3D SYSTEMS CORP
Form 10-Q
May 03, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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FORM 10 Q

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

For the quarterly period ended March 31, 2017

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

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 April 26, 2017: 113,810,649

3D SYSTEMS CORPORATION

Quarterly Report on Form 10-Q for the

Quarter Ended March 31, 2017

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

3D SYSTEMS CORPORATION

CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except par value)	March 31, 2017 (unaudited)	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 161,662	$ 184,947
Accounts receivable, net of reserves — $11,424 (2017) and $12,920 (2016)	124,581	127,114
Inventories, net of reserves — $12,206 (2017) and $14,770 (2016)	105,105	103,331
Prepaid expenses and other current assets	17,909	17,558
Total current assets	409,257	432,950
Property and equipment, net	84,803	79,978
Intangible assets, net	122,594	121,501
Goodwill	215,156	181,230
Long term deferred income tax asset	7,958	8,123
Other assets, net	25,862	25,371
Total assets	$ 865,630	$ 849,153
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of capitalized lease obligations	$ 584	$ 572
Accounts payable	40,752	40,514
Accrued and other liabilities	48,736	49,968
Customer deposits	6,549	5,857
Deferred revenue	45,079	33,494
Total current liabilities	141,700	130,405
Long term portion of capitalized lease obligations	7,454	7,587
Long term deferred income tax liability	18,289	17,601
Other liabilities	54,863	57,988
Total liabilities	222,306	213,581
Redeemable noncontrolling interests	8,872	8,872
Commitments and contingencies (Note 14)		
Stockholders’ equity:		
	115	115

Common stock, $0.001 par value, authorized 220,000 shares; issued 115,419 (2017) and 115,113 (2016)		
Additional paid-in capital	1,307,561	1,307,428
Treasury stock, at cost — 1,631 shares (2017) and 1,498 shares (2016)	(3,746)	(2,658)
Accumulated deficit	(621,552)	(621,787)
Accumulated other comprehensive loss	(44,874)	(53,225)
Total 3D Systems Corporation stockholders' equity	637,504	629,873
Noncontrolling interests	(3,052)	(3,173)
Total stockholders’ equity	634,452	626,700
Total liabilities, redeemable noncontrolling interests and stockholders’ equity	$ 865,630	$ 849,153

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

(Unaudited)

	Quarter Ended March 31,	
(in thousands, except per share amounts)	2017	2016
Revenue:		
Products	$ 94,730	$ 90,964
Services	61,701	61,591
Total revenue	156,431	152,555
Cost of sales:		
Products	44,748	44,161
Services	31,497	30,881
Total cost of sales	76,245	75,042
Gross profit	80,186	77,513
Operating expenses:		
Selling, general and administrative	66,405	73,967
Research and development	22,852	20,305
Total operating expenses	89,257	94,272
Loss from operations	(9,071)	(16,759)
Interest and other income, net	(201)	(126)
Loss before income taxes	(8,870)	(16,633)
Provision for income taxes	1,041	1,179
Net loss	(9,911)	(17,812)
Less: net income (loss) attributable to noncontrolling interests	60	(24)
Net loss attributable to 3D Systems Corporation	$ (9,971)	$ (17,788)
Net loss per share available to common stockholders — basic and diluted	$ (0.09)	$ (0.16)
Other comprehensive income (loss):		
Pension adjustments, net of taxes	$ 20	$ (31)
Foreign currency translation gain	8,392	7,939
Total other comprehensive income	8,412	7,908
Less foreign currency translation gain attributable to noncontrolling interests	61	89
Other comprehensive income attributable to 3D Systems Corporation	8,351	7,819
Comprehensive loss	(1,499)	(9,904)

Less comprehensive income attributable to noncontrolling interests	121	65
Comprehensive loss attributable to 3D Systems Corporation	$ (1,620)	$ (9,969)

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

	Quarter Ended March 31,	
(In thousands)	2017	2016
Cash flows from operating activities:		
Net loss	$ (9,911)	$ (17,812)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	14,973	15,089
Stock-based compensation	7,131	11,667
Provision for bad debts	155	2,388
Benefit of deferred income taxes	(1,069)	(1,092)
Changes in operating accounts, net of acquisitions:		
Accounts receivable	5,336	21,544
Inventories	(4,120)	(7,984)
Prepaid expenses and other current assets	12	(434)
Accounts payable	(643)	(5,956)
Accrued and other current liabilities	(2,849)	(4,056)
Deferred revenue	11,218	11,019
All other operating activities	(852)	(6,255)
Net cash provided by operating activities	19,381	18,118
Cash flows from investing activities:		
Cash paid for acquisitions, net of cash assumed	(34,291)	—
Purchases of property and equipment	(5,620)	(4,246)
Additions to license and patent costs	(280)	(231)
Proceeds from disposition of property and equipment	24	—
Net cash used in investing activities	(40,167)	(4,477)
Cash flows from financing activities:		
Payments on earnout consideration	(3,206)	—
Repurchase of stock, net, and employer paid tax on employee awards	(1,088)	(810)
Repayment of capital lease obligations	(142)	(262)
Net cash used in financing activities	(4,436)	(1,072)
Effect of exchange rate changes on cash and cash equivalents	1,937	1,562
Net increase (decrease) in cash and cash equivalents	(23,285)	14,131
Cash and cash equivalents at the beginning of the period	184,947	155,643
Cash and cash equivalents at the end of the period	$ 161,662	$ 169,774
Cash interest payments	$ 200	$ 214
Cash income tax payments, net	$ 573	$ 1,707
Transfer of equipment from inventory to property and equipment, net (a)	$ 5,379	$ 5,760

