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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ASPEN TECHNOLOGY, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE
(STATE OR OTHER JURISDICTION
OF INCORPORATION OR ORGANIZATION)

04-2739697
(I.R.S. EMPLOYER
IDENTIFICATION NUMBER)

TEN CANAL PARK
CAMBRIDGE, MASSACHUSETTS 02141
(617) 949-1000
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF
REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

LAWRENCE B. EVANS
CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER
ASPEN TECHNOLOGY, INC.
TEN CANAL PARK
CAMBRIDGE, MASSACHUSETTS 02141
(617) 949-1000
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE,
OF AGENT FOR SERVICE)

COPIES TO:

STEPHEN J. DOYLE, ESQ.
VICE PRESIDENT, GENERAL COUNSEL,
CHIEF LEGAL OFFICER AND SECRETARY
ASPEN TECHNOLOGY, INC.
TEN CANAL PARK
CAMBRIDGE, MASSACHUSETTS 02141

MARK L. JOHNSON, ESQ.
FOLEY, HOAG & ELIOT LLP
ONE POST OFFICE SQUARE
BOSTON, MASSACHUSETTS 02109

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon
as practicable after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered
pursuant to dividend or interest reinvestment plans, please check the following
box. []

If any of the securities being registered on this Form are to be offered on
a delayed or continuous basis pursuant to Rule 415 under the Securities Act of
1933, other than securities offered only in connection with dividend or interest
reinvestment plans, check the following box. [X]

If this Form is filed to register additional securities for an offering
pursuant to Rule 462(b) under the Securities Act, please check the following box
and list the Securities Act registration statement number of the earlier
effective registration statement for the same offering. []

If this Form is a post-effective amendment filed pursuant to Rule 462(c)
under the Securities Act, check the following box and list the Securities Act
registration statement number of the earlier effective registration statement
for the same offering. []

If delivery of the prospectus is expected to be made pursuant to Rule 434,
please check the following box. []

CALCULATION OF REGISTRATION FEE

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TITLE OF EACH CLASS OF	AMOUNT TO BE	PROPOSED MAXIMUM OFFERING PRICE	PROPOSED MAXIMUM AGGREGATE OFFERING	AMOUNT OF REGISTRATION
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SECURITIES TO BE REGISTERED

REGISTERED

PER UNIT(1)

PRICE(1)

FEE

SECURITIES TO BE REGISTERED	REGISTERED	PER UNIT(1)	PRICE(1)	FEE
5 1/4% Convertible Subordinated Debentures due June 15, 2005.....	\$86,250,000	100%	\$86,250,000	\$25,444
Common Stock, \$.10 par value.....	(2)	--	--	(2)

- (1) Calculated pursuant to Rule 457(i) under the Securities Act of 1933, as amended.
- (2) Such indeterminate number of shares of Common Stock as may be issuable upon conversion of the Debentures registered hereunder, including such shares as may be issuable pursuant to antidilution adjustments. Pursuant to Rule 456(i), no registration fee is required for these shares.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION, DATED SEPTEMBER 15, 1998

\$86,250,000

[ASPEN LEAF LOGO] ASPEN TECHNOLOGY, INC.

5 1/4% CONVERTIBLE SUBORDINATED DEBENTURES DUE JUNE 15, 2005

This Prospectus relates to the resale from time to time by the holders (the "Selling Securityholders") of up to \$86,250,000 aggregate principal amount of 5 1/4% Convertible Subordinated Debentures due June 15, 2005 (the "Debentures") of Aspen Technology, Inc., a Delaware corporation ("AspenTech" or the "Company"), and the resale of shares of the Company's Common Stock, \$.10 par value per share ("Common Stock"), issued upon the conversion thereof (the "Conversion Shares"). The Debentures were originally sold by the Company on June 17, 1998 in a private placement to the Initial Purchasers (as defined herein). The Debentures were resold by the Initial Purchasers in transactions exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), in the United States to persons reasonably believed to be "qualified institutional buyers" as defined in Rule 144A under the Securities Act.

The Debentures are convertible into shares of Common Stock at any time prior to the close of business on the maturity date, unless previously redeemed or repurchased, at a conversion price of approximately \$52.97 per share (equivalent to a conversion rate of 18.8791 shares per \$1,000 principal amount of Debentures), subject to adjustment in certain events. See "Description of the Debentures -- Conversion Rights." The Debentures are eligible for trading in the Private Offerings, Resales and Trading through Automated Linkages (PORTAL) Market of the National Association of Securities Dealers, Inc. On September 11, 1998, the closing sale price of the Common Stock on the Nasdaq National Market was \$25.6875 per share.

Interest on the Debentures is payable on June 15 and December 15 of each year, commencing December 15, 1998. The Debentures are redeemable in whole or in part at the option of the Company at any time on or after June 15, 2001 at the redemption prices set forth herein, plus accrued interest to the redemption date. See "Description of Debentures -- Optional Redemption."

In the event of a Change of Control, each holder of Debentures may require the Company to repurchase its Debentures, in whole or in part, for cash or, at the Company's option, Common Stock (valued at 95% of the average closing prices for the five Trading Days immediately preceding and including the third Trading Day prior to the repurchase date) at a repurchase price of 100% of the principal amount of Debentures to be repurchased, plus accrued interest to the repurchase date. See "Description of Debentures -- Repurchase at Option of Holders Upon Change of Control."

The Debentures are unsecured obligations subordinated in right of payment to all existing and future Senior Debt of the Company and effectively subordinated in right of payment to all indebtedness and other liabilities of the Company's subsidiaries. As of June 30, 1998, the Company had approximately \$3.8 million of outstanding Senior Debt and the Company's subsidiaries had approximately \$19.0 million of outstanding indebtedness and other liabilities (excluding inter-company liabilities, indebtedness included in Senior Debt because it is guaranteed by the Company and liabilities of a type not required to be reflected on a balance sheet in accordance with generally accepted accounting principles). See "Description of Debentures -- Subordination."

The Selling Securityholders may offer Debentures or Conversion Shares from time to time to purchasers directly or through underwriters, dealers or agents. Such Debentures or Conversion Shares may be sold at market prices prevailing at the time of sale or at negotiated prices. Each Selling Securityholder will be responsible for payment of any and all commissions to brokers, which will be negotiated on an individual basis.

The Company will not receive any of the proceeds from the sale of any Debentures or Conversion Shares by the Selling Securityholders. Expenses of preparing and filing the registration statement to which this Prospectus relates and all post-effective amendments will be borne by the Company. See "Plan of Distribution" for a description of the indemnification arrangements between the Company and the Selling Securityholders.

SEE "RISK FACTORS" BEGINNING ON PAGE 6 FOR A DISCUSSION OF CERTAIN FACTORS THAT SHOULD BE CONSIDERED IN CONNECTION WITH AN INVESTMENT IN THE DEBENTURES OR CONVERSION SHARES.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES

AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS
THE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON
THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY
REPRESENTATION TO THE CONTRARY IS A
CRIMINAL OFFENSE.

The date of this Prospectus is _____, 1998.

AVAILABLE INFORMATION

The Company is subject to the information requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports and other information with the Securities and Exchange Commission (the "Commission"). Such reports and other information may be inspected and copies may be obtained (at prescribed rates) at the Commission's Public Reference Section, 450 Fifth Street, N.W., Room 1024, Washington D.C. 20549, and at the Commission's Regional Offices at Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511 and 7 World Trade Center, Suite 1300, New York, New York 10048. Electronic filings made by the Company through the Commission's Electronic Data Gathering, Analysis and Retrieval System are publicly available through the Commission's world wide web site (<http://www.sec.gov>).

This Prospectus constitutes part of a Registration Statement on Form S-3 (together with all amendments and exhibits thereto, the "Registration Statement") filed by the Company with the Commission under the Securities Act. This Prospectus does not contain all of the information contained in the Registration Statement, and reference is hereby made to the Registration Statement for further information with respect to the Company and the securities offered hereby. Any statements contained herein concerning the provisions of any document are not necessarily complete, and, in such instance, reference is made to the copy of such document filed as an exhibit to the Registration Statement or otherwise filed with the Commission. Each such statement is qualified in its entirety by such reference.

INFORMATION INCORPORATED BY REFERENCE

The following documents heretofore filed by the Company with the Commission pursuant to the Exchange Act are incorporated herein by reference: (1) Annual Report on Form 10-K for the fiscal year ended June 30, 1997; (2) Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 1997, Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 1997 (as amended by Amendment No. 1 thereto on Form 10-Q/A), and Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 1998 (as amended by Amendment No. 1 thereto on Form 10-Q/A); (3) Current Report on Form 8-K dated October 9, 1997, Current Report on Form 8-K dated March 12, 1998 (as amended by Amendment No. 1 thereto on Form 8-K/A), Current Report on Form 8-K dated April 28, 1998, Current Report on Form 8-K dated May 27, 1998, Current Report on Form 8-K dated June 17, 1998 and Current Report on Form 8-K dated July 27, 1998; and (4) definitive Proxy Statement dated November 25, 1997 used in connection with its Annual Meeting of Stockholders held on December 16, 1997.

All reports and other documents subsequently filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Prospectus and prior to the termination of the offering made hereby shall be deemed to be incorporated by reference herein and to be a part hereof from the date of the filing of such reports and documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of the Registration Statement or this Prospectus.

Any person to whom a copy of this Prospectus is delivered may obtain, without charge, upon written or oral request, a copy of any of the documents incorporated by reference herein, except for the exhibits to such documents (other than exhibits expressly incorporated by reference into such documents). Requests for such documents should be addressed to the Manager of Investor Relations of the Company, Ten Canal Park, Cambridge, Massachusetts 02141 or directed to the Manager of Investor Relations at either telephone number (617) 949-1000 or e-mail address invest@aspentech.com.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial statements, including the notes thereto, appearing elsewhere in this Prospectus or incorporated by reference herein. This Prospectus contains and incorporates by reference certain forward-looking statements that involve risks and uncertainties. See "Risk Factors" and "Forward-Looking Statements."

THE COMPANY

AspenTech is the leading supplier of software and service solutions used by companies in the process industries to design, operate and manage their manufacturing processes. The process industries include manufacturers of chemicals, petrochemicals, petroleum products, pharmaceuticals, pulp and paper, electric power, food and beverages, consumer products, and metals and minerals. AspenTech offers a comprehensive, integrated suite of process manufacturing optimization solutions that help process manufacturers enhance profitability by improving efficiency, productivity, capacity utilization, safety and environmental compliance throughout the entire manufacturing life-cycle, from research and development to engineering, planning and scheduling, procurement, production and distribution. In addition to its software solutions, AspenTech offers systems implementation, advanced process control, real-time optimization and other consulting services through its staff of more than 450 project engineers. As part of its strategy to offer the broadest, most integrated suite of process manufacturing optimization solutions, AspenTech has acquired businesses from time to time to obtain technologies and expertise that complement or enhance its core solutions. AspenTech currently has more than 750 customers worldwide, including 44 of the 50 largest chemical companies, 17 of the 20 largest petroleum refiners and 16 of the 20 largest pharmaceutical companies.

AspenTech believes its customers increasingly view their investments in its solutions as strategic because of the substantial potential economic benefits these solutions offer and the broad range of production issues they address. The Company's competitive advantage is based upon its technology leadership, broad suite of integrated solutions and substantial process industry expertise. AspenTech believes that, through its research and development and strategic acquisitions and partnerships, it has established itself as the technology leader among providers of process manufacturing optimization solutions. The Company's technologies have been applied to create what the Company believes is the most complete suite of integrated software and service solutions available for the design, operation and management of manufacturing processes in the process industries. Over the past 17 years, AspenTech has developed a significant base of chemical engineering and process manufacturing experience and knowledge, which it has enhanced through extensive interaction with customers that have performed millions of simulations using AspenTech's software. To complement its software expertise, AspenTech has assembled a large engineering team that the Company believes provides an important source of competitive differentiation.

AspenTech's principal objective is to extend its leadership in providing process management optimization solutions to the process industries. Key elements of the Company's strategy to achieve this objective are to: (i) extend its technology leadership position by continuing to invest in research and development and to identify and pursue opportunities for strategic acquisitions; (ii) leverage its installed customer base in the chemical, petrochemicals, petroleum products, and pharmaceuticals industries by increasing the number of users of software currently licensed by its existing customers and by licensing complementary software and services to those customers; (iii) increase its penetration of other process industries, particularly the pulp and paper, electric power, and food and beverage industries, as well as the semiconductor industry; (iv) pursue strategic acquisitions of complementary technologies and services capabilities; and (v) selectively partner with providers of complementary products and services to supplement the Company's ability to offer enterprise-wide solutions.

The Company was incorporated as a Massachusetts corporation on August 11, 1981 and was reincorporated in Delaware on March 12, 1998. AspenTech's principal executive offices are located at Ten Canal Park, Cambridge, Massachusetts 02141, and its telephone number at that address is (617) 949-1000.

THE OFFERING

This Prospectus relates to the resale from time to time by the Selling Securityholders of up to \$86,250,000 aggregate principal amount of Debentures, as well as Conversion Shares issued upon the conversion of Debentures after the date of this Prospectus. Upon issuance in accordance with the terms of the Debentures, the Conversion Shares will be validly issued, fully paid and nonassessable and will rank pari passu with other shares of Common Stock outstanding from time to time. See "Description of Common Stock." Set forth below is a summary of certain terms of the Debentures, which should be read in conjunction with "Description of Debentures."

Debentures Offered.....	\$86,250,000 aggregate principal amount of 5 1/4% Convertible Subordinated Debentures due June 15, 2005 with interest payable on June 15 and December 15 of each year, commencing December 15, 1998.
Issuer.....	Aspen Technology, Inc., a Delaware corporation.
Conversion Price.....	Approximately \$52.97 per share of Common Stock (equivalent to a conversion rate of 18.9791 shares per \$1,000 principal amount of Debentures), subject to adjustment in certain events.
Form and Denomination.....	The Debentures are issuable only in fully registered form in denominations of \$100,000 and integral multiples of \$1,000 in excess thereof. The Debentures are represented by one or more Global Debentures deposited with a custodian for and registered in the name of a nominee of DTC. Beneficial interests in the Global Debentures are shown on, and transfers thereof will be effected only through, records maintained by DTC and its direct and indirect participants. Except as described herein, Debentures in certificated form will not be issued in exchange for a Global Debenture or interests therein. See "Description of Debentures -- Form and Denomination."
Conversion Rights.....	The Debentures are convertible into shares of Common Stock at any time prior to the close of business on the maturity date, unless previously redeemed or repurchased, at the conversion price set forth above. Holders of Debentures called for redemption or repurchase will be entitled to convert the Debentures prior to and including, but not after, the close of business on the fifth Trading Day preceding the date fixed for redemption or the second Trading Day preceding the date fixed for repurchase, as the case may be.
Optional Redemption.....	The Debentures are redeemable in whole or in part, at the option of the Company, on and after June 15, 2001 at the redemption prices set forth herein plus accrued interest to the redemption date. See "Description of Debentures -- Optional Redemption."
Repurchase at Option of Holders Upon Change of Control.....	Upon a Change of Control (as defined herein under "Description of Debentures -- Repurchase at Option of Holders Upon Change of Control"), holders of Debentures will have the right, subject to certain conditions, to require the Company to purchase their Debentures, in whole or in part, at 100% of the principal amount thereof, plus accrued interest to the repurchase date. The repurchase price is payable in cash or, subject to certain conditions, at the option of the Company, in Common Stock (valued at 95% of the average last reported sales prices of the Common Stock for the

five consecutive Trading Days ending on and including the third Trading Day preceding the repurchase date).

