration of the lock-up period, we announce that we will release earnings results during the 16-day period beginning on the last day of the lock-up period, in which case the restrictions imposed in these lock-up agreements shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event, unless Piper Jaffray waives the extension in writing.

Our shares are quoted on The NASDAQ Global Market under the symbol VTAL.

To facilitate the offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock during and after the offering. Specifically, the underwriters may over-allot or otherwise create a short position in the common stock for their own account by selling more shares of common stock than we have sold to them. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters option to purchase additional shares in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are sales in excess of this option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering.

In addition, the underwriters may stabilize or maintain the price of the common stock by bidding for or purchasing shares of common stock in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if shares of common stock previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the common stock at a level above that which might otherwise prevail in the open market. The imposition of a penalty bid may also affect the price of the common stock to the extent that it discourages resales of the common stock. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on The NASDAQ Global Market or otherwise and, if commenced, may be discontinued at any time. Some underwriters and selling group members may also engage in passive market making transactions in our common stock. Passive market making consists of displaying bids on The NASDAQ Global Market limited by the prices of independent market makers and effecting purchases limited by those prices in response to order flow. Rule 103 of

Regulation M promulgated by the Commission limits the amount of net purchases that each passive market maker may make and the displayed size of each bid. Passive market making may stabilize the market price of the common stock at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

This prospectus supplement and the accompanying prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses and prospectus supplements electronically.

From time to time in the ordinary course of their respective businesses, certain of the underwriters and their affiliates may in the future engage in commercial banking or investment banking transactions with us and our affiliates.

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**MATERIAL UNITED STATES FEDERAL TAX CONSIDERATIONS
FOR NON-U.S. HOLDERS OF COMMON STOCK**

This section summarizes certain material U.S. federal income and estate tax considerations relating to the ownership and disposition of our common stock by a non-U.S. holder, as defined below. This summary does not provide a complete analysis of all potential tax considerations. The information provided below is based on existing authorities. These authorities may change, or the Internal Revenue Service, or IRS, might interpret the existing authorities differently. In either case, the tax considerations of owning or disposing of our common stock could differ from those described below. This summary is applicable only to non-U.S. holders, as defined below, who hold our common stock as a capital asset, which is, generally, an asset held for investment purposes. For purposes of this summary, a non-U.S. holder is any holder (other than a partnership) that is not for U.S. federal income tax purposes any of the following:

- an individual citizen or resident of the United States;
- a corporation or other entity taxable as a corporation organized under the laws of the United States or any state thereof or the District of Columbia;
- a trust that is (i) subject to the primary supervision of a U.S. court and the control of one or more U.S. persons or (ii) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person; or
- an estate the income of which is subject to U.S. federal income taxation regardless of source.

This summary is based upon provisions of the Internal Revenue Code of 1986, as amended, or Code, and regulations, rulings and judicial decisions as of the date of this prospectus supplement. Those authorities may be changed, perhaps retroactively, so as to result in U.S. federal income and estate tax consequences different from those summarized below. In addition, the summary generally does not address all U.S. federal income and estate tax consequences that may be applicable to you, particularly if you are subject to special treatment under the U.S. federal income tax laws (including, but not limited to, treatment for a U.S. expatriate, controlled foreign corporation, passive foreign investment company, or a corporation that accumulates earnings to avoid U.S. federal income tax). We cannot assure you that a change in law will not alter significantly the tax considerations that we describe in this summary. If a partnership or other flow-through entity is a beneficial owner of our common stock, the tax treatment of a partner in the partnership or an owner of the entity will depend upon the status of the partner or other owner and the activities of the partnership or other entity. If you are a partner in a partnership holding our common stock, you should consult your tax advisors. Finally, the summary does not describe the effects of any applicable foreign, state, or local laws, or of any specific tax treaty.

INVESTORS CONSIDERING THE PURCHASE OF OUR COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS AND THE CONSEQUENCES OF FOREIGN, STATE OR LOCAL LAWS, AND TAX TREATIES.

Dividends

Any dividend paid to a non-U.S. holder in respect of our common stock will generally be subject to U.S. withholding tax at a 30% rate. The withholding tax might not apply, however, or might apply at a reduced rate, under the terms of an applicable income tax treaty between the United States and the non-U.S. holder's country of residence. A non-U.S. holder must demonstrate its entitlement to treaty benefits by certifying its status as a resident of the jurisdiction in respect of which treaty benefits are being claimed and as entitled to the benefits of the treaty. A non-U.S. holder can meet this certification requirement by providing a Form W-8BEN or appropriate substitute form to us or our paying agent. If the non-U.S. holder holds the stock through a financial institution or other agent acting on the holder's behalf, the

holder will be required to provide appropriate documentation to the agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. For payments made to a foreign partnership or other flow-through entity, the certification requirements generally apply to the partners or other owners rather than to the partnership or other entity, and the partnership or other entity generally must provide the partners' or other owners' documentation to us or our paying agent. Special rules, described below, apply if a dividend is effectively connected with a U.S. trade or business conducted by the non-U.S. holder. A non-U.S. holder eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS.

