3D SYSTEMS CORP
Form 10-Q
August 07, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10 Q

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2018
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 No. 001-34220

3D SYSTEMS CORPORATION
(Exact name of Registrant as specified in its Charter)

DELAWARE (State or Other Jurisdiction of Incorporation or Organization)	95 4431352 (I.R.S. Employer Identification No.)
333 THREE D SYSTEMS CIRCLE ROCK HILL, SOUTH CAROLINA (Address of Principal Executive Offices)	29730 (Zip Code)

(Registrant's Telephone Number, Including Area Code): (803) 326 3900

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 x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes x No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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. (Check one):

Large accelerated filer	x	Accelerated filer	¨

Non-accelerated filer ¨ (Do not check if smaller reporting company) 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 7(a)(2)(B) of the Securities Act. ¨

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

APPLICABLE ONLY TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.
Shares of Common Stock, par value $0.001, outstanding as of August 1, 2018: 114,030,283

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3D SYSTEMS CORPORATION
Form 10-Q
For the Quarter and Six Months Ended June 30, 2018

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except par value)	June 30, 2018 (unaudited)	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 119,313	$ 136,344
Accounts receivable, net of reserves — $10,049 (2018) and $10,258 (2017)	130,870	129,879
Inventories	114,493	103,903
Insurance proceeds receivable	50,000	50,000
Prepaid expenses and other current assets	25,428	18,296
Total current assets	440,104	438,422
Property and equipment, net	104,679	97,521
Intangible assets, net	82,141	98,783
Goodwill	224,955	230,882
Deferred income tax asset	7,216	4,020
Other assets, net	26,217	27,136
Total assets	$ 885,312	$ 896,764
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of capitalized lease obligations	$ 646	$ 644
Accounts payable	58,019	55,607
Accrued and other liabilities	72,400	65,899
Accrued litigation settlement	50,000	50,000
Customer deposits	5,903	5,765
Deferred revenue	38,617	29,214
Total current liabilities	225,585	207,129
Long term portion of capitalized lease obligations	6,732	7,078
Deferred income tax liability	9,892	8,983
Other liabilities	46,398	48,754
Total liabilities	288,607	271,944
Redeemable noncontrolling interests	8,872	8,872
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Common stock, $0.001 par value, authorized 220,000 shares; issued 117,249 (2018) and 117,025 (2017)	116	115
Additional paid-in capital	1,339,984	1,326,250
Treasury stock, at cost — 2,503 shares (2018) and 2,219 shares (2017)	(10,007)	(8,203)
Accumulated deficit	(707,015)	(677,772)
Accumulated other comprehensive loss	(32,878)	(21,536)
Total 3D Systems Corporation stockholders' equity	590,200	618,854
Noncontrolling interests	(2,367)	(2,906)
Total stockholders' equity	587,833	615,948
Total liabilities, redeemable noncontrolling interests and stockholders' equity	$ 885,312	$ 896,764

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands, except per share amounts)	2018	2017	2018	2017
Revenue:				
Products	$110,785	$97,579	$216,231	$195,518
Services	65,783	61,888	126,206	120,380
Total revenue	176,568	159,467	342,437	315,898
Cost of sales:				
Products	57,500	49,840	113,618	97,948
Services	32,906	28,954	64,788	57,091
Total cost of sales	90,406	78,794	178,406	155,039
Gross profit	86,162	80,673	164,031	160,859
Operating expenses:				
Selling, general and administrative	71,172	63,088	140,625	129,493
Research and development	22,712	24,449	48,594	47,301
Total operating expenses	93,884	87,537	189,219	176,794
Loss from operations	(7,722)	(6,864)	(25,188)	(15,935)
Interest and other (expense) income, net	1,661	933	108	1,134
Loss before income taxes	(6,061)	(5,931)	(25,080)	(14,801)
Provision for income taxes	2,539	2,067	4,493	3,108
Net loss	(8,600)	(7,998)	(29,573)	(17,909)
Less: net income attributable to noncontrolling interests	262	418	246	478
Net loss attributable to 3D Systems Corporation	$(8,862)	$(8,416)	$(29,819)	$(18,387)
Net loss per share available to 3D Systems Corporation common stockholders - basic and diluted	$(0.08)	$(0.08)	$(0.27)	$(0.17)

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited)

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands, except per share amounts)	2018	2017	2018	2017
Net loss	$(8,600)	$(7,998)	$(29,573)	$(17,909)
Other comprehensive income (loss), net of taxes:				
Pension adjustments	164	(101)	147	(81)
Foreign currency translation	(18,612)	12,489	(11,196)	20,881
Total other comprehensive income (loss), net of taxes:	(18,448)	12,388	(11,049)	20,800
Total comprehensive income (loss), net of taxes	(27,048)	4,390	(40,622)	2,891
Comprehensive income attributable to noncontrolling interests	554	492	539	613
Comprehensive income (loss) attributable to 3D Systems Corporation	$(27,602)	$3,898	$(41,161)	$2,278

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Six Months Ended June 30,	
(In thousands)	2018	2017
Cash flows from operating activities:		
Net loss	$(29,573)	$(17,909)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	29,948	30,575
Stock-based compensation	13,734	14,450
Impairment of assets	1,411	—
Provision for bad debts	1,356	166
Provision for deferred income taxes	(2,287)	(1,580)
Changes in operating accounts, net of acquisitions:		
Accounts receivable	(3,384)	5,549
Inventories	(14,937)	(9,766)
Prepaid expenses and other current assets	(6,739)	(2,345)
Accounts payable	2,762	4,343
Accrued and other current liabilities	19,208	(6,727)
All other operating activities	(2,328)	1,823
Net cash provided by operating activities	9,171	18,579
Cash flows from investing activities:		
Purchases of property and equipment	(18,095)	(11,243)
Additions to license and patent costs	(523)	(571)
Cash paid for acquisitions, net of cash assumed	—	(34,291)
Other investing activities	—	(1,650)
Proceeds from disposition of property and equipment	9	271
Net cash used in investing activities	(18,609)	(47,484)
Cash flows from financing activities:		
Payments on earnout consideration	(2,675)	(3,206)
Payments related to net-share settlement of stock-based compensation	(1,804)	(1,970)
Repayment of capital lease obligations	(344)	(290)
Net cash used in financing activities	(4,823)	(5,466)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2,502)	3,602
Net decrease in cash, cash equivalents and restricted cash	(16,763)	(30,769)
Cash, cash equivalents and restricted cash at the beginning of the period [a]	136,831	185,248
Cash, cash equivalents and restricted cash at the end of the period [a]	$120,068	$154,479

Cash interest payments	$236	$400
Cash income tax payments, net	$3,925	$3,367
Transfer of equipment from inventory to property and equipment, net [b]	$3,618	$7,689
Transfer of equipment to inventory from property and equipment, net [c]	$369	$907
Stock issued for acquisitions	$—	$3,208

(a) The amounts for cash and cash equivalents shown above include restricted cash of $755 and $488 as of June 30, 2018 and 2017, respectively, and $487 and $301 as of December 31, 2017, and 2016, respectively, which were included in other assets, net in the condensed consolidated balance sheets.

(b) Inventory is transferred from inventory to property and equipment at cost when the Company requires additional machines for training or demonstration or for placement into on demand manufacturing services locations.

(c) In general, an asset is transferred from property and equipment, net, into inventory at its net book value when the Company has identified a potential sale for a used machine.

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

	Common Stock							
(in thousands, except par value)	Par Value $0.001	Additional Paid In Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total 3D Systems Corporation Stockholders' Equity	Equity Attributable to Noncontrolling Interests	Total Stockholders' Equity
Balance at December 31, 2017	$115	$1,326,250	$(8,203)	$(677,772)	$(21,536)	$618,854	$(2,906)	$615,948
Issuance (repurchase) of stock	1	—	(1,804)	—	—	(1,803)	—	(1,803)
Cumulative impact of change in accounting policy	—	—	—	576	—	576	—	576
Stock-based compensation expense	—	13,734	—	—	—	13,734	—	13,734
Net loss	—	—	—	(29,819)	—	(29,819)	246	(29,573)
Pension adjustment	—	—	—	—	147	147	—	147
Foreign currency translation adjustment	—	—	—	—	(11,489)	(11,489)	293	(11,196)
Balance at June 30, 2018	$116	$1,339,984	$(10,007)	$(707,015)	$(32,878)	$590,200	$(2,367)	$587,833

	Common Stock							
(in thousands, except par value)	Par Value $0.001	Additional Paid In Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total 3D Systems Corporation Stockholders' Equity	Equity Attributable to Noncontrolling Interests	Total Stockholders' Equity
Balance at December 31, 2016	$115	$1,307,428	$(2,658)	$(621,787)	$(53,225)	$629,873	$(3,173)	$626,700
Issuance (repurchase) of stock	—	—	(1,970)	—	—	(1,970)	—	(1,970)
Issuance of stock for acquisitions	—	3,208	—	—	—	3,208	—	3,208
Cumulative impact of change in accounting policy	—	(10,206)	—	10,206	—	—	—	—
Stock-based compensation expense	—	14,450	—	—	—	14,450	—	14,450
Net income (loss)	—	—	—	(18,387)	—	(18,387)	478	(17,909)
Pension adjustment	—	—	—	—	(81)	(81)	—	(81)
Foreign currency translation adjustment	—	—	—	—	20,746	20,746	135	20,881
Balance at June 30, 2017	$115	$1,314,880	$(4,628)	$(629,968)	$(32,560)	$647,839	$(2,560)	$645,279

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

(1) Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of 3D Systems Corporation and
all majority-owned subsidiaries and entities in which a controlling interest is maintained (the "Company"). A non-controlling interest in a subsidiary is considered an ownership interest in a majority-owned subsidiary that is not attributable to the parent. The Company includes noncontrolling interests as a component of total equity in the condensed consolidated balance sheets and the net income attributable to noncontrolling interests are presented as an adjustment from net loss used to arrive at net loss attributable to 3D Systems Corporation in the condensed consolidated statements of operations and comprehensive loss. All significant intercompany transactions and balances have been eliminated in consolidation.

The unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC") applicable to interim reports. Accordingly, they do not include all the information and notes required by GAAP for complete financial statements and should be read in conjunction with the audited financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 ("Form 10-K").

In the opinion of management, the unaudited condensed consolidated financial statements contain all adjustments, consisting of adjustments of a normal recurring nature, necessary to present fairly the financial position, results of operations and cash flows for the periods presented. The results of operations for the quarter and six months ended June 30, 2018 are not necessarily indicative of the results to be expected for the full year. The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results may differ from those estimates and assumptions. Certain prior period amounts presented in the condensed consolidated financial statements and accompanying footnotes have been reclassified to conform to current year presentation. Beginning in 2018, the Company classifies product warranty revenue and related expenses within the "Products" line items of the Consolidated Statements of Operations.

All dollar amounts presented in the accompanying footnotes are presented in thousands, except for per share information.

