UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Altair Engineering Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 38-2591828 (I.R.S. Employer Identification No.)

Altair Engineering Inc.
1820 E. Big Beaver Road
Troy, Michigan 48083
(Address of Principal Executive Offices) (Zip Code)

Altair Engineering Inc. 2001 Non-Qualified Stock Option Plan Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock Option Plan Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan Altair Engineering Inc. 2017 Equity Incentive Plan (Full title of the plans)

> James R. Scapa Chief Executive Officer Altair Engineering Inc. 1820 E. Big Beaver Road Troy, Michigan 48083 (248) 614-2400

 $(Name, address, including \ zip\ code, \ and\ telephone\ number, including\ area\ code, \ of\ agent\ for\ service)$

Please send copies of all communications to:
Selim Day, Esq.
Lowenstein Sandler LLP
1251 Avenue of the Americas
New York, NY 10020
(212) 262-6700

ndicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting compa	ay,
r an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging	
rowth company" in Rule 12b-2 of the Exchange Act. (Check one):	

Large accelerated filer		Accelerated filer	
Non-accelerated filer	☑ (Do not check if a smaller reporting company)	Smaller reporting company	
		Emerging growth company	\boxtimes
	ompany, indicate by check mark if the registrant has elected not to use the extended traing standards provided pursuant to Section $7(a)(2)(B)$ of the Securities Act. \square	nsition period for complying with any new	or

CALCULATION OF REGISTRATION FEE

Title of Securities To Be Registered	Amount To Be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Class A common stock, \$0.0001 par value per share				
— Altair Engineering Inc. 2017 Equity Incentive Plan	6,207,976(2)	\$13.00(3)	\$80,703,688(3)	\$10,047.61
— Altair Engineering Inc. 2001 Non-Qualified Stock Option Plan	6,347,840(4)	\$0.000025(5)	\$158.70(5)	\$0.02
— Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock				
Option Plan	1,190,252(6)	\$0.64(7)	\$761,761.28(7)	\$94.84

— Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock				
Option Plan	2,202,184(8)	\$3.73(9)	\$8,214,146.32(9)	\$1,022.66
TOTAL	15,948,252		\$89,679,754.30	\$11,165.13

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "*Securities Act*"), this Registration Statement shall also cover any additional shares of the Registrant's Class A common stock that become issuable in respect of the securities identified in the above table by reason of any stock dividend, stock split, recapitalization, or other similar transaction effected without the Registrant's receipt of consideration which results in an increase in the number of the outstanding shares of the Registrant's Class A common stock.
- (2) Represents shares of Registrant's Class A common stock reserved for issuance under the Altair Engineering Inc. 2017 Equity Incentive Plan.
- (3) Calculated solely for the purposes of this offering under Rule 457(h) of the Securities Act on the basis of the initial public offering price per share of the Registrant's Class A common stock as set forth in the Registrant's prospectus filed with the Securities and Exchange Commission on or around November 1, 2017 pursuant to Rule 424(b) under the Securities Act.
- (4) Represents shares of Registrant's Class A common stock reserved for issuance upon exercise of stock options outstanding under the Altair Engineering Inc. 2001 Non-Qualified Stock Option Plan (the "2001 NSO Plan") as of the date of this Registration Statement.
- (5) Calculated solely for the purposes of this offering under Rule 457(h) of the Securities Act on the basis of the weighted average exercise price for stock options outstanding under the 2001 NSO Plan granted by the Registrant as of the date of this Registration Statement.
- (6) Represents shares of Registrant's Class A common stock reserved for issuance upon exercise of stock options outstanding under the Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock Option Plan (the "2001 ISO Plan") as of the date of this Registration Statement.
- (7) Calculated solely for the purposes of this offering under Rule 457(h) of the Securities Act on the basis of the weighted average exercise price for stock options outstanding under the 2001 ISO Plan granted by the Registrant as of the date of this Registration Statement.
- (8) Represents shares of Registrant's Class A common stock reserved for stock options outstanding under the Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan (the "2012 Plan") as of the date of this Registration Statement.
- (9) Calculated solely for the purposes of this offering under Rule 457(h) of the Securities Act on the basis of the weighted average exercise price for stock options outstanding under the 2012 Plan granted by the Registrant as of the date of this Registration Statement.

