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 June 30, 2024

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)

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 Global Select Market**

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 ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.
On July 16, 2024, there were 59,427,617 shares of the registrant's Class A common stock outstanding and 25,458,574 shares of the registrant's Class B common stock outstanding.

ALTAIR ENGINEERING INC. AND SUBSIDIARIES

FORM 10-Q

FOR THE QUARTER ENDED JUNE 30, 2024

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

ALTAIR ENGINEERING INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(In thousands)	June 30, 2024 (Unaudited)	December 31, 2023
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 507,008	$ 467,459
Accounts receivable, net	126,560	190,461
Income tax receivable	17,682	16,650
Prepaid expenses and other current assets	28,582	26,053
Total current assets	679,832	700,623
Property and equipment, net	38,463	39,803
Operating lease right of use assets	31,816	30,759
Goodwill	459,070	458,125
Other intangible assets, net	77,537	83,550
Deferred tax assets	9,120	9,955
Other long-term assets	40,119	40,678
TOTAL ASSETS	$ 1,335,957	$ 1,363,493
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 4,002	$ 8,995
Accrued compensation and benefits	39,819	45,081
Current portion of operating lease liabilities	8,057	8,825
Other accrued expenses and current liabilities	41,508	48,398
Deferred revenue	123,439	131,356
Current portion of convertible senior notes, net	—	81,455
Total current liabilities	216,825	324,110
Convertible senior notes, net	226,518	225,929
Operating lease liabilities, net of current portion	24,568	22,625
Deferred revenue, non-current	28,745	32,347
Other long-term liabilities	47,995	47,151
TOTAL LIABILITIES	544,651	652,162
Commitments and contingencies		
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 59,198 and 55,240 shares as of June 30, 2024, and December 31, 2023, respectively	5	5
Class B common stock, authorized 41,203 shares, issued and outstanding 25,471 and 26,814 shares as of June 30, 2024, and December 31, 2023, respectively	3	3
Additional paid-in capital	939,691	864,135
Accumulated deficit	(119,103)	(130,503)
Accumulated other comprehensive loss	(29,290)	(22,309)
TOTAL STOCKHOLDERS' EQUITY	791,306	711,331
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 1,335,957	$ 1,363,493

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 June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Revenue				
License	$ 92,699	$ 87,738	$ 210,406	$ 200,147
Maintenance and other services	42,724	37,583	83,446	74,817
Total software	135,423	125,321	293,852	274,964
Engineering services and other	13,372	15,840	27,855	32,231
Total revenue	148,795	141,161	321,707	307,195
Cost of revenue				
License	3,152	3,981	7,642	8,805
Maintenance and other services	16,199	13,639	30,365	28,065
Total software	19,351	17,620	38,007	36,870
Engineering services and other	11,165	13,177	23,402	26,662
Total cost of revenue	30,516	30,797	61,409	63,532
Gross profit	118,279	110,364	260,298	243,663
Operating expenses:				
Research and development	55,570	55,277	107,903	108,528
Sales and marketing	46,475	44,982	90,909	88,474
General and administrative	19,294	18,622	37,055	36,573
Amortization of intangible assets	7,629	7,625	15,067	15,439
Other operating (income) expense, net	(786)	127	(1,668)	5,732
Total operating expenses	128,182	126,633	249,266	254,746
Operating (loss) income	(9,903)	(16,269)	11,032	(11,083)
Interest expense	1,604	1,528	3,180	3,054
Other income, net	(5,750)	(4,195)	(9,707)	(7,808)
(Loss) income before income taxes	(5,757)	(13,602)	17,559	(6,329)
Income tax (benefit) expense	(610)	8,678	6,159	17,910
Net (loss) income	$ (5,147)	$ (22,280)	$ 11,400	$ (24,239)
(Loss) earnings per share, basic				
(Loss) earnings per share	$ (0.06)	$ (0.28)	$ 0.14	$ (0.30)
Weighted average shares	83,607	79,986	83,097	80,088
(Loss) earnings per share, diluted				
(Loss) earnings per share	$ (0.06)	$ (0.28)	$ 0.13	$ (0.30)
Weighted average shares	83,607	79,986	87,397	80,088

See accompanying notes to consolidated financial statements.

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

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Net (loss) income	$ (5,147)	$ (22,280)	$ 11,400	$ (24,239)
Other comprehensive (loss) income, net of tax:				
Foreign currency translation (net of tax effect of $0 for all periods)	(2,067)	(1,340)	(7,096)	5,892
Retirement related benefit plans (net of tax effect of $0, $(79), $0, and $(79), respectively)	81	(70)	115	(51)
Total other comprehensive (loss) income	(1,986)	(1,410)	(6,981)	5,841
Comprehensive (loss) income	$ (7,133)	$ (23,690)	$ 4,419	$ (18,398)

See accompanying notes to consolidated financial statements.

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

(in thousands)	Common stock Class A Shares	Common stock Class A Amount	Common stock Class B Shares	Common stock Class B Amount	Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity
Balance as of December 31, 2023	55,240	$ 5	26,814	$ 3	$ 864,135	$ (130,503)	$ (22,309)	$ 711,331
Net income	—	—	—	—	—	16,547	—	16,547
Issuance of common stock for acquisitions	35	—	—	—	75	—	—	75
Issuance of common stock for employee stock purchase program	64	—	—	—	4,127	—	—	4,127
Exercise of stock options	540	—	—	—	19,844	—	—	19,844
Vesting of restricted stock	303	—	—	—	—	—	—	—
Conversion of Class B to Class A common stock	730	—	(730)	—	—	—	—	—
Stock-based compensation	—	—	—	—	15,999	—	—	15,999
Foreign currency translation, net of tax	—	—	—	—	—	—	(5,029)	(5,029)
Retirement related benefit plans, net of tax	—	—	—	—	—	—	34	34
Balance as of March 31, 2024	56,912	5	26,084	3	904,180	(113,956)	(27,304)	762,928
Net loss	—	—	—	—	—	(5,147)	—	(5,147)
Settlement of convertible senior notes	797	—	—	—	—	—	—	—
Issuance of common stock for acquisitions	188	—	—	—	516	—	—	516
Exercise of stock options	598	—	—	—	17,640	—	—	17,640
Vesting of restricted stock	90	—	—	—	—	—	—	—
Conversion of Class B to Class A common stock	613	—	(613)	—	—	—	—	—
Stock-based compensation	—	—	—	—	17,355	—	—	17,355
Foreign currency translation, net of tax	—	—	—	—	—	—	(2,067)	(2,067)
Retirement related benefit plans, net of tax	—	—	—	—	—	—	81	81
Balance as of June 30, 2024	59,198	$ 5	25,471	$ 3	$ 939,691	$ (119,103)	$ (29,290)	$ 791,306

See accompanying notes to consolidated financial statements.

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

	Common stock				Additional		Accumulated other	Total
	Class A		Class B		paid-in	Accumulated	comprehensive	stockholders'
(in thousands)	Shares	Amount	Shares	Amount	capital	deficit	loss	equity
Balance as of December 31, 2022	52,277	$ 5	27,745	$ 3	$ 721,307	$ (121,577)	$ (30,002)	$ 569,736
Net loss	—	—	—	—	—	(1,959)	—	(1,959)
Issuance of common stock for acquisitions	34	—	—	—	—	—	—	—
Repurchase and retirement of common stock	(91)	—	—	—	(4,256)	—	—	(4,256)
Issuance of common stock for employee stock purchase program	92	—	—	—	3,648	—	—	3,648
Exercise of stock options	265	—	—	—	10,324	—	—	10,324
Vesting of restricted stock	336	—	—	—	—	—	—	—
Conversion of Class B to Class A common stock	240	—	(240)	—	—	—	—	—
Stock-based compensation	—	—	—	—	22,161	—	—	22,161
Foreign currency translation, net of tax	—	—	—	—	—	—	7,232	7,232
Retirement related benefit plans, net of tax	—	—	—	—	—	—	19	19
Balance as of March 31, 2023	53,153	5	27,505	3	753,184	(123,536)	(22,751)	606,905
Net loss	—	—	—	—	—	(22,280)	—	(22,280)
Exercise of stock options	382	—	—	—	13,264	—	—	13,264
Vesting of restricted stock	86	—	—	—	—	—	—	—
Conversion of Class B to Class A common stock	330	—	(330)	—	—	—	—	—
Stock-based compensation	—	—	—	—	23,736	—	—	23,736
Foreign currency translation, net of tax	—	—	—	—	—	—	(1,340)	(1,340)
Retirement related benefit plans, net of tax	—	—	—	—	—	—	(70)	(70)
Balance as of June 30, 2023	53,951	$ 5	27,175	$ 3	$ 790,184	$ (145,816)	$ (24,161)	$ 620,215

See accompanying notes to consolidated financial statements.

