AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JANUARY 29, 1997 REGISTRATION NO. 333-

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)

(State or other jurisdiction of incorporation or organization)

(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. [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

______ PROPOSED PROPOSED

AMOUNT MAXIMUM MAXIMUM

TITLE OF EACH CLASS OF TO BE OFFERING PRICE AGGREGATE AMOUNT OF
SECURITIES TO BE REGISTERED REGISTERED PER SHARE(1) OFFERING PRICE(1) REGISTRATION FEE

(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 January 25, 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.

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 JANUARY 29, 1997

123,093 SHARES

[LEAF LOGO]

ASPEN TECHNOLOGY, INC.

COMMON STOCK

All of the 123,093 shares of Common Stock offered hereby are being sold by the Selling Stockholders. See "Selling Stockholders." The Company will not receive any of the proceeds from the sale of shares by the Selling Stockholders.

The Company's Common Stock trades on the Nasdaq National Market under the symbol "AZPN." On January 28, 1997, the closing sale price of the Common Stock, as reported by the Nasdaq National Market, was \$72.375 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 are holders of record of Common Stock as of February 14, 1997. The stock dividend will be distributed on February 28, 1997. The 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 (other than legal fees and expenses incurred by separate counsel for certain of the Selling Stockholders), estimated at \$20,000, 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.

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 Nasdag 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 Report on Form 10-Q for the fiscal quarter ended September 30, 1996 (the "Quarterly Report"); and (4) the Company's Current Report on Form 8-K dated January 29, 1997 (the "Current Report").

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 to persons who are 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, including certain of the shares being offered hereby. 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 (including certain of the shares offered hereby) 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' 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 financial results for the three and six months ending December 31, 1996. A copy of the Company's press release summarizing those financial results is included in the Current Report.

In connection with the announcement of those financial results, the Company also announced that it would effect a two-for-one stock split of its Common Stock by way of a stock dividend to persons who are 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. THE INFORMATION IN THIS PROSPECTUS DOES NOT GIVE EFFECT TO THE STOCK DIVIDEND.

THE OFFERING

All of the 123,093 shares of Common Stock offered hereby are being sold by the Selling Stockholders. The offered shares consist of a portion of the shares of Common Stock issued to the former stockholders of B-JAC, which was acquired by the Company in October 1996, and to the former stockholder of Basil Joffe Associates, Inc., which was acquired by the Company in December 1996 as part of the Bechtel Business. See "Selling Stockholders."

Pursuant to registration rights arrangements entered into with the former shareholders of B-JAC and Basil Joffe Associates, Inc., the Company is obligated to keep the Registration Statement in effect for a period of ninety days after the date on which the Registration Statement is declared effective, or such shorter period that will terminate when all of the shares offered by such former shareholders have been sold. The Company may, in its sole discretion, determine to keep the Registration Statement effective for a longer period of time. See "Plan of Distribution."

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

The Aspen leaf logo is a registered trademark, and "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 Ouarterly Report.

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

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 Report.

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 Report.

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 Stockholders, nor will any such proceeds be available for use by the Company or otherwise for the Company's benefit. See "Selling Stockholders."

SELLING STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of the Company's Common Stock by each of the Selling Stockholders as of January 28, 1997 and as adjusted to reflect the sale of the shares of Common Stock offered hereby for all Selling Stockholders. The following information does not give effect to the stock dividend described in "Prospectus Summary--Recent Events," above.

| | Shares to be | | | | |
|--|--------------|----------|---------------------------|------------|---------|
| | Share | | | Beneficial | • |
| | Beneficiall | , | N | After Offe | |
| | Prior to Off | ering(i) | Number of Shares Being | All Shares | S010(1) |
| Name | Number | Percent | Offered | Number | Percent |
| | | | | | |
| B-JAC International, Inc. Employees Stock | | | | | |
| Ownership Plan(2) | 15,624 | * | 14,062 | 1,562 | * |
| Basil Joffe(3) | 77,870 | * | 76,220 | 1,650 | * |
| Beatrice R. Noe(4) | 19,098 | * | 17,188 | 1,910 | * |
| Bruce J. Noe(5) | 17,359 | * | 15,623 | 1,736 | * |
| John W. Noe(6) | 19,098 | * | 17,188 | 1,910 | * |
| | | | | | |

- Percentage of shares beneficially owned is less than 1.0%.
- (1) Unless otherwise noted, each person identified possesses sole voting and investment power with respect to shares subject to community property laws where applicable.
- (2) Mary A. Palermo, the Senior Vice President, Finance and Chief Financial Officer of the Company, is the trustee of the B-JAC International, Inc. Employee Stock Ownership Plan.
- (3) Mr. Joffe was the President and sole director of Basil Joffe Associates, Inc. until its acquisition by the Company in December 1996.
- (4) Includes 19,098 shares held by John Noe (of which 8,594 shares are being offered hereby), the spouse of Ms. Noe. Ms. Noe was the Secretary and a director of B-JAC until its acquisition by the Company in October 1996.
- (5) Mr. Noe was the Vice President and a director of B-JAC until its acquisition by the Company in October 1996.
- (6) Includes 19,098 shares held by Beatrice Noe (of which 8,594 shares are being offered hereby), the spouse of Mr. Noe. Mr. Noe was the President and a director of B-JAC until its acquisition by the Company in October 1996.

