

NUMERICAL TECHNOLOGIES INC

Form S-8

October 30, 2002

Table of Contents

As filed with the Securities and Exchange Commission on October 30, 2002  
Registration No. 333-

---

## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

---

### FORM S-8

(including registration of shares for  
resale by means of a Form S-3 Prospectus)

## REGISTRATION STATEMENT

*Under*

*The Securities Act of 1933*

---

## NUMERICAL TECHNOLOGIES, INC.

(Exact name of Registrant as specified in its charter)

---

Delaware  
(State of incorporation)

94-3232104  
(I.R.S. Employer Identification Number)

70 West Plumeria Drive  
San Jose, California 95134  
(Address, including zip code, of principal executive offices)

---

2001 Nonstatutory Stock Option Plan  
(Full Title of the Plan)

---

Larry Hollatz  
President and Chief Executive Officer  
Numerical Technologies, Inc.  
70 West Plumeria Drive  
San Jose, California 95134  
(Name and address of agent for service)

---

(408) 919-1910  
(Telephone number, including area code, of agent for service)

---

*Copies to:*  
John V. Roos, Esq.

**Wilson Sonsini Goodrich & Rosati  
Professional Corporation  
650 Page Mill Road  
Palo Alto, CA 94304**

---

**CALCULATION OF REGISTRATION FEE**

---

<b>Title of Securities to be Registered</b>	<b>Amount to be Registered(1)</b>	<b>Proposed Maximum Offering Price Per Share(2)</b>	<b>Proposed Maximum Aggregate Offering Price(2)</b>	<b>Amount of Registration Fee</b>
Common Stock, \$0.001 par value	3,099,999	\$3.835	\$11,888,496.17	\$1,093.74

---

- (1) Pursuant to Rule 429 of the Securities Act, the prospectus delivered to participants under the Registrant's 2001 Nonstatutory Stock Option Plan (the "2001 NSO Plan") also relates to 1,000,000 shares previously registered under Form S-8 Registration No. 333-71816. The Amount to be Registered includes (i) 2,000,000 shares to be registered under the 2001 NSO Plan and (ii) the resale of 1,099,999 shares to be registered that were initially issued upon the exercise of stock options granted under the Registrant's 2000 Plan.
- (2) Estimated pursuant to Rule 457(c) under the Securities Act whereby the per share price was determined by reference to the average between the high and low price reported in the Nasdaq National Market on October 23, 2002, which average was \$3.835.
-

Table of Contents

PROSPECTUS

**1,099,999 Shares**

**NUMERICAL TECHNOLOGIES, INC.**

**Common Stock**

---

This Prospectus relates to 1,099,999 shares of the common stock of Numerical Technologies, Inc. (the **Shares** ), which may be offered from time to time by the selling stockholders of the Company (the **Selling Stockholders** ). We will receive no part of the proceeds from sales of the Shares. The Shares were acquired by the Selling Stockholders under our 2000 Stock Plan.

Our common stock is listed on the Nasdaq National Market under the symbol **NMTC**. Our common stock was initially sold to the public at a price of \$14.00 per share on April, 6, 2000. On October 29, 2002, the last reported sale price for our common stock on the Nasdaq National Market was \$4.03 per share.

---

You should review carefully the **Risk Factors** beginning on page 3 for information that should be considered by prospective investors.

---

**NEITHER THE SECURITIES AND EXCHANGE COMMISSION (THE **COMMISSION** ) NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.**

---

The date of this Prospectus is October 30, 2002.

**Table of Contents**

**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain information contained, referred to or incorporated by reference in this prospectus is forward-looking in nature. All statements included, referred to or incorporated by reference in this prospectus, other than statements of historical fact, are forward-looking statements. Examples of forward-looking statements include statements regarding our future financial results, operating results, business strategies, projected costs, products, competitive positions and plans and objectives of management for future operations. In some cases, forward-looking statements can be identified by terminology such as may, will, should, would, expects, plans, anticipates, believes, estimates, predicts, potentially, and other similar terms, or negative of these terms or other comparable terminology. Any expectations based on these forward-looking statements are subject to risks and uncertainties and other important factors, including without limitation those under Risk Factors in this prospectus. These and many other factors could affect our future financial and operating results, and could cause actual results to differ materially from current expectations.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements. We are under no duty to update any of the forward-looking statements after the date of this prospectus to conform these statements to actual results.

**Table of Contents****INFORMATION REQUIRED IN FORM S-3 PROSPECTUS****PART I****Item 3.****PROSPECTUS SUMMARY**

We are a leading commercial provider of proprietary technologies and software products that enable the design and manufacture of subwavelength semiconductors. We offer a comprehensive solution that enables the production of smaller, faster and cheaper semiconductors using existing equipment. This solution enables our customers and industry partners to realize increased return-on-investment, and deliver new high-performance semiconductors more quickly.

Our patented phase-shifting technology, combined with our proprietary optical proximity correction, or OPC, and process modeling technologies form the foundation of our subwavelength solution. Our comprehensive subwavelength solution integrates these technologies into each key stage of semiconductor manufacturing, including physical design, design verification, manufacturing data preparation, photomask manufacturing inspection and photolithography, to form an integrated design-to-silicon flow. We believe that our technology leadership and relationships with leading companies within the semiconductor industry will drive the adoption of our solutions as the industry standard.

We have currently licensed our proprietary technologies for production use to Intel, Fujitsu, Motorola, Texas Instruments and United Microelectronics Corporation, or UMC. MIT Lincoln Laboratories, a research facility, has demonstrated the future potential of our proprietary technologies by producing 0.009-micron features. Our other industry partners and customers include Applied Materials, Cadence, Canon, Dai Nippon Printing, DuPont Photomask, KLA-Tencor, Nikon, Photronics, Simplex, Taiwan Semiconductor Manufacturing Company, or TSMC, Toshiba and Zygo.

Our principal executive officers are located at 70 West Plumeria Drive, San Jose, California 95134 and our telephone number is (408) 919-1910.

**Adoption of Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets**

In July 2001, Financial Accounting Standards Board ( FASB ) issued Statement of Financial Accounting Standards ( SFAS ) No. 142, Goodwill and Other Intangible Assets , which was effective for years beginning after December 15, 2001. SFAS No. 142 requires, among other things, the discontinuance of goodwill amortization. In addition, the standard includes provisions upon adoption for the reclassification of certain existing recognized intangible assets as goodwill, reassessment of the useful lives of existing recognized intangible assets, reclassification of certain intangible assets out of previously reported goodwill and the testing for impairment of existing goodwill and other intangibles. The Company adopted SFAS No. 142 effective as of January 1, 2002 and upon adoption ceased to amortize goodwill. The Company recorded approximately \$37,850,000 of goodwill amortization during 2001.

