Aspen Technology, Inc. 200 Wheeler Road Burlington, MA 01803 USA [phone] 781 221 6400 [fax] 781 221 5215



March 18, 2013

Via EDGAR

Securities and Exchange Commission Division of Corporation Finance One Station Place 100 F Street, NE Washington, D.C. 20549-4561

Re: Aspen Technology, Inc.

Form 10-K for the Fiscal Year Ended June 30, 2012 ("2012 Form 10-K") (Filed August 21, 2012)

File No. 001-34630

Ladies and Gentlemen:

This letter is being filed by Aspen Technology, Inc. (the "Company") in response to comments set forth in a letter dated March 7, 2013 from Kathleen Collins, Accounting Branch Chief of the Division of Corporation Finance of the Securities and Exchange Commission (the "SEC" or "Commission"), to Mark P. Sullivan, Executive Vice President and Chief Financial Officer of the Company.

For convenient reference, the Company has set forth below in italics each of the comments of the staff of the SEC (the "Staff") set forth in the comment letter and has keyed the Company's responses to the numbering of the comments and the headings used in the comment letter.

Form 10-K for the Fiscal Year Ended June 30, 2012

Item 1. Business, page 4

1. In Exhibit 99.1 to your current report on Form 8-K furnished January 29, 2013, you state that your third quarter is your "seasonally strongest cash flow quarter." In future filings, please discuss the apparent seasonality of your business. See Item 101(c)(1)(v) of Regulation S-K.

Response:

The Company supplementally advises the Staff that in connection with the preparation of the Company's 2012 Form 10-K, the Company considered the disclosure guidance from Item 101 (c)(1)(v) of Regulation S-K and concluded, based upon the guidance provided, that the Company's business is not seasonal. The Company's revenue, expense and net income (loss) do not follow a regular or predictable pattern that would suggest seasonality in its business. Although the Company's cash flow has, in recent fiscal years, displayed timing that is more heavily weighted to the second half of its fiscal year, there is nothing inherent in the nature of the business that suggests that this pattern is permanent. The timing of the Company's cash flow is primarily driven by the timing of customer cash receipts. In the future, the pattern and timing of the Company's cash receipts could be different. The comment made in Exhibit 99.1 to the Company's current report on Form 8-K furnished January 29, 2013, was intended solely as an informational update regarding its free cash flow outlook for fiscal 2013.

In response to the Staff's comment, the Company advises the Staff that in future filings, including press releases filed as exhibits, it will clarify any references to seasonality.

Item 1A. Risk Factors, page 15

2. You determined that neither your disclosure controls and procedures, nor your internal control over financial reporting, were effective. Please tell us how you considered including a risk factor explaining why you reached these conclusions and discussing the associated risks. In that regard, page 53 appears to include a cross-reference to a risk factor that does not exist. See Item 503(c) of Regulation S-K.

Response:

The Company supplementally advises the Staff that in connection with the preparation of the Company's 2012 Form 10-K, the Company considered the disclosure guidance in Item 503(c) of Regulation S-K. Based on the Company's assessment of the effectiveness of its internal control over financial reporting as of June 30, 2012, the Company identified a material weakness with respect to income tax accounting and disclosure. The Company also noted errors related to deferred income tax assets and liabilities, income tax expense, and the related disclosures. The Company had begun remediation efforts in fiscal 2011, and expects the remedial actions to be effectively implemented in fiscal 2013, such that the reported weakness will be successfully remediated by the end of fiscal 2013.

The Company considered including in its Form 10-K a risk factor discussing the risks associated with the weakness identified with respect to income tax accounting and disclosure, and initial drafts of its Form 10-K included a reference to such risk factor at Part II, Item 9. e) *Remediation Plans*. By the time the Company filed its Form 10-K on August 21, 2012, it concluded that this weakness does not constitute a significant factor that would make investing in the

Company's stock speculative or risky. This conclusion was based on the significant progress the Company made in fiscal 2012 in executing the remediation plans that were established to address the material weakness in internal controls relating to the accounting for income taxes, including but not limited to, the hiring of a Vice President of Tax and appreciable increases in the utilization of third-party subject matter experts to assist the Company in determining the appropriate accounting and disclosure for material and complex tax transactions.

While the Company therefore determined that it was appropriate to omit the proposed risk factor, the Company inadvertently failed to omit the reference to such a risk factor at Part II, Item 9.e in our filed Form 10-K.

Item 3. Legal Proceedings

ATME Arbitration and Litigation, page 21

3. In future filings, please disclose the name of the Kuwaiti court in which the lawsuit filed on March 11, 2010 is pending, and provide more detail regarding the relief sought. See Item 103 of Regulation S-K. In addition, your disclosure does not appear to reflect any developments since 2010. Please advise.

