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April 21, 2010

VIA EDGAR AND FEDERAL EXPRESS

Ms. Kathleen Collins Division of Corporation Finance Securities and Exchange Commission 100 F Street, N.E. Washington, DC 20549

Re: Ansys, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2009

Filed on February 25, 2010

File No. 000-20853

Dear Ms. Collins:

This letter is submitted on behalf of ANSYS, Inc. (the "<u>Company</u>"), in response to the comments of the Staff of the Division of Corporation Finance (the "<u>Staff</u>") of the Securities and Exchange Commission (the "<u>Commission</u>") raised in your letter of March 22, 2010 to James E. Cashman III, Chief Executive Officer of the Company (the "<u>Comment Letter</u>").

For your reference, the text of each of the Staff's comments is reproduced below in italics, which are numbered to correspond with the numbers set forth in the Comment Letter. The Company's responses to each comment immediately follow the reproduced text in regular typeface.

Form 10-K for the Fiscal Year Ended December 31, 2009

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Estimates, page 35

Comment 1:

We note your discussion regarding goodwill and intangible assets on page 37. While it appears that you are not at risk of failing step one of your impairment test for the reporting units, we believe additional disclosures could be provided. Tell us how you considered disclosing all material implications of uncertainties associated with the methods, assumptions and estimates underlying your critical accounting policy disclosure pursuant to Section V of Release No. 33-8350. In this regard, please tell us supplementally and disclose the following:

- the amount of goodwill allocated to each reporting unit;
- the percentage by which the fair value of the reporting unit exceeded the carrying value as of the date of most recent test for those reporting units that may be at risk of failing step one, if any; and
- describe the potential events and/or changes in circumstances that could reasonably be expected to negatively affect the key assumptions used in determining fair value.

If you have determined that the estimated fair value substantially exceeds the carrying value for all of your reporting units, please disclose this determination. Please refer to Item 303(a)(3)(ii) of Regulation S-K and Section V of SEC Release No. 33-8350.

Response 1:

The Company tests goodwill for impairment annually on January 1 of each year. For purposes of the disclosure in the Form 10-K for the year ended December 31, 2009, the most recent test for goodwill impairment occurred on January 1, 2009. On this date, the Company had two reporting units. The relevant information with respect to the goodwill impairment test for these two units is included in the following table:

	Unit I	Unit II
Carrying Value of Goodwill	\$450.0 million	\$598.0 million
% Excess of Fair Value Over Carrying Value	286.5%	54.7%

Based on the Company's evaluation as of January 1, 2009 shown above, the fair value of each of the Company's reporting units substantially exceeded its carrying value. However, the Company agrees with the Staff's view that additional disclosure concerning the factors, events or circumstance changes that could affect the fair value determination of the Company's reporting unit(s) is appropriate. Accordingly, in Amendment No. 1 to Form 10-K, the Company will revise the disclosure in Critical Accounting Policies and Estimates, as follows (changes underlined):

"The Company tests goodwill and intangible assets with indefinite lives for impairment at least annually by comparing the fair value of each asset (or, in the case of goodwill, the Company's reporting units) to its carrying value. Fair value is estimated using the discounted cash flow and other valuation methodologies. In preparing the estimate of fair value, the Company relies on a number of factors, including historical operating results, business plans, anticipated future cash flows, economic projections and other market data. Because there are inherent uncertainties involved in these factors, the Company's estimates of fair value are imprecise and the resulting carrying value of goodwill and intangible assets may be misstated. When the Company assigns a fair value to a trademark it also estimates whether it has a finite or indefinite life, thus impacting whether the value is amortized or not. Events such as product and naming strategy changes can occur whereby the Company may reconsider the life (whether finite or indefinite), resulting in changes to amortization expense. Amortization periods may also be reconsidered for identifiable intangible assets with finite lives.

The Company tested the value of its two reporting units for impairment on January 1, 2009. As of this date, the fair values of each of the Company's reporting units substantially exceeded their carrying values. The key assumptions utilized in determining the fair values of the Company's reporting units are revenue growth rates, growth rates of cash expenditures and related operating margin percentages, income tax rates, and factors that influence the Company's weighted average cost of capital, including interest rates, the ratio of the Company's debt capital to its total capital and the Company's systematic risk or beta.