Subordination.....	The Debentures are unsecured obligations subordinated in right of payment to all existing and future Senior Debt (as defined herein under "Description of Debentures -- Subordination") of the Company and effectively subordinated in right of payment to all indebtedness and other liabilities of the Company's subsidiaries. As of June 30, 1998, the Company had approximately \$3.8 million of outstanding Senior Debt and the Company's subsidiaries had approximately \$19.0 million of outstanding indebtedness and other liabilities (excluding inter-company liabilities, indebtedness included in Senior Debt because it is guaranteed by the Company and liabilities of a type not required to be reflected on a balance sheet in accordance with generally accepted accounting principles). The Indenture does not restrict the incurrence of Senior Debt by the Company or other indebtedness or liabilities by the Company or any of its subsidiaries.
Events of Default.....	Events of Default include: (a) failure to pay principal of, premium, if any, on, or the redemption or repurchase price of any Debenture when due, whether or not such payment is prohibited by the subordination provisions of the Indenture; (b) failure to pay any interest on any Debenture when due, continuing for 30 days, whether or not such payment is prohibited by the subordination provisions of the Indenture; (c) failure to provide notice in the event of a Change of Control; (d) failure to perform any other covenant or warranty of the Company in the Indenture, continuing for 60 days after written notice as provided in the Indenture; (e) failure to pay any indebtedness for money borrowed by the Company in an aggregate principal amount in excess of \$5,000,000 at final maturity or acceleration of the payment thereof, which default in payment or acceleration is not cured or rescinded within 30 days after written notice as provided in the Indenture; and (f) certain events of bankruptcy, insolvency or reorganization.
Use of Proceeds.....	The Company will not receive any of the proceeds from the sale of any Debentures or Conversion Shares by the Selling Securityholders.
Listing.....	The Debentures are eligible for trading on the PORTAL Market of the National Association of Securities Dealers, Inc. The Common Stock is quoted on the Nasdaq National Market under the symbol "AZPN."
Governing Law.....	The laws of the State of New York.

 "ASPENTECH" is a registered trademark of the Company.

RISK FACTORS

In addition to the other information in this Prospectus, the following risk factors should be considered in evaluating the Company and its business.

FLUCTUATIONS IN QUARTERLY OPERATING RESULTS AND CASH FLOW

The Company's operating results and cash flow have fluctuated in the past and may fluctuate significantly in the future as a result of a variety of factors, including purchasing patterns, timing of introductions of new solutions and enhancements by the Company and its competitors, and fluctuating economic conditions. Because license fees for the Company's software products are substantial and the implementation of the Company's solutions often requires the services of the Company's engineers over an extended period of time, the sales process for the Company's solutions is lengthy and can exceed one year. Accordingly, software revenue is difficult to predict, and the delay of any order could cause the Company's quarterly revenues to fall substantially below expectations. Moreover, to the extent that the Company succeeds in shifting customer purchases away from individual software solutions and toward integrated suites of its software and service solutions, the likelihood of delays in ordering may increase and the effect of any delay may become more pronounced.

The Company ships software products within a short period after receipt of an order and usually does not have a material backlog of unfilled orders of software products. Consequently, revenues from software licenses in any quarter are substantially dependent on orders booked and shipped in that quarter. Historically, a majority of each quarter's revenues from software licenses has been derived from license agreements that have been consummated in the final weeks of the quarter. Therefore, even a short delay in the consummation of an agreement may cause revenues to fall below expectations for that quarter. Since the Company's expense levels are based in part on anticipated revenues, the Company may be unable to adjust spending in a timely manner to compensate for any revenue shortfall and any revenue shortfalls would likely have a disproportionately adverse effect on net income. The Company expects that these factors will continue to affect its operating results for the foreseeable future.

Prior to fiscal 1996, the Company experienced a net loss for the first quarter of each fiscal year, in part because a substantial portion of the Company's total revenues is derived from countries other than the United States where business is slow during the summer months and also in part because of the timing of renewals of software licenses. Although the Company has generated a profit for the first quarter of each of fiscal 1997 and fiscal 1998, the Company expects that it will continue to experience declines in total revenues and net income in the first fiscal quarter as compared to the immediately preceding fiscal quarter. Because of the foregoing factors, the Company believes that period-to-period comparisons of its operating results are not necessarily meaningful and should not be relied upon as indications of future performance.

Due to all of the foregoing factors, it is possible that in one or more future quarters the Company's operating results will be below the expectations of public market analysts and investors. In such event, the price of the Common Stock would likely be materially adversely affected. As a result principally of slower-than-anticipated growth in the Company's services revenue and higher-than-expected levels of expenses throughout the AspenTech organization in the fiscal quarter ended June 30, 1998, the Company's operating results in the fiscal quarter and fiscal year ended June 30, 1998 were below the expectations of certain public market analysts and investors. From July 27, 1998, the date on which the Company preliminarily announced its results for the fiscal quarter and year ended June 30, 1998, through the close of business on September 11, 1998, the price per share of Common Stock, as reported by the Nasdaq National Market, decreased from \$48.25 to \$25.6875.

The Company derives a substantial portion of its total revenues from service engagements and a majority of these engagements have been undertaken on a fixed-price basis. The Company bears the risk of cost overruns and inflation in connection with fixed-price engagements, and as a result, any of these engagements may be unprofitable.

LIMITED SUPPLY OF QUALIFIED PROJECT ENGINEERS

The Company derives a substantial portion of its total revenues from services, particularly projects involving advanced process control and optimization and similar projects. These projects can be extremely complex and in general only highly qualified, highly educated project engineers have the necessary training and skills to complete these projects successfully. In order to continue to staff its current and future projects, the Company will need to attract, motivate and retain a significant number of highly qualified, highly educated chemical and other project engineers. The Company primarily hires as project engineers individuals who have obtained a doctoral or master's degree in chemical engineering or a related discipline or who have significant relevant industry experience. As a result, the pool of potential qualified employees is relatively small, and the Company faces significant competition for these employees, from not only the Company's direct competitors but also the Company's clients, academic institutions and other enterprises. Many of these competing employers are able to offer potential employees significantly greater compensation and benefits or more attractive lifestyle choices, career paths or geographic locations than the Company. The failure to recruit and retain a significant number of qualified project engineers could have a material adverse effect on the Company's business, operating results and financial condition. Moreover, increasing competition for these engineers may also result in significant increases in the Company's labor costs, which could have a material adverse effect on the Company's business, operating results and financial condition.

INTEGRATION OF CHESAPEAKE AND OTHER RECENTLY ACQUIRED COMPANIES

Through its acquisitions of Chesapeake Decision Sciences, Inc. ("Chesapeake") and several smaller companies in 1998, the Company has expanded its product and service offerings, has entered new markets and has increased its scope of operations and the number of its employees. The successful and timely integration of Chesapeake and these other companies into the Company's operations is critical to the Company's future financial performance. This integration will require that the Company, among other things, integrate the companies' software products and technologies, retain key employees, assimilate diverse corporate cultures, integrate management information systems, consolidate the acquired operations and manage geographically dispersed operations, each of which could pose significant challenges. To succeed in the market for supply chain management solutions, the Company must also invest additional resources, primarily in the areas of sales and marketing, to extend name recognition and increase market share. The diversion of the attention of management created by the integration process, any disruptions or other difficulties encountered in the integration process, and unforeseen liabilities or unanticipated problems with the acquired businesses could have a material adverse effect on the business, operating results and financial condition of the Company. The difficulty of combining these companies may be increased by the need to integrate personnel, and changes effected in the combination may cause key employees to leave. There can be no assurance that these acquisitions will provide the benefits expected by the Company or that the Company will be able to integrate and develop the operations of Chesapeake and these other companies successfully. Any failure to do so could have a material adverse effect on the Company's business, operating results and financial condition.

COMPETITION

The Company faces three primary sources of competition: commercial vendors of software products for one or more elements in the design, operation and management of manufacturing processes; vendors of hardware that offer software solutions in order to add value to their proprietary DCS; and large companies in the process industries that have developed their own proprietary software solutions. Because of the breadth of its software and service offerings, the Company faces competition from different vendors depending on the solution in question. The Company competes with respect to the largest number of its solutions with Simulation Sciences, Inc., a subsidiary of Siebe plc. With respect to particular software solutions, the Company also competes with Chemstations, Inc., Hyprotech, Ltd. (a subsidiary of AEA Technology plc), The Foxboro Company and Wonderware Corporation (both of which are subsidiaries of Siebe plc), OSI Software, Inc., the Simcon division of ABB Asea Brown Boveri (Holding) Ltd., and several smaller competitors, such as Pavilion Technologies, Inc. With the acquisition of Chesapeake, the Company now competes with established commercial vendors of supply chain management software, including

i2 Technologies, Inc. and Manugistics Group, Inc. A number of vendors of ERP software products, such as Baan Company N.V., J.D. Edwards Inc., Oracle Corporation, PeopleSoft, Inc., and SAP A.G., have announced their intentions to enter or expand their existing presence in the market for supply chain management solutions. The Company also expects to encounter increasing competition from DCS solution vendors, such as Honeywell Inc., as they expand their software and service offerings to include additional aspects of process manufacturing. Moreover, in recent years, there has been consolidation in the markets in which the Company competes that has expanded the breadth of product and service offerings by certain of the Company's competitors, such as the acquisitions by Siebe plc of Simulation Sciences, Inc. and Wonderware Corporation. As a result of this consolidation and the expansion of DCS and ERP vendors into additional markets, the Company from time to time may compete with divisions of companies with which it collaborates on other occasions, such as Honeywell Inc. and Siebe plc. There can be no assurance that the Company's efforts to compete and cooperate simultaneously with these or other companies will be successful. The further consolidation of existing competitors or the emergence of new competitors could have a material adverse effect on the Company's business, operating results and financial condition. Certain competitors also supply related hardware products to existing and potential customers of the Company and may have established relationships that afford those competitors an advantage in supplying software and services to those customers. The Company's continued success depends on its ability to compete effectively with its commercial competitors and to persuade prospective customers to use the Company's products and services instead of, or in addition to, software developed internally or services provided by their own personnel. In light of these factors, there can be no assurance that the Company will be able to maintain its competitive position.

RISKS ASSOCIATED WITH FUTURE ACQUISITIONS

An element of the Company's business strategy is to continue to pursue strategic acquisitions that will provide it with complementary products, services and technologies and with additional engineering personnel. The identification and pursuit of these acquisition opportunities and the integration of acquired personnel, products, technologies and businesses require a significant amount of management time and skill. There can be no assurance that the Company will be able to identify suitable acquisition candidates, consummate any acquisition on acceptable terms or successfully integrate any acquired business into the Company's operations. In light of the consolidation trend in the Company's industry, the Company expects to face competition for acquisition opportunities, which may substantially increase the cost of any acquisition consummated by the Company. There can also be no assurance that any future acquisition will not have a material adverse effect upon the Company's operating results as a result of non-recurring charges associated with the acquisition or as a result of integration problems in the fiscal quarters following consummation of the acquisition. Acquisitions may also expose the Company to additional risks, including diversion of management's attention, failure to retain key acquired personnel, assumption of legal or other liabilities and contingencies, and amortization of goodwill and other acquired intangible assets, some or all of which could have a material adverse effect on the Company's business, operating results and financial condition. Moreover, customer dissatisfaction with, or problems caused by, the performance of any acquired technologies could have a material adverse impact on the reputation of the Company as a whole. In addition, there can be no assurance that acquired businesses will achieve anticipated revenues and earnings. The Company may use Common Stock or Preferred Stock or may incur long-term indebtedness or a combination thereof for all or a portion of the consideration to be paid in future acquisitions. The issuance of Common Stock or Preferred Stock in acquisitions could result in dilution to existing stockholders, while the use of cash reserves or significant debt financing to fund acquisitions could reduce the Company's liquidity.

CONCENTRATION OF REVENUES IN THE CHEMICALS, PETROCHEMICALS AND PETROLEUM INDUSTRIES

The Company derives a substantial majority of its total revenues from companies in the chemicals, petrochemicals and petroleum industries. Accordingly, the Company's future success depends upon the continued demand for process manufacturing optimization software and services by companies in these industries. The chemicals, petrochemicals and petroleum industries are highly cyclical. The Company believes that worldwide economic downturns and pricing pressures experienced by chemical, petrochemical and petroleum companies in connection with cost-containment measures and environmental regulatory pressures

have in the past led to worldwide delays and reductions in certain capital and operating expenditures by many of these companies. There can be no assurance that these industry patterns, as well as general domestic and foreign economic conditions and other factors affecting spending by companies in these industries, will not have a material adverse effect on the Company's business, operating results and financial condition.

PRODUCT DEVELOPMENT AND TECHNOLOGICAL CHANGE

The market for software and services for process manufacturing optimization is characterized by rapidly changing technology and continuing improvements in computer hardware, operating systems, programming tools, programming languages and database technology. The Company's future success will depend on its ability to enhance its current software products and services, integrate its current and future software offerings, modify its products to operate on additional or new operating platforms or systems, and develop in a timely and cost-effective manner new software and services that meet changing market conditions, including evolving customer needs, new competitive software and service offerings, emerging industry standards and changing technology. The Company has announced its intention to further integrate its software products with each other and to integrate those products with ERP, DCS and other business software solutions. The Company believes additional development will be necessary before its products are fully integrated with each other and with these other solutions, particularly with respect to ERP solutions. In the past, the Company has experienced delays in the development and enhancement of new and existing products, particularly the Windows version of Aspen Plus, and has on occasion postponed scheduled delivery dates for certain of its products. There can be no assurance that the Company will be able to meet customers' expectations with respect to product development, enhancement and integration or that the Company's software and services will otherwise address adequately the needs of customers. Like many other software products, the Company's software has on occasion contained undetected errors or "bugs." Because new releases of the Company's software products are initially installed only by a selected group of customers, any errors or "bugs" in those new releases may not be detected for a number of months after the delivery of the software. If the Company's products do not perform substantially as expected or are not accepted in the marketplace, the Company's business, operating results and financial condition would be materially adversely affected.

DEPENDENCE ON KEY PERSONNEL

The Company's future success depends to a significant extent on Lawrence B. Evans, the principal founder of the Company and its Chairman and Chief Executive Officer, its other executive officers, and certain engineering, technical, managerial and marketing personnel. The loss of the services of any of these individuals or groups of individuals could have a material adverse effect on the Company's business, operating results and financial condition. None of the Company's executive officers has entered into an employment agreement with the Company, and the Company does not have, and is not contemplating securing, any significant amount of key-person life insurance on any of its executive officers or other key employees. In addition to the need to recruit qualified project engineers, the Company believes that its future success will also depend significantly upon its ability to attract, motivate and retain additional highly skilled technical, managerial and marketing personnel. Competition for such personnel is intense, and there can be no assurance that the Company will be successful in attracting, motivating and retaining the personnel it requires to continue to grow and operate profitably.

PRODUCT LIABILITY

The sale and implementation of certain of the Company's software products and services, particularly in the areas of advanced process control and optimization, may entail the risk of product liability claims. The Company's software products and services are used in the design, operation and management of manufacturing processes at large facilities, and any failure of the software at those facilities could result in significant claims for damages or for violations of environmental, safety and other laws and regulations. The Company's agreements with its customers generally contain provisions designed to limit the Company's exposure to potential product liability claims. It is possible, however, that the limitation of liability provisions in the Company's agreements may not be effective as a result of federal, state or local laws or ordinances or

unfavorable judicial decisions. A substantial product liability claim against the Company could have a material adverse effect upon the Company's business, operating results and financial condition.

