UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ________ to ________

Commission File Number: 001-38263

ALTAIR ENGINEERING INC.

(Exact name of registrant as specified in its charter)

Delaware	**38-2591828**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1820 East Big Beaver Road, Troy, Michigan	**48083**
(Address of principal executive offices)	(Zip Code)

(248) 614-2400
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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 13(a) of the Exchange Act ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Class A Common Stock $0.0001 par value per share	**ALTR**	**The NASDAQ Stock Market**

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.
On April 22, 2019 there were 39,011,887 shares of the registrant's Class A common stock outstanding and 32,088,924 shares of the registrant's Class B common stock outstanding.

ALTAIR ENGINEERING INC. AND SUBSIDIARIES

FORM 10-Q

FOR THE QUARTER ENDED MARCH 31, 2019

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

ALTAIR ENGINEERING INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(In thousands)	March 31, 2019 (Unaudited)	December 31, 2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 39,771	$ 35,345
Accounts receivable, net	88,358	96,803
Inventory, net	3,389	1,964
Income tax receivable	8,137	4,431
Prepaid expenses and other current assets	15,976	15,491
Total current assets	155,631	154,034
Property and equipment, net	33,524	30,153
Operating lease right of use assets	29,892	—
Goodwill	210,714	210,532
Other intangible assets, net	68,469	69,836
Deferred tax assets	1,978	1,373
Other long-term assets	18,658	17,288
TOTAL ASSETS	$ 518,866	$ 483,216
LIABILITIES, MEZZANINE EQUITY AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current portion of long-term debt	$ 453	$ 331
Accounts payable	6,569	8,357
Accrued compensation and benefits	28,643	31,740
Current portion of operating lease liabilities	9,464	—
Other accrued expenses and current liabilities	31,910	27,565
Deferred revenue	66,030	59,765
Total current liabilities	143,069	127,758
Long-term debt, net of current portion	15,686	31,417
Operating lease liabilities, net of current portion	21,744	—
Deferred revenue, non-current	6,511	6,754
Other long-term liabilities	27,811	28,153
TOTAL LIABILITIES	214,821	194,082
Commitments and contingencies		
MEZZANINE EQUITY	2,352	2,352
STOCKHOLDERS' EQUITY:		
Preferred stock ($0.0001 par value), authorized 45,000 shares, none issued and outstanding	—	—
Common stock ($0.0001 par value)		
Class A common stock, authorized 513,797 shares, issued and outstanding 38,760 and 38,349 shares as of March 31, 2019 and December 31, 2018, respectively	4	4
Class B common stock, authorized 41,203 shares, issued and outstanding 32,171 and 32,171 shares as of March 31, 2019 and December 31, 2018, respectively	3	3
Additional paid-in capital	381,159	379,832
Accumulated deficit	(68,986)	(82,005)
Accumulated other comprehensive loss	(10,487)	(11,052)
TOTAL STOCKHOLDERS' EQUITY	301,693	286,782
TOTAL LIABILITIES, MEZZANINE EQUITY AND STOCKHOLDERS' EQUITY	$ 518,866	$ 483,216

See accompanying notes to consolidated financial statements.

ALTAIR ENGINEERING INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

(in thousands, except per share data)	Three Months Ended March 31, 2019	2018
Revenue		
License	$ 76,621	$ 66,935
Maintenance and other services	26,670	22,734
Total software	103,291	89,669
Software related services	9,772	9,473
Total software and related services	113,063	99,142
Client engineering services	12,050	12,080
Other	2,746	2,035
Total revenue	127,859	113,257
Cost of revenue		
License	5,821	3,730
Maintenance and other services	8,531	7,192
Total software	14,352	10,922
Software related services	6,518	6,709
Total software and related services	20,870	17,631
Client engineering services	9,800	10,200
Other	2,215	1,211
Total cost of revenue	32,885	29,042
Gross profit	94,974	84,215
Operating expenses:		
Research and development	27,516	22,703
Sales and marketing	26,451	18,627
General and administrative	20,329	16,990
Amortization of intangible assets	3,528	1,940
Other operating income	(617)	(2,191)
Total operating expenses	77,207	58,069
Operating income	17,767	26,146
Interest expense	270	16
Other expense (income), net	390	(900)
Income before income taxes	17,107	27,030
Income tax expense	4,088	2,346
Net income	$ 13,019	$ 24,684
Income per share:		
Net income per share attributable to common stockholders, basic	$ 0.18	$ 0.39
Net income per share attributable to common stockholders, diluted	$ 0.17	$ 0.34
Weighted average shares outstanding:		
Weighted average number of shares used in computing net income per share, basic	70,786	63,638
Weighted average number of shares used in computing net income per share, diluted	76,720	72,390

See accompanying notes to consolidated financial statements.

ALTAIR ENGINEERING INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Net income	$ 13,019	$ 24,684
Other comprehensive income, net of tax:		
Foreign currency translation (net of tax effect of $0 and $0, respectively)	337	1,255
Retirement related benefit plans (net of tax effect of $0 and $10, respectively)	228	(12)
Total other comprehensive income	565	1,243
Comprehensive income	$ 13,584	$ 25,927

See accompanying notes to consolidated financial statements.

ALTAIR ENGINEERING INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(Unaudited)

	Common stock				Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity
	Class A		Class B					
(in thousands)	Shares	Amount	Shares	Amount				
Balance at January 1, 2019	38,349	$ 4	32,171	$ 3	$ 379,832	$ (82,005)	$ (11,052)	$ 286,782
Net income	—	—	—	—	—	13,019	—	13,019
Exercise of stock options	397	—	—	—	458	—	—	458
Vesting of restricted stock	14	—	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	869	—	—	869
Foreign currency translation, net of tax	—	—	—	—	—	—	337	337
Retirement related benefit plans, net of tax	—	—	—	—	—	—	228	228
Balance at March 31, 2019	38,760	$ 4	32,171	$ 3	$ 381,159	$ (68,986)	$ (10,487)	$ 301,693

	Common stock				Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity
	Class A		Class B					
(in thousands)	Shares	Amount	Shares	Amount				
Balance at January 1, 2018	26,725	$ 2	36,508	$ 4	$ 232,156	$ (166,499)	$ (5,072)	$ 60,591
Cumulative effect of an accounting change	—	—	—	—	—	70,779	—	70,779
Net income	—	—	—	—	—	24,684	—	24,684
Adjustment for acquisitions	—	—	—	—	(96)	—	—	(96)
Exercise of stock options	632	1	—	—	300	—	—	301
Stock-based compensation	—	—	—	—	216	—	—	216
Foreign currency translation, net of tax	—	—	—	—	—	—	1,255	1,255
Retirement related benefit plans, net of tax	—	—	—	—	—	—	(12)	(12)
Balance at March 31, 2018	27,357	3	36,508	4	232,576	(71,036)	(3,829)	157,718

See accompanying notes to consolidated financial statements.

ALTAIR ENGINEERING INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

(In thousands)	Three Months Ended March 31, 2019	2018
OPERATING ACTIVITIES:		
Net income	$ 13,019	$ 24,684
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	5,194	3,543
Provision for bad debt	120	65
Stock-based compensation expense	1,212	216
Deferred income taxes	(654)	271
Other, net	4	(7)
Changes in assets and liabilities:		
Accounts receivable	7,678	4,492
Prepaid expenses and other current assets	(5,755)	(1,091)
Other long-term assets	(1,516)	116
Accounts payable	(1,792)	510
Accrued compensation and benefits	(2,815)	(1,560)
Other accrued expenses and current liabilities	4,093	(3,545)
Operating lease right-of-use assets and liabilities, net	286	—
Deferred revenue	6,241	(1,005)
Net cash provided by operating activities	25,315	26,689
INVESTING ACTIVITIES:		
Capital expenditures	(4,583)	(1,684)
Payments for acquisition of developed technology	(344)	(353)
Payments for acquisition of businesses, net of cash acquired	—	(1,199)
Other investing activities, net	2	23
Net cash used in investing activities	(4,925)	(3,213)
FINANCING ACTIVITIES:		
Payments on revolving commitment	(68,395)	—
Borrowings under revolving commitment	52,289	—
Proceeds from the exercise of stock options	458	302
Payments for initial public offering costs	—	(186)
Other financing activities	(119)	(111)
Net cash (used in) provided by financing activities	(15,767)	5
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(176)	495
Net increase in cash, cash equivalents and restricted cash	4,447	23,976
Cash, cash equivalents and restricted cash at beginning of year	35,685	39,578
Cash, cash equivalents and restricted cash at end of period	$ 40,132	$ 63,554
Supplemental disclosure of cash flow:		
Interest paid	$ 225	$ 10
Income taxes paid	$ 2,327	$ 2,143
Supplemental disclosure of non-cash investing and financing activities:		
Finance leases	$ 488	$ 565
Property and equipment in accounts payable	$ 295	$ 736

See accompanying notes to consolidated financial statements.

1. Organization and description of business

Altair Engineering Inc. ("Altair" or the "Company") is incorporated in the state of Delaware. The Company is a global technology company providing software and cloud solutions in the areas of product design and development, high performance computing and data intelligence. Altair enables organization across broad industry segments to complete more effectively in a connected world while creating a more sustainable future. The Company is headquartered in Troy, Michigan.

2. Accounting policies

Basis of presentation

The accompanying unaudited consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles ("GAAP") and applicable rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial information. Accordingly, the accompanying statements do not include all the information and notes required by GAAP for complete financial statements. The accompanying unaudited consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements (and notes thereto) for the year ended December 31, 2018, included in the most recent Annual Report on Form 10-K filed with the SEC. In the opinion of management, all adjustments considered necessary for a fair presentation of the financial statements have been included, and all adjustments are of a normal and recurring nature. The preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosures of contingent assets and liabilities at the date of the financial statements, and reported amounts of revenue and expenses during the reporting periods. Considerable judgment is often involved in making these determinations; use of different assumptions could result in significantly different results. Management believes its assumptions and estimates are reasonable and appropriate. However, actual results may differ from those estimates. In addition, the results of operations for the three months ended March 31, 2019, are not necessarily indicative of the results that may be expected for any future period.

The Company adopted Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842),* and its related amendments, on January 1, 2019. See Note 3 – Recent accounting guidance and Note 9 – Leases for additional information. There have been no other material changes to Altair's significant accounting policies as compared to the significant accounting policies described in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

Adoption of ASC 606, *Revenue from Contracts with Customers*

In the fourth quarter of fiscal 2018, the Company adopted ASC 606 effective on January 1, 2018, using the modified retrospective approach for all contracts not completed as of the date of adoption. Results for the three months ended March 31, 2018, have been modified to reflect the adoption of ASC 606 on January 1, 2018.

The Company recorded a decrease to accumulated deficit of $84.6 million, or $70.8 million net of tax, on January 1, 2018, due to the cumulative effect of the ASC 606 adoption, with the impact primarily derived from revenue related to software licenses recognized at a point in time under ASC 606 that were historically recognized over time. There was no impact on Client Engineering Services or Other revenue upon the adoption of ASC 606.

The Company has concluded that all material transactions that have occurred that require disclosure or adjustments to the consolidated financial statements have been reported herein.

Reclassifications

Certain prior period amounts included in the 2018 consolidated statement of operations has been reclassified to conform to the current year presentation.