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

(In thousands)	**Six Months Ended June 30, 2024**	**2023**
OPERATING ACTIVITIES:		
Net income (loss)	$ 11,400	$ (24,239)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation and amortization	19,557	19,488
Stock-based compensation expense	33,354	45,897
Deferred income taxes	(367)	2,015
Loss on mark-to-market adjustment of contingent consideration	189	7,987
Other, net	1,166	1,335
Changes in assets and liabilities:		
Accounts receivable, net	61,360	45,077
Prepaid expenses and other current assets	(3,647)	(3,166)
Other long-term assets	164	(2,516)
Accounts payable	(4,382)	(5,529)
Accrued compensation and benefits	(4,071)	(6,591)
Other accrued expenses and current liabilities	(2,834)	4,857
Deferred revenue	(9,882)	4,614
Net cash provided by operating activities	102,007	89,229
INVESTING ACTIVITIES:		
Payments for acquisition of businesses, net of cash acquired	(13,680)	(721)
Capital expenditures	(5,004)	(6,184)
Other investing activities, net	(398)	(1,452)
Net cash used in investing activities	(19,082)	(8,357)
FINANCING ACTIVITIES:		
Settlement of convertible senior notes	(81,729)	—
Proceeds from the exercise of common stock options	37,227	23,507
Proceeds from employee stock purchase plan contributions	4,363	3,797
Payments for repurchase and retirement of common stock	—	(6,255)
Other financing activities	—	(48)
Net cash (used in) provided by financing activities	(40,139)	21,001
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3,295)	(44)
Net increase in cash, cash equivalents and restricted cash	39,491	101,829
Cash, cash equivalents and restricted cash at beginning of year	467,576	316,958
Cash, cash equivalents and restricted cash at end of period	$ 507,067	$ 418,787
Supplemental disclosure of cash flow:		
Interest paid	$ 2,303	$ 2,121
Income taxes paid	$ 3,649	$ 8,901
Supplemental disclosure of non-cash investing and financing activities:		
Property and equipment in accounts payable and other current liabilities	$ 344	$ 427
Deferred payment obligations for acquisitions	$ 1,178	$ —

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 leader in computational intelligence enabling organizations across broad industry segments to drive smarter decisions in an increasingly connected world. Altair delivers software and cloud solutions in the areas of simulation, high-performance computing ("HPC"), data analytics, and artificial intelligence ("AI"). Altair's products and services leverage computational science to drive innovation and intelligent decisions for a more connected, safe, and sustainable future. The Company is headquartered in Troy, Michigan.

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, 2023, included in the most recent Annual Report on Form 10-K filed with the SEC.

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, valuation of acquired intangible assets in business combinations, 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, fair value of convertible senior notes, provision for credit loss, tax valuation allowances, liabilities for uncertain tax provisions, impairment of goodwill and intangible assets, useful lives of intangible assets, and stock-based compensation. Actual results could differ from those estimates.

Significant accounting policies

There have been no material changes to our significant accounting policies as of and for the six months ended June 30, 2024, as compared to the significant accounting policies described in our Annual Report on Form 10-K for the year ended December 31, 2023.

Change in Presentation of Revenue and Cost of Revenue

Effective in the first quarter of 2024, the Company changed the presentation of revenue and cost of revenue in its Consolidated Statements of Operations to combine the financial statement line items ("FSLIs") labeled "Software related services", "Client engineering services" and "Other" into one FSLI labeled "Engineering services and other". The change in presentation has been applied retrospectively and does not affect the software revenue, total revenue, software cost of revenue, or total cost of revenue amounts previously reported or have any effect on segment reporting.

2. Recent accounting guidance

Accounting standards not yet adopted

Reference Rate Reform – In March 2020, the FASB issued ASU 2020-04. *Reference Rate Reform (Topic 848) - Facilitation of the Effects of Reference Rate Reform on Financial Reporting.* This ASU provides optional expedients and exceptions for applying U.S. GAAP to contract modifications and hedging relationships, subject to meeting certain criteria, that reference LIBOR or another rate that is expected to be discontinued. In October 2022, the FASB Board voted to amend the sunset date of ASU 2020-04 to December 31, 2024. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures and does not expect this guidance to have a material effect on its consolidated financial statements.

Segment Reporting – In November 2023, the FASB issued ASU 2023-07 *Segment Reporting (Topic 280) - Improvements to Reportable Segment Disclosures*. The update is intended to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant expenses. The ASU requires disclosures to include significant segment expenses that are regularly provided to the chief operating decision maker (CODM), a description of other segment items by reportable segment, and any additional measures of a segment's profit or loss used by the CODM when deciding how to allocate resources. The ASU also requires all annual disclosures currently required by Topic 280 to be included in interim periods. The update is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted, and requires retrospective application to all prior periods presented in the financial statements. The Company is currently evaluating the impact of adopting the updated standard.

Income Taxes – In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which updates income tax disclosures related to the tax rate reconciliation and requires disclosure of income taxes paid by jurisdiction. The amendments are effective for fiscal years beginning after December 15, 2024. Early adoption is permitted. The amendments should be applied prospectively; however, retrospective application is permitted. The Company is currently evaluating this ASU to determine the effect on its related disclosures.

3. Revenue from contracts with customers

Disaggregation of revenue

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	**2023**	**2024**	**2023**
Term licenses and other software products	$ 77,859	$ 78,781	$ 189,029	$ 182,090
Perpetual licenses	14,840	8,957	21,377	18,057
Maintenance	39,734	36,041	78,377	71,642
Professional software services	2,990	1,542	5,069	3,175
Software related services	6,077	6,664	12,694	13,764
Client engineering services	6,554	8,034	13,011	15,810
Other	741	1,142	2,150	2,657
Total revenue	$ 148,795	$ 141,161	$ 321,707	$ 307,195

The Company derived approximately 12% of its total revenue through indirect sales channels for the six months ended June 30, 2024.

Costs to obtain a contract

As of June 30, 2024, and December 31, 2023, respectively, capitalized costs to obtain a contract were $4.5 million and $4.3 million recorded in Prepaid expenses and other current assets and $0.9 million and $0.9 million recorded in Other long-term assets in the Company's consolidated balance sheets. Sales commissions were $2.2 million and $4.5 million, respectively, for the three and six months ended June 30, 2024, and $2.1 million and $4.1 million, respectively, for the three and six months ended June 30, 2023. Sales commissions were included in Sales and marketing expense in the Company's consolidated statement of operations.

Contract assets

As of June 30, 2024, and December 31, 2023, respectively, contract assets were $5.7 million and $5.2 million included in Accounts receivable, net, and $3.3 million and $2.7 million included in Prepaid expenses and other current assets in the Company's consolidated balance sheets.

Deferred revenue

Approximately $96.3 million of revenue recognized during the six months ended June 30, 2024, was included in deferred revenue at the beginning of the year.

Revenue allocated to remaining performance obligations represents contracted revenue that has not yet been recognized, which includes deferred revenue and amounts that will be invoiced and recognized as revenue in future periods. Contracted revenue not yet recognized was $269.6 million and $215.9 million as of June 30, 2024 and 2023, respectively. Of the amount recorded as of June 30, 2024, the Company expects to recognize approximately 67% over the next 12 months and the remainder thereafter.