DEPENDENCE ON PROPRIETARY TECHNOLOGY

The Company regards its software as proprietary and relies on a combination of copyright, patent, trademark and trade secret laws, license and confidentiality agreements, and software security measures to protect its proprietary rights. AspenTech has United States patents for the expert guidance system in its proprietary graphical user interface, the simulation and optimization methods in its optimization software, a process flow diagram generator in its planning and scheduling software, and a process simulation apparatus in its polymers software. The Company has registered or has applied to register certain of its significant trademarks in the United States and in certain other countries. The Company generally enters into non-disclosure agreements with its employees and customers, and historically has restricted access to its software products' source codes, which it regards as proprietary information. In a few cases, the Company has provided copies of the source code for certain products to customers solely for the purpose of special customization of the products and has deposited copies of the source code for certain products in third-party escrow accounts as security for on-going service and license obligations. In these cases, the Company relies on nondisclosure and other contractual provisions to protect its proprietary rights.

The laws of certain countries in which the Company's products are licensed do not protect the Company's products and intellectual property rights to the same extent as the laws of the United States. The laws of many countries in which the Company licenses its products protect trademarks solely on the basis of registration. The Company currently possesses a limited number of trademark registrations in certain foreign jurisdictions and does not possess, and has not applied for, any foreign copyright or patent registrations. In fiscal 1996, fiscal 1997 and the nine months ended March 31, 1998, the Company derived approximately 42.0%, 50.0% and 45.3% of its total revenues, respectively, from customers outside the United States. There can be no assurance that the steps taken by the Company to protect its proprietary rights will be adequate to deter misappropriation of its technology or independent development by others of technologies that are substantially equivalent or superior to the Company's technology. Any such misappropriation of the Company's technology or development of competitive technologies could have a material adverse effect on the Company's business, operating results and financial condition. The Company could incur substantial costs in protecting and enforcing its intellectual property rights. Moreover, from time to time third parties may assert patent, trademark, copyright and other intellectual property rights to technologies that are important to the Company. In such an event, the Company may be required to incur significant costs in litigating a resolution to the asserted claims. There can be no assurance that such a resolution would not require that the Company pay damages or obtain a license of a third party's proprietary rights in order to continue licensing its products as currently offered or, if such a license is required, that it will be available on terms acceptable to the Company, if at all.

MANAGEMENT OF GROWTH

The Company has experienced substantial growth in recent years in the number of its employees, the scope of its operating and financial systems, and the geographic area of its operations. The Company's operations have expanded significantly through both internally generated growth and acquisitions. This growth has resulted in increased responsibilities for the Company's management. To manage its growth effectively, the Company must continue to expand its management team, attract, motivate and retain employees, including qualified project engineers, and implement and improve its operating and financial systems. There can be no assurance that the Company's current management systems will be adequate or that the Company will be able to manage the Company's recent or future growth successfully. Any failure to do so could have a material adverse effect on the Company's business, operating results and financial condition.

INTERNATIONAL OPERATIONS

In fiscal 1996, fiscal 1997 and the nine months ended March 31, 1998, the Company derived approximately 42.0%, 50.0% and 45.3% of its total revenues, respectively, from customers outside the United States. The Company anticipates that revenues from customers outside the United States will continue to

account for a significant portion of its total revenues for the foreseeable future. The Company's operations outside the United States are subject to additional risks, including unexpected changes in regulatory requirements, exchange rates, tariffs and other barriers, political and economic instability, difficulties in managing distributors or representatives, difficulties in staffing and managing foreign subsidiary operations, difficulties or delays in translating products and product documentation into foreign languages, and potentially adverse tax consequences. In addition, the Company currently is unable to determine the effect, if any, that recent economic downturns in Asia, particularly Japan, or the adoption and use of the euro, the single European currency to be introduced in January 1999, will have on the Company's business. There can be no assurance that any of these factors will not have a material adverse effect on the Company's business, operating results and financial condition.

The impact of future exchange rate fluctuations on the Company's financial condition and operating results cannot be accurately predicted. In recent years, the Company has increased the extent to which it denominates arrangements with customers outside the United States in the currencies of the country in which the software or services are provided. From time to time the Company has engaged in, and may continue to engage in, hedges of a significant portion of installment contracts denominated in foreign currencies. There can be no assurance that any hedging policies implemented by the Company will be successful or that the cost of such hedging techniques will not have a significant impact on the Company's business, operating results and financial condition.

DEPENDENCE ON INCREASED MARKET PENETRATION

Increased use in the process industries of software and services for process manufacturing optimization in general and of the Company's software products and services in particular is critical to the Company's future growth. The Company believes that a number of factors will determine its ability to increase market penetration. These factors include product performance, accuracy of results, reliability, breadth and integration of product offerings, scope of applications, and ease of implementation and use. Failure of the Company to achieve increased market penetration in the process industries would substantially restrict the future growth of the Company and could have a material adverse effect on the Company's business, operating results and financial condition.

YEAR 2000 COMPLIANCE

Many currently installed computer systems and software applications are designed to accept only two digit entries in the date code field used to identify years. These date code fields will need to be modified to recognize twenty-first century years. As a result, computer systems and software applications used by many companies may need to be upgraded to comply with "year 2000" requirements. Significant uncertainty exists in the software industry concerning the potential effects of failure to comply with such requirements.

The Company has developed a testing and compliance program to ascertain whether and to what extent the Company may need to update its software products to become year 2000 compliant. The Company does not intend to test or modify all prior versions of its software products, current products used on year 2000 non-compliant systems, custom applications developed by or for customers, or certain current software products that the Company plans to replace with either new software products or year 2000 compliant releases by the end of 1999. Certain of the Company's software products are currently year 2000 compliant; however, the Company has not completed testing on many of the other software products that it intends to test. There can be no assurance that the Company will complete in a timely manner the testing of such software products or the development of any updates necessary to render such software products year 2000 compliant. Although the Company has obtained representations as to year 2000 compliance from the sellers of certain of its recently acquired technologies, there can be no assurance that the Company will not encounter year 2000 problems arising from these technologies or any other technologies that the Company may acquire in the future. Moreover, the ability of the Company's software products to comply with year 2000 requirements depends in part upon the availability of year 2000 compliant versions of operating systems and software applications used by or with the Company's products. Any delay in developing or offering, or the failure to develop or offer year 2000 compliant products or any necessary updates to existing products, could result in delays in the purchasing

of the Company's products and services or in reduced demand for those products and services, and could also result in errors that materially impair the utility of one or more of the Company's products, any of which could have a material adverse effect on the Company's business, operating results and financial condition. Although the Company does not expect the costs associated with its year 2000 compliance program to be material, there can be no assurance that unidentified year 2000 problems will not cause the Company to incur material expenses in responding to such problems or otherwise have a material adverse effect on the Company's business, operating results and financial condition. Moreover, customer purchasing patterns may be affected by year 2000 issues as customers delay purchases in anticipation of the future release of year 2000 compliant products or releases, and as customers expend significant resources to upgrade their current software systems and applications for year 2000 compliance. These expenditures may result in reduced funds available to purchase software products such as those offered by the Company.

The Company has reviewed certain internal systems and future system plans on a preliminary basis to assess Year 2000 compliance. The Company expects that its internal system development plans will address the Year 2000 issue and will correct any existing non-compliant systems without the need to accelerate the overall information systems implementation plans. The Company believes that the cost of any modifications will not be material. The Company's ability to implement its information systems plan and to make the necessary modifications or replacements may be adversely affected by a number of factors outside the control of the Company, including the availability and cost of trained personnel and the ability of such personnel to acquire Year 2000 compliant systems and otherwise to locate and correct all relevant computer codes. The Company is also conducting an additional assessment of its systems and operations in order to more fully identify and plan for any Year 2000 risks, although it believes that its business would not be materially affected by the failure of any internal systems to be Year 2000 compliant. If there are unidentified dependencies on internal systems to operate the business, or if any required modifications are not completed on a timely basis or are more costly to implement than currently anticipated, the Company's business, financial condition or results of operations could be materially adversely affected.

NEW ACCOUNTING STANDARD

In October 1997, the American Institute of Certified Public Accountants ("AICPA") issued Statement of Position No. 97-2 ("SOP 97-2"), "Software Revenue Recognition," which the Company adopted for software license agreements entered into with customers on or after January 1, 1998. This statement provides accounting standards for software revenue recognition. The Company believes that its revenue recognition policies comply with SOP 97-2; however, unanticipated changes or new interpretations by the AICPA of SOP 97-2 could require changes in the Company's revenue recognition practices, which could have a material adverse effect on the Company's operating results and financial condition.

SUBORDINATION OF DEBENTURES

The Debentures are unsecured obligations subordinated in right of payment to all existing and future Senior Debt of the Company. As a result, in the event of the Company's liquidation or insolvency, a payment or covenant default with respect to Senior Debt, or upon acceleration of the Debentures due to an event of default, the assets of the Company will be available to pay obligations on the Debentures only after all Senior Debt has been paid in full, and there may not be sufficient assets remaining to repay in full all of the Debentures then outstanding. The Debentures are also effectively subordinated in right of payment to all indebtedness and other liabilities, including trade payables, of the Company's subsidiaries. The incurrence of additional indebtedness and other liabilities by the Company or its subsidiaries could have a material adverse effect on the Company's ability to pay its obligations on the Debentures. The Indenture does not limit the ability of the Company to incur Senior Debt or the ability of the Company and its subsidiaries to incur other indebtedness or liabilities. As of June 30, 1998, the Company had approximately \$3.8 million of outstanding Senior Debt and the Company's subsidiaries had approximately \$19.0 million of outstanding indebtedness and other liabilities (excluding intercompany liabilities, indebtedness included in Senior Debt because it is guaranteed by the Company and liabilities of a type not required to be reflected on a balance sheet in

accordance with generally accepted accounting principles). See "Description of Debentures -- Subordination."

ABSENCE OF SINKING FUND; LIMITATIONS ON REPURCHASE UPON A CHANGE OF CONTROL

There is no sinking fund with respect to the Debentures, and at maturity, the entire outstanding principal amount thereof will become due and payable by the Company. In addition, in the event of a Change of Control, each holder of Debentures will have the right, at the holder's option, to require the Company to repurchase all or a portion of such holder's Debentures as described under the caption "Description of Debentures -- Repurchase at Option of Holders Upon Change of Control." The Company's ability to repurchase Debentures upon the occurrence of a Change of Control is subject to limitations. There can be no assurance that the Company would have the financial resources or be able to arrange financing on acceptable terms, if at all, to pay the Repurchase Price for all the Debentures as to which the purchase right is exercised. Further, a Change in Control would constitute an event of default under the terms of the Company's bank line of credit. Certain of the agreements relating to the Company's current Senior Debt limit the Company's ability to repurchase the Debentures. As a result, any repurchase in connection with a Change of Control would, depending on the circumstances and absent a waiver from the holders of Senior Debt, be blocked by the subordination provisions of the Debentures. Failure by the Company to repurchase the Debentures when required may result in an Event of Default with respect to the Debentures (and with respect to Senior Debt) whether or not such repurchase is permitted by the subordination provisions. The term "Change of Control" is limited to certain specified transactions and may not include other events that might adversely affect the financial condition of the Company nor would the requirement that the Company repurchase the Debentures upon a Change of Control necessarily afford holders of Debentures protection in the event of highly leveraged or other transactions involving the Company that may adversely affect holders. See "Description of Debentures -- Subordination" and "-- Events of Default."

ABSENCE OF TRADING MARKET FOR THE DEBENTURES;
POTENTIAL VOLATILITY OF PRICE OF DEBENTURES AND COMMON STOCK

There is no existing trading market for the Debentures, and there can be no assurance as to the liquidity of any market that may develop, the ability of any holder to sell Debentures, the price at which the holders of Debentures will be able to sell them or whether a trading market, if it develops, will continue. The Debentures may trade at prices that are higher or lower than their principal amount depending on many factors, including prevailing interest rates, the market for similar securities, the Company's operating results and the trading price of the Common Stock.

The equity markets have from time to time experienced extreme price and volume fluctuations, particularly in the high technology sector, and those fluctuations have often been unrelated to the operating performance of particular companies. In addition, factors such as the financial performance of the Company, announcements of technological innovations or new products by the Company or its competitors, as well as market conditions in the computer software or hardware industries, may have a significant impact on the market price of the Common Stock, including the Conversion Shares. From July 27, 1998, the date on which the Company preliminarily announced its results for the fiscal quarter and year ended June 30, 1998, through the close of business on September 11, 1998, the price per share of Common Stock, as reported by the Nasdaq National Market, decreased from \$48.25 to \$25.6875. See "-- Fluctuations in Quarterly Operating Results and Cash Flow."

EFFECT OF CERTAIN CHARTER AND BY-LAW PROVISIONS AND ANTI-TAKEOVER PROVISIONS;
POSSIBLE ISSUANCES OF PREFERRED STOCK; STOCKHOLDER RIGHTS PLAN

The Company's Certificate of Incorporation, its By-Laws and certain Delaware laws contain provisions that may discourage acquisition bids for the Company and that may deprive stockholders of certain opportunities to receive a premium for their shares as part of an acquisition of the Company. Preferred Stock may be issued by the Company in the future without stockholder approval and upon such terms as the Board of Directors may determine. The rights of the holders of Common Stock will be subject to, and may be

adversely affected by, the rights of the holders of any Preferred Stock that may be issued in the future. The issuance of Preferred Stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, a majority of the outstanding stock of the Company. The Company has adopted a stockholder rights plan, which may deter or delay attempts to acquire the Company or accumulate shares of Common Stock. Except for the stockholder rights plan, the Company has no present plans to designate or issue any shares of Preferred Stock.

FORWARD-LOOKING STATEMENTS

This Prospectus contains and incorporates by reference certain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act, which are intended to be covered by the safe harbors created thereby. For this purpose, any statements contained or incorporated by reference herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," and similar expressions are intended to identify forward-looking statements. Readers are cautioned that all forward-looking statements involve risks and uncertainties, many of which are beyond the Company's control, including the factors set forth under "Risk Factors." Although the Company believes that the assumptions underlying the forward-looking statements contained or incorporated by reference herein are reasonable, any of the assumptions could be inaccurate and there can be no assurance that actual results will be the same as those indicated by the forward-looking statements included or incorporated by reference in this Prospectus. In light of the significant uncertainties inherent in the forward-looking statements included herein, the inclusion or incorporation by reference of such information should not be regarded as a representation by the Company or any other person that the objectives and plans of the Company will be achieved. Moreover, the Company assumes no obligation to update these forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting such forward-looking statements.

RATIOS OF EARNINGS TO FIXED CHARGES

The following table sets forth the consolidated ratio of earnings to fixed charges of the Company. The ratio of earnings to fixed charges is computed by dividing earnings by fixed charges. For this purpose, "earnings" includes pre-tax income from continuing operations plus fixed charges. "Fixed charges" include interest, whether expensed or capitalized, amortization of debt expense, and the portion of rental expense that is representative of the interest factor in these rentals.

FISCAL YEAR ENDED JUNE 30,					NINE MONTHS ENDED
1993	1994	1995	1996	1997	MARCH 31, 1998
3.42 x	6.03 x	10.16 x	--	14.35 x	12.82 x

Fixed charges exceeded earnings available for fixed charges by \$8.3 million in the fiscal year ended June 30, 1996.

USE OF PROCEEDS

The Company will not receive any proceeds from the sale of Debentures or Conversion Shares by the Selling Securityholders.

DESCRIPTION OF DEBENTURES

The Debentures have been issued under an Indenture dated as of June 17, 1998 (the "Indenture") between the Company and The Chase Manhattan Bank, as trustee (the "Trustee"), a copy of which is included as an exhibit to the Registration Statement and is incorporated by reference herein. The Indenture will be qualified under the Trust Indenture Act of 1939, as amended. Wherever particular defined terms of the Indenture (including the Debentures and the various forms thereof) are referred to below, such defined terms are incorporated herein by reference (the Debentures and various terms relating to the Debentures being referred to in the Indenture as "Securities"). References in this section to the "Company" are solely to Aspen Technology, Inc. and not to its subsidiaries. The following summaries of certain provisions of the Indenture do not purport to be complete and are subject to, and are qualified in their entirety by reference to, the detailed provisions of the Debentures, the Indenture and the Trust Indenture Act of 1939, as amended. Section references below are references to sections of the Indenture.