On adoption of SFAS No. 142 the Company determined that its operations represent a single reporting unit. The Company completed an impairment review of the goodwill associated with its reporting unit during the three-month period ended March 31, 2002. The Company compared the fair value of its reporting unit at January 1, 2002 to the carrying value including goodwill for the unit at January 1, 2002, and determined that the carrying value, including goodwill, did not exceed the unit's fair value. As a result no impairment charge was required on adoption.

Upon adoption of SFAS No. 142 on January 1, 2002 workforce was reclassified to goodwill.

The following table presents net loss (in thousands) and basic and diluted net loss per share as if the goodwill had not been amortized during the periods presented.

	Year ended December 31,		
	2001	2000	1999
Reported net loss allocable to stockholders	\$ (53,433)	\$ (49,589)	\$ (8,828)
Add back: goodwill amortization	37,850	17,043	
Add back: workforce amortization, net of taxes	765	315	
Adjusted net loss	\$ (14,818)	\$ (32,231)	\$ (8,828)

Basic and diluted net loss per share:

Edgar Filing: NUMERICAL TECHNOLOGIES INC - Form S-8

Reported net loss per share	\$ (1.76)	\$ (2.27)	\$ (1.26)
Goodwill amortization	1.24	0.78	
Workforce amortization, net of taxes	0.03	0.01	
	<u>          </u>	<u>          </u>	<u>          </u>
Adjusted net loss per share	\$ (0.49)	\$ (1.48)	\$ (1.26)
	<u>          </u>	<u>          </u>	<u>          </u>

**Table of Contents**

**RISK FACTORS**

*This offering and any investment in our common stock involve a high degree of risk. You should carefully consider the risks described below and all of the information contained in this prospectus before deciding whether to purchase our common stock. If any of the following risks actually occur, our business, financial condition and results of operations could be harmed. The trading price of our common stock could decline, and you may lose all or part of your investment in our common stock.*

**Factors Which May Affect Our Future Results**

**If the key markets within the semiconductor industry, especially semiconductor manufacturers, do not adopt our proprietary technologies and software products, we may be unable to generate sales of, and derive revenue from, our products.**

If the four key markets within the semiconductor industry, which we believe are semiconductor manufacturing, semiconductor equipment manufacturing, photomask manufacturers and design, do not adopt our proprietary technologies and software products, our revenue could decline. We believe we design our technologies and products so that each key market within the semiconductor industry can work efficiently with the other markets. For example, if designers do not adopt our technologies and products, it will be more difficult for them to design semiconductors that are understood and processed efficiently by mask manufacturers that do adopt our technologies and products.

In addition, we believe semiconductor manufacturers need to adopt our proprietary technologies and software products first in order to drive adoption by the other three markets. Semiconductor manufacturers define and develop the manufacturing process. While designers, mask manufacturers and equipment manufacturers are not required to adopt our technologies and products in order to work with semiconductor manufacturers that do adopt them, we believe the efficiency of the manufacturing process with respect to such designers, mask manufacturers and equipment manufacturers is diminished if they do not. If we do not achieve our goal of becoming the subwavelength solution of choice, our potential customers and partners may perceive our technologies and software as less valuable and/or may make sales more difficult. Indeed, recently certain potential customers advised us that they were considering adopting an alternative technology to ours. Factors that may limit adoption of our subwavelength solution within the markets include:

the industry may develop alternative methods to produce subwavelength features with existing capital equipment due to a rapidly evolving market and the likely emergence of new technologies;

our current and potential industry partners and customers may fail to adopt our technologies and products; and

the semiconductor industry may not need subwavelength processes if there is a slowdown in semiconductor manufacturing or a decrease in the demand for smaller semiconductor feature sizes.

**We depend on the growth of the semiconductor industry and the current economic slowdown in this industry may cause a decrease in the demand for our proprietary technologies and software products and revenue.**

We are dependent upon the general economic cycles of the semiconductor industry. Our ability to increase or even maintain our current revenue is largely dependent upon the continued demand by semiconductor manufacturers and each other key market within the semiconductor industry for integrated circuits, or ICs, and IC-related technologies. The semiconductor industry has from time to time experienced economic downturns characterized by decreased product demand, production over-capacity, price erosion, work slowdowns and layoffs. We believe the semiconductor industry is currently experiencing such an economic downturn. We cannot predict how long this downturn will continue, or how deep the downturn will be. As a result, the sales of some of our proprietary technologies and software products have decreased and may continue to decrease.

**Table of Contents**

**Defects in our proprietary technologies and software products could decrease our revenue and our competitive market share.**

Because we are frequently introducing complex new technologies and software products, we have experienced and can expect to experience reliability and efficiency issues with such new products. Moreover, in any complex new product or any enhancement to an existing product, there always exists the possibility of a product defect. Despite testing prior to introduction, our software products may contain software errors not discovered until after customer implementation. If our software products contain errors or defects, it could require us to expend significant resources to alleviate these problems, which could result in the diversion of technical and other resources from our other development efforts. If our industry partners and customers discover any defects or reliability problems after they implement our proprietary technologies and software products, such defects and/or reliability problems could significantly decrease the market acceptance and sales of our software products, which could decrease our competitive market share. Similarly, any actual or perceived defects with our proprietary technologies and software products may also hinder our ability to attract or retain industry partners or customers, leading to a decrease in our revenue.

**If we fail to protect our intellectual property rights, competitors may be able to use our technologies which could weaken our competitive position, reduce our revenue and/or increase our costs.**

Our success depends heavily upon proprietary technologies, specifically our patent portfolio. The rights granted under our patents and patent applications may not provide competitive advantages to us. In addition, litigation may be necessary to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. As a result of any such litigation, we could lose our proprietary rights and incur substantial unexpected operating costs. Litigation could also divert our resources, including our managerial and engineering resources. In addition, third parties have advised us of literature that they believe to be relevant to our patents. It is possible that this literature or literature we may be advised of in the future could negatively affect the scope or enforceability of our present or future patents and/or result in costly litigation.

We rely primarily on a combination of patents, copyrights, trademarks and trade secrets to protect our proprietary rights and prevent competitors from using our proprietary technologies in their products. These laws and procedures provide only limited protection. Our pending patent applications may not result in issued patents, and our existing and future patents may not be sufficiently broad to protect our proprietary technologies. In addition, patent protection in foreign countries may be limited or unavailable where we have filed for and need such protection. Furthermore, if we fail to adequately protect our trademark rights, this could impair our brand identity and ability to compete effectively. If we do not successfully protect our trademark rights, this could force us to incur costs to re-establish our name or our product names, including significant marketing activities.