Recently Adopted Accounting Standards

In May 2017, the FASB issued ASU No. 2017-09, "Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting" ("ASU 2017-09"), in an effort to reduce diversity and clarify what constitutes a modification, as it relates to the change in terms or conditions of a share-based payment award. According to ASU 2017-09, the Company should account for the effects of a modification unless all of the following are met: (1) the fair value of the modified award is the same as the fair value of the original award immediately before the original award is modified, (2) the vesting conditions of the modified award are the same as the vesting conditions of the original award immediately before the original award is modified, and (3) the classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award is modified. The amendments in ASU 2017-09 are effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2017, with early adoption permitted. The Company adopted ASU 2017-09 beginning January 1, 2018 and the implementation of this guidance did not have a material effect on its consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-07, “Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost” (“ASU 2017-07”), which standardizes the presentation of net benefit cost in the income statement and on the components eligible for capitalization in assets. ASU 2017-07 is effective for fiscal years beginning after December 15, 2017, including interim periods within those annual periods. The amendments in ASU 2017-07 should be applied retrospectively for the presentation of the service cost component and the other components of net periodic pension cost and net periodic postretirement benefit cost in the income statement and prospectively, on and after the effective date, for the capitalization of the service cost component of net periodic pension cost and net periodic postretirement benefit in assets. The Company adopted ASU 2017-07 in the first quarter of 2018 and the implementation of this guidance did not have a material effect on its consolidated financial statements.

On January 1, 2018, the Company adopted ASC Topic 606, “Revenue from Contracts with Customers.” The standard outlines a five-step model whereby revenue is recognized as performance obligations within a contract are satisfied. The standard also requires new, expanded disclosures regarding revenue recognition. The Company adopted the standard using the modified retrospective transition method and applied its guidance to contracts not completed at the adoption date. The cumulative effect of initial adoption was recorded as a $576 decrease to the January 1, 2018 opening Accumulated Deficit balance and driven primarily by the timing of recognition related to marketing incentives. The effect of this adoption was immaterial to the Consolidated Financial Statements, and the Company does not expect a material effect to its Consolidated Financial Statements on an ongoing basis. Information for comparative periods has not been restated and continues to be reported under the previously applicable revenue accounting guidance ("ASC 605"). Had ASC 605 been applied to the first six months of 2018, the Consolidated Statements of Operations and Comprehensive Loss would have shown increased Revenue and a decrease in Net Loss Attributable to 3D Systems Corporation of $99. On the Consolidated Balance Sheets, Prepaid Expenses and Other Current Assets would have been $69 higher, Other Assets would have been $457 lower, Deferred Revenues would have been $89 higher and the Accumulated deficit would have increased by $477.

Accounting Standards Issued But Not Yet Adopted

In February 2018, the FASB issued ASU No. 2018-02, "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income" (ASU 2018-02), which provides companies with an option to reclassify stranded tax effects resulting from the U.S. Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings. ASU 2018-02 is effective for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is currently in the process of evaluating when it will adopt ASU 2018-02 and its impact on its consolidated financial statements.

In August 2017, the FASB issued ASU No. 2017-12, “Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities” (“ASU 2017-12”), in order to create more transparency around how economic results are presented within both the financial statements and in the footnotes and to better align the results of cash flow and fair value hedge accounting with risk management activities. ASU 2017-12 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company is currently in the process of evaluating when it will adopt ASU 2017-12 and its impact on its consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, “Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”), which eliminates the performance of Step 2 from the goodwill impairment test. In performing its annual or interim impairment testing, an entity will instead compare the fair value of the reporting unit with its carrying amount and recognize any impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value. Additionally, an entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss. The standard is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual impairment tests performed on testing dates after January 1, 2017. The Company is currently in the process of evaluating when it will adopt ASU 2017-04 and its impact on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842)” (“ASU 2016-02”). ASU 2016-02 requires lessees to recognize assets and liabilities on the balance sheet for all leases with terms longer than twelve months. The ASU also requires disclosure of key information about leasing arrangements. ASU 2016-02 is effective on January 1, 2019, using a modified retrospective method of adoption as of January 1, 2017. In January 2018, the FASB issued an exposure draft of the proposed ASU, Leases (Topic 842): Targeted Improvements. The proposed ASU provides an alternative transition method of adoption, permitting the recognition of a cumulative-effect adjustment to retained earnings on the date of adoption. The Company will adopt the standard on the effective date, but has not yet selected a transition method. The Company is reviewing its population of leased assets to determine potential impacts on its consolidated financial statements. Though its evaluation is ongoing, the Company expects changes to its balance sheet due to the recognition of right-of-use assets and lease liabilities related to its real estate leases, but it does not anticipate material impacts to its results of operations or liquidity.

No other new accounting pronouncements, issued or effective during 2018, have had or are expected to have a significant impact on the Company's consolidated financial statements.

(2) Revenue

The Company accounts for revenue in accordance with ASC Topic 606, "Revenue from Contracts with Customers," which it adopted on January 1, 2018, using the modified-retrospective method. See Note 1 for further discussion of the adoption.

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account in ASC Topic 606. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied.

At June 30, 2018, the Company had $130,966 of outstanding performance obligations. The Company expects to recognize approximately 93 percent of its remaining performance obligations as revenue within the next twelve months, an additional 3 percent by the end of 2019 and the balance thereafter.

Revenue Recognition

Revenue is recognized when control of the promised products or services is transferred to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The Company enters into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Many of its contracts with customers include multiple performance obligations. For such arrangements, the Company allocates revenue to each performance obligation based on its relative standalone selling price ("SSP"). Revenue is recognized net of allowances for returns and any taxes collected from customers, which are subsequently remitted to governmental authorities. The amount of consideration received and revenue recognized may vary based on changes in marketing incentive programs offered to our customers. The Company's marketing incentive programs take many forms, including volume discounts, trade-in allowances, rebates and other discounts.

A majority of the Company's revenue is recognized at the point in time when products are shipped or services are delivered to customers. Please see below for further discussion.

Hardware and Materials

Revenue from hardware and material sales is recognized when control has transferred to the customer which typically occurs when the goods have been shipped to the customer, risk of loss has transferred to the customer and the Company has a present right to payment for the hardware. In limited circumstances when a printer or other hardware sales include substantive customer acceptance provisions, revenue is recognized either when customer acceptance has been obtained, customer acceptance provisions have lapsed, or the Company has objective evidence that the criteria specified in the customer acceptance provisions have been satisfied.

Software

The Company also markets and sells software tools that enable our customers to capture and customize content using our printers, as well as reverse engineering and inspection software. Software does not require significant modification or customization and the license provides the customer with a right to use the software as it exists when made available. Revenue from these software licenses is recognized either upon delivery of the product or of a key code which allows the customer to download the software. Customers may purchase post sale support. Generally, the first year is included but subsequent years are optional. This optional support is considered a separate obligation from the software and is deferred at the time of sale and subsequently recognized ratably over future periods.

Services

The Company offers training, installation and non-contract maintenance services for its products. Additionally, the Company offers maintenance contracts customers can purchase at their option. For maintenance contracts, revenue is deferred at the time of sale based on the stand-alone selling prices of these services and costs are expensed as incurred. Deferred revenue is recognized ratably over the term of the warranty or maintenance period on a straight-line basis. Revenue from training, installation and non-contract maintenance services is recognized at the time of performance of the service.

On demand manufacturing and healthcare service sales are included within services revenue and revenue is recognized upon shipment or delivery of the parts or performance of the service, based on the terms of the arrangement.

Terms of sale

Shipping and handling activities are treated as fulfillment costs rather than as an additional promised service. The Company accrues the costs of shipping and handling when the related revenue is recognized. Costs incurred by the Company associated with shipping and handling are included in product cost of sales.

Credit is extended, and creditworthiness is determined, based on an evaluation of each customer's financial condition. New customers are generally required to complete a credit application and provide references and bank information to facilitate an analysis of creditworthiness. Customers with a favorable profile may receive credit terms that differ from the Company's general credit terms. Creditworthiness is considered, among other things, in evaluating the Company's relationship with customers with past due balances.

The Company's terms of sale generally require payment within 30 to 60 days after shipment of a product, although the Company also recognizes that longer payment periods are customary in some countries where it transacts business. To reduce credit risk in connection with printer sales, the Company may, depending upon the circumstances, require significant deposits prior to shipment and may retain a security interest in a system sold until fully paid. In some circumstances, the Company may require payment in full for its products prior to shipment and may require international customers to furnish letters of credit. For maintenance services, the Company either bills customers on a time-and-materials basis or sells maintenance contracts that provide for payment in advance on either an annual or other periodic basis.

See Note 12 for additional information related to revenue by reportable segment and major lines of business.

Significant Judgments

The Company's contracts with customers often include promises to transfer multiple products and services to a customer. For such arrangements, the Company allocates revenues to each performance obligation based on its relative SSP.

Judgment is required to determine the SSP for each distinct performance obligation in a contract. For the majority of items, the Company estimates SSP using historical transaction data. The Company uses a range of amounts to estimate SSP when we sell each of the products and services separately and need to determine whether there is a discount to be allocated based on the relative SSP of the various products and services. In instances where SSP is not directly observable, such as when the product or service is not sold separately, the Company determines the SSP using information that may include market conditions and other observable inputs.

In some circumstances, the Company has more than one SSP for individual products and services due to the stratification of those products and services by customers, geographic region or other factors. In these instances, it may use information such as the size of the customer and geographic region in determining the SSP.

The determination of SSP is an ongoing process and information is reviewed regularly in order to ensure SSP reflects the most current information or trends.

The nature of the Company's marketing incentives may lead to consideration that is variable. Judgment is exercised at contract inception to determine the most likely outcome of the contract and resulting transaction price. Ongoing assessments are performed to determine if updates are needed to the original estimates.

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer deposits and deferred revenues (contract liabilities) on the Consolidated Balance Sheets. Timing of revenue recognition may differ from the timing of invoicing to customers. The Company records a receivable when revenue is recognized at the time of invoicing, or unbilled receivables when revenue is recognized prior to invoicing. For most of the Company's contracts, customers are invoiced when products are shipped or when services are performed resulting in billed accounts receivables where payment is generally required within 30 to 60 days. Unbilled receivables generally result from items being shipped where the customer has not been charged but for which revenue had been recognized. In the Company's on demand manufacturing business, customers may be required to pay in full before work begins on their orders, resulting in customer deposits. The Company typically bills in advance for installation, training and maintenance contracts as well as extended warranties, resulting in deferred revenue. Changes in contract asset and liability balances were not materially impacted by any other factors for the period ended June 30, 2018.

Through June 30, 2018, the Company recognized revenue of $20,118 related to our contract liabilities at January 1, 2018.

Practical Expedients and Exemptions

The Company generally expenses sales commissions when incurred because the amortization period would be one year or less. These costs are recorded within selling, general and administrative expenses.

(3) Inventories

Components of inventories at June 30, 2018 and December 31, 2017 are summarized as follows:

(in thousands)	2018	2017
Raw materials	$42,673	$37,660
Work in process	4,247	3,906
Finished goods and parts	67,573	62,337
Inventories	$114,493	$103,903

(4) Intangible Assets

Intangible assets, net, other than goodwill, at June 30, 2018 and December 31, 2017 are summarized as follows:

	2018			2017			
(in thousands)	Gross [a]	Accumulated Amortization	Net	Gross [a]	Accumulated Amortization	Net	Weighted Average Useful Life Remaining (in years)
Intangible assets with finite lives:							
Customer relationships	$104,015	$(62,349)	$41,666	$105,505	$(57,796)	$47,709	6
Acquired technology	48,973	(39,803)	9,170	54,716	(39,644)	15,072	2
Trade names	25,284	(16,503)	8,781	25,813	(15,552)	10,261	6
Patent costs	17,972	(7,825)	10,147	17,909	(7,338)	10,571	15
Trade secrets	19,331	(12,522)	6,809	19,431	(11,530)	7,901	4
Acquired patents	16,217	(12,355)	3,862	16,661	(11,969)	4,692	8
Other	19,628	(17,922)	1,706	20,012	(17,435)	2,577	2
Total intangible assets	$251,420	$(169,279)	$82,141	$260,047	$(161,264)	$98,783	6

[a] Change in gross carrying amounts consists primarily of charges for license and patent costs and foreign currency translation.