GENERAL

The Debentures are unsecured subordinated obligations of the Company, are limited to \$86,250,000 aggregate principal amount, and will mature on June 15, 2005. The Debentures bear interest at the rate of 5 1/4% per annum from June 17, 1998 or from the most recent Interest Payment Date to which interest has been paid or provided for, payable semiannually on June 15 and December 15 of each year, commencing on December 15, 1998. Interest is calculated on the basis of a 360-day year consisting of twelve 30-day months. (Sections 3.1 and 3.10)

The Debentures are convertible into Common Stock initially at a conversion rate of 18.8791 shares per \$1,000 principal amount of Debentures (equivalent to a conversion price of approximately \$52.97 per share), subject to adjustment upon the occurrence of certain events described under "-- Conversion Rights," at any time prior to the close of business on the maturity date, unless previously redeemed or repurchased. (Sections 2.3, 13.1 and 13.4)

The Debentures are redeemable at the option of the Company under the circumstances and at the redemption prices set forth below under "-- Optional Redemption," plus accrued interest to the redemption date. The Debentures also are subject to repurchase by the Company at the option of the holders as described under "-- Repurchase at Option of Holders Upon Change of Control."

FORM AND DENOMINATION

The Debentures initially have been represented by global Debentures in fully registered form without coupons (collectively, the "Global Debentures" and individually, a "Global Debenture") and were deposited with the Trustee as custodian for The Depository Trust Company ("DTC") and registered in the name of a nominee of DTC. (Section 2.1) The Global Debentures are (and any Debentures issued in exchange therefor will be) subject to certain restrictions on transfer set forth therein and in the Indenture. (Section 2.2)

Except in the limited circumstances described below under "--Global Debentures," owners of beneficial interests in Global Debentures are not entitled to receive physical delivery of certificated Debentures. The Debentures are not issuable in bearer form.

The Debentures are issuable only in fully registered form, without exception. The Debentures are issuable in denominations of \$100,000 and integral multiples of \$1,000 in excess thereof. (Section 3.2) No service charge will be made for any registration, transfer or exchange of Debentures, but the Company may require payment of a sum sufficient to cover any tax or other government charge payable in connection therewith. (Section 3.5)

The Company has appointed the Trustee at its Corporate Trust Office as paying agent, transfer agent, registrar and conversion agent for the Debentures. In such capacities, the Trustee is responsible for, among other things, (i) maintaining a record of the aggregate holdings of Debentures represented by the Global Debenture and accepting Debentures for exchange and registration of transfer, (ii) ensuring that payments of principal, premium, if any, and interest in respect of the Debentures received by the Trustee from the Company are duly paid to DTC or its nominees, (iii) transmitting to the Company any notices from holders,

(iv) accepting conversion notices and related documents and transmitting the relevant items to the Company, and (v) delivering certificates for Common Stock issued upon conversion of the Debentures.

The Company will cause each transfer agent to act as a registrar and will cause to be kept at the office of each transfer agent a register in which, subject to such reasonable regulations as it may prescribe, the Company will provide for the registration of the Debentures and registration of transfers of the Debentures. (Section 3.5) The Company may vary or terminate the appointment of any paying agent, transfer agent or conversion agent, or appoint additional or other such agents, or approve any change in the office through which any such agent acts, provided that there shall at all times be a paying agent, a transfer agent and a conversion agent in the Borough of Manhattan, The City of New York, New York. The Company will cause notice of any registration, termination or appointment of the Trustee or any paying agent, transfer agent or conversion agent, and of any change in the office through which any such agent will act, to be provided to holders of the Debentures. (Section 11.2)

GLOBAL DEBENTURES

The following description of the operations and procedures of DTC is provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them from time to time. The Company takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised the Company as follows: DTC is a limited purpose trust company organized under the laws of the State of New York, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the Uniform Commercial Code, as amended, and a "Clearing Agency" registered pursuant to the provisions of Section 17A of the Exchange Act. DTC was created to hold securities for its participating organizations (collectively, "participants") and facilitate the clearance and settlement of securities transactions between participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical transfer and delivery of certificates. Participants include securities brokers and dealers, banks, trust companies and clearing corporations and may include certain other organizations. Indirect access to the DTC system is available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly ("indirect participants").

Upon the issuance of any Global Debenture, DTC will credit, on its internal system, the respective principal amount of the individual beneficial interests represented by such Global Debenture to the accounts of DTC participants or persons who hold interests through participants. Ownership of beneficial interests in such Global Debenture will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC or its nominee (with respect to interests of participants) or by the participants and the indirect participants (with respect to other owners of beneficial interests in the Global Debentures).

As long as DTC or its nominee is the registered holder of a Global Debenture, DTC or such nominee, as the case may be, will be considered the sole owner and holder of the Debentures represented by such Global Debenture for all purposes under the Indenture and the Debentures. Unless DTC notifies the Company that it is unwilling or unable to continue as depository for a Global Debenture, or ceases to be a "Clearing Agency" registered under the Exchange Act, or announces an intention permanently to cease business or does in fact do so, or an Event of Default has occurred and is continuing with respect to a Global Debenture, owners of beneficial interests in a Global Debenture will not be entitled to have any portions of such Global Debenture registered in their names, will not receive or be entitled to receive physical delivery of Debentures in definitive form and will not be considered the owners or holders of the Global Debenture (or any Debentures represented thereby) under the Indenture or the Debentures. In addition, no beneficial owner of an interest in a Global Debenture will be able to transfer that interest except in accordance with DTC's applicable procedures (in addition to those under the Indenture referred to herein). In the event that owners of beneficial interests in a Global Debenture become entitled to receive Debentures in definitive form, such Debentures will be issued only in registered form in denominations of \$100,000 and integral multiples of \$1,000 in excess thereof.

EXCEPT AS DESCRIBED UNDER "TRANSFER, EXCHANGE, AND WITHDRAWAL," OWNERS OF INTERESTS IN GLOBAL DEBENTURES WILL NOT HAVE DEBENTURES REGISTERED IN THEIR NAMES, WILL NOT RECEIVE PHYSICAL DELIVERY OF DEBENTURES IN CERTIFICATED FORM AND WILL NOT BE CONSIDERED THE REGISTERED OWNERS OR HOLDERS THEREOF UNDER THE INDENTURE FOR ANY PURPOSE.

Payments of the principal of and premium, if any, and interest on Global Debentures will be made to DTC or its nominee as the registered owner thereof. The Company expects that DTC or its nominee, upon receipt of any payment of principal, premium or interest in respect of a Global Debenture representing any Debentures held by DTC or its nominee, will immediately credit participants' accounts with payment in amounts proportionate to their respective beneficial interests in the principal amount of such Global Debentures for such Debentures as shown on the records of DTC or its nominee. The Company also expects that payments by participants to owners of beneficial interests in such Global Debentures held through such participants will be governed by standing instructions and customary practices, as is now the case with securities held for the accounts of customers registered in "street name." Such payments will be the responsibility of such participants. Neither the Company, the Trustee nor any of their respective agents will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the Global Debentures or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

A. Transfers of beneficial interests in the Global Debentures between participants will be effected in accordance with DTC's procedures and will trade in DTC's Same-Day Funds Settlement System, and secondary market trading activity in such interests will therefore settle in immediately available funds.

DTC has advised the Company that it will take any action permitted to be taken by a holder of Debentures (including the presentation of Debentures for exchange as described below) only at the direction of one or more participants to whose account with DTC interests in the Global Debentures are credited and only in respect of such portion of the aggregate principal amount of the Debentures as to which such participant or participants has or have given such direction. However, if there is an Event of Default (as defined below) under the Debentures, DTC reserves the right to exchange the Global Debentures for legended Debentures in certificated form and to distribute such Debentures to its participants.

Although DTC has agreed to the foregoing procedures in order to facilitate transfers of beneficial ownership interests in the Global Debentures among participants of DTC, it is under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued at any time. None of the Company, the Trustee nor any of their respective agents will have any responsibility for the performance by DTC, its participants or its indirect participants of their respective obligations under the rules and procedures governing DTC's operations, including maintaining, supervising or reviewing the records relating to, or payments made on account of, beneficial ownership interests in Global Debentures.

CERTIFICATED DEBENTURES

If DTC is at any time unwilling or unable to continue as a depository for the reasons set forth above under "-- Global Debentures," is closed for business for 14 continuous days or announces an intention to cease or permanently ceases business, the Company will issue certificates for the Debentures in definitive, fully registered, non-global form without interest coupons in exchange for each Global Debenture. The holder of a Debenture in non-global form may transfer such Debenture, subject to compliance with the provisions of such legend, by surrendering it at the office or agency maintained by the Company for such purpose in the Borough of Manhattan, The City of New York, New York, which initially will be the office of the Trustee. Upon the transfer, exchange or replacement of Notes bearing a legend, or upon specific request for removal of a legend on a Note, the Company will deliver only Notes that bear such legend, or will refuse to remove such legend, as the case may be, unless there is delivered to the Company such satisfactory evidence, which may include an opinion of counsel, as reasonably may be required by the Company that neither the legends nor the restrictions on transfer set forth therein are required to ensure compliance with the provisions of the Securities Act.

Notwithstanding any statement herein, the Company and the Trustee reserve the right to impose such transfer, certification, exchange or other requirements, and to require such restrictive legends on certificates evidencing Debentures, (i) as they may determine are necessary to ensure compliance with the securities laws of the United States and the states and other jurisdictions thereof and any other applicable laws or to ensure that the Shelf Registration Statement, as it may be amended, is declared effective by the Commission or (ii) as DTC may require.

REGISTRATION RIGHTS

The holders of the Debentures and the Conversion Shares are entitled to the benefits of a Registration Rights Agreement, dated as of June 17, 1998, between the Company and the Initial Purchasers (the "Registration Rights Agreement"), a copy of which is included as an exhibit to this Registration Statement and is incorporated by reference herein. The following summaries of certain provisions of the Registration Rights Agreement do not purport to be complete and are subject to, and qualified in their entirety by reference to, the detailed provisions of the Registration Rights Agreement.

Pursuant to the Registration Rights Agreement, the Company has agreed for the benefit of the holders from time to time of the Debentures and the Conversion Shares issued or issuable upon conversion thereof that it will, subject to certain exceptions, use its reasonable best efforts to keep the Registration Statement continuously effective under the Securities Act until (i) the second anniversary of the effective date of the Registration Statement or (ii) such earlier date as is provided in the Registration Rights Agreement (the earlier to occur of (i) and (ii) being referred to herein as the "Termination Date").

In the event the Registration Statement ceases to be effective prior to the Termination Date for a period in excess of 60 days, whether or not consecutive, during any 12-month period, then the interest rate borne by the Debentures shall increase by an additional one-half of one percent (0.50%) per annum on the sixty-first day of the applicable 12-month period the Registration Statement ceases to be effective to but excluding the earlier of the Termination Date or the day on which the Registration Statement again becomes effective.

The Registration Rights Agreement can be amended by the Company and the holders of a majority of the Debentures and Conversion Shares then entitled to the benefits of the Registration Rights Agreement.

CONVERSION RIGHTS

The holder of any Debenture has the right, at the holder's option, to convert any portion of the principal amount of a Debenture that is an integral multiple of \$1,000 into shares of Common Stock at any time prior to the close of business on the maturity date, unless previously redeemed or repurchased, at a conversion rate (the "Conversion Rate") of 18.8791 shares of Common Stock per \$1,000 principal amount of Debentures (equivalent to a conversion price of approximately \$52.97 per share of Common Stock), subject to adjustment as described below. The right to convert a Debenture called for redemption or delivered for repurchase will terminate at the close of business on the fifth Trading Day preceding the Redemption Date for such Debenture or the second Trading Day preceding the Repurchase Date for such Debenture, as the case may be. (Sections 2.3 and 13.1)

The right of conversion attaching to any Debenture may be exercised by the holder by delivering the Debenture at the specified office of the Conversion Agent, accompanied by a duly signed and completed notice of conversion, a copy of which may be obtained from the Trustee. The conversion date will be the date on which the Debenture and the duly signed and completed notice of conversion are so delivered. As promptly as practicable on or after the conversion date, the Company will issue and deliver to the Trustee a certificate or certificates for the number of whole shares of Common Stock issuable upon conversion, together with payment in lieu of any fraction of a share or, at the Company's option, rounded up to the next whole number of shares; such certificate will be sent by the Trustee to the Conversion Agent (if other than the Trustee) for delivery to the holder. Conversion Shares, in accordance with the provisions of the Indenture, will be validly issued, fully paid and nonassessable and will rank pari passu with other shares of Common Stock outstanding from time to time. Any Debenture surrendered for conversion during the period from the close of business on any Regular Record Date to the opening of business on the next succeeding Interest Payment Date (the

"Record Date Period") (except Debentures surrendered for conversion for which conversion rights would terminate during the Record Date Period as a result of a call for redemption or a repurchase) must be accompanied by payment of an amount equal to the interest payable on such Interest Payment Date relating to such Record Date Period on the principal amount of such Debentures being surrendered for conversion, and the interest payable on such Interest Payment Date in respect of such Debenture (including Debentures surrendered for conversion for which conversion rights would terminate during the Record Date Period as a result of a call for redemption or a repurchase) shall be paid to the holder of such Debenture as of the Regular Record Date. Interest payable in respect of any Debenture surrendered for conversion on or after an Interest Payment Date shall be paid to the holder of such Debenture as of the next preceding Regular Record Date, notwithstanding the exercise of the right of conversion. (Section 13.2)

As a result of the above-described provisions of the Indenture, holders that surrender Debentures for conversion on a date that is not an Interest Payment Date will not receive any interest for the period from the Interest Payment Date next preceding the date of conversion to the date of conversion or for any later period, even if the Debentures are surrendered after a notice of redemption (except for the payment of interest on Debentures called for redemption on a Redemption Date or to be repurchased on a Repurchase Date in either case, the result of which would cause the conversion rights of such Debenture to terminate during the Record Date Period). No other payment or adjustment for interest, or for any dividends in respect of Common Stock, will be made upon conversion. Holders of Common Stock issued upon conversion will not be entitled to receive any dividends payable to holders of Common Stock as of any record time before the close of business on the conversion date. No fractional shares will be issued upon conversion but, in lieu thereof, the Company will calculate an appropriate amount to be paid in cash on the basis set forth in the Indenture or, at its option, round up to the next whole number of shares. (Sections 13.2 and 13.3)

A holder delivering a Debenture for conversion will not be required to pay any taxes or duties in respect of the issue or delivery of Common Stock on conversion but will be required to pay any tax or duty which may be payable in respect of any transfer involved in the issue or delivery of the Common Stock in a name other than that of the holder of the Debenture. Certificates representing shares of Common Stock will not be issued or delivered unless the person requesting such issue has paid to the Company the amount of any such tax or duty or has established to the satisfaction of the Company that such tax or duty has been paid. (Section 13.8)