4. Supplementary Information

Acquisitions

2024 Acquisitions

During the three months ended June 30, 2024, the Company completed two acquisitions that were accounted for as business combinations under the acquisition method. The preliminary aggregate transaction consideration of $14.3 million was allocated to assets acquired and liabilities assumed at their estimated fair values. The fair values assigned to the identifiable intangible assets acquired were based on estimates and assumptions determined by management. The allocation included $7.2 million to developed technology, $2.7 million to customer relationships, $0.4 million to net liabilities acquired and $4.8 million to goodwill, which is deductible for tax purposes. All goodwill was recorded in the Software segment. The Company expects to finalize the valuations as soon as practicable, but not later than one year from the acquisition dates. These acquisitions were financed with cash on hand. The operating results of each acquisition have been included in the consolidated financial statements since the respective dates of acquisition. The Company's transaction costs related to these 2024 acquisitions were not material.

Prior acquisitions

The Company recognized a $0.1 million loss and a $0.2 million loss, respectively, for the three and six months ended June 30, 2024, and a $1.0 million loss and an $8.0 million loss, respectively, for the three and six months ended June 30, 2023, from a mark-to-market adjustment of contingent consideration associated with a prior year acquisition. The mark-to-market adjustments were included in Other operating (income) expense, net in the consolidated statements of operations.

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 sheets that sum to the total of the amounts reported in the consolidated statement of cash flows (in thousands):

	June 30, 2024	December 31, 2023
Cash and cash equivalents	$ 507,008	$ 467,459
Restricted cash included in other long-term assets	59	117
Total cash, cash equivalents and restricted cash	$ 507,067	$ 467,576

Restricted cash represents amounts required for the payment of potential health insurance claims and term deposits for bank guarantees.

Property and equipment, net

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

	June 30, 2024	December 31, 2023
Land	$ 8,374	$ 8,376
Building and improvements	17,538	17,528
Computer equipment and software	47,724	45,678
Furniture, equipment and other	13,723	14,402
Leasehold improvements	8,744	8,380
Total property and equipment	96,103	94,364
Less: accumulated depreciation and amortization	57,640	54,561
Property and equipment, net	$ 38,463	$ 39,803

Depreciation expense was $2.3 million and $4.5 million, respectively, for the three and six months ended June 30, 2024, and $2.1 million and $4.0 million, respectively, for the three and six months ended June 30, 2023.

Other liabilities

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

	June 30, 2024	December 31, 2023
Income taxes payable	$ 11,776	$ 12,239
Accrued VAT	5,908	8,710
Employee stock purchase plan obligations	4,391	4,155
Accrued professional fees	3,480	2,436
Accrued royalties	2,193	2,313
Billings in excess of cost	1,994	2,385
Obligations related to acquisition of businesses and technology	1,865	3,286
Non-income tax liabilities	1,753	2,473
Defined contribution plan liabilities	1,394	1,454
Other current liabilities	6,754	8,947
Total	$ 41,508	$ 48,398

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

	June 30, 2024	December 31, 2023
Pension and other post-retirement liabilities	$ 16,776	$ 15,815
Income tax reserves	15,798	16,254
Deferred tax liabilities	12,294	12,870
Other long-term liabilities	3,127	2,212
Total	$ 47,995	$ 47,151

Other income, net

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Interest income	$ (5,896)	$ (3,984)	$ (11,618)	$ (6,869)
Foreign exchange loss (gain)	146	(211)	1,911	(939)
Other income, net	$ (5,750)	$ (4,195)	$ (9,707)	$ (7,808)

5. Goodwill and other intangible assets

Goodwill

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

Balance as of December 31, 2023	$ 458,125
Acquisitions	4,809
Foreign currency translation	(3,864)
Balance as of June 30, 2024	$ 459,070

Other intangible assets

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

	June 30, 2024			
	Weighted average amortization period	Gross carrying amount	Accumulated amortization	Net carrying amount
Definite-lived intangible assets:				
Developed technology	4-6 years	$ 148,219	$ 101,119	$ 47,100
Customer relationships	7-10 years	60,651	41,314	19,337
Other intangibles	4-10 years	1,457	692	765
Total definite-lived intangible assets		210,327	143,125	67,202
Indefinite-lived intangible assets:				
Trade names		10,335		10,335
Total other intangible assets		$ 220,662	$ 143,125	$ 77,537

	December 31, 2023			
	Weighted average amortization period	Gross carrying amount	Accumulated amortization	Net carrying amount
Definite-lived intangible assets:				
Developed technology	4-6 years	$ 142,368	$ 90,729	$ 51,639
Customer relationships	7-10 years	58,316	37,779	20,537
Other intangibles	4-10 years	1,459	563	896
Total definite-lived intangible assets		202,143	129,071	73,072
Indefinite-lived intangible assets:				
Trade names		10,478		10,478
Total other intangible assets		$ 212,621	$ 129,071	$ 83,550

Amortization expense related to intangible assets was $7.6 million and $15.1 million, respectively, for the three and six months ended June 30, 2024, and $7.6 million and $15.4 million, respectively, for the three and six months ended June 30, 2023.

6. Debt

Convertible senior notes

2027 Notes

In June 2022, the Company issued $230.0 million aggregate principal amount of 1.750% convertible senior notes due in 2027 (the "2027 Notes"), which includes the initial purchaser’s exercise in full of its option to purchase an additional $30.0 million principal amount of the 2027 Notes, in a private offering. The net proceeds from the issuance of the 2027 Notes was $224.3 million after deducting discounts, commissions and estimated issuance costs. The 2027 Notes bear interest at a rate of 1.750% per year, payable semi-annually in arrears on June 15 and December 15 of each year, which commenced on December 15, 2022. The 2027 Notes mature on June 15, 2027, unless, earlier repurchased or redeemed by the Company or converted pursuant to their terms. The 2027 Notes have an initial conversion rate of 13.9505 shares of the Company's Class A common stock per $1,000 principal amount of 2027 Notes, which is equivalent to an initial conversion price of approximately $71.68 per share of its Class A common stock. Refer to the Company’s consolidated financial statements for the year ended December 31, 2022, for details of the issuance of the 2027 Notes.

The Company may settle the 2027 Notes in cash, shares of Class A common stock or a combination of cash and shares of its Class A common stock, at the Company’s election, in the manner and subject to the terms and conditions provided in the Indenture.

During the period ended June 30, 2024, the conditions allowing holders of the 2027 Notes to convert were not met. Therefore, the 2027 Notes remained classified as long-term debt on the consolidated balance sheet as of June 30, 2024.

2024 Notes

In June 2019, the Company issued $230.0 million aggregate principal amount of 0.25% convertible senior notes due in 2024 (the "2024 Notes" and together with the 2027 Notes, the "Convertible Notes"), which included the underwriters' exercise in full of their option to purchase an additional $30.0 million principal amount of the 2024 Notes, in a public offering. The net proceeds from the issuance of the 2024 Notes were $221.9 million after deducting the underwriting discounts and commissions and estimated issuance costs. The 2024 Notes bore interest at a rate of 0.25% per year, payable semi-annually in arrears on June 1 and December 1 of each year. The 2024 Notes matured on June 1, 2024. The 2024 Notes had an initial conversion rate of 21.5049 shares of the Company's Class A common stock per $1,000 principal amount of 2024 Notes, which was equivalent to an initial conversion price of approximately $46.50 per share of its Class A common stock. Refer to the Company's consolidated financial statements for the year ended December 31, 2023, for details of the issuance of the 2024 Notes.

During the year ended December 31, 2022, using proceeds from the issuance of the 2027 Notes, the Company entered into separate privately negotiated transactions with certain holders of the 2024 Notes to repurchase and retire $148.2 million aggregate principal amount of the 2024 Notes for an aggregate amount of $192.4 million of cash including accrued and unpaid interest.

As of December 31, 2023, $81.7 million principal amount of the 2024 Notes remained outstanding.