Use of estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, and reported amounts of revenue and expenses during the reporting periods. On an ongoing basis, management evaluates its significant estimates including the stand alone selling price, or SSP, for each distinct performance obligation included in customer contracts with multiple performance obligations, the incremental borrowing rate used in the valuation of lease liabilities, the determination of the period of benefit for capitalized costs to obtain a contract, provision for doubtful accounts, tax valuation allowances, liabilities for uncertain tax provisions, impairment of goodwill and intangible assets, retirement obligations, useful lives of intangible assets, revenue for fixed price contracts, valuation of common stock, and stock-based compensation. Actual results could differ from those estimates.

Cash, cash equivalents and restricted cash

The Company considers all highly liquid investments with original or remaining maturities of 90 days or less at the date of purchase to be cash equivalents. Cash and cash equivalents are recorded at cost, which approximates fair value.

Restricted cash is included in other long-term assets on the consolidated balance sheets. The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the consolidated balance sheet that sum to the total of the amounts reported in the consolidated statement of cash flows (in thousands):

	March 31, 2019	December 31, 2018
Cash and cash equivalents	$ 39,771	$ 35,345
Restricted cash included in other long-term assets	361	340
Total cash, cash equivalents, and restricted cash shown in the statement of cash flows	$ 40,132	$ 35,685

Restricted cash represents amounts required for a contractual agreement with an insurer for the payment of potential health insurance claims, and term deposits for bank guarantees.

Inventory

Inventory consist of finished goods and is stated at the lower of cost and net realizable value. Cost is determined using the first-in, first-out method. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonable predictable costs of completion, disposal and transportation. The valuation of inventory requires management to estimate excess inventory as well as inventory that is not of saleable quality. The determination of obsolete or excess inventory requires management to estimate market conditions and future demand for the Company’s products.

Receivable for French R&D credit

The French government provides a research and development (“R&D”) tax credit known as Credit Impôt Recherche, or CIR, in order to encourage Companies to invest in R&D activities. The tax credit is deductible from French income tax and any excess is carried forward three years. After three years, any unused credit may be reimbursed to the Company by the French government. As of March 31, 2019, the Company had approximately $11.1 million receivable from the French government related to CIR, of which $1.4 million was recorded in income tax receivable and the remaining $9.7 million was recorded in other long-term assets. As of December 31, 2018, the Company had approximately $11.7 million receivable from the French government related to CIR, of which $2.6 million was recorded in income tax receivable and the remaining $9.1 million was recorded in other long-term assets. CIR is subject to customary audit by French tax authorities.

Mezzanine equity

In 2017, the Company issued 200,000 shares of Class A common stock to a third party as partial consideration for the purchase of developed technology. These shares have a put right that can be exercised by the holder five years from date of purchase at $12.50 per share that requires the shares to be recorded at fair value at the issuance date and classified as mezzanine equity in the consolidated balance sheet. The put right option is terminated if the shareholders sell their shares. As of December 31, 2017, the

Company concluded that it is no longer probable that the put option will be exercised as the put value is substantially below market value and subsequent adjustment is not required.

Classification of the of instrument shall remain as mezzanine equity until one of the following three events take place: (1) shares are sold on the open market; (2) a redemption feature lapses; or (3) there is a modification of the terms of the instrument. As none of these events have taken place as of March 31, 2019, the classification remains as mezzanine equity.

Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use (“ROU”) assets, current portion of operating lease liabilities, and operating lease liabilities, net of current portion on the Company’s consolidated balance sheets. Finance leases are included in property and equipment, current portion of long-term debt, and long-term debt, net of current portion on the consolidated balance sheets.

Income per share

Basic income per share attributable to common stockholders is computed using the weighted average number of shares of common stock outstanding for the period, excluding stock options and restricted stock units (“RSUs”). Diluted income per share attributable to common stockholders is based upon the weighted average number of shares of common stock outstanding for the period and potentially dilutive common shares, including the effect of stock options and RSUs under the treasury stock method. The following table sets forth the computation of the numerators and denominators used in the basic and diluted income per share amounts (in thousands, except per share data):

	Three Months Ended March 31,	
	2019	2018
Numerator:		
Net income	$ 13,019	$ 24,684
Denominator:		
Denominator for basic income per share—weighted average shares	70,786	63,638
Effect of dilutive securities, stock options and RSUs	5,934	8,752
Denominator for dilutive income per share	76,720	72,390
Net income per share attributable to common stockholders, basic	$ 0.18	$ 0.39
Net income per share attributable to common stockholders, diluted	$ 0.17	$ 0.34

The computation of diluted income per share does not include shares that are anti-dilutive under the treasury stock method because their exercise prices are higher than the average fair value of the Company’s stock during the period or due to a net loss in the period. For each of the three months ended March 31, 2019 and 2018, there were no anti-dilutive shares excluded from the computation of income per share.

3. Recent accounting guidance

Accounting standards adopted

Leases —In February 2016, the Financial Accounting Standard Board, or “FASB”, issued Accounting Standards Update, or “ASU”, No. 2016-02, *Leases (ASC 842)*. This standard amends various aspects of existing accounting guidance for leases, including the recognition of a right-of-use (ROU) asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. The Company adopted ASU 2016-02 and its related amendments, on January 1, 2019 and elected the optional transition method and the package of practical expedients on adoption. Accordingly, the prior period comparative information has not been restated and continues to be reported under the accounting guidance in effect for those periods (ASC 840), including the disclosure requirements. The most significant impact of the adoption of ASC 842 was the recognition of ROU assets and lease liabilities for operating leases on the Company’s consolidated balance sheet. On adoption, the Company recognized operating liabilities associated with leases of $30.1 million and corresponding ROU assets of $29.1 million, based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases. See Note 9 – Leases for further discussion. The Company’s accounting for finance leases (previously referred to as capital leases prior to the adoption of ASC 842) remained substantially unchanged. The standard had no impact on the Company’s consolidated net income or cash flows.

Derivatives and Hedging – In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities.* This ASU amends the guidance with the objective of improving the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. In addition, this ASU amends the current guidance to simplify the application of the hedge accounting guidance. The Company adopted ASU 2017-12 on January 1, 2019. The adoption of this guidance did not have a material effect on the Company's consolidated financial statements.

Comprehensive Income – In February 2018, the FASB issued ASU 2018-02, *Income Statement — Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (AOCI)*, which gives entities the option to reclassify to retained earnings the tax effects resulting from the Tax Cuts and Jobs Act, or the "Tax Act", related to items in AOCI that the FASB refers to as having been stranded in AOCI. The Company adopted this guidance on January 1, 2019 and elected not to reclassify amounts stranded in AOCI. The Company reclassifies taxes from AOCI to earnings as the items to which the tax effects relate are similarly reclassified. The adoption of ASU 2018-02 did not have a material effect on the Company's consolidated financial statements.

Stock Compensation – In June 2018, the FASB issued ASU 2018-07, *Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting.* This ASU simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. The Company adopted this guidance on January 1, 2019, which did not have a material effect on the Company's consolidated financial statements.

Accounting standards not yet adopted

Credit Losses – In June 2016, the FASB issued ASU 2016-13, *Financial Instruments — Credit* Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. The ASU significantly changes how entities will measure credit losses on most financial assets. This guidance is effective for annual periods beginning after 15 December 2019, and interim periods therein; early adoption is permitted. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

Goodwill Impairment —In January 2017, the FASB issued ASU No. 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which simplifies accounting for goodwill impairments by eliminating step two from the goodwill impairment test. This guidance is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim and annual goodwill impairment tests performed on testing dates after January 1, 2017. The new standard must be applied on a prospective basis. The adoption of this guidance is not expected to have a material impact on the Company's consolidated financial statements.

Fair Value – In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement.* This ASU modifies the disclosure requirements for fair value measurements, by removing, modifying, or adding certain disclosures. The amendments are effective for fiscal years, and interim reporting periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted for any removed or modified disclosures. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements and related disclosures.

Retirement Benefits – In August 2018, the FASB issued ASU 2018-14, *Compensation – Retirement Benefits- Defined Benefit Plans – General (Subtopic 715-20): Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans.* This ASU modifies the disclosure requirements for defined benefit pension or other postretirement plans. The amendments are effective for fiscal years ending after December 15, 2020; early adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's consolidated financial statements.

Intangibles – In August 2018, the FASB issued ASU 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract.* This ASU clarifies and aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The amendments are effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years; early adoption is permitted. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements and related disclosures.

4. Revenue from contracts with customers

Revenue recognition

Software revenue

Revenue is derived principally from the licensing of software products and from related maintenance contracts. The Company enters into contracts that include combinations of products, maintenance and services, which are accounted for as separate performance obligations with differing revenue recognition patterns.

Revenue from term-based software licenses is classified as software revenue. Term-based licenses are sold only as a bundled arrangement that includes the rights to a term software license and post-contract customer support (PCS), which includes unspecified technical enhancements and customer support. Maximizing the use of observable inputs, the Company determined that a majority of the estimated standalone selling prices of the term-based license is attributable to the term license and a minority is attributable to the PCS. The license component is classified as license revenue and recognized as revenue upon the later of delivery of the licensed product or the beginning of the license period. PCS is classified as maintenance and other services and is recognized ratably over the term of the contract, as the Company provides the PCS benefit over time as a stand ready to perform obligation.

In addition to term-based software licenses, the Company sells perpetual licenses. Software revenue is recognized upon the later of delivery of the licensed product or the beginning of the license period. Typically, the Company’s perpetual licenses are sold with PCS. The Company allocates value in bundled perpetual and PCS arrangements based on the value relationship between the software license and maintenance. Revenue from PCS is classified as maintenance and other services and is recognized ratably over the term of the contract, as the Company satisfies the PCS performance obligation over time as a stand ready to perform obligation.

Revenue from training, consulting and other services is recognized as the services are performed, and is classified as maintenance and other services in the consolidated statement of operations. For contracts in which the service consists of a single performance obligation, such as providing a training class to a customer, the Company recognizes revenue upon completion of the performance obligation. For service contracts that are longer in duration and often include multiple performance obligations (for example, point-in-time training and consulting), the Company measures the progress toward completion of the obligations and recognizes revenue accordingly. In measuring progress towards the completion of performance obligations, the Company typically utilizes output-based estimates for services with fixed fee arrangements, and estimates output based on the total tasks completed as compared to the total tasks required for each contract. Input-based estimates are utilized for services that involve general consultations with contractual billing arrangements based on time and materials, utilizing direct labor as the input measure.

The Company also executes arrangements through indirect channel partners in which the channel partners are authorized to market and distribute the Company's software products to end users of the Company's products and services in specified territories. In sales facilitated by channel partners, the channel partner bears the risk of collection from the end-user customer. The Company recognizes revenue from transactions with channel partners when the channel partner submits a purchase commitment, collectability from the channel partner is probable, and the performance obligation is met, at a point in time or over time as appropriate, provided that all other revenue recognition criteria are satisfied. Revenue from channel partner transactions is the amount remitted to the Company by the channel partners. This amount includes a fee for PCS that is compensation for providing technical enhancements and the second level of technical support to the end user, which is recognized over the period that PCS is to be provided. The Company does not offer right of return, product rotation, or price protection to any of its channel partners.

Non-income related taxes collected from customers and remitted to governmental authorities are recorded on the consolidated balance sheet as accounts receivable, net and other accrued expenses and current liabilities. These amounts are reported on a net basis in the consolidated statements of operations and do not impact reported revenues or expenses.

