UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 3 FORM S-1 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)

7372 (Primary Standard Industrial Classification Code Number)

38-2591828 (I.R.S. Employer Identification Number)

1820 E. Big Beaver Road Troy, Michigan 48083 (248) 614-2400

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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)

Copies to:

Selim Day, Esq. Lowenstein Sandler LLP 1251 Avenue of the Americas New York, NY 10020 (212) 262-6700

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this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration
atement number of the earlier effective registration statement for the same offering. \Box
this Commission and effective amondment filed presument to Dula 460/s) under the Consulting Act, should the following how and list the Consulting Act registration etatement number of the configuration.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box:

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. $\hfill\Box$ Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the

definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. Accelerated filer

Large accelerated filer П ☑ (do not check if a smaller reporting company) Non-accelerated filer Smaller reporting company

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

Emerging growth company X If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

Calculation of Registration Fee

		Proposed Maximum	Proposed Maximum	
Title of each Class of Securities to be Registered	Amount to be Registered ⁽¹⁾	Offering Price Per Share ⁽²⁾	Aggregate Offering Price ⁽¹⁾⁽²⁾	Amount of Registration Fee ⁽³⁾
Class A common stock, par value \$0.0001 per share	13,800,000	\$13.00	\$179,400,000	\$21,045.30

- Includes 1,800,000 shares of Class A common stock that the underwriters have the option to purchase
- Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(a) of the Securities Act of 1933, as amended.
- Previously paid.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said section 8(a), may determine.

Explanatory Note

This Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-220710) of Altair Engineering Inc. is being filed solely to file Exhibit 23.1. Accordingly, this Amendment No. 3 consists only of the facing page, this explanatory note, Part II of the Registration Statement, including the signature page, the exhibit index, and Exhibit 23.1 filed herewith. The prospectus is unchanged and has therefore been omitted from this filing.

Part II

Information not required in the prospectus

Item 13. Other expenses of issuance and distribution.

The following table sets forth all fees and expenses to be paid by us, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the registration fee, the FINRA filing fee and the exchange listing fee.

	Amount to be paid
SEC registration fee	21,045
FINRA filing fee	27,410
Securities exchange fee	21,045
Printing and engraving expenses	420,000
Legal fees and expenses	1,900,000
Accounting fees and expenses	1,180,234
Transfer agent and registrar fees and expenses	6,500
Miscellaneous	564,811
Total	\$ 4,120,000

Item 14. Indemnification of directors and officers.

Section 145 of the Delaware General Corporation Law, or DGCL, 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 DGCL are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

As permitted by the DGCL, our certificate of incorporation and bylaws include provisions that eliminate the personal liability of its directors and officers for monetary damages for breach of their fiduciary duty as directors and officers.

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

- we shall indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our 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;
- we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- we are required to advance expenses, as incurred, to our 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;
- we 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 our board of directors or brought to enforce a right to indemnification;

- the rights conferred in our certificate of incorporation and bylaws are not exclusive, and we are authorized to enter into indemnification
 agreements with our directors, officers, employees, and agents and to obtain insurance to indemnify such persons; and
- we may not retroactively amend the bylaw provisions to reduce our indemnification obligations to directors, officers, employees, and agents.

Our policy is to enter into separate indemnification agreements with each of our directors and certain officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the DGCL and also to provide for certain additional procedural protections. We also maintain directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements to be entered into between us and our directors and officers may be sufficiently broad to permit indemnification of our officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

The Underwriting Agreement to be filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of us, our executive officers and directors and the selling stockholders, and by us and the selling stockholders of the underwriters for certain liabilities, including liabilities arising under the Securities Act and otherwise.

We have purchased and intend 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, we may procure additional insurance to provide coverage to our 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 17 herein.

Item 15. Recent sales of unregistered securities.