**Because we recently replaced our Chief Executive Officer, we may face integration and transition difficulties that could impair our ability to achieve our business objectives.**

We recently hired Larry Hollatz to serve as CEO and President of the Company. In a transition to new senior management, companies can frequently expect some integration difficulties as the new manager becomes acquainted with the operations of the Company. Because Mr. Hollatz and other members of our management team have not worked together for a significant length of time, our ability to effectively and timely accomplish our business objectives could be impaired.

**We rely on a small number of customers for a substantial amount of our revenue, and if our contracts with such customers were terminated, or if the revenues we expect to receive are otherwise reduced, we would need to replace this revenue through other sources.**



## Table of Contents

Approximately 43% of our revenue for 2001 was derived from two customers, Cadence and Intel. These same two customers generated approximately 48% of our revenue for the nine months ended September 30, 2002. Of the 43% and 48% respectively, 23% and 15% was derived from two agreements with Cadence and 18% and 28% was derived from the Intel cross-license agreement alone. If any of the contracts with these customers were to be terminated or not extended or renewed, or if the revenue we expect to recognize is otherwise reduced, we could lose a material portion of our revenue. The Cadence contracts come up for renewal in January 2003 and March 2003 and revenue from the Intel contract significantly decreases beginning in 2003 and ceases completely in 2008. We are currently in negotiations with Cadence, but to date Cadence has yet to renew. As a result, in the event the Cadence contracts are not renewed and, as the Intel revenue decreases, we will need to replace such revenue with revenue from other customers by increasing the sale of our proprietary technologies and software products to our current customers and industry partners, or by entering into new contracts with new customers either of which would result in diversion of management efforts and possible increases to operating expenses, with no immediate increase in revenue. Additionally, the Intel cross-license agreement contains a change in control provision that would cause the revenue under such agreement to terminate in the event we were to be acquired without Intel's consent. Similarly, this change in control provision may serve as a disincentive for potential acquirers to pursue a take-over of our Company. The Cadence and Intel agreements may also be cancelled under certain conditions specified in those agreements.

### **If third parties assert that our proprietary technologies and software products infringe their intellectual property rights, this could injure our reputation and limit our ability to license or sell our proprietary technologies or software products.**

Third parties, for competitive or other reasons, could assert that our proprietary technologies and software products infringe their intellectual property rights. These claims could injure our reputation and decrease or block our ability to license or sell our software products. For example, on March 14, 2000, ASML MaskTools, Inc. filed a complaint alleging we infringe two U.S. patents and have committed unfair or fraudulent business practice under the California Business and Professions Code, which litigation was settled in April 2002. However there can be no assurance that other parties will not assert other claims against us. The defense of these claims could divert management's attention from the day to day operations of our company, as well as divert resources from current planned uses, such as hiring and supporting additional engineering personnel. Litigation is inherently uncertain, and an adverse decision could limit our ability to offer some product or features within a product.

In addition, we are aware of and are evaluating certain patents with which our products, patents or patent applications may conflict. If any of these patents are found to be valid, and we are unable to license such patents on reasonable terms, or if our products, patents, or patent applications are found to conflict with these patents, we could be prevented from selling our products, our patents may be declared invalid or our patent applications may not result in issued patents.

Furthermore, a company could invite us to take a patent license. If we do not take the license, the requesting company could contact our industry partners or customers and suggest that they not use our software products because we are not licensed under their patents. This action by the requesting company could affect our relationships with these industry partners and customers and may prevent future industry partners and customers from licensing our software products. The intensely competitive nature of our industry and the important nature of our technologies to our competitors' businesses may contribute to the likelihood of being subject to third party claims of this nature.

### **Our key target markets within the semiconductor industry consist of a limited number of potential customers, which may reduce our bargaining power when negotiating contracts.**

The four key markets within the semiconductor industry to which we currently target our proprietary technologies and software solutions consist of a limited number of customers, which tends to result in fewer numbers of orders where the orders tend to be larger in size. We believe that this may reduce our bargaining power in negotiating contracts and may limit our revenue growth.

In addition, in recent years there has been consolidation in the semiconductor industry and we expect this trend to continue, which will further reduce our potential customer base and, thus, could further reduce our bargaining power with these customers. Additionally, if existing customers who have adopted our technologies are acquired, the acquiring companies may not wish to incorporate our technologies and may cancel or not renew our contracts, resulting in a loss of revenue.

**Table of Contents**

**The market for software solutions that address the subwavelength gap problem is new and rapidly evolving. We expect competition to intensify in the future, which could slow our ability to grow or execute our strategy.**

We believe that the demand for solutions to the subwavelength gap problem may encourage many competitors to enter into our market. As the market for software solutions to the subwavelength gap problem proliferates, if our competitors are able to attract industry partners or customers on a more accelerated pace than we can and retain them more effectively, we would not be able to grow and execute our strategy as quickly. In addition, if customer preferences shift away from our technologies and software products as a result of the increase in competition, we must develop new proprietary technologies and software products to address these new customer demands. This could result in the diversion of management attention or our development of new technologies and products may be blocked by other companies' patents. We must offer better products, customer support, prices and response time, or a combination of these factors, than those of our potential competitors.

**In order for potential industry partners and customers to adopt, and expend their own resources to implement, our technologies and products, we must expend significant marketing resources, with no guarantee of success.**

Our proprietary technologies and software products involve a new approach to the subwavelength gap problem. As a result, we must employ intensive and sophisticated marketing and sales efforts to educate prospective industry partners and customers about the benefits of our technologies and products. Our sales and marketing expenses were \$10.7 million for the nine months ended September 30, 2002 compared with \$10.8 million for the comparable period in 2001. In addition, even if our industry partners and customers adopt our proprietary technologies and software products, they must devote the resources necessary to fully integrate our technologies and products into their operations. This is especially true for our industry partners so that they can begin to resell and market our solution to their customers. If they do not make these expenditures, establishing our technologies and products as the industry standard to the subwavelength gap problem will be difficult.

**We have a history of losses, we expect to incur losses in the future and we may be unable to achieve profitability.**

We may not achieve profitability if our revenue increases more slowly than we expect or not at all. In addition, our operating expenses are largely fixed, and any shortfall in anticipated revenue in any given period could cause our operating results to decrease. For example, for the year ended December 31, 2001, revenue from Cadabra Design Automation, Inc, a corporation that we recently acquired, was less than anticipated and, consequently, our earnings were less than would have been achieved if Cadabra revenue had met expectations. Also, during the quarter ended June 30, 2002, the Company experienced a decrease in the demand for its products and services, reduced its expectations for future growth in revenue and cash flows and, consequently, our revenue was less and our loss greater than originally forecasted for the quarter ended June 30, 2002.

