

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
Registration Statement Under the Securities Act of 1933

ASPEN TECHNOLOGY, INC.
(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction
of incorporation or organization)

04-2739697
(I.R.S. Employer
Identification No.)

Ten Canal Park
Cambridge, Massachusetts 02141
(617) 949-1000
(Address, including zip code, and telephone number, including area code,
of registrant's principal executive offices)

LAWRENCE B. EVANS
Chairman of the Board and Chief Executive Officer
Aspen Technology, Inc.
Ten Canal Park
Cambridge, Massachusetts 02141
(617) 949-1000
(Name, address, including zip code, and telephone number,
including area code, of agent for service)

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Approximate date of commencement of proposed sale to 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. [] 333-_____.

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. [] 333-_____.

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

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
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Common stock, \$.10 par value per share.... 660,276 shares \$36.625 \$24,182,608.50 \$6,385

(1) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) under the Securities Act and based upon the average of the high and low prices on the Nasdaq National Market on October 9, 2000.

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), SHALL DETERMINE.

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The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and the selling stockholders are not soliciting offers to buy these securities, in any jurisdiction where the offer or sale is not permitted.

Subject to completion, dated October 10, 2000.

PROSPECTUS

660,276 SHARES
ASPEN TECHNOLOGY, INC.
COMMON STOCK

This prospectus relates to resales of shares of common stock previously issued by us to the former stockholders of Petrolsoft Corporation in connection with our acquisition of that company.

We will not receive any proceeds from the sale of the shares.

The selling stockholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our common stock is traded on the Nasdaq National Market under the symbol "AZPN."

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK.
SEE "RISK FACTORS" BEGINNING ON PAGE 4.

THE SECURITIES AND EXCHANGE COMMISSION AND STATE SECURITIES REGULATORS HAVE NOT APPROVED OR DISAPPROVED THESE SECURITIES, OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is , 2000.

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We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. The selling stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock. Unless the context otherwise requires, references in this prospectus to "Aspen Technology," "we," "us," and "our" refer to Aspen Technology, Inc. and its subsidiaries.

AspenTech is our registered trademark. This prospectus also contains trademarks of other companies.

PROSPECTUS SUMMARY

This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, especially the risks of investing in our common stock discussed under "Risk Factors."

ASPEN TECHNOLOGY

OUR BUSINESS: We are a leading global provider of intelligent decision-support and eBusiness solutions to the process industries. Our decision-support software and service solutions enable customers to automate, integrate and optimize complex engineering, manufacturing and supply chain functions. Customers use our eBusiness solutions to automate and synchronize collaborations with suppliers, customers and other trading partners over the Internet. Customers use our solutions to optimize manufacturing performance at the individual plant level, across multiple plants and throughout the extended supply chain. These solutions enable customers to increase competitiveness and profitability by improving manufacturing efficiency, responsiveness and product quality.

We believe that our extensive domain knowledge in process modeling and chemical engineering is a competitive advantage. Our customer base of over 1,000 process manufacturers includes 46 of the world's 50 largest chemical companies, 23 of the world's 25 largest petroleum refiners and 18 of the world's 20 largest pharmaceutical companies. In order to leverage our internal sales and marketing efforts, enhance the breadth of our solutions and expand our implementation capabilities, we have established a broad network of strategic partners, including e-Chemicals, Extricity Software, IBM, Microsoft, Origin, PricewaterhouseCoopers and Union Carbide.

OUR ADDRESS: Our principal executive offices are located at Ten Canal Park, Cambridge, Massachusetts 02141. Our telephone number is (617) 949-1000. Our website is located at www.aspentech.com; information contained in our website is not a part of this prospectus.

THE OFFERING

COMMON STOCK OFFERED: All of the 660,276 shares offered by this prospectus are being sold by the selling stockholders. The selling stockholders are the former stockholders of Petrolsoft Corporation (or their successors in interest) who acquired the offered shares as a result of our acquisition of Petrolsoft in June 2000.

USE OF PROCEEDS: We will not receive any proceeds from the sale of shares in this offering.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below before purchasing our common stock. The risks and uncertainties described below are not the only ones facing our company. Additional risks and uncertainties may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations would likely suffer. In that case, the trading price of our common stock could fall, and you may lose all or part of the money you paid to buy our common stock.

OUR LENGTHY SALES CYCLE MAKES IT DIFFICULT TO PREDICT QUARTERLY REVENUE LEVELS AND OPERATING RESULTS.

Because license fees for our software products are substantial and the decision to purchase our products typically involves members of our customers' senior management, the sales process for our solutions is lengthy and can exceed one year. Accordingly, the timing of our software revenues is difficult to predict, and the delay of an order could cause our quarterly revenues to fall substantially below expectations. Moreover, to the extent that we succeed in shifting customer purchases away from individual software solutions and toward more costly integrated suites of software and services, our sales cycle may lengthen, which could increase the likelihood of delays and cause the effect of a delay to become more pronounced. We have limited experience in forecasting the timing of sales of our integrated suites of software and services. Delays in sales could cause significant shortfalls in our revenues and operating results for any particular period.