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 former shareholders of B-JAC and Basil Joffe Associates, Inc., the Company is obligated to keep the "shelf" registration effective for a period of ninety days after the date on which the Registration Statement is declared effective by the Commission, or such shorter period that will terminate when all of the shares offered by such former shareholders have been sold. The Company may, in its sole discretion, determine to keep the Registration Statement effective for a longer period of time.

The shares 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. In effecting sales, brokers or dealers engaged by the Selling Stockholders may arrange for other brokers or dealers to participate. Brokers or dealers will receive commissions or discounts from Selling Stockholders in amounts to be negotiated immediately prior to the sale. The Selling Stockholders 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 a 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 such Selling Stockholder and 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 will be 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.

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 any 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.

TABLE OF CONTENTS

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

123,093 SHARES

[LEAF LOGO]

ASPEN TECHNOLOGY, INC.

COMMON STOCK

PROSPECTUS

,1997

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 and the Selling Stockholders 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 and the Nasdaq National Market listing 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 and for legal fees and expenses incurred by separate counsel for certain of the Selling Stockholders in connection with the offering made hereby.

| | Payable by Company | Payable by Certain Selling Stockholders |
|---|-----------------------|---|
| Securities and Exchange Commission registration fee | \$ 2,798 | \$ |
| Nasdaq National Market listing fee | 2,462 | |
| Legal fees and expenses | 10,000 | 750 |
| Blue sky fees and expenses, including legal fees | 750 | |
| Printing, EDGAR formatting and mailing expenses | 2,500 | |
| Miscellaneous | 1,490 | |
| | | |
| Total | \$20,000 | \$ 750 |
| | ====== | ===== |

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 registration rights agreement between the Company and the Selling Stockholders who were formerly B-JAC stockholders contains provisions pursuant to which such Selling Stockholders have agreed to indemnify directors and officers of the Registrant against certain liabilities, including liabilities under the Securities Act. Reference is made to the form of such registration rights agreement filed as Exhibit 99.1 hereto.

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 Registration Rights Agreement dated as of October 1, 1996 among Aspen Technology, Inc., former stockholders of B-JAC International, Inc. and certain successors-in-interest thereto and assigns thereof
- 99.2 Section 2.7 (Registration of Exchanged Shares) of Reorganization Agreement dated as of December 23, 1996 between Dr. Basil Joffe, Basil Joffe Associates, Inc. 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.

SIGNATURE

_ _ _ _ _ _ _ _ _

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 January 27, 1997.

ASPEN TECHNOLOGY, INC.

By: /S/ LAWRENCE B. EVANS
----Lawrence B. Evans
Chairman of the Board and
Chief Executive Officer

DATE

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.

TTTLF

| | Chairman of the Board and Chief Executive Officer (Principal Executive Officer) | January 27 | , 1997 |
|---|--|------------|--------|
| /S/ MARY A. PALERMO MARY A. PALERMO | Executive Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer) | January 27 | , 1997 |
| /S/ JOSEPH F. BOSTON JOSEPH F. BOSTON | Director | January 27 | , 1997 |
| /S/ GRESHAM T. BREBACH, JR GRESHAM T. BREBACH, JR. | Director | January 27 | , 1997 |
| /S/ DOUGLAS R. BROWN | Director | January 27 | , 1997 |

| /S/ JOAN C. MCARDLE | Director | January 27, | 1997 |
|---------------------|----------|-------------|------|
| /S/ ALISON ROSS | Director | January 27, | 1997 |

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

January 29, 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 123,093 shares (the "Shares") of the Company's common stock, \$.01 par value ("Common Stock"), by certain stockholders of the Company.

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 certified by the Secretary of State of The Commonwealth of Massachusetts on January 28, 1997;
- (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 September 26, 1996 and a draft of minutes of a meeting of the Board of Directors of the Company held on November 26, 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. January 29, 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 January 24, 1997

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT dated as of October 1, 1996 (this "Agreement") is entered into among Aspen Technology, Inc., a Massachusetts corporation ("Aspen"), and Beatrice R. Noe, Bruce J. Noe, John W. Noe and B-JAC International, Inc. Employees Stock Ownership Plan (collectively the "Initial Holders"), and any of their respective (a) successors-in-interest, (b) family members, trusts wholly or principally for the benefit of family members and affiliates to whom an Initial Holder or its successor-in-interest transfers any of the Registrable Securities (as defined in Section 1) initially issued to such Initial Holder and (c) any other person or persons to whom an Initial Holder transfers all or substantially all of the Registrable Securities initially issued to such Initial Holder (including any participants of B-JAC International, Inc. Employees Stock Ownership Plan to whom Registrable Securities are distributed under such Plan), which family member, trust, affiliate or person described in clause (b) or (c) is registered on the books of Aspen (together with the Initial Holders, such successors-in-interest, family members, trusts, affiliates and other persons are hereinafter sometimes referred to as the "Holders").