Amortization expense related to intangible assets was $7,836 and $15,903 for the quarter and six months ended June 30, 2018, respectively, compared to $8,984 and $17,816 for the quarter and six months ended June 30, 2017, respectively.

(5) Accrued and Other Liabilities

Accrued liabilities at June 30, 2018 and December 31, 2017 are summarized as follows:

(in thousands)	2018	2017
Compensation and benefits	$23,720	$20,432
Accrued taxes	17,694	13,861
Arbitration awards	11,282	11,282
Vendor accruals	7,177	7,044
Product warranty liability	5,736	5,564
Accrued earnouts related to acquisitions	2,135	2,772
Accrued other	1,746	2,485
Royalties payable	1,716	1,679
Accrued professional fees	1,082	742
Accrued interest	112	38
Total	$72,400	$65,899

Other liabilities at June 30, 2018 and December 31, 2017 are summarized as follows:

(in thousands)	2018	2017
Long term employee indemnity	$13,694	$13,887
Long term tax liability	9,349	9,340
Defined benefit pension obligation	8,055	8,290
Long term deferred revenue	7,833	7,298
Other long term liabilities	7,467	7,596
Long term earnouts related to acquisitions	—	2,343
Total	$46,398	$48,754

(6) Hedging Activities and Financial Instruments

The Company conducts business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, the Company is subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, the Company endeavors to match assets and liabilities in the same currency on its balance sheet and those of its subsidiaries in order to reduce these risks. When appropriate, the Company enters into foreign currency contracts to hedge exposures arising from those transactions. The Company has elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under Accounting Standards Codification (“ASC”) 815, “Derivatives and Hedging,” and therefore, all gains and losses (realized or unrealized) are recognized in “Interest and other expense, net” in the condensed consolidated statements of operations and comprehensive loss. Depending on their fair value at the end of the reporting period, derivatives are recorded either in prepaid expenses and other current assets or in accrued liabilities on the condensed consolidated balance sheet.

The Company had $38,498 and $39,600 in notional foreign exchange contracts outstanding as of June 30, 2018 and December 31, 2017, respectively. The fair values of these contracts were not material.

The Company translates foreign currency balance sheets from each international businesses' functional currency (generally the respective local currency) to U.S. dollars at end-of-period exchange rates, and statements of earnings at average exchange rates for each period. The resulting foreign currency translation adjustments are a component of other comprehensive income (loss).

The Company does not hedge the fluctuation in reported revenue and earnings resulting from the translation of these international operations' results into U.S. dollars.

(7) Borrowings

Credit Facility

As of June 30, 2018, the Company had a $150,000 revolving, unsecured credit facility (the “Credit Agreement”) with a syndicate of banks, to be used for general corporate purposes and working capital needs. The Credit Agreement is scheduled to expire in October 2019. The Credit Agreement includes provisions for the issuance of letters of credit and swingline loans and contains certain restrictive covenants, which include the maintenance of a maximum consolidated total leverage ratio. The Company was in compliance with those covenants at June 30, 2018 and December 31, 2017. There were no outstanding borrowings as of June 30, 2018.

Capitalized Lease Obligations

The Company’s capitalized lease obligations primarily include a lease agreement that was entered into during 2006 with respect to the Company’s corporate headquarters located in Rock Hill, SC. The change in capitalized lease obligations, as presented in the Condensed Consolidated Balance Sheets, was due to the normal scheduled timing of payments.

(8) Pension Benefits

The components of the Company’s pension cost recognized in the condensed consolidated statements of operations and comprehensive loss for the quarter and six months ended June 30, 2018 and 2017 were as follows:

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands)	2018	2017	2018	2017
Service cost	$50	$70	$102	$137
Interest cost	70	68	143	133
Amortization of actuarial loss	46	60	92	118
Total periodic cost	$166	$198	$337	$388

(9) Net Loss Per Share

The Company computes basic loss per share using net loss attributable to 3D Systems Corporation and the weighted average number of common shares outstanding during the applicable period. Diluted loss per share incorporates the additional shares issuable upon assumed exercise of stock options and the release of restricted stock and restricted stock units, except in such case when their inclusion would be anti-dilutive.

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands, except per share amounts)	2018	2017	2018	2017
Numerator for basic and diluted net loss per share:				
Net loss attributable to 3D Systems Corporation	$(8,862)	$(8,416)	$(29,819)	$(18,387)
Denominator for basic and diluted net loss per share:				
Weighted average shares	111,920	111,398	111,870	111,350
Net loss per share - basic and diluted	$(0.08)	$(0.08)	$(0.27)	$(0.17)

For the quarters and six months ended June 30, 2018 and 2017, the effect of dilutive securities, including non-vested stock options and restricted stock awards/units, was excluded from the denominator for the calculation of diluted net loss per share because the Company recognized a net loss for the period and their inclusion would be anti-dilutive. Dilutive securities excluded were 4,168 and 4,167 for the quarter and six months ended June 30, 2018, respectively, compared to 3,443 and 3,619 for the quarter and six months ended June 30, 2017, respectively.

(10) Fair Value Measurements

ASC 820, "Fair Value Measurements and Disclosures," defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs that may be used to measure fair value:

Level 1 - Quoted prices in active markets for identical assets or liabilities;

Level 2 - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; or

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

For the Company, the above standard applies to cash equivalents and earnout consideration. The Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

	Fair Value Measurements as of June 30, 2018			
(in thousands)	Level 1	Level 2	Level 3	Total
Description				
Cash equivalents (a)	$7,183	$ —	$—	$7,183
Earnout consideration (b)	$—	$ —	$2,135	$2,135

	Fair Value Measurements as of December 31, 2017			
(in thousands)	Level 1	Level 2	Level 3	Total
Description				
Cash equivalents (a)	$20,244	$ —	$—	$20,244
Earnout consideration (b)	$—	$ —	$5,115	$5,115

(a) Cash equivalents include funds held in money market instruments and are reported at their current carrying value, which approximates fair value due to the short-term nature of these instruments and are included in cash and cash equivalents in the consolidated balance sheet.

(b) The fair value of the earnout consideration, which is based on the present value of the expected future payments to be made to the sellers of the acquired businesses, was derived by analyzing the future performance of the acquired businesses using the earnout formula and performance targets specified in each purchase agreement and adjusting those amounts to reflect the ability of the acquired entities to achieve the stated targets. Given the significance of the unobservable inputs, the valuations are classified in Level 3 of the fair value hierarchy. The change in earnout consideration reflects a $2,675 payment, partially offset by $188 of accretion and adjustments of $493.

The Company did not have any transfers of assets and liabilities between Level 1, Level 2 and Level 3 of the fair value measurement hierarchy during the quarter and six months ended June 30, 2018.

In addition to the assets and liabilities included in the above table, certain of our assets and liabilities are to be initially measured at fair value on a non-recurring basis. This includes goodwill and other intangible assets measured at fair value for impairment assessment, in addition to redeemable noncontrolling interests. For additional discussion, refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Significant Estimates" in the Company's Form 10-K.

(11) Income Taxes

For the quarter and six months ended June 30, 2018, the Company recorded expense of $2,539 and $4,493, respectively, resulting in effective tax rates of 41.9% and 17.9%, respectively. For the quarter and six months ended June 30, 2017, the Company recorded expense of $2,067 and $3,108, respectively, resulting in effective tax rates of 34.9% and 21.0%, respectively. The difference between the statutory rate and the effective tax rate is driven from the impact of the change in valuation allowances that the Company has recorded in the US and other foreign jurisdictions for both quarters and six months ended June 30, 2018 and 2017. Additionally, for 2018, the Company settled a tax audit with the French tax authorities, which resulted in additional tax expense and also contributed to the difference between the statutory rate and the effective tax rate for the quarter and six months ended June 30, 2018.

In December 2017, the Tax Cuts and Jobs Act of 2017 (the "Act") was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings, as of December 31, 2017.

On December 22, 2017, Staff Accounting Bulletin No. 118 ("SAB 118") was issued to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act. As of December 31, 2017, the Company recorded provisional amounts, and additional work is still necessary for a more detailed analysis of the Company's deferred tax assets and liabilities and its historical foreign earnings as well as potential correlative adjustments. Any subsequent adjustment to these amounts will be recorded in the quarter of 2018 when the analysis is complete.

As the Company's previously unremitted earnings have now been subjected to U.S. federal income tax, any repatriation of these earnings to the U.S. would not be expected to incur significant additional taxes related to such amounts. We continue to assert that our foreign earnings are indefinitely reinvested in our overseas operations, but in light of the Act, we are continuing to evaluate our position on that assertion.

Tax years 2003 through 2017 remain subject to examination by the U.S. Internal Revenue Service, with most of the years open to examination due to the generation and utilization of various tax credits. The Company files income tax returns (which are open to examination beginning in the year shown in parentheses) in Australia (2013), Belgium (2014), Brazil (2012), China (2015), France (2014), Germany (2014), India (2013), Israel (2013), Italy (2012), Japan (2012), Korea (2012), Mexico (2012), Netherlands (2012), Switzerland (2012), the United Kingdom (2016) and Uruguay (2012).

