

NUMERICAL TECHNOLOGIES INC  
Form 10-Q  
November 13, 2002

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, DC 20549

**FORM 10-Q**

(Mark One)

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

For the quarterly period ended September 30, 2002

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 000-30005

**NUMERICAL TECHNOLOGIES, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

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

**70 West Plumeria Drive**  
**San Jose, California**  
(Address of principal executive offices)

**95134-2134**  
(Zip Code)

Registrant's telephone number, including area code: (408) 919-1910

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

The number of shares outstanding of the registrant's Common Stock, par value \$0.0001, per share as of November 10, 2002 was 33,592,731.

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## PART I FINANCIAL INFORMATION

## Item 1. Financial Statements

## NUMERICAL TECHNOLOGIES, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS  
(in thousands, except per share data)  
(unaudited)

|   | September 30,<br>2002 | December 31,<br>2001 |
|---|-----------------------|----------------------|
| <b>ASSETS</b>   |                       |                      |
| Current assets:   |                       |                      |
| Cash and cash equivalents   | \$ 30,062             | \$ 38,964            |
| Short-term investments  | 46,327                | 28,627               |
| Accounts receivable, net of allowance of \$25 and zero in 2002 and 2001, respectively | 4,863                 | 7,125                |
| Deferred tax asset  | 3,742                 | 4,110                |
| Prepaid and other   | 2,693                 | 1,494                |
|   | <u>87,687</u>         | <u>80,320</u>        |
| Total current assets  | 87,687                | 80,320               |
| Property and equipment, net   | 3,054                 | 2,885                |
| Goodwill  | 54,873                | 108,667              |
| Other intangible assets   | 11,447                | 20,077               |
| Other assets  | 305                   | 113                  |
|   | <u>157,366</u>        | <u>212,062</u>       |
|   | \$ 157,366            | \$ 212,062           |
| <b>LIABILITIES AND STOCKHOLDERS EQUITY</b>  |                       |                      |
| Current liabilities:  |                       |                      |
| Accounts payable  | \$ 1,823              | \$ 2,041             |
| Accrued expenses and other liabilities  | 5,192                 | 4,446                |
| Deferred revenue  | 11,561                | 9,034                |
|   | <u>18,576</u>         | <u>15,521</u>        |
| Total current liabilities   | 18,576                | 15,521               |
| Deferred tax liability  | 3,914                 | 7,354                |
|   | <u>3,914</u>          | <u>7,354</u>         |
| Stockholders' equity:   |                       |                      |
| Convertible preferred stock, \$0.0001 par value:                                      |                       |                      |
| Authorized: 5,000 shares;   |                       |                      |
| Issued and outstanding: none  |                       |                      |
| Common stock, \$0.0001 par value:   |                       |                      |
| Authorized: 100,000 shares;   |                       |                      |
| Issued and outstanding: 33,805 and 33,552 shares in 2002 and 2001, respectively       | 3                     | 3                    |
| Additional paid in capital  | 321,788               | 319,544              |
| Receivable from stockholders  | (3,563)               | (4,163)              |
| Deferred stock-based compensation   | (2,595)               | (6,917)              |
| Accumulated deficit   | (180,686)             | (119,184)            |
| Accumulated other comprehensive loss  | (71)                  | (96)                 |
|   | <u>134,876</u>        | <u>189,187</u>       |
| Total stockholders' equity  | 134,876               | 189,187              |
|   | <u>157,366</u>        | <u>212,062</u>       |
|   | \$ 157,366            | \$ 212,062           |

See the accompanying notes to these condensed consolidated financial statements.

## NUMERICAL TECHNOLOGIES, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)

(unaudited)

|   | Three months ended<br>September 30, |             | Nine months ended<br>September 30, |             |
|---|-------------------------------------|-------------|------------------------------------|-------------|
|   | 2002                                | 2001        | 2002                               | 2001        |
| Revenue   | \$ 11,379                           | \$ 12,824   | \$ 35,561                          | \$ 34,847   |
| Costs and expenses:   |                                     |             |                                    |             |
| Cost of revenue   | 1,187                               | 1,191       | 3,029                              | 3,294       |
| Research and development                                      | 4,502                               | 3,970       | 13,419                             | 11,780      |
| Sales and marketing   | 3,157                               | 3,385       | 10,675                             | 10,816      |
| General and administrative                                    | 2,132                               | 1,674       | 5,728                              | 5,079       |
| Depreciation and amortization                                 | 1,802                               | 12,193      | 6,064                              | 36,754      |
| Impairment of goodwill and other intangible assets            |                                     |             | 57,312                             |             |
| Stock-based compensation(*)                                   | 1,137                               | 4,525       | 4,025                              | 14,752      |
| Total costs and expenses                                      | 13,917                              | 26,938      | 100,252                            | 82,475      |
| Loss from operations  | (2,538)                             | (14,114)    | (64,691)                           | (47,628)    |
| Interest income and other                                     | 412                                 | 699         | 1,251                              | 2,238       |
| Loss before income taxes                                      | (2,126)                             | (13,415)    | (63,440)                           | (45,390)    |
| Benefit from (provision for) income taxes                     | 229                                 | (225)       | 1,938                              | 840         |
| Net Loss  | \$ (1,897)                          | \$ (13,640) | \$ (61,502)                        | \$ (44,550) |
| Net loss per common share, basic and diluted                  | \$ (0.06)                           | \$ (0.45)   | \$ (1.91)                          | \$ (1.48)   |
| Weighted average common shares outstanding, basic and diluted | 32,558                              | 30,619      | 32,216                             | 30,076      |
| (*)Stock-based compensation                                   |                                     |             |                                    |             |
| Cost of revenue   | \$ 85                               | \$ 208      | \$ 267                             | \$ 704      |
| Research and development                                      | 450                                 | 2,533       | 1,801                              | 8,000       |
| Sales and marketing   | 238                                 | 1,059       | 658                                | 3,583       |
| General and administrative                                    | 364                                 | 725         | 1,299                              | 2,465       |
|   | \$ 1,137                            | \$ 4,525    | \$ 4,025                           | \$ 14,752   |

See the accompanying notes to these condensed consolidated financial statements.

