

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)

MASSACHUSETTS
(State or other jurisdiction
of incorporation or organization)

04-2739697
(I.R.S. employer
identification number)

TEN CANAL PARK
CAMBRIDGE, MASSACHUSETTS 02141
(617) 577-0100

(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) 577-0100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

STEPHEN J. DOYLE, ESQ.
Vice President and General Counsel
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.

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

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, \$.10 par value.....	3,100 shares	\$68.40	\$212,040	\$65

(1) Estimated solely for the purpose of determining the registration fee. In accordance with Rule 457(c) under the Securities Act of 1933, the above calculation is based on the average of the high and low sale prices reported in the consolidated reporting system of the Nasdaq National Market on February 11, 1997.

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 FEBRUARY 18, 1997

3,100 SHARES

ASPEN TECHNOLOGY, INC.

COMMON STOCK

All of the 6,400 shares of Common Stock offered hereby are being sold by the Selling Stockholder. See "Selling Stockholder." The Company will not receive any of the proceeds from the sale of shares by the Selling Stockholder.

The Company's Common Stock trades on the Nasdaq National Market under the symbol "AZPN." On February 14, 1997, the closing sale price of the Common Stock, as reported by the Nasdaq National Market, was \$70.50 per share.

On January 28, 1997, the Company announced that it would effect a two-for-one stock split of its Common Stock by way of a stock dividend to persons who were holders of record of Common Stock as of February 14, 1997. The stock dividend will be distributed on February 28, 1997. Information in this Prospectus does not give effect to the stock dividend. See "Prospectus Summary--Recent Events."

The shares of Common Stock offered hereby may be sold from time to time by the Selling Stockholders, or by pledgees, donees, transferees or other successors in interest of the Selling Stockholders. Such sales may be made on the Nasdaq National Market, or otherwise, at prices and on terms then prevailing or at prices related to the then-current market prices, or in negotiated transactions at negotiated prices. The shares may be sold by one or a combination of the following: (a) a block trade in which the broker or dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this Prospectus; and (c) ordinary brokerage transactions and transactions in which the broker solicits purchasers. Brokers or dealers will receive commissions or discounts from Selling Stockholders in amounts to be negotiated immediately prior to the sale. The Selling Stockholders will be responsible 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. All of the other expenses of this offering, estimated at \$2,500, will be paid by the Company. See "Plan of Distribution."

SEE "RISK FACTORS" COMMENCING ON PAGE 5 FOR A DISCUSSION OF CERTAIN FACTORS THAT SHOULD BE CONSIDERED BY PROSPECTIVE PURCHASERS OF SHARES OF COMMON STOCK OFFERED HEREBY.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

February , 1997

AVAILABLE INFORMATION

The Company is subject to the informational 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. Reports and other information concerning the Company also may be inspected at the offices of the Nasdaq Stock Market, 1735 K Street, N.W., Washington D.C. 20006-1500.

This Prospectus constitutes part of a Registration Statement on Form S-3 (the "Registration Statement") filed by the Company with the Commission under the Securities Act of 1933, as amended (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 and related exhibits 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) the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 1996 (the "Annual Report"); (2) the Company's definitive Proxy Statement dated November 11, 1996 used in connection with its Annual Meeting of Stockholders held on December 16, 1996; (3) the Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended September 30, 1996 and December 31, 1996 (together, the "Quarterly Reports"); and (4) the Company's Current Report on Form 8-K dated January 29, 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) 577-0100 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. Information herein does not give effect to the two-for-one stock split of the Company's Common Stock to be effected by a stock dividend on February 28, 1997 to persons who were holders of record of Common Stock as of February 14, 1997. See "Recent Events" below.

THE COMPANY

Aspen Technology, Inc. ("AspenTech" or the "Company") is a leading supplier of off-the-shelf software products and services for the analysis, design and automation of manufacturing facilities by companies in the process industries, including the chemicals, petroleum, pharmaceuticals, pulp and paper, electric power, and food and consumer products industries.