This Agreement is made pursuant to the Agreement and Plan of Reorganization dated as of September 25, 1996 (the "Reorganization Agreement") among Aspen, Aspen Acquisition Corp. II, B-JAC International, Inc. ("B-JAC") and the Initial Holders, pursuant to which, among other things, (a) Aspen Acquisition Corp. II is merging with and into B-JAC (the "Merger"), with B-JAC being the surviving corporation and thereby becoming a wholly owned subsidiary of Aspen and (b) Aspen is issuing shares (the "Shares") of its common stock, \$.10 par value ("Aspen Common"), to the Initial Holders, which will not be registered under the Securities Act of 1933, as amended (the "Securities Act"). In order to induce B-JAC to enter into the Reorganization Agreement and the Initial Holders to vote in favor of the Merger, Aspen has agreed to provide certain registration rights with respect to the Shares as set forth in this Agreement.

NOW, THEREFORE, Aspen and the Initial Holders hereby agree as follows:

- 1. SECURITIES SUBJECT TO THIS AGREEMENT. The securities entitled to the benefits of this Agreement are the Shares and any other securities issued by Aspen in exchange for any of the Shares (collectively the "Registrable Securities") but, with respect to any particular Registrable Security, only so long as it continues to be a Registrable Security. Registrable Securities shall include any securities issued as a dividend or distribution on account of Registrable Securities or resulting from a subdivision of the outstanding shares of Registrable Securities into a greater number of shares (by reclassification, stock split or otherwise). For the purposes of this Agreement, a security that was at one time a Registrable Security shall cease to be a Registrable Security when (a) such security has been effectively registered under the Securities Act and has been disposed of pursuant to such registration statement, (b) such security is or can be distributed to the public pursuant to Rule 144 (or any similar provision then in force) under the Securities Act, (c) such security has been otherwise transferred and (i) Aspen has delivered a new certificate or other evidence of ownership not bearing the legend set forth on the Shares upon the initial issuance thereof (or other legend of similar import) and (ii) in the opinion of counsel to Aspen, the subsequent disposition of such security shall not require the registration or qualification under the Securities Act or (d) such security has ceased to be outstanding.
- 2. SHELF REGISTRATION. Aspen agrees that it shall cause to be filed a registration statement (the "Shelf Registration") on Form S-3 or any other appropriate form under the Securities Act for an offering

to be made on a delayed or continuous basis pursuant to Rule 415 thereunder or any similar rule that may be adopted by the Securities and Exchange Commission (the "Commission") and permitting sales in ordinary course brokerage or dealer transactions not involving an underwritten public offering (and shall register or qualify the shares to be sold in such offering under such other securities or "blue sky" laws as would be required pursuant to clause (A) of Section 5 hereof) covering the entire issue of Registrable Securities (other than Registrable Securities held in escrow pursuant to the Escrow Agreement dated the date hereof) and such other shares of Aspen Common as may be included pursuant to registration rights of other holders of Aspen Common. Prior to the filing of the Shelf Registration or any supplement or amendment thereto, Aspen will furnish copies of the Shelf Registration or such amendment to one counsel designated by the Holders of a majority of the Registrable Shares, and will not file the Shelf Registration or such amendment without the prior consent of such counsel, which consent shall not be unreasonably withheld. Aspen shall use its best efforts to (a) cause the Shelf Registration to be declared effective by the Commission on, or as soon as practicable after, the date on which Aspen first publishes financial results covering at least thirty days of post-acquisition combined operations of Aspen and B-JAC as the surviving company and (b) keep the Shelf Registration continuously effective (and register or qualify the shares to be sold in such offering under such other securities or "blue sky" laws as would be required pursuant to clause (A) of Section 5 hereof) for a period (the "Shelf Registration Period") of ninety days after the date on which the Shelf Registration is declared effective by the Commission (or such shorter period that will terminate when all Registrable Securities covered by the Shelf Registration have been sold). Aspen agrees, if necessary, to supplement or make amendments to the Shelf Registration, if required by the registration form used by Aspen for the Shelf Registration or by the instructions applicable to such registration form or by the Securities Act or the rules or regulations thereunder or as may reasonably be requested by the Holders of a majority of the Registrable Securities then outstanding.