## NUMERICAL TECHNOLOGIES, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

(unaudited)

|   | For the Nine Months Ended<br>September 30, |             |
|---|--|-------------|
|   | 2002                                       | 2001        |
| Cash flows from operating activities:   |  |             |
| Net loss  | \$ (61,502)                                | \$ (44,550) |
| Adjustments to reconcile net loss to net cash provided by (used in) operating activities: |  |             |
| Depreciation  | 1,553                                      | 1,421       |
| Stock-based compensation  | 4,025                                      | 14,752      |
| Amortization of acquired intangibles  | 4,511                                      | 35,333      |
| Impairment of goodwill and other intangible assets  | 57,312                                     |             |
| Issuance of common stock in exchange for services   |  | 146         |
| Tax benefit from employee stock option plan   | 464  |             |
| Deferred tax  | (2,472)                                    | (2,156)     |
| Changes in assets and liabilities:  |  |             |
| Accounts receivable   | 2,262                                      | (1,039)     |
| Prepaid and other   | (1,199)                                    | 1,319       |
| Other assets  | (192)                                      | 204         |
| Accounts payable  | (218)                                      | (255)       |
| Accrued expenses and other liabilities  | 746  | 400         |
| Deferred revenue  | 2,527                                      | 3,734       |
| Net cash provided by operating activities   | 7,817                                      | 9,309       |
| Cash flows from investing activities:   |  |             |
| Proceeds from sales of short-term investments   | 53,454                                     | 55,978      |
| Purchase of short-term investments  | (71,154)                                   | (57,403)    |
| Purchase of property and equipment  | (1,722)                                    | (1,055)     |
| Net cash used in investing activities   | (19,422)                                   | (2,480)     |
| Cash flows from financing activities:   |  |             |
| Proceeds from exercise of common stock options  | 1,332                                      | 1,531       |
| Proceeds from employee stock purchase plan  | 1,141                                      | 1,214       |
| Repurchase of common stock  | (395)                                      | (21)        |
| Payments received on notes receivable from stockholders                                   | 600  | 282         |
| Net cash provided by financing activities   | 2,678                                      | 3,006       |
| Effect of foreign currency translation on cash flows                                      | 25   | (23)        |
| Net increase (decrease) in cash and cash equivalents                                      | (8,902)                                    | 9,812       |
| Cash and cash equivalents at beginning of period  | 38,964                                     | 30,607      |
| Cash and cash equivalents at end of period  | \$ 30,062                                  | \$ 40,419   |

See the accompanying notes to these condensed consolidated financial statements.

**NUMERICAL TECHNOLOGIES, INC.**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**(unaudited)**

**NOTE 1 GENERAL**

The unaudited condensed consolidated financial statements have been prepared by Numerical Technologies, Inc. (the Company) pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in consolidated financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, the condensed consolidated financial statements reflect all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial position, operating results and cash flows for those periods presented. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto for the years ended December 31, 2001, 2000 and 1999, included in the Company's form 10-K/A filed with the SEC on March 11, 2002. The results of operations for the interim periods are not necessarily indicative of the results that may be expected for any other period or for the fiscal year, which ends December 31, 2002.

**NOTE 2 NET LOSS PER SHARE**

Basic net loss per share is calculated using the weighted average number of common shares outstanding during the period. Diluted net loss per share is calculated using the weighted average number of common shares and common stock equivalents, if dilutive, outstanding during the period. Common stock equivalents include common shares issuable upon exercise of stock options. For the periods presented, the Company had losses and therefore all common stock equivalents are excluded from the computation of diluted net loss per share. The number of common stock equivalents which have been excluded because their effect is antidilutive is 1,690,000 and 2,260,000 for the three months and nine months ended September 30, 2002, respectively and 4,421,000 and 4,667,000 for the three months and nine months ended September 30, 2001, respectively.

**NOTE 3 RECENT ACCOUNTING PRONOUNCEMENTS**

In July 2002, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 146, Accounting for Costs associated with Exit or Disposal Activities. SFAS No. 146 nullifies EITF Issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring). It requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of commitment to an exit or disposal plan. SFAS No. 146 also establishes fair value as the objective for initial measurement of liabilities related to exit and disposal activities. SFAS No. 146 is effective for exit or disposal activities that are initiated after December 31, 2002. The Company believes that the adoption of SFAS No. 146 will not have a significant impact on its consolidated financial position, results of operations or cash flows.

**NOTE 4 IMPAIRMENT OF ACQUIRED INTANGIBLE ASSETS AND GOODWILL**

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

During the second quarter of 2002, the Company experienced a decrease in the demand for its products and services and reduced its expectations for future growth in revenues and cash flows. Additionally the Company's stock price declined significantly. Due to these significant changes, with assistance from independent valuation experts, management performed an evaluation of the recoverability of goodwill and other long-lived assets in accordance with SFAS No. 142 "Goodwill and Other Intangible Assets" and SFAS No. 144 "Accounting for the Impairment or Disposal of Long-Lived Assets", respectively.