Set forth below is information regarding shares of our capital stock issued by us within the past three years, giving effect to a four-for-one stock split of our common stock that occurred on October 5, 2017 in connection with becoming a Delaware corporation. Also included is the consideration received by us for such shares and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

Plan-related issuances

- (1) From September 30, 2014 through September 30, 2017, we granted to our directors, officers, employees, consultants and other service providers options to purchase an aggregate of 1,504,668 shares of our old Class B Common Stock with per share exercise prices ranging from \$3.56 to \$5.18 under our 2012 Stock Plan.
- (2) From September 30, 2014 through September 30, 2017, we issued to our directors, officers, employees, consultants and other service providers an aggregate of 342,672 shares of our old Class B Common Stock with per share exercise prices ranging from \$2.48 to \$4.52 pursuant to exercises of options granted under our 2012 Stock Plan.
- (3) From September 30, 2014 through September 30, 2017, we issued to our directors, officers, employees, consultants and other service providers an aggregate of 4,179,484 shares of our old Class B Common Stock with a per share exercise price of \$0.000025 pursuant to exercises of options granted under our 2001 Nonqualified Stock Option Plan.

(4) From September 30, 2014 through September 30, 2017, we issued to our directors, officers, employees, consultants and other service providers an aggregate of 989,048 shares of our old Class B Common Stock with per share exercise prices ranging from \$0.23 to \$1.29 pursuant to exercises of options granted under our 2001 Incentive and Nonqualified Stock-based Plan.

The issuances and grants of the securities described in Items 1 through 4 were exempt from registration under the Securities Act under Rule 701 in that the transactions were made pursuant to compensatory benefit plans and contractors relating to compensation as provided under Rule 701. The recipients of such securities were our employees, consultants or directors. The recipients of securities in each of these transactions represented their intention to acquire the securities for investment only and not with view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions.

Shares issued in connection with acquisitions

- (1) On May 31, 2014, we issued an aggregate of 659,364 shares of our old Class A common stock to the stockholders of EM Software & Systems GmbH and EM Software & Systems (USA) Inc., or the EMSS Entities, as partial consideration for our acquisition of all of the outstanding equity of the EMSS Entities pursuant to the terms of the agreement for stock subscription, purchase and sale and related transactions under which we acquired the EMSS Entities.
- (2) In connection with our acquisition of the EMSS Entities, on May 31, 2014, we issued 14,000 shares of our old Class A Common Stock to an EMSS-affiliated purchaser for an aggregate purchase price of \$55,230.
- (3) From September 10, 2014 to October 14, 2014, we issued an aggregate of 126,636 shares of our old Class A Common Stock to certain EMSS-affiliated purchasers for an aggregate purchase price of \$499,579.02, in connection with the acquisition of the EMSS Entities.
- (4) On August 15, 2014, we issued an aggregate of 160,000 shares of our old Class A Common Stock to the stockholders of Visual Solutions, Inc., or VSI, as partial consideration for our acquisition of all of the outstanding equity of VSI pursuant to the terms of the stock purchase agreement under which we acquired VSI.
- (5) On March 12, 2015, we issued 200,000 shares of our old Class A Common Stock to the sole stockholder of Multiscale Design Systems, LLC, or MDS, as partial consideration for our acquisition of all of the outstanding equity of MDS pursuant to the terms of the membership interest purchase agreement under which we acquired MDS.
- (6) On May 5, 2017, we issued 80,000 shares of our Class A Common Stock to the shareholders of Carriots, S.L., or Carriots, as partial consideration for our acquisition of all of the outstanding equity of Carriots pursuant to the terms of the share purchase agreement under which we acquired Carriots.
- (7) On May 5, 2017, we issued 200,000 shares of our Class A Common Stock to Easii IC SAS, or Easii, as partial consideration for its assignment of all of its rights to some of its software pursuant to the terms of the software assignment agreement under which we acquired the software.
- (8) On September 28, 2017, we issued 708,000 shares of our Class A Common Stock to shareholders of Runtime Design Automation, or Runtime, as partial consideration for the consummation of the merger of our wholly-owned subsidiary, RTDA Acquisition Corporation, into Runtime pursuant to the terms of the agreement and plan of merger under which we acquired Runtime.