3. PIGGYBACK REGISTRATION. At any time prior to the second anniversary of the date hereof, whenever Aspen proposes to file a registration statement under the Securities Act with respect to an underwritten public offering of Aspen Common for cash sale by Aspen for its own account or by any of Aspen's securityholders, Aspen shall give written notice (the "Offering Notice") of such proposed filing to each of the Holders at least thirty days before the anticipated filing date. Such Offering Notice shall offer all such Holders the opportunity to register such number of Registrable Securities as each such Holder may request in writing, which request for registration (each, a "Piggyback Registration") must be received by Aspen within fifteen days after the Offering Notice is given. Aspen shall use all reasonable efforts to cause the managing underwriter or underwriters of a proposed underwritten offering to permit the holders of the Registrable Securities requested to be included in the registration for such offering to include such Registrable Securities in such offering on the same terms and conditions as the shares of Aspen Common included therein. Notwithstanding the foregoing, if the managing underwriter or underwriters of a proposed underwritten offering advise Aspen in writing that in its or their opinion the number of Registrable Securities proposed to be sold in such offering exceeds the number of Registrable Securities that can be sold in such offering without adversely affecting the market for Aspen Common, Aspen will include in such registration the number of Registrable Securities that in the opinion of such managing underwriter or underwriters can be sold without adversely affecting the market for Aspen Common. In such event, the number of Registrable Securities, if any, to be offered for the accounts of Holders shall be reduced PRO RATA on the basis of the relative number of any Registrable Securities requested by each such Holder to be included in such registration to the extent necessary to reduce the total number of Registrable Securities to be included in such offering to the number recommended by such managing underwriter or underwriters.

4. HOLDBACK AGREEMENTS.

- 4.1. RESTRICTIONS ON PUBLIC SALE BY HOLDERS OF REGISTRABLE SECURITIES. Each Holder agrees, if reasonably requested by the managing underwriter or underwriters for any underwritten offering covered by any Piggyback Registration (whether or not such Holder is participating therein), not to effect any public sale or distribution of Registrable Securities, including a sale pursuant to Rule 144 (or any similar provision then in force) under the Securities Act, during the 30 days prior to, and during the 180-day period beginning on, the effective date of such Piggyback Registration (except as part of such underwritten offering).
- 4.2. RESTRICTIONS ON PUBLIC SALE BY ASPEN. Aspen agrees (a) not to effect any public sale or distribution of any of its securities similar to those being registered, or any securities convertible into or exchangeable or exercisable for such securities (except pursuant to registrations on Form S-4 or S-8 or any successor or similar forms thereto) during the thirty-day period beginning on the effective date of the Shelf Registration and (b) to give each Holder written notice of the effectiveness of the Shelf Registration as soon as practicable following, but in any event within two business days following, the effective date
- 5. REGISTRATION PROCEDURES. Whenever the Holders have requested that any Registrable Securities be registered pursuant to Section 2 or 3 hereof, Aspen shall use its best efforts to effect the registration of Registrable Securities in accordance with the intended method of disposition thereof as expeditiously as practicable and, in connection with any such request, Aspen shall as expeditiously as possible:
 - (a) furnish to each seller of Registrable Securities such number of copies of the registration statement, each amendment and supplement thereto (in each case including all exhibits thereto), the prospectus included in such registration statement (including each preliminary prospectus) and such other documents as each seller may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such seller;
 - (b) use reasonable efforts to cause the Registrable Securities covered by such registration statement to be registered with or approved by such other governmental agencies or authorities as may be necessary by virtue of the business and operations of Aspen to enable the seller or sellers thereof or the underwriters, if any, to consummate the disposition of such Registrable Securities;
 - notify each seller of such Registrable Securities at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement contains an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and prepare and file with the Commission a supplement or amendment to such prospectus so that, as thereafter delivered to the purchasers of such Registrable Securities, such prospectus will not contain an untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, PROVIDED that prior to the filing of such supplement or amendment, Aspen will furnish copies thereof to the Holders, any underwriters and counsel for the Holders and will not file such supplement or amendment without the prior consent of such counsel, which consent shall not be unreasonably withheld;