Sale of Common Stock

Non-U.S. holders will generally not be subject to U.S. federal income tax on any gains realized on the sale, exchange, or other disposition of our common stock. This general rule, however, is subject to certain exceptions. For example, the gain would be subject to U.S. federal income tax if:

- the gain is effectively connected with the conduct by the non-U.S. holder of a U.S. trade or business or, if a tax treaty applies, is attributable to a permanent establishment of the non-U.S. holder in the United States, in which case the special rules described below apply;
- the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of the sale, exchange, or other disposition, and certain other requirements are met;
- the non-U.S. holder is subject to special rules that apply to expatriates; or
- the rules of the Foreign Investment in Real Property Tax Act, or FIRPTA (described below), treat the gain as effectively connected with a U.S. trade or business.

The FIRPTA rules may apply to a sale, exchange or other disposition of our common stock if we are, or were within five years before the transaction, a U.S. real property holding corporation, or USRPHC. In general, we would be a USRPHC if interests in U.S. real estate comprised 50% or more of the fair market value of the total of our real property interests plus any other assets used or held for use in the trade or business. We do not believe that we are a USRPHC or that we will become one in the future. If we are or become a USRPHC, so long as our common stock is regularly traded on an established securities market, only a non-U.S. holder who actually or constructively holds or held more than 5% of our common stock will be subject to U.S. federal income tax on the disposition of our common stock.

Dividends or Gain Effectively Connected With a U.S. Trade or Business

If any dividend on our common stock, or gain from the sale, exchange or other disposition of our common stock, is effectively connected with a U.S. trade or business conducted by the non-U.S. holder, then the dividend or gain will be subject to U.S. federal income tax at the regular graduated rates. If the non-U.S. holder is eligible for the benefits of a tax treaty between the United States and the holder's country of residence, any effectively connected dividend or gain would generally be subject to U.S. federal income tax only if it is also attributable to a permanent establishment or fixed base maintained by the holder in the United States. Payments of dividends that are effectively connected with a U.S. trade or business and subject to U.S. federal income tax at graduated rates will not be subject to the 30% withholding tax. To claim exemption from withholding, the holder must certify its qualification, which can be done by filing a Form W-8ECI. If the non-U.S. holder is a corporation, that portion of its earnings and profits that is effectively connected with its U.S. trade or business would generally be subject to a branch profits tax. The branch profits tax rate is generally 30%, although an applicable income tax treaty might provide for a lower rate.

U.S. Federal Estate Tax

The estates of nonresident alien individuals are generally subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and therefore will be included in the taxable estate of a nonresident alien decedent. The U.S. federal estate tax liability of the estate of a nonresident alien may be affected by a tax treaty between the United States and the decedent's country of residence.

Backup Withholding and Information Reporting

The Code and the Treasury regulations require those who make specified payments to report the payments to the IRS. Among the specified payments are dividends and proceeds paid by brokers to their customers. The required information returns enable the IRS to determine whether the recipient properly included the payments in income. This reporting regime is reinforced by backup withholding rules. These rules require the payors to withhold tax from payments subject to information reporting if the recipient fails to cooperate with the reporting regime by failing to provide his taxpayer identification number to the payor, furnishing an incorrect identification number, or repeatedly failing to report interest or dividends on his returns. The withholding tax rate is currently 28%. The backup withholding rules do not apply to payments to corporations, whether domestic or foreign.

Payments to non-U.S. holders of dividends on our common stock will generally not be subject to backup withholding, and payments of proceeds made to non-U.S. holders by a broker upon a sale of our common stock will not be subject to information reporting or backup withholding, in each case so long as the non-U.S. holder certifies its nonresident status and the payor does not have actual knowledge or reason to know that such holder is a U.S. person as defined under the Code or such holder otherwise establishes an exemption. Some of the common means of certifying nonresident status are described under Material United States Federal Tax Considerations for Non-U.S. Holders of Common Stock Dividends. We must report annually to the IRS any dividends paid to each non-U.S. holder and the tax withheld, if any, with respect to such dividends. Copies of these reports may be made available to tax authorities in the country where the non-U.S. holder resides.

Any amounts withheld from a payment to a holder of our common stock under the backup withholding rules can be credited against any U.S. federal income tax liability of the holder.

THE PRECEDING DISCUSSION OF U.S. FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY. IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE, LOCAL AND FOREIGN TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

LEGAL MATTERS

Winthrop & Weinstine, P.A., Minneapolis, Minnesota, is giving an opinion on validity of the shares of common stock being offered by this prospectus supplement and the accompanying prospectus. Certain legal matters in connection with the offering will be passed on for the underwriters by Latham & Watkins LLP, Costa Mesa, California.

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PROSPECTUS

\$150,000,000

VITAL IMAGES, INC.