AspenTech provides a sophisticated, integrated family of off-the-shelf software products for use across the entire process manufacturing life-cycle, from "off-line" applications used primarily in research and development and engineering to "on-line" applications used primarily in production. AspenTech's product offering is classified in four categories: modeling; process information management ("PIM"); advanced process control ("APC") and optimization; and planning and scheduling. The Company's off-line modeling software is used by engineers on desktop computers primarily to simulate and predict manufacturing processes in connection with the design of new facilities or processes and the analysis of existing facilities or processes. AspenTech's on-line PIM, APC and optimization software, which is connected directly to plant instrumentation, enables the real-time adjustment of production variables in response to constantly changing operating conditions to improve process efficiency. AspenTech's PC-based planning and scheduling software is used by companies in the process industries for economic planning and scheduling for both short-term and strategic applications, including feedstock selection, product mix optimization, logistics and supply chain management, scheduling, process unit optimization, and investment planning. AspenTech couples its off-the-shelf software products with design and implementation consulting services in order to market a complete solution to its customers. AspenTech believes its ability to offer a complete solution of both industry-leading software and sophisticated process engineering expertise is an important source of competitive differentiation.

The Company initially became a provider of PIM software and services through its acquisition of Industrial Systems, Inc. in May 1995. The Company significantly enhanced its PIM, APC and optimization software service offerings through its acquisitions of Dynamic Matrix Control Corporation ("DMCC") in January 1996 and Setpoint, Inc. ("Setpoint") in February 1996. In October 1996 AspenTech acquired all of the outstanding stock of B-JAC International, Inc. ("B-JAC"), a supplier of detailed heat exchanger modeling software, in exchange for 52,081 shares of the Company's Common Stock. In October 1996 the Company also acquired, in a cash purchase transaction, all of the assets of the Process Control Division of Cambridge Control Limited (the "Cambridge Control Division"), which specializes in APC solutions specifically aimed towards process manufacturing controls applications for the refining, petrochemical, and pulp and paper industries. In December 1996 AspenTech acquired the process industries modeling system business of Bechtel Corporation (the "Bechtel Business"), which provides software products that are used for planning and scheduling in the process industries and that are based on linear programming technology. The consideration for the Bechtel Business consisted of a cash payment to Bechtel Corporation and the issuance of 77,870 shares of the Company's Common Stock in exchange for all of the outstanding stock of Basil Joffe Associates, Inc., a related software development organization.

AspenTech's customers span a broad range of process industry segments. With more than 750 customers worldwide, AspenTech's customers include 44 of the 50 largest chemical companies in the world and 18 of the 20 largest petroleum refiners in the world.

The Company was founded in 1981 and is a Massachusetts corporation. AspenTech's executive offices are located at Ten Canal Park, Cambridge, Massachusetts 02141, and its telephone number is (617) 577-0100.

RECENT EVENTS

On January 28, 1997, the Company announced that it would effect a two-for-one stock split of its Common Stock by way of a stock dividend to persons who were holders of record of Common Stock as of February 14, 1997. The stock dividend was approved by the board of directors of the Company on January 27, 1997 and will be payable on February 28, 1997. INFORMATION IN THIS PROSPECTUS DOES NOT GIVE EFFECT TO THE STOCK DIVIDEND.

THE OFFERING

All of the 3,100 shares of Common Stock offered hereby are being sold by the Selling Stockholder. The offered shares were issued to the Selling Stockholder in a private placement in January 1996. See "Selling Stockholder."

The Selling Stockholder was employed by DMCC prior to January 10, 1997 and is now engaged as a consultant to the Company. As part of certain severance arrangements entered into with the Selling Stockholder, the Company is obligated to keep the Registration Statement in effect until all of the shares offered have been sold, subject to suspension by AspenTech in certain events. See "Plan of Distribution."

The Company will not receive any of the proceeds from the sale of shares by the Selling Stockholder. See "Use of Proceeds."

"AspenTech" is a trademark of the Company.

