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**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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Amendment No. 3  
to

**FORM S-1**  
REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933

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**ASPEN TECHNOLOGY, INC.**

*(Exact name of registrant as specified in its charter)*

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

**7371**  
*(Primary Standard Industrial  
Classification Code Number)*

**04-2739697**  
*(I.R.S. Employer  
Identification Number)*

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**200 Wheeler Road  
Burlington, Massachusetts 01803  
(781) 221-6400**

*(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)*

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**Mark E. Fusco**  
**President and Chief Executive Officer**  
Aspen Technology, Inc.  
200 Wheeler Road  
Burlington, Massachusetts 01803  
(781) 221-6400

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

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Cooley LLP  
500 Boylston Street  
Boston, Massachusetts 02116  
(617) 937-2300

**Copies to:**  
**Frederic G. Hammond, Esq.**  
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**Michael J. Minahan, Esq.**  
Goodwin Procter LLP  
Exchange Place  
Boston, Massachusetts 02109  
(617) 570-1000

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**Approximate date of commencement of proposed sale to public:** As soon as practicable after this registration statement becomes effective.

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 check the following box:

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

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

If this Form is a post-effective amendment filed pursuant to Rule 462(d) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer   
(Do not check if a  
smaller reporting company)

Smaller reporting company

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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### **Explanatory Note**

Part I of this Registration Statement has been intentionally omitted because this Amendment No. 3 does not effect any changes to the Prospectus. The sole purpose of this Amendment No. 3 is to file Exhibits 5.1 and 23.2.

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**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 13. Other Expenses of Issuance and Distribution.**

The following table sets forth the various expenses to be incurred by us in connection with the sale and distribution of the shares of common stock being registered hereby. All amounts shown are estimates, except for the SEC registration and the FINRA filing fee.

SEC registration fee	\$ 13,443
FINRA filing fee	19,354
Legal fees and expenses	625,000
Accounting fees and expenses	130,000
Blue Sky fees and expenses (including legal fees)	10,000
Printing, EDGAR formatting and mailing expenses	50,000
Miscellaneous expenses	2,203
Total	<u>\$ 850,000</u>

**Item 14. Indemnification of Directors and Officers.**

Section 102 of the Delaware General Corporation Law allows a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. We have included such a provision in our certificate of incorporation, as amended, or the charter.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he 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 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 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.

Article SEVENTH of our charter provides that no director 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 our charter provides that a director or officer shall be indemnified by us 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 us) brought against him or her by virtue of his or her position as one of our directors or officers if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not

opposed to, our best interests, 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 us or in our right brought against him or her by virtue of his or her position as one of our directors or officers if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, 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 us, 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 us 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 we determine that the applicable standard of conduct required for indemnification has not been met. In the event of our determination that the director or officer did not meet the applicable standard of conduct required for indemnification, or if we fail 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 us notice of the action for which indemnity is sought and we have the right to participate in such action or assume the defense thereof.

Article EIGHTH of the charter 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 we must indemnify those persons to the fullest extent permitted by such law as so amended.

We have purchased directors' and officers' liability insurance, which may indemnify our directors and officers against damages arising out of certain kinds of claims that might be made against them based on their negligent acts or omissions while acting in their capacities as such.

**Item 15. Recent Sales of Unregistered Securities.**

We have not made any sales of securities unregistered under the Securities Act within the past three years.

**Item 16. Exhibits and Financial Statement Schedules.**

**(a) Exhibits**

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
1.1*	Form of Underwriting Agreement				
3.1	Certificate of Incorporation of Aspen Technology, Inc., as amended		8-K	August 22, 2003	4
3.2	By-laws of Aspen Technology, Inc.		8-K	March 27, 1998	3.2
4.1	Specimen certificate for common stock, \$.10 par value, of Aspen Technology, Inc.		8-A/A	June 12, 1998	4
4.2	Rights Agreement dated March 12, 1998 between Aspen Technology, Inc. and American Stock Transfer and Trust Company, as Rights Agent, including form of Certificate of Designation of Series A Participating Cumulative Preferred Stock and form of Rights Certificate		8-K	March 27, 1998	4.1
4.2a	Amendment No. 1 dated October 26, 2001 to Rights Agreement dated March 12, 1998 between Aspen Technology, Inc. and American Stock Transfer and Trust Company, as Rights Agent		8-A/A	November 8, 2001	4.4
4.3	Form of WD Common Stock Purchase Warrants of Aspen Technology, Inc. dated August 14, 2003		8-K	August 22, 2003	99.3
5.1	Opinion of Cooley LLP	X			
10.1	Lease Agreement dated January 30, 1992 between Aspen Technology, Inc. and Teachers Insurance and Annuity Association of America regarding 10 Canal Park, Cambridge, Massachusetts		10-K	April 11, 2008	10.1
10.1a	First Amendment to Lease Agreement dated May 5, 1997 between Aspen Technology, Inc. and Beacon Properties, L.P., successor-in-interest to Teachers Insurance and Annuity Association of America		10-K	September 28, 2000	10.2
10.1b	Second Amendment to Lease Agreement dated August 14, 2000 between Aspen Technology, Inc. and EOP-Ten Canal Park, L.L.C., successor-in-interest to Beacon Properties, L.P.		10-K	September 28, 2000	10.3
10.1c	Amendment dated September 5, 2007 to Lease Agreement dated January 30, 1992 between Aspen Technology, Inc. and MA-Ten Canal Park, L.L.C.		10-K	April 11, 2008	10.1c
10.2	Sublease dated September 5, 2007 between Aspen Technology, Inc. and MA-Ten Canal Park L.L.C. regarding 10 Canal Park, Cambridge, Massachusetts		10-K	April 11, 2008	10.2
10.3	Lease dated May 7, 2007 between Aspen Technology, Inc. and One Wheeler Road Associates regarding 200 Wheeler Road, Burlington Massachusetts		10-K	April 11, 2008	10.3