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

We may offer and sell from time to time up to \$150,000,000 in the aggregate of shares of our common stock, shares of our preferred stock, debt securities, warrants to purchase shares of our common stock or preferred stock, warrants to purchase our debt securities or units consisting of any two or more of the foregoing securities.

We will provide specific terms of these securities in supplements to this prospectus for each offering of securities. Any prospectus supplement may also add, update or change information in this prospectus. This prospectus may not be used to offer or sell securities unless accompanied by a prospectus supplement.

Our common stock is listed on the Nasdaq Global Market under the symbol VTAL. On October 26, 2006, the last reported sale price of our common stock on the NASDAQ Global market was \$31.38 per share. Each prospectus supplement offering any securities other than our common stock will state whether those securities are listed or will be listed on any exchange, quotation system or market.

We may offer securities through underwriting syndicates managed or co-managed by one or more underwriters, dealers or agents or directly to purchasers. The prospectus supplement for each offering of securities will describe in detail the plan of distribution for that offering. For general information about the distribution of securities, see Plan of Distribution in this prospectus.

Unless the context otherwise requires, the terms we, our, us, the Company and Vital Images refer to Vital Images, Inc. and its consolidated subsidiaries.

This investment involves risk. See Risk Factors on page 2.

Neither the Securities and Exchange Commission nor any state securities commission has approved of anyone's investment in these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is October 27, 2006.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a shelf registration process. Under this shelf process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total amount of \$150,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We will file each prospectus supplement with the SEC. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading Where You Can Find More Information below.

You should rely only on the information contained in this prospectus and the accompanying prospectus supplement and information to which we have referred you, including the information incorporated by reference. We have not authorized anyone to provide you with different information. The information contained in this prospectus is complete and accurate only as of the date on the front cover, but the information may have changed since that date. You must not rely on any unauthorized information or representation. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any jurisdiction where the offer or sale is not permitted.

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VITAL IMAGES, INC.

We are a leading provider of enterprise-wide advanced visualization and image analysis solutions for use by medical professionals in clinical analysis and therapy planning for medical conditions. We provide software, training, software maintenance, professional services and, on occasion, third-party hardware to our customers. Our technology rapidly transforms complex data generated by diagnostic imaging equipment into functional digital images that can be manipulated and analyzed using our specialized applications to better understand internal anatomy and pathology. We believe our solutions improve physician workflow and productivity, enhance the ability to make clinical decisions, and complement often significant capital investments in diagnostic imaging equipment made by our customers. Our software is compatible with equipment from all major manufacturers of diagnostic imaging equipment, such as computed tomography, or CT, magnetic resonance, or MR, and positron emission tomography, or PET, scanners, and can be integrated into picture archiving and communication systems, or PACS. Many hospitals use PACS to acquire, distribute and archive medical images and diagnostic reports, reducing the need for film and increasing reliance on advanced visualization solutions such as ours. We also offer a Web-based solution that provides physicians with anywhere, anytime access to medical images and visualization tools through any Internet-enabled computer.

*Vitre*a®[®], our flagship software product, is an easy-to-use, intuitive, high-speed volume rendering technology that creates interactive two-dimensional, or 2D, three-dimensional, or 3D, and four-dimensional, or 4D, images from information generated by standard CT, MR or PET scanners. *Vitre*a is most commonly deployed on standalone workstations, using standard computer hardware, and provides advanced visualization for radiological, cardiac, oncological and surgical applications. *Vitre*a renders vibrant, clear, color images at high speeds and enables users to interactively navigate within these images to visualize, measure and understand internal structures and disease conditions. We believe our user interfaces are intuitive, and they are specifically configured to assist physicians in optimizing their clinical workflow.

ViTALConnect®[®], our Web-based solution, allows multiple physicians to collaboratively use enterprise-wide advanced visualization in their medical practices. It provides radiologists and referring physicians anywhere, anytime access to interactive 2D, 3D and 4D medical images and the ability to measure, rotate, analyze and segment those images.

We were founded and incorporated in Iowa in September 1988, and we re-incorporated in Minnesota in March 1997. From May 24, 1994 through May 11, 1997, we were a wholly-owned subsidiary of Bio-Vascular, Inc., which is now known as Synovis Life Technologies, Inc. Our principal executive offices are located at 5850 Opus Parkway, Suite 300, Minnetonka, Minnesota 55343, telephone (952) 487-9500, facsimile (952) 487-9510, e-mail info@vitalimages.com. Our website is at <http://www.vitalimages.com>. The information found on or accessible through our website is not part of this prospectus.

RISK FACTORS

An investment in our common stock involves a high degree of risk and should be considered only by those persons who are able to afford a loss of their entire investment. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by any forward-looking statement. In particular, you should consider the numerous risks outlined under *Risk Factors* in our Annual Report on Form 10-K filed with the SEC on March 16, 2006 and in our Quarterly Report on Form 10-Q filed with the SEC on May 10, 2006, which are incorporated into this prospectus by reference.