Of the preceding factors, the Company's reporting unit fair value is most sensitive to changes in revenue growth rate estimates. Factors that could adversely affect the Company's revenue growth rates include adverse economic conditions in certain geographies or industries, especially key industrial and electronics industries; enhanced competition and related pricing pressures; integration issues associated with acquisitions; strengthening of the U.S. Dollar or other adverse foreign currency fluctuations; reduced renewal rates for the Company's annual lease and maintenance contracts; and the Company's ability to attract and retain key personnel. Any of these factors individually or in combination could cause the Company's growth rates to decline over a defined period of time. The Company has demonstrated an ability in the past to adjust its cost structure through reductions in discretionary spending, delayed hiring or workforce reductions when faced with periods of reduced revenue growth. If adverse conditions would persist over a longer period of time and would cause a revision to the Company's long-term revenue growth rate projections without a similar cost reduction response, or if other factors would occur that would result in a similar growth rate revision or a material revision to the other inputs to reporting unit fair value, it could cause the fair value of the Company's reporting unit(s) to fall below its carrying value, potentially resulting in an impairment of goodwill.

The proposed disclosure will be updated in future filings to reflect the result of the recurring annual impairment test and impact of changes in our operations.

Notes to the Consolidated Financial Statements

Summary of Significant Accounting Policies, page 53

Comment 2:

We note that your deferred revenue balance represents a significant percentage of your liabilities. We further note your disclosure on page 26 where you state that "[a]s a result of the significant recurring revenue base, the Company's license and maintenance revenue growth rate in any period does not necessarily correlate to the growth rate of new license and maintenance contracts sold during the period." Please tell us when you invoice your customers for lease licenses and maintenance contracts (i.e., monthly, quarterly, annually, etc.) and clarify whether the deferred revenue balance represents all unearned revenue for these arrangements. To the extent that you do not invoice for the entire arrangement up-front, then tell us how you considered disclosing the amount of backlog orders (bookings) resulting from your recurring revenue arrangements pursuant to Item 101(c)(viii) of Regulation S-K. Also tell us how you

considered including a discussion regarding the nature and origin of deferred revenue in MD&A.

Response 2:

The deferred revenue balance represents all unearned revenue for lease licenses and maintenance agreements. Although the Company invoices its customers for lease licenses and annual maintenance agreements at the time the contract is signed, the revenue relating to these arrangements is deferred because the Company has an obligation to provide the customer with PCS over the term of the contract and, in the case of lease licenses, the duration of the lease license is sufficiently short that the Company cannot separately identify VSOE of the PCS. The statement included in the Company's disclosure and referenced in the Staff's comment that, "the Company's license and maintenance revenue growth rate in any period does not necessarily correlate to the growth rate of new license and maintenance contracts sold during the period" was intended to be a commentary on the deferred nature of revenue recognition with respect to these arrangements rather than a commentary on the backlog of orders associated with the arrangements. The Company's lease and maintenance contracts are annual agreements with the entire arrangement invoiced up-front. On certain occasions, the Company's customers may wish to make the end date of new lease licenses or maintenance contracts coterminous with the end dates of its existing lease or maintenance contracts. During these occurrences, the lease or maintenance period will be other than twelve months. However, for these contracts, the value of the entire arrangement is also invoiced up-front.

Because the Company provides no financial incentive for its customers to enter into maintenance or lease arrangements with periods of greater than one year, the Company generally does not receive purchase orders from its customers with licensing or service periods of this length. However, when this does occur, the Company invoices the entire arrangement up-front unless the terms of the customer's purchase order include annual payments. If the terms of the arrangement include annual payments, the Company does not invoice up-front and, accordingly, this type of arrangement creates a backlog order. The value of these backlog orders was approximately \$1.5 million at December 31, 2009. Because the arrangements are infrequent and the dollar value of the arrangements is insignificant, the Company did not disclose the order backlog value.

The Company considers the nature and origin of the contracts that result in deferred revenue to be a material component of the Company's business in that the recurring revenue stream associated with these contracts materially contributes to each period's revenue results. Additionally, because of the recurring nature of these contracts and the high rate of renewal, these contracts improve the Company's ability to forecast its revenues and better enable the Company to align its future expenditures and business investments with expected revenues. Because of these factors, the Company believes that appropriate disclosure in this area is

particularly important. For this reason, the Company included the following disclosure within the revenue discussion for the year ended December 31, 2009 as compared to the year ended December 31, 2008 of Management's Discussion and Analysis of Financial Condition and Results of Operations on page 26:

"A substantial portion of the Company's license and maintenance revenue is derived from annual lease and maintenance contracts. These contracts are generally renewed on an annual basis and typically have a high rate of customer renewal. In addition to the recurring revenue base associated with these contracts, a majority of customers purchasing new perpetual licenses also purchase related annual maintenance contracts. As a result of the significant recurring revenue base, the Company's license and maintenance revenue growth rate in any period does not necessarily correlate to the growth rate of new license and maintenance contracts sold during that period. To the extent the rate of customer renewal for lease and maintenance contracts is high, incremental lease contracts and maintenance contracts sold with new perpetual licenses will result in license and maintenance revenue growth. Conversely, if the rate of renewal for these contracts is adversely affected by economic or other factors, as was the case in 2009, the Company's license and maintenance growth will be adversely affected over the term that the revenue for those contracts would have otherwise been recognized."

In the paragraph above, the underlined disclosure was newly added to the Form 10-K for the year ended December 31, 2009.

The Company also added to the Form 10-K for the year ended December 31, 2009 new and related disclosure to "Item 1A: Risk Factors," as follows:

Renewal Rates for Annual Lease and Maintenance Contracts. A substantial portion of the Company's license and maintenance revenue is derived from annual lease and maintenance contracts. These contracts are generally renewed on an annual basis and typically have a high rate of customer renewal. In addition to the recurring revenue base associated with these contracts, a majority of customers purchasing new perpetual licenses also purchase related annual maintenance contracts. If the rate of renewal for these contracts is adversely affected by economic or other factors, the Company's license and maintenance growth will be adversely affected over the term that the revenue for those contracts would have otherwise been recognized. As a result, the Company's business, financial position, results of operations and cash flows may also be adversely impacted during those periods.

Note 8. Fair Value Measurement, page 64

Comment 3:

We note your cash and cash equivalents consist primarily of highly liquid investments with original maturities of three months or less. If material, tell us how you considered providing disclosures pursuant to the requirements of ASC 820-10-50-1 through 50-9 related to your cash equivalent investments. In addition, please tell us and in the future revise to disclose the composition of your cash and cash equivalents and the amounts held in each type of instrument.

Response 3:

As of December 31, 2009, the Company's cash and equivalent balance of \$335.9 million was comprised of the following:

Money Market Mutual Funds	\$ 170.6 million (50.8% of total)
Cash Accounts	\$ 165.3 million (49.2% of total)
Total	\$ 335.9 million

The Company considers the money market mutual fund holdings (50.8% of the total) to be cash equivalents. The Company considered providing disclosures pursuant to ASC 820-10-50-1 through 50-9 related to these cash equivalent investments and originally determined that the disclosure included in the "Cash and Cash Equivalents" policy note that "cash equivalents are carried at cost, which approximates fair value" provided investors with the appropriate level of fair value disclosure with respect to these balances. The Company's determination was made in consideration of the composition of the cash equivalents balance, which did not include any component of debt securities. However, the Company acknowledges that the composition of these balances, which was the basis for its internal determination of disclosure sufficiency, was not disclosed. As a result, the overall disclosure with respect to these balances could be improved. Accordingly, in Amendment No. 1 to Form 10-K, the Company will revise its disclosures in Notes 2 and 8, as follows (changes underlined):

2. Summary of Significant Accounting Policies

CASH AND CASH EQUIVALENTS: Cash and cash equivalents consist primarily of highly liquid investments such as time deposits held at major banks, money market mutual funds and other securities with original maturities of three months or less. Cash equivalents are carried at cost, which approximates fair value.

The Company's cash and cash equivalents are comprised of the following:

	Decen	December 31,	
(in thousands)	2009	2008	
Money Market Mutual Funds	\$170,577	\$ 37,845	
Cash Accounts	165,301	190,331	
Total	\$335,878	\$228,176	

8. Fair Value Measurement

The valuation hierarchy for disclosure of assets and liabilities reported at fair value prioritizes the inputs for such valuations into three broad levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value. A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following tables provide the assets and liabilities carried at fair value and measured on a recurring basis as of December 31, 2009 and December 31, 2008:

		Fair Value Measurements at Reporting Date Using:		
(in thousands)	December 31, 	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets Cook a revived enter	¢ 170 F77	¢ 170 F77	s —	¢
Cash equivalents	<u>\$ 170,577</u>	\$ 170,577	<u> </u>	<u> </u>
Short-term investments	\$ 7,966	<u>\$</u>	\$ 7,966	<u>\$ —</u>
<u>Liabilities</u>				
Interest rate swap agreement	\$ (853)	\$ —	\$ (853)	\$ —
				