RISK FACTORS

THIS PROSPECTUS CONTAINS AND INCORPORATES BY REFERENCE FORWARD-LOOKING STATEMENTS WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT OF 1933 AND SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934. THE COMPANY'S ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THE RESULTS CONTEMPLATED IN THE FORWARD-LOOKING STATEMENTS AS A RESULT OF A NUMBER OF FACTORS, INCLUDING THE RISK FACTORS SET FORTH BELOW.

Integration of Acquired Businesses. Since January 1996, the Company has acquired DMCC, Setpoint, B-JAC, the Cambridge Control Division and the Bechtel Business. Through these acquisitions, the Company has increased its product and service offerings to include additional planning and scheduling, PIM, APC and optimization software and services, and has substantially increased its scope of operations and number of personnel. The successful and timely integration of these acquired businesses into the Company 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. The diversion of the attention of management created by the integration process, and any disruptions or other difficulties encountered in the transition process, could have a material adverse effect on the business, operating results and financial condition of the Company. The difficulty of combining these numerous businesses may be increased by the need to integrate personnel, and changes effected in the combination may cause key employees to leave. The long-term success of the acquisitions will require the further development of the PIM, APC and optimization software and services markets, which currently are immature. There can be no assurance that the Company will be able to integrate and develop the operations of the acquired businesses successfully, and any failure to do so could have a material adverse effect on the Company's business, operating results and financial condition.

A substantial majority of the revenues of each of DMCC, Setpoint and the Cambridge Control Division has been generated by service engagements. AspenTech's revenues historically have been derived principally from the licensing of software products, and its management has limited experience in managing a service business. In particular, a significant portion of the service engagements of these businesses has 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. While the Company believes that its reserves for fixed-price contracts are reasonable, there can be no assurance that the Company's reserves will be sufficient to cover future losses that might be incurred with respect to any fixed-price contracts. See "Management's Discussion and Analysis of Financial Condition and Results of Operations--Results of Operations" in the Annual Report and the Quarterly Reports.

Dependence Upon Increased Market Penetration. Increased use in the process industries, particularly the chemicals and petroleum industries, of software and services for the analysis, design and automation of process manufacturing plants 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 achieve increased market penetration. These factors include product performance, accuracy of results, ease of implementation and use, breadth and integration of product offerings, reliability and scope of applications. 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. See "Business--The AspenTech Advantage" and "--Strategy" in the Annual Report.

Fluctuations in Quarterly Operating Results. The Company's operating results 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 new products and enhancements by the Company and its competitors, and fluctuating foreign economic conditions. In addition, the Company ships software products within a short period after receipt of an order and typically does not have a material backlog of unfilled orders of software products. Therefore, revenues from software licenses in any quarter are substantially dependent on orders booked in that quarter. Historically, a majority of each quarter's revenues from software licenses has come from license contracts that have been effected in the final weeks of that quarter. The revenues for a quarter typically include a number of large orders. If the timing of any of these orders is delayed, it could result in a substantial reduction in revenues for that quarter. Since the Company's expense levels are based in part on its expectations as to future 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 disproportionate adverse effect on net income. 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 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. The Company expects that these factors will continue to affect its operating results and that the Company may experience net losses in the initial quarter of future fiscal years. See "Management's Discussion and Analysis of Financial Condition and Results of Operations--Quarterly Results" in the Annual Report.

Concentration of Revenues in the Chemicals and Petroleum Industries. The Company derives a significant portion of its revenues from companies in the chemicals and petroleum industries. Accordingly, the Company's future success is dependent upon the continued demand for modeling software by companies in the chemicals industry, for planning and scheduling software in the petroleum industry, and for PIM, APC and optimization software and services by companies in the chemical and petroleum industries. The chemical and petroleum industries are highly cyclical. The Company believes that economic downturns in the United States, Europe, Japan, Asia and South America and pricing pressures experienced by chemical and petroleum companies in connection with cost-containment measures have led to delays and reductions in certain capital and operating expenditures by many of such companies worldwide. The Company's revenues have in the past been, and may in the future be, subject to substantial period-to-period fluctuations as a consequence of such industry patterns, as well as general domestic and foreign economic conditions and other factors affecting spending by companies in the Company's target process industries. There can be no assurance that such factors will not have a material adverse effect on the Company's business, operating results and financial condition. See "Management's Discussion and Analysis of Financial Condition and Results of Operations--Results of Operations" in the Annual Report and the Quarterly Reports.