- (d) notify the Holder (i) when a registration statement has become effective and when any post-effective amendments and supplements thereto become effective, (ii) of any request by the SEC or any state securities authority for amendments and supplements to a registration statement and prospectus or for additional information after the registration statement has become effective, (iii) of the issuance by the SEC or any state securities authority of any stop order suspending the effectiveness of a registration statement or the initiation of any proceedings for that purpose, (iv) if between the effective date of a registration statement and the closing of any sale of Registrable Securities covered thereby Aspen receives any notification with respect to the suspension of the qualification of the Registrable Securities for sale in any jurisdiction or the initiation of any proceeding for such purpose and (v) of the happening of any event during the period a registration statement is effective which makes any statement made in such registration statement or the related prospectus untrue in any material respect or which requires the making of any changes in such registration statement or prospectus in order to make the statements therein not misleading;
- (e) use its best efforts to obtain the withdrawal of any order suspending the effectiveness of a registration statement;
- make available for inspection by any seller of Registrable Securities, any underwriter participating in any disposition pursuant to such registration statement and any attorney, accountant or other agent retained by any such seller or underwriter (collectively, the "Inspectors"), all financial and other records, pertinent corporate documents and properties of Aspen (collectively, the "Records") as shall be reasonably necessary to enable them to exercise their due diligence responsibility, and cause Aspen's officers, directors, employees and agents to supply all information reasonably requested by any such Inspector in connection with such registration statement. Records that Aspen determines, in good faith, to be confidential and that it notifies the Inspectors are confidential shall not be disclosed by the Inspectors unless (i) the disclosure of such Records is, in the reasonable judgment of any Inspector, necessary to avoid or correct a misstatement or omission of a material fact in the registration statement or (ii) the release of such Records is ordered $% \left(1\right) =\left(1\right) \left(1$ pursuant to a subpoena or other order from a court or governmental agency of competent jurisdiction or required (in the written opinion of counsel to such seller or underwriter, which counsel shall be reasonably acceptable to Aspen) pursuant to applicable state or federal law. Each seller of Registrable Securities agrees that it will, upon learning that disclosure of such Records are sought by a court or governmental agency, give notice to Aspen and allow Aspen, at Aspen's expense, to undertake appropriate action to prevent disclosure of the Records deemed confidential;
- (g) otherwise use reasonable efforts to comply with all applicable rules and regulations of the Commission, and make generally available to its security holders, as soon as reasonably practicable, an earnings statement covering a period of twelve months, beginning within three months after the effective date of the registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act; and
- (h) use reasonable efforts to cause all Registrable Securities covered by the registration statement to be listed on each securities exchange or market, if any, on which similar

securities issued by Aspen are then listed, PROVIDED that the applicable listing requirements are satisfied.

Whenever the Holders have requested that any Registrable Securities be registered pursuant to Section 3 hereof, Aspen shall also:

- (A) use reasonable efforts to register or qualify such Registrable Securities under such other securities or "blue sky" laws of such jurisdictions as any seller or underwriter reasonably requests in writing and to do any and all other acts and things that may be reasonably necessary or advisable to register or qualify for sale in such jurisdictions the Registrable Securities owned by such seller; PROVIDED, HOWEVER, that Aspen shall not be required to (i) qualify generally to do business in any jurisdiction where it is not then so qualified, (ii) subject itself to taxation in any such jurisdiction, (iii) consent to general service of process in any such jurisdiction or (iv) provide any undertaking required by such other securities or "blue sky" laws or make any change in its charter or by-laws that the Board of Directors of Aspen determines in good faith to be contrary to the best interest of Aspen and its stockholders;
- (B) enter into customary agreements (including an underwriting agreement in customary form, if the offering is an underwritten offering) and take such other actions as are reasonably required in order to expedite or facilitate the disposition of such Registrable Securities; and
- (C) if such sale is pursuant to an underwritten offering, use reasonable efforts to obtain a "cold comfort" letter and updates thereof from Aspen's independent public accountants in customary form and covering such matters of the type customarily covered by "cold comfort" letters as the managing underwriter or underwriters reasonably request.

Aspen may require each seller or prospective seller of Registrable Securities as to which any registration is being effected to furnish to Aspen such information regarding the distribution of such securities and other matters as may be required to be included in the registration statement.

Each Holder agrees that, upon receipt of any notice from Aspen of the happening of any event of the kind described in Section 5(c), such Holder shall forthwith discontinue disposition of Registrable Securities pursuant to the registration statement covering such Registrable Securities until such Holder's receipt of the copies of the supplemented or amended prospectus contemplated by Section 5(c) and, if so directed by Aspen, such Holder shall deliver to Aspen (at Aspen's expense) all copies, other than permanent file copies then in such Holder's possession, of the prospectus covering such Registrable Securities current at the time of receipt of such notice. If Aspen shall give any such notice, Aspen shall extend the period during which such registration statement shall be maintained effective pursuant to this Agreement by the number of days during the period from and including the date of the giving of such notice pursuant to Section 5(c) to and including the date when each seller of Registrable Securities covered by such registration statement shall have received the copies of the supplemented or amended prospectus contemplated by Section 5(c). Notwithstanding anything to the contrary set forth above in this paragraph, Aspen agrees that it may not require the Holders of Registrable Securities to discontinue disposition of Registrable Securities for purposes of effecting a public offering of any securities of Aspen by any of its security holders (other than an offering made pursuant to a registration on Form S-8).