FLUCTUATIONS IN OUR QUARTERLY REVENUES, OPERATING RESULTS AND CASH FLOW MAY CAUSE THE MARKET PRICE OF OUR COMMON STOCK TO FALL.

Our revenues, operating results and cash flow have fluctuated in the past and may fluctuate significantly in the future as a result of a variety of factors, many of which are outside of our control, including:

- our customers' purchasing patterns;
- the length of our sales cycle;
- changes in the mix of our license revenues and service revenues;
- the timing of introductions of new solutions and enhancements by us and our competitors;
- seasonal weakness in the first quarter of each fiscal year, primarily caused by a slowdown in business in some of our international markets;
- the timing of our investments in new product development;
- changes in our operating expenses; and
- fluctuating economic conditions, particularly as they affect companies in the chemicals, petrochemicals and petroleum industries.

We ship software products within a short period after receipt of an order and typically do not have a material backlog of unfilled orders for software products. Consequently, revenues from software licenses in any quarter are substantially dependent on orders booked and shipped in that quarter. Historically, a majority of each quarter's revenues from software licenses has come from license agreements that have been entered into in the final weeks of the quarter. Therefore, even a short delay in the consummation of an agreement may cause our revenues to fall below public expectations for that quarter.

Since our expense levels are based in part on anticipated revenues, we may be unable to adjust spending quickly enough to compensate for any revenue shortfall and any revenue shortfall would likely have a disproportionately adverse effect on our operating results. We expect that these factors will continue to affect our operating results for the foreseeable future. Because of the foregoing factors, we believe that period-to-period comparisons of our operating results are not necessarily meaningful and should not be relied upon as indications of future performance.

As a result of lower-than-anticipated license revenues in our fiscal quarters ended September 30, 1998 and March 31, 1999, our operating results for each of those quarters were below the expectations of public market analysts and many investors. In each case, the market price of our common stock declined substantially upon the announcement of our operating results. If, due to one or more of the foregoing factors or an unanticipated cause, our operating results fail to meet the expectations of public market analysts and investors in a future quarter, the market price of our common stock would likely decline.

BECAUSE WE DERIVE A MAJORITY OF OUR TOTAL REVENUES FROM CUSTOMERS IN THE CYCLICAL CHEMICALS, PETROCHEMICALS AND PETROLEUM INDUSTRIES, OUR OPERATING RESULTS MAY SUFFER IF THESE INDUSTRIES EXPERIENCE AN ECONOMIC DOWNTURN.

We derive a majority of our total revenues from companies in the chemicals, petrochemicals and petroleum industries. Accordingly, our future success depends upon the continued demand for manufacturing optimization software and services by companies in these process manufacturing industries. The chemicals, petrochemicals and petroleum industries are highly cyclical. In the past, worldwide economic downturns and pricing pressures experienced by chemical, petrochemical and petroleum companies have led to consolidations and reorganizations. These downturns, pricing pressures and restructurings have caused delays and reductions in capital and operating expenditures by many of these companies. These delays and reductions have reduced demand for products and services like ours. A recurrence of these industry patterns, as well as general domestic and foreign economic conditions and other factors that reduce spending by companies in these industries, could harm our operating results in the future.

IF WE DO NOT HIRE AND RETAIN HIGHLY QUALIFIED EMPLOYEES, WE MAY BE UNABLE TO EXECUTE OUR BUSINESS PLAN SUCCESSFULLY.

Our success depends, in large part, on our ability to attract, hire, train and retain highly qualified employees, particularly project engineers, supply chain and eBusiness experts, sales and marketing personnel and operations research experts. For project engineers and other process manufacturing experts, we primarily hire individuals who have obtained a doctoral or master's degree in chemical engineering or a related discipline or who have significant relevant industry experience. As a result, the pool of qualified potential employees is relatively small, and we face significant competition for these employees, from not only our direct competitors but also our customers, academic institutions and other enterprises. In addition, the pool of individuals with supply chain and eBusiness expertise is very limited, and competition for these individuals is intense. We have limited experience in hiring and retaining employees in this area. Our failure to recruit and retain the highly qualified employees who are integral to our services, product development and sales and marketing efforts may limit the rate at which we generate sales and develop new products and product enhancements, which could hurt our operating results. Moreover, intense competition for these employees may result in significant increases in our labor costs, which would impact our operating results.

WE WILL LOSE VALUABLE STRATEGIC LEADERSHIP AND OUR CUSTOMER RELATIONSHIPS MAY BE HARMED IF WE LOSE THE SERVICES OF OUR CHIEF EXECUTIVE OFFICER OR OTHER KEY PERSONNEL.