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.4	System License Agreement dated March 30, 1982 between Aspen Technology, Inc. and the Massachusetts Institute of Technology		10-K	April 11, 2008	10.4
10.5	Amendment dated March 30, 1982 to System License Agreement dated March 30, 1982 between Aspen Technology, Inc. and the Massachusetts Institute of Technology		10-K	April 11, 2008	10.5
10.6†	Purchase and Sale Agreement dated October 6, 2004 among Aspen Technology, Inc., Hyprotech Company, AspenTech Canada Ltd. and Hyprotech UK Ltd. and Honeywell International Inc., Honeywell Control Systems Limited and Honeywell Limited-Honeywell Limitee		10-Q	March 15, 2005	10.1
10.6a†	Amendment No. 1 dated December 23, 2004 to Purchase and Sale Agreement dated October 6, 2004 among Aspen Technology, Inc., Hyprotech Company, AspenTech Canada Ltd., and Hyprotech UK Ltd. and Honeywell International Inc., Honeywell Control Systems Limited and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.2
10.7†	Hyprotech License Agreement dated December 23, 2004 between Aspen Technology, Inc. and Honeywell International, Inc.		10-Q	March 15, 2005	10.3
10.8†	Hyprotech License Agreement dated December 23, 2004 between AspenTech Canada Ltd. and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.4
10.9†	Hyprotech License Agreement dated December 23, 2004 between Hyprotech Company and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.5
10.10†	Hyprotech License Agreement dated December 23, 2004 between AspenTech Ltd. and Honeywell Control Systems Limited		10-Q	March 15, 2005	10.6
10.11†	Hyprotech License Agreement dated December 23, 2004 between Hyprotech UK Ltd. and Honeywell Control Systems Limited		10-Q	March 15, 2005	10.7
10.12	Vendor Program Agreement dated March 29, 1990 between Aspen Technology, Inc. and General Electric Capital Corporation		10-K	April 11, 2008	10.13
10.12a	Rider No. 1 dated December 14, 1994, to Vendor Program Agreement dated March 29, 1990 between Aspen Technology, Inc. and General Electric Capital Corporation		10-K	April 11, 2008	10.13a
10.12b	Rider No. 2 dated September 4, 2001 to Vendor Program Agreement dated March 29, 1990 between Aspen Technology, Inc. and General Electric Capital Corporation		10-K	April 11, 2008	10.13b
10.12c	Waiver and Consent Agreement dated March 31, 2009		10-K	June 30, 2009	10.13c

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.13	Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 17, 2004	10.1
10.13a	First Amendment dated June 30, 2004 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15a
10.13b	Second Amendment dated September 30, 2004 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	March 15, 2005	10.1
10.13c	Third Amendment dated December 31, 2004 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	March 15, 2005	10.8
10.13d	Fourth Amendment dated March 8, 2005 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15d
10.13e	Fifth Amendment dated March 31, 2005 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	May 10, 2005	10.1
10.13f	Sixth Amendment dated December 29, 2005 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15f
10.13g	Seventh Amendment dated July 17, 2006 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15g
10.13h	Eighth Amendment dated September 15, 2006 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15h
10.13i	Ninth Amendment dated January 12, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	May 10, 2007	10.3
10.13j	Tenth Amendment dated April 13, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15j
10.13k	Eleventh Amendment dated June 28, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15k
10.13l	Twelfth Amendment dated October 16, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15l



Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.13m	Thirteenth Amendment dated December 12, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15m
10.13n	Fourteenth Amendment dated December 28, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		8-K	January 7, 2008	10.2
10.13o	Fifteenth Amendment dated January 24, 2008 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.2
10.13p	Sixteenth Amendment dated May 15, 2008 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.3
10.13q	Seventeenth Amendment dated November 14, 2008 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.4
10.13r	Eighteenth Amendment dated January 30, 2009 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.5
10.13s	Nineteenth Amendment dated May 15, 2009 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	June 30, 2009	10.15s
10.13t	Twentieth Amendment dated November 3, 2009 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	November 9, 2009	10.15t
10.14	Loan Agreement dated June 15, 2005 among Aspen Technology, Inc., Aspen Technology Receivables II LLC, Guggenheim Corporate Funding, LLC and the lenders named therein.		8-K	June 20, 2005	10.1
10.15	Security Agreement dated June 15, 2005 between Aspen Technology Receivables II LLC and Guggenheim Corporate Funding, LLC		8-K	June 20, 2005	10.2
10.16	Release Letter dated December 28, 2007 relating to Loan Agreement dated June 15, 2005 among Aspen Technology, Inc., Aspen Technology Receivables II LLC, Guggenheim Corporate Funding, LLC and the Lenders named therein		8-K	January 7, 2008	10.1
10.17	Purchase and Sale Agreement dated June 15, 2005 between Aspen Technology, Inc. and Aspen Technology Receivables I LLC		8-K	June 20, 2005	10.3
10.18	Purchase and Resale Agreement dated June 15, 2005 between Aspen Technology Receivables I LLC and Aspen Technology Receivables II LLC		8-K	June 20, 2005	10.4

