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CERTAIN PORTIONS OF THIS LETTER AS FILED VIA EDGAR HAVE BEEN OMITTED AND FILED SEPARATELY WITH THE COMMISSION. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS. OMITTED INFORMATION HAS BEEN REPLACED IN THIS LETTER AS FILED VIA EDGAR WITH A PLACEHOLDER IDENTIFIED BY THE MARK “[**].” THE OMITTED PORTIONS ARE BRACKETED IN THE UNREDACTED PAPER SUBMISSION FOR EASE OF IDENTIFICATION.**

October 11, 2017

VIA EDGAR AND FEDEX

United States Securities and Exchange Commission
Division of Corporation Finance
Mail Stop 4720
100 F Street, N.E.
Washington, D.C. 20549

Attn: Barbara C. Jacobs
Mitchell Austin
Frank Knapp
Christine Dietz

**Re: Altair Engineering Inc.
Amendment No. 1 to the Registration Statement on Form S-1
Filed October 6, 2017
File No. 333-220710**

Dear Ladies and Gentlemen:

We are submitting this letter on behalf of Altair Engineering Inc. (the “Company”) to supplement the previous letter to the staff (the “Staff”) of the Securities and Exchange Commission (the “Commission”) dated October 5, 2017. Because of the commercially sensitive nature of information contained herein, this submission is accompanied by the Company’s request for confidential treatment for the bracketed portions of this letter pursuant to Rule 83 of the Commission’s Rules on Information and Requests, 17 C.F.R. §200.83, and the Freedom of Information Act (“FOIA”) and has submitted a separate request to the Commission’s Office of FOIA.

The Company determines the fair market value of its Class A common stock for the purpose of assigning the exercise price of stock option grants for its Class A common stock as well as for defining the stock-based compensation liability using an independent third-party valuation firm (the “Valuation Firm”) to prepare valuation reports from time to time for the Company’s board of directors (each, a “Valuation Report” and collectively, the “Valuation Reports”). The methodologies used to prepare the Valuation Reports discussed in this letter consisted of the income approach (discounted cash flow, or DCF) on both a Gordon Growth and Exit

Multiple basis and a market approach (guideline public company method, or GPC Method, transaction approach, or Transaction Approach, or the estimated underwriter value indicator, or EUVI, and other one-time events, or Other). In addition, the Valuation Firm also used assumptions consisting of a discount for lack of marketability, or Lack of Marketability, and a discount for lack of voting rights, or Lack of Voting Rights. The weighting of each of the foregoing methodologies and assumptions was revisited at each valuation by the Company.

Valuation Growth from December 31, 2016 to June 30, 2017

The Valuation Reports as of March 31, 2017 (the “March 2017 Valuation”) and April 30, 2017 (the “April 2017 Valuation”) reflected per share values of \$5.05 and \$5.18, respectively, or an 11% and 14% increase, respectively, from the per share valuation as of December 31, 2016 (the “December 2016 Valuation”) of \$4.54 per share. The weighting of the methodologies and assumptions in the March 2017 Valuation and the April 2017 Valuation were not changed from that used in the December 2016 Valuation.

<i>Valuation Reports:</i>	<i>12/31/16</i>	<i>3/31/17</i>	<i>4/30/17</i>	<i>6/30/17</i>
<u>Income Approach:</u>				
DCF Method - Gordon Growth	15%	15%	15%	5%
DCF Method - Exit Multiple	25%	25%	25%	20%
<u>Market Approach:</u>				
Guideline Public Company	45%	45%	45%	40%
Transaction Approach	15%	15%	15%	35%
Estimated Underwriter Value Indication	<i>Not available</i>	<i>Not available</i>	<i>Not available</i>	<i>Not available</i>
Other	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
<u>Other Assumptions:</u>				
Discount for Lack of Marketability	9.5% - 1.5 years	9.5% - 1.5 years	9.5% - 1.5 years	7% - 9 months
Discount for Lack of Voting Rights	5%	5%	5%	5%
<u>Fair value per share - Class A</u>	<u>\$4.54</u>	<u>\$5.05</u>	<u>\$5.18</u>	<u>\$7.14</u>
<u>Fair value per share - Class A Without Discount for Lack of Marketability</u>	<u>\$5.04</u>	<u>\$5.61</u>	<u>\$5.76</u>	<u>\$7.70</u>

The Company held its organizational meeting on [****]1 and planned to submit its draft registration statement on Form S-1 (the “Draft Registration Statement”) with financial statements meeting the standards required to be included in an S-1 filing, on or about [****]2. By [****]3, the Company had not prepared financial statements meeting Form S-1 standards. On June 16, 2017 (the “Submission Date”), the Company submitted its Draft Registration Statement with financial statements meeting the Form S-1 standards to the Staff for review.