During the three months ended June 30, 2024, the Company settled the remaining principal amount of the 2024 Notes totaling approximately $81.7 million by paying cash for the principal amount of $81.7 million and issuing 796,817 shares of the Company's common stock, with a fair value of $70.8 million.

The net carrying value of the 2027 and 2024 Notes was as follows (in thousands):

	June 30, 2024		December 31, 2023	
	2027 Notes	2024 Notes	2027 Notes	2024 Notes
Principal	$ 230,000	$ —	$ 230,000	$ 81,729
Less: unamortized debt issuance costs	3,482	—	4,071	274
Net carrying amount	$ 226,518	$ —	$ 225,929	$ 81,455

The interest expense related to the 2027 and 2024 Notes was as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Contractual interest expense	$ 1,041	$ 1,060	$ 2,098	$ 2,121
Amortization of debt issuance costs	406	435	863	899
Total	$ 1,447	$ 1,495	$ 2,961	$ 3,020

As of June 30, 2024, the "if converted value" of the 2027 Notes exceeded the principal amount by $84.7 million.

Revolving credit facility

The Company has a $200.0 million credit facility with a maturity date of December 31, 2025 ("2019 Amended Credit Agreement").

As of June 30, 2024, there were no outstanding borrowings under the 2019 Amended Credit Agreement, there was $200.0 million available for future borrowing, and the Company was in compliance with all the financial covenants. The 2019 Amended Credit Agreement is available for general corporate purposes, including working capital, capital expenditures, and permitted acquisitions.

For additional information about the 2019 Amended Credit Agreement, refer to the Company's consolidated financial statements for the year ended December 31, 2023, included in our Annual Report on Form 10-K.

7. 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, net and accounts payable approximate fair value due to their short maturities. Interest on the Company's line of credit is at a variable rate, and as such the debt obligation outstanding approximates fair value.

The carrying value of the Company's 2027 Notes are at face value less unamortized issuance costs. The estimated fair values of the 2027 Notes, which the Company has classified as Level 2 financial instruments, were determined based on quoted bid prices of the 2027 Notes on the last trading day of each reporting period. As of June 30, 2024, the estimated fair value of the 2027 Notes was $334.9 million, and is presented for required disclosure purposes only. For further information on the Convertible Notes, see Note 6. – Debt.

8. Stock-based compensation

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 19,460,908 authorized shares of the Company's Class A common stock reserved for issuance. As of June 30, 2024, the Company had 6,643,204 shares of its common stock available for future issuances under the 2017 Plan.

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

	Number of RSUs
Outstanding as of December 31, 2023	1,086,351
Granted	366,364
Vested	(392,931)
Forfeited	(13,845)
Outstanding as of June 30, 2024	1,045,939

The weighted average grant date fair value of the RSUs granted during the six months ended June 30, 2024, was $79.68. The RSUs generally vest in four equal annual installments. Total compensation cost related to nonvested awards not yet recognized as of June 30, 2024, totaled $102.6 million, and is expected to be recognized over a weighted average period of 2.5 years.

The following table summarizes the stock option activity under the 2017 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 as of December 31, 2023	7,602,078	$ 52.81	7.8	$ 238.3
Granted	417,459	$ 79.19		
Exercised	(753,504)	$ 49.72		
Forfeited	(65,631)	$ 55.28		
Outstanding as of June 30, 2024	7,200,402	$ 54.63	7.6	$ 312.8
Exercisable as of June 30, 2024	3,415,212	$ 51.60	6.6	$ 158.7

The total intrinsic value of the 2017 Plan stock options exercised during the six months ended June 30, 2024, was $29.1 million.

2021 Employee Stock Purchase Plan

The Company has an Employee Stock Purchase Plan ("ESPP") which allows eligible employees to purchase shares of common stock through payroll deductions and is intended to qualify under Section 423 of the Internal Revenue Code. The maximum number of shares available for issuance under the ESPP is 3,200,000 shares of the Company's Class A common stock. As of June 30, 2024, the Company had 2,767,911 shares of its common stock available for future issuances under the ESPP.

The purchase price for each share of common stock purchased under the ESPP will be 85% of the lower of (a) the fair market value per share on the first day of the applicable offering period or (b) the fair market value per share on the applicable purchase date.

The Company issued 64,309 shares of common stock under the ESPP during the six months ended June 30, 2024. As of June 30, 2024 and December 31, 2023, respectively, $4.4 million and $4.2 million had been withheld on behalf of employees for future purchases under the ESPP due to the timing of payroll deductions and was reported in current liabilities. Stock-based compensation expense related to the ESPP was $0.7 million and $1.4 million, respectively, for the three and six months ended June 30, 2024, and $0.6 million and $1.2 million, respectively, for the three and six months ended June 30, 2023.

Stock-based compensation expense

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Cost of revenue – software	$ 2,097	$ 2,572	$ 4,099	$ 5,324
Research and development	6,618	9,943	12,978	18,686
Sales and marketing	4,979	7,581	9,499	15,172
General and administrative	3,661	3,640	6,778	6,715
Total stock-based compensation expense	$ 17,355	$ 23,736	$ 33,354	$ 45,897

9. Earnings (loss) per share

Basic (loss) earnings per share attributable to common stockholders is computed using the weighted average number of shares of common stock outstanding for the period, excluding dilutive securities, stock options, RSUs and ESPP shares. Diluted (loss) earnings 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 dilutive securities, stock options, RSUs and ESPP shares under the treasury stock method.

The Company applies the if-converted method for convertible instruments when calculating diluted earnings per share. Under the if-converted method, shares related to convertible senior notes, to the extent dilutive, are assumed to be converted into common stock at the beginning of the period.

The following table sets forth the computation of the numerators and denominators used in the basic and diluted (loss) earnings per share amounts (in thousands, except per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Numerator:				
Net (loss) income	$ (5,147)	$ (22,280)	$ 11,400	$ (24,239)
Interest expense related to convertible notes, net of tax [(1)]	—	—	—	—
Numerator for diluted (loss) earnings per share	$ (5,147)	$ (22,280)	$ 11,400	$ (24,239)
Denominator:				
Weighted average shares outstanding, basic	83,607	79,986	83,097	80,088
Effect of dilutive shares	—	—	4,300	—
Weighted average shares outstanding, diluted	83,607	79,986	87,397	80,088
Basic (loss) earnings per share	$ (0.06)	$ (0.28)	$ 0.14	$ (0.30)
Diluted (loss) earnings per share	$ (0.06)	$ (0.28)	$ 0.13	$ (0.30)

(1) Interest expense related to the convertible notes has been excluded from the numerator for diluted earnings per share because its effect would have been anti-dilutive.

Anti-dilutive shares excluded from the computation of diluted (loss) earnings per share were as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Stock options and ESPP shares	3,569	3,430	—	3,679
Convertible shares	3,819	4,967	3,209	4,967
Total shares excluded from calculation	7,388	8,397	3,209	8,646

10. Income taxes

The Company’s income tax expense and effective tax rate for the three and six months ended June 30, 2024 and 2023, were as follows (in thousands, except percentages):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Income tax (benefit) expense	$ (610)	$ 8,678	$ 6,159	$ 17,910
Effective tax rate	11 %	(64 %)	35 %	(283 %)

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 due to a valuation allowance. The change in the effective tax rate for the six months ended June 30, 2024 as compared to June 30, 2023, was primarily attributable to the effects of tax elections made by the Company during the third quarter of 2023 that have a prospective impact on the Company's tax expense in 2024. The Company's effective tax rate for the six months ended June 30, 2024 and 2023 also includes net discrete benefit of $0.3 million and expense of $11.6 million, respectively, primarily related to changes in tax laws, withholding taxes on royalties, changes in reserves, changes in accruals for unremitted earnings and other adjustments.

11. 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 as of December 31, 2023	$ (21,473)	$ (836)	$ (22,309)
Other comprehensive income before reclassification	(7,096)	—	(7,096)
Amounts reclassified from accumulated other comprehensive income	—	115	115
Tax effects	—	—	—
Other comprehensive income	(7,096)	115	(6,981)
Balance as of June 30, 2024	$ (28,569)	$ (721)	$ (29,290)

12. Commitments and contingencies

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.