(12) Segment Information

The Company operates as one segment and conducts its business through various offices and facilities located throughout the Americas region (United States, Canada, Brazil, Mexico and Uruguay), EMEA region (Belgium, France, Germany, Israel, Italy, the Netherlands, Switzerland and the United Kingdom), and Asia Pacific region (Australia, China, India, Japan and Korea). The Company has historically disclosed summarized financial information for the geographic areas of operations as if they were segments in accordance with ASC 280, "Segment Reporting." Financial information concerning the Company's geographical locations is based on the location of the selling entity. Such summarized financial information concerning the Company's geographical operations is shown in the following tables:

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands)	2018	2017	2018	2017
Revenue from unaffiliated customers:				
United States	$86,028	$80,921	$168,741	$158,793
Other Americas	2,228	2,347	4,045	4,766
EMEA	56,859	53,449	114,280	106,407
Asia Pacific	31,453	22,750	55,371	45,932
Total revenue	$176,568	$159,467	$342,437	$315,898

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands)	2018	2017	2018	2017
Revenue by class of product and service:				
Products	$65,741	$53,705	$128,368	$108,821
Materials	45,044	43,874	87,863	86,697
Services	65,783	61,888	126,206	120,380
Total revenue	$176,568	$159,467	$342,437	$315,898

	Quarter Ended June 30, 2018 Intercompany Sales to			
(in thousands)	Americas	EMEA	Asia Pacific	Total
Americas	$738	$14,243	$6,992	$21,973
EMEA	16,611	5,372	1,224	23,207
Asia Pacific	1,223	—	878	2,101
Total intercompany sales	$18,572	$19,615	$9,094	$47,281

	Quarter Ended June 30, 2017 Intercompany Sales to			
(in thousands)	Americas	EMEA	Asia Pacific	Total
Americas	$537	$9,905	$4,955	$15,397
EMEA	18,157	3,554	902	22,613
Asia Pacific	342	22	1,135	1,499
Total intercompany sales	$19,036	$13,481	$6,992	$39,509

	Six Months Ended June 30, 2018 Intercompany Sales to			
(in thousands)	Americas	EMEA	Asia Pacific	Total
Americas	$1,022	$30,224	$12,415	$43,661
EMEA	33,212	11,752	3,136	48,100

Asia Pacific	2,645	1	1,773	4,419
Total intercompany sales	$36,879	$41,977	$17,324	$96,180

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	Six Months Ended June 30, 2017			
	Intercompany Sales to			
(in thousands)	Americas	EMEA	Asia Pacific	Total
Americas	$898	$22,650	$8,853	$32,401
EMEA	34,704	8,728	1,915	45,347
Asia Pacific	879	157	2,149	3,185
Total intercompany sales	$36,481	$31,535	$12,917	$80,933

	Quarter Ended June 30,		Six Months Ended June 30,	
(in thousands)	2018	2017	2018	2017
(Loss) income from operations:				
Americas	$(13,539)	$(16,937)	$(33,523)	$(33,152)
EMEA	(2,119)	4,119	(3,334)	7,748
Asia Pacific	7,936	5,954	11,669	9,469
Total	$(7,722)	$(6,864)	$(25,188)	$(15,935)

(13) Commitments and Contingencies

The Company leases certain of its facilities and equipment under non-cancelable operating leases. For the quarter and six months ended June 30, 2018, rent expense under operating leases was $4,212 and $8,498, respectively, compared to $3,698 and $7,452 for the quarter and six months ended June 30, 2017, respectively.

Certain of the Company’s acquisition agreements contain earnout provisions under which the sellers of the acquired businesses can earn additional amounts. The total liability recorded for these earnouts at June 30, 2018 and December 31, 2017 was $2,135 and $5,115, respectively. See Note 5.

Put Options

Owners of interests in a certain subsidiary have the right in certain circumstances to require the Company to acquire either a portion of or all of the remaining ownership interests held by them. The owners’ ability to exercise any such “put option” right is subject to the satisfaction of certain conditions, including conditions requiring notice in advance of exercise. In addition, these rights cannot be exercised prior to a specified exercise date. The exercise of these rights at their earliest contractual date would result in obligations of the Company to fund the related amounts in 2019.

Management estimates, assuming that the subsidiary owned by the Company at June 30, 2018, performs over the relevant future periods at its forecasted earnings levels, that these rights, if exercised, could require the Company, in future periods, to pay approximately $8,872 to the owners of such rights to acquire such ownership interests in the relevant subsidiary. This amount has been recorded as redeemable noncontrolling interests on the Consolidated Balance Sheet at June 30, 2018 and December 31, 2017. The ultimate amount payable relating to this transaction will vary because it is dependent on the future results of operations of the subject business.

Litigation

Securities and Derivative Litigation

The Company and certain of its former executive officers have been named as defendants in a consolidated putative stockholder class action lawsuit pending in the United States District Court for the District of South Carolina. The consolidated action is styled KBC Asset Management NV v. 3D Systems Corporation, et al., Case No. 0:15-cv-02393-MGL. The Amended Consolidated Complaint (the "Complaint"), which was filed on December 9, 2015, alleges that defendants violated the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Rule 10b-5 promulgated thereunder by making false and misleading statements and omissions and that the former officers are control persons under Section 20(a) of the Exchange Act. The Complaint was filed on behalf of stockholders who purchased shares of the Company's common stock between October 29, 2013, and May 5, 2015 and seeks monetary damages on behalf of the purported class. Defendants filed a motion to dismiss the Complaint in its entirety on January 14, 2016, which was denied by Memorandum Opinion and Order dated July 25, 2016 (the "Order"). Defendants filed a motion for reconsideration of the Order on August 4, 2016, which was denied by Order dated February 24, 2017. On September 28, 2017, the Court granted Lead Plaintiff's Motion for Class Certification. On February 14, 2018, following mediation, the parties entered into a Stipulation of Settlement that provides for, among other things, payment of $50,000 by the Company's insurance carriers and a mutual exchange of releases. The Stipulation of Settlement calls for a dismissal of all claims against the Company and the individual defendants with prejudice following Court approval, a denial by defendants of any wrongdoing, and no admission of liability. On February 15, 2018, Lead Plaintiff filed an Unopposed Motion for Preliminary Approval of Class Action Settlement. On February 21, 2018, the Court entered an Order Preliminarily Approving Settlement and Providing for Notice. The Court held a final fairness hearing on June 25, 2018, and entered the Order and Final Judgment and Order Awarding Attorneys' Fees on the same day. The time for any party to appeal expired on July 25, 2018. A current liability of $50,000 was recorded for the agreed upon settlement amount and an offsetting receivable of $50,000 was recorded for related insurance proceeds.

Nine related derivative complaints have been filed by purported Company stockholders against certain of the Company's former executive officers and members of its Board of Directors. The Company is named as a nominal defendant in all nine actions. The derivative complaints are styled as follows: (1) Steyn v. Reichental, et al., Case No. 2015-CP-46-2225, filed on July 27, 2015 in the Court of Common Pleas for the 16th Judicial Circuit, County of York, South Carolina ("Steyn"); (2) Piguing v. Reichental, et al., Case No. 2015-CP-46-2396, filed on August 7, 2015 in the Court of Common Pleas for the 16th Judicial Circuit, County of York, South Carolina ("Piguing"); (3) Booth v. Reichental, et al., Case No. 15-692-RGA, filed on August 6, 2015 in the United States District Court for the District of Delaware; (4) Nally v. Reichental, et al., Case No. 15-cv-03756-MGL, filed on September 18, 2015 in the United States District Court for the District of South Carolina ("Nally"); (5) Gee v. Hull, et al., Case No. BC-610319, filed on February 17, 2016 in the Superior Court for the State of California, County of Los Angeles ("Gee"); (6) Foster v. Reichental, et al., Case No. 0:16-cv-01016-MGL, filed on April 1, 2016 in the United States District Court for the District of South Carolina ("Foster"); (7) Lu v. Hull, et al., Case No. BC629730, filed on August 5, 2016 in the Superior Court for the State of California, County of Los Angeles ("Lu"); (8) Howes v. Reichental, et al., Case No. 0:16-cv-2810-MGL, filed on August 11, 2016 in the United States District Court for the District of South Carolina ("Howes"); and (9) Ameduri v. Reichental, et al., Case No. 0:16-cv-02995-MGL, filed on September 1, 2016 in the United States District Court for the District of South Carolina ("Ameduri"). Steyn and Piguing were consolidated into one action styled as In re 3D Systems Corp. Shareholder Derivative Litig., Lead Case No. 2015-CP-46-2225 in the Court of Common Pleas for the 16th Judicial Circuit, County of York, South Carolina. Gee and Lu were consolidated into one action styled as Gee v. Hull, et al., Case No. BC610319 in the Superior Court for the State of California, County of Los Angeles. Nally, Foster, Howes, and Ameduri were consolidated into one action in the United States District Court for the District of South Carolina with Nally as the lead consolidated case.

The derivative complaints allege claims for breach of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets and unjust enrichment and seek, among other things, monetary damages and certain corporate governance actions.

All of the derivative complaints listed above have been stayed until 30 days after the earlier of the close of discovery or the deadline for appealing a dismissal in the KBC Asset Management NV securities class action.

The Company believes the claims alleged in the derivative lawsuits are without merit and intends to defend the Company and its officers and directors vigorously.

Ronald Barranco and Print3D Corporation v. 3D Systems Corporation, et. al.

On August 23, 2013, Ronald Barranco, a former Company employee, filed two lawsuits against the Company and certain officers in the United States District Court for the District of Hawaii. The first lawsuit ("Barranco I") is captioned Ronald Barranco and Print3D Corporation v. 3D Systems Corporation, 3D Systems, Inc., and Damon Gregoire, Case No. CV 13-411 LEK RLP, and alleges seven causes of action relating to the Company's acquisition of Print3D Corporation (of which Mr. Barranco was a 50%

shareholder) and the subsequent employment of Mr. Barranco by the Company. The second lawsuit ("Barranco II") is captioned Ronald Barranco v. 3D Systems Corporation, 3D Systems, Inc., Abraham Reichental, and Damon Gregoire, Case No. CV 13-412 LEK RLP, and alleges the same seven causes of action relating to the Company's acquisition of certain website domains from Mr. Barranco and the subsequent employment of Mr. Barranco by the Company. Both Barranco I and Barranco II allege the Company breached certain purchase agreements in order to avoid paying Mr. Barranco additional monies pursuant to royalty and earn out provisions in the agreements. The Company and its officers timely filed responsive pleadings on October 22, 2013 seeking, inter alia, to dismiss Barranco I due to a mandatory arbitration agreement and for lack of personal jurisdiction and to dismiss Barranco II for lack of personal jurisdiction.

With regard to Barranco I, the Hawaii district court, on February 28, 2014, denied the Company's motion to dismiss and its motion to transfer venue to South Carolina for the convenience of the parties. However, the Hawaii court recognized that the plaintiff's claims are all subject to mandatory and binding arbitration in Charlotte, North Carolina. Because the Hawaii court was without authority to compel arbitration outside of Hawaii, the court ordered that the case be transferred to the district court encompassing Charlotte (the United States District Court for the Western District of North Carolina) so that court could compel arbitration in Charlotte. On April 17, 2014, Barranco I was transferred to the United States District Court for the Western District of North Carolina. Plaintiff filed a demand for arbitration on October 29, 2014. On December 9, 2014, the Company filed its answer to plaintiff's demand for arbitration. On February 2, 2015, plaintiff filed an amended demand that removed Mr. Gregoire as a defendant from the matter, and on February 4, 2015 the Company filed its amended answer. The parties selected an arbitrator and arbitration took place in September 2015 in Charlotte, North Carolina.

On September 28, 2015, the arbitrator issued a final award in favor of Mr. Barranco with respect to two alleged breaches of contract and implied covenants arising out of the contract. The arbitrator found that the Company did not commit fraud or make any negligent misrepresentations to Mr. Barranco. Pursuant to the award, the Company was directed to pay approximately $11,282, which includes alleged actual damages of $7,254, fees and expenses of $2,318 and prejudgment interest of $1,710. The Company disagrees with the single arbitrator's findings and conclusions and believes the arbitrator's decision exceeds his authority and disregards the applicable law. As an initial response, the Company filed a motion for modification on September 30, 2015, based on mathematical errors in the computation of damages and fees. On October 16, 2015, the arbitrator issued an order denying the Company's motion and sua sponte issuing a modified final award in favor of Mr. Barranco in the same above-referenced amounts, but making certain substantive changes to the award, which changes the Company believes were improper and outside the scope of his authority and the American Arbitration Association rules. On November 20, 2015, the Company filed a motion to vacate the arbitration award in the federal court in the United States District Court for the Western District of North Carolina. Claimants also filed a motion to confirm the arbitration award. A hearing was held on the motions on September 29, 2016 in federal court in the Western District of North Carolina. The court requested supplemental briefing by the parties, which briefs were filed on July 11, 2016.