Our future success depends to a significant extent on Lawrence B. Evans, our principal founder, Chairman and Chief Executive Officer, our other executive officers and a number of key engineering, technical, managerial and marketing personnel. The loss of the services of any of these individuals or groups of individuals could harm our business. None of our executive officers has entered into an employment agreement with us.

IF WE DO NOT COMPETE SUCCESSFULLY, WE MAY LOSE MARKET SHARE.

We face three primary sources of competition:

- commercial vendors of software products targeting one or more process manufacturing functions in the areas of engineering, manufacturing and supply chain, such as Hyprotech, a division of AEA Technology, i2 Technologies, SAP and Simulation Sciences, a division of Invensys;

- vendors of hardware that offer software solutions in order to add value to their proprietary distributed control systems, such as Honeywell and Invensys, and vendors of ERP systems, such as Oracle, PeopleSoft and SAP; and
- large companies in the process industries that have developed their own proprietary software solutions.

Some of our current competitors have significantly greater financial, marketing and other resources than we have. In addition, many of our current competitors have established, and may in the future continue to establish, cooperative relationships with third parties to improve their product offerings and to increase the availability of their products to the marketplace. The entry of new competitors or alliances into our market could reduce our market share, require us to lower our prices, or both. Many of these factors are outside our control, and we may not be able to maintain or enhance our competitive position against current and future competitors.

OUR REVENUE GROWTH WILL DEPEND ON OUR RELATIONSHIPS WITH SYSTEMS INTEGRATORS AND OTHER STRATEGIC PARTNERS.

One element of our growth strategy is to increase the number of third-party implementation partners who market and integrate our products. If we do not adequately train a sufficient number of systems integrator partners, or if potential partners focus their efforts on integrating or co-selling competing products to the process industries, our future revenue growth could be limited and our operating results could be harmed. If our partners fail to implement our solutions for our customers properly, the reputations of our solutions and our company could be harmed and we might be subject to claims by our customers. We also intend to continue to establish partnerships with technology companies, such as Extricity Software, and new eBusiness entities, such as e-Chemicals, to accelerate the development and marketing of our eBusiness solutions. To the extent that we are unsuccessful in maintaining our existing relationships and developing new relationships, our revenue growth may be harmed.

IF WE FAIL TO ANTICIPATE AND RESPOND TO CHANGES IN THE MARKET FOR EBUSINESS SOLUTIONS FOR PROCESS MANUFACTURERS, WHICH IS AT A VERY EARLY STAGE, OUR FUTURE REVENUE GROWTH MAY BE LIMITED.

The use of eBusiness solutions by process manufacturers is at a very early stage. Because this market is new, it is difficult to predict its potential size or growth rate. Moreover, historically, the process industries have not been early adopters of new business technologies. In addition, the market for eBusiness software and services for process manufacturing optimization is characterized by rapidly changing technology and customer needs. Our future success depends on our ability to enhance our current eBusiness offerings, to anticipate trends in the process industries regarding use of the Internet, and to develop in a timely and cost-effective manner new software and services that respond to evolving customer needs, emerging Internet technologies and standards, and new competitive software and service offerings.

IF WE FAIL TO INTEGRATE THE OPERATIONS OF THE COMPANIES WE ACQUIRE, WE MAY NOT REALIZE THE ANTICIPATED BENEFITS AND OUR OPERATING COSTS COULD INCREASE.

We intend to continue to pursue strategic acquisitions that will provide us with complementary products, services and technologies and with additional personnel. The identification and pursuit of these acquisition opportunities and the integration of acquired personnel, products, technologies and businesses require a significant amount of management time and skill. There can be no assurance that we will identify suitable acquisition candidates, consummate any acquisition on acceptable terms or successfully integrate any acquired business into our operations. Additionally, in light of the consolidation trend in our industry, we expect to face competition for acquisition opportunities, which may substantially increase the cost of any potential acquisition.

We have experienced in the past, and may experience again in the future, problems integrating the operations of a newly acquired company with our own operations. Acquisitions also expose us to potential risks, including diversion of management's attention, failure to retain key acquired personnel, assumption of legal or other liabilities and contingencies, and the amortization of goodwill and other acquired intangible assets. Moreover, customer dissatisfaction with, or problems caused by, the performance of any acquired products or technologies could hurt our reputation.

We may issue additional equity securities or incur long-term indebtedness to finance future acquisitions. The issuance of equity securities could result in dilution to existing stockholders, while the use of cash reserves or significant debt financing could reduce our liquidity and weaken our financial condition.

WE MAY LOSE ALL OR PART OF OUR INVESTMENT IN PETROVANTAGE IF PETROVANTAGE IS UNABLE TO DEVELOP AN INDEPENDENT, SELF-SUSTAINING DIGITAL MARKETPLACE.