Product Development and Technological Change. The market for software and services for the analysis, design and automation of process manufacturing plants is characterized by continual change and improvement in computer hardware and software technology. The Company's future success will depend on its ability to enhance its current software products and services, to introduce new software products and services that keep pace with technological developments, and to continue to address the changing needs of its customers. There can be no assurance that the Company will be successful in developing and marketing new and enhanced products and services, or that its products and services will continue to address adequately the needs of the marketplace. Like many other software products, the Company's products have on occasion contained undetected errors or "bugs." In addition, because new releases of the Company's products are initially installed only by a small number 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. See "Business--Product Development" in the Annual Report.

Dependence on Key Personnel. The Company's future success depends to a significant extent on Lawrence B. Evans, the Company's chief executive officer, its other executive officers, and certain key 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-man life insurance on any of its executive officers or other key employees. The Company believes that its future success also will 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 and retaining the personnel it requires to continue to grow and operate profitably. See "Business--Employees" in the Annual Report.

Product Liability. The sale and implementation of on-line applications by the Company may entail the risk of product liability claims. The Company's APC and optimization software products and services are used in the design, operation and management of manufacturing processes at large facilities, and any failure by 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 contained in the Company's license agreements may not be effective as a result of federal, state or local laws or ordinances or unfavorable judicial decisions. A successful product liability claim against the Company could have a material adverse effect upon the Company's business, operating results and financial condition.

Migration to Microsoft Windows. AspenTech believes that operating systems similar to Microsoft Windows, due to their interoperability and customization capabilities, are increasingly the preferred choice of certain of its customers. AspenTech is currently developing native Windows 95 and Windows NT versions of its software products. The Company is aware of two competitors that are marketing modeling and simulation software for use with existing Microsoft Windows operating systems, both of which are currently shipping a release of modeling and simulation software for Windows operating systems. There can be no assurance that the Company will be successful in developing versions of any or all of its software products that will operate on Windows 95 or Windows NT, or that any such development, even if successful, will be completed concurrent with or prior to introductions by competitors of software products on Windows 95, Windows NT or any other Microsoft Window system. Any such failure or delay could affect the Company's competitive position or lead to product obsolescence in the future. See "Business--Product Development" and "Competition" in the Annual Report.

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 received a United States patent for the expert guidance system in its proprietary graphical user interface. The Company has registered or applied to register certain of its significant trademarks in the United States. 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 distributed 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 any foreign copyright or patent registrations. The Company derived more than 50% of its revenues in each of fiscal 1994 and fiscal 1995, approximately 45% of its revenues in fiscal

1996 and approximately 57% of its revenues in the first six months of fiscal 1997 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 business, results of operations and financial condition of the Company. 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. See "Business--Proprietary Rights."

Competition. The Company's software products compete with software tools that are internally developed by companies in the process industries and with certain process modeling, PIM, APC and optimization software products that are sold by a number of commercial suppliers. AspenTech's primary commercial competitors in the process modeling software market are Simulation Sciences Inc., Hyprotech, Ltd. and Chemstations, Inc. In the planning and scheduling market, AspenTech primarily competes with Bonner & Moore Associates, Inc., Haverly Systems, Inc., Chesapeake Decision Sciences, Inc., and Ernst & Young Wright Killen. In the PIM market, AspenTech primarily competes with Oil Systems Inc. and Biles and Associates and, to a lesser extent, with digital control system vendors such as Honeywell Inc. In the APC and optimization markets, AspenTech competes with the Profimatics and Icotron divisions of Honeywell Inc., which primarily sell digital control system hardware, as well as with the Simcon division of ABB Asea Brown Boveri (Holding) Ltd. Several smaller competitors, including the Litwin Engineering division of Raytheon Company and Treiber Control, focus exclusively on the APC market. Emergence of a new competitor or the consolidation of existing competitors could adversely affect the Company's business, operating results and financial condition. Certain competitors also supply related hardware products to existing and potential customers of AspenTech, and may have established relationships that afford the 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 is no assurance that the Company will be able to maintain its competitive position. See "Business--Competition" in the Annual Report.