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.19	Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 14, 2003	10.1
10.20a	Letter Agreement dated February 14, 2003 amending Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22a
10.20b	First Loan Modification Agreement dated June 27, 2003 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 29, 2003	10.22
10.20c	Second Loan Modification Agreement dated September 10, 2004 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 13, 2004	10.70
10.20d	Third Loan Modification Agreement dated January 28, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22d
10.20e†	Fourth Loan Modification Agreement dated April 1, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	May 10, 2005	10.2
10.20f	Fifth Loan Modification Agreement dated May 6, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22f
10.20g	Sixth Loan Modification Agreement dated June 15, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		8-K	June 20, 2005	10.5
10.20h	Seventh Loan Modification Agreement dated September 13, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 13, 2005	10.79
10.20i	Eighth Amendment to Loan and Security Agreement dated December 30, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22i

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.20j	Ninth Loan Modification Agreement dated July 17, 2006 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22j
10.20k	Tenth Loan Modification Agreement dated September 15, 2006 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 28, 2006	10.84
10.20l	Eleventh Loan Modification Agreement dated September 27, 2006 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	November 14, 2006	10.3
10.20m	Twelfth Loan Modification Agreement dated January 12, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	May 10, 2007	10.1
10.20n	Thirteenth Loan Modification Agreement dated April 13, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22n
10.20o	Fourteenth Loan Modification Agreement dated June 28, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22o
10.20p	Fifteenth Loan Modification Agreement dated August 30, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22p
10.20q	Sixteenth Loan Modification Agreement dated October 16, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22q
10.20r	Seventeenth Loan Modification Agreement dated December 28, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		8-K	January 7, 2008	10.3
10.20s	Eighteenth Loan Modification Agreement dated January 24, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.7

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.20t	Nineteenth Loan Modification Agreement dated April 11, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.8
10.20u	Twentieth Loan Modification Agreement dated May 15, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.9
10.20v	Twenty-first Loan Modification Agreement dated June 12, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.10
10.20w	Twenty-second Loan Modification Agreement dated July 15, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.11
10.20x	Twenty-third Loan Modification Agreement dated September 30, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.12
10.20y	Twenty-fourth Loan Modification Agreement dated November 14, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.13
10.20z	Twenty-fifth Loan Modification Agreement dated January 15, 2009 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.14
10.20aa	Twenty-sixth Loan Modification Agreement dated May 15, 2009 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	June 30, 2009	10.22aa
10.20ab	Twenty-seventh Loan Modification Agreement dated November 3, 2009 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	November 9, 2009	10.22ab
10.20ac*	Twenty-eighth Loan Modification Agreement dated June 2010 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company				
10.21	Form of Negative Pledge Agreement dated January 30, 2003, in favor of Silicon Valley Bank, executed by Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 14, 2003	10.5

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.22	Security Agreement dated January 30, 2003 between Silicon Valley Bank and AspenTech Securities Corporation		10-Q	February 14, 2003	10.6
10.23	Unconditional Guaranty dated January 30, 2003, by AspenTech Securities Corporation in favor of Silicon Valley Bank		10-Q	February 14, 2003	10.7
10.24	Pledge Agreement, effective as of June 27, 2003, by Aspen Technology, Inc. in favor of Silicon Valley Bank		10-K	September 29, 2003	10.23
10.25	Partial Release and Acknowledgement Agreement dated June 15, 2005 among Aspen Technology, Inc., Aspentech, Inc. and Silicon Valley Bank		8-K	June 20, 2005	10.7
10.26	Partial Release and Acknowledgement Agreement dated September 27, 2006 among Silicon Valley Bank and Aspen Technology, Inc.		10-Q	November 14, 2006	10.6
10.27	Investor Rights Agreement dated August 14, 2003 among Aspen Technology, Inc. and the Stockholders named therein		8-K	August 22, 2003	99.1
10.28	Management Rights Letter dated August 14, 2003 among Aspen Technology, Inc. and the entities named therein.		8-K	August 22, 2003	99.2
10.29	Amended and Restated Registration Rights Agreement dated March 19, 2002 between Aspen Technology, Inc. and the Purchasers named therein.		8-K	March 20, 2002	99.2
10.30^	Aspen Technology, Inc. 1995 Stock Option Plan		S-8	September 9, 1996	4.5
10.31^	Aspen Technology, Inc. Amended and Restated 1995 Directors Stock Option Plan		10-K	April 11, 2008	10.37
10.32^	Aspen Technology, Inc. 1996 Special Stock Option Plan		10-K	September 29, 1997	10.23
10.33^	PetrolSoft Corporation 1998 Stock Option Plan		S-8	July 28, 2000	4
10.34^	Aspen Technology, Inc. Restated 2001 Stock Option Plan		10-K	September 28, 2006	10.54
10.35^	Form of Terms and Conditions of Stock Option Agreement Granted under Aspen Technology, Inc. 2001 Restated Stock Option Plan		10-Q	November 14, 2006	10.7
10.36^	Aspen Technology, Inc. 2005 Stock Incentive Plan (as amended)		10-K	November 9, 2009	10.39
10.37^	Form of Terms and Conditions of Stock Option Agreement Granted under Aspen Technology, Inc. 2005 Stock Incentive Plan		10-Q	November 14, 2006	10.8
10.38^	Form of Restricted Stock Unit Agreement Granted under Aspen Technology, Inc. 2005 Stock Incentive Plan		10-Q	November 14, 2006	10.9
10.39^	Form of Restricted Stock Unit Agreement-G Granted under Aspen Technology, Inc. 2005 Stock Incentive Plan		10-Q	November 14, 2006	10.10