On September 14, 2000, we announced that we had formed PetroVantage, Inc. to develop and operate a digital, Internet-based marketplace for crude oil, intermediates and refined petroleum products. We have committed to invest \$10 million in PetroVantage and may invest additional amounts in the future. We may lose all or a portion of our investment in PetroVantage if PetroVantage's digital marketplace does not gain market acceptance, is unable to achieve profitability or positive cash flow, or otherwise fails to meet our expectations.

The operation of a digital marketplace differs significantly from the operation of our traditional business, and PetroVantage has no operating history that can be used to evaluate its business and future prospects. The creation and maintenance of a digital marketplace for bulk commodities such as petroleum is a new, rapidly evolving and intensely competitive business. Barriers to entry are relatively low as potential competitors are able to launch new competing sites at relatively low costs using commercially-available software.

PetroVantage faces significant risks and uncertainties relating to its ability to implement its new and unproven business model. These risks include the following:

- PetroVantage may be unable to attract commodity traders, brokers, petroleum companies, logistics providers, and other parties to use PetroVantage as their platform for carrying out activities related to the trading of crude oil and other petroleum products. These individuals and companies may be committed to other digital marketplaces or projects to build digital marketplaces, may be unconvinced of the value of participating in a digital marketplace, or may be concerned that a digital marketplace could reduce their competitiveness or profits.
- We intend that PetroVantage be operated and perceived as an independent entity separate from our core business. We believe that PetroVantage's independence is critical to its success because potential users, some of which may compete with our company, will be less likely to utilize the marketplace if they perceive that we rather than PetroVantage are operating the marketplace. We may be unable to attract outside investors as part of our strategy to make PetroVantage a neutral digital marketplace that is not controlled by a technology or petroleum company.
- PetroVantage's business model relies on its ability to provide users of the PetroVantage digital marketplace with a superior trading experience and to maintain sufficient transaction volume to attract buyers and sellers to the PetroVantage marketplace. The effective promotion and positioning of PetroVantage will depend heavily upon PetroVantage's efforts to provide users with high quality and efficient service to help them carry out transactions. To accomplish this goal, PetroVantage will invest heavily in site development, technology and operating infrastructure development. We cannot be certain that PetroVantage will be able to develop, license or acquire, and then integrate, those technologies, if at all, without delays or inefficiencies.
- PetroVantage's business model relies heavily on the value provided users of the digital marketplace by decision support software applications and collaboration among trading partners. To accomplish this PetroVantage will need to design a compelling workflow for petroleum trading, develop or modify our decision support software to be useable over the internet, and provide data and information from petroleum companies and others. We cannot be certain that the workflow design will meet the needs of traders or be favored by traders, brokers and other companies; that the decision support software will work well over the internet, or that we will be able to establish arrangements for sharing information or carrying out transactions with brokers, petroleum companies, shipping companies or individuals or companies who participate in the petroleum market.

WE MAY SUFFER LOSSES ON FIXED-PRICE ENGAGEMENTS.

We derive a substantial portion of our total revenues from service engagements and a significant percentage of these engagements have been undertaken on a fixed-price basis. We bear the risk of cost overruns and inflation in connection with fixed-price engagements, and as a result, any of these engagements may be unprofitable. In the past, we have had cost overruns on fixed-price service engagements. In addition, to the extent that we are successful in shifting customer purchases to our integrated suites of software and services and we price those engagements on a fixed-price basis, the size of our fixed-price engagements may increase, which could cause the impact of an unprofitable fixed-price engagement to have a more pronounced impact on our operating results.

WE ARE, AND MAY IN THE FUTURE BE, INVOLVED IN SECURITIES CLASS ACTION LITIGATION.

In October and November 1998, stockholders commenced three separate legal actions against us and some of our directors and officers. These lawsuits seek substantial monetary damages for alleged violations of securities laws. If the plaintiffs are successful and their recoveries exceed the limits of our insurance coverage, our financial position will be harmed. Litigation is inherently uncertain and an adverse resolution of these actions may have a negative effect on our operating results in the period in which they are resolved. For further discussion of these lawsuits, see "Litigation."

OUR BUSINESS MAY SUFFER IF WE FAIL TO ADDRESS THE CHALLENGES ASSOCIATED WITH INTERNATIONAL OPERATIONS.

We have derived approximately 50% of our total revenues from customers outside the United States in each of the past three fiscal years. We anticipate that revenues from customers outside the United States will continue to account for a significant portion of our total revenues for the foreseeable future. Our operations outside the United States are subject to additional risks, including:

- unexpected changes in regulatory requirements, exchange rates, tariffs and other barriers;
- political and economic instability;
- difficulties in managing distributors and representatives;
- difficulties in staffing and managing foreign subsidiary operations;
- difficulties and delays in translating products and product documentation into foreign languages; and
- potentially adverse tax consequences.