1 [****] – Confidential Treatment Requested by Altair Engineering Inc.

2 [****] – Confidential Treatment Requested by Altair Engineering Inc.

3 [****] – Confidential Treatment Requested by Altair Engineering Inc.

The Company obtained the March 2017 Valuation in connection with determining its stock-based compensation liability for the first quarter of 2017. At the time of the March 2017 Valuation, the Company did not know when, or whether, it could confidentially submit the Draft Registration Statement. During the first quarter of 2017, the Company was engaged in preparations for the initial public offering (“IPO”), including, preparing financial statements that could be included in the Draft Registration Statement. The Company had not prepared such financial statements prior to such time and it was not assured the Company could finalize its financial statements by [****]4. Accordingly, the March 2017 Valuation continued to rely on the same weighting of the methodologies and assumptions as in the valuation as of December 31, 2016.

The Company obtained the April 2017 Valuation in contemplation of granting options in connection with its second quarter regularly scheduled board meeting. The April Valuation was at a date in a quarterly period as opposed to at the end of a quarterly period to enable the Company to fix the per share value as close as possible to the date of the option grant. At the time of the April 2017 Valuation, the Company did not know when its financial statements would meet Form S-1 standards. The April Valuation was prepared after the Company had missed its targeted [****]5. submission date. As of June 9, 2017, the date of the option grants, the Company was hopeful it could submit a Draft Registration Statement in the near future but could not be sure, as it needed to have the first quarters in each of 2016 and 2017 reviewed before such quarterly information could be included in the Draft Registration Statement. Accordingly, the April Valuation continued to rely on the methodologies and assumptions weighted as in the March 2017 Valuation.

The Company obtained a valuation as of June 30, 2017 (the “June 2017 Valuation”) in connection with determining its stock-based compensation liability for the second quarter of 2017. The June Valuation reflected a per share valuation of \$7.14, or a 38% increase from the April 2017 Valuation of \$5.18. In the June 2017 Valuation, the Company decreased its weighting on the DCF Method-Gordon Growth from 15% to 5%, the DCF Method – Exit Multiple from 25% to 20% and the GPC Method from 45% to 40%, while increasing the weight on the Transaction Approach from 15% to 35%. In addition, the Lack of Marketability was reduced from 9.5% - 1.5 years to 7% - 9 months. The weighting was changed to give more significant weight to an IPO as a possible liquidity event and by reducing the Lack of Marketability by the expected time to a liquidity event. Although the Company had confidentially submitted its Draft Registration Statement to the Staff, an IPO was still not assured. At the Submission Date, the Company recognized that it needed to close the second quarter of 2017 in a timely fashion to demonstrate significant progress for remediation of its material weaknesses as disclosed in the Draft Registration Statement. To the extent the Company failed to demonstrate such progress the Company did not believe that it could complete an IPO in 2017. Based on the foregoing and additional assumptions and factors the Company did not assume at this time that it could complete an IPO in 2017. These factors included (i) a lack of a formal valuation from the underwriters, (ii) the lack of qualitative feedback from test-the-water meetings, (iii) the fact that the Company had not received comments from the Staff and (iv) the need to demonstrate it could close the second quarter on a timely basis. Any of the foregoing could have impacted the timing or certainty of an IPO such that the Company could not be assured it could be completed in 2017. Accordingly, the June 2017 Valuation reflects a measured change in the weighting of the methodologies and assumptions to give greater significance to an IPO than in prior valuations balanced against the significant uncertainty of an IPO in 2017.

Valuation Growth from June 30, 2017 to September 30, 2017

The Company obtained an estimated valuation as of September 30, 2017 (the “September 2017 Valuation”) which estimates a per share value of \$[****]6, or a [****]7 % increase from the per share valuation as of June 30, 2017 of \$7.14 per share. The Company decreased the weight on the DCF-Gordon Growth from 5% to 0%, the DCF Method – Exit Multiple from 20% to 15%, the GPC Method from 40% to 20%, and the Transaction Approach from 35% to 30% while increasing the EUVI from not available to 30% and Other from not applicable to 5%. In addition, the Company changed the Lack of Marketability from 7% - nine months to 3% - 3 months.

4 [****] – Confidential Treatment Requested by Altair Engineering Inc.

5 [****] – Confidential Treatment Requested by Altair Engineering Inc.