On August 31, 2016, the court issued an order granting in part and denying in part Plaintiff's motion to confirm the arbitration award and for judgment, entering judgment in the principal amount of the arbitration award and denying Plaintiff's motion for fees and costs. The court denied the Company's motion to vacate. On September 7, 2016, Plaintiff filed a motion to amend the judgment to include prejudgment interest. The Company opposed that motion and the parties submitted briefing. On September 28, 2016 the Company filed a motion to alter or amend the judgment. Plaintiff opposed the motion and the parties submitted briefing. On May 18, 2017, the court issued an opinion and order denying the Company's motion to alter or amend and denying Plaintiff's motion for prejudgment interest. On September 16, 2017, the Company filed a notice of appeal with the United States Court of Appeals for the Fourth Circuit. The Company filed its Opening Brief and the Joint Appendix on August 28, 2017. Plaintiff filed its Opening Brief on September 11, 2017. The Company filed its Reply Brief on September 25, 2017.

On May 31, 2018, the Fourth Circuit affirmed the decision by unpublished per curiam opinion. On June 14, 2018, the Company timely filed Appellants' Petition for Rehearing and Rehearing En Banc. On June 15, 2018 the Fourth Circuit issued a Stay of Mandate Under Fed. R. App. P. 41(d)(1). The Petition for Rehearing and Rehearing En Banc was subsequently denied and on August 1, 2018, the Fourth Circuit issued its mandate, thereby returning jurisdiction to the District Court and ending the stay. On August 2, 2018, the Company filed its Motion for Setoff of Judgment and Memorandum in Support of Motion for Setoff of Judgment. Plaintiff's response is due August 16. Plaintiff agrees that setoff is appropriate, but contests the amount. On August 3, 2018, the Company paid $9,127 of the Judgment, net setoff.

With regard to Barranco II, the Hawaii district court, on March 17, 2014, denied the Company's motion to dismiss and its motion to transfer venue to South Carolina. However, the Hawaii court dismissed Count II in plaintiff's complaint alleging breach of the employment agreement. The Company filed an answer to the complaint in the Hawaii district court on March 31, 2014. On November 19, 2014, the Company filed a motion for summary judgment on all claims which was heard on January 20, 2015. On January 30, 2015, the court entered an order granting in part and denying in part the Company's motion for summary judgment. The Order narrowed the plaintiff's claim for breach of contract and dismissed the plaintiff's claims for fraud and negligent misrepresentation. As a result, Messrs. Reichental and Gregoire were dismissed from the lawsuit. The case was tried to a jury in May 2016, and on May 27, 2016 the jury found that the Company was not liable for either breach of contract or breach of the implied covenant of good faith and fair dealing. Additionally, the jury found in favor of the Company on its counterclaim against Mr. Barranco and determined that Mr. Barranco violated his non-competition covenant with the Company. On July 5, 2017, the court ordered a bench trial regarding causation and damages with respect to the equitable accounting on the Company's prevailing counterclaim against Mr. Barranco. The bench trial took place on November 20, 2017. The Court ordered the submission of proposed findings of fact and conclusions of law. The Company submitted its proposed Findings of Fact and Conclusions of Law on January 12, 2018. Barranco submitted his on February 2, 2018. The Company submitted its Reply on February 16, 2018. On March 30, 2018, the Court entered Findings of Fact and Conclusions of Law and Order requiring Barranco to disgorge, and the Company recover, $523, representing all but four months of the full amount paid to Barranco as salary during his employment with the Company as well as a portion of the up front and buyout payments made to Barranco in connection with the purchase of certain web domains. In addition, the Court Ordered Barranco to pay pre-judgment interest to the Company to be calculated beginning as of his first breach of the non-competition covenant in August 2011. Judgment entered thereafter on April 2, 2018.

As the prevailing party, the Company moved for recovery of its fees and costs. On June 15, 2018, the Hawaii Court entered Findings and Recommendation to Grant in Part and Deny in Part Defendants 3D Systems Corporation and 3D System Inc.'s Motion for an Award of Attorneys' Fees, whereby it recommended that 3D Systems be awarded $1,299 in attorneys' fees, $349 for the amount of the prejudgment interest, and $72 in non-taxable costs.

On April 19, 2018, Barranco filed a post-trial motion seeking to amend the findings and judgment. The Company opposed that motion. On April 30, 2018, Barranco filed a combined Rule 50 Motion for Judgment as a Matter of Law on the Company's counterclaim and Rule 50 Motion for a New Trial. The Company also opposed that Motion. On June 29, 2018, Barranco filed partial objections to the Fee Award Report and Recommendation. On July 9, 2018, the Company filed its Response opposing those partial objections. All post-trial motions are currently pending before the Court.

On May 10, 2018, the Company put Barranco on notice that it intended to exercise its right of setoff in regard to any liability it may be determined to have to Barranco. More specifically, the Company notified Barranco that it intended to set off the amounts determined due to it in the Hawaii litigation against any liability 3D Systems is determined to have in the North Carolina arbitration on appeal. As discussed above, the Company filed a Motion and Memo for Setoff on August 2, 2018 with the North Carolina court and exercised its right of setoff on August 3, 2018.

Export Compliance Matter

In October 2017 the Company received an administrative subpoena from the Bureau of Industry and Security of the Department of Commerce ("BIS") requesting the production of records in connection with possible violations of U.S. export control laws, including with regard to its Quickparts.com, Inc. subsidiary. In addition, while collecting information responsive to the above referenced subpoena, the Company identified potential violations of the International Traffic in Arms Regulations ("ITAR") administered by the Directorate of Defense Trade Controls of the Department of State ("DDTC") and potential violations of the Export Administration Regulations administered by BIS. On June 8, 2018, the Company submitted voluntary disclosures to BIS and DDTC identifying numerous potentially unauthorized exports of technical data, which supplemented an initial notice of voluntary disclosure that the Company submitted to DDTC in February 2018. The Company is conducting an internal review of its export control compliance risks, implementing associated compliance enhancements, and cooperating with DDTC and BIS, as well as the U.S. Departments of Justice, Defense and Homeland Security. Although the Company cannot predict the ultimate resolution of these matters, the Company expects to incur significant legal costs and other expenses in connection with responding to the U.S. government agencies.

In 2018, the Company implemented new compliance procedures to identify and prevent potential violations of export control laws. As a result of these compliance enhancements, the Company identified an additional potential violation of the ITAR in June 2018, and the Company submitted a related initial notice of voluntary disclosure to DDTC in July 2018. As the Company continues to implement additional compliance enhancements, it may discover other potential violations of export control laws in the future. If the Company identifies any additional potential violations, the Company intends to submit voluntary disclosures to the relevant agencies and cooperate with such agencies on any related investigations.

If the U.S. government finds that the Company has violated one or more export control laws or trade sanctions, the Company could be subject to various civil or criminal penalties. By statute, these penalties can include but are not limited to fines, which by statute may be significant, denial of export privileges, and debarment from participation in U.S. government contracts. Any assessment of penalties or other liabilities incurred in connection with these matters could harm the Company’s reputation and customer relationships, create negative investor sentiment, and affect the Company’s share value. In connection with any resolution, the Company may also be required to undertake additional remedial compliance measures and program monitoring. The Company cannot at this time predict when the U.S. government agencies will conclude their investigations or determine an estimated cost, if any, or range of costs, for any penalties, fines or other liabilities to third parties that may be incurred in connection with these matters.

Indemnification

In the normal course of business, the Company periodically enters into agreements to indemnify customers or suppliers against claims of intellectual property infringement made by third parties arising from the use of the Company's products. Historically, costs related to these indemnification provisions have not been significant, and the Company is unable to estimate the maximum potential impact of these indemnification provisions on its future results of operations.

To the extent permitted under Delaware law, the Company indemnifies its directors and officers for certain events or occurrences while the director or officer is, or was, serving at the Company's request in such capacity, subject to limited exceptions. The maximum potential amount of future payments the Company could be required to make under these indemnification obligations is unlimited; however, the Company has directors and officers insurance coverage that may enable the Company to recover future amounts paid, subject to a deductible and the policy limits. There is no assurance that the policy limits will be sufficient to cover all damages, if any.

(14) Accumulated Other Comprehensive Loss

The changes in the balances of accumulated other comprehensive loss by component are as follows:

(in thousands)	Foreign currency translation adjustment	Defined benefit pension plan	Liquidation of non-US entity and purchase of non-controlling interests	Total
Balance at December 31, 2017	$ (19,319)	$ (2,555)	$ 338	$ (21,536)
Other comprehensive income (loss)	(11,489)	147	—	(11,342)
Balance at June 30, 2018	$ (30,808)	$ (2,408)	$ 338	$ (32,878)

The amounts presented above are in other comprehensive loss and are net of taxes. For additional information about foreign currency translation, see Note 6.

(15) Noncontrolling Interests

As of June 30, 2018, the Company owned approximately 70% of the capital and voting rights of Robtec, a service bureau and distributor of 3D printing and scanning products in Brazil. Robtec was acquired on November 25, 2014.

As of June 30, 2018, the Company owned approximately 70% of the capital and voting rights of Easyway, a service bureau and distributor of 3D printing and scanning products in China. Approximately 65% of the capital and voting rights of Easyway were acquired on April 2, 2015, and an additional 5% of the capital and voting rights of Easyway were acquired on July 19, 2017 for $2.3 million.

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

This discussion should be read in conjunction with the unaudited condensed consolidated financial statements and the notes thereto included in Item 1 (the "Financial Statements") of this Quarterly Report on Form 10-Q ("Form 10-Q"). We are subject to a number of risks and uncertainties that may affect our future performance that are discussed in greater detail in the sections entitled "Forward-Looking Statements" at the end of this Item 2 and that are discussed or referred to in Item 1A of Part II of this Form 10-Q.

Business Overview

3D Systems Corporation ("3D Systems" or the "Company" or "we" or "us") is a holding company incorporated in Delaware in 1993 that markets our products and services through subsidiaries in North America and South America (collectively referred to as "Americas"), Europe and the Middle East (collectively referred to as "EMEA") and the Asia Pacific region ("APAC"). We provide comprehensive 3D printing solutions, including 3D printers, materials, software, on demand manufacturing services and digital design tools. Our solutions support advanced applications in a wide range of industries and key verticals including healthcare, aerospace, automotive and durable goods. Our precision healthcare capabilities include simulation, Virtual Surgical Planning ("VSP™"), and printing of medical and dental devices, models, surgical guides and instruments. Our experience and expertise have proven vital to our development of an ecosystem and end-to-end digital workflow which enable customers to optimize product designs, transform workflows, bring innovative products to market and drive new business models.

Customers can use our 3D solutions to design and manufacture complex and unique parts, eliminate expensive tooling, produce parts locally or in small batches and reduce lead times and time to market. A growing number of customers are shifting from prototyping applications to also using 3D printing for production. We believe this shift will be further driven by our continued advancement and innovation of 3D printing solutions that improve durability, repeatability, productivity and total cost of operations.

Summary of Second Quarter 2018 Financial Results

Total consolidated revenue for the quarter ended June 30, 2018 increased by 10.7%, or $17.1 million, to $176.6 million, compared to $159.5 million for the quarter ended June 30, 2017. These results reflect an increase in printers, materials, on demand manufacturing, services and healthcare revenue, as discussed further below.