PART I

Information Required in the Section 10(a) Prospectus

The information called for by Part I of Form S-8 is omitted from this Registration Statement on Form S-8 (the "*Registration Statement*") and has been or will be sent or given to participating service providers in accordance with Rule 428 of the Securities Act of 1933, as amended (the "*Securities Act*"), and the instructions to Form S-8. In accordance with the rules and regulations of the Securities and Exchange Commission (the "*Commission*") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

PART II

Information Required in the Registration Statement

Item 3. Incorporation of Documents by Reference.

The following documents filed by Altair Engineering Inc. (the "*Registrant*") with the Commission pursuant to the Securities Act and the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"), are incorporated herein by reference:

- (a) the Registrant's prospectus filed on November 1, 2017 pursuant to Rule 424(b) under the Securities Act relating to the Registration Statement on Form S-1, as amended (Registration No. 333-220710), which contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed; and
- (b) the description of the Registrant's Class A common stock contained in the Registrant's Registration Statement on Form 8-A (Registration No. 001-38263) filed with the Commission on October 27, 2017 under Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act subsequent to the filing of this Registration Statement and prior to the filing of a post-effective amendment, which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing such documents, except as to specific sections of such documents as set forth therein. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in any subsequently filed document, which also is deemed to be incorporated by reference herein, modifies or supersedes such statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents under certain circumstances and subject to certain limitations. The terms of Section 145 of the Delaware General Corporation Law are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act.

As permitted by the Delaware General Corporation Law, the Registrant's certificate of incorporation and bylaws include provisions that eliminate the personal liability of its directors and officers for monetary damages for any breach of their fiduciary duties as directors and officers.

In addition, as permitted by Section 145 of the DGCL, the certificate of incorporation and bylaws provide that:

- the Registrant may indemnify its directors and officers for serving in those capacities or for serving other business enterprises at its request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful;
- the Registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law:
- the Registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification;
- the Registrant will not be obligated pursuant to our Delaware bylaws to indemnify a person with respect to proceedings initiated by that person, except with respect to proceedings authorized by its board of directors or brought to enforce a right to indemnification;
- the rights conferred in the Registrant's certificate of incorporation and bylaws are not exclusive, and it is authorized to enter into indemnification
 agreements with directors, officers, employees, and agents and to obtain insurance to indemnify such persons; and
- the Registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees, and
 agents.

The Registrant's policy is to enter into separate indemnification agreements with each of its directors and certain officers that provide the maximum indemnity allowed to such directors and executive officers by Section 145 of the DGCL and also to provide for certain additional procedural protections. The Registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions in the Registrant's certificate of incorporation, bylaws and the indemnification agreements have been entered into between the Registrant and its directors and officers may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

Reference is also made to the Underwriting Agreement filed with the Form S-1 for the Registrant's initial public offering, which provides for the indemnification of executive officers, directors, the selling stockholders named therein and controlling persons of the Registrant against certain liabilities, including liabilities arising under the Securities Act and otherwise.

The Registrant has purchased and intends to maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions. Prior to the completion of this offering, the Registrant may procure additional insurance to provide coverage to its directors and officers against loss arising from claims relating to, among other things, public securities matters.

See also the undertakings set out in response to Item 9 of this Registration Statement.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

For a list of exhibits, see the Exhibit Index in this Registration Statement, which is incorporated into this Item by reference.

Item 9. Undertakings.

- A. The undersigned Registrant hereby undertakes:
 - (1) to file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement;
 - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and
 - (iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

Provided, *however*, that paragraphs (A)(1)(i) and (A)(1)(ii) of this section shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement;

- (2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and
- (3) to remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of the offering.
- B. The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference into this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- C. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered hereby, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXHIBIT INDEX