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC(1)	Exhibit Number
10.40 <sup>^</sup>	Terms and Conditions of Restricted Stock Unit Agreement Granted under 2005 Stock Incentive Plan		10-K	November 9, 2009	10.43
10.41 <sup>^</sup>	Aspen Technology, Inc. 2010 Equity Incentive Plan		8-K	April 21, 2010	10.1
10.42 <sup>^</sup>	Form of Terms and Conditions of Stock Option Agreement Granted under Aspen Technology, Inc. 2010 Equity Incentive Plan		10-K	September 2, 2010	10.42
10.43 <sup>^</sup>	Form of Restricted Stock Unit Agreement Granted under Aspen Technology, Inc. 2010 Equity Incentive Plan		10-K	September 2, 2010	10.43
10.44 <sup>^</sup>	Form of Confidentiality and Non-Competition Agreement of Aspen Technology, Inc.		10-K	April 11, 2008	10.45
10.45 <sup>^*</sup>	Aspen Technology, Inc. Director Compensation Policy				
10.46 <sup>^</sup>	Form of Aspen Technology, Inc. Executive Annual Incentive Bonus Plan for Fiscal 2009		8-K	June 30, 2008	99.1
10.47 <sup>^</sup>	Form of Aspen Technology, Inc. Operations Executives Plan Fiscal 2009		8-K	June 30, 2008	99.2
10.46 <sup>^</sup>	Aspen Technology, Inc. Executive Annual Incentive Bonus Plan for Fiscal 2010		8-K	September 11, 2009	99.1
10.47 <sup>^</sup>	Form of Aspen Technology, Inc. Executive Annual Incentive Bonus Plan for Fiscal 2011		8-K	August 4, 2010	10.1
10.48 <sup>^</sup>	Amended and Restated Employment Agreement effective October 3, 2007, between Aspen Technology, Inc. and Mark Fusco		10-K	April 11, 2008	10.50
10.49 <sup>^</sup>	Form of Executive Retention Agreement entered into by Aspen Technology, Inc. and each executive officer of Aspen Technology, Inc. (other than Mark E. Fusco)		10-Q	February 9, 2010	10.1
10.50 <sup>^</sup>	Amendment Number 1 dated December 29, 2006 to Stock Option Agreement granted to Manolis E. Kotzabasakis on or about August 18, 2003 under Aspen Technology, Inc. 1995 Stock Option Plan, as amended (Award Identification No. P040380)		8-K	January 5, 2007	10.1
10.51 <sup>^</sup>	Amendment Number 1 dated December 29, 2006 to Stock Option Agreement granted to Manolis E. Kotzabasakis on or about August 18, 2003 under Aspen Technology, Inc. 2001 Stock Option Plan, as amended (Award Identification No. P040002)		8-K	January 5, 2007	10.2
10.52 <sup>^</sup>	Amendment Number 1 dated December 29, 2006 to the Stock Option Agreement granted to Manolis E. Kotzabasakis on or about August 18, 2003 under Aspen Technology, Inc. 2001 Stock Option Plan, as amended (Award Identification No. P0405621)		8-K	January 5, 2007	10.3
10.53 <sup>^*</sup>	Offer letter dated June 24, 2009 by and between Aspen Technology, Inc. and Mark P. Sullivan				
21.1 <sup>*</sup>	Subsidiaries of Aspen Technology, Inc.				
23.1 <sup>*</sup>	Consent of KPMG LLP				
23.2	Consent of Cooley LLP (included in Exhibit 5.1)	X			
24.1 <sup>*</sup>	Power of Attorney of each of the directors and the principal executive, financial and accounting officers of Aspen Technology, Inc. (included on pages II-13 and II-14 of Form S-1 as initially filed)				

(1) The SEC File No. is 000-24786, other than (a) Exhibit 10.30 (SEC File No. 333-11651), Exhibit 10.33 (SEC File No. 333-42536) and Exhibit 10.41 (001-34630) and (b) exhibits filed with this Form S-1.

\* Filed previously.

† Confidential treatment requested as to certain portions.

<sup>^</sup> Management contract or compensatory plan or arrangement.

(b) **Financial Statement Schedules**

All schedules are omitted because they are not required or the required information is shown in the consolidated financial statements or notes thereto.

**Item 17. Undertakings.**

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.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, 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 that time shall be deemed to be the initial *bona fide* offering thereof.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 3 to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Burlington, Commonwealth of Massachusetts, as of September 22, 2010.