Significant judgments

Software revenue

The Company’s contracts with customers typically include promises to transfer licenses and services to a customer. Judgment is required to determine if the promises are separate performance obligations within the context of the arrangement, and if so, the allocation of the transaction price to each performance obligation. The Company’s determination of standalone selling price for performance obligations is based on the midpoint of the range of historical observable prices for goods and services sold separately. In addition, the Company estimates the standalone selling price for certain performance obligations where observable

prices are not directly available or a significant portion of historical prices are not within the range. The Company estimates standalone selling price at contract inception considering all information that is reasonably available and is based on the amount of consideration for which the Company expects to be entitled in exchange for transferring the promised good or service to the customer. The corresponding revenues are recognized as the related performance obligations are satisfied.

The Company's contracts do not include a significant financing component requiring adjustment to the transaction price. Payment terms vary by contract type; however, arrangements typically stipulate a requirement for the customer to pay within 30 days.

The Company rarely enters into agreements to modify previously executed contracts, which constitute contract modifications. The Company assesses each of these contract modifications to determine (i) if the additional products and services are distinct from the products and services in the original arrangement; and (ii) if the amount of consideration expected for the added products and services reflects the stand-alone selling price of those products and services, as adjusted for contract-specific circumstances. A contract modification meeting both criteria is accounted for as a separate contract. A contract modification not meeting both criteria is considered a change to the original contract and is accounted for on either (i) a prospective basis as a termination of the existing contract and the creation of a new contract; or (ii) a cumulative catch-up basis. Generally, the Company's contract modifications meet both criteria and are accounted for as a separate contract, as adjusted for contract-specific circumstances.

Software related services revenue

Consulting services from product design and development projects are considered distinct performance obligations and are provided to customers on a time-and-materials ("T&M") or fixed-price basis. Altair recognizes software services revenue for T&M contracts based upon hours worked and contractually agreed-upon hourly rates using the input method. Revenue from fixed-price engagements is recognized using the output method based on the ratio of costs incurred, to the total estimated project costs.

Client engineering services and Other revenue

Client engineering services revenue are derived from professional services for staffing primarily representing engineers and data scientists located at a customer site. These professional services are considered distinct performance obligations and are provided to customers on a T&M basis. The Company recognizes this revenue for T&M contracts based upon hours worked and contractually agreed-upon hourly rates using the input method. No significant judgments were made for revenue recognition within Other revenue.

Disaggregation of revenue

The Company disaggregates its software revenue by type of performance obligation and timing of revenue recognition as follows (in thousands):

	Three Months Ended March 31,	
	2019	2018
Software revenue:		
Term licenses	$ 65,057	$ 57,165
Perpetual licenses	11,564	9,770
Maintenance	22,752	20,828
Professional services and other	3,918	1,906
Total software revenue	$ 103,291	$ 89,669

The Company derived approximately 10% of its total revenue through indirect sales channels for the three months ended March 31, 2019 and 2018.

For the three months ended March 31, 2019 and 2018, respectively, software related services revenue of $9.8 million and $9.5 million, client engineering services of $12.1 million and $12.1 million, and other revenue of $2.7 million and $2.0 million, were categorized based on the nature and timing of revenue and cash flows effected by economic factors.

Costs to obtain a contract

The Company pays commissions for new software product and PCS sales as well as for renewals of existing software and PCS contracts. Commissions paid to obtain renewal contracts are not commensurate with the commissions paid for new product sales and therefore, a portion of the commissions paid for new contracts relate to future renewals.

The Company accounts for new product sales commissions using a portfolio approach and allocates the cost of commissions in proportion to the allocation of transaction price of license and PCS performance obligations. Commissions allocated to the license and license renewal components are expensed at the time the license revenue is recognized. Commissions allocated to PCS are capitalized and amortized on a straight-line basis over a period of four years, reflecting the Company's estimate of the expected period that it will benefit from those commissions. As of March 31, 2019 and December 31, 2018, capitalized costs to obtain a contract were $2.2 million and $2.0 million, respectively, recorded in prepaid and other current assets, and $0.5 million and $0.2 million, respectively, recorded in other long-term assets. Amortization expense was $1.0 million and $0.9 million for the three months ended March 31, 2019 and 2018, respectively, and was included in sales and marketing expense in the Company's consolidated statement of operations.

Contract assets

At March 31, 2019 and December 31, 2018, contract assets were $5.9 million and $3.7 million, respectively, and are included in accounts receivable in the consolidated balance sheets.

Deferred revenue

Deferred revenue consists of billings made or payments received in advance of revenue recognition from software license, PCS and professional services agreements. The timing of revenue recognition may differ from the timing of billings to customers. Payment terms vary by the type and location of customer and the products or services offered. The term between invoicing and when payment is due is not significant. The Company generally invoices its customers annually for the forthcoming year of software licenses, and more frequently for other products and services. Accordingly, the Company's deferred revenue balance does not include revenue for future years of multiple year non-cancellable contracts that have not yet been billed. Approximately $30.4 million of revenue recognized during the three months ended March 31, 2019, was included in the deferred revenue balances at the beginning of the year.

5. Acquisitions

Datawatch Corporation

On November 5, 2018, the Company entered into an Agreement and Plan of Merger ("Merger Agreement") with Datawatch Corporation, a Delaware corporation ("Datawatch"), and Dallas Merger Sub, Inc., a Delaware corporation ("Purchaser") and a wholly owned subsidiary of the Company. Pursuant to the Merger Agreement, the Purchaser commenced a tender offer to purchase all of the issued and outstanding shares of Datawatch common stock, (the "Shares") at a purchase price of $13.10 per share, net to seller in cash, without interest and less any applicable withholding taxes (the "Offer").

On December 13, 2018, the Company accepted and paid for all Shares that were validly tendered and completed the acquisition of Datawatch through the merger of Purchaser with and into Datawatch, with Datawatch surviving as a wholly owned subsidiary of the Company.

Altair completed the acquisition of Datawatch for consideration of approximately $183.4 million which consisted of consideration paid to former holders of common stock of Datawatch at $13.10 a share, or $168.2 million and approximately $6.7 million to former holders of outstanding Datawatch equity awards. In addition, Altair paid $8.0 million on the day of closing to settle all of Datawatch's outstanding debt and incurred a liability of approximately $0.5 million payable to former holders of certain unvested Datawatch equity awards for which service had been rendered at the acquisition date. Altair financed the acquisition with cash on hand and a drawdown from its existing credit facility.

The financial results of Datawatch have been included in the consolidated financial statements since the acquisition date.

The acquisition of Datawatch has been accounted for as a business combination, under the acquisition method of accounting, which results in acquired assets and assumed liabilities being measured at their estimated fair values as of December 13, 2018, the acquisition date. As of the acquisition date, goodwill is measured as the excess of consideration transferred, which is also generally measured at fair value of the net acquisition date fair values of the assets acquired and liabilities assumed.

The following table summarizes the preliminary purchase consideration transferred to acquire Datawatch and the amounts of identified assets acquired and liabilities assumed at the acquisition date (in thousands):

Fair value of consideration transferred	$	183,427
Recognized amounts of identifiable assets acquired and liabilities assumed:		
Cash		8,278
Accounts receivable		10,384
Other assets		3,055
Property and equipment		980
Trade names		7,400
Developed technology (6-year life)		22,900
Customer relationships (10-year life)		16,700
Accounts payable and other liabilities		(5,041)
Deferred revenue		(4,100)
Other long-term liabilities		(8,362)
Total net identifiable assets acquired and liabilities assumed		52,194
Goodwill (1)	$	131,233

(1) Goodwill is primarily attributable to market synergies expected to arise after the acquisition and approximately $0.8 million is deductible for tax purposes. All goodwill is recorded in the Software segment.

The excess of preliminary purchase consideration over the preliminary fair value of net tangible and identifiable intangible assets acquired was recorded as goodwill. The preliminary fair values assigned to tangible and identifiable intangible assets acquired and liabilities assumed are based on management's estimates and assumptions. The deferred tax liability established was primarily a result of the difference in the book basis and tax basis related to the identifiable intangible assets. The preliminary estimated fair values of assets acquired and liabilities assumed, including current and noncurrent income taxes payable and deferred taxes, customer contract assets and liabilities and identifiable intangible assets may be subject to change as additional information is received and certain tax returns are finalized. Thus, the provisional measurements of fair value set forth above are subject to change. The primary areas that remain preliminary relate to the fair value of intangible assets acquired, certain tangible assets and liabilities acquired, income taxes and residual goodwill.

SIMSOLID Corporation

In October 2018, the Company acquired all of the outstanding capital stock of SIMSOLID Corporation, a Canadian corporation ("SIMSOLID"), for aggregate consideration of $22.1 million. The allocation of fair value of purchase consideration was finalized in the current quarter and there were no changes to the fair value of assets acquired and liabilities assumed, as previously reported.

6. Property and equipment, net

Property and equipment consisted of the following (in thousands):

		March 31, 2019		December 31, 2018
Land	$	7,994	$	7,994
Building and improvements		13,172		13,120
Computer equipment and software		35,189		34,582
Office furniture and equipment		8,201		7,958
Leasehold improvements		8,128		6,926
Right-of-use assets under finance leases		2,527		—
Total property and equipment		75,211		70,580
Less: accumulated depreciation and amortization		41,687		40,427
Property and equipment, net	$	33,524	$	30,153

Depreciation expense, including amortization of ROU assets under finance leases, was $1.7 million and $1.6 million for the three months ended March 31, 2019 and 2018, respectively.

7. Goodwill and other intangible assets

Goodwill

The changes in the carrying amount of goodwill, which is attributable to the Software reporting segment, were as follows (in thousands):

Balance at December 31, 2018	$	210,532
Effects of foreign currency translation and other		182
Balance at March 31, 2019	$	210,714

Other intangible assets

A summary of other intangible assets is shown below (in thousands):

	March 31, 2019						
	Weighted average amortization period		Gross carrying amount		Accumulated amortization		Net carrying amount
Definite-lived intangible assets:							
Developed technology	4-6 years	$	56,281	$	17,912	$	38,369
Customer relationships	7-10 years		28,699		8,307		20,392
Other intangibles	10 years		212		56		156
Total definite-lived intangible assets			85,192		26,275		58,917
Indefinite-lived intangible assets:							
Trade names			9,552				9,552
Total other intangible assets		$	94,744	$	26,275	$	68,469

	December 31, 2018						
	Weighted average amortization period		Gross carrying amount		Accumulated amortization		Net carrying amount
Definite-lived intangible assets:							
Developed technology	4-6 years	$	54,530	$	15,517	$	39,013
Customer relationships	7-10 years		28,422		7,309		21,113
Other intangibles	10 years		109		56		53
Total definite-lived intangible assets			83,061		22,882		60,179
Indefinite-lived intangible assets:							
Trade names			9,657				9,657
Total other intangible assets		$	92,718	$	22,882	$	69,836

Amortization expense related to intangible assets was $3.5 million and $1.9 million for the three months ended March 31, 2019 and 2018, respectively.