The impact of future exchange rate fluctuations on our operating results cannot be accurately predicted. In recent years, we have increased the extent to which we denominate arrangements with international customers in the currencies of the countries in which the software or services are provided. From time to time we have engaged in, and may continue to engage in, hedges of a significant portion of installment contracts denominated in foreign currencies. Any hedging policies implemented by us may not be successful, and the cost of these hedging techniques may have a significant negative impact on our operating results.

WE MAY NOT BE ABLE TO PROTECT OUR INTELLECTUAL PROPERTY RIGHTS, WHICH COULD MAKE US LESS COMPETITIVE AND CAUSE US TO LOSE MARKET SHARE.

We regard our software as proprietary and rely on a combination of copyright, patent, trademark and trade secret laws, license and confidentiality agreements, and software security measures to protect our proprietary rights. We have United States patents for the expert guidance system in our proprietary graphical user interface, the simulation and optimization methods in our optimization software, a process flow diagram generator in our planning and scheduling software, and a process simulation apparatus in our polymers software. We have registered or have applied to register certain of our significant trademarks in the United States and in certain other countries. We generally enter into non-disclosure agreements with our employees and customers, and historically have restricted access to our software products' source codes, which we regard as proprietary information. In a few cases, we have provided copies of the source code for certain products to customers solely for the purpose of special product

customization and have deposited copies of the source code for some of our products in third-party escrow accounts as security for ongoing service and license obligations. In these cases, we rely on non-disclosure and other contractual provisions to protect our proprietary rights.

The laws of certain countries in which our products are licensed do not protect our products and intellectual property rights to the same extent as the laws of the United States. The laws of many countries in which we license our products protect trademarks solely on the basis of registration. The steps we have taken to protect our proprietary rights may not be adequate to deter misappropriation of our technology or independent development by others of technologies that are substantially equivalent or superior to our technology. Any misappropriation of our technology or development of competitive technologies could harm our business, and could force us to incur substantial costs in protecting and enforcing our intellectual property rights.

WE MAY HAVE TO DEFEND AGAINST INTELLECTUAL PROPERTY INFRINGEMENT CLAIMS, WHICH COULD BE EXPENSIVE AND, IF WE ARE NOT SUCCESSFUL, COULD DISRUPT OUR BUSINESS.

Third parties may assert patent, trademark, copyright and other intellectual property rights to technologies that are important to us. In such an event, we may be required to incur significant costs in litigating a resolution to the asserted claims. The outcome of any litigation could require us to pay damages or obtain a license to a third party's proprietary rights in order to continue licensing our products as currently offered. If such a license is required, it might not be available on terms acceptable to us, if at all.

OUR INABILITY TO MANAGE OUR GROWTH MAY HARM OUR OPERATING RESULTS.

We have experienced substantial growth in recent years in the number of our employees, the scope of our operating and financial systems, and the geographic area of our operations. Our operations have expanded significantly through both internal growth and acquisitions. Our growth has placed, and is expected to continue to place, a significant strain on our management and our operating and financial systems. To manage our growth effectively, we must continue to expand our management team, attract, motivate and retain employees, and implement and improve our operating and financial systems. Our current management systems may not be adequate and we may not be able to manage any future growth successfully.

OUR SOFTWARE IS COMPLEX AND MAY CONTAIN UNDETECTED ERRORS.

Like many other complex software products, our software has on occasion contained undetected errors or "bugs." Because new releases of our software products are initially installed only by a selected group of customers, any errors or "bugs" in those new releases may not be detected for a number of months after the delivery of the software. These errors could result in loss of customers, harm to our reputation, adverse publicity, loss of revenues, delay in market acceptance, diversion of development resources, increased insurance costs or claims against us by customers.

WE MAY BE SUBJECT TO SIGNIFICANT EXPENSES AND DAMAGES BECAUSE OF LIABILITY CLAIMS.

The sale and implementation of certain of our software products and services, particularly in the areas of advanced process control and optimization, may entail the risk of product liability claims. Our software products and services are used in the design, operation and management of manufacturing processes at large facilities, and any failure of our software could result in significant claims against us for damages or for violations of environmental, safety and other laws and regulations. Our agreements with our customers generally contain provisions designed to limit our exposure to potential product liability claims. It is possible, however, that the limitation of liability provisions in our agreements may not be effective as a result of federal, state or local laws or ordinances or unfavorable judicial decisions. A substantial product liability claim against us could harm our operating results and financial condition.

OUR COMMON STOCK MAY EXPERIENCE SUBSTANTIAL PRICE AND VOLUME FLUCTUATIONS.

The equity markets have from time to time experienced extreme price and volume fluctuations, particularly in the high technology sector, and those fluctuations have often been unrelated to the operating performance of particular companies. In addition, factors such as our financial performance, announcements of technological

innovations or new products by us or our competitors, as well as market conditions in the computer software or hardware industries, may have a significant impact on the market price of our common stock.