We have not been profitable in any quarter, and our accumulated deficit was approximately \$180.7 million as of September 30, 2002. We expect to continue to incur significant operating expenses in connection with increased funding for research and development and expansion of our sales and marketing efforts. In addition, we expect to incur additional non-cash charges relating to amortization of intangibles and deferred stock-based compensation. As a result, we will need to generate significant revenue to achieve and maintain profitability. If we do achieve profitability, we may be unable to sustain or increase profitability on a quarterly or annual basis.

**Due to the nature of our customer contracts, our revenue may fluctuate greatly in any given quarter or year, making predictions as to future revenue highly uncertain.**

We generate revenue through a variety of types of customer contracts, including production licenses, software licenses and research and development agreements. The specific terms of these customer contracts may

## **Table of Contents**

permit great variation in the amount of revenue that is generated under any one contract. Accordingly, our revenue may increase or decrease significantly in any given quarter or year based on the terms of our existing or future customer contracts. Thus, a contract may generate a material portion of our revenue in one quarter or year and not in the next. Factors that could affect the timing and amount of revenue recognized under our existing and future customer contracts could include:

- issues relating to renewal of the contracts including whether the contract is renewed, and changes to payment amounts at renewal of the contract;
- scheduled increases or decreases in payment amounts over the life of a given contract;
- the timing and amount of purchases of initial and additional software by our customers;
- the start date and volume of wafer production using our technology;
- the timing of customer roll-out of new fabrication facilities using our technology; and
- the completion date of research and/or development milestones.

### **The market price of our common stock has been and may continue to be volatile and could decline further.**

During the nine months ended September 30, 2002, our stock price has varied from a per share high of \$39.00 to a low of \$2.69. The market price of our common stock has fluctuated in response to factors, some of which are beyond our control, including:

- changes in market valuations of other technology companies;
- conditions or trends in the semiconductor industry;
- actual or anticipated fluctuations in our operating results;
- any deviations in net revenue or in losses from levels expected by securities analysts;
- announcements by us or our competitors of significant technical innovations, contracts, acquisitions or partnerships;
- volume fluctuations, which are particularly common among highly volatile securities of technology-related companies, or which may result from sales of our common stock by our significant stockholders, including shares sold pursuant to 10b5-1 trading plans that have been or may be implemented from time to time by our directors or officers; and
- departures of key personnel.

General political or economic conditions, such as recession or interest rate or currency rate fluctuations in the United States or abroad, also could cause the market price of our common stock to decline.

### **The fluctuations in our stock price could result in securities class action litigation that could result in substantial costs and diversion of our resources.**

Volatility in the market price of our common stock could result in securities class action litigation. Any litigation would likely result in substantial costs and a diversion of management's attention and resources. The share prices of technology companies' stocks have been highly volatile and have recently traded well below their historical highs. As a result, investors in these companies often buy the stock at high prices only to see the price drop a short time later, resulting in a drop in value in the stock holdings of these investors. Our stock may not trade at the same levels as other technology stocks, or at its historical prices.

### **Any potential dispute involving our patents or other intellectual property could include our industry partners and customers, which could trigger our indemnification obligations with them and result in substantial expense to us.**

## Table of Contents

In any potential dispute involving our patents or other intellectual property, our licensees could also become the target of litigation. This could trigger our technical support and indemnification obligations in some of our license agreements which could result in substantial expense to us. In addition to the time and expense required for us to supply such support or indemnification to our licensees, any such litigation could severely disrupt or shut down the business of our licensees, which in turn could hurt our relations with our customers and cause the sales of our proprietary technologies and software products to decrease.

**If we do not continue to introduce new technologies and software products or product enhancements ahead of rapid technological change in the market for subwavelength solutions, our operating results could decline and we could lose our competitive position.**

We must continually devote significant engineering resources to enable us to introduce new technologies and software products or product enhancements to address the evolving needs of key markets within the semiconductor industry in solving the subwavelength gap problem. We must introduce these innovations and the key markets within the semiconductor industry must adopt them before changes in the semiconductor industry, such as the introduction by our current and potential competitors of more advanced products or the emergence of alternative technologies, render the innovations obsolete, which could cause us to lose our competitive position. These innovations are inherently complex and require long development cycles and a substantial investment before we can determine their commercial viability. Moreover, designers, mask manufacturers and equipment manufacturers must each respond to the demand of the market to design and manufacture masks and equipment for increasingly smaller and complex semiconductors. Our innovations must be viable and meet the needs of these key markets within the semiconductor industry before the consumer market demands even smaller semiconductors, rendering the innovations obsolete. We may not have the financial resources necessary to fund any future innovations. In addition, any revenue that we receive from enhancements or new generations of our proprietary technologies and software products may be less than the costs of development.

**Because of our limited operating history and our dependence on new technologies, any predictions about our future revenues and expenses may not be as accurate as they would be if we had a longer business history, and it is difficult to evaluate trends that may affect our business.**

We were incorporated in October 1995, and in February 1997, we shipped our initial software product, IC Workbench. Our limited operating history makes financial forecasting and evaluation of our business difficult. Since we have limited financial data, any predictions about our future revenue and expenses may not be as accurate as they would be if we had a longer business history. Because of our dependence on our development and industry acceptance of new technology, it is difficult to evaluate trends that may affect our business.

**Many of our current competitors have longer operating histories and significantly greater financial, technical, marketing and other resources than we do and as a result, they may acquire a significant market share before we do.**

Our current competitors, or alliances among these competitors, may rapidly acquire significant market share. These competitors may have greater name recognition and more customers which they could use to gain market share to our detriment. We encounter direct competition from other direct providers of phase shifting, optical proximity correction, or OPC, manufacturing data and automated layout creation technologies. These competitors include such companies as Mentor Graphics, Prolific, Inc., and Synopsys. We also compete with companies that have developed or have the ability to develop their own proprietary phase shifting and OPC solutions, such as IBM, Infineon and AMD. These companies may wish to promote their internally developed products and may be reluctant to purchase products from us or other independent vendors. Our competitors may offer a wider range of products than we do and thus may be able to respond more quickly to new or changing opportunities, technologies and customer requirements. These competitors may also be able to undertake more extensive promotional activities, offer more attractive terms to customers than we do and adopt more aggressive pricing policies. Moreover, our competitors may establish relationships among themselves or with industry partners to enhance their services, including industry partners with which we may desire to establish a relationship.