The Company assessed the carrying value of identified long-lived assets relating to the Transcription and Cadabra acquisitions. Because the estimated future undiscounted cash flows relating to the Cadabra long-lived asset group was less than the carrying value of the related assets, an impairment charge was required. The impairment charge of \$2,619,000 represents the amount required to write-down Cadabra's long-lived assets to management's estimate of fair value based on management's expectations for this asset group's future discounted cash flows.

The change in the carrying amount of identified intangible assets are as follows (in thousands):

|                          | As of September 30, 2002 |                          | As of December 31, 2001 |                          |
|--------------------------|--------------------------|--------------------------|-------------------------|--------------------------|
|                          | Gross Carrying Amount    | Accumulated Amortization | Gross Carrying Amount   | Accumulated Amortization |
| Developed technology     | \$ 7,878                 | \$ (4,364)               | \$ 8,060                | \$ (3,152)               |
| Customer base            | 17,952                   | (10,109)                 | 19,340                  | (7,190)                  |
| Covenants not to compete | 3,941                    | (3,941)                  | 4,990                   | (3,591)                  |
| Workforce                |                          |                          | 3,300                   | (1,800)                  |
| Trade name               | 200                      | (110)                    | 200                     | (80)                     |
|                          | <u>\$ 29,971</u>         | <u>\$ (18,524)</u>       | <u>\$ 35,890</u>        | <u>\$ (15,813)</u>       |

The aggregate amortization expense of identified intangible assets was \$1,286,000 and \$2,299,000 in the three months ended September 30, 2002 and 2001, respectively and \$4,511,000 and \$6,895,000 in the nine months ended September 30, 2002 and 2001, respectively.

Expected future amortization of identified intangible assets is as follows (in thousands):

| Fiscal Year |                  |
|-------------|------------------|
| 2002        | \$ 1,286         |
| 2003        | 5,144            |
| 2004        | 5,017            |
|             | <u>\$ 11,447</u> |

The Company also performed an impairment review of its goodwill during the second quarter of 2002 as a result of the announcement of the Company's revised expectations for its second quarter of 2002 financial performance and revised expectations for future growth of the Company's revenues and cash flows. The Company operates as a single reporting unit. The Company compared its fair value to its carrying value including goodwill and determined that its carrying value, including goodwill, exceeded fair value. As a result the Company then assessed the fair value of its assets, including identified intangible assets, and liabilities and derived an implied fair value for its goodwill. Since the carrying amount of goodwill was greater than its implied fair value, an impairment loss of \$54,694,000 was recognized.

The fair value of the Company was determined using the average market price of the Company's common stock over a 10-day period following the triggering event and a control premium of 30%. The company determined the estimated fair value of identified intangible assets and non-goodwill intangible assets and liabilities using discounted cash flows. The assumptions supporting the estimated cash flows for identified intangible assets and other non-goodwill assets and liabilities, including the discount rate and the estimated terminal value reflects management's estimates.

The change in the carrying amount of goodwill for the nine months ended September 30, 2002 is as follows (in thousands):

|                            | <b>2002</b>      |
|----------------------------|------------------|
| Balance as of January 1    | \$ 109,567       |
| Impairment in the period   | (54,694)         |
| Balance as of September 30 | <u>\$ 54,873</u> |

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.

|  | <b>For the<br/>Three Months Ended<br/>September 30,</b> |                   | <b>For the<br/>Nine Months Ended<br/>September 30,</b> |                    |
|--|---|-------------------|--|--------------------|
|  | <b>2002</b>   | <b>2001</b>       | <b>2002</b>  | <b>2001</b>        |
| Reported net loss                              | \$ (1,897)  | \$ (13,640)       | \$ (61,502)  | \$ (44,550)        |
| Add back: goodwill amortization                |   | 9,405             |  | 28,438             |
| Add back: workforce amortization, net of taxes |   | 191               |  | 573                |
| Adjusted net loss                              | <u>\$ (1,897)</u>                                       | <u>\$ (4,044)</u> | <u>\$ (61,502)</u>                                     | <u>\$ (15,539)</u> |
| <b>Basic and diluted net loss per share:</b>   |   |                   |  |                    |
| Reported net loss per share                    | \$ (0.06)   | \$ (0.45)         | \$ (1.91)  | \$ (1.48)          |
| Add back goodwill amortization                 |   | 0.31              |  | 0.94               |
| Add back Workforce amortization, net of taxes  |   | 0.01              |  | 0.02               |
| Adjusted net loss per share                    | <u>\$ (0.06)</u>  | <u>\$ (0.13)</u>  | <u>\$ (1.91)</u>                                       | <u>\$ (0.52)</u>   |

**NOTE 5 COMPREHENSIVE INCOME (LOSS)**

Comprehensive income (loss) includes net earnings and other comprehensive income. Other comprehensive income includes accumulated translation adjustments. For the three and nine month periods ended September 30, 2002 and 2001, the components of comprehensive loss are as follows (in thousands):

|  | <b>For the<br/>Three Months Ended<br/>September 30,</b> |             | <b>For the<br/>Nine Months Ended<br/>September 30,</b> |             |
|--|---|-------------|--|-------------|
|  | <b>2002</b>   | <b>2001</b> | <b>2002</b>  | <b>2001</b> |



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|  |                   |                   |                   |                   |
|--|-------------------|-------------------|-------------------|-------------------|
| Net loss                                 | \$ (1,897)        | \$ (13,640)       | \$ (61,502)       | \$ (44,550)       |
| Foreign currency translation adjustments | (19)              | 39                | 25                | (23)              |
|  | <u>          </u> | <u>          </u> | <u>          </u> | <u>          </u> |
| Total comprehensive loss                 | \$ (1,916)        | \$ (13,601)       | \$ (61,477)       | \$ (44,573)       |
|  | <u>          </u> | <u>          </u> | <u>          </u> | <u>          </u> |

**NOTE 6 RELATED PARTY TRANSACTIONS**

In January 2002 a former officer of the Company repaid the original principal balance of \$600,000 plus all accrued interest of an outstanding note payable with a due date of February 1, 2002.