6 [****] – Confidential Treatment Requested by Altair Engineering Inc.

7 [****] – Confidential Treatment Requested by Altair Engineering Inc.

<i>Valuation Reports:</i>	<i>6/30/17</i>	<i>9/30/17 (estimated)</i>
<u>Income Approach:</u>		
DCF Method - Gordon Growth	5%	0%
DCF Method - Exit Multiple	20%	15%
<u>Market Approach:</u>		
Guideline Public Company	40%	20%
Transaction Approach	35%	30%
Estimated Underwriter Value Indication	<i>Not available</i>	30%
Other	<i>Not applicable</i>	5%
<u>Other Assumptions:</u>		
Discount for Lack of Marketability	7% - 9 months	3% - 3 months
Discount for Lack of Voting Rights	5%	5%
<u>Fair value per share - Class A</u>	\$7.14	\$[****]8
<u>Fair value per share - Class A Without Discount for Lack of Marketability</u>	\$7.70	\$[****]9

The primary reasons for the increase in valuation between the September 2017 Valuation and the June 2017 Valuation are:

- Differences in the valuation methodologies and assumptions used by the underwriters in their valuation analysis discussed with the Company compared to the valuation methodologies and assumptions used in the September 2017 Valuation. The estimated IPO range necessarily assumes that the IPO has occurred and a public market for the Company's Class A common stock has been created, and therefore excludes any marketability or illiquidity discount for the Company's Class A common stock, which was appropriately taken into account in the determination of the fair value of the Class A common stock in the September 2017 Valuation due to the possibility that the Company would not complete an IPO.
- The Company received positive feedback from the investment community in its test-the-waters meetings the week of September 18, 2017. Prior to completion of its test-the-water meetings, the Company had not received a formal valuation proposal and no weighting was given to EUVI.
- Dassault Systemes announced its offer to acquire Exa Corporation, a public company in the same line of business as the Company, on September 28, 2017 for approximately \$400 million or approximately 5x of Exa Corporation's last 12-month revenue.
- The Company demonstrated significant progress in successfully closing the second quarter of 2017 in a timely fashion and filing an amendment to the Draft Registration Statement on August 25, 2017 which included reviewed quarters for the first two quarters in each of 2016 and 2017.

8 [****] – Confidential Treatment Requested by Altair Engineering Inc.

9 [****] – Confidential Treatment Requested by Altair Engineering Inc.

Accordingly, the September 2017 Valuation reflects a change in the weighting of the methodologies and assumptions and includes additional methodologies (EUVI and Other) to reflect the Company's greater visibility as to the timing and valuation of an IPO against the uncertainty of an IPO in 2017.

Conclusion

The Valuation Reports place greater emphasis on the income-based approaches in those situations in which the assumptions are weighted in favor of the Company remaining as a stand-alone entity. In contrast, greater emphasis is placed on market-based approaches as the Company progressed toward a liquidity event. The March 2017 Valuation, the April 2017 Valuation and the June 2017 Valuation reflect an emphasis of 40%, 35%, and 25%, respectively, on the income-based approaches. As of each of these Valuation Reports, the Company placed significant emphasis on staying a stand-alone entity. The Company's ability to close the second quarter of 2017 in a timely fashion, completion of the test-the waters meetings and receipt from the underwriters of a formal valuation proposal underlies the shift of reducing the emphasis on income-based approaches from 25% in the June 2017 Valuation to 15% in the September 2017 Valuation and the increased emphasis on the market-based approaches from 75% in the June 2017 Valuation to 85% in the September 2017 Valuation.

* * * * *

We hereby further request, pursuant to Rule 418(b) under the Securities Act of 1933, as amended, the return of the unredacted version of this letter. The Company believes that the return of the supplemental information contained in this letter will protect the interests of investors and is consistent with the provisions of FOIA by maintaining in confidence the potential valuation of the Company that may, if disseminated, negatively impact the trading in the Class A common stock of the Company following the IPO. The Company advises the Staff that it has not filed the supplemental information subject to this request in electronic format. We have provided a self-addressed envelope for this purpose. Please return this letter to the Company, in care of the undersigned, a responsible representative of the Company. Any questions regarding the contents of this letter should be addressed to the undersigned at (212) 419-5861.

Very truly yours,

/s/ Selim Day

Selim Day

cc: James Scapa, Chief Executive Officer
Howard Morof, Chief Financial Officer
Altair Engineering Inc.

Elizabeth Mandle, Esq.
Lowenstein Sandler LLP

William Schnoor Jr., Esq.
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