ASPEN TECHNOLOGY, INC.

By: /s/ MARK E. FUSCO

\_\_\_\_\_  
Mark E. Fusco  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933 this Amendment No. 3 to the registration statement has been signed by the following persons in the capacities indicated as of September 22, 2010.

<u>Signature</u>	<u>Title</u>
/s/ MARK E. FUSCO _____ Mark E. Fusco	President and Chief Executive Officer and Director <i>(Principal Executive Officer)</i>
/s/ MARK P. SULLIVAN _____ Mark. P. Sullivan	Executive Vice President and Chief Financial Officer <i>(Principal Financial and Principal Accounting Officer)</i>
*	
_____ Donald P. Casey	Director
*	
_____ Gary E. Haroian	Director
*	
_____ Stephen M. Jennings	Director
*	
_____ Joan C. McArdle	Director
*	
_____ David M. McKenna	Director



Signature

Title

\*

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Michael Pehl Director

\*By: /s/ MARK P. SULLIVAN

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Mark P. Sullivan  
*Attorney-in-Fact*

**EXHIBIT INDEX**

<b>Exhibit Number</b>	<b>Description</b>	<b>Filed with this Form S-1</b>	<b>Incorporated by Reference</b>		
			<b>Form</b>	<b>Filing Date with SEC</b>	<b>Exhibit Number</b>
1.1*	Form of Underwriting Agreement				
3.1	Certificate of Incorporation of Aspen Technology, Inc., as amended		8-K	August 22, 2003	4
3.2	By-laws of Aspen Technology, Inc.		8-K	March 27, 1998	3.2
4.1	Specimen certificate for common stock, \$.10 par value, of Aspen Technology, Inc.		8-A/A	June 12, 1998	4
4.2	Rights Agreement dated March 12, 1998 between Aspen Technology, Inc. and American Stock Transfer and Trust Company, as Rights Agent, including form of Certificate of Designation of Series A Participating Cumulative Preferred Stock and form of Rights Certificate		8-K	March 27, 1998	4.1
4.2a	Amendment No. 1 dated October 26, 2001 to Rights Agreement dated March 12, 1998 between Aspen Technology, Inc. and American Stock Transfer and Trust Company, as Rights Agent		8-A/A	November 8, 2001	4.4
4.3	Form of WD Common Stock Purchase Warrants of Aspen Technology, Inc. dated August 14, 2003		8-K	August 22, 2003	99.3
5.1	Opinion of Cooley LLP	X			
10.1	Lease Agreement dated January 30, 1992 between Aspen Technology, Inc. and Teachers Insurance and Annuity Association of America regarding 10 Canal Park, Cambridge, Massachusetts		10-K	April 11, 2008	10.1
10.1a	First Amendment to Lease Agreement dated May 5, 1997 between Aspen Technology, Inc. and Beacon Properties, L.P., successor-in-interest to Teachers Insurance and Annuity Association of America		10-K	September 28, 2000	10.2
10.1b	Second Amendment to Lease Agreement dated August 14, 2000 between Aspen Technology, Inc. and EOP-Ten Canal Park, L.L.C., successor-in-interest to Beacon Properties, L.P.		10-K	September 28, 2000	10.3
10.1c	Amendment dated September 5, 2007 to Lease Agreement dated January 30, 1992 between Aspen Technology, Inc. and MA-Ten Canal Park, L.L.C.		10-K	April 11, 2008	10.1c
10.2	Sublease dated September 5, 2007 between Aspen Technology, Inc. and MA-Ten Canal Park L.L.C. regarding 10 Canal Park, Cambridge, Massachusetts		10-K	April 11, 2008	10.2
10.3	Lease dated May 7, 2007 between Aspen Technology, Inc. and One Wheeler Road Associates regarding 200 Wheeler Road, Burlington Massachusetts		10-K	April 11, 2008	10.3

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		Exhibit Number
			Form	Filing Date with SEC	
10.4	System License Agreement dated March 30, 1982 between Aspen Technology, Inc. and the Massachusetts Institute of Technology		10-K	April 11, 2008	10.4
10.5	Amendment dated March 30, 1982 to System License Agreement dated March 30, 1982 between Aspen Technology, Inc. and the Massachusetts Institute of Technology		10-K	April 11, 2008	10.5
10.6†	Purchase and Sale Agreement dated October 6, 2004 among Aspen Technology, Inc., Hyprotech Company, AspenTech Canada Ltd. and Hyprotech UK Ltd. and Honeywell International Inc., Honeywell Control Systems Limited and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.1
10.6a†	Amendment No. 1 dated December 23, 2004 to Purchase and Sale Agreement dated October 6, 2004 among Aspen Technology, Inc., Hyprotech Company, AspenTech Canada Ltd., and Hyprotech UK Ltd. and Honeywell International Inc., Honeywell Control Systems Limited and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.2
10.7†	Hyprotech License Agreement dated December 23, 2004 between Aspen Technology, Inc. and Honeywell International, Inc.		10-Q	March 15, 2005	10.3
10.8†	Hyprotech License Agreement dated December 23, 2004 between AspenTech Canada Ltd. and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.4
10.9†	Hyprotech License Agreement dated December 23, 2004 between Hyprotech Company and Honeywell Limited—Honeywell Limitee		10-Q	March 15, 2005	10.5
10.10†	Hyprotech License Agreement dated December 23, 2004 between AspenTech Ltd. and Honeywell Control Systems Limited		10-Q	March 15, 2005	10.6
10.11†	Hyprotech License Agreement dated December 23, 2004 between Hyprotech UK Ltd. and Honeywell Control Systems Limited		10-Q	March 15, 2005	10.7
10.12	Vendor Program Agreement dated March 29, 1990 between Aspen Technology, Inc. and General Electric Capital Corporation		10-K	April 11, 2008	10.13
10.12a	Rider No. 1 dated December 14, 1994, to Vendor Program Agreement dated March 29, 1990 between Aspen Technology, Inc. and General Electric Capital Corporation		10-K	April 11, 2008	10.13a

