

CUSIP No. 045327103

1. NAME OF REPORTING PERSON

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

1818 MASTER PARTNERS, LTD.

Tax ID. 98-0335961

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a)

(b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

CAYMAN

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

5,128,373

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

5,128,373

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

5,128,373

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW(9) EXCLUDES CERTAIN SHARES\*

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW [9]

5.52%

12. TYPE OF REPORTING PERSON\*

C0

1. NAME OF REPORTING PERSON

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

RICHARD H. WITMER

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a)

(b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

US CITIZEN

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

5,128,373

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

5,128,373

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

5,128,373

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW(9) EXCLUDES CERTAIN SHARES\* [ ]

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW [9]

5.52%

12. TYPE OF REPORTING PERSON\*

IN

1. NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

TIMOTHY E. HARTCH

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a) [ ]  
(b) [ ]

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

US CITIZEN

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

5,128,373

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

5,128,373

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

5,128,373

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW(9) EXCLUDES CERTAIN SHARES\* [ ]

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW [9]

5.52%

12. TYPE OF REPORTING PERSON\*

IN

1. NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

BROWN BROTHERS HARRIMAN & CO.  
13-4973745

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a) [ ]  
(b) [ ]

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

NEW YORK

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

5,128,373

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

5,128,373

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

5,128,373

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW(9) EXCLUDES CERTAIN SHARES\* [ ]

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW [9]

5.52%

12. TYPE OF REPORTING PERSON\*

HC

Item 1 (a). Name of Issuer:

Aspen Technology, Inc.

Item 1 (b). Address of issuer's principal executive offices:

200 Wheeler Road  
Burlington, MA 02141

Item 2 (a). Name of persons filing:

Brown Brothers Harriman & Co.  
on behalf of itself and:  
1818 Master Partners, Ltd.  
Richard H. Witmer  
Timothy E. Hartch

Item 2(b). Address of principal business office:

140 Broadway  
New York City, NY 10005

Item 2(c). Citizenship/Place of Organization:

Brown Brothers Harriman & Co., New York  
1818 Master Partners, Ltd., Cayman  
Richard H. Witmer, United States Citizen  
Timothy E. Hartch, United States Citizen

Item 2(d). Title of class of securities:

COMMON (the "Shares")

Item 2(e). CUSIP Number:

045327103

Item 3. If this statement is filed pursuant to Rules 13d-1(b)

or 13d-2(b) or (c), check whether the person filing is a:

Not applicable.

Item 4. Ownership:

With respect to the beneficial ownership of the reporting persons, see Items 5 through 11 of the respective cover pages to this Schedule 13G, which are incorporated herein by reference.

By virtue of a resolution adopted by Brown Brothers Harriman & Co. ("BBH&Co.") on May 6, 2003, designating Richard H. Witmer and Timothy E. Hartch, or either of them, as the sole and exclusive persons at BBH&Co. having voting power (including the power to vote or to direct the vote) and investment power (including the power to dispose or to direct the disposition) with respect to all investments of 1818 Master Partners, Ltd., each of Messrs. Witmer and Hartch may be deemed to beneficially own 5,128,373 shares, pursuant to Rule 13d-3 of the Act.

Item 5. Ownership of 5 Percent or Less of a Class

Not applicable.

Item 6. Ownership of More than 5 Percent on Behalf of Another Person

The Shares are held by 1818 Master Partners, Ltd. on behalf of investors in 1818 Partners, L.P. To the best of the undersigned's knowledge and belief, no other person has such an economic interest relating to more than 5% of the class of reported shares.

Item 7. Identification and Classification of the Subsidiary  
Which Acquired the Security Being Reported on By the Parent  
Holding Company or Control Person

The securities being reported are beneficially owned by 1818 Master Partners, Ltd., of which Brown Brothers Harriman & Co is a control person based upon its holding of all the voting interests in, and directing the management of, 1818 Master Partners, Ltd. A copy of the Agreement by and among Brown Brothers Harriman & Co., 1818 Master Partners, Ltd., Richard H. Witmer and Timothy E. Hartch authorizing the filing of one Schedule 13G on behalf of each entity or individual is set forth below:

Agreement

The undersigned hereby agree to file jointly the attached statement or amendment on Schedule 13G and any further amendments thereto pursuant to Regulation 13G promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934. Such filing shall be made by Brown Brothers Harriman & Co. on its behalf and on behalf of the other parties hereto.

Date: 9/30/10

BROWN BROTHERS HARRIMAN & CO.

By: /s/ Shawn Jackson

Name: Shawn Jackson

Title: Assistant Vice President

1818 MASTER PARTNERS, LTD.

By: /s/ Richard H. Witmer

Name: Richard H. Witmer

Title: Director

RICHARD H. WITMER

By: /s/ Richard H. Witmer

Name: Richard H. Witmer, as Partner, Brown Brothers  
Harriman & Co., and in individual capacity.

TIMOTHY E. HARTCH

By: /s/ Timothy E. Hartch

Name: Timothy E. Hartch, as Partner, Brown Brothers  
Harriman & Co., and in individual capacity.

Item 8. Identification and Classification of Members of the Group

Not applicable.

Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certification

By signing below, I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Disclaimer of Beneficial Ownership

The undersigned expressly declare that the filing of this Schedule shall not be construed as an admission that the undersigned are, for purpose of Sections 13(d) and 13(g) of the Securities Exchange Act of 1934, the beneficial owners of any securities covered by this Schedule 13G.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: 9/30/10

BROWN BROTHERS HARRIMAN & CO.

By: /s/ Shawn Jackson

Name: Shawn Jackson  
Title: Assistant Vice President

1818 MASTER PARTNERS, LTD.

By: /s/ Richard H. Witmer

Name: Richard H. Witmer  
Title: Director

RICHARD H. WITMER

By: /s/ Richard H. Witmer

Name: Richard H. Witmer, as Partner, Brown Brothers  
Harriman & Co., and in individual capacity.

TIMOTHY E. HARTCH

By: /s/ Timothy E. Hartch

Name: Timothy E. Hartch, as Partner, Brown Brothers  
Harriman & Co., and in individual capacity.