WE HAVE ANTI-TAKEOVER DEFENSES THAT COULD DELAY OR PREVENT AN ACQUISITION OF OUR COMPANY, WHICH MAY REDUCE THE MARKET PRICE OF OUR COMMON STOCK.

Our charter and bylaws and applicable Delaware laws contain provisions that may discourage acquisition bids for us and that may deprive stockholders of certain opportunities to receive a premium for their stock as part of an acquisition, which may have the effect of reducing the market price of our common stock. In addition, we have adopted a stockholder rights plan, which also may deter or delay attempts to acquire us or accumulate shares of our common stock.

LITIGATION

On October 5, 1998, a purported class action lawsuit was filed in the United States District Court for the District of Massachusetts against us and certain of our officers and directors, on behalf of purchasers of our common stock between April 28, 1998 and October 2, 1998. This lawsuit is identified here as the Van Ormer Complaint. The lawsuit seeks an unspecified amount of damages and claims violations of Sections 10(b) and 20(a) of the Securities Exchange Act, alleging that we issued a series of materially false and misleading statements concerning our financial condition, our operations and our integration of several acquisitions. On October 26, 1998, a second purported class action lawsuit was filed in the United States District Court for the District of Massachusetts against us and certain of our officers and directors, on behalf of purchasers of our common stock between April 28, 1998 and October 2, 1998. This second lawsuit was identical to the Van Ormer Complaint except for the named plaintiff. This second lawsuit is identified here as the Clancey Complaint. On November 20, 1998, a third purported class action lawsuit was filed in the same court against the same defendants. This third lawsuit was identical to the Van Ormer and Clancey Complaints except for the named plaintiff, the expansion of the class action period to include purchasers of our common stock from January 27, 1998 to October 2, 1998 and the addition of references to statements made between January 27, 1998 and April 28, 1998. This third lawsuit is identified here as the Marucci Complaint. On January 27, 1999, in response to a motion to dismiss filed by us, the plaintiffs consolidated the three complaints and filed a consolidated amended class action complaint. On December 9, 1999, the Court heard oral arguments to review the pleadings in the case; to date, there has been no decision rendered by the Court.

We believe we have meritorious legal defenses to the lawsuits and intend to defend vigorously against this consolidated action. We are currently unable, however, to determine whether resolution of these matters will have a material adverse effect on our operating results or financial position, or reasonably estimate the amount of the loss, if any, that may result from resolution of these matters. In addition to the foregoing lawsuits, we may be a party to lawsuits in the normal course of our business. We note that securities litigation, in particular, can be expensive and disruptive to our normal business operations and the outcome of complex legal proceedings can be very difficult to predict.

SPECIAL NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus includes and incorporates forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included or incorporated in this prospectus, particularly under the heading "Risk Factors," that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. We do not assume any obligation to update any of our forward-looking statements.

USE OF PROCEEDS

All of the shares of common stock offered by this prospectus are being offered by the selling stockholders. For information about the selling stockholders, see "Selling Stockholders." We will not receive any proceeds from the sale of shares by the selling stockholders.

The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholders in disposing of the offered shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including all registration and filing fees, Nasdaq listing fees, and fees and expenses of our counsel and our accountants.

SELLING STOCKHOLDERS

We issued the shares of common stock covered by this prospectus in a private placement in connection with our acquisition of Petrolsoft in June 2000. The following table sets forth, to our knowledge, certain information about the selling stockholders as of October 5, 2000.

Beneficial ownership is determined in accordance with the rules of the SEC, and includes voting or investment power with respect to shares. Unless otherwise indicated below, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock, except to the extent authority is shared by spouses under applicable law. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for the person named below.

Name of Selling Stockholder	Shares of Common Stock Beneficially Owned Prior to Offering		Number of Shares of Common Stock Being Offered	Shares of Common Stock to be Beneficially Owned After Offering	
	Number	Percentage		Number	Percentage
Gordon Hartogensis	880,367	220,092 *	660,275 220,092	* 660,275	* *
William Miller	880,367	*	220,092	660,275	*
Gamboa Family Trust David and Julie Gamboa, Trustees	855,369	*	--	--	*
Honizon Christian Fellowship Rancho Santa Fe	25,000	*	--	--	*

* Less than one percent.

We do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders may not sell any or all of the shares offered by this prospectus. Because the selling stockholders may offer all or some of the shares pursuant to this offering, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholders.

None of the selling stockholders named above has held any position or office with, or has otherwise had a material relationship with, us or any of our subsidiaries within the past three years, except that the three individual selling stockholders are employed by Petrolsoft. In connection with our acquisition of Petrolsoft, we entered into employment agreements with these selling stockholders under which each will perform services for us through May 31, 2002.