Effects of proceedings

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.

13. 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 ("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, asset impairment charges and other special items as determined by management. Corporate headquarter costs are allocated to each segment.

The following tables are in thousands:

Three months ended June 30, 2024	Software	CES	All other	Total
Revenue	$ 141,500	$ 6,554	$ 741	$ 148,795
Adjusted EBITDA	$ 17,310	$ 419	$ (381)	$ 17,348

Three months ended June 30, 2023	Software	CES	All other	Total
Revenue	$ 131,985	$ 8,034	$ 1,142	$ 141,161
Adjusted EBITDA	$ 17,707	$ 633	$ (1,284)	$ 17,056

Six months ended June 30, 2024	Software	CES	All other	Total
Revenue	$ 306,546	$ 13,011	$ 2,150	$ 321,707
Adjusted EBITDA	$ 63,380	$ 352	$ (566)	$ 63,166

Six months ended June 30, 2023	Software	CES	All other	Total
Revenue	$ 288,728	$ 15,810	$ 2,657	$ 307,195
Adjusted EBITDA	$ 60,479	$ 1,042	$ (1,410)	$ 60,111

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Reconciliation of Adjusted EBITDA to U.S. GAAP (loss) income before income taxes:				
Adjusted EBITDA	$ 17,348	$ 17,056	$ 63,166	$ 60,111
Stock-based compensation expense	(17,355)	(23,736)	(33,354)	(45,897)
Interest expense	(1,604)	(1,528)	(3,180)	(3,054)
Depreciation and amortization	(9,938)	(9,738)	(19,557)	(19,488)
Special adjustments, interest income and other [(1)]	5,792	4,344	10,484	1,999
(Loss) income before income taxes	$ (5,757)	$ (13,602)	$ 17,559	$ (6,329)

(1) The three months ended June 30, 2024, primarily includes $5.9 million of interest income. The three months ended June 30, 2023, includes $4.0 million of interest income, $1.3 million of currency gains on acquisition-related intercompany loans, and a $1.0 million loss from the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition. The six months ended June 30, 2024, includes $11.6 million of interest income, $0.9 million of currency losses on acquisition-related intercompany loans, and a $0.2 million loss from the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition. The six months ended June 30, 2023, includes an $8.0 million loss from the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition, $6.9 million of interest income, and $3.1 million currency gains on acquisition-related intercompany loans.

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, 2023, 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 and the time it takes to acquire new customers;
- reduced spending on product design and development activities by our customers;
- our ability to successfully renew our outstanding software licenses;
- our ability to maintain or protect our intellectual property;
- our ability to retain key executive members;
- our ability to internally develop new software products, 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 enhanced business model by customers and investors;
- our susceptibility to factors affecting the automotive, aerospace and banking, financial services, and insurance (BFSI) 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;
- the significant quarterly fluctuations of our results; and
- the uncertain effect of cyberattacks, data security incidents, future pandemics or events on our business, operating results, and financial condition, including disruption to our customers, our employees, the global economy, and financial markets.

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 anticipated 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, 2023, which was filed with the SEC on February 22, 2024, and other information appearing elsewhere in our Annual Report on Form 10-K, 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 leader in computational intelligence and we provide software and cloud solutions in simulation, high-performance computing (HPC), data analytics, and AI. We enable organizations across all industries to compete more effectively and drive smarter decisions in an increasingly connected world - all while creating a greener, more sustainable future.

Acquisitions

In April 2024, we acquired Cambridge Semantics, a modern data fabric provider and creator of the industry’s leading analytical graph database. Cambridge Semantics’ technologies will be integrated into the Altair RapidMiner platform.

In April 2024, we acquired Research in Flight, maker of FlightStream, which provides computational fluid dynamics (CFD) software with a large footprint in the aerospace and defense sector and a growing presence in marine, energy, turbomachinery, and automotive applications. The technology will be integrated into the Altair HyperWorks design and simulation platform.

Settlement of 2024 Notes

During the three months ended June 30, 2024, we settled the remaining balance of our convertible senior notes which matured on June 1, 2024 (the “2024 Notes”) by paying cash for the principal amount of $81.7 million and issuing 796,817 shares of our Class A common stock, with a fair value of $70.8 million.

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, 2023.

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 and payment 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 customers’ requests for data analytics 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 identify 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. For the remainder of our current fiscal year, we anticipate that our revenues and profit may be impacted by changes in foreign currency rates.

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, high-performance computing software applications and support, hardware products, modeling and visualization tools, data analytics and analysis 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 component of this segment includes consulting, training, and implementation services. The software related services component of this segment includes technical services 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.

For additional information about our reportable segments and other businesses, see Note 13 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 and six months ended June 30, 2024 and 2023

The following table sets forth the results of operations and the period-over-period percentage change in certain financial data for the three and six months ended June 30, 2024 and 2023:

(in thousands, except %'s)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Increase / (decrease) %	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Increase / (decrease) %
Revenue:						
Software	$ 135,423	$ 125,321	8%	$ 293,852	$ 274,964	7%
Engineering services and other	13,372	15,840	(16%)	27,855	32,231	(14%)
Total revenue	148,795	141,161	5%	321,707	307,195	5%
Cost of revenue:						
Software	19,351	17,620	10%	38,007	36,870	3%
Engineering services and other	11,165	13,177	(15%)	23,402	26,662	(12%)
Total cost of revenue	30,516	30,797	(1%)	61,409	63,532	(3%)
Gross profit	118,279	110,364	7%	260,298	243,663	7%
Operating expenses:						
Research and development	55,570	55,277	1%	107,903	108,528	(1%)
Sales and marketing	46,475	44,982	3%	90,909	88,474	3%
General and administrative	19,294	18,622	4%	37,055	36,573	1%
Amortization of intangible assets	7,629	7,625	0%	15,067	15,439	(2%)
Other operating (income) expense, net	(786)	127	NM	(1,668)	5,732	NM
Total operating expenses	128,182	126,633	1%	249,266	254,746	(2%)
Operating (loss) income	(9,903)	(16,269)	(39%)	11,032	(11,083)	NM
Interest expense	1,604	1,528	5%	3,180	3,054	4%
Other income, net	(5,750)	(4,195)	37%	(9,707)	(7,808)	24%
(Loss) income before income taxes	(5,757)	(13,602)	(58%)	17,559	(6,329)	NM
Income tax (benefit) expense	(610)	8,678	NM	6,159	17,910	(66%)
Net (loss) income	$ (5,147)	$ (22,280)	(77%)	$ 11,400	$ (24,239)	NM
Other financial information:						
Billings(1)	$ 154,468	$ 147,765	5%	$ 308,616	$ 311,282	(1%)
Adjusted EBITDA(2)	$ 17,348	$ 17,056	2%	$ 63,166	$ 60,111	5%
Net cash provided by operating activities				$ 102,007	$ 89,229	14%
Free cash flow(3)				$ 97,003	$ 83,045	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, 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.

Change in Presentation of Revenue and Cost of Revenue

Effective in the first quarter of 2024, the Company changed the presentation of revenue and cost of revenue in its Consolidated Statements of Operations to combine the financial statement line items ("FSLIs") labeled "Software related services", "Client engineering services" and "Other" into one FSLI labeled "Engineering services and other." The change in presentation has been applied retrospectively and does not affect the software revenue, total revenue, software cost of revenue, or total cost of revenue amounts previously reported or have any effect on segment reporting.

Three months ended June 30, 2024 and 2023

Revenue

Software

	Three Months Ended June 30,		Period-to-period change	
(in thousands)	**2024**	**2023**	**$**	**%**
Software revenue	$ 135,423	$ 125,321	$ 10,102	8 %
As a percent of consolidated revenue	91 %	89 %		

Software revenue increased 8%, or 11% in constant currency, for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. The increase was driven by growth in software license revenue primarily by new business and strong retention and expansions within existing accounts, with particular strength in the aerospace & defense vertical.