Management of Growth. Since fiscal 1990, the Company has experienced substantial growth 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, particularly the acquisitions of DMCC and Setpoint in the third quarter of fiscal 1996. This growth has resulted in an increase in the level of responsibility for management personnel. To manage its growth effectively, the Company must continue to implement and improve its operating and financial systems, and to retain and increase its employee base. There can be no assurance that the management systems currently in place will be adequate or that the Company will be able to manage the Company's recent or future growth successfully, and any failure to do so could have a material adverse effect on the Company's business, operating results and financial condition. See "Management's Discussion and Analysis of Financial Condition and Results of Operations--Results of Operations" in the Annual Report and the Quarterly Reports.

International Operations. The Company derived more than 50% of its revenues in each of fiscal 1994 and fiscal 1995, approximately 45% of its revenues in fiscal 1996 and approximately 57% of its revenues in the first six months of fiscal 1997 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 in the foreseeable future. AspenTech's customers outside the United States historically have been located principally in Europe and Japan, while Setpoint historically has derived a substantial portion of its revenues from customers in Asia and South America. The Company's operations outside the United States are subject to certain 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. 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 results of operations 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, results of operations or financial condition. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Annual Report and the Quarterly Reports.

Risks Associated With Future Acquisitions. To expand its markets, the Company's business strategy includes growth through additional acquisitions. Identifying and pursuing acquisition opportunities and integrating acquired products and businesses requires 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. There also can be no assurance that any future acquisition will not have an adverse effect upon the Company's operating results, particularly in the fiscal quarters immediately following consummation of the acquisition while the acquired business is being integrated into the Company's operations. As a result of acquisitions, the Company may encounter unexpected liabilities and contingencies associated with the acquired businesses. The Company may use Common Stock or Preferred Stock or may incur additional 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.

Potential Volatility of Stock Price. The stock market has 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 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 Company's Common Stock.

Effect of Certain Charter and By-Law Provisions and Anti-Takeover Provisions; Possible Issuances of Preferred Stock. The Company's Restated Articles of Organization, its By-Laws and certain Massachusetts laws contain provisions that may discourage acquisition bids for the Company and that may reduce the temporary fluctuations in the trading price of the Company's Common Stock which are caused by accumulations of stock, thereby depriving stockholders of certain opportunities to sell their stock at temporarily higher prices or 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 Director 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 no present plans to issue any shares of Preferred Stock.

USE OF PROCEEDS

The Company will not receive any proceeds from the sale of Common Stock by the Selling Stockholder, nor will any such proceeds be available for use by the Company or otherwise for the Company's benefit. See "Selling Stockholder."

SELLING STOCKHOLDER

The following table sets forth certain information with respect to the beneficial ownership of the Company's Common Stock by the Selling Stockholder as of February 17, 1997 and as adjusted to reflect the sale of the shares of Common Stock offered hereby. The following information does not give effect to the stock dividend described in "Prospectus Summary--Recent Events." The Selling Stockholder possesses sole voting and investment power with respect to shares, subject to community property laws where applicable.

Name	Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Shares to be Beneficially Owned After Offering if All Shares Sold	
	Number	Percent		Number	Percent
Pierre R. Latour.....	3,100	*	3,100	--	--

* Percentage of shares beneficially owned is less than 1.0%.

PLAN OF DISTRIBUTION

This Prospectus and the Registration Statement are in furtherance of a "shelf" registration pursuant to Rule 415 promulgated by the Commission under the Securities Act. Pursuant to registration rights arrangements entered into with the Selling Stockholder, the Company is obligated to keep the "shelf" registration effective until all of the shares offered have been sold, subject to suspension by AspenTech in certain events.