8. Debt

The carrying value of debt is as follows (in thousands):

	March 31, 2019	December 31, 2018
Revolving credit facility	$ 14,844	$ 30,950
Obligations for finance leases	1,328	813
Other borrowings	50	75
Total debt	16,222	31,838
Less: unamortized debt issuance costs	83	90
Less: current portion of long-term debt	453	331
Long-term debt, net of current portion	$ 15,686	$ 31,417

Credit agreement

Revolving credit facility

The Company has a revolving credit facility with a syndicate of lenders and Altair Engineering Inc.as borrower ("2017 Credit Agreement"). The 2017 Credit Agreement provides for an aggregate commitment amount of $150.0 million, with a sublimit for the issuance of letters of credit of up to $5.0 million and a sublimit for swingline loans of up to $5.0 million. The 2017 Credit Agreement matures on October 18, 2022. The 2017 Credit Agreement provides for an accordion feature that allows the Company to expand the size of the revolving line of credit by an additional $50.0 million, subject to certain conditions, by obtaining additional commitments from the existing lenders or by causing a person acceptable to the administrative agent to become a lender (in each case subject to the terms and conditions set forth in the 2017 Credit Agreement).

As of March 31, 2019, the Company had $14.8 million of outstanding borrowings under the 2017 Credit Agreement and there was $135.2 million available for future borrowing. The 2017 Credit Agreement is available for general corporate purposes, including working capital, capital expenditures, and permitted acquisitions.

Borrowings under the 2017 Credit Agreement bear interest at a rate per annum equal to an agreed upon applicable margin plus, at the Company's option, either the Alternate Base Rate (defined as the greatest of (1) the Prime Rate (as defined in the 2017 Credit Agreement) in effect on such day, (2) the Federal Funds Effective Rate (as defined in the 2017 Credit Agreement) in effect on such day plus 1/2 of 1.00% or (3) the Adjusted LIBO Rate (as defined in the 2017 Credit Agreement) for a one month interest period on such day (or if such day is not a business day, the immediately preceding business day) plus 1.00%) or the Adjusted LIBO Rate. The applicable margin for borrowings under the 2017 Credit Agreement is based on the Company's most recently tested consolidated total net leverage ratio and will vary from (a) in the case of Eurodollar loans, 1.25% to 2.00%, and (b) in the case of ABR loans and swingline loans, 0.25% to 1.00%. The Company pays a commitment fee (based on the Company's most recently tested consolidated total net leverage ratio) ranging from 0.15% to 0.30% on the unused portion of the 2017 Credit Agreement.

Collateral and guarantees

The 2017 Credit Agreement is secured by collateral including (i) substantially all of the Company's properties and assets, and the properties and assets of the Company's direct and indirect domestic subsidiaries but excluding any patents, copyrights, patent applications or copyright applications or any trade secrets or software products and (ii) pledges of the equity interests in all present and future direct and indirect domestic subsidiaries (subject in each case to certain exceptions as provided for under the 2017 Credit Agreement). The Company's direct and indirect domestic subsidiaries are guarantors of all the obligations under the 2017 Credit Agreement.

Debt covenants

The 2017 Credit Agreement requires the Company to maintain the following financial covenants:

- *Maximum Net Leverage Ratio*: Commencing with the fiscal quarter ending December 31, 2017 and on the last day of each fiscal quarter thereafter, the Company on a consolidated basis will not permit the ratio of total indebtedness (net of unrestricted domestic cash in excess of $20.0 million) to EBITDA, as such terms are defined in the 2017 Credit Agreement, for the rolling four quarter period ending on such date to be greater than 3.00 to 1.00 as of the last day of any such fiscal quarter.

- *Consolidated Interest Coverage Ratio*: Commencing with the fiscal quarter ending December 31, 2017 and on the last day of each fiscal quarter thereafter, the Company on a consolidated basis will not permit the ratio of (x) EBITDA to (y) cash Consolidated Interest Expense, as such terms are defined in the 2017 Credit Agreement, in each case for the rolling four quarter period ending on such date, to be less than 3.00 to 1.00 as of the last day of any such fiscal quarter.

At March 31, 2019 the Company was in compliance with all the financial covenants.

9. Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease assets and operating lease obligations on the Company's consolidated balance sheets. Finance leases are included in property and equipment, current portion of long-term debt, and long-term debt on the consolidated balance sheets.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments under the lease. Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. At commencement date, the ROU asset also includes adjustments for lease prepayments, lease incentives received and the lessee's initial direct costs, if applicable. As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of future payments. The incremental borrowing rates are determined using rates specific to the term of the lease, economic environments where lease activity is concentrated, value of lease portfolio, and assuming full collateralization of the loans. Subsequent to the commencement date, the operating ROU asset is equal to the remeasured lease liability adjusted for cumulative prepaid or accrued rent if the lease payments are uneven throughout the lease term, unamortized lease incentives, unamortized initial direct costs and any impairment of the ROU assets. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease cost for minimum lease payments is recognized on a straight-line basis over the lease term.

The Company has elected not to recognize a lease liability or ROU asset for short-term leases (leases with a term of twelve months or less). For contracts with lease and non-lease components, the Company has elected not to allocate the contract consideration, and account for the lease and non-lease components as a single lease component.

The Company's operating leases consist of office facilities, office equipment and cars and the Company's finance leases consist of office equipment and cars. The Company's leases have remaining terms of less than one year to 8.7 years, some of which include one or more options to renew, with renewal terms up to six years and some of which include options to terminate the leases within the next four years.

The components of lease cost for the three months ended March 31, 2019, were as follows (in thousands):

Operating lease cost	$	3,424
Finance lease cost:		
Amortization of ROU assets	$	121
Interest on lease liabilities		5
Total finance lease cost	$	126

Operating lease cost includes short-term leases and variable lease costs, which are immaterial. Rent cost related to operating leases for office facilities was $3.1 million and $2.3 million for the three months ended March 31, 2019 and 2018, respectively.

Supplemental balance sheet information related to lease liabilities at March 31, 2019, was as follows:

(in thousands, except lease term and discount rate)		
Operating leases:		
Operating lease ROU assets	$	29,892
Current portion of operating lease liabilities	$	9,464
Operating lease liabilities, net of current portion		21,744
Total operating lease liabilities	$	31,208
Weighted average remaining lease term		4.3 years
Weighted average discount rate		5.4%
Finance leases:		
Property and equipment	$	2,527
Accumulated depreciation		(998)
Property and equipment, net	$	1,529
Current portion of long-term debt	$	402
Long-term debt, net of current portion		925
Total finance lease liabilities	$	1,327
Weighted average remaining lease term		3.3 years
Weighted average discount rate		3.5%

Supplemental cash flow information related to leases for the three months ended March 31, 2019, was as follows (in thousands):

Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$	2,709
Operating cash flows from finance leases	$	13
Financing cash flows from finance leases	$	94
ROU assets obtained in exchange for lease obligations:		
Operating leases	$	5,062
Finance leases	$	488

Maturities of operating lease liabilities at March 31, 2019, were as follows (in thousands):

Year ending December 31,		
2019 (excluding the three months ended March 31, 2019)	$	9,177
2020		9,783
2021		6,754
2022		4,679
2023		2,816
Thereafter		3,559
Total lease payments		36,768
Less: imputed interest		5,560
Total operating lease liabilities	$	31,208

Total obligations for finance leases, previously referred to as capital leases prior to the adoption of Topic 842 on January 1, 2019, were $0.8 million at December 31, 2018.

10. Other liabilities

The following table provides the details of other accrued expenses and current liabilities (in thousands):

	March 31, 2019	December 31, 2018
Income taxes payable	$ 11,138	$ 4,458
Accrued VAT	5,150	4,536
Accrued royalties	3,381	2,613
Accrued professional fees	2,595	3,165
Government grants	909	915
Defined contribution plan liabilities	786	1,376
Billings in excess of cost	578	1,504
Other current liabilities	7,373	8,998
Total	$ 31,910	$ 27,565

The following table provides details of other long-term liabilities (in thousands):

	March 31, 2019	December 31, 2018
Pension and other post retirement liabilities	$ 9,327	$ 9,111
Deferred tax liabilities	7,636	7,736
Other liabilities	10,848	11,306
Total	$ 27,811	$ 28,153

11. Fair value measurements

The accounting guidance for fair value, among other things, defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The framework for measuring fair value consists of a three-level valuation hierarchy that prioritizes the inputs to valuation techniques used to measure fair value based upon whether such inputs are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect market assumptions made by the reporting entity. The three-level hierarchy for the inputs to valuation techniques is briefly summarized as follows:

Level 1 – Quoted prices in active markets for identical assets and liabilities at the measurement date;

Level 2 – Observable inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and

Level 3 – Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

An asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The carrying value of cash and cash equivalents, accounts receivable and accounts payable approximate fair value due to their short maturities. Interest on the Company's long-term debt is at a variable rate, and as such the debt obligation outstanding approximates fair value.

12. Stock-based compensation

2001 stock-based compensation plans

Nonqualified stock option plan

In 2001, the Company established the Nonqualified Stock Option Plan ("NSO Plan") under which 4,234,856 stock options with an exercise price of $0.000025 remain outstanding at March 31, 2019. The NSO Plan was terminated in 2003. Stock options under the NSO plan were immediately vested and have a contractual term of 35 years from the date of grant. The outstanding awards will continue to be governed by their existing terms under the NSO Plan. The NSO Plan is accounted for as an equity plan.

The following table summarizes the stock option activity under the NSO Plan for the period:

	Number of options	Weighted average exercise price per share	Weighted average remaining contractual term (years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2019	4,337,856	$ 0.000025	18.0	$ 119.6
Exercised	(103,000)	$ 0.000025		
Forfeited	—	—		
Outstanding and exercisable at March 31, 2019	4,234,856	$ 0.000025	17.8	155.9

The total intrinsic value of the NSO Plan stock options exercised during the three months ended March 31, 2019, was $3.7 million.

Incentive and nonqualified stock-based plan

Also in 2001, the Company established the Incentive and Nonqualified Stock-based Plan ("ISO Plan") which was terminated in 2011 and was authorized to issue nonqualified stock options ("NQSO") and incentive stock options ("ISO") covering 11,153,872 shares of Class A common stock. The NQSO grants could be issued at less than the fair market value at date of grant under the terms of the ISO Plan, while ISO grants were issued at a price equal to or greater than the fair market value at date of grant. Options generally vested over a two to three-year period. All options have a contractual term of ten years from the date of grant.

The following table summarizes the stock option activity under the 2001 stock-based compensation plans for the period:

	Number of options	Weighted average exercise price per share	Weighted average remaining contractual term (years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2019	532,220	$ 0.65	1.4	$ 14.3
Exercised	(175,505)	$ 0.64		
Forfeited	—	—		
Outstanding and exercisable at March 31, 2019	356,715	$ 0.66	1.1	$ 12.9

The total intrinsic value of the ISO Plan stock options exercised during the three months ended March 31, 2019, was $5.8 million.

2012 stock-based compensation plans

During 2012, the Company established the 2012 Incentive and Nonqualified Stock Option Plan ("2012 Plan") which permits the issuance of 5,200,000 shares of Class A common stock for the grant of nonqualified stock options and incentive stock options for management, other employees, and board members of the Company. The options are issued at a price equal to or greater than fair market value at date of grant. All options have a contractual term of 10 years from date of grant.

The 2012 Plan is accounted for as an equity plan. For those options expected to vest, compensation expense is recognized on a straight-line basis over a four-year period, the total requisite service period of the awards. Total compensation cost related to nonvested awards not yet recognized as of March 31, 2019, totaled $0.7 million, and is expected to be recognized over a weighted average period of 1.8 years.