## **Table of Contents**

### **We intend to pursue new, and maintain our current, industry partner relationships, which could result in substantial expenditures of management attention and resources, with no guarantee of success.**

We expect to derive significant benefits, including increased revenue and customer awareness, from our current and potential industry partner relationships. In our pursuit to maintain and establish partner relationships within each of the key markets in the semiconductor industry, we could expend significant management attention, resources and sales personnel efforts, with no guarantee of success. To establish and maintain our partner relationships, we expend our limited financial resources on increasing our sales and business development personnel, trade shows and marketing within trade publications. If we did not have to pursue potential industry partners, we could focus these resources exclusively on direct sales to our customers. In addition, through our partner relationships, our partners resell, market, either jointly with us or unilaterally, and promote our technologies and products. If these relationships terminate, such as due to our material breach of the contracts or the partners election to cancel the contract, which generally is permissible with prior notice to us, we would have to increase our own limited marketing and sales resources for these activities. Further, we may be unable to enter into new industry partner relationships if any of the following occur:

current or potential industry partners develop their own solutions to the subwavelength gap problem; or

our current or potential competitors establish relationships with industry partners with which we seek to establish a relationship.

We have only recently entered into some of our current partner relationships. These relationships may not continue or they may not be successful. We also may be unable to find additional suitable industry partners.

### **We may be unable to consummate other potential acquisitions or investments or successfully integrate them with our business, which may slow our ability to expand the range of our proprietary technologies and software products.**

To expand the range of our proprietary technologies and software products, in 2000 we acquired Transcription and Cadabra, and we may acquire or make investments in additional complementary businesses, technologies or products if appropriate opportunities arise. We may be unable to identify suitable acquisition or investment candidates at reasonable prices or on reasonable terms, or consummate future acquisitions or investments, each of which could slow our growth strategy. For example, in the second quarter of 2002, we were unable to complete an acquisition, which contributed to our revenue being less than forecast. If we do acquire additional companies or make other types of acquisitions, we may have difficulty integrating the acquired products, personnel or technologies. These difficulties could disrupt our ongoing business, distract our management and employees and increase our expenses. In addition, any amortization of other intangible assets or impairment of goodwill or other assets or other charges resulting from the costs of acquisitions could harm our operating results.

### **We rely on the services of our founders and other key personnel, whose knowledge of our business and technical expertise would be difficult to replace.**

Our future success depends to a significant extent on the skills, experience and efforts of our senior management. In particular, we depend upon the continued services of our co-founders Y. C. (Buno) Pati and Yao-Ting Wang, whose vision of our company, knowledge of our business and technical expertise would be difficult to replace. On August 1, 2002, Larry Hollatz replaced Dr. Pati as our President and Chief Executive Officer. Dr. Pati is currently on a leave of absence, but remains on our Board of Directors. Dr. Wang continues as our Chief Technology Officer. We do not have long-term employment agreements with our senior management, and we do not maintain any key person life insurance policies on any of their lives. If any of our key employees left or was seriously injured and unable to work and we were unable to find a qualified replacement, it could slow our product development processes or we could otherwise have difficulty executing our business strategy.

### **Fluctuations in our quarterly operating results may cause our stock price to decline.**

It is likely that our future quarterly operating results may fluctuate from time to time and may not meet the expectations of securities analysts and investors in some future period. As a result, the price of our common stock

## **Table of Contents**

could decline. Historically, our quarterly operating results have fluctuated. We may experience significant fluctuations in future quarterly operating results. The following factors may cause these fluctuations:

- our acquisition of Transcription and Cadabra, as well as future potential acquisitions by us;
- the timing and structure of our technology and/or product license agreements; and
- changes in the level of our operating expenses to support our projected growth.

### **The accounting rules regarding revenue recognition may cause fluctuations in our revenue independent of our booking position.**

The accounting rules we are required to follow require us to recognize revenue only when certain criteria are met. As a result, for a given quarter it is possible for us to fall short in our revenue and/or earnings estimates even though total orders are according to our plan or, conversely, to meet our revenue and/or earnings estimates even though total orders fall short of our plan, due to revenue produced by deferred revenue. Orders for software support and professional services yield revenue over multiple quarters, often extending beyond the current fiscal year, or upon completion of performance, rather than at the time of sale. The specific terms agreed to with a customer and/or any changes to the rules interpreting such terms may have the effect of requiring deferral of product revenue in whole or in part or, alternatively, of requiring us to accelerate the recognition of such revenue for products to be used over multiple years.

### **We face operational and financial risks associated with international operations.**

We derive a significant portion of our revenue from international sales. For the nine months ended September 30, 2002, compared to the nine months ended September 30, 2001, the breakdown of our revenue by geographic region, as a percentage of our total revenue, was North America, 73% and 68%, Asia, 21% and 24%, Europe, 4% and 5%, and other, 2% and 3%, respectively. In addition, as a result of our acquisition of Cadabra, a Nova Scotia limited liability company, 44 of our 223 employees as of September 30, 2002 were located in Ontario, Canada. We have only limited experience in developing, marketing, selling and supporting our proprietary technologies and software products, and managing our employees and operations, internationally. We may not succeed in maintaining or expanding our international operations, which could slow our revenue growth. We are subject to risks inherent in doing business in international markets. These risks include:

- fluctuations in exchange rates which may negatively affect our operating results;
- export controls which could prevent us from shipping our software products into and from some markets;
- changes in import/export duties and quotas could affect the competitive pricing of our software products and reduce our market share in some countries;
- compliance with and unexpected changes in a wide variety of foreign laws and regulatory environments with which we are not familiar;
- greater difficulty in collecting accounts receivable resulting in longer collection periods; and
- economic or political instability.

We may be unable to continue to market our proprietary technologies and software products successfully in international markets.

**We may need to raise additional funds to support our growth or execute our strategy and if we are unable to do so, we may be unable to develop or enhance our proprietary technologies and software products, respond to competitive pressures or acquire desired businesses or technologies.**

## **Table of Contents**

We currently anticipate that our available cash resources will be sufficient to meet our presently anticipated working capital and capital expenditure requirements for at least the next 12 months. However, we may need to raise additional funds in order to:

- support more rapid expansion;
- develop new or enhanced products;
- respond to competitive pressures; or
- acquire complementary businesses technologies.

These factors will impact our future capital requirements and the adequacy of our available funds. We may need to raise additional funds through public or private financings, strategic relationships or other arrangements.

### **We have grown rapidly and must effectively manage and support our growth in order for our business strategy to succeed.**

We have grown rapidly and will need to continue to grow in all areas of operation. If we are unable to successfully integrate and support our existing and new employees, including those employees added as a result of acquisitions, into our operations, we may be unable to implement our business strategy in the time frame we anticipate, or at all. In addition, building and managing the support necessary for our potential growth places significant demands on our management as well as our limited revenue. These demands have, and may continue to, divert these resources away from the continued growth of our business and implementation of our business strategy. Further, we must adequately train our new personnel, especially our technical support personnel, to adequately, and accurately, respond to and support our industry partners and customers. If we fail to do this, it could lead to dissatisfaction among our partners or customers, which could slow our growth.