The issuances of the securities described in Items 1 through 8 above were exempt from registration under the Securities Act pursuant to Section 4(a)(2) of the Securities Act. We relied on the written representation of the

recipients of the shares as to their statuses as "accredited investors" as defined in Rule 501(a) of Regulation D in the issuances described in items 1 through 8 above. In addition, we relied on an exemption under Rule 506(b) of Regulation D in the issuance described in item 8 above.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. We believe these transactions were exempt from registration under the Securities Act in reliance upon Section 4(a)(2) of the Securities Act (or Regulation D or Regulation S promulgated thereunder), or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and financial statement schedules.

(a) Exhibits:

The exhibit index attached hereto is incorporated herein by reference.

(b) Financial statement schedules.

All schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

- (a) The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.
- (b) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 SEC such indemnification is against public policy as expressed in the 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, 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 Act and will be governed by the final adjudication of such issue.
- (c) The undersigned Registrant hereby undertakes that:
- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

Exhibit index

Exhibit No.	Description
1.1*	Form of Underwriting Agreement
3.1*	Certificate of Incorporation, as currently in effect
3.2*	Bylaws, as currently in effect
4.1*	Specimen Stock Certificate of the Registrant
5.1*	Form of Opinion of Lowenstein Sandler LLP
10.1*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers
10.2+*	2001 Incentive and Non-Qualified Stock Option Plan
10.3+*	Form of 2001 Incentive and Non-Qualified Stock Option Plan Incentive Stock Option Agreement
10.4+*	Form of 2001 Incentive and Non-Qualified Stock Option Plan Stock Restriction and Repurchase Agreement
10.5+*	2001 Non-Qualified Stock Option Plan
10.6+*	Form of 2001 Non-Qualified Stock Option Plan Non-Qualified Stock Option Agreement
10.7+*	Form of 2001 Non-Qualified Stock Option Plan Stock Restriction Agreement
10.8+*	2012 Incentive and Non-Qualified Stock Option Plan
10.9+*	Form of 2012 Incentive and Non-Qualified Stock Option Plan Option Agreement
10.10+*	Form of 2012 Incentive and Non-Qualified Stock Option Plan Stock Restriction and Repurchase Agreement
10.11+*	Form of 2012 Incentive and Non-Qualified Stock Option Plan Stock Restriction and Repurchase Agreement (Directors)
10.12+*	2017 Equity Incentive Plan and forms of equity agreements thereunder
10.13+*	Employment Letter, dated January 10, 2013, by and between the Registrant and Howard N. Morof as amended on July 19, 2017
10.14*	2017 Second Amended and Restated Credit Agreement, dated June 14, 2017, by and among the Registrant, the foreign subsidiary borrowers, the Lenders named therein and JP Morgan Chase Bank, N.A. as administrative agent, as last amended September 28, 2017
10.15+*	Consulting Agreement, effective as of January 1, 2017, by and between the Registrant and Advanced Studies Holding Future SRL, an Italian Company, as amended
10.16*	2017 Third Amended and Restated Credit Agreement, dated October 18, 2017, by and among the Registrant, the foreign subsidiary borrowers, the Lenders named therein and JP Morgan Chase Bank, N.A. as administrative agent
21.1*	List of Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm
23.2*	Consent of Lowenstein Sandler LLP (contained in Exhibit 5.1)
24.1*	Power of Attorney

^{*} Previously filed.

⁺ Indicates management contract or compensatory plan.

Signatures

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Amendment No. 3 to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Troy, State of Michigan, on the 27th day of October, 2017.

ALTAIR ENGINEERING INC.

By: /s/ James R. Scapa

James R. Scapa Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 3 to the registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ James R. Scapa James R. Scapa	Chairman, Chief Executive Officer and Director (Principal Executive Officer)	October 27, 2017
/s/ Howard N. Morof Howard N. Morof	Chief Financial Officer (Principal Financial and Accounting Officer)	October 27, 2017
* James E. Brancheau	Director	October 27, 2017
* Steve Earhart	Director	October 27, 2017
 Jan Kowal	Director	October 27, 2017
* Trace Harris	Director	October 27, 2017
* Richard Hart	Director	October 27, 2017
*By: /s/ James R. Scapa James R. Scapa Attorney-in-Fact		

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use 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), in Amendment No. 2 to the Registration Statement (Form S-1 No. 333-220710) and related Prospectus of Altair Engineering Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Detroit, Michigan October 19, 2017