Engineering services and other

	Three Months Ended June 30,		Period-to-period change	
(in thousands)	**2024**	**2023**	**$**	**%**
Engineering services and other	$ 13,372	$ 15,840	$ (2,468)	(16 %)
As a percent of consolidated revenue	9 %	11 %		

The 16% decrease in engineering services and other revenue for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023, was primarily due to lower customer demand for client engineering services during the period.

Cost of revenue

Software

	Three Months Ended June 30,		Period-to-period change	
(in thousands)	**2024**	**2023**	**$**	**%**
Cost of software revenue	$ 19,351	$ 17,620	$ 1,731	10 %
As a percent of software revenue	14 %	14 %		
As a percent of consolidated revenue	13 %	12 %		

Cost of software revenue increased $1.7 million, or 10%, for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. Employee compensation and related expense, travel costs and royalty expense increased $2.7 million, $0.3 million, and $0.2 million, respectively, for the three months ended June 30, 2024. These increases were partially offset by decreases in hardware costs and stock-based compensation expense of $1.0 million and $0.5 million, respectively.

Engineering services and other

	Three Months Ended June 30,		Period-to-period change	
(in thousands)	**2024**	**2023**	**$**	**%**
Cost of engineering services and other revenue	$ 11,165	$ 13,177	$ (2,012)	(15 %)
As a percent of engineering services and other revenue	83 %	83 %		
As a percent of consolidated revenue	8 %	9 %		

Cost of engineering services and other revenue decreased 15% for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. The decrease was primarily due to a decrease in employee compensation and related expense for the period.

Gross profit

(in thousands)	Three Months Ended June 30, 2024	2023	Period-to-period change $	%
Gross profit	$ 118,279	$ 110,364	$ 7,915	7 %
As a percent of consolidated revenue	79 %	78 %		

Gross profit increased by $7.9 million, or 7%, for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. This increase in gross profit was primarily attributable to the increase in software revenue.

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

(in thousands)	Three Months Ended June 30, 2024	2023	Period-to-period change $	%
Research and development	$ 55,570	$ 55,277	$ 293	1 %
As a percent of consolidated revenue	37 %	39 %		

Research and development expenses increased by $0.3 million, or 1%, for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. Employee compensation and related expense increased $3.3 million for the three months ended June 30, 2024, primarily due to increased headcount and compensation increases. These increases were partially offset by a decrease in stock-based compensation expense of $3.3 million.

Sales and marketing

(in thousands)	Three Months Ended June 30, 2024	2023	Period-to-period change $	%
Sales and marketing	$ 46,475	$ 44,982	$ 1,493	3 %
As a percent of consolidated revenue	31 %	32 %		

Sales and marketing expenses increased by $1.5 million, or 3%, for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. Employee compensation and related expense increased $3.2 million, primarily due to annual compensation increases and increased headcount, travel costs increased $0.4 million, and facilities costs increased $0.2 million for the three months ended June 30, 2024. These increases were partially offset by a decrease in stock-based compensation expense of $2.6 million.

General and administrative

(in thousands)	Three Months Ended June 30, 2024	2023	Period-to-period change $	%
General and administrative	$ 19,294	$ 18,622	$ 672	4 %
As a percent of consolidated revenue	13 %	13 %		

General and administrative expenses increased by $0.7 million, or 4%, for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023. Employee compensation and related expense increased $0.3 million and non-income taxes increased $0.2 million for the three months ended June 30, 2024.

Amortization of intangible assets

(in thousands)	Three Months Ended June 30, 2024	2023	Period-to-period change $	%
Amortization of intangible assets	$ 7,629	$ 7,625	$ 4	0 %
As a percent of consolidated revenue	5 %	5 %		

Amortization of intangible assets remained consistent for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023.

Other operating (income) expense, net

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Other operating (income) expense, net	$ (786)	$ 127	$ 913	NM
As a percent of consolidated revenue	(1%)	0%		

Other operating (income) expense, net was $0.8 million of income for the three months ended June 30, 2024, compared to $0.1 million of expense for the three months ended June 30, 2023. We recognized $1.0 million and $0.9 million of grant income for the three months ended June 30 2024 and 2023, respectively. We recognized a $0.1 million loss on the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition for the three months ended June 30, 2024, compared to a $1.0 million loss for the three months ended June 30, 2023.

Interest expense

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Interest expense	$ 1,604	$ 1,528	$ 76	5%
As a percent of consolidated revenue	1%	1%		

Interest expense remained consistent for the three months ended June 30, 2024, as compared to the three months ended June 30, 2023.

Other income, net

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Other income, net	$ (5,750)	$ (4,195)	$ 1,555	37%
As a percent of consolidated revenue	(4%)	(3%)		

Other income, net increased $1.6 million for the three months ended June 30, 2024, compared to the three months ended June 30, 2023. Other income, net for the three months ended June 30, 2024, includes $5.9 million of interest income and $0.1 million in net foreign currency losses. Other income, net for the three months ended June 30, 2023, includes $4.0 million of interest income and $0.2 million in net foreign currency gains.

Income tax expense

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Income tax (benefit) expense	$ (610)	$ 8,678	$ (9,288)	NM

The effective tax rate was 11% and -64% for the three months ended June 30, 2024 and 2023, respectively. The tax rate is affected by our status as a U.S. resident taxpayer, the tax rates in the U.S. and other jurisdictions in which we operate, the relative amount of income earned by jurisdiction and the relative amount of losses or income for which no benefit or expense is recognized due to a valuation allowance. The change in the effective tax rate for the three months ended June 30, 2024 as compared to June 30, 2023, was primarily attributable to the effects of tax elections made by the Company during the third quarter of 2023 that have a prospective impact on the Company's tax expense in 2024. The Company's effective tax rate for the three months ended June 30, 2024 and 2023 also includes net discrete expense of $0.1 million and $5.9 million, respectively, primarily related to changes in tax laws, withholding taxes on royalties, changes in reserves, changes in accruals for unremitted earnings and other adjustments.

Net loss

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Net loss	$ (5,147)	$ (22,280)	$ (17,133)	(77%)

Net loss was $5.1 million for the three months ended June 30, 2024, compared to a net loss of $22.3 million for the three months ended June 30, 2023. The reduction in net loss for the three months ended June 30, 2024, was a result of the increase in gross profit, the increase in interest income and the decrease in income tax expense as compared to the three months ended June 30, 2023.

Six months ended June 30, 2024 and 2023

Revenue

Software

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Software revenue	$ 293,852	$ 274,964	$ 18,888	7 %
As a percent of consolidated revenue	91 %	90 %		

Software revenue increased 7%, or 9% in constant currency, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. The increase was driven by growth in software license revenue primarily by new business and strong retention and expansions within existing accounts, with particular strength in the aerospace & defense vertical.

Engineering services and other

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Engineering services and other revenue	$ 27,855	$ 32,231	$ (4,376)	(14 %)
As a percent of consolidated revenue	9 %	10 %		

The 14% decrease in engineering services and other revenue for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023, was primarily due to lower customer demand for client engineering services during the period.

Cost of revenue

Software

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Cost of software revenue	$ 38,007	$ 36,870	$ 1,137	3 %
As a percent of software revenue	13 %	13 %		
As a percent of consolidated revenue	12 %	12 %		

Cost of software revenue increased $1.1 million, or 3%, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. Employee compensation and related expense, royalty expense, and travel costs increased $3.4 million, $0.5 million and $0.4 million, respectively, for the six months ended June 30, 2024. These increases were partially offset by decreases in hardware costs and stock-based compensation expense of $1.9 million and $1.2 million, respectively.

Engineering services and other

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Cost of engineering services and other revenue	$ 23,402	$ 26,662	$ (3,260)	(12 %)
As a percent of engineering services and other revenue	84 %	83 %		
As a percent of consolidated revenue	7 %	9 %		

Cost of engineering services and other revenue decreased 12% for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. The decrease was primarily due to a decrease in employee compensation and related expense for the period.