Healthcare revenue includes sales of products, materials and services for healthcare-related applications, including simulation, training, planning, anatomical models, surgical guides and instruments and medical and dental devices. For the quarter ended June 30, 2018, healthcare revenue increased by 26.4%, to $61.4 million, and made up 34.7% of total revenue, compared to $48.5 million, or 30.4% of total revenue, for the quarter ended June 30, 2017. The increase in healthcare revenue is driven by growth in products, including printers and materials.

For the quarter ended June 30, 2018, total software revenue from products and services remained flat at $24.1 million, and made up 13.6% of total revenue, compared to $24.0 million, or 15.0% of total revenue, for the quarter ended June 30, 2017.

Gross profit for the quarter ended June 30, 2018 increased by 6.8%, or $5.5 million, to $86.2 million, compared to $80.7 million for the quarter ended June 30, 2017. Gross profit margin for the quarters ended June 30, 2018 and 2017 was 48.8% and 50.6%, respectively.

Operating expenses for the quarter ended June 30, 2018 increased by 7.3%, or $6.4 million, to $93.9 million, compared to $87.5 million for the quarter ended June 30, 2017. Selling, general and administrative expenses for the quarter ended June 30, 2018 increased by 12.8%, or $8.1 million, to $71.2 million, compared to $63.1 million for the quarter ended June 30, 2017, predominantly due to the implementation of a market-based job architecture, increased marketing and advertising, investment in IT infrastructure, and higher legal expenses. Research and development expenses for the quarter ended June 30, 2018 decreased by 7.0%, or $1.7 million, to $22.7 million, compared to $24.4 million for the quarter ended June 30, 2017, as we have commercialized certain new products that were previously in development and continued to focus and prioritize our ongoing investments.

Our operating loss for the quarter ended June 30, 2018 was $7.7 million, compared to an operating loss of $6.9 million for the quarter ended June 30, 2017.

For the quarters ended June 30, 2018 and 2017, we generated $9.2 million and $18.6 million of cash from operations, respectively, as further discussed below. In total, our unrestricted cash balance at June 30, 2018 and December 31, 2017, was $119.3 million and $136.3 million, respectively.

Results of Operations

Comparison of revenue by geographic region

The following table sets forth changes in revenue by geographic region for the quarters ended June 30, 2018 and 2017.

Table 1

(Dollars in thousands)	Americas		EMEA		Asia Pacific		Total	
Revenue — second quarter 2017	$83,268	52.2 %	$53,449	33.5 %	$22,750	14.3%	$159,467	100.0 %
Change in revenue:								
Volume	15,575	18.7 %	3,818	7.1 %	3,520	15.5%	22,913	14.4 %
Price/Mix	(10,423)	(12.5)%	(3,568)	(6.7)%	4,007	17.6%	(9,984)	(6.3)%
Foreign currency translation	(164)	(0.2)%	3,160	5.9 %	1,176	5.2 %	4,172	2.6 %
Net change	4,988	6.0 %	3,410	6.3 %	8,703	38.3%	17,101	10.7 %
Revenue — second quarter 2018	$88,256	50.0 %	$56,859	32.2 %	$31,453	17.8%	$176,568	100.0 %

Consolidated revenue increased 10.7%, predominantly driven by higher sales volume across all geographic regions, a favorable impact of mix and average selling price in the Asia Pacific region, and the favorable impact of foreign currency; offset by an unfavorable impact of mix and price in the Americas and EMEA regions. The increase in sales volume across all geographic regions is due to higher demand from healthcare customers as well as a range of customers across verticals. The shift in price/mix across the Americas and EMEA regions relates to the mix of sales, including higher sales of lower priced printer models.

For the quarters ended June 30, 2018 and 2017, revenue from operations outside the U.S. was 51.3% and 49.3% of total revenue, respectively.

The following table sets forth changes in revenue by geographic region for the six months ended June 30, 2018 and 2017.

Table 2

(Dollars in thousands)	Americas		EMEA		Asia Pacific		Total	
Revenue — six months 2017	$163,559	51.8 %	$106,407	33.7 %	$45,932	14.5%	$315,898	100.0 %
Change in revenue:								
Volume	22,912	14.0 %	4,017	3.8 %	4,424	9.6 %	31,353	9.9 %
Price/Mix	(13,533)	(8.3)%	(6,216)	(5.8)%	2,354	5.1 %	(17,395)	(5.5)%
Foreign currency translation	(152)	(0.1)%	10,072	9.5 %	2,661	5.8 %	12,581	4.0 %
Net change	9,227	5.6 %	7,873	7.5 %	9,439	20.5%	26,539	8.4 %
Revenue — six months 2018	$172,786	50.5 %	$114,280	33.4 %	$55,371	16.2%	$342,437	100.0 %

Consolidated revenue increased 8.4%, predominantly driven by higher sales volume across all geographic regions, a favorable impact of sales mix and average selling price in the Asia Pacific region, and the favorable impact of foreign currency; offset by an unfavorable impact from mix of sales and average selling price in the Americas and EMEA regions. The negative impact of sales mix and average selling price across the Americas and EMEA regions relates to mix of sales, including higher sales of lower priced printer models.

For the six months ended ended June 30, 2018 and 2017, revenue from operations outside the U.S. was 50.7% and 49.7% of total revenue, respectively.

Comparison of revenue by class

We earn revenue from the sale of products, materials and services. The products category includes 3D printers, healthcare simulators and digitizers, software licenses, 3D scanners and haptic devices. The materials category includes a wide range of materials to be used with our 3D printers, the majority of which are proprietary, as well as acquired conventional dental materials. The services category includes maintenance contracts and services on 3D printers and simulators, software maintenance, on demand manufacturing solutions and healthcare services. Beginning in 2018, product warranty revenue and related expenses are included within the products category, and we have reclassified prior period amounts from services to products to conform to current year presentation.

Due to the relatively high price of certain 3D printers and a corresponding lengthy selling cycle and relatively low unit volume of the higher priced printers in any particular period, a shift in the timing and concentration of orders and shipments from one period to another can affect reported revenue in any given period. Revenue reported in any particular period is also affected by timing of revenue recognition under rules prescribed by U.S. generally accepted accounting principles (“GAAP”).

In addition to changes in sales volumes, there are two other primary drivers of changes in revenue from one period to another: (1) the combined effect of changes in product mix and average selling prices, sometimes referred to as price and mix effects, and (2) the impact of fluctuations in foreign currencies. As used in this Management’s Discussion and Analysis, the price and mix effects relate to changes in revenue that are not able to be specifically related to changes in unit volume.

The following table sets forth the change in revenue by class for the quarters ended June 30, 2018 and 2017.

Table 3

(Dollars in thousands)	Products		Materials		Services		Total	
Revenue — second quarter 2017	$53,705	33.6 %	$43,874	27.5 %	$61,888	38.9 %	$159,467	100.0 %
Change in revenue:								
Volume	14,365	26.7 %	6,251	14.2 %	2,297	3.7 %	22,913	14.4 %
Price/Mix	(3,648)	(6.8)%	(6,336)	(14.4)%	—	— %	(9,984)	(6.3)%
Foreign currency translation	1,319	2.5 %	1,255	2.9 %	1,598	2.6 %	4,172	2.6 %
Net change	12,036	22.4 %	1,170	2.7 %	3,895	6.3 %	17,101	10.7 %
Revenue — second quarter 2018	$65,741	37.2 %	$45,044	25.5 %	$65,783	37.3 %	$176,568	100.0 %

Consolidated revenue increased 10.7%, predominantly driven by products revenue, services revenue and the favorable impact of foreign currency translation, partially offset by a shift in sales mix which impacted average selling price for both products and materials.

Products revenue increased due to higher demand as well as the favorable impact of foreign currency, offset by changes in product mix which impacted average selling prices, including the impact of higher sales of lower priced printers. For the quarters ended June 30, 2018 and 2017, revenue from printers contributed $39.2 million and $27.7 million, respectively. Software revenue included in the products category, including scanners and haptic devices, contributed $12.9 million and $12.8 million for the quarters ended June 30, 2018 and 2017, respectively.

Materials revenue increased predominantly due to the favorable impact of foreign currency as higher sales volume was offset by the unfavorable impact of mix of sales.

Services revenue increased due to higher sales volume and the favorable impact of foreign currency translation. For the quarters ended June 30, 2018 and 2017, revenue from on demand manufacturing services contributed $27.4

million and $25.8 million, respectively. For both quarters ended June 30, 2018 and 2017, software services revenue contributed $11.2 million.

The following table sets forth the change in revenue by class for the six months ended June 30, 2018 and 2017.

Table 4

(Dollars in thousands)	Products		Materials		Services		Total	
Revenue — six months 2017	$108,822	34.4 %	$86,697	27.4 %	$120,379	38.2 %	$315,898	100.0 %
Change in revenue:								
Volume	21,978	20.2 %	8,002	9.2 %	1,373	1.1 %	31,353	9.9 %
Price/Mix	(6,803)	(6.3)%	(10,592)	(12.2)%	—	— %	(17,395)	(5.5)%
Foreign currency translation	4,371	4.0 %	3,756	4.3 %	4,454	3.7 %	12,581	4.0 %
Net change	19,546	17.9 %	1,166	1.3 %	5,827	4.8 %	26,539	8.4 %
Revenue — six months 2018	$128,368	37.5 %	$87,863	25.7 %	$126,206	36.9 %	$342,437	100.0 %

Consolidated revenue increased 8.4%, predominantly driven by products revenue and the favorable impact of foreign currency translation, partially offset by the negative impact of the sales mix which impacted average selling price for both materials and products.

Products revenue increased due to higher demand from customers from a range of verticals as well as the favorable impact of foreign currency, offset by a negative impact from mix of sales which impacted average selling price, primarily from higher sales of lower priced printers. For the six months ended June 30, 2018 and 2017, revenue from printers contributed $78.5 million and $59.1 million, respectively. Software revenue included in the products category, including scanners and haptic devices, contributed $24.5 million and $22.6 million for the six months ended June 30, 2018 and 2017, respectively.

Materials revenue increased due to higher sales volume and the favorable impact of foreign currency, offset by a change in sales mix which reduced average selling price.

Services revenue increased due to higher sales volume and the favorable impact of foreign currency translation. For the six months ended June 30, 2018 and 2017, revenue from on demand manufacturing services contributed $53.1 million and $50.9 million, respectively. For the six months ended June 30, 2018 and 2017, software services revenue contributed $22.1 million and $21.8 million, respectively.

Gross profit and gross profit margins

The following tables set forth gross profit and gross profit margins for the quarters and six months ended June 30, 2018 and 2017.

Table 5

	Quarter Ended June 30,							
	2018		2017		Change in Gross Profit		Change in Gross Profit Margin	
(Dollars in thousands)	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin	$	%	Percentage Points	%
Products	21,041	32.0 %	16,194	30.2 %	4,847	29.9 %	1.9	6.1 %
Materials	32,244	71.6 %	31,545	71.9 %	699	2.2 %	(0.3)	(0.4)%
Services	32,877	50.0 %	32,934	53.2 %	(57)	(0.2)%	(3.2)	(6.1)%
Total	$86,162	48.8 %	$80,673	50.6 %	$5,489	6.8 %	(1.8)	(3.5)%

The increase in total consolidated gross profit is due to the increase in products sales, primarily higher sales of 3D printers.