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC	Exhibit Number
10.12b	Rider No. 2 dated September 4, 2001 to Vendor Program Agreement dated March 29, 1990 between Aspen Technology, Inc. and General Electric Capital Corporation		10-K	April 11, 2008	10.13b
10.12c	Waiver and Consent Agreement dated March 31, 2009		10-K	June 30, 2009	10.13c
10.13	Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 17, 2004	10.1
10.13a	First Amendment dated June 30, 2004 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15a
10.13b	Second Amendment dated September 30, 2004 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	March 15, 2005	10.1
10.13c	Third Amendment dated December 31, 2004 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	March 15, 2005	10.8
10.13d	Fourth Amendment dated March 8, 2005 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15d
10.13e	Fifth Amendment dated March 31, 2005 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	May 10, 2005	10.1
10.13f	Sixth Amendment dated December 29, 2005 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15f
10.13g	Seventh Amendment dated July 17, 2006 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15g
10.13h	Eighth Amendment dated September 15, 2006 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15h

<u>Exhibit Number</u>	<u>Description</u>	<u>Filed with this Form S-1</u>	<u>Incorporated by Reference</u>		<u>Exhibit Number</u>
			<u>Form</u>	<u>Filing Date with SEC</u>	
10.13i	Ninth Amendment dated January 12, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	May 10, 2007	10.3
10.13j	Tenth Amendment dated April 13, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15j
10.13k	Eleventh Amendment dated June 28, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15k
10.13l	Twelfth Amendment dated October 16, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15l
10.13m	Thirteenth Amendment dated December 12, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	April 11, 2008	10.15m
10.13n	Fourteenth Amendment dated December 28, 2007 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		8-K	January 7, 2008	10.2
10.13o	Fifteenth Amendment dated January 24, 2008 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.2
10.13p	Sixteenth Amendment dated May 15, 2008 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.3
10.13q	Seventeenth Amendment dated November 14, 2008 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.4
10.13r	Eighteenth Amendment dated January 30, 2009 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-Q	February 19, 2009	10.5
10.13s	Nineteenth Amendment dated May 15, 2009 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	June 30, 2009	10.15s

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC	Exhibit Number
10.13t	Twentieth Amendment dated November 3, 2009 to Non-Recourse Receivables Purchase Agreement dated December 31, 2003 between Silicon Valley Bank and Aspen Technology, Inc.		10-K	November 9, 2009	10.15t
10.14	Loan Agreement dated June 15, 2005 among Aspen Technology, Inc., Aspen Technology Receivables II LLC, Guggenheim Corporate Funding, LLC and the lenders named therein.		8-K	June 20, 2005	10.1
10.15	Security Agreement dated June 15, 2005 between Aspen Technology Receivables II LLC and Guggenheim Corporate Funding, LLC		8-K	June 20, 2005	10.2
10.16	Release Letter dated December 28, 2007 relating to Loan Agreement dated June 15, 2005 among Aspen Technology, Inc., Aspen Technology Receivables II LLC, Guggenheim Corporate Funding, LLC and the Lenders named therein		8-K	January 7, 2008	10.1
10.17	Purchase and Sale Agreement dated June 15, 2005 between Aspen Technology, Inc. and Aspen Technology Receivables I LLC		8-K	June 20, 2005	10.3
10.18	Purchase and Resale Agreement dated June 15, 2005 between Aspen Technology Receivables I LLC and Aspen Technology Receivables II LLC		8-K	June 20, 2005	10.4
10.19	Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 14, 2003	10.1
10.20a	Letter Agreement dated February 14, 2003 amending Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22a
10.20b	First Loan Modification Agreement dated June 27, 2003 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 29, 2003	10.22
10.20c	Second Loan Modification Agreement dated September 10, 2004 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 13, 2004	10.70
10.20d	Third Loan Modification Agreement dated January 28, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22d

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		Exhibit Number
			Form	Filing Date with SEC	
10.20e†	Fourth Loan Modification Agreement dated April 1, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	May 10, 2005	10.2
10.20f	Fifth Loan Modification Agreement dated May 6, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22f
10.20g	Sixth Loan Modification Agreement dated June 15, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		8-K	June 20, 2005	10.5
10.20h	Seventh Loan Modification Agreement dated September 13, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 13, 2005	10.79
10.20i	Eighth Amendment to Loan and Security Agreement dated December 30, 2005 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22i
10.20j	Ninth Loan Modification Agreement dated July 17, 2006 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22j
10.20k	Tenth Loan Modification Agreement dated September 15, 2006 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	September 28, 2006	10.84
10.20l	Eleventh Loan Modification Agreement dated September 27, 2006 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	November 14, 2006	10.3
10.20m	Twelfth Loan Modification Agreement dated January 12, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	May 10, 2007	10.1