Those risk factors are not exhaustive. Other sections of this prospectus, any prospectus supplement and the documents incorporated by reference may include additional factors which could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. In evaluating our business, prospective investors should carefully consider the risk factors in addition to the other information included or incorporated by reference in this prospectus.

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

All statements contained in this prospectus and in the documents we incorporate by reference that are not statements of historical fact are forward looking statements. Sometimes these statements contain words like believe, belief, plan, anticipate, expect, estimate, may, predicts or similar terms, which are intended to identify forward looking statements. Forward looking statements involve known or unknown uncertainties and other factors that could cause actual results to be materially different from historical results or from any future results expressed or implied by the forward looking statements. The Risk Factors section of this prospectus, on page 2, summarizes the material risks and uncertainties that could cause our actual results, performance or achievements to differ materially from what we have said in this prospectus and in the documents we incorporate by reference. The risk factors apply to all of our forward looking statements. Given these uncertainties, you should not place undue reliance on these forward looking statements, which speak only as of the date of this prospectus. We will not revise these forward looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

INFORMATION WE HAVE INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file with the SEC after the date of this prospectus will automatically update and may supersede this information. We are incorporating by reference into this prospectus the documents listed below:

- The description of our common stock contained in our Registration Statement on Form 10, as amended;
- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2005;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2006;
- Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2006;
- Our Quarterly Report on Form 10-Q/A (Amendment No. 1) for the quarter ended June 30, 2006; and
- Our Current Reports on Form 8-K filed on February 28, 2006, March 10, 2006, April 21, 2006, April 27, 2006, May 2, 2006, May 9, 2006, June 13, 2006, August 1, 2006 and September 18, 2006.

All documents we file under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the termination of the offering are also incorporated by reference and are an important part of this prospectus. Any statement contained in a document incorporated by reference in this prospectus shall be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document which is incorporated by reference modifies or supersedes such statement.

We will provide without charge to each person to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that have been or may be incorporated by reference in the prospectus (other than exhibits to such documents that are not specifically incorporated by reference into such documents). Your requests should be directed to our Chief Financial Officer at our principal executive offices at:

5850 Opus Parkway, Suite 300
Minnetonka, Minnesota 55343
Telephone number: (952) 487-9500

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and we file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. You may read and copy the reports, proxy statements and other information that we file at the Commission's public reference facilities at 100 F Street NE, Washington, D.C. 20549 at prescribed rates. Our filings are also available free of charge at the SEC's website at <http://www.sec.gov>. You may also obtain copies of such materials by calling the SEC at 1-800-SEC-0330, or by mail from the Public Reference Room at 100 F Street NE, Washington, D.C. 20549.

This prospectus is part of a Registration Statement on Form S-3, or the Registration Statement, we filed with the SEC under the Securities Act of 1933. This prospectus does not contain all of the information set forth in the Registration Statement. For more information about us and our common stock, you should read the Registration Statement and its exhibits and schedules. Copies of the Registration Statement, including its exhibits, may be inspected without charge at the offices of the SEC or obtained at prescribed rates from the Public Reference Section of the SEC at 100 F Street NE, Washington, D.C. 20549. Copies of the Registration Statement may be obtained without charge via the SEC's website.

RATIO OF EARNINGS TO FIXED CHARGES

Our ratio of earnings to fixed charges for each of the five most recently completed fiscal years and any required interim periods will each be specified in a prospectus supplement or in a document we file with the SEC and incorporate by reference pertaining to the issuance, if any, by us of debt securities in the future.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we anticipate that the net proceeds, if any, from the sale of the securities that we may offer under this prospectus and any accompanying prospectus supplement will be used for general corporate purposes, including expanding our sales and marketing and customer service and training efforts internationally and investing in our product development resources. We also intend to use the net proceeds for the acquisition of or investment in businesses, products and technologies that are complementary to our current products, can enhance our market coverage or technical capabilities, or offer growth opportunities.

We have not yet determined the amount or timing of the expenditures for each of the categories listed above, and these expenditures may vary significantly depending on a variety of factors. As a result, we will retain broad discretion in the allocation and use of the net proceeds of this offering.

Pending application of the net proceeds for the purposes described above, we intend to invest the net proceeds in investment-grade, interest-bearing securities. We cannot predict whether the net proceeds will yield a favorable return.

GENERAL DESCRIPTION OF SECURITIES WE MAY OFFER

We may offer shares of our common stock and preferred stock, various series of debt securities, units or warrants to purchase any of such securities, with a total value of up to \$150,000,000, from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering. This prospectus provides you with a general description of the securities we may offer. In connection with each offering, we will provide a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement will offer a security that is not included in the registration statement of which this prospectus is a part at the time of its effectiveness or offer a security of a type that is not described in this prospectus.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, we are authorized to issue up to 25,000,000 shares of capital stock that is divided into two classes designated as common stock and preferred stock. Of such shares authorized, 20,000,000 shares are designated as common stock, and 5,000,000 shares are designated as preferred stock.

