

July 21, 2010

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, 2009 (Filed November 9, 2009 and amended April 22, 2010)

Form 10-Q for the Fiscal Quarter Ended December 31, 2009 (Filed February 9, 2010)

File No. 000-24786

Ladies and Gentlemen:

This letter is being filed by Aspen Technology, Inc. (the "Company") in response to comments set forth in a letter dated July 13, 2010 from Kathleen Collins, Accounting Branch Chief of the Division of Corporation Finance of the Securities and Exchange Commission (the "SEC"), to Mark P. Sullivan, Senior 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 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-Q for the Fiscal Quarter Ended December 31, 2009

Condensed Consolidated Statements of Operations, page 2

1. In your response to comment 6 in your letter dated May 27, 2010 you indicate that you concluded it is appropriate to use optional renewals of SMS on legacy term license arrangements to support VSOE for SMS bundled in your new co-terminus arrangements. Please clarify whether you use this methodology solely for income statement allocation purposes or whether you also apply such methodology for purposes of recognizing revenue on your fixed-point term product arrangements. If the latter is the case, then explain further how you applied the guidance in ASC 985-605-55-67 in concluding that you could apply VSOE of fair value of SMS services from your legacy term license arrangements to your new fixed-point term product arrangements.

Prior to the introduction of the Company's new licensing model in July 2009, SMS on the Company's multi-year term contracts was offered for an annual period, and then upon expiration of the SMS period, renewed annually at the customers' option ("legacy term license arrangements"). The Company uses the optional renewals of SMS on these legacy term license arrangements to support VSOE of fair value for SMS bundled in its new co-terminus, fixed-term point product arrangements ("point product arrangements"). This methodology is used for both statements of operations allocation purposes as well as for the purposes of recognizing revenue on such arrangements.

The license product offerings and the SMS in the legacy term arrangements and the new point product arrangements are the same. The sole difference between these two types of arrangements is the period that SMS is bundled with the license (one year under the legacy term license arrangements versus the full license term under the new point product

arrangements). For these reasons, the Company has assessed the guidance of ASC 985-605-55-67 and concluded that it could apply VSOE of fair value of SMS from its legacy term license arrangements to its new point product arrangements.

The Company considers the fees from the new point product arrangements to not be fixed and determinable. Consistent with the guidance in ASC 985-605-55-22 through 25, the Company's new point product arrangements do not meet the "similarity of elements included" criterion due to the bundling of SMS for the full term under these new co-terminus arrangement, whereas SMS was bundled for the first year with the option to renew for the remaining term under the legacy term license arrangements. Therefore, the Company has concluded that the historical legacy arrangements do not support a history of collecting under extended payment terms for purposes of the new co-terminus arrangements and therefore Company records the revenue for these new co-terminus arrangements as the payments become due.

Consider the following example where the Company enters into a new 5-year point product arrangement with annual fees of \$100,000 due at the beginning of each year. In our new point product arrangements, SMS is bundled co-terminus with the length of the license term arrangement and the SMS fees are included as part of the customer's single annual installment payment, \$100,000 in this example. The allocation of the fees and the revenue recognition method would be as follows:

· Upon each annual payment due date, the Company would allocate approximately \$16,000 to the SMS element and the residual \$84,000 would be allocated to the license element. This allocation is based on the VSOE renewal rate of 19% of the annual license payment (\$84,000 * 19% is equal to \$16,000).

- The entire amount allocated to the license element (\$84,000 in this example) would be recognized as revenue on the annual payment due date, provided that all other revenue recognition criteria had been met.
- The amount allocated to the SMS element would be recognized ratably over the annual SMS service period.
- · On the statements of operations, the revenue associated with the license element (\$84,000) would be classified as "Software". The revenue associated with the SMS element (\$16,000) would be classified as "Services and other".
- 2. You further indicate that VSOE of fair value for SMS services in your legacy term licenses was based upon an analysis of stand-alone SMS renewals using the bell-shaped curve approach. Please describe the process you use to evaluate the various factors that affect your VSOE, including customer type and other pricing factors and address the issue that if VSOE varies from customer to customer, how you can reasonably estimate fair value. In addition, please explain further how you applied the bell-shaped curve approach in establishing VSOE of fair value for your SMS services included in your legacy term licenses. In this regard, quantify the results of your analysis, such as the range of renewal rates and the percentage of customers that fall within such range. We refer you to ASC 985-605-25-6.

The Company assesses VSOE of fair value for SMS based on an analysis of standalone SMS renewals using the bell-shaped curve approach. Under the legacy term license arrangements, license fees were typically paid in annual installments and the Company consistently charged an SMS renewal rate of 19% of the <u>annual</u> license fee. The Company provides the same SMS service at the same renewal rate to all customer types, and therefore does not distinguish between customer types for the purposes of its bell-shaped curve analysis. For the purposes of the bell-shaped curve analysis, the Company assesses the renewal rate as a percentage of the <u>total</u> license arrangement fee. For one of its 5 to 6 year legacy term license arrangements, the 19% annual renewal rate equates to approximately 4% of the total license arrangement fee.

During each of the years ended June 30, 2009 and 2010, there were more than 1,700 standalone SMS renewal transactions, associated with legacy term license arrangements. For these arrangements, the Company assessed the percentage of standalone renewal transactions in which the renewal rate was within +/- 15% of the median renewal rate to be 98% and 97% for 2009 and 2010, respectively, which is well within the range to support that the Company has VSOE of fair value for SMS.

Although the Company assesses VSOE of fair value for SMS based on standalone sales using the bell-shaped curve approach, rather than based on stated renewal rates, the Company additionally considered the guidance of ASC 985-605-55-63 and concluded that its SMS renewal rate of 4% is substantive based on the fact that the renewal rates are not significantly below the Company's normal pricing policies. In fact, all customers pay the same renewal rate, whether expressed as a percentage of the annual license fee or the total license arrangement fee. Also, the initial period of the (bundled) SMS services (typically 1 year) is not relatively long compared to the term of the software license (typically 5 to

2

6 years). Finally, the Company's core software products have average lives of well in excess of 10 years and there are instances where customers have used the products for over 20 years.

If you would like to discuss our responses or any further questions you may have, please do not hesitate to contact me at 781-221-5201.

Respectfully,

/s/ Mark P. Sullivan

Mark P. Sullivan Senior Vice President and Chief Financial Officer

cc:

Kathleen Collins, Accounting Branch Chief, Securities and Exchange Commission Melissa Feider, Staff Accountant, Securities and Exchange Commission Katherine Wray, Staff Attorney, 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, Cooley LLP