Response:

The Company supplementally advises the Staff that in connection with the preparation of the Company's 2012 Form 10-K, the Company considered the disclosure guidance from Item 103 of Regulation S-K and concluded that disclosure of details related to litigation pending in a Kuwaiti court was not required as the potential financial impact was not deemed to be material, but rather was considered as related to a pending material legal proceeding for which disclosure was deemed required, based upon a review of guidance from Item 103 of Regulation S-K.

The legal proceeding for which the potential financial impact was material was resolved in the Company's favor during the quarterly period ended September 30, 2012. Therefore, given the Company's conclusion that the disclosure of facts related to the litigation pending in a Kuwaiti court was not required under Item 103 of Regulation S-K, references to this litigation were omitted from the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2012, as filed on January 29, 2013.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Key Business Metrics, page 33

4. Your earnings releases consistently discuss "annual spend" but you do not appear to address this metric in your Form 10-K or Forms 10-Q. It appears that annual spend could be a key performance indicator that your management uses to

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manage your business and that would be material to investors. Please explain to us how you considered discussing annual spend in your periodic reports. See Item 303(a)(3)(ii) of Regulation S-K and for guidance, refer to Section III.B of SEC Release No. 33-8350.

Response:

In July 2009, the Company introduced its aspenONE licensing model, which provides customers with unspecified future products for the aspenONE suite for no additional fee. Additionally, the Company changed its licensing model for point product arrangements by including SMS for the term of the arrangement. These licensing model changes resulted in revenue recognition on a ratable basis over the term of the arrangement. Prior to the licensing model changes, the majority of the Company's license revenue was recognized on an upfront basis. As described in detail in its SEC filings, these revenue recognition changes diminished the usefulness of a number of performance indicators based on generally acceptable accounting principles ("GAAP") including revenue, gross profit, operating income and net income. As a result, the Company introduced a number of non-GAAP performance metrics that management uses to assess business performance and emphasized operating and free cash flow rather than GAAP profitability measures because these cash flow measures were not impacted by the changes to revenue recognition.

Total term contract value, or TCV, and license-only term contract value, or TLCV, are key non-GAAP performance metrics that the Company uses to analyze business performance, particularly during this period of transition where revenue comparisons between fiscal periods do not meaningfully reflect the actual growth rate of its business. The Company introduced these metrics in fiscal 2010, coincident with the introduction of its aspenONE licensing model. The Company disclosed them in its Form 10-K for that fiscal year and have continued to disclose them in each Form 10-K and Form 10-Q filed since that date. TCV and TLCV continue to be the primary metrics that the Company uses to monitor the growth rate of its business. Additionally, TLCV growth is one of the primary metrics that is used in its variable compensation plans; for its named Executive Officers and its corporate bonus and sales commission plans.

Annual spend is a derivative metric related to TCV. While TCV is an approximation of the full renewal value of the Company's portfolio of active term license contracts, under the hypothetical assumption that all those contracts are simultaneously renewed, annual spend is an approximation of the aggregate annual value of its active term contracts. Annual spend is impacted by the same growth drivers that impact TCV; renewal rates, software entitlement growth and pricing. As the Company progressed through the revenue transition, it began to present an annual spend metric to provide additional information helpful to investors. Since annual spend represents an estimate of the current year aggregate annual value of the Company's active term contracts, we believe it assists investors to better understand the progression of the Company's revenue transition.

Although annual spend has not been a key performance indicator that management has used to manage the business, the Company believes it increasingly has become useful to investors. Accordingly, the Company plans to include disclosure and discussion of annual spend beginning with its Form 10-K for fiscal year 2013.

Liquidity and Capital Resources, page 44

5. We note from your disclosures on page F-27 that you do not provide for deferred taxes on unremitted earnings of foreign subsidiaries as such amounts are considered permanently reinvested. Please tell us the amount of cash and cash equivalents that are currently held outside of the United States. Also,

tell us your consideration to disclose such amounts and the amounts, if any, that are subject to restriction from and/or additional taxes upon repatriation. We refer you to Item 303(a)(1) of regulation S-K and Section IV of SEC Release 33-8350.

Response:

The Company supplementally advises the Staff that in connection with the preparation of the Company's 2012 Form 10-K, the Company considered the disclosure guidance from Item 303 (a)(1) of Regulation S-K and Section IV of SEC Release 33-8350 and concluded that disclosure of the amount of cash and cash equivalents held outside of the United States was not required given its limited impact on the Company's short-term or long-term liquidity. As of June 30, 2012, the Company had approximately \$165 million of cash and cash equivalents on a consolidated basis, of which approximately \$8 million was held outside of the United States.