Gross profit

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Gross profit	$ 260,298	$ 243,663	$ 16,635	7 %
As a percent of consolidated revenue	81 %	79 %		

Gross profit increased by $16.6 million, or 7%, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. This increase in gross profit was primarily attributable to the increase in software revenue.

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

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Research and development	$ 107,903	$ 108,528	$ (625)	(1%)
As a percent of consolidated revenue	34%	35%		

Research and development expenses decreased by $0.6 million, or 1%, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. Stock-based compensation expense decreased $5.7 million for the six months ended June 30, 2024, partially offset by an increase in employee compensation and related expense of $4.5 million, primarily due to increased headcount and compensation increases. We also had increases in facilities costs of $0.4 million and depreciation expense of $0.2 million for the six months ended June 30, 2024.

Sales and marketing

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Sales and marketing	$ 90,909	$ 88,474	$ 2,435	3%
As a percent of consolidated revenue	28%	29%		

Sales and marketing expenses increased by $2.4 million, or 3%, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. Employee compensation and related expense increased $6.7 million, primarily due to annual compensation increases and increased headcount, travel costs increased $0.7 million, facilities costs increased $0.4 million, and advertising and trade show related expenses increased $0.3 million for the six months ended June 30, 2024. These increases were partially offset by a decrease in stock-based compensation expense and non-income tax expense of $5.7 million and $0.2 million, respectively.

General and administrative

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
General and administrative	$ 37,055	$ 36,573	$ 482	1%
As a percent of consolidated revenue	12%	12%		

General and administrative expenses increased by $0.5 million, or 1%, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023, driven primarily by an increase in professional fees of $0.5 million.

Amortization of intangible assets

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Amortization of intangible assets	$ 15,067	$ 15,439	$ (372)	(2%)
As a percent of consolidated revenue	5%	5%		

Amortization of intangible assets decreased by $0.4 million, or 2%, for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023. Amortization decreased as a result of certain fully amortized intangible assets.

Other operating (income) expense, net

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	Period-to-period change $	Period-to-period change %
Other operating (income) expense, net	$ (1,668)	$ 5,732	$ 7,400	NM
As a percent of consolidated revenue	(1%)	2%		

Other operating (income) expense, net was $1.7 million of income for the six months ended June 30, 2024, compared to $5.7 million of expense for the six months ended June 30, 2023. We recognized a $0.2 million loss on the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition for the six months ended June 30, 2024, compared to an $8.0 million loss for the six months ended June 30, 2023. In addition, we had an $0.8 million decrease in grant income and $0.5 million increase in royalty income for the six months ended June 30, 2024.

Interest expense

	Six Months Ended June 30,		Period-to-period change	
(in thousands)	2024	2023	$	%
Interest expense	$ 3,180	$ 3,054	$ 126	4%
As a percent of consolidated revenue	1%	1%		

Interest expense remained consistent for the six months ended June 30, 2024, as compared to the six months ended June 30, 2023.

Other income, net

	Six Months Ended June 30,		Period-to-period change	
(in thousands)	2024	2023	$	%
Other income, net	$ (9,707)	$ (7,808)	$ 1,899	24%
As a percent of consolidated revenue	(3%)	(3%)		

Other income, net increased $1.9 million for the six months ended June 30, 2024, compared to the six months ended June 30, 2023. Other income, net for the six months ended June 30, 2024, includes $11.6 million of interest income and $1.9 million in net foreign currency losses. Other income, net for the six months ended June 30, 2023, includes $6.9 million of interest income and $0.9 million in net foreign currency gains.

Income tax expense

	Six Months Ended June 30,		Period-to-period change	
(in thousands)	2024	2023	$	%
Income tax expense	$ 6,159	$ 17,910	$ (11,751)	(66%)

The effective tax rate was 35% and -283% for the six months ended June 30, 2024 and 2023, respectively. The tax rate is affected by our status as a U.S. resident taxpayer, the tax rates in the U.S. and other jurisdictions in which we operate, the relative amount of income earned by jurisdiction and the relative amount of losses or income for which no benefit or expense is recognized due to a valuation allowance. The change in the effective tax rate for the six months ended June 30, 2024 as compared to June 30, 2023, was primarily attributable to the effects of tax elections made by the Company during the third quarter of 2023 that have a prospective impact on the Company’s tax expense in 2024. The Company's effective tax rate for the six months ended June 30, 2024 and 2023 also includes net discrete benefit of $0.3 million and expense of $11.6 million, respectively, primarily related to changes in tax laws, withholding taxes on royalties, changes in reserves, changes in accruals for unremitted earnings and other adjustments.

Net income (loss)

	Six Months Ended June 30,		Period-to-period change	
(in thousands)	2024	2023	$	%
Net income (loss)	$ 11,400	$ (24,239)	$ 35,639	NM

Net income was $11.4 million for the six months ended June 30, 2024, compared to a net loss of $24.2 million for the six months ended June 30, 2023. Net income for the six months ended June 30, 2024, was a result of the increase in gross profit, the decrease in the loss on the mark-to-market adjustment of contingent consideration, the increase in interest income and the decrease in income tax expense as compared to the six months ended June 30, 2023.

Non-GAAP financial measures

We monitor the following key non-GAAP (United States generally accepted accounting principles) financial and operating metrics to help us evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions. 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 as a performance measure and Free Cash Flow as a liquidity measure.

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Other financial data:				
Billings	$ 154,468	$ 147,765	$ 308,616	$ 311,282
Adjusted EBITDA	$ 17,348	$ 17,056	$ 63,166	$ 60,111
Free Cash Flow			$ 97,003	$ 83,045

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, 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.

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 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 to rely on any single financial measure.

Reconciliation of non-GAAP financial measures

The following tables provides reconciliations of revenue to Billings, net loss to Adjusted EBITDA, and net cash provided by operating activities to Free Cash Flow:

Billings

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Revenue	$ 148,795	$ 141,161	$ 321,707	$ 307,195
Ending deferred revenue	152,184	148,547	152,184	148,547
Beginning deferred revenue	(144,939)	(141,943)	(163,703)	(144,460)
Deferred revenue acquired	(1,572)	—	(1,572)	—
Billings	$ 154,468	$ 147,765	$ 308,616	$ 311,282

Adjusted EBITDA

(in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Net (loss) income	$ (5,147)	$ (22,280)	$ 11,400	$ (24,239)
Income tax (benefit) expense	(610)	8,678	6,159	17,910
Stock-based compensation expense	17,355	23,736	33,354	45,897
Interest expense	1,604	1,528	3,180	3,054
Depreciation and amortization	9,938	9,738	19,557	19,488
Special adjustments, interest income and other [1]	(5,792)	(4,344)	(10,484)	(1,999)
Adjusted EBITDA	$ 17,348	$ 17,056	$ 63,166	$ 60,111

(1) The three months ended June 30, 2024, primarily includes $5.9 million of interest income. The three months ended June 30, 2023, includes $4.0 million of interest income, $1.3 million of currency gains on acquisition-related intercompany loans, and a $1.0 million loss from the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition. The six months ended June 30, 2024, includes $11.6 million of interest income, $0.9 million of currency losses on acquisition-related intercompany loans, and a $0.2 million loss from the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition. The six months ended June 30, 2023, includes an $8.0 million loss from the mark-to-market adjustment of contingent consideration associated with the World Programming acquisition, $6.9 million of interest income, and $3.1 million currency gains on acquisition-related intercompany loans.

Free Cash Flow

(in thousands)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Net cash provided by operating activities	$ 102,007	$ 89,229
Capital expenditures	(5,004)	(6,184)
Free cash flow	$ 97,003	$ 83,045

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. Recurring revenue streams allow us to create more consistent, predictable cash flows and drive greater long-term customer value. We believe the recurring software license rate is a key factor to our success and we monitor this measure to ensure our go-to-market strategy is driving long-term success of our business.