The following table summarizes the stock option activity under the 2012 Plan for the period:

	Number of options	Weighted average exercise price per share	Weighted average remaining contractual term (years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2019	1,541,165	$ 4.12	6.9	$ 36.2
Granted	—	—		
Exercised	(118,779)	$ 3.49		
Forfeited	(2,556)	$ 4.34		
Outstanding at March 31, 2019	1,419,830	$ 4.17		
Exercisable at March 31, 2019	856,512	$ 3.73	6.0	$ 28.3

The total intrinsic value of the 2012 Plan stock options exercised during the three months ended March 31, 2019, was $3.7 million.

Other

In connection with the acquisition of Datawatch, all outstanding unvested Datawatch RSUs were converted into a right to receive cash (the "Replacement Awards"). The payment to the holders of unvested Datawatch RSUs will be payable on or after the date that such RSUs would have otherwise vested in accordance with its original terms.

The accounting treatment for the outstanding unvested Datawatch RSUs in the context of the business combination was to allocate the fair value of the RSUs at the date of consummation attributable to pre-combination service to the aggregate merger consideration. The difference between the fair value of the Replacement Awards and the amount allocable to pre-combination service was considered a post-combination expense to the Company after the consummation date.

The estimated post combination expense to the Company as a result of the business combination was approximately $3.4 million which will be recognized on a straight-line basis over the remaining service period that was stipulated in each holder's original RSU agreement. The weighted average remaining service period is 2.0 years. Once the vesting conditions of the service period are met, Altair will cash-settle the Replacement Awards. The liability related to the Datawatch RSUs as of March 31, 2019 and December 31, 2018, was $0.9 million and $0.6 million, respectively, and is recorded in other accrued expenses and current liabilities.

2017 stock-based compensation plan

In 2017, the Company's board of directors adopted the 2017 Equity Incentive Plan ("2017 Plan"), which was approved by the Company's stockholders. The 2017 Plan provides for the grant of incentive stock options to the Company's employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance units, performance shares, other cash-based awards and other stock-based awards to the Company's employees, directors and consultants and the Company's parent, subsidiary, and affiliate corporations' employees and consultants. The 2017 Plan has 8,104,971 authorized shares of the Company's Class A common stock reserved for issuance.

The following table summarizes the restricted stock units, or RSUs, awarded under the 2017 Plan for the period:

	Number of RSUs
Outstanding at January 1, 2019	206,061
Granted	576,524
Vested	(14,039)
Forfeited	(1,922)
Outstanding at March 31, 2019	766,624

The weighted average grant date fair value of the RSUs was $37.21 and the RSUs generally vest in four equal annual installments. Total compensation cost related to nonvested awards not yet recognized as of March 31, 2019, totaled $25.8 million, and is expected to be recognized over a weighted average period of approximately four years.

Stock-based compensation expense

The stock-based compensation expense was recorded as follows (in thousands):

	Three Months Ended March 31,	
	2019	2018
Cost of revenue – software	$ 64	$ 8
Research and development	358	47
Sales and marketing	462	41
General and administrative	328	120
Total stock-based compensation expense	$ 1,212	$ 216

13. Other expense (income), net

Other expense (income), net consists of the following (in thousands):

	Three Months Ended March 31,	
	2019	2018
Foreign exchange loss (gain)	$ 417	$ (797)
Other	(27)	(103)
Other expense (income), net	$ 390	$ (900)

14. Income taxes

At the end of each interim period, the Company makes its best estimate of the annual expected effective income tax rate and applies that rate to its ordinary year-to-date income (loss) before income taxes. The income tax provision or benefit related to unusual or infrequent items, if applicable, that will be separately reported or reported net of their related tax effects are individually computed and recognized in the interim period in which those items occur. In addition, the effect of changes in enacted tax laws or rates, tax status, judgment on the realizability of a beginning-of-the-year deferred tax asset in future years or income tax contingencies is recognized in the interim period in which the change occurs.

The computation of the annual expected effective income tax rate at each interim period requires certain estimates and assumptions including, but not limited to, the expected income (loss) before income taxes for the year, projections of the proportion of income (and/or loss) earned and taxed in respective tax jurisdictions, including applicable foreign taxes withheld at the source, permanent and temporary differences, and the likelihood of the realizability of deferred tax assets generated in the current year. Jurisdictions with a projected loss for the year or a year-to-date loss for which no tax benefit can be recognized due to a valuation allowance are excluded from the estimated annual effective tax rate. The impact of such an exclusion could result in a higher or lower effective tax rate during a particular quarter, based upon the composition and timing of actual earnings compared to annual projections. The estimates used to compute the provision or benefit for income taxes may change as new events occur, additional information is obtained or the Company’s tax environment changes. To the extent that the expected annual effective income tax rate changes, the effect of the change on prior interim periods is included in the income tax provision in the period in which the change in estimate occurs.

The Company’s income tax expense and effective tax rate for the three months ended March 31, 2019 and 2018 were as follows (in thousands, except percentages):

	Three Months Ended March 31,	
	2019	2018
Income tax expense	$ 4,088	$ 2,346
Effective tax rate	24%	9%

The tax rate is affected by the Company being a U.S. resident taxpayer, the tax rates in the U.S. and other jurisdictions in which the Company operates, the relative amount of income earned by jurisdiction and the relative amount of losses or income for which no benefit or expense is recognized. The effective tax rate was impacted by the geographic income mix in 2019 as

compared to 2018, primarily related to United States pre-tax income of $13.6 million for the three months ended March 31, 2019, for which tax expense was not recognized due to the valuation allowance, compared to United States pre-tax income of $18.0 million for the three months ended March 31, 2018, for which tax expense was not recognized due to the valuation allowance. Offsetting this increase in tax expense and effective tax rate in the quarter was a reversal of reserve adjustments recorded for uncertain tax positions of $1.1 million.

The Tax Act subjects a U.S. shareholder to current tax on global intangible low-taxed income ("GILTI") earned by certain foreign subsidiaries. The impact of GILTI resulted in no incremental tax expense for the three months ended March 31, 2019, due to a full valuation allowance on U.S. net deferred tax assets.

15. Accumulated other comprehensive loss

The components of accumulated other comprehensive loss were as follows (in thousands):

	Foreign currency translation	Retirement related benefit plans	Total
Balance at January 1, 2019	$ (8,585)	$ (2,467)	$ (11,052)
Other comprehensive income before reclassification	337	25	362
Amounts reclassified from accumulated other comprehensive loss	—	203	203
Tax effects	—	—	—
Other comprehensive income	337	228	565
Balance at March 31, 2019	$ (8,248)	$ (2,239)	$ (10,487)

16. Commitments and contingencies

Swedish Tax Litigation

The Swedish Tax Authorities, or STA, have assessed tax, penalties and interest in the amount of $6.6 million related to the acquisition of Panopticon AB by Datawatch, in 2013 for the years 2013, 2014 and 2015. The STA, upon auditing the acquisition transaction, reached a conclusion that post acquisition, certain assets were removed from Sweden, triggering the tax obligation. The STA is also of the opinion that some services related to product development provided to the new parent company in the U.S. were performed by Panopticon AB at a price below market price triggering tax obligations. Datawatch contested the findings by the STA throughout the audit process and is now contesting the STA position in the first level of administrative courts. An Administrative Court hearing has been set for May 16, 2019.

Other legal proceedings

From time to time, the Company may be subject to legal proceedings and claims in the ordinary course of business. The Company has received, and may in the future continue to receive, claims from third parties asserting, among other things, infringement of their intellectual property rights. Future litigation may be necessary to defend the Company, its partners and its customers by determining the scope, enforceability and validity of third party proprietary rights, or to establish and enforce the Company's proprietary rights. The results of any current or future litigation cannot be predicted with certainty and regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors.

17. Segment information

The Company defines its operating segments as components of its business where separate financial information is available and used by the chief operating decision maker ("CODM") in deciding how to allocate resources to its segments and in assessing performance. The Company's CODM is its Chief Executive Officer.

The Company has identified two reportable segments for financial reporting purposes: Software and Client Engineering Services, or "CES". The primary measure of segment operating performance is Adjusted EBITDA, which is defined as net income (loss) adjusted for income tax expense (benefit), interest expense, interest income and other, depreciation and amortization, stock-based compensation expense, restructuring charges, asset impairment charges and other special items as determined by management. Adjusted EBITDA includes an allocation of corporate headquarters costs.

The Software reportable segment derives revenue from the sale and subscription of licenses for software products focused on the development and application of simulation, high performance computing, and data intelligence technology to synthesize and optimize designs, processes and decisions for improved business performance. The Software segment also derives revenue from software support, upgrades, training and consulting services focused on product design and development expertise, high performance computing, data intelligence, and analysis support throughout product lifecycles. To a much lesser extent, the Software segment also includes revenue from the sale of hardware products, primarily as a result of recent business acquisitions.

The Client Engineering Services reportable segment provides support to its customers with long-term ongoing product design and development expertise in its market segments of Solvers & Optimization, Modeling & Visualization, Industrial and Concept Design, and high-performance computing. The Company hires simulation specialists, industrial designers, design engineers, materials experts, development and test specialists, manufacturing engineers, data scientists and information technology specialists for placement at customer sites for specific customer-directed assignments.

The "All other" represents innovative services and products, including toggled®, the Company's LED lighting business. toggled® is focused on developing and selling next-generation solid state lighting technology along with communication and control protocols based on intellectual property for the direct replacement of fluorescent light tubes with LED lamps. Other businesses combined within Other include our WEYV business, a consumer music and content service, and potential services and product concepts that are still in development stages.

Inter-segment sales are not significant for any period presented. The CODM does not review asset information by segment when assessing performance; therefore, no asset information is provided for reportable segments.

The following tables are in thousands:

Three Months Ended March 31, 2019	**Software**	**CES**	**All other**	**Total**
Revenue	$ 113,063	$ 12,050	$ 2,746	$ 127,859
Adjusted EBITDA	$ 24,042	$ 1,106	$ (1,164)	$ 23,984

Three Months Ended March 31, 2018	**Software**	**CES**	**All other**	**Total**
Revenue	$ 99,142	$ 12,080	$ 2,035	$ 113,257
Adjusted EBITDA	$ 29,028	$ 1,056	$ (534)	$ 29,550

	Three Months Ended March 31,	
	2019	**2018**
Reconciliation of Adjusted EBITDA to U.S. GAAP Income before income taxes:		
Adjusted EBITDA	$ 23,984	$ 29,550
Stock-based compensation expense	(1,212)	(216)
Interest expense	(270)	(16)
Interest income and other (1)	(201)	1,255
Depreciation and amortization	(5,194)	(3,543)
Income before income taxes	$ 17,107	$ 27,030

(1) Includes an impairment charge for royalty contracts resulting in $0.2 million and $0.9 million of expense for the three months ended March 31, 2019 and 2018, respectively. Includes a non-recurring adjustment for a change in estimated legal expenses resulting in $2.0 million of income for the three months ended March 31, 2018.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this quarterly report and with our audited consolidated financial statements (and notes thereto) for the year ended December 31, 2018, included in our Annual Report on Form 10-K filed with the SEC. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This quarterly report on Form 10-Q contains forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 under Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as "may," "can," "anticipate," "assume," "should," "indicate," "would," "believe," "contemplate," "expect," "seek," "estimate," "continue," "plan," "point to," "project," "predict," "could," "intend," "target," "potential" and other similar words and expressions of the future.