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The Company supplementally advises the Staff that it has not encountered significant legal or practical restrictions on the abilities of its subsidiaries to repatriate cash to the United States. In the future, if the Company elects to repatriate the unremitted earnings of its foreign subsidiaries, then it would likely be subject to additional U.S. income taxes, net of the impact of available foreign tax credits. However, given the limited amount of cash held outside of the United States, and the Company's intention to indefinitely reinvest unremitted earning in its foreign subsidiaries, the Company believes that the inclusion of any statement regarding the impact of tax payments on the repatriation of these funds may be confusing to investors.

Item 8. Financial Statements and Supplementary Data

Notes to Consolidated Financial Statements

Note 2. Significant Accounting Policies

(f) Revenue Recognition, page F-8

6. Your discussion on page F-12 regarding your accounting for professional services in bundled arrangements appears to be limited to non-aspenONE subscription arrangements. Please clarify whether these arrangements include the point product licenses with enhanced SMS offerings. If so, explain further how you account for each of the elements in these bundled arrangements including how you establish VSOE for the undelivered elements (i.e. the subscription and the professional services). Similarly, tell us how you account for professional services bundled with your aspenONE subscription arrangements. We refer you to ASC 985-605-25-9 though 11.

Response:

The Company supplementally advises the Staff that in connection with the preparation of the Company's 2012 Form 10-K, the Company considered the disclosure guidance from ASC 985-605-25-9 though 11. However, the Company notes that it inadvertently excluded a reference to point product arrangements with enhanced SMS when it described the accounting treatment for circumstances in which committed professional services arrangements are sold as a single arrangement, with, or in contemplation of, a new license arrangement. The Company advises the Staff that in these circumstances, the Company recognizes the professional services revenue on a ratable basis over the longer of (i) the period the services are performed, or (ii) the license term, consistent with the requirements of ASC 985-605-25-10, as these arrangements include an undelivered element for which the Company does not have vendor-specific objective evidence; its enhanced SMS offering (post contract support).

When professional services are bundled with its aspenONE subscription arrangements, the Company recognizes the professional services revenue on a ratable basis over the longer of (i) the period the services are performed, or (ii) the license term. On page F-14 of the Company's 2012 Form 10-K, the Company described the accounting treatment for these circumstances as follows:

When these professional services are combined with, and essential to, the functionality of an aspenONE subscription transaction, the amount of combined revenue will be recognized over the longer of the subscription term on a ratable basis or the period the professional services are provided.

In the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2012 as filed on January 29, 2013, the Company revised its disclosure regarding arrangements with bundled professional services to include references to both aspenONE and point product arrangements with enhanced SMS offerings (renamed Premier Plus SMS) as follows:

In circumstances in which professional services are sold as a single arrangement with, or in contemplation of, a new aspenONE license or point product arrangement with Premier Plus SMS, revenue is deferred and recognized on a ratable basis over the longer of (i) the period the services are performed, or (ii) the license term.

Item 11. Executive Compensation, page 56 (Incorporated by Reference From Definitive Proxy Statement on Schedule 14A Filed October 25, 2012)

Compensation Discussion and Analysis

Reasons for Providing and Manner of Structuring Key Compensation Elements

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Equity Compensation, page 22

7. In future filings, please include a more detailed discussion and analysis linking the specific items your compensation committee considered to the specific number of stock options and RSUs granted to each named executive officer. See Item 402(b) of Regulation S-K.

Response:

The Company's compensation committee reviews and considers a collection of materials, scenarios, information, data, recommendations and advice in formulating its compensation recommendations to the board. As discussed in the **Compensation Discussion and Analysis** of the Company's Definitive Proxy Statement on Schedule 14A filed on October 25, 2012 at **Reasons for Providing and Manner of Structuring the Key Compensation Elements**, *Equity Compensation*, for fiscal 2012, the compensation committee recommended the equity awards to be awarded to each of the Company's named executive officers, based on consideration of prior year performance, Company performance, and a review of peer group and global industry survey data. The Company also disclosed at **Fiscal 2013 Compensation Actions**, *Equity Awards*, that for fiscal 2013, the value of each equity award to named executive officers was allocated 75% to RSUs and 25% to stock options.

The Company acknowledges the Staff's request and will include in future filings more detailed discussion and analysis relative to the specific number of stock options and RSUs granted to each named executive officer.

In responding to the comments of the Staff, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- · Staff comments or the Company's changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you would like to discuss any of the Company's responses, or any further questions that you may have, please do not hesitate to contact the undersigned at (781) 221-5201.

Respectfully,

/s/ Mark P. Sullivan

Mark P. Sullivan Executive Vice President and Chief Financial Officer

cc (with enclosures):

Kathleen Collins, Accounting Branch Chief, Securities and Exchange Commission
Laura Veator, Staff Accountant, Securities and Exchange Commission
Mark E. Fusco, President and Chief Executive Officer, Aspen Technology, Inc.
Frederic G. Hammond, Senior Vice President and General Counsel, Aspen Technology, Inc.

Mark L. Johnson, K&L Gates LLP