PLAN OF DISTRIBUTION

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholders. The term "selling stockholders" includes donees, pledgees, transferees or other successors-in-interest selling shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other non-sale related transfer. The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions. The selling stockholders may sell their shares by one or more of, or a combination of, the following methods:

- purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-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;
- an over-the-counter distribution in accordance with the rules of the Nasdaq National Market;
- in privately negotiated transactions; and
- in options transactions.

In addition, any shares that qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with those transactions, broker-dealers or other financial institutions may engage in short sales of the common stock in the course of hedging the positions they assume with selling stockholders. The selling stockholders also may sell the common stock short and redeliver the shares to close out such short positions. The selling stockholders also may enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to the broker-dealer or other financial institution of shares offered by this prospectus, which shares the broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The selling stockholders also may pledge shares to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

In effecting sales, broker-dealers or agents engaged by the selling stockholders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the selling stockholders in amounts to be negotiated immediately prior to the sale.

In offering the shares covered by this prospectus, the selling stockholders and any broker-dealers who execute sales for the selling stockholders may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. Any profits realized by the selling stockholders and the compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain states, if applicable, the shares must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Securities and Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and

their affiliates. In addition, we will make copies of this prospectus available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallocated or paid to any dealer, and the proposed selling price to the public.

We have agreed to indemnify the selling stockholders against certain liabilities, including certain liabilities under the Securities Act.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (i) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement and (ii) ninety days after the date of the prospectus.

LEGAL MATTERS

The validity of the common stock offered by this prospectus has been passed upon by Hale and Dorr LLP.

EXPERTS

Our consolidated balance sheets as of June 30, 2000 and 1999 and the consolidated statements of operations, stockholders' equity and comprehensive income (loss) and cash flows for each of the years in the three-year period ended June 30, 2000, have been incorporated by reference herein and in the related registration statement in reliance upon the report of Arthur Andersen LLP, independent public accountants, incorporated by reference herein, and upon the authority of said firm as experts in given said reports.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other documents with the SEC. You may read and copy any document we file at the SEC's public reference room at Judiciary Plaza Building, 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. Our SEC filings are also available to you on the SEC's Internet site at <http://www.sec.gov>.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's Internet site.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC requires us to "incorporate" into this prospectus information that we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this prospectus. Information contained in this prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus automatically updates and supersedes previously filed information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act, prior to the sale of all the shares covered by this prospectus.

- (1) our annual report on Form 10-K for the fiscal year ended June 30, 2000;
- (2) all of our filings pursuant to the Securities Exchange Act after the date of filing the initial registration statement and prior to effectiveness of the registration statement; and
- (3) the description of our common stock contained in our registration statement on Form 8-A (as amended by Amendment No. 1 filed on June 12, 1999).

You may request a copy of these documents, which will be provided to you at no cost, by contacting:

Aspen Technology, Inc.
Ten Canal Park
Cambridge, Massachusetts 02141
Attention: Investor Relations
Telephone: (617) 949-1000
Email: invest@aspentech.com

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 incurred in connection with the sale and distribution of the securities being registered hereby, all of which will be borne by the Registrant (except any underwriting discounts and commissions and expenses incurred by the selling stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholders in disposing of the shares). All amounts shown are estimates except the Securities and Exchange Commission registration fee.

Filing Fee - Securities and Exchange Commission.....	\$ 6,385
Legal fees and expenses.....	10,000
Accounting fees and expenses.....	2,500
Printing, EDGAR formatting and mailing expenses.....	1,500
Miscellaneous expenses.....	4,615

Total Expenses.....	\$ 25,000
	=====

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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

Article EIGHTH of the Certificate of Incorporation provides that a director or officer of the Registrant shall be indemnified by the Registrant against:

- (a) all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement incurred in connection with any litigation or other legal proceeding (other than an action by or in the right of the Registrant) brought against him or her by virtue of his or her position as a director or officer of the Registrant if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Registrant, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful; and
- (b) all expenses (including attorneys' fees) and amounts paid in the settlement incurred in connection with any action by or in the right of the Registrant brought against him or her by virtue of his or her position as a director or officer of the Registrant if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Registrant, except that no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the Registrant, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses.

Notwithstanding the foregoing, to the extent that a director or officer has been successful, on the merits or otherwise, including the dismissal of an action without prejudice, he or she is required to be indemnified by the Registrant against all expenses (including attorneys' fees) incurred in connection therewith. Expenses shall be advanced to a director or officer at his or her request, provided that he or she undertakes to repay the amount advanced if it is ultimately determined that he or she is not entitled to indemnification for such expenses.

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

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

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

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

The Registrant maintains a directors' and officers' insurance policy that covers certain liabilities of directors and officers of the Registrant, including liabilities under the Securities Act of 1933. The Registrant maintains a general liability insurance policy that covers certain liabilities of directors and officers of the Registrant arising out of claims based on acts or omissions in their capacities as directors or officers.