### **We must continually attract and retain engineering personnel or we will be unable to execute our business strategy.**

We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled engineers with appropriate qualifications to support our rapid growth and expansion. We must continually enhance and introduce new generations of our phase shifting and OPC technologies. As a result, our future success depends in part on our ability to identify, attract, retain and motivate qualified engineering personnel with the requisite educational background and industry experience. If we lose the services of a significant number of our engineers, it could disrupt our ability to implement our business strategy. Competition for qualified engineers is intense, especially in the Silicon Valley where our headquarters are located.

### **We have anti-takeover defenses that could delay or prevent an acquisition of our Company.**

Provisions of our Certificate of Incorporation, Bylaws and Delaware Law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders. For example:

Section 203 of the Delaware General Corporation Law generally prohibits a Delaware corporation from engaging in any business combination with a person owning 15% of more of its voting stock, or who is affiliated with the corporation and owned 15% or more of its voting stock at any time within three years prior to the proposed business combination, for a period of three years from the date the person became a 15% owner, unless specified conditions are met.

Our Certificate of Incorporation allows our Board of Directors to issue, at any time and without stockholder approval, preferred stock with such terms as it may determine. No shares of preferred stock are currently outstanding. However, the rights of holders of any Numerical preferred stock that may be issued in the future may be superior to the rights of holders of its common stock.

## **Table of Contents**

All or any of these factors could limit the price certain investors would be willing to pay for our common stock and could delay, prevent or allow our Board of Directors to resist an acquisition, even if the proposed transaction was favored by a majority of our independent stockholders.

### **Online security breaches could result in harm to our business operations and expose us to risk of loss, litigation or liability.**

The secure transmission of confidential information over computer networks is essential to the success of our business. Because the techniques used by computer hackers to access or sabotage networks change frequently and generally are not recognized until launched against a target, we may not be able to anticipate attacks against us in advance. We incur substantial expense to protect against and remedy security breaches and their consequences, but we may not be able to prevent all such security breaches. Moreover, our insurance policies may not be adequate to reimburse us for losses caused by such security breaches. Any misappropriation of confidential information, whether during the transmission of data or while it is stored on our servers could harm us in the following ways:

we may have to indemnify clients for loss of their confidential information;

because our software is distributed electronically, an attack could cause disruption in the distribution of our products, including maintenance upgrades that we provide to our customers;

we may suffer theft of our intellectual property, including trade secrets and copyrighted code; and

we may suffer disruption in the areas of product development, research, and operations.

### **Terrorist attacks, such as the attacks that occurred in New York and Washington, D.C. on September 11, 2001, and other acts of violence or war may affect the markets in which we operate, our operations and our profitability.**

Terrorist attacks may negatively effect our operations. These attacks or armed conflicts may directly impact our physical facilities or those of our suppliers or customers, which could result in higher expenses and/or lower revenue. Furthermore, these attacks may make travel of our sales and support staff more difficult and more expensive and ultimately affect the sales of our products.

Also as a result of terrorism, the United States has entered into an armed conflict, which could have a further impact on our domestic and international sales. Political and economic instability in some regions of the world may also result and could negatively impact our business.

### **Our operations are primarily located in California and, as a result, are subject to power loss and other natural disasters.**

Our business operations depend on our ability to maintain and protect our facilities, computer systems and personnel, which are primarily located in or near our principal headquarters in San Jose, California. In the spring of 2001, California experienced power outages due to a shortage in the supply of power within the state. In the event of an acute power shortage, California has on some occasions implemented, and may in the future continue to implement, rolling blackouts throughout California. We currently do not have backup generators or alternate sources of power in the event of a blackout, and our current insurance does not provide coverage for any damages we or our customers or industry partners may suffer as a result of any interruption in our power supply. If blackouts interrupt our power supply, we would be temporarily unable to continue operations at our facilities. Any such interruption in our ability to continue operations at our facilities could damage our reputation, harm our ability to retain existing customers and industry partners, or obtain new customers or industry partners, and could result in loss of revenue. Furthermore, the deregulation of the energy industry in California has caused power prices to increase. If wholesale prices continue to increase, our operating expenses will likely increase. In addition, San Jose exists on or near a known earthquake fault zone. Our facilities are susceptible to damage from



**Table of Contents**

earthquakes and other natural disasters, such as fires, floods and similar events. Although we maintain general business insurance against fires and some general business interruptions, there can be no assurance that the amount of coverage will be adequate in any particular case.

**You should rely only on the information contained in or incorporated by reference in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. The Selling Stockholders are offering to sell Shares and seeking offers to buy Shares only in jurisdictions where offers and sales are permitted. The information contained in or incorporated by reference in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of the Shares.**

**WHERE YOU CAN FIND ADDITIONAL INFORMATION**

We file annual, quarterly and special reports, proxy statements and other information with the Commission in accordance with the Securities and Exchange Act of 1934 (the Exchange Act ). Our filings are available to the public over the Internet at the SEC's Web site at <http://www.sec.gov>, which Web site contains reports, proxy and information statements and other information regarding issuers that file electronically with the Commission. You may also read and copy the registration statement as well as any of our other filings with the SEC without charge at the Public Reference Room of the SEC at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549 or at the Commission's regional offices at Woolworth Bldg. 233 Broadway, New York, New York 10279 and Citicorp Center, Suite 1400, 500 West Madison Street, Chicago, Illinois 60661. You may obtain copies from the Public Reference Room of the Commission in Washington, D.C. upon payment of certain fees. You may call the Commission at 1-800-732-0330 for further information about the Public Reference Rooms.

This Prospectus constitutes a part of a Registration Statement on Form S-8 (including registration of shares for resale by means of a Form S-3 Prospectus) (herein, together with all amendments and exhibits, referred to as the Registration Statement ) filed by us with the Commission under the Securities Act of 1933 (the Securities Act ). This Prospectus does not contain all of the information set forth in the Registration Statement, certain parts of which are omitted in accordance with the rules and regulations of the Commission. For further information with respect to us and the Shares, refer to the Registration Statement. The Registration Statement may be inspected at the public reference facilities maintained by the Commission at the locations set forth in the preceding paragraph. Statements contained herein concerning any document filed as an exhibit are not necessarily complete, and, in each instance, refer to the copy of such document filed as an exhibit to the Registration Statement. Each such statement is qualified in its entirety by such reference.

**Item 4. Use of Proceeds**

We will not receive any of the proceeds from the sale of the Shares. All proceeds from the sale of the Shares will be for the account of the Selling Stockholders, as described below. See Selling Stockholders and Plan of Distribution described below.