In March 2002 the Board of Directors extended the due date on promissory notes to the then President and to the Chief Technology Officer of the Company for an

additional one year. These notes with principal amounts of \$1,600,000 and \$1,333,000 and accrued interest are now due February 10, 2003.

## **NOTE 7 CAPITAL STOCK**

### *Stock option plans*

In July 2002, the Board of Directors approved an increase to the common stock authorized for issuance under the 2001 Non-statutory Stock Option Plan (the 2001 Plan ). The increase was 2,000,000 shares, bringing the total shares authorized under the 2001 Plan to 3,000,000. As of September 30, 2002, 1,000,000 options had been issued under the 2001 Plan.

### *Stock Repurchase Program*

In July 2002, the Board of Directors approved a stock repurchase program (the Program ). The Program extends for 12 months beginning in July 2002. Under the Program, the Company is authorized to repurchase up to \$10,000,000 in shares of the outstanding common stock of the Company. Share repurchases under this program may be made in the open market or in privately negotiated transactions. Depending on market conditions and other factors, repurchases under this program may be commenced or suspended at any time, or from time-to-time, during the Program without prior notice.

During the three months ended September 30, 2002 the Company repurchased a total of 102,200 shares with an aggregate purchase price of \$385,000, or an average per share price of \$3.77.

## **Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

#### **General**

Certain information contained or incorporated by reference in this Quarterly Report on Form 10-Q is forward-looking in nature. All statements included or incorporated by reference in this Quarterly Report on Form 10-Q or made by our management, 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, potential, continue, or the 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 discussed in the section entitled Factors That May Affect Our Future Results . These and many other factors could affect our future financial and operating results, and could cause actual results to differ materially from current expectations.

#### **Overview**

We develop and market proprietary technologies and software products that enable the design and manufacture of semiconductors, including semiconductors with subwavelength feature sizes. We derive revenue from production licenses, infrastructure partnerships, mask data preparation licenses, research and development licenses, maintenance and related technical services. Our customer base consists of semiconductor manufacturers, fabless integrated device design companies, semiconductor equipment resellers, semiconductor mask makers and EDA (Electronic Design Automation) vendors. To date we have entered into production licenses with five semiconductor manufacturers. We expect to enter into additional production licenses as semiconductor manufacturers adopt our proprietary technologies for production. Our production licenses grant licensees the right to use our phase shifting intellectual property and software to design and manufacture subwavelength

integrated circuits, or ICs. In order for semiconductor manufacturers to enter into production licenses with us, these manufacturers must continue to embrace our proprietary technologies. We must also expend significant sales, marketing and development resources on these manufacturers with no guarantee of success.

### Results of Operations

*Revenue.* Revenues were \$11.4 million and \$35.6 million for the three months and nine months ended September 30, 2002 compared to \$12.8 million and \$34.8 million for the same periods in 2001, representing a decrease of 11% and an increase of 2% for the respective periods. The decrease in the three months ended September 30, 2002 from the same period in 2001 was primarily due to a decrease of approximately \$1.4 million from our PSM (Phase Shift Mask technologies) Software Development and License Agreement with Cadence, partially offset by an increase of approximately \$400,000 from our production license agreements. The remaining decrease is primarily attributable to the overall weakness in the semiconductor industry. The increase in revenue for the nine months ended September 30, 2002 over the same period in 2001 is primarily due to an increase in revenue from the Intel cross-license agreement of approximately \$4.7 million partially offset by decreased revenue of \$3.5 million from our Cadence PSM Software Development contract and reduced revenue due to the overall weakness in the semiconductor industry. For the three months ended September 30, 2002, two customers, Intel and Cadence, accounted for \$3.3 million or 29% and \$1.9 million or 17% of total revenue, respectively. For the three months ended September 30, 2001, Cadence and Intel accounted for \$3.3 million or 26% and \$3.2 million or 25% of total revenue, respectively. For the nine months ended September 30, 2002, Intel and Cadence accounted for \$11.7 million or 33% and \$ 5.3 million or 15% of total revenue, respectively. For the nine months ended September 30, 2001, Cadence and Intel accounted for \$8.8 million or 25% and \$6.2 million or 18% of total revenue, respectively.

Our OPC (Optical Proximity Correction) and PSM license agreements with Cadence expire December 31, 2002 and March 31, 2003, respectively, and have not yet been renewed. If these contracts are not renewed, our revenue from Cadence will drop from \$2.0 million in the fourth quarter of 2002 to \$1.0 million in the first quarter of 2003 and will drop to zero for the balance of 2003. In addition our revenue from the Intel cross-license agreement will decrease significantly in 2003. Under the terms of this cross-license agreement we will recognize revenue of \$3.0 million in the fourth quarter of 2002, \$2.2 million in the first quarter of 2003 and \$540,000 in each of the remaining quarters of 2003.

If we do not renew the Cadence contracts and/or generate additional revenue from other sources to replace the lost revenue detailed above, our aggregate revenue will decline in 2003.