The shares offered hereby may be sold from time to time by the Selling Stockholder, or by pledgees, donees, transferees or other successors in interest of the Selling Stockholder. Such sales may be made on the Nasdaq National Market, or otherwise, at prices and on terms then prevailing or at prices related to the then-current market prices, or in negotiated transactions at negotiated prices. The shares may be sold by one or a combination of the following: (a) a block trade in which the broker or dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this Prospectus; and (c) ordinary brokerage transactions and transactions in which the broker solicits purchasers. In effecting sales, brokers or dealers engaged by the Selling Stockholder may arrange for other brokers or dealers to participate. Brokers or dealers will receive commissions or discounts from Selling Stockholder in amounts to be negotiated immediately prior to the sale. The Selling Stockholder and any broker-dealers that participate in the distribution may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act, and any commission received by them and any profit on the resale of shares sold by them may be deemed to be underwriting discounts and commissions.

Upon the Company being notified by the Selling Stockholder that any material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplemented prospectus will be filed, if required, pursuant to Rule 424(c) under the Securities Act, setting forth (i) the name of each of the participating broker-dealers, (ii) the number of shares involved, (iii) the price at which such shares were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealers, where applicable, (v) a statement to the effect that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this Prospectus and (vi) other facts material to the transaction.

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby has been passed upon for the Company by Foley, Hoag & Eliot LLP, Boston, Massachusetts.

EXPERTS

The consolidated balance sheets of the Company and its subsidiaries as of June 30, 1995 and 1996 and the related consolidated statements of operations, stockholders' equity and cash flows for the years ended June 30, 1994, 1995 and 1996 incorporated by reference herein have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their report with respect thereto, and are incorporated by reference herein in reliance upon the authority of said firm as experts in giving said reports.

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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 Stockholder. 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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TABLE OF CONTENTS

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Available Information.....	2
Information Incorporated by Reference.....	2
Prospectus Summary.....	3
Risk Factors.....	5
Use of Proceeds.....	10
Selling Stockholder.....	10
Plan of Distribution.....	11
Legal Matters.....	11
Experts.....	11

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3,100 SHARES

ASPEN TECHNOLOGY, INC.

COMMON STOCK

PROSPECTUS

February , 1997

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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 Stockholder (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.

	Payable by Company -----
Securities and Exchange Commission registration fee...	\$ 65
Legal fees and expenses.....	1,750
Printing, EDGAR formatting and mailing expenses.....	500
Miscellaneous.....	185

Total.....	\$2,500 =====

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Article 6 of the Company's Restated Articles of Organization provides that the Company shall indemnify each person who is or was a director, officer, employee or other agent of the Company, and each person who is or was serving at the request of the Company as a director, trustee, officer, employee or other agent of another organization in which it directly or indirectly owns shares or of which it is directly or indirectly a creditor, against all liabilities, costs and expenses reasonably incurred by any such persons in connection with the defense or disposition of or otherwise in connection with or resulting from any action, suit, or other proceeding in which they may be involved by reason of being or having been such a director, officer, employee agent or trustee, or by reason of any action taken or not taken in such capacity, except with respect to any matter as to which such person shall have been finally adjudicated by a court of competent jurisdiction not to have acted in good faith in the reasonable belief that his or her action was in the best interests of the Company. The provisions of the Company's Articles pertaining to indemnification may not be amended and no provision inconsistent therewith may be adopted without the approval of either the Board of Directors or the holders of at least a majority of the voting power of the Company. Section 67 of Chapter 156B of the Massachusetts Business Corporation Law authorizes a corporation to indemnify its directors, officers, employees and other agents unless such person shall have been adjudicated in any proceeding not to have acted in good faith in the reasonable belief that such action was in the best interests of the corporation.

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.

- 5.1 Opinion of Foley, Hoag & Eliot LLP
- 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 pages II-4 and II-5)
- 99.1 Section 1(c) (Private Placement Stock Registration) of Release and Settlement Agreement dated January 10, 1997 between Pierre R. Latour and Aspen Technology, Inc.