Products gross profit margin improved primarily from higher sales and absorption of overhead costs. Materials gross profit margin decreased due to the mix of sales during the second quarter. Services gross margins were lower as a result of expanding our services operations and support as well as from lower gross profit margins for on demand manufacturing services as we continued to make investments, including facility upgrades. On demand manufacturing services gross profit margin decreased to 41.0% for the quarter ended June 30, 2018 compared to 46.0% for the quarter ended June 30, 2017.

Table 6

	Six Months Ended June 30,							
	2018		2017		Change in Gross Profit		Change in Gross Profit Margin	
(Dollars in thousands)	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin	$	%	Percentage Points	%
Products	39,717	30.9 %	34,336	31.6 %	5,381	15.7 %	(0.6)	(1.9)%
Materials	62,896	71.6 %	63,234	72.9 %	(338)	(0.5)%	(1.4)	(1.9)%
Services	61,418	48.7 %	63,289	52.6 %	(1,871)	(3.0)%	(3.9)	(7.4)%
Total	$164,031	47.9 %	$160,859	50.9 %	$3,172	2.0 %	(3.0)	(5.9)%

The increase in total consolidated gross profit is due to the increase in products sales, predominantly driven by higher demand, partially offset by the mix of sales of materials and a decrease in services gross profit due to investments in on demand manufacturing.

On demand manufacturing services gross profit margin decreased to 39.8% for the six months ended June 30, 2018 compared to 44.7% for the six months ended June 30, 2017.

Operating expenses

The following tables sets forth the components of operating expenses for the quarters and six months ended June 30, 2018 and 2017.

Table 7

	Quarter Ended June 30,					
	2018		2017		Change	
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	$	%
Selling, general and administrative expenses	71,172	40.3 %	63,088	39.6 %	8,084	12.8 %
Research and development expenses	22,712	12.9 %	24,449	15.3 %	(1,737)	(7.1)%
Total operating expenses	$93,884	53.2 %	$87,537	54.9 %	$6,347	7.3 %

Total operating expenses increased for the quarter ended June 30, 2018 as compared to the quarter ended June 30, 2017 due mainly to increased selling, general and administrative expenses due to increased personnel related expenses, continued investment in IT infrastructure, and higher legal expenses. Research and development expenses decreased as we have begun to bring to market a series of new products planned to rollout throughout 2018, as well as our continued focus and prioritization of investments.

Table 8

	Six Months Ended June 30,					
	2018		2017		Change	
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	$	%
Selling, general and administrative expenses	140,625	41.1 %	129,493	41.0 %	11,132	8.6%
Research and development expenses	48,594	14.2 %	47,301	15.0 %	1,293	2.7%
Total operating expenses	$189,219	55.3 %	$176,794	56.0 %	$12,425	7.0%

Total operating expenses increased for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017 due to higher selling, general and administrative expenses driven by increased personnel related expenses, continued investment in IT infrastructure, and higher legal and other general expenses. Research and development expenses increased primarily in support of the new products we plan to bring to market throughout 2018 as well as the addition of talent and resources.

Loss from operations

The following table sets forth (loss) income from operations by geographic region for the quarters and six months ended June 30, 2018 and 2017.

Table 9

	Quarter Ended June 30,		Six Months Ended June 30,	
(Dollars in thousands)	2018	2017	2018	2017
(Loss) income from operations:				
Americas	(13,539)	(16,937)	(33,523)	(33,152)
EMEA	(2,119)	4,119	(3,334)	7,748
Asia Pacific	7,936	5,954	11,669	9,469
Total	$(7,722)	$(6,864)	$(25,188)	$(15,935)

The increase in operating loss for the quarter and six months ended June 30, 2018 compared to the quarter and six months ended June 30, 2017 was primarily driven by an increase in operating expenses, offset in part by an increase in gross profit. See “Comparison of revenue by geographic region,” “Gross profit and gross profit margins” and “Operating expenses” above.

Interest and other income, net

The following table sets forth the components of interest and other (expense) income, net, for the quarters and six months ended June 30, 2018 and 2017.

Table 10

	Quarter Ended June 30,		Six Months Ended June 30,	
(Dollars in thousands)	2018	2017	2018	2017
Interest and other (expense) income, net:				
Interest income	231	161	453	328
Foreign exchange gain	1,776	1,205	1,853	1,534
Interest expense	(220)	(232)	(448)	(462)
Other expense, net	(126)	(201)	(1,750)	(266)
Total interest and other (expense) income, net	$1,661	$933	$108	$1,134

The increase in interest and other (expense) income, net, for the quarter ended June 30, 2018 compared to the quarter ended June 30, 2017 was primarily driven by the favorable impact of foreign currency translation. The decrease in interest and other (expense) income, net, for the six months ended June 30, 2018 compared to the six months ended June 30, 2017 was related to a $1.4 million adjustment to the fair value of certain cost method investments in the first quarter of 2018.

Net loss attributable to 3D Systems

The following tables set forth the primary components of net loss attributable to 3D Systems for the quarters and six months ended June 30, 2018 and 2017.

Table 11

	Quarter Ended June 30, 2018		
(Dollars in thousands)	2018	2017	Change
Operating loss	$(7,722)	$(6,864)	$(858)
Other non-operating items:			
Interest and other (expense) income, net	1,661	933	728
Provision for income taxes	(2,539)	(2,067)	(472)
Net loss	(8,600)	(7,998)	(602)
Less: net income attributable to noncontrolling interests	262	418	(156)
Net loss attributable to 3D Systems	$(8,862)	$(8,416)	$(446)
Net (loss) per share - basic and diluted	$(0.08)	$(0.08)	

Table 12

	Six Months Ended June 30,		
(Dollars in thousands)	2018	2017	Change
Operating loss	$(25,188)	$(15,935)	$(9,253)
Other non-operating items:			
Interest and other income, net	108	1,134	(1,026)
Provision for income taxes	(4,493)	(3,108)	(1,385)
Net loss	(29,573)	(17,909)	(11,664)
Less: net income attributable to noncontrolling interests	246	478	(232)
Net loss attributable to 3D Systems	$(29,819)	$(18,387)	$(11,432)
Net (loss) per share - basic and diluted	$(0.27)	$(0.17)	

The decrease in net loss for the quarter and six months ended June 30, 2018 as compared to the quarter and six months ended June 30, 2017 was primarily driven by an increase in operating expenses, offset in part by an increase in gross profit. See “Gross profit and gross profit margins” and “Operating expenses” above.

Liquidity and Capital Resources

Table 13

(Dollars in thousands)	June 30, 2018	December 31, 2017	Change $	%
Cash and cash equivalents	$119,313	$136,344	$(17,031)	(12.5)%
Accounts receivable, net	130,870	129,879	991	0.8 %
Inventories	114,493	103,903	10,590	10.2 %
	364,676	370,126	(5,450)	
Less:				
Current portion of capitalized lease obligations	646	644	2	0.3 %
Accounts payable	58,019	55,607	2,412	4.3 %
Accrued and other liabilities	72,400	65,899	6,501	9.9 %
	131,065	122,150	8,915	
Operating working capital	$233,611	$247,976	$(14,365)	(5.8)%

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. In doing so, we review and analyze our current cash on hand, the number of days our sales are outstanding, inventory turns, capital expenditure commitments and accounts payable turns. Our cash requirements primarily consist of funding of working capital and funding of capital expenditures.

We believe our existing cash and cash equivalents will be sufficient to satisfy our working capital needs, capital expenditures, outstanding commitments and other liquidity requirements associated with our existing operations in the foreseeable future, or to consummate significant acquisitions of other businesses, assets, products or technologies. However, it is possible that, in the future, we may need to raise additional funds to finance our activities. If needed, we may be able to raise such funds by issuing equity or debt securities to the public or selected investors, by borrowing from financial institutions, drawing down on our credit facility, or selling assets.

Cash held outside the U.S. at June 30, 2018 was $96.8 million, or 81.2% of total cash and equivalents, compared to $88.9 million, or 65.2% of total cash and equivalents at December 31, 2017. As our previously unremitted earnings have been subjected to U.S. federal income tax, we expect any repatriation of these earnings to the U.S. would not incur significant additional taxes related to such amounts. However, our estimates are provisional and subject to further analysis. We continue to assert that our foreign earnings are indefinitely reinvested in our overseas operations, but in light of the recent tax legislation, we are continuing to evaluate our position on that assertion. Cash equivalents are comprised of funds held in money market instruments and are reported at their current carrying value, which approximates fair value due to the short term nature of these instruments. We strive to minimize our credit risk by investing primarily in investment grade, liquid instruments and limit exposure to any one issuer depending upon credit quality. See “Cash flow”, “Credit facilities” and “Capitalized lease obligations” below.

Days’ sales outstanding was 67 at June 30, 2018 compared to 73 days at December 31, 2017 while accounts receivable more than 90 days past due increased to 9.4% of gross receivables at June 30, 2018, from 9.1% at December 31, 2017. We review specific receivables periodically to determine the appropriate reserve for accounts receivable.

The majority of our inventory consists of finished goods, including products, materials and service parts. Inventory also consists of raw materials and spare parts for the in-house assembly and support service products. We outsource the assembly of certain 3D printers; therefore, we generally do not hold most parts for the assembly of these printers in inventory.

The changes that make up the other components of working capital not discussed above resulted from the ordinary course of business. Differences between the amounts of working capital item changes in the cash flow statement and the balance sheet changes for the corresponding items are primarily the result of foreign currency translation adjustments.

Cash flow

The following tables set forth components of cash flow for the six months ended June 30, 2018 and 2017.

Table 14

(Dollars in thousands)	Six Months Ended June 30, 2018	2017
Net cash provided by operating activities	$9,171	$18,579
Net cash used in investing activities	(18,609)	(47,484)
Net cash used in financing activities	(4,823)	(5,466)
Effect of exchange rate changes on cash	(2,502)	3,602
Net decrease in cash, cash equivalents and restricted cash	$(16,763)	$(30,769)

Cash flow from operations

Table 15

(Dollars in thousands)	Six Months Ended June 30, 2018	2017
Net loss	$(29,573)	$(17,909)
Non-cash charges	44,162	43,611
Changes in working capital and all other operating assets	(5,418)	(7,123)
Net cash provided by operating activities	$9,171	$18,579

Cash provided by operating activities for the six months ended June 30, 2018 was $9.2 million and for the six months ended June 30, 2017 was $18.6 million. Excluding non-cash charges, net income provided cash of $14.6 million for the six months ended June 30, 2018 and $25.7 million for the six months ended June 30, 2017. Non-cash charges generally consist of depreciation, amortization, and stock-based compensation.

Working capital requirements used cash of $5.4 million for the six months ended June 30, 2018 and $7.1 million for the six months ended June 30, 2017. In the six months ended June 30, 2018, cash outflows resulting from increases in inventory, prepaid expenses and accounts receivable and were partially offset by increases in accrued liabilities, deferred revenue and accounts payable. In the six months ended June 30, 2017, cash outflows were driven primarily by higher inventory levels.

Cash flow from investing activities

Table 16

(Dollars in thousands)	Six Months Ended June 30, 2018	2017
Purchases of property and equipment	$(18,095)	$(11,243)
Additions to license and patent costs	(523)	(571)
Cash paid for acquisitions, net of cash assumed	—	(34,291)
Other investing activities	—	(1,650)
Proceeds from disposition of property and equipment	9	271
Net cash used in investing activities	$(18,609)	$(47,484)

The primary outflow of cash relates to investments in property, plant and equipment as we invest in infrastructure, add to our on-demand manufacturing service and equip facilities for new product development efforts. In 2017 we acquired Vertex, a dental materials company, for an aggregate purchase price of $34.3 million, net of cash acquired.