The Conversion Rate is subject to adjustment in certain events, including, without duplication: (a) dividends (and other distributions) payable in Common Stock on shares of capital stock of the Company, (b) the issuance to all holders of Common Stock of rights, options or warrants entitling them to subscribe for or purchase Common Stock at less than the then-current market price of Common Stock (determined as provided in the Indenture) as of the record date for shareholders entitled to receive such rights, options or warrants, (c) subdivisions, combinations and reclassifications of Common Stock, (d) distributions to all holders of Common Stock of evidences of indebtedness of the Company, shares of capital stock, cash or assets (including securities, but excluding those dividends, rights, options, warrants and distributions referred to above and excluding dividends and distributions paid exclusively in cash and in mergers and consolidations to which the second succeeding clause applies), (e) distributions consisting exclusively of cash (excluding any cash portion of distributions referred to in (d) above or cash distributed upon a merger or consolidation to which the second succeeding paragraph applies) to all holders of Common Stock in an aggregate amount that, combined together with (i) other such all-cash distributions made within the preceding 12 months in respect of which no adjustment has been made and (ii) any cash and the fair market value of other consideration payable in respect of any tender offer by the Company or any of its subsidiaries for Common Stock concluded within the preceding 12 months in respect of which no adjustment has been made, exceeds 10% of the Company's market capitalization (being the product of the then-current market price, determined as provided in the Indenture, per share of the Common Stock and the number of shares of Common Stock then outstanding) on the record date for such distribution, and (f) the successful completion of a tender offer made by the Company or any of its subsidiaries for Common Stock which involves an aggregate consideration that, together with (i) any cash and other consideration payable in a tender offer by the Company or any of its subsidiaries for Common Stock expiring within the 12 months preceding the expiration of such tender offer in respect of which no adjustment has been made and (ii) the aggregate amount of any such all-cash

distributions referred to in (e) above to all holders of Common Stock within the 12 months preceding the expiration of such tender offer in respect of which no adjustments have been made, exceeds 10% of the Company's market capitalization on the expiration of such tender offer. The Company may make such increases in the Conversion Rate in addition to those required in the foregoing provisions as it considers to be advisable in order that any event treated for federal income tax purposes as a dividend or distribution of stock or issuance of rights or warrants to purchase or subscribe for stock will not be taxable to the recipients. No adjustment of the Conversion Rate will be required to be made until the cumulative adjustments amount to 1.0% or more of the Conversion Rate. (Section 13.4)

Generally, Holders converting Debentures into Common Stock will be entitled to receive upon such conversion, in addition to the Common Stock into which the Debentures are converted, the associated rights (the "Rights") to purchase Series A Participating Cumulative Preferred Stock of the Company, pursuant to the Rights Agreement dated as of March 12, 1998 between the Company and American Stock Transfer & Trust Company, as Rights Agent, as presently constituted or under any similar plan. If for any reason converting holders of the Debentures are not entitled to receive the Rights that would otherwise be attributable (but for the date of conversion) to the shares of Common Stock received upon such conversion or such Rights are not issued to them upon conversion for any reason, then adjustment of the Conversion Rate shall be made under paragraph (d) of the preceding paragraph as if the Rights were then being distributed to the stockholders. If such an adjustment is made and the Rights are later redeemed, invalidated, or terminated, then a corresponding reversing adjustment shall be made to the Conversion Rate, on an equitable basis, to take account of such event. (Section 13.4)

In case of any consolidation or merger of the Company with or into another Person or any merger of another Person into the Company (other than a merger which does not result in any reclassification, conversion, exchange or cancellation of the Common Stock), or in case of any conveyance, sale, transfer or lease of all or substantially all of the assets of the Company, each Debenture then outstanding will, without the consent of the holder of any Debenture, become convertible only into the kind and amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease by a holder of the number of shares of Common Stock into which such Debenture was convertible immediately prior thereto (assuming such holder of Common Stock failed to exercise any rights of election and that such Debenture was then convertible). (Section 13.11)

The Company from time to time may increase the Conversion Rate by any amount for any period of at least 20 days, in which case the Company shall give at least 15 days' notice of such increase, if the Board of Directors has made a determination that such increase would be in the best interests of the Company, which determination shall be conclusive. No such increase shall be taken into account for purposes of determining whether the closing price of the Common Stock exceeds the Conversion Price by 105% in connection with an event that otherwise would constitute a Change of Control. (Section 13.4) See "-- Repurchase at Option of Holders Upon Change of Control."

If at any time the Company makes a distribution of property to its stockholders that would be taxable to such stockholders as a dividend for federal income tax purposes (for example, distributions of evidences of indebtedness or assets of the Company, but generally not stock dividends on Common Stock or rights to subscribe for Common Stock) and, pursuant to the anti-dilution provisions of the Indenture, the number of shares into which Debentures are convertible is increased, such increase may be deemed for federal income tax purposes to be the payment of a taxable dividend to holders of Debentures. See "Certain United States Federal Tax Considerations."

SUBORDINATION

The payment of the principal of and premium, if any, and interest on the Debentures (including any amounts payable upon the redemption or repurchase of the Debentures permitted by the Indenture) is subordinated in right of payment, to the extent set forth in the Indenture, to the prior payment in full of the principal of, premium, if any, interest and other amounts in respect of all Senior Debt of the Company. The Debentures also are effectively subordinated in right of payment to all indebtedness and other liabilities of the

Company's subsidiaries. As of June 30, 1998, the Company had approximately \$3.8 million of Senior Debt outstanding and the Company's subsidiaries had approximately \$19.0 of indebtedness and other liabilities outstanding (excluding inter-company liabilities, indebtedness included in Senior Debt because it is guaranteed by the Company and liabilities of a type not required to be reflected on a balance sheet in accordance with generally accepted accounting principles).

"Senior Debt" is defined in the Indenture to mean the principal of (and premium, if any) and interest (including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding) on, and all fees and other amounts payable in connection with, the following, whether direct or indirect, absolute or contingent, secured or unsecured, due or to become due, outstanding on the date of the Indenture or thereafter created, incurred or assumed: (a) indebtedness of the Company for money borrowed or evidenced by credit or loan agreements, bonds, debentures, notes or similar instruments, (b) all obligations of the Company evidenced by a note or similar instrument or written agreement given in connection with the acquisition of any businesses, properties or assets, including securities, (c) obligations of the Company as lessee under leases capitalized on the balance sheet of the lessee under generally accepted accounting principles, (d) obligations of the Company under interest rate and currency swaps, caps, floors, collars, hedge agreements, forward contracts, or similar agreements or arrangements intended to protect the Company against fluctuations in interest or currency exchange rates or commodity prices, (e) all reimbursement obligations of the Company with respect to letters of credit, bankers' acceptances or similar facilities issued for the account of the Company, (f) indebtedness of others of the kinds described in the preceding clauses (a), (b), (c), (d) and (e) that the Company has assumed, guaranteed or otherwise assured the payment thereof, directly or indirectly, and (g) deferrals, renewals, extensions and refundings of, or bonds, debentures, notes or other evidences of indebtedness issued in exchange for, or amendments, modifications or supplements to, or covenants and other obligations of the Company in connection with, the indebtedness described in the preceding clauses (a) through (f), whether or not there is any notice to or consent of the holders of Debentures; except (i) indebtedness and advances among the Company and its direct and indirect subsidiaries; and (ii) any particular indebtedness, deferral, renewal, extension or refunding, if it is expressly stated in the governing terms or in the assumption thereof that the indebtedness involved is not Senior Debt. (Section 1.1)

No payment on account of principal of, premium, if any, or interest on, or redemption or repurchase of, the Debentures may be made if there shall have occurred (i) a default in the payment of the principal, premium, if any, or interest (including a default under any repurchase or redemption obligation) with respect to any Senior Debt or (ii) any other event of default with respect to any Senior Debt that permits the holders thereof to accelerate the maturity thereof, which event of default shall not have been cured or waived or shall not have ceased to exist after written notice of such event of default shall have been given to the Company and the Trustee by any holder of Senior Debt. Upon the acceleration of the principal due on the Debentures or payment or distribution of assets of the Company to creditors upon any dissolution, winding up, liquidation or reorganization, whether voluntary or involuntary, or in bankruptcy, insolvency, receivership or other proceedings, all principal of and premium, if any, and interest due on all Senior Debt must be paid in full before the holders of the Debentures are entitled to receive any payment. By reason of such subordination, in the event of insolvency, creditors of the Company who are holders of Senior Debt may recover more, ratably, than the holders of the Debentures, and such subordination may result in a reduction or elimination of payments to the holders of the Debentures. (Sections 14.3 and 14.4)

The Indenture does not limit the Company's ability to incur Senior Debt or any other indebtedness or the ability of any subsidiary of the Company to incur any indebtedness or other liabilities.

OPTIONAL REDEMPTION

The Debentures may not be redeemed prior to June 15, 2001. Thereafter, the Debentures may be redeemed, in whole or in part, at the option of the Company, upon not less than 30 nor more than 60 days' prior notice as provided under "-- Notices" below, at the redemption prices set forth below, in each case

together with accrued interest to the date of redemption. (Section 2.3, Article XII) Such redemption prices (expressed as a percentage of principal amount) are as follows for the 12-month periods beginning on June 15 of each of the following years:

YEAR - - - - -	REDEMPTION PRICE -----
2001.....	103.00%
2002.....	102.25
2003.....	101.50
2004.....	100.75

No sinking fund is provided for the Debentures.

REPURCHASE AT OPTION OF HOLDERS UPON CHANGE OF CONTROL

If a Change of Control (as defined below) occurs, each holder of Debentures shall have the right, at the holder's option, to require the Company to repurchase all of such holder's Debentures, or any portion of the principal amount thereof that is equal to \$1,000 or an integral multiple of \$1,000 in excess thereof, on the date (the "Repurchase Date") that is 45 days after the date of the Company Notice (as defined), at a price equal to 100% of the principal amount of the Debentures to be repurchased, together with interest accrued to the Repurchase Date (the "Repurchase Price"). (Section 15.1)

The Company may, at its option, in lieu of paying the Repurchase Price in cash, pay the Repurchase Price in Common Stock valued at 95% of the average of the last reported sale price of the Common Stock for the 5 consecutive Trading Days ending on and including the third Trading Day preceding the Repurchase Date; provided that payment may not be made in Common Stock unless the Company satisfies certain conditions prior to the Repurchase Date as provided in the Indenture. (Section 15.2)

Within 30 days after the occurrence of a Change of Control, the Company is obligated to give to all holders of the Debentures notice, as provided in the Indenture (the "Company Notice"), of the occurrence of such Change of Control and of the repurchase right arising as a result thereof. The Company must also deliver a copy of the Company Notice to the Trustee. To exercise the repurchase right, a holder of Debentures must deliver on or before the 30th day after the date of the Company Notice irrevocable written notice to the Trustee of the holder's exercise of such right, together with the Debentures with respect to which the right is being exercised. (Section 15.3)

A "Change of Control" shall be deemed to have occurred at such time after the original issuance of the Debentures as there shall occur:

(a) the acquisition by any Person (including any syndicate or group deemed to be a "person" under Section 13(d)(3) of the Exchange Act) of beneficial ownership, directly or indirectly, through a purchase, merger, or other acquisition transaction or series of transactions, of shares of capital stock of the Company entitling such Person to exercise 50% or more of the total voting power of all shares of capital stock of the Company entitled to vote generally in elections of directors, other than any such acquisition by the Company, any subsidiary of the Company, or any employee benefit plan of the Company; or

(b) any consolidation of the Company with, or merger of the Company into, any other Person, any merger of another Person into the Company, or any conveyance, sale, transfer or lease of all or substantially all of the assets of the Company to another Person (other than (i) any such transaction (x) that does not result in any reclassification, conversion, exchange or cancellation of outstanding shares of capital stock of the Company and (y) pursuant to which the holders of the Common Stock immediately prior to such transaction are entitled to exercise, directly or indirectly, 50% or more of the total voting power of all shares of capital stock entitled to vote generally in the election of directors of the continuing or surviving corporation immediately after such transaction, and (ii) any merger that is effected solely to change the jurisdiction of incorporation of the Company and results in a reclassification, conversion or exchange of outstanding shares of Common Stock solely into shares of common stock);

provided, however, that a Change of Control shall not be deemed to have occurred if the last reported sale price per share of the Common Stock for any 5 Trading Days within the period of 10 consecutive Trading Days ending immediately after the later of the Change of Control or the public announcement of the Change of Control (in the case of a Change of Control under clause (a) above) or ending immediately before the Change of Control (in the case of a Change of Control under clause (b) above) shall equal or exceed 105% of the Conversion Price of the Debentures in effect on each such Trading Day. "Beneficial owner" shall be determined in accordance with Rule 13d-3 under the Exchange Act, as in effect on June 17, 1998. (Section 15.4)

The Company's ability to repurchase Debentures upon the occurrence of a Change of Control is subject to limitations. There can be no assurance that the Company would have the financial resources or be able to arrange financing on acceptable terms, if at all, to pay the Repurchase Price for all the Debentures as to which the purchase right is exercised. Further, a Change of Control would constitute an event of default under the terms of the Company's bank line of credit. Certain of the agreements relating to the Company's current Senior Debt limit the Company's ability to repurchase the Debentures. As a result, any repurchase in connection with a Change of Control would, depending on the circumstances and absent a waiver from the holders of Senior Debt, be blocked by the subordination provisions of the Debentures. See "-- Subordination." Failure by the Company to repurchase the Debentures when required may result in an Event of Default with respect to the Debentures (and with respect to Senior Debt) whether or not such repurchase is permitted by the subordination provisions. See "Events of Default."

Rule 13e-4 under the Exchange Act requires the dissemination of certain information to security holders in the event of an issuer tender offer and may apply in the event that the repurchase option becomes available to holders of the Debentures. The Company will comply with this rule to the extent applicable at that time.

The foregoing provisions would not necessarily afford holders of the Debentures protection in the event of highly leveraged or other transactions involving the Company that may adversely affect holders.