The following is a summary of the material terms of our capital stock and certain provisions of our Articles of Incorporation and Bylaws. It also summarizes some relevant provisions of the Minnesota Business Corporation Act, which we sometimes refer to as Minnesota law. Because the terms of our Articles of Incorporation and Bylaws, and Minnesota law, are more detailed than the general information provided below, you should rely on only the actual provisions of those documents and Minnesota law. If you would like to read those documents, they are on file with the SEC, as described under the heading **Where You Can Find More Information** in this prospectus.

Common Stock

As of August 31, 2006, there were 13,276,249 shares of common stock outstanding that were held of record by approximately 630 shareholders of record. The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the shareholders. Our shareholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the shares voting are able to elect all of the directors. Subject to preferences that may be granted to any then outstanding preferred stock, holders of common stock are entitled to receive ratably only those dividends as may be declared by the board of directors out of funds legally available therefor, as well as any distributions to the shareholders. In the event of our liquidation, dissolution or winding up, holders of common stock are entitled to share ratably in all of our assets remaining after we pay our liabilities and distribute the liquidation preference of any then outstanding shares of preferred stock. Holders of common stock have no preemptive or other subscription or conversion rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Our board of directors has the authority, without further action by the shareholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares

constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of Vital Images.

Shareholder Rights Plan, Anti-Takeover Provisions of Minnesota Law and Charter Provisions

Shareholder Rights Plan. We have adopted a shareholder rights plan designed to protect us against unsolicited attempts to acquire our company. The plan is described in Note 6 of the Notes to Consolidated Financial Statements incorporated by reference in this prospectus. The plan may deter or discourage takeover attempts and other changes in control that are not approved by our board of directors, and it may have a depressive effect on any market for our common stock. In addition, the rights plan may have the effect of permitting our current directors to retain their positions and place them in a better position to resist changes that shareholders may wish to make if they are dissatisfied with the conduct of our business.

Anti-Takeover Provisions. The provisions of Minnesota law described below could have an anti-takeover effect. These provisions are intended to provide management with flexibility and to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by our board and to discourage an unsolicited takeover of the company, if the board determines that such a takeover is not in our best interests or in the best interests of our shareholders. However, these provisions could have the effect of discouraging attempts to acquire us, which could deprive our shareholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Section 302A.671 of the Minnesota Business Corporation Act applies, with certain exceptions, to any acquisition of our voting stock from a person other than the company and other than in connection with certain mergers and exchanges to which the company is a party resulting in the acquiring person owning 20% or more of our voting stock then outstanding. Section 302A.671 requires approval of any such acquisitions by a majority vote of our shareholders before its consummation. In general, shares acquired in the absence of such approval are denied voting rights and are redeemable by us at their then fair market value within 30 days after the acquiring person has failed to give a timely information statement to us or the date the shareholders voted not to grant voting rights to the acquiring person's shares.

Section 302A.673 of the Minnesota Business Corporation Act generally prohibits us or any of our subsidiaries from entering into any transaction with a shareholder under which the shareholder purchases 10% or more of our voting shares (an interested shareholder) within four years following the date the person became an interested shareholder, unless the transaction is approved by a committee of all of the disinterested members of our board of directors serving as such before the interested shareholder acquires the shares.

Charter Provisions. In addition, the following provisions of our Articles of Incorporation and Bylaws may be deemed to have an anti-takeover effect and may delay or prevent a tender offer or takeover attempt that a shareholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by shareholders.

- *Cumulative Voting.* Our Articles of Incorporation expressly deny shareholders the right to cumulative voting in the election of directors.
- *Authorized But Unissued Shares.* Our authorized but unissued shares of common stock and preferred stock are available for future issuance without shareholder approval. These additional shares may be used for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized

but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of Vital Images by means of a proxy contest, tender offer, merger or otherwise.

Nasdaq Global Market Listing

Our common stock is listed on the Nasdaq Global Market under the symbol VTAL .

Transfer Agent And Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust. Its address is 59 Maiden Lane, Plaza Level, New York, NY, 10038, and its telephone number is (800) 937-5449.

DESCRIPTION OF DEBT SECURITIES

This prospectus describes certain general terms and provisions of our debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. The following description of debt securities will apply to the debt securities offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of debt securities may specify different or additional terms.

We may offer under this prospectus up to \$150,000,000 aggregate principal amount of secured or unsecured debt securities, or if debt securities are issued at a discount, or in a foreign currency or composite currency, such principal amount as may be sold for an initial public offering price of up to \$150,000,000. The debt securities may be either senior debt securities, senior subordinated debt securities or subordinated debt securities.

The debt securities offered hereby will be issued under an indenture between us and a trustee. We have filed a copy of the form indenture as an exhibit to the registration statement and you should read the indenture for provisions that may be important to you. We have summarized select portions of the indenture below. The summary is not complete.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and detailed or determined in the manner provided in a board of directors' resolution, an officers' certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to the series, including any pricing supplement.