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. The recurring software license rate was 93% and 94%, respectively, for the six months ended June 30, 2024 and 2023. The recurring software license rate may vary from period to period.

Liquidity and capital resources

As of June 30, 2024, our principal sources of liquidity were $507.0 million in cash and cash equivalents and $200.0 million availability on our credit facility. We have outstanding debt in the form of our 2027 convertible notes (“2027 Notes”) with a $230.0 million principal amount as of June 30, 2024.

During the period ended June 30, 2024, the conditions allowing holders of the 2027 Notes to convert were not met. Therefore, the 2027 Notes were classified as long-term debt on the consolidated balance sheet as of June 30, 2024. We have the ability to settle the 2027 Notes in cash, shares of our common stock, or a combination of cash and shares of our common stock at our own election.

As of June 30, 2024, approximately $49.1 million remained available for repurchase under our stock repurchase program.

We continue to evaluate possible acquisitions and other strategic transactions designed to expand our business. As a result, our expected uses of cash could change, our cash position could be reduced, or we may incur additional debt obligations to the extent we complete additional acquisitions or strategic transactions.

Our existing cash and cash equivalents may fluctuate during fiscal 2024 due to changes in our planned cash expenditures, including changes in incremental costs such as direct costs and integration costs related to acquisitions. Cash from operations could also be affected by various risks and uncertainties, including but not limited to, the effects of geopolitical events. It is possible that certain customers may unilaterally decide to extend payments on accounts receivable, however our customer base is comprised primarily of larger organizations with typically strong liquidity and capital resources.

We believe that our existing cash balances, together with funds generated from operations and amounts available under our credit facility, will be sufficient to finance our operations and meet our foreseeable cash requirements for the next twelve months. We also believe that our financial resources, along with managing discretionary expenses, will allow us to manage our business operations for the foreseeable future and withstand geopolitical events, which could include reductions in revenue and delays in payments from customers and partners. We will continue to evaluate our financial position as developments evolve.

Revolving credit facility

As of June 30, 2024, there were no outstanding borrowings under our 2019 Amended Credit Agreement and there was $200.0 million available for future borrowing. The 2019 Amended Credit Agreement is available for general corporate purposes, including working capital, capital expenditures and permitted acquisitions.

For additional information about the 2019 Amended Credit Agreement, refer to our consolidated financial statements for the year ended December 31, 2023, included in our Annual Report on Form 10-K filed with the SEC on February 22, 2024.

Cash flows

As of June 30, 2024, we had cash and cash equivalents of $507.0 million available for working capital purposes, acquisitions, and capital expenditures; $363.7 million of this amount was held in the United States and $135.8 million was held in the APAC and EMEA regions with the remainder held in Canada, Mexico, and South America.

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 following table summarizes our cash flows for the periods indicated:

	Six Months Ended June 30,	
(in thousands)	**2024**	**2023**
Net cash provided by operating activities	$ 102,007	$ 89,229
Net cash used in investing activities	(19,082)	(8,357)
Net cash (used in) provided by financing activities	(40,139)	21,001
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3,295)	(44)
Net increase in cash, cash equivalents and restricted cash	$ 39,491	$ 101,829

Net cash provided by operating activities

Net cash provided by operating activities for the six months ended June 30, 2024, was $102.0 million, which reflects an increase of $12.8 million compared to the six months ended June 30, 2023. This increase was primarily the result of improvements in our operating results for the six months ended June 30, 2024, as compared to the six months ended June 30, 2024.

Net cash used in investing activities

Net cash used in investing activities for the six months ended June 30, 2024, was $19.1 million, which reflects an increase of $10.7 million compared to the six months ended June 30, 2023. For the six months ended June 30, 2024, we paid $13.7 million related to business acquisitions.

Net cash (used in) provided by financing activities

Net cash used in financing activities for the six months ended June 30, 2024, was $40.1 million, compared to net cash provided by financing activities for the six months ended June 30, 2023, of $21.0 million. For the six months ended June 30, 2024, we paid $81.7 million for the settlement of the remaining balance of our 2024 convertible notes and we received proceeds of $37.2 million from the exercise of common stock options. For the six months ended June 30, 2023, we received proceeds of $23.5 million from the exercise of common stock options and made payments of $6.3 million for the repurchase of our Class A common stock.

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 $3.3 million for the six months ended June 30, 2024. There was a minimal effect of exchange rate changes on cash, cash equivalents and restricted cash for the six months ended June 30, 2023.

Commitments

We settled the remaining balance of our 2024 convertible senior notes during the six months ended June 30, 2024. There were no other material changes in our commitments as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2023.

Recently issued accounting pronouncements

See Note 2 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 revolving credit facility.

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.

As of June 30, 2024, we do not have any foreign currency hedging contracts. Based on our current international operations, we do not plan on engaging in hedging activities in the near future.

Market Risk and Market Interest Risk

In June 2022, we issued $230.0 million aggregate principal amount of 1.750% convertible senior notes due in 2027. The 2027 Notes have fixed annual interest rates at 1.750% and, therefore, we do not have economic interest rate exposure on our 2027 Notes. However, the value of the 2027 Notes is exposed to interest rate risk. Generally, the fair market value of our fixed interest rate 2027 Notes will increase as interest rates fall and decrease as interest rates rise. In addition, the fair value of the 2027 Notes is affected by our stock price. The fair value of the 2027 Notes will generally increase as our Class A common stock price increases in value and will generally decrease as our Class A common stock price declines in value. We carry the 2027 Notes at face value less unamortized issuance costs on our balance sheet, and we present the fair value for required disclosure purposes only.

As of June 30, 2024, we had cash, cash equivalents and restricted cash of $507.1 million, consisting primarily of bank deposits and money market funds. As of June 30, 2024, we had no outstanding borrowings under our 2019 Amended 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. Changes in interest rates would impact the amount of interest income we realize on our invested cash balances. 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

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) or 15d-15(e) of the Exchange Act) that are designed to ensure that information required to be disclosed in periodic reports filed with the SEC under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. 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 our disclosure controls and procedures were effective as of June 30, 2024.

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 June 30, 2024, 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

Other legal proceedings

From time to time, we may be subject to other legal proceedings and claims in the ordinary course of business. We have 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 ourselves, our partners and our customers by determining the scope, enforceability and validity of third-party proprietary rights, or to establish and enforce our 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 us because of defense and settlement costs, diversion of management resources and other factors.

Item 1A. Risk Factors

There have been no material changes to the risk factors disclosed in the Company's Annual Report on 10-K for the year ended December 31, 2023.

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

On April 15, 2024, in connection with our acquisition of Research in Flight, we agreed to issue to the stockholders of Research in Flight an aggregate of 18,000 shares of the Company's Class A Common Stock, par value $0.0001 per share, with 9,000 shares issuable on each of April 15, 2025 and April 2026, subject to potential reduction in certain circumstances. All shares are subject to customary securities law restrictions on transferability. All shares were issued without registration under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to Section 4(a)(2) of the Securities Act. Research in Flight's existing stockholders provided customary representations for a private placement of securities and agreed to customary restrictions on transferability.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Insider Trading Arrangements and Policies

During the quarter ended June 30, 2024, none of the Company's directors or officers adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as those terms are defined in Regulation S-K, Item 408, that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c).

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
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema with Embedded Linkbase Documents
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, has been formatted in Inline XBRL

* 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: August 1, 2024	By:	/s/ James R. Scapa
		James R. Scapa
		Chief Executive Officer (Principal Executive Officer)
Date: August 1, 2024	By:	/s/ Matthew Brown
		Matthew Brown
		Chief Financial Officer (Principal Financial 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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 R. Scapa

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

August 1, 2024

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, Matthew Brown, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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/ Matthew Brown

Matthew Brown
Chief Financial Officer
(Principal Financial Officer)

August 1, 2024

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 June 30, 2024, 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 R. Scapa
James R. Scapa
Chief Executive Officer
(Principal Executive Officer)

/s/ Matthew Brown
Matthew Brown
Chief Financial Officer
(Principal Financial Officer)

August 1, 2024