### Costs and Expenses

*Cost of revenue.* Cost of revenue was \$1.2 million and \$3.0 million for the three months and nine months ended September 30, 2002 compared to \$1.2 million and \$3.3 million for the same periods in 2001. Cost of revenue includes primarily salary and related costs for engineers associated with the Cadence PSM Contract and maintenance and technical services and to a lesser degree, direct costs associated with joint development projects and royalty payments to third part software developers. As a percentage of revenue, cost of revenue increased to 10% for the three months ended September 30, 2002 compared to 9% for the three months ended September 30, 2001, and was 9% for each of the three and nine month period ended September 30, 2002 and September 30, 2001. We anticipate that cost of revenue will fluctuate in both dollar amount and as a percentage of revenue dependent on the nature and timing of the contracts we enter into as we support our increasing number of industry partners and customers and assist our research and development licensees to transition into production. To the extent our revenue increases or decreases due to, among other factors, those described above, our cost of revenue may increase or decrease.

*Research and development.* Research and development expenses were \$4.5 million and \$13.4 million for the three months and nine months ended September 30, 2002 compared to \$4.0 million and \$11.8 million for the same periods in 2001. These increases were primarily due to increased costs associated with additional personnel in our expanding research and development efforts in subwavelength technologies and products. As a percentage of revenue, research and development expenses were 40% and 38% for the three months and nine months ended September 30, 2002, respectively,

compared to 31% and 34% for the same periods in 2001. We anticipate that we will continue to commit substantial resources to research and development in the future and expect that research and development expenses will increase in dollar amounts to support increased research and development efforts. Our research and development expenses, as a percentage of revenue, are dependent in part on our revenue. To the extent our revenue increases or decreases due to, among other factors, those described above, our research and development expenses as a percentage of revenue may increase or decrease.

*Sales and marketing.* Sales and marketing expenses were \$3.2 million and \$10.7 million for the three months and nine months ended September 30, 2002 compared to \$3.4 million and \$10.8 million for the same periods in 2001. Sales and marketing expenses were similar for both of the comparable periods in 2002 over 2001 because we managed our sales and marketing expenses to keep such expenses in line with revenue. As a percentage of revenue, sales and marketing expenses were 28% and 30% for the three months and nine months ended September 30, 2002, respectively, compared to 26% and 31% for the same periods in 2001. We expect to keep our sales and marketing expenses in line with our revenue growth and accordingly, if revenue increases, we would expect our sales and marketing expenses to increase in dollar amounts, but decline as a percentage of revenue in the long term. If revenue were to decline, we may attempt to reduce our sales and marketing expenses where appropriate and possible. Alternatively we may increase our sales and marketing expenses, depending upon the business environment. In either case, if revenue declines, we would expect sales and marketing expenses to increase as a percentage of revenue.

*General and administrative.* General and administrative expenses were \$2.1 million and \$5.7 million for the three months and nine months ended September 30, 2002 compared to \$1.7 million and \$5.1 million for the same periods in 2001. The increases in general and administrative expenses for both of the comparable periods in 2002 over 2001 were primarily the result of a \$500,000 charge recorded in the third quarter of 2002 to accrue for the estimated loss associated with a building lease which was vacated when we consolidated our Los Gatos and San Jose facilities. As a percentage of revenue, general and administrative expenses were 19% and 16% for the three months and nine months ended September 30, 2002, respectively, compared to 13% and 15% for the same periods in 2001. We expect to keep our general and administrative expenses in line with our revenue growth and accordingly, if revenue increases, we would expect our general and administrative expenses to increase in dollar amounts, but decline as a percentage of revenue in the long term. If revenue were to decline, we would attempt to reduce our general and administrative expenses where appropriate and possible, such that the dollar amount would decline but the expenses would likely increase as a percentage of revenue.

*Depreciation and amortization.* Depreciation and amortization expenses were \$1.8 million and \$6.1 million for the three months and nine months ended September 30, 2002 compared to \$12.2 million and \$36.8 million for the same periods in 2001. The decreases were primarily the result of the adoption of the Statement of Financial Accounting Standards ( SFAS ) No. 142 Goodwill and Other Intangible Assets on January 1, 2002, the adoption of which requires us to cease amortizing goodwill and intangible assets with indefinite lives.

*Impairment of goodwill and other intangibles.* During the three months ended June 30, 2002, we experienced a decrease in the demand for our products and services, reduced our expectations for future growth in revenue and cash flows and our stock price declined significantly. Due to these significant changes, with assistance from independent valuation experts, we performed an evaluation of the recoverability of goodwill and other long-lived assets in accordance with SFAS No. 142 and SFAS No. 144 Accounting for the Impairment or Disposal of Long-Lived Assets , respectively. As a result of this evaluation we took a charge of \$57.3 million for the impairment of goodwill and other intangible assets during the three months ended June 30, 2002. For further details of this charge see Note 4 of Notes to Condensed Consolidated Financial Statements above.

*Stock-based compensation.* Stock-based compensation is comprised of the amount of amortization related to: (i) the difference between the exercise price of options granted and the estimated fair market value of the underlying common stock on the date of the grant, (ii) the fair value at the date of the acquisition of employee escrow shares issued to executives of Cadabra in connection with the acquisition of Cadabra, (iii) compensation expense related to certain restricted stock deemed to be variable as prescribed by FASB interpretation No. 44 Accounting for Certain Transactions Involving Stock Compensation an Interpretation of APB Opinion No. 25 and (iv) stock-based compensation related to stock options granted to consultants.

We recognized stock-based compensation of \$1.1 million and \$4.0 million for the three months and nine months ended September 30, 2002 compared to \$4.5 million and \$14.8 million for the same periods in 2001. We are amortizing deferred stock-based compensation over the vesting periods of the applicable options and restricted stock, using the multiple option method.

The stock-based compensation expense relating to certain restricted stock and consultant options are remeasured by the Company until the shares or options are fully vested. As a result, the stock-based compensation expense will fluctuate as the fair market value of the Company's common stock fluctuates. In addition, amortization of deferred stock-based compensation could increase or decrease in future periods as a result of future grants or cancellations of options whose exercise prices are less than the fair market value on the date of grant, future grants or cancellation of restricted stock or future grants or cancellation of stock options to consultants.