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium or at a discount. We will set forth in a prospectus supplement (including any pricing supplement) relating to any series of debt securities being offered, the initial offering price, the aggregate principal amount and the following terms of the debt securities:

- the title of the debt securities;
- the price or prices (expressed as a percentage of the aggregate principal amount) at which we will sell the debt securities;
- any limit on the aggregate principal amount of the debt securities;
- the date or dates on which we will pay the principal on the debt securities;

- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where the principal of, premium, and interest on the debt securities will be payable;
- the terms and conditions upon which we may redeem the debt securities;
- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities;
- the dates on which and the price or prices at which we will repurchase the debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities;
- the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made;
- if payments of principal of, premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, premium or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities;
- any addition to or change in the events of default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any other terms of the debt securities, which may modify or delete any provision of the indenture as it applies to that series; and

- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities.

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We may issue debt securities that are exchangeable and/or convertible into shares of our common stock. The terms, if any, on which the debt securities may be exchanged for and/or converted will be set forth in the applicable prospectus supplement. Such terms may include provisions for conversion, either mandatory, at the option of the holder or at our option, in which case the number of shares of common stock or other securities to be received by the holders of debt securities would be calculated as of a time and in the manner stated in the prospectus supplement.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Payment of Interest and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depository, or a nominee of the Depository (we will refer to any debt security represented by a global debt security as a book-entry debt security), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security), as described in the applicable prospectus supplement. Except as described under "Global Debt Securities and Book-Entry System" below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at the trustee's office or paying agencies in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may transfer certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the old certificate representing those certificated debt securities and either we or the trustee will reissue the old certificate to the new holder or we or the trustee will issue a new certificate to the new holder.

Global Debt Securities and Book-Entry System. Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depository, and registered in the name of the Depository or a nominee of the Depository.

The Depository has indicated it intends to follow the following procedures with respect to book-entry debt securities.

Ownership of beneficial interests in book-entry debt securities will be limited to persons that have accounts with the Depository for the related global debt security, whom we refer to as participants, or persons that may hold interests through participants. Upon the issuance of a global debt security, the Depository will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry debt securities represented by the global debt security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters or agents participating in the distribution of the book-entry debt securities. Ownership of book-entry debt securities will be shown on, and the transfer of the ownership interests will be effected

only through, records maintained by the Depositary for the related global debt security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer or pledge beneficial interests in book-entry debt securities.

So long as the Depositary for a global debt security, or its nominee, is the registered owner of that global debt security, the Depositary or its nominee, as the case may be, will be considered the sole owner or holder of the book-entry debt securities represented by such global debt security for all purposes under the indenture. Except as described herein, beneficial owners of book-entry debt securities will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of a certificate in definitive form representing securities and will not be considered the owners or holders of those securities under the indenture. Accordingly, to exercise any rights of a holder under the indenture, each person beneficially owning book-entry debt securities must rely on the procedures of the Depositary for the related global debt security and, if that person is not a participant, on the procedures of the participant through which that person owns its interest.

We understand, however, that under existing industry practice, the Depositary will authorize the persons on whose behalf it holds a global debt security to exercise certain rights of holders of debt securities, and the indenture provides that we, the trustee and our respective agents will treat as the holder of a debt security the persons specified in a written statement of the Depositary with respect to that global debt security for purposes of obtaining any consents or directions required to be given by holders of the debt securities pursuant to the indenture.

We will make payments of principal of, and premium and interest on book-entry debt securities to the Depositary or its nominee, as the case may be, as the registered holder of the related global debt security. We, the trustee and any other agent of ours or agent of the trustee will not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that the Depositary, upon receipt of any payment of principal of, premium or interest on a global debt security, will immediately credit participants' accounts with payments in amounts proportionate to the respective amounts of book-entry debt securities held by each participant as shown on the records of the Depositary. We also expect that payments by participants to owners of beneficial interests in book-entry debt securities held through those participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of those participants.

We will issue certificated debt securities in exchange for each global debt security if the Depositary is at any time unwilling or unable to continue as Depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor Depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days. In addition, we may at any time and in our sole discretion determine not to have any of the book-entry debt securities of any series represented by one or more global debt securities and, in that event, we will issue certificated debt securities in exchange for the global debt securities of that series. Global debt securities will also be exchangeable by the holders for certificated debt securities if an event of default with respect to the book-entry debt securities represented by those global debt securities has occurred and is continuing. Any certificated debt securities issued in exchange for a global debt security will be registered in such name or names as the Depositary shall instruct the trustee. We expect that such instructions will be based upon directions received by the Depositary from participants with respect to ownership of book-entry debt securities relating to such global debt security.

We have obtained the foregoing information in this section concerning the Depositary and the Depositary's book-entry system from sources we believe to be reliable. We take no responsibility for the Depositary's performance of its obligations under the rules and regulations governing its operations.