**Table of Contents****Item 7. Selling Stockholders**

The following table sets forth information for the Selling Stockholders, as of September 30, 2002. Beneficial ownership is determined in accordance with the rules of the Commission and includes voting or investment power with respect to the securities. Except as indicated by footnote, and subject to applicable community property laws, each person identified in the table possesses sole voting and investment power with respect to all shares of common stock shown held by him. The number of shares of common stock outstanding used in calculating the percentage for each listed person includes shares of common stock underlying options or warrants held by such person that are exercisable within 60 calendar days of September 30, 2002, but excludes shares of common stock underlying options or warrants held by any other person. Percentage of beneficial ownership is based on 33,804,835 shares of common stock outstanding as of September 30, 2002, which such number includes 610,811 exchangeable shares issued in connection with our October 2000 acquisition of Cadabra Design Automation Inc., which shares are exchangeable for shares of our common stock at any time, on a one-for-one basis, at the option of the holder thereof. Yagyensh C. Pati is one of our directors and, until July, 2002, was our Chief Executive Officer and President. Yao-Ting Wang is our Senior Vice President and Chief Technology Officer and one of our directors. The following table shows the name of each Selling Stockholder and the number of shares of Common Stock held by him pursuant to the exercise of options granted under the Plan and able to be sold by him pursuant to this Prospectus:

Name	Shares Owned Prior to Offering		Shares to be Offered	Shares Owned After Offering	
	Number	Percentage		Number	Percentage
Yagyensh C. Pati (1)	2,547,687	7.5%	600,000	1,947,687	5.8%
Yao-Ting Wang (2)	1,949,657	5.8%	499,999	1,449,658	4.3%

- (1) Includes 12,801 shares held by the Pati Revocable Trust u/a/d 5/26/00, of which Dr. Pati serves as trustee, 29,591 shares and 12,682 shares, respectively, held by Dr. Pati as trustee of two annuity trusts and 44,926 shares held by Dr. Pati's spouse as trustee of an annuity trust. Includes 600,000 shares issued upon exercise of a stock option, 225,000 of which are subject to a repurchase option we hold as of September 30, 2002. Includes an option to purchase 54,687 shares exercisable within 60 calendar days of September 30, 2002.
- (3) Includes 499,999 shares issued upon exercise of a stock option, 187,500 of which are subject to a repurchase option we hold as of September 30, 2002. Includes 10,125 shares held by Dr. Wang's spouse. Includes 1,395,703 shares held by The Dragon Ball Living Trust u/a dated 12/19/01, of which Dr. Wang and his spouse serve as trustees. Includes an option to purchase 43,830 shares exercisable within 60 calendar days of September 30, 2002.

**Item 8. Plan of Distribution**

Each Selling Stockholder may sell all or a portion of the Shares from time to time on the Nasdaq National Market for his own account at prices prevailing in the public market at the times of such sales. Each Selling Stockholder may also make private sales directly or through one or more brokers. These brokers may act as agents or as principals. Each Selling Stockholder will pay his own sales commissions and similar expenses related to the sale of the Shares. We will pay all expenses related to the registration of the Shares.

Each Selling Stockholder and any broker executing selling orders on behalf of such Selling Stockholder may be considered an underwriter under the Securities Act. As a result, commissions received by a broker may be treated as underwriting commissions under the Securities Act. Any broker-dealer participating as an agent in that kind of transaction may receive commissions from such Selling Stockholder and from any purchaser of Shares.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act. Underwriters, dealers and agents also may be entitled to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us and the underwriters, dealers and agents.

## **Table of Contents**

Any securities covered by this Prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under that Rule rather than pursuant to this Prospectus. There can be no assurance that the Selling Stockholders will sell any or all of the Shares of Common Stock offered hereunder.

### **Item 10. Interests of Named Experts and Legal Matters**

The financial statements of Numerical Technologies, Inc. incorporated in this Prospectus by reference to the Annual Report on Form 10-K/A for the year ended December 31, 2001 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Cadabra Design Automation Inc. as at and for the years ended September 30, 2000 and 1999, included in this Prospectus by reference to our Current Report on Form 8-K filed with the Commission on November 2, 2000, as amended by our Current Report on Form 8-K/A filed on December 22, 2000, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

The validity of the Shares of Common Stock offered hereby will be passed upon by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California, our counsel. John V. Roos, a member of WSGR, owns 10,000 shares of the Company's Common Stock. In addition, an aggregate of 43,979 shares of the Company's Common Stock have been distributed to certain current and former members or employees of WSGR.

### **Item 11. Material Changes**

The financial statements of Cadabra Design Automation Inc. as at and for the years ended September 30, 2000 and 1999, are incorporated in this Prospectus by reference to our Current Report on Form 8-K filed with the Commission on November 2, 2000, as amended by our Current Report on Form 8-K/A filed on December 22, 2000.

### **Item 12. Information Incorporated by Reference**

The following documents filed with the Commission are hereby incorporated by reference in this Prospectus:

- (1) Our latest annual report on Form 10-K for the fiscal year ended December 31, 2001, as amended, filed pursuant to Section 13 of the Exchange Act.
- (2) Our quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2002 and June 30, 2002 filed pursuant to Section 13 of the Exchange Act.
- (3) The description of our Common Stock to be offered hereby is contained in our Registration Statement on Form 8-A filed with the Commission on March 20, 2000 pursuant to Section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.
- (4) All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing such documents.

**Table of Contents**

(4) The financial statements of Cadabra Design Automation Inc. as at and for the years ended September 30, 2000 and 1999, incorporated in this Prospectus are contained in our Current Report on Form 8-K filed with the Commission on November 2, 2000, as amended by our Current Report on Form 8-K/A filed with the Commission on December 22, 2000.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, other than the exhibits to those documents. You should direct any requests for documents to Attn: Investor Relations, Numerical Technologies, Inc., 70 West Plumeria Drive, San Jose, California 95134, telephone (408) 919-1910.

**Table of Contents**

**INFORMATION REQUIRED IN FORM S-8 REGISTRATION STATEMENT**

**PART II**

**Item 3. Incorporation of Documents by Reference**

The following documents and information previously filed with the Commission by us are hereby incorporated by reference in this Registration Statement:

- (1) Our latest annual report on Form 10-K for the fiscal year ended December 31, 2001, as amended, filed pursuant to Section 13 of the Exchange Act.
- (2) Our quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2002 and June 30, 2002 filed pursuant to Section 13 of the Exchange Act.
- (3) The description of our Common Stock to be offered hereby is contained in our Registration Statement on Form 8-A filed with the Securities and Exchange Commission on March 20, 2000 pursuant to Section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.
- (4) All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing such documents.
- (4) The financial statements of Cadabra Design Automation Inc. as at and for the years ended September 30, 2000 and 1999, incorporated herein are contained in our Current Report on Form 8-K filed with the Commission on November 2, 2000, as amended by our Current Report on Form 8-K/A filed with the Commission on December 22, 2000.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, other than the exhibits to those documents. You should direct any requests for documents to Attn: Investor Relations, Numerical Technologies, Inc., 70 West Plumeria Drive, San Jose, California 95134, telephone (408) 919-1910.