*Interest income and other.* Interest and other income was \$412,000 and \$1.3 million for the three months and nine months ended September 30, 2002 compared to \$699,000 and \$2.2 million for the same periods in 2001. The decreases were due to lower interest rates in 2002 compared to the same periods in 2001, partially offset by higher average cash and short-term investment balances during 2002.

*Benefit from (provision for) income taxes.* We recorded a benefit for income taxes of \$229,000 and \$1.9 million for the three months and nine months ended September 30, 2002 compared to a provision for income taxes of \$225,000 and a benefit for income taxes \$840,000 for the comparable periods in 2001. The effective tax rate for the nine months ended September 30, 2002 was less than the statutory rate primarily due to non-deductible charges for goodwill impairment and stock-based compensation. The effective tax rate for the comparable period in 2001 was less than the statutory rate primarily due to non-deductible charges for stock-based compensation and goodwill amortization.

### **Liquidity and Capital Resources**

As of September 30, 2002, we had cash and cash equivalents and short-term investments of \$76.4 million. As of the same date, we had working capital of \$69.1 million, including deferred revenue of \$11.6 million.

Net cash provided by operating activities was \$7.8 million during the nine-month period ended September 30, 2002, compared with cash provided by operating activities of \$9.3 million during the comparable period in 2001. Net cash provided by operating activities during the nine-month period ended September 30, 2002 primarily reflects a net loss of \$61.5 million, decreases in deferred taxes of \$2.5 million and increases in prepaid and other assets of \$1.2 million offset by non cash charges for impairment of goodwill and other intangible assets of \$57.3 million, amortization of deferred stock compensation and intangibles of \$8.5 million and depreciation of \$1.6 million, a decrease in accounts receivables of \$2.3 million and an increase in deferred revenue of \$2.5 million.

Net cash used in investing activities was \$19.4 million during the nine-month period ended September 30, 2002, compared with cash used in investing activities of \$2.5 million during the comparable period in 2001. Net cash used in investing activities during the nine-month period ended September 30, 2002 consisted of net purchases of short-term investments of \$17.7 million and the purchases of computer hardware and software, office furniture and equipment and leasehold improvements of \$1.7 million. We expect to invest less than \$1.0 million in capital expenditures over the remainder of 2002 mainly for computer equipment, facilities and business systems upgrades.

Net cash provided by financing activities was \$2.7 million during the nine-month period ended September 30, 2002, compared with cash provided by financing activities of \$3.0 million during the comparable period in 2001. Net cash provided by financing activities during the nine-month period ended September 30, 2002 consisted of proceeds from our employee stock purchase plan and exercise of stock options of \$2.5 million and \$600,000 from repayment of notes receivable from stockholders, partially offset by \$395,000 used to repurchase common stock.

The Company leases its facilities, primarily in California and Canada, under noncancelable operating leases, which expire at various dates through May 2007. In June 2001, the Company entered into an agreement to sublease offices in California to a third party. The sublease expires in December 2004 on the expiration date of the underlying facility lease. In addition we vacated space in Los Gatos California

during the three months ended September 30, 2002. We are currently attempting to sub-lease this space and have accrued \$500,000 for estimated losses on this lease. Should rental rates continue to decrease or should it take longer than expected to sublease this facility, the actual loss could exceed this estimate. Minimum lease payments and sublease income as of September 30, 2002 for noncancelable operating leases are as follows (in thousands):

| Year | Lease<br>Payments | Sublease<br>rental<br>income |
|------|-------------------|------------------------------|
| 2002 | \$ 430            | \$ 102                       |
| 2003 | 1,645             | 415                          |
| 2004 | 1,275             | 428                          |
| 2005 | 435               |                              |
| 2006 | 212               |                              |
| 2007 | 75                |                              |
|      | <u>\$ 4,072</u>   | <u>\$ 945</u>                |

We anticipate that operating expenses, as well as planned capital expenditures, will constitute a material use of our cash resources. Our expenses are dependent in part on our level of revenue. In addition, we may utilize cash resources to fund acquisitions of, or investments in, complementary businesses, technologies or product lines. We believe that cash and short term investments together with funds generated from operations, will be sufficient to meet our working capital requirements for at least the next 12 months. Thereafter, we may find it necessary to obtain additional equity or debt financing. In the event additional financing is required, we may not be able to raise it on acceptable terms or at all.

#### Significant Accounting Policies

We prepare our consolidated financial statements in conformity with accounting principles generally accepted in the United States of America. As such, we are required to make certain estimates, judgments and assumptions that we believe are reasonable based upon the information available. These estimates and assumptions affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods presented. The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include revenue recognition, accounting for income taxes and valuation of goodwill, intangibles and long-lived assets. These policies were disclosed in the Company's 10-Q for the quarterly period ended March 31, 2002 filed with the SEC on May 7, 2002. As of the date of this filing there have been no significant changes to any of these policies. Other than the impairment of goodwill and other intangibles discussed above there have been no significant changes to the related estimates and judgment involved in applying these policies.

#### 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, and derive revenue from, of 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, which could 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 our revenue if the slowdown also causes a decrease in the demand for our proprietary technologies and software products.**

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.

**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.**

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 regarding the renewal of the two contracts, but we cannot make any assurances at this time that Cadence will renew these contracts at the same terms, or at all. 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 third-party 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.

**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 current and 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 in the same 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, and may

require the expenditure of additional money towards sales and marketing with no guarantee of success.