No Protection in the Event of a Change in Control

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Covenants

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any restrictive covenants, including covenants restricting us or any of our subsidiaries from incurring, issuing, assuming or guarantying any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting us or any of our subsidiaries from entering into any sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we provide otherwise in the applicable prospectus supplement, we may not consolidate with or merge into, or convey, transfer or lease all or substantially all of our properties and assets to, any person (a successor person), and we may not permit any person to merge into, or convey, transfer or lease its properties and assets substantially as an entirety to us, unless:

- the successor person is a corporation, partnership, trust or other entity organized and validly existing under the laws of any United States domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture;
- immediately after giving effect to the transaction, no event of default, and no event which, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and
- certain other conditions are met.

Events of Default

Unless we provide otherwise in the applicable prospectus supplement, event of default means, with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of such payment is deposited by us with the trustee or with a paying agent before the expiration of the 30-day period);
- default in the payment of principal of or premium on any debt security of that series when due and payable;
- default in the deposit of any sinking fund payment, when and as due in respect of any debt security of that series;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of

60 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of at least 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;

- certain events of our bankruptcy, insolvency or reorganization; and
- any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement accompanying this prospectus.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. An event of default may also be an event of default under our bank credit agreements or other debt securities in existence from time to time and under certain guaranties by us of any subsidiary indebtedness. In addition, certain events of default or an acceleration under the indenture may also be an event of default under some of our other indebtedness outstanding from time to time.

Unless we provide otherwise in the applicable prospectus supplement, if an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing (other than certain events of our bankruptcy, insolvency or reorganization), then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by written notice to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of and accrued and unpaid interest, if any, of all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, of all outstanding debt securities will become and be immediately due and payable without any declaration or other act by the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before the trustee has obtained a judgment or decree for payment of the money due, the holders of a majority in principal amount of the outstanding debt securities of that series may, subject to our having paid or deposited with the trustee a sum sufficient to pay overdue interest and principal which has become due other than by acceleration and certain other conditions, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. For information as to waiver of defaults, see the discussion under the heading *Modification and Waiver* in this prospectus. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of the discount securities upon the occurrence of an event of default and the continuation of an event of default.

Unless we provide otherwise in the applicable prospectus supplement, the indenture will provide that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

Unless we provide otherwise in the applicable prospectus supplement, no holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and

- the holders of at least 25% in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute such proceeding as trustee, and the trustee shall not have received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 90 days after the end of our fiscal year, to furnish to the trustee a certificate as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

Unless we provide otherwise in the applicable prospectus supplement, we and the trustee may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We and the trustee may not make any modification or amendment without the consent of the holder of each affected debt security then outstanding if that amendment will:

- change the amount of debt securities whose holders must consent to an amendment or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from that acceleration);
- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities, the right of holders to institute suit for the enforcement of any payment or the right of holders to waive past defaults or to amend the limitations described in this bullet point; or
- waive a redemption payment with respect to any debt security or change any of the provisions with respect to the redemption of any debt securities.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all debt securities of that series, waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all the debt securities of that series, waive any past default under the indenture with respect to that series and its consequences, except a

default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance. The indenture provides that, unless the terms of the applicable series of debt securities provide otherwise, we may be discharged from any and all obligations in respect of the debt securities of any series (except for certain obligations to register the transfer or exchange of debt securities of the series, to replace stolen, lost or mutilated debt securities of the series, and to maintain paying agencies and certain provisions relating to the treatment of funds held by paying agents). We will be so discharged upon the deposit with the trustee, in trust, of money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations (as described at the end of this section), that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of such payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an officers' certificate and an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that holders of the debt securities of such series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants. The indenture provides that, unless the terms of the applicable series of debt securities provide otherwise, upon compliance with certain conditions, we may omit to comply with the restrictive covenants contained in the indenture, as well as any additional covenants contained in a supplement to the indenture, a board resolution or an officers' certificate delivered pursuant to the indenture. The conditions include:

- depositing with the trustee money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and
- delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax in the same amount and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default. If we exercise our option, as described above, not to comply with certain covenants of the indenture with respect to any series of debt securities, and the debt

securities of that series are declared due and payable because of the occurrence of any event of default, the amount of money and/or United States government obligations or foreign government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the event of default. However, we will remain liable for those payments.

Foreign government obligations means, with respect to debt securities of any series that are denominated in a currency other than United States dollars:

- direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged, which are not callable or redeemable at the option of the issuer thereof; or
- obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

DESCRIPTION OF WARRANTS

We may issue warrants, including warrants to purchase preferred stock, common stock or other securities or any combination of the foregoing. Warrants may be issued independently or as part of a unit with any other securities and may be attached to or separate from the underlying securities. The warrants will be issued under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, as detailed in the prospectus supplement relating to warrants being offered.