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, 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, on February 14, 1997.

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, Mary A. Palermo 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 and as of the date indicated.

SIGNATURE -----	TITLE -----	DATE -----
/S/ LAWRENCE B. EVANS ----- LAWRENCE B. EVANS	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	February 14, 1997
/S/ MARY A. PALERMO ----- MARY A. PALERMO	Executive Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	February 14, 1997
/S/ JOSEPH F. BOSTON ----- JOSEPH F. BOSTON	Director	February 14, 1997
----- GRESHAM T. BREBACH, JR.	Director	February 14, 1997
----- DOUGLAS R. BROWN	Director	February 14, 1997

/S/ JOAN C. MCARDLE
 Director February 14, 1997
 JOAN C. MCARDLE

 /S/ ALISON ROSS
 Director February 14, 1997
 ALISON ROSS

FOLEY, HOAG & ELIOT LLP
One Post Office Square
Boston, Massachusetts 02109-2170
Telephone: (617) 832-1000
Facsimile: (617) 832-7000
Telex 940693
<http://www.fhe.com>

February 18, 1997

ASPEN TECHNOLOGY, INC.
Ten Canal Park
Cambridge, Massachusetts 02141

Ladies and Gentlemen:

We have acted as special counsel for Aspen Technology, Inc., a Massachusetts corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission under the Securities Act of 1933, as amended, of a Registration Statement on Form S-3 (the "Registration Statement") relating to the offering of up to 3,100 shares (the "Shares") of the Company's common stock, \$.10 par value ("Common Stock"), by Pierre R. Latour.

In arriving at the opinion expressed below, we have examined and relied on the following documents:

- (i) the Registration Statement;
- (ii) the Articles of Organization of the Company, as amended as of the date hereof;
- (iii) the By-Laws of the Company, as amended as of the date hereof; and
- (iv) copies of a written consent of the Board of Directors of the Company adopted on January 8, 1996.

In addition, we have examined and relied on the originals or copies certified or otherwise identified to our satisfaction of all such other records, documents and instruments of the Company and such other persons, and we have made such investigations of law, as we have deemed appropriate as a basis for the opinions expressed below. We have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals and the conformity to the original documents of all documents submitted to us as certified or photostatic copies.

We express no opinion other than as to the laws of The Commonwealth of Massachusetts.

ASPEN TECHNOLOGY, INC.
February 18, 1997
Page Two

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized and validly issued and are fully paid and non-assessable.

We consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to us under the heading "Legal Matters" in the prospectus forming a part of the Registration Statement.

Very truly yours,

FOLEY, HOAG & ELIOT LLP

By /s/ MARK L. JOHNSON

A Partner

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 report included in the Annual Report on Form 10-K of Aspen Technology, Inc. for the fiscal year ended June 30, 1996 and to the reference to our firm in this Registration Statement.

ARTHUR ANDERSEN LLP

Boston, Massachusetts
February 14, 1997

[Excerpted from Release and Settlement Agreement dated as of January 10, 1997 between Pierre R. Latour and Aspen Technology, Inc.]

1. ...
- c) Private Placement Stock Registration. The 3,100 shares of restricted AspenTech common stock that Latour purchased in the private placement program will be included in the planned registration (Shelf Registration) of other securities to permit sales in ordinary course brokerage or dealer transactions. This currently is planned for late January or early February. Latour's shares will be registered by February 15, 1997. AspenTech will use its best efforts to keep the Shelf Registration continuously effective beyond an initial 90 day period. The continued effectiveness of the Shelf Registration depends on AspenTech supplementing or amending the Shelf Registration as required by law, and it plans to make such supplements or amendments absent a determination that it would be significantly disadvantageous to AspenTech and its stockholders to make such a supplement or amendment requiring disclosure of non-public information which it is not otherwise obligated to disclose. Latour would be notified of any suspension of the Shelf Registration.

[For purposes of the foregoing Section 1(c), the following terms have the indicated meanings:

"AspenTech" means Aspen Technology, Inc.

"Latour" means Dr. Pierre R. Latour]