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		Exhibit Number
			Form	Filing Date with SEC	
10.20n	Thirteenth Loan Modification Agreement dated April 13, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22n
10.20o	Fourteenth Loan Modification Agreement dated June 28, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22o
10.20p	Fifteenth Loan Modification Agreement dated August 30, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22p
10.20q	Sixteenth Loan Modification Agreement dated October 16, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	April 11, 2008	10.22q
10.20r	Seventeenth Loan Modification Agreement dated December 28, 2007 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		8-K	January 7, 2008	10.3
10.20s	Eighteenth Loan Modification Agreement dated January 24, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.7
10.20t	Nineteenth Loan Modification Agreement dated April 11, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.8
10.20u	Twentieth Loan Modification Agreement dated May 15, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.9
10.20v	Twenty-first Loan Modification Agreement dated June 12, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.10



Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC	Exhibit Number
10.20w	Twenty-second Loan Modification Agreement dated July 15, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.11
10.20x	Twenty-third Loan Modification Agreement dated September 30, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.12
10.20y	Twenty-fourth Loan Modification Agreement dated November 14, 2008 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.13
10.20z	Twenty-fifth Loan Modification Agreement dated January 15, 2009 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 19, 2009	10.14
10.20aa	Twenty-sixth Loan Modification Agreement dated May 15, 2009 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	June 30, 2009	10.22aa
10.20ab	Twenty-seventh Loan Modification Agreement dated November 3, 2009 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-K	November 9, 2009	10.22ab
10.20ac*	Twenty-eighth Loan Modification Agreement dated June 2010 to Loan and Security Agreement dated January 30, 2003 among Silicon Valley Bank and Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company				
10.21	Form of Negative Pledge Agreement dated January 30, 2003, in favor of Silicon Valley Bank, executed by Aspen Technology, Inc., AspenTech, Inc. and Hyprotech Company		10-Q	February 14, 2003	10.5
10.22	Security Agreement dated January 30, 2003 between Silicon Valley Bank and AspenTech Securities Corporation		10-Q	February 14, 2003	10.6
10.23	Unconditional Guaranty dated January 30, 2003, by AspenTech Securities Corporation in favor of Silicon Valley Bank		10-Q	February 14, 2003	10.7
10.24	Pledge Agreement, effective as of June 27, 2003, by Aspen Technology, Inc. in favor of Silicon Valley Bank		10-K	September 29, 2003	10.23

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC	Exhibit Number
10.25	Partial Release and Acknowledgement Agreement dated June 15, 2005 among Aspen Technology, Inc., Aspentech, Inc. and Silicon Valley Bank		8-K	June 20, 2005	10.7
10.26	Partial Release and Acknowledgement Agreement dated September 27, 2006 among Silicon Valley Bank and Aspen Technology, Inc.		10-Q	November 14, 2006	10.6
10.27	Investor Rights Agreement dated August 14, 2003 among Aspen Technology, Inc. and the Stockholders named therein		8-K	August 22, 2003	99.1
10.28	Management Rights Letter dated August 14, 2003 among Aspen Technology, Inc. and the entities named therein.		8-K	August 22, 2003	99.2
10.29	Amended and Restated Registration Rights Agreement dated March 19, 2002 between Aspen Technology, Inc. and the Purchasers named therein.		8-K	March 20, 2002	99.2
10.30^	Aspen Technology, Inc. 1995 Stock Option Plan		S-8	September 9, 1996	4.5
10.31^	Aspen Technology, Inc. Amended and Restated 1995 Directors Stock Option Plan		10-K	April 11, 2008	10.37
10.32^	Aspen Technology, Inc. 1996 Special Stock Option Plan		10-K	September 29, 1997	10.23
10.33^	PetrolSoft Corporation 1998 Stock Option Plan		S-8	July 28, 2000	4
10.34^	Aspen Technology, Inc. Restated 2001 Stock Option Plan		10-K	September 28, 2006	10.54
10.35^	Form of Terms and Conditions of Stock Option Agreement Granted under Aspen Technology, Inc. 2001 Restated Stock Option Plan		10-Q	November 14, 2006	10.7
10.36^	Aspen Technology, Inc. 2005 Stock Incentive Plan (as amended)		10-K	November 9, 2009	10.39
10.37^	Form of Terms and Conditions of Stock Option Agreement Granted under Aspen Technology, Inc. 2005 Stock Incentive Plan		10-Q	November 14, 2006	10.8
10.38^	Form of Restricted Stock Unit Agreement Granted under Aspen Technology, Inc. 2005 Stock Incentive Plan		10-Q	November 14, 2006	10.9
10.39^	Form of Restricted Stock Unit Agreement-G Granted under Aspen Technology, Inc. 2005 Stock Incentive Plan		10-Q	November 14, 2006	10.10
10.40^	Terms and Conditions of Restricted Stock Unit Agreement Granted under 2005 Stock Incentive Plan		10-K	November 9, 2009	10.43
10.41^	Aspen Technology, Inc. 2010 Equity Incentive Plan		8-K	April 21, 2010	10.1