MERGERS AND SALES OF ASSETS BY THE COMPANY

The Company may not consolidate with or merge into any other Person or, directly or indirectly, convey, transfer, sell, lease, or otherwise dispose of its properties and assets substantially as an entirety to any Person (other than a conveyance, sale, transfer, or lease to a wholly owned subsidiary), and the Company may not permit any Person (other than a wholly owned subsidiary) to consolidate with or merge into the Company or convey, transfer, sell, lease, or otherwise dispose of all or substantially all of its properties and assets substantially as an entirety to the Company, unless (a) the Person formed by such consolidation or into which the Company is merged or the Person to which the properties and assets of the Company are so conveyed, transferred, sold, or leased is a corporation, limited liability company, partnership or trust organized and existing under the laws of the United States, any state thereof or the District of Columbia and has expressly assumed the due and punctual payment of the principal of and premium, if any, and interest on the Debentures and the performance of the other covenants of the Company under the Indenture, (b) immediately after giving effect to such transaction, no Event of Default, and no event that, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing, and (c) the Company has provided to the Trustee an Officer's Certificate and opinion of counsel. (Section 8.1)

EVENTS OF DEFAULT

The following constitute Events of Default under the Indenture: (a) failure to pay principal of, premium on, or the Redemption Price or Repurchase Price of any Debenture when due, whether or not such payment is prohibited by the subordination provisions of the Indenture; (b) failure to pay any interest (including Liquidated Damages) on any Debenture when due, continuing for 30 days, whether or not such payment is prohibited by the subordination provisions of the Indenture; (c) failure to provide a Company Notice in the event of a Change of Control; (d) failure to perform any other covenant or warranty of the Company in the Indenture, continuing for 60 days after written notice as provided in the Indenture; (e) failure to pay any indebtedness for money borrowed by the Company in an aggregate principal amount in excess of \$5,000,000 at

final maturity or acceleration of payment thereof, which default in payment or acceleration is not cured or rescinded within 30 days after written notice as provided in the Indenture; and (f) certain events of bankruptcy, insolvency or reorganization. (Section 5.1) Subject to the provisions of the Indenture relating to the duties of the Trustee in case an Event of Default shall occur and be continuing, the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request or direction of any of the holders, unless such holders shall have offered to the Trustee reasonable security or indemnity. (Section 6.3) Subject to such provisions for the indemnification of the Trustee, the holders of a majority in aggregate principal amount of the Outstanding Debentures will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee. (Section 5.12)

If an Event of Default (other than an Event of Default specified in clause (a), (b) or (f) above) occurs and is continuing, either the Trustee shall, at the written request of the holders of not less than 25% in aggregate principal amount of the Outstanding Debentures, or the holders of not less than 25% in aggregate principal amount of the Outstanding Debentures may directly, by notice in writing to the Company, declare the principal of all the Debentures to be due and payable immediately, and upon any such declaration such principal and any accrued interest and any unpaid Liquidated Damages thereon will become immediately due and payable. If an Event of Default specified in clause (a) or (b) occurs and is continuing, the holder of any Outstanding Debenture may, by notice in writing to the Company (with a copy to the Trustee), declare the principal of such Debenture to be due and payable immediately, and upon any such declaration such principal and (subject to the Indenture) any accrued interest and Liquidated Damages thereon will become immediately due and payable. If an Event of Default specified in clause (f) occurs and is continuing, the principal of and any accrued interest and any unpaid Liquidated Damages on all of the then-Outstanding Debentures shall ipso facto become due and payable immediately without any declaration or other Act on the part of the Trustee or any holder. (Section 5.2)

At any time after a declaration of acceleration has been made but before a judgment or decree based on acceleration, the holders of a majority in aggregate principal amount of Outstanding Debentures may, under certain circumstances, rescind and annul such acceleration if, among other things, all Events of Default, other than the nonpayment of accelerated principal and interest, have been cured or waived as provided in the Indenture. (Section 5.2)

No holder of any Debenture has any right to institute any proceeding with respect to the Indenture or for any remedy thereunder, unless such holder shall have previously given to the Trustee written notice of a continuing Event of Default and unless also the holders of at least 25% in aggregate principal amount of the Outstanding Debentures shall have made written request, and offered reasonable indemnity, to the Trustee to institute such proceeding as trustee, and the Trustee shall not have received from the holders of a majority in aggregate principal amount of the Outstanding Debentures a direction inconsistent with such request and shall have failed to institute such proceeding within 60 days. (Section 5.7) However, such limitations do not apply to a suit instituted by a holder of a Debenture for the enforcement of payment of the principal of or premium, if any, or interest on such Debenture or the Redemption Price or the Repurchase Price on or after the respective due dates expressed in such Debenture or of the right to convert such Debenture in accordance with the Indenture. (Section 5.8)

The Company is required to furnish to the Trustee annually a statement as to the performance by the Company of certain of its obligations under the Indenture and as to any default in such performance. (Section 11.9)

MEETINGS, MODIFICATION AND WAIVER

The Indenture contains provisions for convening meetings of the holders of Debentures to consider matters affecting their interests. (Article X)

Modifications and amendments of the Indenture may be made, and certain past defaults by the Company may be waived, (i) with the written consent of the holders of not less than a majority in aggregate principal amount of the Debentures at the time Outstanding or (ii) by the adoption of a Resolution, at a meeting of

holders of the Debentures at which a quorum is present, by the holders of at least 66 2/3% in aggregate principal amount of the Outstanding Debentures represented at such meeting. However, no such modification or amendment may, without the consent of the holder of each Outstanding Debenture affected thereby, (a) change the Stated Maturity of the principal of, or any installment of interest on, any Debenture, (b) reduce the principal amount of or the premium, if any, or rate of interest on any Debenture, (c) reduce the amount payable upon redemption or repurchase, (d) modify the provisions with respect to the repurchase right of the holders in a manner adverse to the holders, (e) change the place or currency of payment of principal of or premium, if any, or interest on, any Debenture (including any payment of any Liquidated Damages or the Repurchase Price in respect of such Debenture), (f) impair the right to institute suit for the enforcement of any payment on or with respect to any Debenture, (g) modify the obligation of the Company to maintain an office or agency in The City of New York, New York, (h) except as otherwise permitted by the Indenture or contemplated by provisions concerning consolidation, merger, conveyance, transfer, sale or lease of all or substantially all of the property and assets of the Company, adversely affect the right of holders to convert any of the Debentures or to require the Company to repurchase any Debenture other than as provided in the Indenture, (i) modify the subordination provisions in a manner adverse to the holders of the Debentures, (j) reduce the above-stated percentage of Outstanding Debentures necessary to modify or amend the Indenture, (k) reduce the percentage of aggregate principal amount of Outstanding Debentures necessary for waiver of compliance with certain provisions of the Indenture or for waiver of certain defaults, (l) reduce the percentage in aggregate principal amount of Debentures Outstanding required for the adoption of a Resolution or the quorum required at any meeting of holders of Debentures at which a Resolution is adopted, (m) modify the obligation of the Company to deliver information required by Rule 144A under the Securities Act to permit resales of Debentures and Common Stock issued upon conversion thereof in the event the Company ceases to be subject to certain reporting requirements under United States federal securities laws or (n) modify any provisions relating to subordination of the Debentures, conversion of the Debentures or repurchase upon a Change of Control in a manner adverse to the holders of the Debentures. (Section 9.2) The quorum at any meeting called to adopt a Resolution will be persons holding or representing a majority in aggregate principal amount of the Debentures at the time Outstanding and, at any reconvened meeting adjourned for lack of quorum, 25% of such aggregate principal amount. (Section 10.4)

The holders of a majority in aggregate principal amount of the Outstanding Debentures may waive compliance by the Company with certain restrictive provisions of the Indenture. (Section 11.11) The holders of a majority in aggregate principal amount of the Outstanding Debentures also may waive any past default under the Indenture, except a default in the payment of principal, premium, if any, or interest. (Section 5.13)

TRANSFER, EXCHANGE AND WITHDRAWAL

The Company has appointed the Trustee as security registrar and transfer agent, acting through its Corporate Trust Office in The City of New York, New York. The Company reserves the right to vary or terminate the appointment of the security registrar or of any transfer agent or to appoint additional or other transfer agents or to approve any change in the office through which any security registrar or any transfer agent acts. (Sections 3.5 and 11.2)

In the event of a redemption of the Debentures for any of the reasons set forth above under "-- Optional Redemption," the Company will not be required (a) to register the transfer or exchange of Debentures for a period of 15 days immediately preceding the date notice is given identifying the serial numbers of the Debentures called for such redemption or (b) to register the transfer or exchange of any Registered Debenture, or portion thereof, called for redemption. (Section 2.2)

PURCHASE AND CANCELLATION

The Company or any subsidiary may at any time and from time to time purchase Debentures at any price in the open market or otherwise.

All Debentures surrendered for payment, redemption, repurchase, registration of transfer, exchange or conversion shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee. All

Debentures so delivered to the Trustee shall be canceled promptly by the Trustee. No Debentures shall be authenticated in lieu of or in exchange for any Debentures canceled as provided in the Indenture. Unless otherwise requested by the Company and confirmed in writing, the Trustee shall, from time to time but not less than once annually, destroy all canceled Debentures and deliver to the Company a certificate of destruction, which certificate shall specify the number, principal amount and, in the case of Debentures, the form of each canceled Debenture so destroyed. (Section 3.9)

TITLE

The Company and the Trustee may treat the registered owner (as reflected in the Security Register) of any Debenture as the absolute owner thereof (whether or not such Debenture shall be overdue) for the purpose of making payment and for all other purposes.

NOTICES

Notice to holders of the Debentures will be given by mail to the addresses of such holders as they appear in the Security Register. Such notices will be deemed to have been given on the date of such mailing. (Section 1.6)

REPLACEMENT OF DEBENTURES

Debentures that become mutilated, destroyed, stolen or lost will be replaced by the Company at the expense of the holder upon delivery to the Trustee of the mutilated Debentures or evidence of the loss, theft or destruction thereof satisfactory to the Company and the Trustee. In the case of a lost, stolen or destroyed Debenture, indemnity satisfactory to the Trustee and the Company may be required at the expense of the holder of such Debenture before a replacement Debenture will be issued. (Section 3.6)

PAYMENT OF STAMP AND OTHER TAXES

The Company shall pay all stamp and other duties, if any, which may be imposed by the United States or any political subdivision thereof or taxing authority thereof or therein with respect to the issuance of the Debentures. The Company will not be required to make any payment with respect to any other tax, assessment or governmental charge imposed by any government or any political subdivision thereof or taxing authority therein.

SATISFACTION AND DISCHARGE

The Company may discharge its payment obligations under the Indenture while Debentures remain Outstanding if (a) all Outstanding Debentures have become due and payable or will become due and payable at their scheduled maturity within one year, (b) all Outstanding Debentures are scheduled for redemption within one year or (c) all Outstanding Debentures are delivered to the Trustee for conversion in accordance with the Indenture and in the case of (a) or (b) above, the Company has deposited with the Trustee an amount sufficient to pay and discharge the entire indebtedness on all Outstanding Debentures on the date of their scheduled maturity or the scheduled date of redemption. (Section 4.1)

GOVERNING LAW

The Indenture and the Debentures are governed by and to be construed in accordance with the laws of the State of New York. (Section 1.11)

THE TRUSTEE

In case an Event of Default shall occur (and shall not be cured), the Trustee is required to use the degree of care of a prudent person in the conduct of his own affairs in the exercise of its powers. Subject to such provisions, the Trustee is under no obligation to exercise any of its rights or powers under the Indenture at the request or direction of any of the holders of Debentures, unless they shall have offered to the Trustee reasonable security or indemnity. (Sections 6.1 and 6.3)

DESCRIPTION OF CAPITAL STOCK

The Company's authorized capital stock consists of 40,000,000 shares of Common Stock, \$.10 par value per share, and 10,000,000 shares of Preferred Stock, \$.10 par value per share. As of September 1, 1998, there were 24,902,218 shares of Common Stock outstanding and no shares of Preferred Stock outstanding. In addition, there were outstanding stock options to acquire 5,280,668 shares of Common Stock and outstanding warrants to acquire 41,560 shares of Common Stock.

COMMON STOCK

Holder of Common Stock are entitled to one vote per share for each share held of record on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of Common Stock entitled to vote in any election of Directors may elect all of the Directors standing for election. Subject to preferential dividend rights with respect to any outstanding Preferred Stock, holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available therefor. Upon liquidation, dissolution or winding up of the Company, holders of Common Stock are entitled to share ratably in the assets of the Company legally available for distribution to the holders of Common Stock, subject to any prior rights of any outstanding Preferred Stock. Holders of Common Stock have no cumulative voting rights nor any preemptive, subscription, redemption or conversion rights. All outstanding shares of Common Stock are, and the Conversion Shares will be when issued in accordance with the terms of the Debentures, validly issued, fully paid and non-assessable. The rights, preferences and privileges of holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of Preferred Stock that the Company may designate and issue in the future.

PREFERRED STOCK

The Board of Directors is authorized, subject to any limitations prescribed by law, without further stockholder approval, to issue from time to time up to an aggregate of 10,000,000 shares of Preferred Stock in one or more series. Each such series of Preferred Stock shall have such number of shares, designations, preferences, voting powers, qualifications and special or relative rights or privileges, which may include, among others, dividend rights, voting rights, redemption and sinking fund provisions, liquidation preferences and conversion rights, as shall be determined by the Board of Directors in a resolution or resolutions providing for the issuance of such series. Any such series of Preferred Stock, if so determined by the Board of Directors, may have full voting rights with the Common Stock or superior or limited voting rights, and may be convertible into Common Stock or another security of the Company.

The Company has granted the Board of Directors the authority to issue Preferred Stock and to determine its rights and preferences in order to eliminate delays associated with a stockholder vote on specific issuances. The issuance of Preferred Stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, a majority of the outstanding voting stock of the Company. The Company has designated and reserved an aggregate of 400,000 shares of authorized but unissued Preferred Stock for issuance as Series A participating cumulative preferred stock, \$.10 par value per share, of the Company ("Series A Preferred Stock") pursuant to the Company's Stockholder Rights Plan. See "-- Rights Plan." Except as contemplated by such Plan, the Company has no present plans to issue any shares of Preferred Stock. See "Risk Factors -- Effect of Certain Charter and By-Law Provisions and Anti-Takeover Provisions; Possible Issuances of Preferred Stock; Stockholder Rights Plan."

WARRANTS

As of September 1, 1998, there were outstanding warrants to purchase an aggregate of 41,560 shares of Common Stock. All of the warrants are currently exercisable, and they have a weighted average exercise price of \$34.37 per share.

REGISTRATION RIGHTS

The Company currently has two shelf registration statements on Form S-3 effective under the Securities Act, each of which has been filed and is being kept effective pursuant to registration rights granted in connection with acquisitions made by the Company. Under the first of these shelf registration statements, the Company has registered an aggregate of 127,645 shares of Common Stock issued to the former stockholders of Cimtech S.A./N.V. and Contas Process Control s.r.l. The Company is obligated to keep this shelf registration statement in effect until September 22, 1998, although the Company may elect, in its discretion, to keep the shelf registration statement until a later date.

Under the second of these shelf registration statements, the Company has registered an aggregate of 322,944 shares of Common Stock issued to the former stockholders of Zyqad Limited and Treiber Controls Inc. The Company is obligated to keep this shelf registration statement in effect until November 29, 1998, although the Company may elect, in its discretion, to keep the shelf registration statement until a later date.

The Company has granted certain rights with respect to the registration of an aggregate of 2,961,959 shares of Common Stock (the "Chesapeake Shares") issued in connection with the Company's acquisition of Chesapeake. Pursuant to these rights:

(1) Initial Shelf. The Company intends to file on or shortly after September 16, 1998 a shelf registration statement on Form S-3 with respect to 100,000 of the Chesapeake Shares. This shelf registration statement will also include 14,000 shares of Common Stock that have been issued to the former stockholder of Treiber Controls Inc., but are currently being held in escrow under the terms of the share exchange agreement entered into in connection with AspenTech's acquisition of Treiber Controls Inc. Former stockholders of Chesapeake may elect to increase the number of Chesapeake Shares registered under this shelf registration statement subsequent to the filing date, but the Company expects that fewer than 100,000 additional Chesapeake Shares will be registered. The Company will be obligated to keep this shelf registration statement in effect for a period of ninety days.

(2) Second Shelf. The Company has agreed to file with the Commission, as soon as practicable on or after January 4, 1999 (or, in certain circumstances, a later date on or before February 26, 1999), a shelf registration statement on Form S-3 covering up to 500,000 of the Chesapeake Shares, as may be requested by the former stockholders of Chesapeake, and to use its reasonable best efforts to cause such registration to become effective as promptly as practicable and to remain effective through March 31, 1999.

(3) Third Shelf. The Company has also agreed to file with the Commission, as soon as practicable on or after April 1, 1999 (or, in certain circumstances, a later date on or before May 29, 1999), a registration statement on Form S-3, covering up to an additional 500,000 of the Chesapeake Shares, as may be requested to the former stockholders of Chesapeake, and to use its reasonable best efforts to cause such registration to become effective as promptly as practicable and to remain effective through June 30, 1999.

(4) Demand Underwriting. The former stockholders of Chesapeake may, between April 1, 1999 or July 30, 1999, require that the Company file with the Commission one registration statement on Form S-3 covering between 500,000 and 1,000,000 of the Chesapeake Shares, for sale in an underwritten public offering. Upon such a demand, the Company shall use its reasonable best efforts to prepare and file such a registration statement with the Commission and to cause such registration to become effective as promptly as practicable.