There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our ability to acquire new customers because of the difficulty in predicting our software sales cycles;
- reduced spending on product design and development activities by our customers;
- our dependence on annual renewals of our software licenses;
- our ability to maintain or protect our intellectual property;
- our ability to retain key executive members;
- our ability to internally develop new inventions and intellectual property;
- our ability to successfully integrate and realize the benefits of our past or future strategic acquisitions or investments;
- demand for our software by customers other than simulation engineering specialists and in additional industry verticals;
- acceptance of our business model by investors;
- our ability to integrate companies that we have acquired or may acquire in the future;
- our susceptibility to factors affecting the automotive and financial services industries where we derive a substantial portion of our revenues;
- the accuracy of our estimates regarding expenses and capital requirements;
- our susceptibility to foreign currency risks that arise because of our substantial international operations; and
- the significant quarterly fluctuations of our results.

The foregoing does not represent an exhaustive list of matters that may be covered by the forward-looking statements contained herein or risk factors that we are faced with that may cause our actual results to differ from those anticipate in our forward-looking statements. For additional risks which could adversely impact our business and financial performance please see “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018, which was filed with the SEC, on March 1, 2019, and the other information appearing elsewhere in such report, this report on Form 10-Q and our other filings with the SEC.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this report or the date of the document incorporated by reference into this report. We have no obligation, and expressly disclaim any obligation, to update, revise or correct any of the forward-looking statements, whether as a result of new information, future events or otherwise. We have expressed our expectations, beliefs and projections in good faith and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs or projections will result or be achieved or accomplished.

Overview

We are a global technology company providing software and cloud solutions in the areas of product design and development, high performance computing, or HPC, and data intelligence. We enable organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future.

Our simulation-driven approach to innovation is powered by our broad portfolio of high-fidelity and high-performance physics solvers. Our integrated suite of software optimizes design performance across multiple disciplines encompassing structures, motion, fluids, thermal management, electromagnetics, system modeling, and embedded systems, while also providing data intelligence and true-to-life visualization and rendering.

Altair’s software products represent a comprehensive, open architecture solution for simulation, data intelligence and cloud computing to empower decision making for improved product development, manufacturing, energy management and exploration, financial services, health care, and retail operations. We believe our products offer a comprehensive set of technologies to design and optimize high performance, efficient, innovative and sustainable products and processes in an increasingly connected world. Our products are categorized by:

- Design, Modeling & Visualization;
- Physics Simulation;
- Data Intelligence;
- High Performance Cloud Computing; and
- Internet of Things, or IoT.

Altair also provides client engineering services, or CES, to support our customers with long-term ongoing expertise. This has the benefit of embedding us within customers, deepening our understanding of their processes, and allowing us to more quickly perceive trends in the overall market. Our presence at our customers’ sites helps us to better tailor our software products’ research and development, or R&D, and sales initiatives.

Factors Affecting our Performance

We believe that our future success will depend on many factors, including those described below. While these areas present significant opportunity, they also present risks that we must manage to achieve successful results. If we are unable to address these challenges, our business, operating results and prospects could be harmed. Please see “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on March 1, 2019.

Seasonality and quarterly results

Our billings have historically been highest in the first and fourth quarters of any calendar year and may vary in future quarters. The timing of recording billings and the corresponding effect on our cash flows may vary due to the seasonality of the purchasing patterns of our customers. In addition, the timing of the recognition of revenue, the amount and timing of operating expenses, including employee compensation, sales and marketing activities, and capital expenditures, may vary from quarter-to-quarter which may cause our reported results to fluctuate significantly. In addition, we may choose to grow our business for the long-term rather than to optimize for profitability or cash flows for a particular shorter-term period. This seasonality or the occurrence of any of the factors above may cause our results of operations to vary and our financial statements may not fully reflect the underlying performance of our business.

Integration of recent acquisitions

We believe that our recent acquisitions result in certain benefits, including expanding our portfolio of software and products and enabling us to better serve our customer's requests for data intelligence and simulation technology. However, to realize some of these anticipated benefits, the acquired businesses must be successfully integrated. The success of these acquisitions will depend in part on our ability to realize these anticipated benefits. We may fail to realize the anticipated benefits of these acquisitions for a variety of reasons.

Foreign currency fluctuations

Because of our substantial international operations, we are exposed to foreign currency risks that arise from our normal business operations, including in connection with our transactions that are denominated in foreign currencies, including the Euro, British Pound Sterling, Indian Rupee, Japanese Yen, and Chinese Yuan. To present the changes in our underlying business without regard to the impact of currency fluctuations, we evaluate certain of our operating results both on an as reported basis, as well as on a constant currency basis.

Constant currency amounts exclude the effect of foreign currency fluctuations on our reported results. Our comparative financial results were impacted by fluctuations in the value of the United States dollar relative to other currencies during the three months ended March 31, 2019 as compared to the three months ended March 31, 2018. To present this information, the results for 2019 for entities whose functional currency is a currency other than the United States dollar were converted to United States dollars at rates that were in effect for 2018. These adjusted amounts are then compared to our current period reported amounts to provide operationally driven variances in our results.

The effects of currency fluctuations on our Revenue, Adjusted EBITDA, and Billings are reflected in the table below. Amounts in brackets indicate a net adverse impact from currency fluctuations.

(in thousands)	**Three Months Ended March 31, 2019**	
Revenue	$	(3,966)
Adjusted EBITDA	$	(794)
Billings	$	(5,099)

Expanded use of our software applications

Our ability to grow our revenue is affected, in part, by the pace at which our customers continue to expand their use of our design, simulation, optimization and analysis applications, our suite of data intelligence products and the degree to which prospective customers realize the benefit of using our software applications. To grow our presence within our customers and attract new customers, we devote substantial sales and marketing resources to drive increased adoption across our existing customers and encourage new customers to commence using our software. As a result of this "land and expand" business model, we expect to generate additional revenue from our current and future customer base. To the extent our sales and marketing efforts do not translate into customer retention or expansion, or if we do not allocate those expenses efficiently, our financial performance may be adversely affected. Therefore, our financial performance will depend in part on the degree to which our "land and expand" strategies are successful.

Investments for growth

We have made and plan to continue to make investments for long-term growth, including investments in our ongoing research and development activities seeking to create new software and to enhance our existing applications to address emerging technology trends and additional customer needs. Generally, the development of new or improved applications in our software can result in the expansion of our user base within an organization and a potential increase in revenue over time, although the expenditures associated with such developments may adversely affect our performance in the near term. We intend to continue to invest resources in sales and marketing, by further expanding our sales teams and increasing our marketing activities. Our ability to continue to grow revenue from our current and potential customer base is dependent, in part, upon the success of our current and future research and development and sales and marketing activities.

Business Segments

We have identified two reportable segments: Software and Client Engineering Services:

- *Software* —Our Software segment includes software and software related services. The software component of this segment includes our portfolio of software products including our solvers and optimization technology products, modeling and visualization tools, data intelligence and analysis products, high performance computing, or HPC, software applications and hardware products, IoT platform and analytics tools as well as support and the complementary software products we offer through our Altair Partner Alliance, or APA. The APA includes technologies ranging from computational fluid dynamics and fatigue to manufacturing process simulation and cost estimation. The software related services component of this segment includes consulting, implementation services, and training focused on product design and development expertise and analysis from the component level up to complete product engineering at any stage of the lifecycle.
- *Client Engineering Services* —Our client engineering services, or CES, segment provides client engineering services to support our customers with long-term, ongoing expertise. We operate our CES business by hiring engineers and data scientists for placement at a customer site for specific customer-directed assignments. We employ and pay them only for the duration of the placement.

Our other businesses which do not meet the criteria to be separate reportable segments are combined and reported as “Other” which represents innovative services and products, including toggled, our LED lighting business. toggled is focused on developing and selling next-generation solid state lighting technology along with communication and control protocols based on our intellectual property for the direct replacement of fluorescent light tubes with LED lamps. Other businesses combined within Other include our WEYV business, a consumer music and content service, and potential services and product concepts that are still in development stages.

For additional information about our reportable segments and other businesses, see Note 18 in the Notes to consolidated financial statements in Item 1, Part I of this Quarterly Report on Form 10-Q.

Results of operations

Comparison of the three months ended March 31, 2019 and 2018

The following table sets forth the results of operations and the period-over-period percentage change in certain financial data for the three months ended March 31, 2019 and 2018:

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Increase / (decrease) %
Revenue:			
Software	$ 103,291	$ 89,669	15%
Software related services	9,772	9,473	3%
Total software and related services	113,063	99,142	14%
Client engineering services	12,050	12,080	—%
Other	2,746	2,035	35%
Total revenue	127,859	113,257	13%
Cost of revenue:			
Software	14,352	10,922	31%
Software related services	6,518	6,709	(3%)
Total software and related services	20,870	17,631	18%
Client engineering services	9,800	10,200	(4%)
Other	2,215	1,211	83%
Total cost of revenue	32,885	29,042	13%
Gross profit	94,974	84,215	13%
Operating expenses:			
Research and development	27,516	22,703	21%
Sales and marketing	26,451	18,627	42%
General and administrative	20,329	16,990	20%
Amortization of intangible assets	3,528	1,940	82%
Other operating income	(617)	(2,191)	(72%)
Total operating expenses	77,207	58,069	33%
Operating income	17,767	26,146	(32%)
Interest expense	270	16	NM
Other expense (income), net	390	(900)	NM
Income before income taxes	17,107	27,030	(37%)
Income tax expense	4,088	2,346	74%
Net income	$ 13,019	$ 24,684	(47%)
Other financial information:			
Billings(1)	$ 133,881	$ 113,204	18%
Adjusted EBITDA(2)	$ 23,984	$ 29,550	(19%)
Net cash provided by operating activities	$ 25,315	$ 26,689	(5%)
Free cash flow(3)	$ 20,732	$ 25,005	(17%)

NM Not meaningful.

(1) Billings consists of our total revenue plus the change in our deferred revenue, excluding deferred revenue from acquisitions. For more information about Billings and our other non-GAAP financial measures and reconciliations of our non-GAAP financial measures to the most directly comparable financial measures calculated and presented in accordance with GAAP, see "Non-GAAP financial measures" contained herein.

(2) We define Adjusted EBITDA as net income (loss) adjusted for income tax expense (benefit), interest expense, interest income and other, depreciation and amortization, stock-based compensation expense, restructuring charges, asset impairment charges and other special items as determined by management. For more information about Adjusted EBITDA and our other non-GAAP financial measures and reconciliations of our non-GAAP financial measures to the most directly comparable financial measure calculated and presented in accordance with GAAP, see "Non-GAAP financial measures" contained herein.

(3) We define Free Cash Flow as net cash provided by operating activities less capital expenditures. For a reconciliation of Free Cash Flow, see "Non-GAAP financial measures" contained herein.

The following table sets forth our revenue growth on a constant currency basis for the three months ended March 31, 2019, compared to the three months ended March 31, 2018:

(dollars in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Change %	Constant currency change(1) %
Revenue:				
Software	$ 103,291	$ 89,669	15%	19%
Software related services	9,772	9,473	3%	9%
Total software and related services	113,063	99,142	14%	18%
Client engineering services	12,050	12,080	—%	—%
Other	2,746	2,035	35%	35%
Total revenue	$ 127,859	$ 113,257	13%	16%

(1) The results for entities whose functional currency is a currency other than the United States dollar were converted to United States dollars at rates that were in effect for the corresponding period of the prior year.