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC	Exhibit Number
10.42 <sup>^</sup>	Form of Terms and Conditions of Stock Option Agreement Granted under Aspen Technology, Inc. 2010 Equity Incentive Plan		10-K	September 2, 2010	10.42
10.43 <sup>^</sup>	Form of Restricted Stock Unit Agreement Granted under Aspen Technology, Inc. 2010 Equity Incentive Plan		10-K	September 2, 2010	10.43
10.44 <sup>^</sup>	Form of Confidentiality and Non-Competition Agreement of Aspen Technology, Inc.		10-K	April 11, 2008	10.45
10.45 <sup>^*</sup>	Aspen Technology, Inc. Director Compensation Policy				
10.46 <sup>^</sup>	Form of Aspen Technology, Inc. Executive Annual Incentive Bonus Plan for Fiscal 2009		8-K	June 30, 2008	99.1
10.47 <sup>^</sup>	Form of Aspen Technology, Inc. Operations Executives Plan Fiscal 2009		8-K	June 30, 2008	99.2
10.48 <sup>^</sup>	Aspen Technology, Inc. Executive Annual Incentive Bonus Plan for Fiscal 2010		8-K	September 11, 2009	99.1
10.47 <sup>^</sup>	Form of Aspen Technology, Inc. Executive Annual Incentive Bonus Plan for Fiscal 2011		8-K	August 4, 2010	10.1
10.48 <sup>^</sup>	Amended and Restated Employment Agreement effective October 3, 2007, between Aspen Technology, Inc. and Mark Fusco		10-K	April 11, 2008	10.50
10.49 <sup>^</sup>	Form of Executive Retention Agreement entered into by Aspen Technology, Inc. and each executive officer of Aspen Technology, Inc. (other than Mark E. Fusco)		10-Q	February 9, 2010	10.1
10.50 <sup>^</sup>	Amendment Number 1 dated December 29, 2006 to Stock Option Agreement granted to Manolis E. Kotzabasakis on or about August 18, 2003 under Aspen Technology, Inc. 1995 Stock Option Plan, as amended (Award Identification No. P040380)		8-K	January 5, 2007	10.1
10.51 <sup>^</sup>	Amendment Number 1 dated December 29, 2006 to Stock Option Agreement granted to Manolis E. Kotzabasakis on or about August 18, 2003 under Aspen Technology, Inc. 2001 Stock Option Plan, as amended (Award Identification No. P040002)		8-K	January 5, 2007	10.2
10.52 <sup>^</sup>	Amendment Number 1 dated December 29, 2006 to the Stock Option Agreement granted to Manolis E. Kotzabasakis on or about August 18, 2003 under Aspen Technology, Inc. 2001 Stock Option Plan, as amended (Award Identification No. P0405621)		8-K	January 5, 2007	10.3
10.53 <sup>^*</sup>	Offer letter dated June 24, 2009 by and between Aspen Technology, Inc. and Mark P. Sullivan				

Exhibit Number	Description	Filed with this Form S-1	Incorporated by Reference		
			Form	Filing Date with SEC	Exhibit Number
21.1*	Subsidiaries of Aspen Technology, Inc.				
23.1*	Consent of KPMG LLP				
23.2	Consent of Cooley LLP (included in Exhibit 5.1)	X			
24.1*	Power of Attorney of each of the directors and the principal executive, financial and accounting officers of Aspen Technology, Inc. (included on pages II-13 and II-14 of Form S-1 as initially filed)				

(1) The SEC File No. is 000-24786, other than (a) Exhibit 10.30 (SEC File No. 333-11651), Exhibit 10.33 (SEC File No. 333-42536) and Exhibit 10.41 (001-34630) and (b) exhibits filed with this Form S-1.

\* Filed previously.

† Confidential treatment requested as to certain portions.

^ Management contract or compensatory plan or arrangement.

## QuickLinks

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[PART II INFORMATION NOT REQUIRED IN PROSPECTUS](#)

[Item 13. Other Expenses of Issuance and Distribution.](#)

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[Item 16. Exhibits and Financial Statement Schedules.](#)

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[EXHIBIT INDEX](#)



MARK L. JOHNSON  
(617) 937-2362  
mark.johnson@cooley.com

September 22, 2010

Aspen Technology, Inc.  
200 Wheeler Road  
Burlington, MA 01803

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Aspen Technology, Inc., a Delaware corporation (the "**Company**"), of a Registration Statement on Form S-1 (the "**Registration Statement**") with the U.S. Securities and Exchange Commission covering an underwritten public offering of up to 17,250,000 shares of common stock, par value \$0.10, including 2,250,000 shares of common stock for which the underwriters have been granted an over-allotment option (the "**Shares**"). All of the Shares are to be sold by the selling stockholders identified in the Registration Statement and the Prospectus.

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and related Prospectus, (b) the Company's Certificate of Incorporation, as amended, and By-laws, as currently in effect, and (c) the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought to independently verify such matters. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares have been validly issued and are fully paid and non-assessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

**COOLEY LLP**

By: /s/ Mark L. Johnson  
Mark L. Johnson, Esq.

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