		Fair Value Measurements at		
	December 31,	Quoted Prices in Active Markets	Reporting Date Using: Significant Other Observable Inputs	Significant Unobservable Inputs (Level
(in thousands)	2008	(Level 1)	(Level 2)	3)
<u>Assets</u>				
<u>Cash equivalents</u>				
Short-term investments	\$ 37,845	\$ 37,845	<u>\$</u>	<u>\$</u>
Liabilities	\$ 37,845 \$ 5,699	\$ 37,845 \$ —	<u>\$ —</u> \$ 5,699	<u>\$</u> —
		\$ 37,845 \$ —	\$ — \$ 5,699	\$ — \$ —

The cash equivalents in the preceding tables represent money market mutual funds.

The short-term investments carried at fair value in the preceding tables represent deposits held by certain foreign subsidiaries of the Company. The deposits have fixed interest rates with maturity dates ranging from three months to one year. For the year ended December 31, 2009, there were no unrealized gains or losses associated with these deposits.

The interest rate swap agreement in the preceding tables is recorded in other accrued expenses and liabilities on the consolidated balance sheet and is used to hedge a portion of each

of the first eight forecasted quarterly variable rate interest payments on the Company's term loan. Under the swap agreement, the Company receives the variable, three-month LIBOR rate required under its term loan and pays a fixed LIBOR interest rate of 3.32% on the notional amount. The initial notional amount of \$300.0 million is amortized equally at an amount of \$37.5 million over eight quarters through June 30, 2010. As of December 31, 2009 and 2008, this derivative, net of tax, was in unrealized loss positions of \$530,000 and \$2.5 million, respectively. There was no ineffective portion of the swap agreement for the years ended December 31, 2009 and 2008.

The pre-tax (loss) gain on the Company's derivative financial instrument is categorized in the table below:

		Year Ended	
(in thousands)	Loss Recognized in Accumulated Other Comprehensive Income (Effective Portion)	(Loss) Gain Reclassified from Accumulated Other Comprehensive Income into Income Statement (Effective Portion)	(Loss) Gain Recognized in Income Statement (Ineffective Portion)
Cash Flow Hedge	<u> </u>	<u>(=======</u>	
Interest rate swap agreement			
December 31, 2009	\$ (783)	\$ (3,959)	\$ —
December 31, 2008	\$ (4,026)	\$ 3	\$ —

The Company estimates future realized losses on the interest rate swap agreement of approximately \$900,000 for the period January 1, 2010 through June 30, 2010. This estimate assumes a variable, three-month LIBOR rate of 0.25% as compared to a hedged, three-month LIBOR rate of 3.32%.

The carrying values of cash, <u>cash equivalents</u>, accounts receivable, accounts payable, accrued expenses, other accrued liabilities and short-term obligations approximate their fair values because of their short-term nature. The carrying value of long-term debt approximates fair value due to the variable interest rate underlying the Company's credit facility.

Exhibits

Comment 4:

We note your Section 906 Certifications refer to the Form 10-K for the year ended December 31, 2008. Please amend your current Form 10-K to include these certifications with the correct report reference. Also, please be advised that your amended filing should also include updated Section 302 certifications.

Response 4:

In response to the Staff's comments, the Company will file Amendment No. 1 to the Form 10-K and revised Exhibit 32.1 and Exhibit 32.2 (the Section 906 certifications) to refer to the year ended December 31, 2009, as well as updated Section 302 certifications on Exhibit 31.1 and 31.2.

Comment 5:

You state on page 68 that you have one stock option plan, the Third Amended and Restated 1996 Stock Option and Grant Plan, but you do not appear to have filed this agreement as an exhibit to your Form 10-K. Please advise.

Response 5:

The Company will include the Third Amended and Restated 1996 Stock Option and Grant Plan and the Amendment to the Third Amended and Restated ANSYS, Inc. 1996 Stock Option and Grant Plan, which were inadvertently left off the Exhibit List, as Exhibits to Amendment No. 1 to the Form 10-K.

As requested in the Comment Letter, the Company has acknowledged to us, and granted us the authority to represent to the Commission on behalf of it, that:

- · The Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing;
- 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 should have any questions concerning the enclosed matters, please contact the undersigned at (617) 570-1633 or by facsimile at (617) 523-1231.

Very truly yours,

/s/ Joseph L. Johnson III Joseph L. Johnson III, Esq. Goodwin Procter LLP

cc: Sheila S. DiNardo *ANSYS*, *Inc*.