Exhibit		Incorporated by Reference			Filed	
Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Herewith
4.1	Certificate of Incorporation, as currently in effect	S-1/A	333-220710	3.1	10/6/2017	
4.2	Bylaws, as currently in effect	S-1/A	333-220710	3.2	10/6/2017	
4.3	Specimen Stock Certificate of the Registrant	S-1/A	333-220710	4.1	10/19/2017	
4.4	Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock Option Plan	S-1	333-220710	10.2	9/29/2017	
4.5	Form of Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock Option Plan Incentive Stock Option Agreement	S-1	333-220710	10.3	9/29/2017	
4.6	Form of Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock Option Plan Stock Restriction and Repurchase Agreement	S-1	333-220710	10.4	9/29/2017	
4.7	Altair Engineering Inc. 2001 Non-Qualified Stock Option Plan	S-1	333-220710	10.5	9/29/2017	
4.8	Form of Altair Engineering Inc. 2001 Non-Qualified Stock Option Plan Non-Qualified Stock Option Agreement	S-1	333-220710	10.6	9/29/2017	
4.9	Form of Altair Engineering Inc. 2001 Non-Qualified Stock Option Plan Stock Restriction Agreement	S-1	333-220710	10.7	9/29/2017	
4.10	Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan	S-1	333-220710	10.8	9/29/2017	
4.11	Form of Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan Option Agreement	S-1	333-220710	10.9	9/29/2017	
4.12	Form of Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan Stock Restriction and Repurchase Agreement	S-1	333-220710	10.10	9/29/2017	
4.13	Form of Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan Stock Restriction and Repurchase Agreement (Directors)	S-1	333-220710	10.11	9/29/2017	
4.14	Altair Engineering Inc. 2017 Equity Incentive Plan and forms of equity agreements thereunder	S-1/A	333-220710	10.12	10/19/2017	
5.1	Opinion of Lowenstein Sandler LLP					X
23.1	Consent of Independent Registered Public Accounting Firm					X
23.2	Consent of Lowenstein Sandler LLP (included in Exhibit 5.1)					X
24.1	Power of Attorney (contained on the signature page of this Registration Statement)					X

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Troy, State of Michigan, on this 3rd day of November, 2017.

ALTAIR ENGINEERING INC.

By: /s/ James R. Scapa

James R. Scapa
Chairman and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints James R. Scapa and Howard N. Morof, and each of them, as his or her true and lawful attorney-in-fact and agent with the full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments to this Registration Statement on Form S-8), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature /s/ James R. Scapa James R. Scapa	Title Chairman, Chief Executive Officer and Director (Principal Executive Officer)	Date November 3, 2017
/s/ Howard N. Morof Howard N. Morof	Chief Financial Officer (Principal Financial and Accounting Officer)	November 3, 2017
/s/ James E. Brancheau James E. Brancheau	Director	November 3, 2017
/s/ Steve Earhart Steve Earhart	Director	November 3, 2017
/s/ Jan Kowal Jan Kowal	Director	November 3, 2017
/s/ Trace Harris Trace Harris	Director	November 3, 2017
/s/ Richard Hart Richard Hart	Director	November 3, 2017

November 3, 2017

Altair Engineering Inc. 1820 E. Big Beaver Road Troy, Michigan 48083

Re: Form S-8 Registration Statement of Altair Engineering Inc.

We have acted as counsel for Altair Engineering Inc., a Delaware corporation (the "Company"), in connection with the Company's Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"). The Registration Statement relates to the registration of an aggregate of 17,683,258 shares (the "Shares") of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), issuable pursuant to awards under: (i) the Altair Engineering Inc. 2001 Incentive and Non-Qualified Stock Option Plan, (ii) the Altair Engineering Inc. 2012 Incentive and Non-Qualified Stock Option Plan, and (iv) the Altair Engineering Inc. 2017 Equity Incentive Plan, (collectively, the "Plans").

In connection with rendering this opinion, we have examined: (i) the Plans; (ii) the Certificate of Incorporation of the Company (the "Certificate"); (iii) the Bylaws of the Company; and (iv) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary as a basis for the opinion hereinafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity of original documents of all documents submitted to us as certified, conformed or photostatic copies and the authenticity of the originals of such latter documents. As to all questions of fact material to these opinions that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that the Shares being registered pursuant to the Registration Statement have been duly authorized and, when issued and delivered upon the grant or exercise of awards in accordance with the terms of the respective Plans, will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the corporate laws of the State of Delaware, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdiction.

We hereby consent to the filing of a copy of this opinion letter as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,
/s/ Lowenstein Sandler LLP
Lowenstein Sandler LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2001 Non-Qualified Stock Option Plan, 2001 Incentive and Non-Qualified Stock Option Plan and 2017 Equity Incentive Plan of Altair Engineering Inc. of our report dated June 16, 2017 (except as to the third paragraph of Note 2, as to which the date is October 6, 2017), with respect to the consolidated financial statements of Altair Engineering Inc. included in its Registration Statement on Form S-1, as amended (File No. 333-220710) and related Prospectus, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Detroit, Michigan November 3, 2017