Cash flow from financing activities

Table 17

(Dollars in thousands)	Six Months Ended June 30, 2018	2017
Payments on earnout consideration	$(2,675)	$(3,206)
Payments related to net-share settlement of stock-based compensation	(1,804)	(1,970)
Repayment of capital lease obligations	(344)	(290)
Net cash used in financing activities	$(4,823)	$(5,466)

Cash used in financing activities was $4.8 million and $5.5 million for the six months ended June 30, 2018 and 2017, respectively. The primary outflows of cash relate to payments on earnout provisions related to one of our acquisitions and the settlement of equity-based compensation.

We may issue additional securities from time to time as necessary to provide flexibility to execute our growth strategy. No securities were issued for financing purposes during the six months ended June 30, 2018 and 2017.

Contractual commitments and off-balance sheet arrangements

Credit facilities

In October 2014, we entered into a $150.0 million five-year revolving, unsecured credit facility. The agreement provides for advances in the initial aggregate principal amount of up to $150.0 million. Subject to certain terms and conditions contained in the agreement, we may, at our option, request an increase in the aggregate principal amount available under the credit facility by an additional $75.0 million. As of June 30, 2018 and December 31, 2017, there was no outstanding balance on the credit facility. The credit facility contains customary covenants, some of which require us to maintain certain financial ratios that determine the amounts available and terms of borrowings and events of default. We were in compliance with all covenants at both June 30, 2018 and December 31, 2017. See Note 7 to the condensed consolidated financial statements.

Capitalized lease obligations

Our capitalized lease obligations include a lease agreement that we entered into during 2006 with respect to our Rock Hill, SC facility, in addition to other lease agreements assumed through acquisitions. In accordance with ASC 840, “Leases,” we are considered an owner of the properties, therefore, we have recorded these amounts in our consolidated balance sheet with a corresponding capitalized lease obligation in the liabilities section of the consolidated balance sheet. Our outstanding capitalized lease obligations carrying value at June 30, 2018 and December 31, 2017 was $7.1 million and $7.7 million, respectively.

Redeemable noncontrolling interests

The minority interest shareholders of a certain subsidiary have the right to require us to acquire either a portion of or all ownership interest under certain circumstances pursuant to a contractual arrangement, and we have a similar call option under the same contractual terms. The amount of consideration under the put and call rights is not a fixed amount, but rather is dependent upon various valuation formulas and on future events, such as revenue and gross margin performance of the subsidiary through the date of exercise, as described in Note 15 to the condensed consolidated financial statements. Management estimates, assuming that the subsidiary owned by us at June 30, 2018 performs over the relevant future periods at its forecasted earnings levels, that these rights, if exercised, could require us in a future period to pay a maximum amount of approximately $8.9 million to the owners of such put rights. This amount has been recorded as redeemable noncontrolling interests on the balance sheet at June 30, 2018.

Other contractual arrangements

We lease certain of our facilities and equipment under non-cancelable operating leases. For the quarter and six months ended June 30, 2018, rent expense under operating leases was $4.2 million and $8.5 million, respectively, compared to $3.7 million and $7.5 million for the quarter and six months ended June 30, 2017, respectively.

Certain of our acquisition purchase agreements contain earnout payment provisions under which the sellers of the acquired businesses can earn additional amounts. The total amount of liabilities recorded for these earnouts is $2.1 million and $8.1 million at June 30, 2018 and December 31, 2017, respectively.

Off-balance sheet arrangements

We have no off-balance sheet arrangements and do not utilize any “structured debt,” “special purpose,” or similar unconsolidated entities for liquidity or financing purposes.

Recent Accounting Pronouncements

Refer to Note 1 - Basis of Presentation of the Notes to Financial Statements (Part I, Item 1 of this Form 10-Q) for further discussion.

Critical Accounting Policies and Significant Estimates

Our condensed consolidated financial statements are prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses, and related disclosures. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

Except for the accounting policies related to revenue recognition that were updated as a result of adopting ASC Topic 606, there have been no changes to our critical accounting policies and estimates described in the Annual Report on Form 10-K for the year ended December 31, 2017, filed with the Securities and Exchange Commission ("SEC") on March 14, 2018, that have had a material impact on our condensed consolidated financial statements and related notes.

Forward-Looking Statements

Certain statements made in this Form 10-Q that are not statements of historical or current facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. In many cases, you can identify forward-looking statements by terms such as “believes,” “belief,” “expects,” “estimates,” “intends,” “anticipates,” or “plans” or the negative of these terms or other comparable terminology.

Forward-looking statements are based upon management’s beliefs, assumptions and current expectations concerning future events and trends, using information currently available, and are necessarily subject to uncertainties, many of which are outside our control. Although we believe that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are not, and should not be relied upon as a guarantee of future performance or results, nor will they necessarily prove to be accurate indications of the times at or by which any such performance or results will be achieved. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements. These factors include without limitation:

- competitive industry pressures;
- our ability to deliver products that meet changing technology and customer needs;
-

our ability to identify strategic acquisitions, to integrate such acquisitions into our business without disruption and to realize the anticipated benefits of such acquisitions;

- impact of future write-off or write-downs of intangible assets;
- our ability to acquire and enforce intellectual property rights and defend such rights against third party claims;
- our ability to protect our intellectual property rights and confidential information, including our digital content, from third-party infringers or unauthorized copying, use or disclosure;
- failure of our information technology infrastructure or inability to protect against cyber-attack;
- our ability to generate net cash flow from operations;
- our ability to obtain additional financing on acceptable terms;
- impact of global economic, political and social conditions and financial markets on our business;
- fluctuations in our gross profit margins, operating income or loss and/or net income or loss;
- our ability to efficiently conduct business outside the U.S.;
- our dependence on our supply chain for components and sub-assemblies used in our 3D printers and other products and for raw materials used in our print materials;

- our ability to manage the costs and effects of litigation, investigations or similar matters involving us or our subsidiaries;
- product quality problems that result in decreased sales and operating margin, product returns, product liability, warranty or other claims;
- our ability to retain our key employees and to attract and retain new qualified employees, while controlling our labor costs;
- our exposure to product liability claims and other claims and legal proceedings;
- disruption in our management information systems for inventory management, distribution, and other key functions;
- compliance with U.S. and other anti-corruption laws, data privacy laws, trade controls, economic sanctions, and similar laws and regulations;
- changes in, or interpretation of, tax rules and regulations; and
- compliance with, and related expenses and challenges concerning, conflict-free minerals regulations; and
- the other factors discussed in the reports we file with or furnishes to the Securities and Exchange Commission ("SEC") from time to time, including the risks and important factors set forth in additional detail in "Risk Factors" in Part I, Item 1A of our Form 10-K filed with the SEC.

Certain of these and other factors are discussed in more detail in "Item 1A. Risk Factors" of our Form 10-K. Readers are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements included herein are made only as of the date of this Form 10-Q and we undertake no obligation to publicly update or review any forward-looking statement made by us or on our behalf, whether as a result of new information, future developments, subsequent events or circumstances or otherwise. All subsequent written or oral forward-looking statements attributable to us or individuals acting on our behalf are expressly qualified in their entirety by the cautionary statements referenced above.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

For a discussion of market risks at December 31, 2017, refer to Item 7A, "Quantitative and Qualitative Disclosures about Market Risk," in our Form 10-K. During the first six months of 2018, there were no material changes or developments that would materially alter the market risk assessment performed as of December 31, 2017.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

As of June 30, 2018, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) pursuant to Rules 13a-15 and 15d-15 under the Exchange Act. These controls and procedures were designed to provide reasonable assurance that the information required to be disclosed in the reports that we file or submit under the Exchange Act 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 our management, including our Chief Executive Officer and Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures. Based on this evaluation, including an evaluation of the rules referred to above in this Item 4, management has concluded that our disclosure controls and procedures were effective as of June 30, 2018 to provide reasonable assurance that the information required to be disclosed in the reports we file or submit under the Exchange Act 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 management, including our Chief Executive Officer and Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures.

Changes in Internal Controls over Financial Reporting

There were no material changes in our internal controls over financial reporting during the period covered by this Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

The information set forth in “Litigation” and "Export Compliance Matter" in Note 13 – Commitments and Contingencies to the Financial Statements in Part I, Item 1 of this Form 10-Q is incorporated herein by reference.

Item 1A. Risk Factors.

There have been no material changes from the risk factors as previously disclosed in our Form 10-K.

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

Recent Issuances of Unregistered Securities

None.

Issuer Purchases of Equity Securities

We did not repurchase any of our equity securities during the quarter ended June 30, 2018, except for unvested restricted stock awards repurchased or forfeited pursuant to our 2004 and 2015 Incentive Stock Plans.

	Total number of shares (or units) purchased		Average price paid per share (or unit)		Total number of shares (or units) purchased as part of publicly announced plans or programs	Maximum number (or approximate dollar value) of shares (or units) that may yet be purchased under the plans or programs
January 1, 2018 - January 31, 2018	12,433		9.69		—	—
February 1, 2018 - February 28, 2018	98,456		9.11		—	—
March 1, 2018 - March 31, 2018	3,966		11.51		—	—
April 1, 2018 - April 30, 2018	29,165		11.14		—	—
May 1, 2018 - May 31, 2018	48,711		12.66		—	—
June 1, 2018 - June 30, 2018	1,990		13.60		—	—
	194,721	(a)	10.43	(b)	—	—

(a) Reflects shares of common stock surrendered to the Company for payment of tax withholding obligations in connection with the vesting of restricted stock.

(b) The average price paid reflects the average market value of shares withheld for tax purposes.

Item 6. Exhibits.

3.1	Certificate of Incorporation of Registrant. (Incorporated by reference to Exhibit 3.1 to Form 8-B filed on August 16, 1993, and the amendment thereto, filed on Form 8-B/A on February 4, 1994.)
3.2	Amendment to Certificate of Incorporation filed on May 23, 1995. (Incorporated by reference to Exhibit 3.2 to Registrant's Registration Statement on Form S-2/A, filed on May 25, 1995.)
3.3	Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 19, 2004. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, filed on August 5, 2004.)
3.4	Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 17, 2005. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005, filed on August 1, 2005.)
3.5	Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on October 7, 2011. (Incorporated by reference to Exhibit 3.1 to Form 8-K filed on October 7, 2011.)
3.6	Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on May 21, 2013. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed on May 22, 2013.)
3.7	Amended and Restated By-Laws of 3D Systems Corporation. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K filed on March 15, 2018.)
31.1	Certification of Principal Executive Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated August 7, 2018.
31.2	Certification of Principal Financial Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated August 7, 2018.
32.1	Certification of Principal Executive Officer filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 dated August 7, 2018.
32.2	Certification of Principal Financial Officer filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 dated August 7, 2018.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

* Management contract or compensatory plan or arrangement

SIGNATURE

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.

3D Systems Corporation

By /s/ John N. McMullen
John N. McMullen
Executive Vice President and Chief Financial Officer
(principal financial and accounting officer)
(duly authorized officer)

Date: August 7, 2018