(5) Piggyback Underwriting. In addition, the former stockholders of Chesapeake shall have certain incidental, or "piggyback," rights to include up to 500,000 of the Chesapeake Shares in a primary or secondary underwritten offering for which the Company proposed to register shares of Common Stock (except for certain specified registrations, including registrations to be effected on Form S-4 or S-8). These incidental registration rights for the benefit of each former Chesapeake stockholder apply with respect to any such registration by the Company occurring (A) after November 29, 1998 and (B) before the date on which such stockholder is eligible to sell all of such stockholder's Chesapeake

Shares, without volume limitation, pursuant to Rule 144 under the Securities Act (or on such earlier date on which the demand registration described above shall be completed).

DELAWARE LAW AND CERTAIN CHARTER AND BY-LAW PROVISIONS

The Company is subject to the provisions of Section 203 of the General Corporation Law of Delaware. Section 203 prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's voting stock.

The Certificate of Incorporation of the Company provides for the division of the Board of Directors into three classes as nearly equal in size as possible with staggered three-year terms. In addition, the Certificate of Incorporation provides that directors may be removed only for cause by the affirmative vote of the holders of two-thirds of the shares of capital stock of the corporation entitled to vote. Under the Certificate of Incorporation, any vacancy on the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board, may only be filled by vote of a majority of the directors then in office. The classification of the Board of Directors and the limitations on the removal of directors and filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, control of the Company.

The Certificate of Incorporation also provides that any action required or permitted to be taken by the stockholders of the Company at any annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written consent in lieu of a meeting. The Certificate of Incorporation further provides that special meetings of the stockholders may only be called by Chairman of the Board of Directors, the Chief Executive Officer or, if none, the President of the Company or by the Board of Directors. Under the Company's By-Laws, in order for any matter to be considered properly brought before a meeting, a stockholder must comply with certain requirements regarding advance notice to the Company. The foregoing provisions could have the effect of delaying until the next stockholders' meeting stockholder actions which are favored by the holders of a majority of the outstanding voting securities of the Company. These provisions may also discourage another person from making a tender offer for the Common Stock, because such person, even if it acquired a majority of the outstanding voting securities of the Company, would be able to take action as a stockholder (such as electing new directors or approving a merger) only at a duly called stockholders' meeting, and not by written consent.

The General Corporation Law of Delaware provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or by-laws, unless a corporation's certificate of incorporation or by-laws, as the case may be, requires a greater percentage. The Company's Certificate of Incorporation and By-Laws require the affirmative vote of the holders of at least 75% of the shares of capital stock of the Company issued and outstanding and entitled to vote to amend or repeal any of the provisions described in the prior two paragraphs.

The Certificate of Incorporation contains certain provisions permitted under the General Corporation Law of Delaware relating to the liability of directors. The provisions eliminate a director's liability for monetary damages for a breach of fiduciary duty, except in certain circumstances involving wrongful acts, such as the breach of a director's duty of loyalty or acts or omissions which involve intentional misconduct or a knowing violation of law. Further, the Certificate of Incorporation contains provisions to indemnify the Company's directors and officers to the fullest extent permitted by the General Corporation Law of Delaware. The Company believes that these provisions will assist the Company in attracting and retaining qualified individuals to serve as directors and officers.

RIGHTS PLAN

On March 12, 1998, the Board of Directors of the Company adopted a Stockholder Rights Agreement (the "Rights Plan") and distributed one Right for each outstanding share of Common Stock. The Rights were issued to holders of record of Common Stock outstanding on March 12, 1998. Each share of Common Stock issued after March 28, 1998 will also include one Right, subject to certain limitations. Each Right when it becomes exercisable will initially entitle the registered holder to purchase from the Company one one-hundredth (1/100th) of a share of Series A Preferred Stock at a price of \$175.00 (the "Purchase Price"). The terms of the Rights Plan are substantially equivalent to the terms of a Stockholder Rights Agreement adopted on October 9, 1997 by the Board of Directors of Aspen Technology, Inc., a Massachusetts corporation and predecessor of the Company.

Currently the Rights are attached to outstanding shares of Common Stock. The Rights are not now exercisable and cannot be transferred separately. The Rights will become exercisable and separately transferable when the Company learns that any person or group has acquired beneficial ownership of 15% or more of the outstanding Common Stock or on such other date as may be designated by the Board of Directors following the commencement of, or first public disclosure of an intent to commence, a tender or exchange offer for outstanding Common Stock that could result in the offeror becoming the beneficial owner of 15% or more of the outstanding Common Stock. In such circumstances, holders of the Rights will be entitled to purchase, for the Purchase Price, a number of hundredths of a share of Series A Preferred Stock equivalent to the number of shares of Common Stock (or, in certain circumstances, other equity securities) having a market value of twice the Purchase Price. Beneficial holders of 15% or more of the outstanding Common Stock, however, would not be entitled to exercise their Rights in such circumstances. As a result, their voting and equity interests in the Company would be substantially diluted if the Rights were to be exercised.

The Rights expire in March 2008, but may be redeemed earlier by the Company at a price of \$.01 per Right, in accordance with the provisions of the Rights Plan.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Common Stock is American Stock Transfer and Trust Company.

CERTAIN UNITED STATES FEDERAL TAX CONSIDERATIONS

The following is a summary of certain United States federal income tax considerations relating to the purchase, ownership and disposition of the Debentures and the Conversion Shares, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based on current provisions of the Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations thereunder and administrative and judicial interpretations thereof, all of which are subject to change, with possible retroactive effect. This summary only addresses the tax consequences to holders ("Holders") that are United States persons holding Debentures and Conversion Shares as "capital assets" (within the meaning of Section 1221 of the Code). This summary does not address tax considerations applicable to (i) investors that are not United States persons, (ii) investors that may be subject to special tax rules, such as banks, tax-exempt organizations, insurance companies, dealers in securities or currencies, (iii) persons that hold Debentures as a position in a hedging transaction, "straddle" or "conversion transaction" for tax purposes, and (iv) persons that have a "functional currency" other than the U.S. dollar. As used herein, the term "United States person" means (i) a citizen or resident of the United States, (ii) an entity created or organized in or under the laws of the United States or any political subdivision thereof that is classified as a corporation or as a partnership, (iii) an estate the income of which is subject to United States federal income taxation regardless of its source, and (iv) a trust if (a) a court within the United States is able to exercise primary supervision over the trust's administration and (b) one or more U.S. fiduciaries have the authority to control all the trust's substantial decisions. The Company has not sought any ruling from the Internal Revenue Service (the "IRS") with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

INVESTORS CONSIDERING THE PURCHASE OF DEBENTURES OR CONVERTIBLE SHARES SHOULD CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE UNITED STATES FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER THE LAWS OF ANY STATE, LOCAL OR FOREIGN TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

PAYMENT OF INTEREST

Interest on a Debenture generally will be includable in the income of a Holder as ordinary income at the time such interest is received or accrued, in accordance with such Holder's method of accounting for United States federal income tax purposes.

MARKET DISCOUNT

If a Holder purchases a Debenture for an amount that is less than its stated redemption price at maturity, such Holder will be treated as having purchased such Debenture at a "Market Discount." The Market Discount with respect to a Debenture will equal the difference between (i) the stated redemption price of the Debenture at maturity, over (ii) the basis of the Debenture immediately after its acquisition by the Holder, provided, however, that if the Market Discount is less than one-fourth of one percent of the stated redemption price of the Debenture at maturity, multiplied by the number of complete years to maturity (after the Holder acquired the Debenture), the Market Discount shall be zero.

A Holder with a cash basis method of accounting for United States federal income tax purposes is not required to include the Market Discount with respect to a Debenture in income currently as it accrues, but may make an election to so include such Market Discount. If the Holder makes such an election, such included Market Discount is treated as interest income for United States federal income tax purposes. Such an election will apply to all debt instruments with market discount acquired by the Holder on or after the first day of the taxable year to which such election applied and may be revoked only with the consent of the IRS.

A Holder of a Debenture with a Market Discount will be required to treat any partial payment on a Debenture, or any gain realized on the sale, exchange, retirement or other disposition of a Debenture, as interest income to the extent of the lesser of (i) the amount of such payment or gain realized and (ii) the

Market Discount which has not previously been included in income and is treated as having accrued on such Debenture at the time of such payment or disposition. Any such amounts treated as ordinary income will increase the Holder's adjusted tax basis in the Debenture. Those Holders who elect to include the Market Discount with respect to a Debenture in income currently as it accrues should not be required to treat any such amounts as interest income.

BOND PREMIUM

If a Holder purchases a debt instrument for an amount in excess of its stated redemption price at maturity, the Holder will be considered to have purchased the debt instrument with "amortizable bond premium," generally equal in amount to such excess, but reduced by the value of any conversion features attached to the debt instrument. A Holder may elect to amortize bond premium using a constant yield method over the remaining term of the debt instrument. Any election to amortize bond premium applies to all taxable debt obligations then owned and thereafter acquired by the Holder on or after the first day of the taxable year to which such election applies, and may be revoked only with the consent of the IRS.

The conversion features of the Debentures and the Company's option to redeem the Debentures at the Redemption Price prior to maturity will affect a Holder's calculation of amortizable bond premium. As noted in the preceding paragraph, the amount of amortizable bond premium generally equals the excess of the Holder's tax basis in the debt instrument over the debt instrument's stated redemption price at maturity, but reduced by the value of the conversion features of the debt instrument. Accordingly, the value of the conversion features of the Debentures must be excluded from the calculation of amortizable bond premium. Treasury regulations provide that the value of the conversion features of a particular debt instrument is determined as of the time of acquisition by subtracting from the cost of the debt instrument the assumed price at which the debt instrument would be purchased on the open market if it did not have the conversion features. This assumed price of the debt instrument without conversion features is determined by comparing the yields on which debt instruments of a similar character, but not having conversion features, are sold on the open market and adjusting the price of the debt instrument in question to this yield.

In the case of instruments like the Debentures that may be redeemed prior to maturity, the regulations provide that the premium is calculated by assuming that the Company will exercise or not exercise its redemption rights in the manner that maximizes the Holder's yield. If the assumption based on maximizing the Holder's yield is that the Company's redemption rights will be exercised at a particular redemption date, and contrary to that assumption the Company does not exercise its redemption rights on that date, the Debentures will be treated (for purposes of the bond premium rules only) as retired and reacquired by the Holder at the redemption price at which the Debentures could have been redeemed on such date. The Debentures deemed to have been reissued will again be subject to the amortizable bond premium rules with respect to the remaining dates on which the Debentures are redeemable. On the other hand, if the assumption based on maximizing the Holder's yield is that the Company's redemption rights will not be exercised on a particular redemption date, and contrary to that assumption the Company does in fact exercise its redemption rights on that date, the Holder may deduct the excess (if any) of the adjusted acquisition price (cost minus previously amortized bond premium) over the redemption price.

A Holder amortizes bond premium by offsetting the interest income allocable to that period by the premium allocable to that period on a constant-year basis. If the bond premium allocable to an accrual period exceeds the qualified stated interest allocable to such period, the excess is treated by the Holder as a bond premium deduction. However, the bond premium deduction for the accrual period is limited to the amount by which the Holder's total interest inclusions on the debt instrument in prior accrual periods exceed the total amount treated by the Holder as a bond premium deduction on the debt instrument in prior accrual periods. Any amounts not deductible in an accrual period may be carried forward to the next accrual period and treated as bond premium allocable to that period.

SALE, EXCHANGE OR REDEMPTION OF THE DEBENTURES

Upon the sale, exchange or redemption of a Debenture, a Holder generally will recognize capital gain or loss equal to the difference between (i) the amount of cash proceeds and the fair market value of any property received on the sale, exchange or redemption (except to the extent such amount is attributable to accrued

interest income, which is taxable as ordinary income) and (ii) the Holder's adjusted tax basis in the Debenture. A Holder's adjusted tax basis in a Debenture generally will equal the cost of the Debenture to such Holder, less any principal payments received by the Holder plus any accrued Market Discount. The tax rate applicable to such a capital gain will depend, among other things, upon the Holder's holding period for the Debentures that are sold, exchanged or redeemed. Such gain or loss will be long-term capital gain or loss if the Holder's holding period in the Debenture is more than 12 months at the time of sale, exchange or redemption. Such gain or loss will be short-term gain or loss if the holding period is equal to or less than 12 months. Long-term capital gains are taxed at a maximum rate of 20%, and short-term capital gains are taxed at a maximum rate of 39.6%. In taxable years beginning after December 31, 2000, the rate of tax applicable to long-term capital gains in certain circumstances may be reduced below 20% for property held for more than five years.

CONVERSION OF THE DEBENTURES

A Holder generally will not recognize any income, gain or loss upon conversion of a Debenture into Common Stock except to the extent of ordinary income recognized with respect to accrued and unpaid interest, including Market Discount, on the Debenture at that time. A Holder also will recognize capital gain or loss upon the receipt of cash in lieu of a fractional share of Common Stock equal to the amount of cash received less the Holder's tax basis in such fractional share. A Holder's tax basis in the Common Stock received on conversion of a Debenture will be the same as the Holder's adjusted tax basis in the Debenture at the time of conversion (including any accrued Market Discount, and reduced by any basis allocable to a fractional share interest), and the holding period for the Common Stock received on conversion will generally include the holding period of the Debenture converted.

DIVIDENDS

Distributions made by the Company with respect to Common Stock will generally be includable in the gross income of a Holder as dividend income to the extent that such distributions are paid out of the Company's current or accumulated earnings and profits. To the extent, if any, that the amount of any such distribution exceeds the Company's current or accumulated earnings and profits, it will first reduce the Holder's tax basis in its Common Stock to the extent thereof, and to the extent in excess of such tax basis, will be treated as gain from the sale or exchange of such stock.

In general, a dividend distribution to a corporate Holder will qualify for the 70% dividends received deduction if such Holder owns less than 20% of the voting power and value of the Company's stock (other than certain non-voting, non-convertible, non-participating preferred stock). A corporate Holder that owns 20% or more of the voting power and value of the Company's stock (other than certain non-voting, non-convertible, non-participating preferred stock) generally will qualify for an 80% dividends received deduction. The dividends received deduction is subject, however, to certain holding period, taxable income and other limitations.

SALE OF COMMON STOCK

Upon the sale or exchange of Common Stock, a Holder generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon the sale or exchange and (ii) the Holder's adjusted tax basis in the Common Stock. The tax rate applicable to such capital gain will depend, among other things, upon the Holder's holding period for the Common Stock that is sold or exchanged. A Holder's basis and holding period in Common Stock received upon conversion of a Debenture are determined as discussed above under "-- Conversion of the Debentures."

ADJUSTMENT OF CONVERSION PRICE

Treasury regulations promulgated under Section 305 of the Code would treat Holders of the Debentures as having received a constructive distribution from the Company upon an adjustment in the conversion ratio if (i) as a result of such adjustment, the proportionate interest (measured by the number of shares of Common Stock into which the Debentures are convertible) of the Holders of the Debentures in the assets or earnings

and profits of the Company were increased, and (ii) the adjustment was not made pursuant to a bona fide, reasonable anti-dilution formula. An adjustment in the conversion ratio would not be considered made pursuant to such an anti-dilution formula if the adjustment was made to compensate the Holders of the Debentures for certain taxable distributions made with respect to the Common Stock. Thus, under certain circumstances, a reduction in the conversion price for the Holders may result in deemed dividend income to such Holders to the extent of the Company's current or accumulated earnings and profits. Holders of Debentures could therefore have taxable income as a result of an event in connection with which they received no cash or property.