A prospectus supplement relating to any warrants being offered will include specific terms relating to the offering, including a description of any other securities sold together with the warrants. These items will include:

- the title of the warrants;
- the aggregate number of the warrants;
- the price or prices at which the warrants will be issued;
- the currencies in which the price or prices of the warrants may be payable;
- the designation, amount, and terms of the common stock, preferred stock or other securities or rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies or indices, purchasable upon exercise of the warrants and procedures by which those numbers may be adjusted;
- the designation and terms of the other offered securities, if any, with which the warrants are issued and the number of the warrants issued with each security;
- if applicable, the date on and after which the warrants and the offered securities purchasable upon exercise of the warrants will be separately transferable;
- the price or prices at which the offered securities purchasable upon exercise of the warrants may be purchased;
- the date on which the right to exercise the warrants shall commence and the date on which the right shall expire;

- the minimum or maximum amount of the warrants that may be exercised at any one time;
- any terms relating to the modification of the warrants;
- information with respect to book-entry procedures, if any;
- a discussion of any material federal income tax considerations; and
- any other material terms of the warrants, including terms, procedures, and limitations relating to the transferability, exchange, exercise or redemption of the warrants.

Warrants issued for securities other than common stock or preferred stock will not be exercisable until at least one year from the date of sale of the warrant.

The descriptions of the warrant agreements in this prospectus and in any prospectus supplement are summaries of the applicable provisions of the applicable agreements. These descriptions do not restate those agreements in their entirety and do not contain all of the information that you may find useful. We urge you to read the applicable agreements because they, and not the summaries, define your rights as holders of the warrants. For more information, please review the form of the relevant agreements, which will be filed with the SEC promptly after the offering of the warrants or warrant units and will be available as described under the heading "Where You Can Find More Information" in this prospectus.

DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The units may be issued under units agreements to be entered into between us and a bank or trust company, as unit agent, as detailed in the prospectus supplement relating to units being offered. The prospectus supplement will describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances the securities comprising the units may be held or transferred separately;
- a description of the terms of any unit agreement governing the units;
- a description of the provisions for the payment, settlement, transfer or exchange of the units;
- a discussion of material federal income tax considerations, if applicable; and
- whether the units will be issued in fully registered or global form.

The descriptions of the units in this prospectus and in any prospectus supplement are summaries of the material provisions of the applicable agreements. These descriptions do not restate those agreements in their entirety and may not contain all the information that you may find useful. We urge you to read the applicable agreements because they, and not the summaries, define your rights as holders of the units. For more information, please review the form of the relevant agreements, which will be filed with the SEC promptly after the offering of units and will be available as described under the heading "Where You Can Find More Information" in this prospectus.

PLAN OF DISTRIBUTION

We may sell any of the securities being offered pursuant to this prospectus:

- directly to purchasers;
- to or through underwriters;
- through dealers or agents; or
- through a combination of methods.

We may distribute the securities from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at negotiated prices. We may also determine the price or other terms of the securities offered under this prospectus by use of an electronic auction.

The prospectus supplement with respect to the securities being offered will set forth the terms of the offering, including the names of the underwriters, dealers or agents, if any, the purchase price of the securities, the net proceeds to us, any underwriting discounts and other items constituting underwriters' compensation, any discounts or concessions allowed or reallocated or paid to dealers and any securities exchanges on which the securities may be listed. Also, if applicable, we will describe in the prospectus supplement how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the underwriters' obligations with respect to the auction.

If underwriters are used in an offering, we will sign an underwriting agreement with the underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all of the offered securities if any are purchased.

If dealers are used in an offering, we will sell the securities to the dealers as principals. The dealers then may resell the securities to the public at varying prices which they determine at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

The securities may be sold directly by us or through agents we designate. If agents are used in an offering, the names of the agents and the terms of the agency will be specified in a prospectus supplement. Unless otherwise indicated in a prospectus supplement, the agents will act on a best-efforts basis for the period of their appointment.

Dealers and agents named in a prospectus supplement may be deemed to be underwriters (within the meaning of the Securities Act of 1933) of the securities described therein. In addition, we may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act of 1933 with respect to any resales thereof.

Underwriters, dealers and agents may be entitled to indemnification by us against specific civil liabilities, including liabilities under the Securities Act of 1933 or to contribution with respect to payments which the underwriters or agents may be required to make in respect thereof, under underwriting or other

agreements. Certain underwriters, dealers or agents and their associates may engage in transactions with, and perform services for us in the ordinary course of business.

Each series of securities is expected to be a new issue of securities with no established trading market, other than the common stock which is listed on the Nasdaq Global Market. Any common stock sold pursuant to a prospectus supplement will be eligible for listing and trading on the Nasdaq Global Market, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than the common stock, may or may not be listed on a national securities exchange or eligible for quotation and trading on Nasdaq.

LEGAL MATTERS

Winthrop & Weinstine, P.A., Minneapolis, Minnesota, is giving an opinion on validity of the securities being offered by this prospectus.

EXPERTS

The consolidated financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2005 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

3,000,000 Shares

VITAL IMAGES, INC.

Common Stock

PROSPECTUS SUPPLEMENT

Piper Jaffray

Wachovia Securities

Jefferies & Company

Thomas Weisel Partners LLC

November 16, 2006