ITEM 16. EXHIBITS

EXHIBIT

EXHIBIT NUMBER	DESCRIPTION
4.1(1)	Certificate of Incorporation of Aspen Technology, Inc.
4.2(1)	By-laws of Aspen Technology, Inc.
5.1	Opinion of Hale and Dorr LLP.
23.1	Consent of Arthur Andersen LLP.
23.2	Consent of Hale and Dorr LLP, included in Exhibit 5.1 filed herewith.
24.1	Power of Attorney (See page II-4 of this Registration Statement).
99.1(2)	Registration Rights Agreement dated June 1, 2000 between Aspen Technology, Inc. and the former stockholders of Petrolsoft Corporation.
(1)	Previously filed as an exhibit to the Current Report on Form 8-K of Aspen Technology, Inc. dated March 12, 1998 (filed on March 27, 1998) and incorporated herein by reference.
(2)	Previously filed as an exhibit to the Annual Report on Form 10-K of Aspen Technology, Inc. for the fiscal year ended June 30, 2000 (filed on September 28, 2000) and incorporated herein by reference.

ITEM 17. UNDERTAKINGS.

Item 512(a) of Regulation S-K. 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 by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of this 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 this Registration Statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

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

provided, however, that paragraphs (1)(I) and (1)(ii) do not apply if the information required to be included is a post-effective amendment by those paragraphs is contained in periodic reports filed by the Company pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this Registration Statement.

(2) That, for the purposes of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the 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.

Item 512(b) of Regulation S-K. The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

Item 512(h) of Regulation S-K. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the indemnification provisions described herein, 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 Securities 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 Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 October 10, 2000.

ASPEN TECHNOLOGY, INC.

By: /s/ Lawrence B. Evans

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

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Aspen Technology, Inc., hereby severally constitute and appoint Lawrence B. Evans, Michael J. Muscatello and Lisa W. Zappala and each of them singly, our true and lawful attorneys with full power to any of them, and to 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 generally to do all such things in our name and behalf in our capacities as officers and directors to enable Aspen Technology, Inc. to comply with the provisions of the Securities Act of 1933, as amended, 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.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed as of October 10, 2000 by the following persons in the capacities indicated.

SIGNATURE -----	TITLE -----
/s/ Lawrence B. Evans ----- Lawrence B. Evans	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)
/s/ Lisa W. Zappala ----- Lisa W. Zappala	Chief Financial Officer (Principal Financial and Accounting Officer)
/s/ Joseph F. Boston ----- Joseph F. Boston	Director
----- Gresham T. Brebach, Jr.	Director
/s/ Douglas R. Brown ----- Douglas R. Brown	Director
/s/ Stephen L. Brown ----- Stephen L. Brown	Director
/s/ Stephen M. Jennings ----- Stephen M. Jennings	Director
/s/ Joan C. McArdle ----- Joan C. McArdle	Director

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(2)	Previously filed as an exhibit to the Annual Report on Form 10-K of Aspen Technology, Inc. for the fiscal year ended June 30, 2000 (filed on September 28, 2000) and incorporated herein by reference.

HALE AND DORR LLP
COUNSELLORS AT LAW
60 STATE STREET, BOSTON, MASSACHUSETTS 02109
617-526-6000 o FAX 617-526-5000

October 10, 2000

Aspen Technology, Inc.
Ten Canal Park
Cambridge, Massachusetts 02141

REGISTRATION STATEMENT ON FORM S-3

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Registration Statement on Form S-3 (the "Registration Statement") to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of an aggregate of 660,276 shares of Common Stock, \$.10 par value per share (the "Shares"), of Aspen Technology, Inc., a Delaware corporation (the "Company"). All of the Shares are being registered on behalf of certain stockholders of the Company (the "Selling Stockholders").

We are acting as counsel for the Company in connection with the registration for resale of the Shares. We have examined signed copies of the Registration Statement to be filed with the Commission. We have also examined and relied upon minutes of meetings of the stockholders and the Board of Directors of the Company as provided to us by the Company, stock record books of the Company as provided to us by the Company, the Certificate of Incorporation and By-Laws of the Company, each as restated and amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Shares, to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws. We express no opinion herein as to the laws of any state or jurisdiction other than the state laws of the Commonwealth of Massachusetts, the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized and are validly issued, fully paid and nonassessable.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion with the Securities and Exchange Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act and to the use of our name therein and in the related prospectus under the caption "Legal Matters." In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission.

Very truly yours,

/s/ HALE AND DORR LLP

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our reports dated August 7, 2000 (except for the matters discussed in Notes 4(d) and 5, as to which the date is September 27, 2000) included in the Annual Report on Form 10-K of Aspen Technology, Inc. and subsidiaries for the fiscal year ended June 30, 2000 and to the reference to our firm in this Registration Statement.

/s/ ARTHUR ANDERSEN LLP

Boston, Massachusetts
October 9, 2000