INFORMATION REPORTING AND BACKUP WITHHOLDING TAX

In general, information reporting requirements will apply to payments of principal, premium, if any, and interest on a Debenture, payments of dividends on Common Stock, payments of the proceeds of the sale of a Debenture and payments of the proceeds of the sale of Common Stock to certain noncorporate Holders, and a 31% backup withholding tax may apply to such payments if (i) the Holder fails to furnish or certify his correct taxpayer identification number to the payor in the manner required, (ii) the Company is notified by the IRS that the Holder has failed to report payments of interest and dividends properly or that the taxpayer identification number furnished to the Company is incorrect, or (iii) under certain circumstances, the Holder fails to certify that he has not been notified by the IRS that he is subject to backup withholding for failure to report interest and dividend payments. Any amounts withheld under the backup withholding rules from a payment to a Holder will be allowed as a credit against such Holder's United States federal income tax and may entitle such Holder to a refund, provided that the required information is furnished to the IRS.

EFFECT OF RECENT LEGISLATION

Under section 163(l) of the Code, no deduction is allowed for any interest paid or accrued on a "disqualified debt instrument." A disqualified debt instrument is defined generally as indebtedness of a corporation that is payable in equity of the issuer or a related party. Certain convertible debt instruments that are convertible at the holder's option when it is substantially certain that the conversion right will be exercised may constitute disqualified debt instruments. It is not expected, however, that section 163(l) of the Code will affect a debt instrument with a conversion feature where the conversion price is significantly higher than the market price of the stock on the date of the debt issuance, as is the case of the Debentures. Accordingly, the Company does not believe that its interest deduction with respect to the Debentures will be adversely affected by these rules.

SELLING SECURITYHOLDERS

The Debentures were originally issued by the Company in a private placement on April 9, 1998 to Goldman, Sachs, & Co., NationsBanc Montgomery Securities LLC and William Blair & Company, L.L.C. (the "Initial Purchasers"). The Debentures were resold by the Initial Purchasers in transactions exempt from the registration requirements of the Securities Act in the United States to persons reasonably believed by the Initial Purchasers to be "qualified institutional buyers" (as defined in Rule 144A under the Securities Act).

The resale of the Debentures and Conversion Shares has been registered pursuant to a Registration Rights Agreement requiring the Company to file this Registration Statement covering the Debentures and the Conversion Shares by September 15, 1998 and to use its best efforts to keep this Registration Statement effective for two years after the filing date, subject to certain exceptions. See "Description of Debentures -- Registration Rights."

None of the Selling Securityholders has, or within the past three years has had, any position, office or other material relationship with the Company or any of its predecessors or affiliates. Because the Selling Securityholders may, pursuant to this Prospectus, offer all or some portion of the Debentures or Conversion Shares, no estimate can be given as to the amount of the Debentures or Conversion Shares issuable upon conversion thereof that will be held by the Selling Securityholders upon termination of any such sales. In addition, the Selling Securityholders may have sold, transferred or otherwise disposed of all or a portion of their Debentures since the date on which they provided the information regarding their Debentures included herein in transactions exempt from the registration requirements of the Securities Act. See "Plan of Distribution."

The following table sets forth information, as of _____, 1998, with respect to the Selling Securityholders and the respective principal amount of Debentures and Conversion Shares beneficially owned by each Selling Securityholder that may be offered pursuant to this Prospectus. Except as otherwise indicated, to the knowledge of the Company, all persons listed below have sole voting and investment power with respect to their securities. Such information has been obtained from the Selling Securityholders and the Trustee. The term "Selling Securityholders" includes the holders listed below and the beneficial owners of the Debentures and their transferees, pledgees, donees or other successors.

SELLING SECURITYHOLDER	PRINCIPAL AMOUNT OF DEBENTURES OWNED PRIOR TO THE OFFERING	PRINCIPAL AMOUNT OF DEBENTURES OFFERED HEREBY	SHARES OF COMMON STOCK OWNED PRIOR TO THE OFFERING	SHARES OF COMMON STOCK OFFERED HEREBY
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[INFORMATION TO BE PROVIDED BY AMENDMENT]

Although none of the Selling Securityholders (other than those Selling Securityholders named above) have advised the Company that they currently intend to sell all or any of the Debentures or Conversion Shares pursuant to this Prospectus, the Selling Securityholders may choose to sell the Debentures or Conversion Shares from time to time upon notice to the Company. See "Plan of Distribution."

PLAN OF DISTRIBUTION

The Debentures and Conversion Shares may be sold from time to time to purchasers directly by the Selling Securityholders. Alternatively, the Selling Securityholders may from time to time offer the Debentures and Conversion Shares to or through underwriters, brokers/dealers or agents, who may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Securityholders or the purchasers for whom they may act as agents. The Selling Securityholders and any underwriters, dealer/broker or agents that participate in the distribution of Debentures and Conversion Shares may be deemed to be

"underwriters" within the meaning of the Securities Act, and any profit on the sale of such securities and any discounts, commissions, concessions or other compensation received by any such underwriter, broker/dealer or agent may be deemed to be underwriting discounts and commissions under the Securities Act.

The Debentures and Conversion Shares may be sold from time to time in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at varying prices determined at the time of sale or at negotiated prices. Sales of Debentures and Conversion Shares may be effected in transactions (which may involve crosses or block transactions) (i) on any national securities exchange or quotation service on which the Debentures and Conversion Shares may be listed or quoted at the time of sale, (ii) in the over-the-counter market, (iii) in transactions otherwise than on such exchanges or in the over-the-counter market or (iv) through the writing and exercise of options. At the time a particular offering of Debentures or Conversion Shares is made, a Prospectus Supplement, if required, will be distributed, which will set forth the aggregate amount and type of Debentures and Conversion Shares being offered and the terms of the offering, including the name or names of any underwriters, broker/dealers or agents, any discounts, commissions and other terms constituting compensation from the Selling Securityholders, and any discounts, commissions or concessions allowed or reallocated to broker/dealers.

To comply with the securities laws of certain jurisdictions, if applicable, Debentures and Conversion Shares will be offered or sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain jurisdictions the Debentures and the Conversion Shares may not be offered or sold unless they have been registered or qualified for sale in such jurisdictions or an exemption from registration or qualification is available and is complied with.

The Selling Securityholders will be subject to applicable provisions of the Exchange Act and rules and regulations thereunder, which provisions may limit their timing of purchases and sales of Debentures and Conversion Shares and therefore may affect the marketability of such securities.

Pursuant to the Registration Rights Agreement, the Company will pay all expenses of the registration of the Debentures and Conversion Shares, including all registration and filing fees and expenses and fees and expenses of compliance with federal securities or state blue sky laws; provided, however, that the Selling Securityholders will pay all brokers' commissions and underwriting discounts and commissions, if any. The Selling Securityholders will be indemnified by the Company against certain civil liabilities, including certain liabilities under the Securities Act or the Exchange Act or otherwise, or will be entitled to contribution in connection therewith. The Company will be indemnified by the Selling Securityholders severally against certain civil liabilities, including certain liabilities under the Securities Act or otherwise, or will be entitled to contribution in connection therewith.

LEGAL MATTERS

The validity of the Debentures and Conversion Shares offered hereby has been passed upon for the Company by Foley, Hoag & Eliot LLP, Boston, Massachusetts.

EXPERTS

The consolidated and supplemental consolidated balance sheets of the Company as of June 30, 1996 and 1997 and the related consolidated and supplemental consolidated statements of operations, stockholders' equity and cash flows for the years ended June 30, 1995, 1996 and 1997 incorporated by reference herein from the Company's Current Report on Form 8-K dated May 27, 1998 have been audited by Arthur Andersen LLP, independent public accountants, to the extent and for the periods indicated in their reports included in such Form 8-K, and are incorporated by reference herein in reliance upon the authority of that firm as experts in giving those reports.

NO BROKER, DEALER OR ANY OTHER PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS IN CONNECTION WITH THIS OFFERING OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY OR THE SELLING SECURITYHOLDERS. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITIES OTHER THAN THE SHARES OF COMMON STOCK TO WHICH IT RELATES OR AN OFFER TO, OR A SOLICITATION OF, ANY PERSON IN ANY JURISDICTION WHERE SUCH AN OFFER OR SOLICITATION WOULD BE UNLAWFUL. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY SINCE THE DATE HEREOF OR THAT INFORMATION CONTAINED HEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO ITS DATE.

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 \$86,250,000

ASPEN TECHNOLOGY, INC.

5 1/4% CONVERTIBLE SUBORDINATED
 DEBENTURES DUE JUNE 15, 2005

 PROSPECTUS

, 1998

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the various expenses to be paid by the Registrant in connection with the issuance and distribution of the shares of Common Stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission registration fee. The Registrant will pay all expenses in connection with the distribution of the shares of Common Stock being sold by the Selling Stockholders (including fees and expenses of counsel for the Company), except for any discounts, concessions, commissions or other compensation due to any broker or dealer in connection with the sale of any of the shares offered hereby.

Securities and Exchange Commission registration fee.....	\$25,444
Accounting fees and expenses.....	1,000
Legal fees and expenses.....	20,000
Printing, EDGAR formatting and mailing expenses.....	15,000
Miscellaneous.....	1,056

Total.....	\$62,500
	=====

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Article SEVENTH of the Registrant's Certificate of Incorporation, as amended (the "Certificate of Incorporation"), provides that no director of the Registrant shall be personally liable for any monetary damages for any breach of fiduciary duty as a director, except to the extent that the Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breach of fiduciary duty.

Article EIGHTH of the Certificate of Incorporation provides that a director or officer of the Registrant shall be indemnified by the Registrant against (a) all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement incurred in connection with any litigation or other legal proceeding (other than an action by or in the right of the Registrant) brought against him or her by virtue of his or her position as a director or officer of the Registrant if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Registrant, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful and (b) all expenses (including attorneys' fees) and amounts paid in settlement incurred in connection with any action by or in the right of the Registrant brought against him or her by virtue of his or her position as a director or officer of the Registrant if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Registrant, except that no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the Registrant, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that a director or officer has been successful, on the merits or otherwise, including the dismissal of an action without prejudice, he or she is required to be indemnified by the Registrant against all expenses (including attorneys' fees) incurred in connection therewith. Expenses shall be advanced to a director or officer at his or her request, provided that he or she undertakes to repay the amount advanced if it is ultimately determined that he or she is not entitled to indemnification for such expenses.

Indemnification is required to be made unless the Registrant determines that the applicable standard of conduct required for indemnification has not been met. In the event of a determination by the Registrant that the director or officer did not meet the applicable standard of conduct required for indemnification, or if the Registrant fails to make an indemnification payment within sixty days after such payment is claimed by such person, such person is permitted to petition the court to make an independent determination as to whether

such person is entitled to indemnification. As a condition precedent to the right of indemnification, the director or officer must give the Registrant notice of the action for which indemnity is sought and the Registrant has the right to participate in such action or assume the defense thereof.

Article EIGHTH of the Certificate of Incorporation further provides that the indemnification provided therein is not exclusive, and provides that in the event that the Delaware General Corporation Law is amended to expand the indemnification permitted to directors or officers the Registrant must indemnify those persons to the fullest extent permitted by such law as so amended.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal proceeding, if such person had no reasonable cause to believe his or her conduct was unlawful; provided that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that such indemnification is proper under the circumstances.

The Company maintains a directors' and officers' insurance policy that covers certain liabilities of directors and officers of the Company, including liabilities under the Securities Act. The Company maintains a general liability insurance policy that covers certain liabilities of directors and officers of the Company arising out of claims based on acts or omissions in their capacities as directors or officers.

ITEM 16. EXHIBITS

EXHIBIT NO.

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- 4.1 Indenture dated as of June 17, 1998 between Aspen Technology, Inc. and The Chase Manhattan Bank, as trustee, with respect to up to \$86,250,000 principal amount of 5 1/4% Convertible Subordinated Debentures due June 15, 2005 of Aspen Technology, Inc. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated June 17, 1998)
- 4.2 Form of 5 1/4% Convertible Subordinated Debentures due June 15, 2005 of Aspen Technology, Inc. (included in Sections 2.2, 2.3 and 2.4 of the Indenture filed as Exhibit 4.1) (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K dated June 17, 1998)
- 5.1* Opinion of Foley, Hoag & Eliot LLP
- 10.1 Registration Rights Agreement, dated as of June 17, 1998, between Aspen Technology, Inc. and Goldman, Sachs & Co., Nationsbanc Montgomery Securities LLC and William Blair & Company, L.L.C. (incorporated by reference to Exhibit 10.1 to the Company Current Report on Form 8-K dated June 17, 1998)
- 12.1 Statement Regarding Computation of Ratios of Earnings to Fixed Charges
- 23.1 Consent of Arthur Andersen LLP
- 23.2* Consent of Foley, Hoag & Eliot LLP (included in Exhibit 5.1)
- 24.1 Powers of Attorney (included on page II-4)
- 25.1* Statement of Eligibility of Trustee under the Trust Indenture Act of 1939 on Form T-1

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* To be filed by amendment.

ITEM 17. UNDERTAKINGS

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement;

(i) To include any prospectus required to Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3, Form S-8, or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference to the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, as of September 14, 1998.

ASPEN TECHNOLOGY, INC.

By: /s/ LAWRENCE B. EVANS

Lawrence B. Evans
Chairman of the Board and
Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Aspen Technology, Inc., hereby severally constitute and appoint Lawrence B. Evans, Lisa W. Zappala and Stephen J. Doyle, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the Registration Statement on Form S-3 filed herewith and any and all pre-effective and post-effective amendments to said Registration Statement, and any subsequent Registration Statement for the same offering which may be filed under Rule 462(b) under the Securities Act of 1933 and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Aspen Technology, Inc. to comply with the provisions of the Securities Act of 1933 and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said Registration Statement and any and all amendments thereto or to any subsequent Registration Statement for the same offering which may be filed under said Rule 462(b).

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities indicated as of September 14, 1998.

SIGNATURE

TITLE

/s/ LAWRENCE B. EVANS

Chairman of the Board and Chief Executive
Officer

Lawrence B. Evans

(Principal Executive Officer)

/s/ LISA W. ZAPPALA

Chief Financial Officer

Lisa W. Zappala

(Principal Financial and Accounting Officer)

/s/ JOSEPH F. BOSTON

Director

Joseph F. Boston

/s/ GRESHAM T. BREBACH, JR.

Director

Gresham T. Brebach, Jr.

/s/ DOUGLAS R. BROWN

Director

Douglas R. Brown

Director

Joan C. McArdle

/s/ ALISON ROSS

Director

Alison Ross

ASPEN TECHNOLOGY, INC., AND SUBSIDIARIES
COMPUTATION OF THE RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth the ratio of earnings to fixed charges of Aspen Technology, Inc. and Subsidiaries for each of the five years in the period ended June 30, 1997 and the nine months ended March 31, 1998. The ratio of earnings to fixed charges is computed by dividing net fixed charges (interest expense, amortization of debt issuance costs, accretion and noncash dividends and the portion of rental expense that is representative of the interest factor) into earnings before income taxes and fixed charges.

	Year Ended June 30,					Nine
	1993	1994	1995	1996	1997	Months Ended March 31, 1998
Earnings before income taxes excluding accretion and non cash dividends	\$2,635	\$5,858	\$11,963	\$(8,241)	\$24,370	\$20,268
Interest expense including interest portion of rental expense	1,088	1,165	1,303	2,462	1,823	1,711
Undistributed earnings of unconsolidated subsidiaries	--	--	(22)	(10)	(26)	(45)
Earnings before fixed charges	3,723	7,023	13,244	(5,789)	26,167	21,934
Fixed Charges:						
Interest expense including interest portion of rental expense	1,088	1,165	1,303	2,462	1,823	1,711
Fixed charges	1,088	1,165	1,303	2,462	1,823	1,711
Ratio of earnings to fixed charges	3.42x	6.03x	10.16x	--	14.35x	12.82x

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our reports included in the Current Report on Form 8-K of Aspen Technology, Inc. dated May 27, 1998 and to the reference to our firm in this Registration Statement.

/s/ ARTHUR ANDERSEN LLP

Boston, Massachusetts
September 14, 1998