Three months ended March 31, 2019 and 2018

Revenue

Total revenue increased by $14.6 million, or 13%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. The increase was primarily attributable to an increase in software revenue.

Software

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Software revenue	$ 103,291	$ 89,669	$ 13,622	15%
As a percent of software segment revenue	91%	90%		
As a percent of consolidated revenue	81%	79%		

The 15% increase in our software revenue for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018, was primarily the result of an expansion in the number of units licensed by our existing customers under renewed software license agreements, licensing of units to new customers pursuant to new software license agreements, and revenue attributable to recent acquisitions. Our performance for the three months ended March 31, 2019, was affected by adverse shifts in certain foreign currencies. On a constant currency basis, our software revenue increase by 19% for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018.

Software related services

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Software related services revenue	$ 9,772	$ 9,473	$ 299	3%
As a percent of software segment revenue	9%	10%		
As a percent of consolidated revenue	8%	8%		

Software related services revenue increased 3% for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase was primarily the result of increased revenue from consulting services. On a constant currency basis, our software related services revenue increase by 9% for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018.

Client engineering services segment

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Client engineering services revenue	$ 12,050	$ 12,080	$ (30)	—%
As a percent of consolidated revenue	9%	11%		

CES revenue was relatively consistent for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018.

Other

(in thousands)	Three Months Ended March 31,		Period-to-period change	
	2019	2018	$	%
Other revenue	$ 2,746	$ 2,035	$ 711	35%
As a percent of consolidated revenue	2%	2%		

The 35% increase in other revenue for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018, was primarily due to increased revenue from toggled, our LED lighting business.

Cost of revenue

Software

(in thousands)	Three Months Ended March 31,		Period-to-period change	
	2019	2018	$	%
Cost of software revenue	$ 14,352	$ 10,922	$ 3,430	31%
As a percent of software revenue	14%	12%		
As a percent of consolidated revenue	11%	10%		

Cost of software revenue increased by $3.4 million, or 31%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase in the current year period was due to increased employee compensation and related costs of $0.9 million, increased third party royalty costs of $0.7 million for software programs and $1.3 million in costs associated with operations of recent acquisitions that we did not have in our prior year results.

Software related services

(in thousands)	Three Months Ended March 31,		Period-to-period change	
	2019	2018	$	%
Cost of software related services revenue	$ 6,518	$ 6,709	$ (191)	(3%)
As a percent of software related services revenue	67%	71%		
As a percent of consolidated revenue	5%	6%		

Cost of software related services revenue decreased $0.2 million, or 3%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. The decrease in the current year period was due to a reduction in headcount driven by improved utilization of personnel.

Client engineering services segment

(in thousands)	Three Months Ended March 31,		Period-to-period change	
	2019	2018	$	%
Cost of client engineering services revenue	$ 9,800	$ 10,200	$ (400)	(4%)
As a percent of client engineering services segment revenue	81%	84%		
As a percent of consolidated revenue	8%	9%		

Cost of CES revenue decreased $0.4 million, or 4%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This was due to a decrease in compensation expenses relative to customer billing rates.

Other

(in thousands)	Three Months Ended March 31,		Period-to-period change	
	2019	2018	$	%
Cost of other revenue	$ 2,215	$ 1,211	$ 1,004	83%
As a percent of other revenue	81%	60%		
As a percent of consolidated revenue	2%	1%		

Cost of other revenue increased $1.0 million, or 83%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase is due to greater unit sales volumes at lower selling prices in excess of cost reductions for products sold for our LED lighting business.

Gross profit

	Three Months Ended March 31,		Period-to-period change	
(in thousands)	**2019**	**2018**	**$**	**%**
Gross profit	$ 94,974	$ 84,215	$ 10,759	13%
As a percent of consolidated revenue	74%	74%		

Gross profit increased by $10.8 million, or 13%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase in gross profit was primarily attributable to the growth of our software revenue of $13.6 million driven by the factors described above. The increase in revenue was partially offset by the increase in cost of revenue as described above.

Operating expenses

Operating expenses, as discussed below, support all the products and services that we provide to our customers and, as a result, they are reported and discussed in the aggregate.

Research and development

	Three Months Ended March 31,		Period-to-period change	
(in thousands)	**2019**	**2018**	**$**	**%**
Research and development	$ 27,516	$ 22,703	$ 4,813	21%
As a percent of consolidated revenue	22%	20%		

Research and development expenses increased by $4.8 million, or 21%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase was primarily attributable to higher employee costs of $3.3 million from an increase in our headcount, primarily due to acquisitions, an $0.8 million increase in consulting fees as a result of acquisitions, a $0.3 million increase in software maintenance expense and a $0.3 million increase in stock-based compensation expense.

Sales and marketing

	Three Months Ended March 31,		Period-to-period change	
(in thousands)	**2019**	**2018**	**$**	**%**
Sales and marketing	$ 26,451	$ 18,627	$ 7,824	42%
As a percent of consolidated revenue	21%	16%		

Sales and marketing expenses increased by $7.8 million, or 42%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. Employee compensation and related expense increased $4.9 million, primarily due to acquisitions, travel and trade show related expense increased $0.8 million and sales and marketing campaigns to support our direct sales force increased $0.7 million. In addition, stock-based compensation expense and consulting fees both increased by $0.4 million in the three months ended March 31, 2019, as compared to the three months ended March 31, 2018.

General and administrative

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
General and administrative	$ 20,329	$ 16,990	$ 3,339	20%
As a percent of consolidated revenue	16%	15%		

General and administrative expenses increased by $3.3 million, or 20%, for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase was primarily attributable to a $1.4 million increase in professional service fees, a $1.2 million increase in employee compensation and related expenses and a $0.7 million increase in rent expense.

Amortization of intangible assets

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Amortization of intangible assets	$ 3,528	$ 1,940	$ 1,588	82%
As a percent of consolidated revenue	3%	2%		

Amortization of intangible assets increased by $1.6 million for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This was attributable to an increase in the amortization of developed technology and customer relationships in the current year period as a result of 2018 acquisitions.

Other operating income

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Other operating income	$ (617)	$ (2,191)	$ 1,574	(72%)
As a percent of consolidated revenue	—%	(2%)		

Other operating income decreased $1.6 million for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. While there was a $0.6 million decrease in impairment charges for guaranteed royalty contracts for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018, this decrease was offset by a non-recurring adjustment for a change in estimated legal expenses resulting in $2.0 million of income for the three months ended March 31, 2018.

Interest expense

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Interest expense	$ 270	$ 16	$ 254	1,588%
As a percent of consolidated revenue	—%	—%		

Interest expense increased $0.3 million for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. The increase in interest expense was a result of interest on borrowings under the line of credit in the current year.

Other expense (income), net

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Other expense (income), net	$ 390	$ (900)	$ 1,290	NM
As a percent of consolidated revenue	—%	—%		

Other expense (income), net increased by $1.3 million for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018. This increase was primarily due to fluctuations in the United States dollar relative to other functional currencies during the three months ended March 31, 2019, compared to the three months ended March 31, 2018.

Income tax expense

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018	Period-to-period change $	Period-to-period change %
Income tax expense	$ 4,088	$ 2,346	$ 1,742	74%

The effective tax rate was 24% and 9% for the three months ended March 31, 2019 and 2018, respectively. The tax rate is affected by the Company being a U.S. resident taxpayer, the tax rates in the U.S. and other jurisdictions in which the Company operates, the relative amount of income earned or taxes incurred by jurisdiction and the relative amount of losses or income for which no benefit or expense is recognized. The effective tax rate was impacted by the geographic income mix in 2019 as compared to 2018, primarily related to United States pre-tax income of $13.6 million for the three months ended March 31, 2019, for which tax expense was not recognized due to the valuation allowance, compared to United States pre-tax income of $18.0 million for the three months ended March 31, 2018, for which tax expense was not recognized due to the valuation allowance. Offsetting this increase in tax expense and effective tax rate in the quarter was a reversal of reserve adjustments recorded for uncertain tax positions of $1.1 million.

Non-GAAP financial measures

In analyzing and planning for our business, we supplement our use of GAAP financial measures with non-GAAP financial measures, including Billings as a liquidity measure, Adjusted EBITDA and Modified Adjusted EBITDA as performance measures and Free Cash Flow as a liquidity measure.

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Other financial data:		
Billings	$ 133,881	$ 113,204
Adjusted EBITDA	$ 23,984	$ 29,550
Modified Adjusted EBITDA	$ 26,234	$ 29,550
Free Cash Flow	$ 20,732	$ 25,005

Billings. Billings consists of our total revenue plus the change in our deferred revenue, excluding deferred revenue from acquisitions during the period. Given that we generally bill our customers at the time of sale, but typically recognize a portion of the related revenue ratably over time, management believes that Billings is a meaningful way to measure and monitor our ability to provide our business with the working capital generated by upfront payments from our customers.

Adjusted EBITDA. We define Adjusted EBITDA as net income (loss) adjusted for income tax expense (benefit), interest expense, interest income and other, depreciation and amortization, stock-based compensation expense, restructuring charges, asset impairment charges and other special items as determined by management. Our management team believes that Adjusted EBITDA is a meaningful measure of performance as it is commonly utilized by management and the investment community to analyze operating performance in our industry.

Modified Adjusted EBITDA. Modified adjusted EBITDA is consistent with our definition of Adjusted EBITDA; however, it includes the revenue not recognized under GAAP due to acquisition accounting adjustments associated with accounting for deferred revenue in significant business combinations.

Free Cash Flow. Free Cash Flow is a non-GAAP measure that we calculate as cash flow provided by operating activities less capital expenditures. Management believes that Free Cash Flow is useful in analyzing our ability to service and repay debt, when applicable, and return value directly to stockholders.

These non-GAAP financial measures reflect an additional way of viewing aspects of our business that, when viewed with our GAAP results and the accompanying reconciliations to the corresponding GAAP financial measures included in the tables below, may provide a more complete understanding of factors and trends affecting our business. These non-GAAP financial measures should not be relied upon to the exclusion of GAAP financial measures and are by definition an incomplete understanding of the Company and must be considered in conjunction with GAAP measures.

We believe that the non-GAAP measures disclosed herein are only useful as an additional tool to help management and investors make informed decisions about our financial and operating performance and liquidity. By definition, non-GAAP measures do not give a full understanding of the Company. To be truly valuable, they must be used in conjunction with the comparable GAAP measures. In addition, non-GAAP financial measures are not standardized. It may not be possible to compare these financial measures with other companies' non-GAAP financial measures having the same or similar names. We strongly encourage investors to review our consolidated financial statements and the notes thereto in their entirety and not rely on any single financial measure.

The following table provides a reconciliation of Billings to revenue, the most comparable GAAP financial measure, for each of the periods presented:

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Revenue	$ 127,859	$ 113,257
Ending deferred revenue	72,541	56,800
Adoption of ASC 606 on beginning deferred revenue	—	82,909
Beginning deferred revenue	(66,519)	(139,762)
Billings	$ 133,881	$ 113,204

The following table provides a reconciliation of Modified Adjusted EBITDA and Adjusted EBITDA to net income (loss), the most comparable GAAP financial measure, for each of the periods presented:

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Net income	$ 13,019	$ 24,684
Income tax expense	4,088	2,346
Stock-based compensation expense	1,212	216
Interest expense	270	16
Interest income and other (1)	201	(1,255)
Depreciation and amortization	5,194	3,543
Adjusted EBITDA	$ 23,984	$ 29,550
Acquisition related deferred revenue (2)	2,250	—
Modified Adjusted EBITDA	$ 26,234	$ 29,550

(1) Includes an impairment charge for royalty contracts resulting in $0.2 million and $0.9 million of expense for the three months ended March 31, 2019 and 2018, respectively. Includes a non-recurring adjustment for a change in estimated legal expenses resulting in $2.0 million of income for the three months ended March 31, 2018.
(2) Represents revenue not recognized under GAAP due to acquisition accounting adjustments associated with the accounting for deferred revenue in significant business combinations.