**Item 5. Interests of Named Experts and Counsel**

The validity of the securities registered hereby has been passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation ( WSGR ), Palo Alto, California. John V. Roos, a member of WSGR, owns 10,000 shares of the Company's Common Stock. In addition, an aggregate of 43,979 shares of the Company's Common Stock have been distributed to certain current and former members or employees of WSGR.

## **Table of Contents**

### **Item 6. Indemnification of Directors and Officers**

Our amended and restated certificate of incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable to us or our stockholders for monetary damages for breach of their fiduciary duties as directors, except for:

- any breach of the director's duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

Our bylaws require that we indemnify our directors and officers to the extent permitted by Delaware law. We may, in our discretion, indemnify other employees and agents to the extent permitted by Delaware law. We believe that indemnification under our bylaws covers at least negligence and gross negligence on the part of indemnified parties. Our bylaws also permit us to secure insurance on behalf of any of our officers, directors, employees or other agents for any liability incurred in that capacity or arising out of that status, regardless of whether indemnification is permitted under Delaware law.

We have also entered into agreements to indemnify our directors and officers. These agreements indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by them in any action or proceeding, including any action by or in the right of our company, arising out of their services as one of our directors or officers, any of our subsidiaries or any other company or enterprise to which the person provides services at our request. In addition, we have obtained directors' and officers' insurance providing indemnification for some of our directors, officers and employees for certain liabilities. We believe that these provisions, agreements and insurance are necessary to attract and retain qualified directors and officers.

The limited liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty and may reduce the likelihood of derivative litigation against our directors and officers, even though a derivative action, if successful, might otherwise benefit us and our stockholders. Moreover, a stockholder's investment in us may be adversely affected to the extent we pay the costs of settlement or damage awards against our directors and officers under these indemnification provisions.

### **Item 7. Exemption from Registration Claimed**

The 1,099,999 shares of Common Stock to be resold by the Selling Stockholders pursuant to the Prospectus prepared in accordance with Form S-3 were issued by us to the Selling Shareholders pursuant to an exemption from registration under the Securities Act by virtue of Section 4(2) thereof. Each Selling Stockholder represented that the Selling Stockholder's intentions were to acquire the securities for investment only and not with a view to distribution thereof. Each Selling Stockholder had access, by means of his relationship with us, to sufficient information to make an informed decision.

**Table of Contents****Item 8. Exhibits**

<b>Exhibit Number</b>	<b>Description</b>
4.2(1)	2001 Nonstatutory Stock Option Plan and related agreements
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C., as to legality of securities being registered
23.1	Consent of PricewaterhouseCoopers LLP, Independent Accountants.
23.2	Consent of Counsel (contained in Exhibit 5.1)
23.3	Consent of Deloitte & Touche LLP, Independent Accountants.
24.1	Power of Attorney (see Page 21)

**(1) These documents are incorporated by reference to our registration statement on Form S-8 (File No. 333-71816) filed with the Securities and Exchange Commission on October 18, 2001.**

**Item 9. Undertakings**

(a) We hereby undertake:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) We hereby undertake that, for purposes of determining any liability under the Securities Act, each filing of our annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by a director, officer or controlling person in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents

**SIGNATURES**

**Pursuant to the requirements of the Securities Act of 1933, we certify that we have reasonable grounds to believe that we meet all of the requirements for filing on Form S-8 and have duly caused this registration statement to be signed on our behalf by the undersigned, thereunto duly authorized, in the City of San Jose, State of California, on October 30, 2002.**

NUMERICAL TECHNOLOGIES, INC.

By:           /S/ LARRY  
                  HOLLATZ

**Larry Hollatz, President  
and Chief Executive  
Officer**



**Table of Contents****POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Larry Hollatz and Richard Mora, and each of them, their true and lawful attorneys and agents, with full power of substitution, each with power to act alone, to sign and execute on behalf of the undersigned any amendment or amendments to this Registration Statement on Form S-8 and to perform any acts necessary in order to file such amendments, and each of the undersigned does hereby ratify and confirm all that said attorneys and agents, or their or his or her substitutes, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
/S/ LARRY HOLLATZ <hr/> <b>Larry Hollatz</b>	Chief Executive Officer, President and Director <i>(principal executive officer)</i>	October 22, 2002
/S/ RICHARD MORA <hr/> <b>Richard Mora</b>	Chief Financial Officer and Chief Operating Officer <i>(principal financial and accounting officer)</i>	October 23, 2002
/S/ YAGYENSH PATI <hr/> <b>Yagyensh C. Pati</b>	Chairman of the Board	October 28, 2002
/S/ WILLIAM DAVIDOW <hr/> <b>William Davidow</b>	Director	October 23, 2002
/S/ ABBAS EL GAMAL <hr/> <b>Abbas El Gamal</b>	Director	October 23, 2002
/S/ HARVEY JONES <hr/> <b>Harvey Jones</b>	Director	October 23, 2002
/S/ THOMAS KAILATH <hr/> <b>Thomas Kailath</b>	Director	October 27, 2002
/S/ ROGER STURGEON <hr/> <b>Roger Sturgeon</b>	Director	October 22, 2002
/S/ YAO-TING WANG <hr/> <b>Yao-Ting Wang</b>	Director	October 23, 2002

---

**Table of Contents**

---

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in, or incorporated by reference, into this prospectus. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

---

**TABLE OF CONTENTS**

	<u>Page</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	1
<u>PROSPECTUS SUMMARY</u>	2
<u>RISK FACTORS</u>	3
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	13
<u>USE OF PROCEEDS</u>	13
<u>SELLING STOCKHOLDERS</u>	14
<u>PLAN OF DISTRIBUTION</u>	14
<u>INTERESTS OF NAMED EXPERTS AND LEGAL MATTERS</u>	15
<u>MATERIAL CHANGES</u>	15
<u>INFORMATION INCORPORATED BY REFERENCE</u>	15

---

---

---

---

**NUMERICAL  
TECHNOLOGIES, INC.  
1,099,999 Shares  
of  
Common Stock**

---

**PROSPECTUS**

---

October 30, 2002