Notwithstanding the foregoing, but subject to Section 4.2(a), if Aspen shall furnish to the Holders a certificate signed by the Chief Financial Officer of Aspen stating that (i) in the good faith judgment of

the Board of Directors of Aspen it would be significantly disadvantageous to Aspen and its stockholders for any such registration statement to be amended or supplemented because Aspen would be required to disclose in such registration statement, either directly or through incorporation by reference, non-public information that it would not otherwise be obligated to disclose at such time and (ii) the need for such an amendment or supplement is not caused by a proposed secondary public offering of securities of Aspen by any of its securityholders (other than an offering made pursuant to a registration on Form S-8), Aspen may defer such amending or supplementing of such registration statement for not more than 45 days and in such event the Holders shall be required to discontinue disposition of any Registrable Securities covered by such registration statement during such period. Notwithstanding the foregoing, in connection with any amendment or supplement required to reflect a public offering of securities by Aspen, Aspen shall file such amendment or supplement no later than the same day that it files a registration statement relating to such offering and shall provide written notice of the filing of such amendment or supplement to the Holders of Registrable Securities promptly following such filing. If Aspen shall deliver any certificate pursuant to the second preceding sentence in connection with the Shelf Registration pursuant to Section 2, Aspen shall extend the period during which the Shelf Registration shall be maintained effective pursuant to this Agreement by the number of days during the period from and including the date of the delivery of such certificate to and including the date when each Holder of Registrable Securities covered by the Shelf Registration shall have received written notice that dispositions can be resumed under the Shelf Registration.

6. EXPENSES. Aspen shall pay all expenses incident to its performance of or compliance with this Agreement, regardless of whether such registration becomes effective, including (a) all Commission, stock exchange or market registration and filing fees, (b) all fees and expenses incurred in complying with securities or "blue sky" laws (including reasonable fees and disbursements of counsel in connection with "blue sky" qualifications of the Registrable Securities), (c) all printing, messenger and delivery expenses, (d) all fees and disbursements of Aspen's independent public accountants and counsel and (e) all fees and expenses of any special experts retained by Aspen in connection with any registration pursuant to the terms of this Agreement; PROVIDED, HOWEVER, that the Holders shall be liable for (i) any fees or commissions of brokers, dealers or underwriters, (ii) any transfer taxes and (iii) any fees or expenses of consultants, financial advisors, counsel and other professionals acting on behalf of the Holders in connection with any registration pursuant to the terms of this Agreement.

7. INDEMNIFICATION; CONTRIBUTION.

7.1. INDEMNIFICATION BY ASPEN. Aspen agrees to indemnify, to the fullest extent permitted by law, each Holder and each person, if any, who controls such Holder (within the meaning of the Securities Act), against any and all losses, claims, damages, liabilities and expenses caused by any untrue or alleged untrue statement of material fact contained in any registration statement, prospectus or preliminary prospectus or any amendment thereof or supplement thereto or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of a prospectus, in light of the circumstances under which they were made) not misleading, except insofar as the same are caused by or contained in any information with respect to such Holder furnished in writing to Aspen by such Holder expressly for use therein or by such Holder's failure to deliver a copy of the prospectus or any supplements thereto after Aspen has furnished such Holder with a sufficient number of copies of the same or by the delivery of prospectuses by such Holder after Aspen notified such Holder in writing to discontinue delivery of prospectuses. Aspen also shall indemnify any underwriters of the Registrable Securities, their officers and directors and each person who controls such underwriters (within the meaning of the Securities Act) to the same extent as provided above with respect to the indemnification of the Holders.

- 7.2. INDEMNIFICATION BY HOLDERS. In connection with any registration statement in which a Holder is participating, each such Holder shall furnish to Aspen in writing such information and affidavits with respect to such Holder as Aspen reasonably requests for use in connection with any such registration statement or prospectus and agrees to indemnify, severally and not jointly, to the fullest extent permitted by law, Aspen, its officers, directors and agents and each person, if any, who controls Aspen (within the meaning of the Securities Act) against any and all losses, claims, damages, liabilities and expenses resulting from any untrue or alleged untrue statement of a material fact or any omission or alleged omission of a material fact required to be stated in any registration statement, prospectus or preliminary prospectus or any amendment thereof or supplement thereto or necessary to make the statements therein (in the case of a prospectus, in light of the circumstances under which they were made) not misleading, to the extent, but only to the extent, that such untrue or alleged untrue statement or omission is contained in or improperly omitted from, as the case may be, any information or affidavit with respect to such Holder so furnished in writing by such Holder. Each Holder also shall indemnify any underwriters of the Registrable Securities, their officers and directors and each person who controls such underwriters (within the meaning of the Securities Act) to the same extent as provided above with respect to the indemnification of Aspen.
- 7.3. CONDUCT OF INDEMNIFICATION PROCEEDINGS. Any party that proposes to assert the right to be indemnified under this Section 7 shall, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 7, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve it from any liability that it may have to any indemnified party under the foregoing provisions of this Section 7 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnifying party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense. If the indemnifying party assumes the defense, the indemnifying party shall have the right to settle such action without the consent of the indemnified party; PROVIDED, HOWEVER, that the indemnifying party shall be required to obtain such consent (which consent shall not be unreasonably withheld) if the settlement includes any admission of wrongdoing on the part of the indemnified party or any decree or restriction on the indemnified party or its officers or directors; PROVIDED, FURTHER, that no indemnifying party, in the defense of any such action, shall, except with the consent of the indemnified party (which consent shall not be unreasonably withheld), consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability with respect to such action. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (a) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (b) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (c) a conflict or potential conflict exists (based on advice of

counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party) or (d) the indemnifying party has not in fact employed counsel to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time from all such indemnified party or parties unless (x) the employment of more than one counsel has been authorized in writing by the indemnifying party or parties, (y) an indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it that are different from or in addition to those available to the other indemnified parties or (z) a conflict or potential conflict exists (based on advice of counsel to an indemnified party) between such indemnified party and the other indemnified parties, in each of which cases the indemnifying party shall be obligated to pay the reasonable fees and expenses of such additional counsel or counsels. An indemnifying party will not be liable for any settlement of any action or claim effected without its written consent (which consent shall not be unreasonably withheld).

7.4. CONTRIBUTION. If the indemnification provided for in this Section 7 from the indemnifying party is unavailable to an indemnified party hereunder in respect of any losses, claims, damages, liabilities or expenses referred to herein, then the indemnifying party, to the extent such indemnification is unavailable, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages, liabilities or expenses in such proportion as is appropriate to reflect the relative fault of the indemnifying party and indemnified parties in connection with the actions that resulted in such losses, claims, damages, liabilities or expenses. The relative fault of such indemnifying party and indemnified parties shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact, has been made by, or relates to information supplied by, such indemnifying party or indemnified parties, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action. The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 7.3 hereof, any legal or other fees or expenses reasonably incurred by such party in connection with any investigation or proceeding.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 7.4 were determined by PRO RATA allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the immediately preceding paragraph. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall by entitled to contribution from any person.

If indemnification is available under this Section 7, the indemnifying parties shall indemnify each indemnified party to the full extent provided in Sections 7.1 and 7.2 hereof without regard to the relative fault of said indemnifying parties or indemnified party.

8. PARTICIPATION IN UNDERWRITTEN REGISTRATIONS. No person may participate in any underwritten registration hereunder unless such person (a) agrees to sell such person's securities on the basis provided in any underwriting agreements approved by the persons entitled hereunder to approve such arrangements

and (b) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements and other documents reasonably required under the terms of such underwriting arrangements.

9. RULE 144. Aspen covenants that it shall use its best efforts to file the reports required to be filed by it under the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder if and when Aspen becomes obligated to file such reports, and it shall, if feasible, take such further action as any Holder may reasonably request, all to the extent required from time to time to enable such Holder to sell Registrable Securities without registration under the Securities Act within the limitation of the exemptions provided by (a) Rule 144 under the Securities Act, as such Rule may be amended from time to time or (b) any similar rules or regulations hereafter adopted by the Commission. Upon the written request of any Holder, Aspen shall deliver to such Holder a written statement as to whether it has complied with such requirements.

In addition, if any of the Registrable Securities have not been registered within three years of the Closing Date (as defined in the Reorganization Agreement), Aspen will, upon request of a Holder, use its best efforts (subject to applicable law) to arrange for the exchange of the certificates representing the then-outstanding Registrable Securities of such Holder for certificates omitting the legend specified in Section 3.2.5 of the Reorganization Agreement; PROVIDED, HOWEVER, that such Holder has not violated any provision of Rule 145 which would preclude such exchange.

10. MISCELLANEOUS.

- 10.1. REMEDIES. Each Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Agreement. Aspen agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Agreement and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.
- 10.2. AMENDMENTS AND WAIVERS. Except as otherwise provided herein, the provisions of this Agreement may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless Aspen has obtained the written consent of the Holders that own, in the aggregate, at least a majority of the Registrable Securities then outstanding.
- 10.3. NOTICES. Any notice, request, instruction or other document to be given hereunder by any party to the other shall be in writing and delivered personally or sent by certified mail, postage prepaid, by facsimile (with receipt confirmed), or by courier service, as follows:

To Aspen: Aspen Technology, Inc.

Ten Canal Park

Cambridge, Massachusetts 02141

Fax: (617) 577-0722

Attention: Chief Financial Officer

With a copy to:

Foley, Hoag & Eliot LLP One Post Office Square Boston, Massachusetts 02109

Fax: (617) 832-7000

Attention: Mark L. Johnson, Esq.

To any Holder: John W. Noe

3706 Commodore Point Court Midlothian, Virginia 23112

With a copy to:

Kaufman & Canoles One Commercial Place Norfolk, Virginia 23514 Fax: (804) 624-3169

Fax: (804) 624-3169 Attention: Richard C. Mapp, III

or to such other persons as may be designated in writing by the parties, by a notice given as aforesaid.