**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. Even 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 permit great variation in the amount of revenue that is generated under any one contract. Accordingly, our revenues 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 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, which 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.**

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 revenue 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 Avant!, Mentor Graphics and Prolific, Inc. 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 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.

**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 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.**

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% or 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.

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 transition 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 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 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.

**Item 3. *Quantitative and Qualitative Disclosure about Market Risk.***

Our exposure to market risk for changes in interest rates relate primarily to our investment portfolio. We do not use derivative financial instruments for speculative or trading purposes. We place our investments in instruments that meet high credit quality standards, as specified in our investment policy. The policy also limits the amount of credit exposure to any one issuer and type of instrument. We do not expect any material loss with respect to our investment portfolio.



**Item 4. Controls and Procedure.**

*Evaluation of Controls and Procedures*

We maintain disclosure controls and procedures, (as defined in Securities Act of 1934 rules 13a-14 and 15d-14) which we have designed to ensure that material information related to the Company, including our consolidated subsidiaries, is made known to our disclosure committee on a regular basis. In response to recent legislation and proposed regulations, we reviewed our internal control structure and our disclosure controls and procedures. Although we believe our existing disclosure controls and procedures are adequate to enable us to comply with our disclosure obligations, as a result of such review, we implemented minor changes, primarily to formalize and document the procedures already in place. We also established a disclosure committee, which consists of the Company's senior management and certain other key employees.

After the formation of our disclosure committee and within 90 days prior to the filing of this quarterly report, the disclosure committee carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer, Larry Hollatz, and Chief Financial Officer, Richard Mora, of the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based upon that evaluation, Mr. Hollatz and Mr. Mora concluded that the Company's disclosure controls and procedures are effective in causing material information to be collected, communicated and analyzed by management of the Company on a timely basis and to ensure that the quality and timeliness of the Company's public disclosures complies with its SEC disclosure obligations.

*Changes in Controls and Procedures*

There were no significant changes in the Company's internal controls or in other factors that could significantly affect these internal controls after the date of our most recent evaluation.

**PART II OTHER INFORMATION**

**Item 2. Changes in Securities and Use of Proceeds**

*(c) Recent Sales of Unregistered Securities*

There were no sales of unregistered securities during the quarter ended September 30, 2002. However, during the quarter ended September 30, 2002, 9,458 exchangeable shares of Cadabra Design Automation Inc. ( Cadabra ), which were issued in connection with our October 2000 acquisition of Cadabra, were exchanged for an equal number of shares of our common stock. We did not receive any consideration in connection with such exchanges. These shares were exchanged pursuant to regulation D or Regulation S.

**Item 5. Other information**

In August 2002, Dr. Yagyensh C. (Buno) Pati, co-founder, Board member and former Chief Executive Officer of the Company, entered into a 10b5-1 trading plan, which became effective October 27, 2002 and terminates on February 23, 2003. Under this plan Dr. Pati's broker may sell up to 620,000 shares of Numerical common stock on behalf of Dr. Pati. Dr. Pati's broker may sell a maximum of 155,000 shares in each of the four 30-day periods in which the plan is effective.

In August 2002, Dr. Yao-Ting Wang, co-founder, Board member and Chief Technology Officer of the Company, entered into a 10b5-1 trading plan, which became effective October 27, 2002 and terminates on February 23, 2003. Under this plan Dr. Wang's broker may sell up to 528,000 shares of Numerical common stock on behalf of Dr. Wang. Dr. Wang's broker may sell a maximum of 132,000 shares in each of the four 30-day periods in which the plan is effective.

**Item 6. Exhibits and Reports on Form 8-K**

*(a) Exhibits.*

The exhibits listed in the accompanying Index to Exhibits are incorporated by reference as part of this Form 10-Q.

(b) *Reports on Form 8-K*

Current report on Form 8-K filed on August 6, 2002 relating to the appointment of Larry Hollatz as President and Chief Executive Officer.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NUMERICAL TECHNOLOGIES, INC.

By: /s/ RICHARD S.  
MORA

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**Richard S. Mora  
Chief Operating  
Officer and Chief  
Financial Officer  
(duly authorized  
officer and principal  
financial accounting  
officer)**

Dated November 12, 2002

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350  
AS ADOPTED PURSUANT TO SECTION 302  
OF THE SARBANES-OXLEY ACT OF 2002**

I, Larry Hollatz, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Numerical Technologies;
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the Evaluation Date); and
  - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ LARRY HOLLATZ

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

Date: November 12, 2002

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350  
AS ADOPTED PURSUANT TO SECTION 302  
OF THE SARBANES-OXLEY ACT OF 2002**

I, Richard Mora, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Numerical Technologies;

2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and

c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ RICHARD MORA

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**Richard Mora**  
**Chief Financial Officer**  
**and Chief Operating**  
**Officer**

Date: November 12, 2002

## INDEX TO EXHIBITS

These Exhibits are numbered in accordance with the Exhibit Table of Item 601 of Regulation S-K:

| EXHIBIT<br>NUMBER | DESCRIPTION  |
|-------------------|--|
| 2.1               | Agreement and Plan of Reorganization, dated as of December 21, 1999, between the registrant, Transcription Enterprises Limited, Transcription Enterprises, Inc., Kevin MacLean and Roger Sturgeon.*  |
| 2.2               | Agreement and Plan of Merger between the registrant and Numerical Technologies, Inc., a Delaware corporation.*   |
| 2.3               | Agreement and Plan of Amalgamation, dated as of September 5, 2000, by and among Numerical Technologies, Inc., Numerical Nova Scotia Company, Numerical Acquisition Limited, 3047725 Nova Scotia Limited, Cadabra Design Automation Inc., Martin Lefebvre, and Faysal Sohail. *** |
| 3.1               | Amended and Restated Certificate of Incorporation of registrant.*  |
| 3.2               | Amended and Restated Bylaws of registrant.   |
| 4.1               | Form of registrant's common stock certificate.*  |
| 4.2               | 1999 Second Amended and Restated Shareholders Rights Agreement, dated January 1, 2000, between the registrant and the parties named therein, as amended on January 14, 2000.*  |
| 10.1              | Form of Indemnification Agreement entered into by registrant with each of its directors and executive officers.*   |
| 10.2              | 2000 Stock Plan and related agreements.*   |
| 10.3              | 1997 Stock Plan and related agreements.*   |
| 10.4              | 2000 Employee Stock Purchase Plan and related agreements.*   |
| 10.5              | Lease Agreement, dated June 15, 1999, by and between the registrant and CarrAmerica Realty Corporation.*   |
| 10.7              | Employment Agreement, dated January 1, 2000, by and between Transcription Enterprises, Inc. and Roger Sturgeon.*   |
| 10.8              | Employment Agreement, dated January 1, 2000, by and between Transcription Enterprises, Inc. and Kevin MacLean.*  |
| 10.9              | Non-Competition Agreement, dated January 1, 2000, by and between Numerical Technologies, Inc., Transcription Enterprises, Inc., Transcription Enterprises Limited and Roger Sturgeon.*   |
| 10.10             | Non-Competition Agreement, dated January 1, 2000, by and between Numerical Technologies, Inc., Transcription Enterprises, Inc., Transcription Enterprises Limited and Kevin MacLean.*  |
| 10.11             | Stock Option Agreement Early Exercise, dated November 2, 1999, by and between the registrant and William Davidow.*   |
| 10.12             | Stock Option Agreement Early Exercise, dated May 26, 1999, by and between the registrant and Richard Mora.*  |
| 10.13             | Stock Option Agreement Early Exercise, dated December 27, 1999, by and between the registrant and Richard Mora.*   |
| 10.14             | Stock Option Agreement Early Exercise, dated March 31, 1999, by and between the registrant and Atul Sharan.*   |
| 10.15             | Stock Option Agreement Early Exercise, dated December 27, 1999, by and between the registrant and Atul Sharan.*  |
| 10.16             | Stock Option Agreement Early Exercise, dated July 15, 1998, between the registrant and Harvey Jones.*  |
| 10.17             | License Agreement, dated as of October 1, 1999, between registrant and Cadence Design Systems, Inc.*+  |
| 10.18             | Software Production and Distribution Agreement, dated January 9, 1998, between registrant and KLA-Tencor Corporation.*+  |
| 10.19             | License Agreement, dated December 23, 1999, between registrant and Seiko Instruments, Inc.*+   |
| 10.20             | Development and Distribution Agreement, dated October 1, 1991, between Transcription Enterprises Limited and KLA Instruments Corporation.*+  |
| 10.21             | Addendum Number One to Development and Distribution Agreement, dated December 27, 1999, between Transcription Enterprises Limited and KLA Instruments Corporation.*+   |
| 10.22             | Stock Option Agreement Early Exercise, dated February 1, 2000, by and between the registrant and Roger Sturgeon.*  |
| 10.23             | Stock Option Agreement Early Exercise, dated February 1, 2000, by and between the registrant and Kevin MacLean.*   |
| 10.24             | Stock Option Agreement Early Exercise, dated February 10, 2000, by and between the registrant and Y.C. (Buno) Pati.*   |
| 10.25             | Stock Option Agreement Early Exercise, dated February 10, 2000, by and between the registrant and Yao-Ting Wang.*  |

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| 10.26 | Stock Option Agreement Early Exercise, dated October 23, 1998, by and between the registrant and Atul Sharan.*   |
| 10.27 | Amendment No. 1 to Atul Sharan's Stock Option Agreements dated October 23, 1998, March 31, 1999 and December 27, 1999, dated as of January 24, 2000, by and between the registrant and Atul Sharan.* |
| 10.28 | Stock Option Agreement Early Exercise, dated February 10, 2000, by and between the registrant and Naren Gupta.*  |
| 10.29 | PSM Software Development and License Agreement, dated as of March 10, 2000, by and between registrant and Cadence Design Systems, Inc.*+   |
| 10.30 | License Agreement, dated March 1, 2000, between registrant and Motorola, Inc.**+   |
| 10.31 | Production License Agreement, dated December 31, 2000, between registrant and United Microelectronics Corporation.***+   |
| 10.32 | Patent Cross License Agreement, dated April 17, 2001, between registrant and Intel Corporation.***** +   |
| 10.33 | 2001 Nonstatutory Stock Option Plan *****  |
| 99.1  | Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.                       |

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- \* Incorporated by reference to registration statement on Form S-1 (333-95695) as declared effective by the Securities and Exchange Commission on April 6, 2000.
  - \*\* Incorporated by reference to registration statement on Form 10-Q as filed with the Securities and Exchange Commission on May 12, 2000.
  - \*\*\* Incorporated by reference to the current report on Form 8-K as filed with the Securities and Exchange Commission on September 15, 2000.
  - \*\*\*\* Incorporated by reference to the registrant's Annual Report on Form 10-K as filed with the Securities and Exchange Commission on March 27, 2001.
  - \*\*\*\*\* Incorporated by reference to registration statement on Form 10-Q/A as filed with the Securities and Exchange Commission on March 11, 2002.
  - \*\*\*\*\* Incorporated by reference to registration statement on Form S-8 (333-71816) as filed with the Securities and Exchange Commission on October 18, 2001.
  - + Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.