The following table provides a reconciliation of Free Cash Flow to net cash provided by operating activities, the most comparable GAAP financial measure, for each of the periods presented:

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Net cash provided by operating activities	$ 25,315	$ 26,689
Capital expenditures	(4,583)	(1,684)
Free cash flow	$ 20,732	$ 25,005

Recurring Software License Rate. A key factor to our success is our recurring software license rate which we measure through Billings, primarily derived from annual renewals of our existing subscription customer agreements. We calculate our recurring software license rate for a particular period by dividing (i) the sum of software term-based license Billings, software license maintenance Billings, and 20% of software perpetual license Billings which we believe approximates maintenance as an element of the arrangement by (ii) the total software license Billings including all term-based subscriptions, maintenance, and perpetual license billings from all customers for that period. For the three months ended March 31, 2019, our recurring software license rate was 92%.

Liquidity and capital resources

Our principal sources of liquidity have been the net payments received from global customers using our software and services and proceeds from our initial public offering and follow-on offering, as well as periodic draws on our credit facilities, when needed. We believe that funds generated from operations, with cash and cash equivalents and the amounts available to us to borrow under our credit facility, will be sufficient to meet our anticipated cash needs for at least the next 12 months.

We have commenced the initial planning to update zoning to allow for future expansion of our corporate headquarters facilities on the adjacent property we own to enable development consistent with our long-term needs. We have not yet determined the nature and scope of the overall timeline and investment beyond the immediate rezoning efforts necessary for our potential use in the future. Over the next 12 months, we expect to continue to advance this project.

Revolving credit facility

Our credit agreement consists of an aggregate commitment amount of $150.0 million, with a sublimit for the issuance of letters of credit of up to $5.0 million and a sublimit for swingline loans of up to $5.0 million (the "2017 Credit Agreement"). The 2017 Credit Agreement matures on October 18, 2022.

The 2017 Credit Agreement allows us to request that the aggregate commitments under the 2017 Credit Agreement be increased by up to $50.0 million for a total of $200.0 million, subject to certain conditions, by obtaining additional commitments from the existing lenders or by causing a person acceptable to the administrative agent to become a lender (in each case subject to the terms and conditions set forth in the 2017 Credit Agreement).

As of March 31, 2019, we had $14.8 million of outstanding borrowings under the 2017 Credit Agreement and there was $135.2 million available for future borrowing. The 2017 Credit Agreement is available for general corporate purposes, including working capital, capital expenditures and permitted acquisitions.

The 2017 Credit Agreement is secured by collateral including (i) substantially all of the Company's properties and assets, and the properties and assets of the Company's direct and indirect domestic subsidiaries but excluding any patents, copyrights, patent applications or copyright applications or any trade secrets or software products and (ii) pledges of the equity interests in all present and future direct and indirect domestic subsidiaries (subject in each case to certain exceptions as provided for under the 2017 Credit Agreement). The Company's direct and indirect domestic subsidiaries are guarantors of all of the obligations under the 2017 Credit Agreement. In addition, the 2017 Credit Agreement contains financial covenants relating to maintaining a minimum interest coverage ratio of 3.0 to 1.0 and maximum leverage ratio of 3.0 to 1.0, as defined in the 2017 Credit Agreement. At March 31, 2019, we were in compliance with the financial covenants.

Cash flows

As of March 31, 2019, we had an aggregate of cash and cash equivalents of $39.8 million that was held for working capital purposes, acquisitions, and capital expenditures; $1.9 million of this aggregate amount was held in the United States and $33.2 million was held in the APAC and EMEA regions.

Other than statutory limitations, there are no significant restrictions on the ability of our subsidiaries to pay dividends or make other distributions to Altair. Based on our current liquidity needs and repatriation strategies, we expect that we can manage our global liquidity needs without material adverse tax implications. The 2017 changes in U.S. tax law could materially affect our tax obligations. For further discussion, please see our 2018 Annual Report on Form 10-K, "Item 1A. Risk Factors – New legislations or tax-reform policies that would change U.S. or foreign taxation of international business activities, including uncertainties in the interpretation and application of the 2017 Tax Cuts and Jobs Act, could materially affect our tax obligations and effective tax rate."

The following table summarizes our cash flows for the periods indicated:

(in thousands)	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Net cash provided by operating activities	$ 25,315	$ 26,689
Net cash used in investing activities	(4,925)	(3,213)
Net cash (used in) provided by financing activities	(15,767)	5
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(176)	495
Net increase in cash, cash equivalents and restricted cash	$ 4,447	$ 23,976

Net cash provided by operating activities

Net cash provided by operating activities for the three months ended March 31, 2019 was $25.3 million, which reflects a decrease of $1.4 million compared to the three months ended March 31, 2018. This decrease was the result of the reduction in net income and changes to our working capital position for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018.

Net cash used in investing activities

Net cash used in investing activities for the three months ended March 31, 2019 was $4.9 million, which reflects an increase in cash used of $1.7 million compared to the three months ended March 31, 2018. This increase was primarily the result of an increase in cash payments for capital expenditures related to a new office facility in the three months ended March 31, 2019.

Net cash used in financing activities

Net cash used in financing activities for the three months ended March 31, 2019 was $15.8 million, which reflects an increase in cash used of $15.8 million compared the three months ended March 31, 2018. This increase is the result of net cash payments on our revolving credit facility for the three months ended March 31, 2019. We did not have any borrowings for the three months ended March 31, 2018.

Effect of exchange rate changes on cash, cash equivalents and restricted cash

There was an adverse effect of exchange rate changes on cash, cash equivalents and restricted cash of $0.2 million for the three months ended March 31, 2019, compared to a favorable effect of exchange rate changes on cash, cash equivalents and restricted cash of $0.5 million for the three months ended March 31, 2018.

Contractual obligations and commitments

There were no material changes in our commitments under contractual obligations as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018.

Off-balance sheet arrangements

Through March 31, 2019, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Recently issued accounting pronouncements

See Note 3 in the Notes to consolidated financial statements in Item 1, Part I of this Quarterly Report on Form 10-Q for a full description of the recent accounting pronouncements and our expectation of their impact, if any, on our results of operations and financial condition.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to certain global market risks, including foreign currency exchange risk and interest rate risk associated with our debt.

Foreign Currency Risk

As a result of our substantial international operations, we are exposed to foreign currency risks that arise from our normal business operations, including in connection with our transactions that are denominated in foreign currencies. In addition, we translate sales and financial results denominated in foreign currencies into United States dollars for purposes of our consolidated financial statements. As a result, appreciation of the United States dollar against these foreign currencies generally will have a negative impact on our reported revenue and operating income while depreciation of the United States dollar against these foreign currencies will generally have a positive effect on reported revenue and operating income.

To date, we have not entered into any foreign currency hedging contracts, since exchange rate fluctuations have not had a material impact on our operating results and cash flows. Based on our current international structure, we do not plan on engaging in hedging activities in the near future.

Interest Rate Risk

As of March 31, 2019, we had cash, cash equivalents and restricted cash of $40.1 million, consisting primarily of bank deposits and money market funds. As of March 31, 2019, we had $14.8 million outstanding under our 2017 Credit Agreement. Such interest-bearing instruments carry a degree of interest rate risk; however, historical fluctuations of interest expense have not been significant.

Interest rate risk relates to the gain/increase or loss/decrease we could incur on our debt balances and interest expense associated with changes in interest rates. It is our policy not to enter into derivative instruments for speculative purposes, and therefore, we hold no derivative instruments for trading purposes.

Item 4. Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures as defined in Rule 13(a)-15(e) under the Exchange Act as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures were not effective as of March 31, 2019, due to a material weakness identified in connection with the audit of our fiscal year 2018 financial statements.

The material weakness pertained to controls over accounting for income taxes. We determined that management's review controls over income taxes are not operating effectively to detect a material misstatement in the financial statements related to income tax accounting around acquisitions, as well as routine and non-routine transactions. We have taken steps to remediate this material weakness by enhancing our preparation and review procedures around income tax accounting, which includes supplementing our resources by using an independent consultant with technical expertise in the tax accounting over acquisitions and routine and non-routine transactions.

Effective internal control over financial reporting is necessary for us to provide reliable and timely financial reports and, together with adequate disclosure controls and procedures, are designed to reasonably detect and prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended March 31, 2019, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

As previously described in our Annual Report on Form 10-K, Part 1, Item 3, we are subject to litigation for which there were no material changes during the three months ended March 31, 2019.

Item 1A. Risk Factors

There have been no material changes to the risk factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Unregistered Sales of Equity Securities

Not applicable.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

No.	Description
31.1*	Certification of the Chief Executive Officer of Altair Engineering Inc. pursuant to Rule 13a-14(a)/Rule 15d-14(a) under the Securities Exchange Act of 1934, as amended
31.2*	Certification of the Chief Financial Officer of Altair Engineering Inc. pursuant to Rule 13a-14(a)/Rule 15d-14(a) under the Securities Exchange Act of 1934, as amended
32.1**	Certification of the Chief Executive Officer and Chief Financial Officer of Altair Engineering Inc. pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
EX-101.INS	XBRL INSTANCE DOCUMENT
EX-101.SCH	XBRL TAXONOMY EXTENSION SCHEMA DOCUMENT
EX-101.CAL	XBRL TAXONOMY EXTENSION CALCULATION LINKBASE
EX-101.DEF	XBRL TAXONOMY EXTENSION DEFINITION LINK DOCUMENT
EX-101.LAB	XBRL TAXONOMY EXTENSION LABELS LINKBASE
EX-101.PRE	XBRL TAXONOMY EXTENSION PRESENTATION LINKBASE

* Filed herewith.

** The certifications furnished in Exhibit 32.1 hereto are deemed to accompany this Quarterly Report on Form 10-Q and will not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ALTAIR ENGINEERING INC.

Date: May 9, 2019

By: /s/ James Scapa
James R. Scapa
Chief Executive Officer (Principal Executive Officer)

Date: May 9, 2019

By: /s/ Howard N. Morof
Howard N. Morof
Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, James R. Scapa, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Altair Engineering Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) (paragraph omitted pursuant to the transition period exemption for newly public companies);

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ James Scapa

James R. Scapa
Chief Executive Officer
(Principal Executive Officer)

May 9, 2019

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Howard N. Morof, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Altair Engineering Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) (paragraph omitted pursuant to the transition period exemption for newly public companies);

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Howard N. Morof

Howard N. Morof
Chief Financial Officer
(Principal Financial and Accounting Officer)

May 9, 2019

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Altair Engineering Inc. (the “Company”), on Form 10-Q for the period ended March 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned officers of the Company certify to their knowledge and in their respective capacities, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ James Scapa
James R. Scapa
Chief Executive Officer
(Principal Executive Officer)

/s/ Howard N. Morof
Howard N. Morof
Chief Financial Officer
(Principal Financial and Accounting Officer)

May 9, 2019