- 10.4. CONSTRUCTION. The headings in this Agreement are included only for convenience and shall not affect the meaning or interpretation of this Agreement. The words "herein" and "hereof" and other words of similar import refer to this Agreement as a whole and not to any particular part of this Agreement. The word "including" as used herein shall not be construed so as to exclude any other thing not referred to or described.
- 10.5. SUCCESSORS AND ASSIGNS. This Agreement shall inure to the benefit of and be binding upon the Holders and the successors and assigns of Aspen.
- 10.6. ENTIRE AGREEMENT, ASSIGNABILITY, ETC. This Agreement (1) constitutes the entire agreement, and supersedes all other prior agreements and understandings, both written and oral, between the parties with respect to the subject matter hereof, (2) is not intended to confer upon any Person other than the parties hereto any rights or remedies hereunder, except as otherwise expressly provided herein, and (3) shall not be assignable by operation of law or otherwise except to each Stockholder's heirs upon such Stockholder's death. No provisions of this Agreement are intended, nor will be interpreted, to provide or create any third party beneficiary rights or any other rights of any kind in any client, customer, affiliate, stockholder, partner or employee of any party hereto or any other Person unless specifically provided otherwise herein, and, except as so provided, all provisions hereof will be personal solely between the parties to this Agreement.
- 10.7. VALIDITY. The invalidity or unenforceability of any provisions of this Agreement shall not affect the validity or enforceability of any other provisions of this Agreement, each of which shall remain in full force and effect.
- 10.8. GOVERNING LAW AND JURISDICTION. This Agreement shall be governed by the laws of The Commonwealth of Massachusetts. Aspen hereby consents to personal jurisdiction in the U.S. District Court for the Eastern District sitting in Richmond, Virginia, with respect to claims arising under this Agreement.

10.9. COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument.

* * *

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the date first above written.

ASPEN TECHNOLOGY, INC.

By: /s/ LAWRENCE B. EVANS -----Lawrence B. Evans, President INITIAL HOLDERS /s/ BEATRICE R. NOE Beatrice R. Noe /s/ BRUCE J. NOE Bruce J. Noe /s/ JOHN W. NOE -----John W. Noe B-JAC International, Inc. Employees Stock Ownership Plan (formerly B-JAC Computer Services, Inc. Employees Stock Ownership Plan) /s/ JOHN W. NOE Trustee

2.7. REGISTRATION OF EXCHANGED SHARES. Aspen agrees that, at its cost and expense and as soon as reasonably practicable given Aspen's planned registration of other securities and announcement of the transaction contemplated in this Agreement, it shall cause to be filed a registration statement (the "Shelf Registration") on Form S-3 or any other appropriate form under the Securities Act for an offering to be made on a delayed or continuous basis pursuant to Rule 415 thereunder or any similar rule that may be adopted by the Securities and Exchange Commission (the "Commission") and permitting sales in ordinary course brokerage or dealer transactions not involving an underwritten public offering (and shall register or qualify the shares to be sold in such offering under such other securities or "blue sky" laws as would reasonably be required) covering the entire issue of Exchanged Shares and such other shares of Aspen Common as may be included pursuant to registration rights of other holders of Aspen Common. Aspen shall use its best efforts to keep the Shelf Registration continuously effective (and register or qualify the shares to be sold in such offering under such other securities or "blue sky" laws as would be required for a period (the "Shelf Registration Period") of ninety days after the date on which the Shelf Registration is declared effective by the Commission (or such shorter period that will terminate when all Exchanged Shares covered by the Shelf Registration have been sold). Aspen agrees, if necessary, to supplement or make amendments to the Shelf Registration, if required by the registration form used by Aspen for the Shelf Registration or by the instructions applicable to such registration form or by the Securities Act or the rules or regulations thereunder. After expiration of the [initial] Shelf Registration Period and for a period of two years from the Closing Date, Aspen shall, upon the written request of the Stockholder, file one or more Shelf Registrations permitting sales of any remaining Exchanged Shares, provided however that Aspen shall not be required to file more than one such Shelf Registration per year. Notwithstanding the foregoing, if Aspen shall furnish to the Stockholder a certificate signed by the Chief Financial Officer of Aspen stating that in the good faith judgment of the Board of Directors of Aspen it would be significantly disadvantageous to Aspen and its stockholders for the Shelf Registration to be amended or supplemented because Aspen would be required to disclose in the Shelf Registration, either directly or through incorporation by reference, non-public information that it would not otherwise be obligated to disclose at such time Aspen may defer such amending or supplementing of the Shelf Registration for not more than 45 days and in such event the Stockholder shall be required to discontinue disposition of any [securities] covered by the Shelf Registration during such period.

[For purposes of the foregoing Section 2.7, the following terms have the indicated meanings:

[&]quot;Aspen" means Aspen Technology, Inc.

[&]quot;Securities Act" means the Securities Act of 1933, as amended.

[&]quot;Exchanged Shares" means the 77,870 shares of Aspen Common exchanged for the previously outstanding shares of common stock of Basil Joffe Associates, Inc.

[&]quot;Aspen Common" means Aspen common stock, \$.10 par value.

[&]quot;Stockholder" means Dr. Basil Joffe.]