Transfer of equipment to inventory from property and equipment, net (b)	$ 718	$ 1,779
Stock issued for acquisitions	$ 3,208	$ —

(a) 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 parts manufacturing services locations.

(b) 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 STATEMENT OF EQUITY

(Unaudited)

	Common Stock			Treasury Stock						
(In thousands, except par value)	Shares	Par Value $0.001	Additional Paid In Capital	Shares	Amount	Accumulated Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total 3D Systems Corporation Stockholders' Equity	Equity Attributable to Noncontrolling Interests	Total Stockho Equity
Balance at December 31, 2016	115,113	$ 115	$ 1,307,428	1,498	$ (2,658)	$ (621,787)	$ (53,225)	$ 629,873	$ (3,173)	$ 626,7
Issuance (repurchase) of stock	114	—	—	133	(1,088)	—	—	(1,088)	—	(1,08
Issuance of stock for acquisitions	192	—	3,208	—	—	—	—	3,208	—	3,208
Cumulative impact of change in accounting policy	—	—	(10,206)	—	—	10,206	—	—	—	—
Stock-based compensation expense	—	—	7,131	—	—	—	—	7,131	—	7,131
Net income (loss)	—	—	—	—	—	(9,971)	—	(9,971)	60	(9,91
Pension adjustment	—	—	—	—	—	—	20	20	—	20
Foreign currency translation adjustment	—	—	—	—	—	—	8,331	8,331	61	8,392
	115,419	$ 115	$ 1,307,561	1,631	$ (3,746)	$ (621,552)	$ (44,874)	$ 637,504	$ (3,052)	$ 634,4

Balance at
March 31,
2017

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 its subsidiaries (collectively, the "Company"). 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, 2016 ("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 ended March 31, 2017 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. All amounts presented in the accompanying footnotes are presented in thousands, except for per share information.

Recently Adopted Accounting Pronouncements

In the first quarter of 2017, the Company adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") No. 2016-09, "Compensation – Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting". The following summarizes the effects of the adoption on the Company's unaudited condensed consolidated financial statements:

Forfeitures - Prior to adoption, share-based compensation expense was recognized on a straight-line basis, net of estimated forfeitures, such that expense was recognized only for share-based awards that were expected to vest. A forfeiture rate was estimated annually and revised, if necessary, in subsequent periods if actual forfeitures differed

from initial estimates. Upon adoption, the Company will no longer apply a forfeiture rate and instead will account for forfeitures as they occur. The change was applied on a modified retrospective basis resulting in a cumulative effect adjustment to retained earnings of $10,206 as of January 1, 2017. Prior periods have not been adjusted.

Statement of Cash Flows - The Company historically accounted for excess tax benefits related to share-based compensation on the Statement of Cash Flows as a financing activity. Upon adoption of this standard, excess tax benefits are classified along with other income tax cash flows as an operating activity. The Company has elected to adopt this portion of the standard on a prospective basis beginning in 2017. Prior periods have not been adjusted.

Income taxes - Upon adoption of this standard, all excess tax benefits and tax deficiencies related to share-based compensation are recognized as income tax expense or benefit in the income statement. The tax effects of exercised or vested awards are treated as discrete items in the reporting period in which they occur. Prior periods have not been adjusted.

Recently Issued Accounting Pronouncements

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 will adopt ASU 2017-07 in the first quarter of 2018 and does not expect the implementation of this guidance to have a material effect 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 October 2016, the FASB issued ASU No. 2016-16, “Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory” (“ASU 2016-16”). ASU 2016-16 permits the recognition of income tax consequences related to an intra-entity transfer of an asset other than inventory when the transfer occurs. It is effective for annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. Early adoption is permitted for any interim or annual period. The Company is currently in the process of evaluating the impact of adoption of ASU 2016-16 on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, “Statement of Cash Flows (Topic 230) – Classification of Certain Cash Receipts and Cash Payments” (“ASU 2016-15”). With the objective of reducing the existing diversity in practice, ASU 2016-15 addresses the manner in which certain cash receipts and cash payments are presented and classified in the statement of cash flows. ASU 2016-15 is effective for annual reporting periods beginning after December 15, 2017. The amendments should be applied retrospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company expects that the implementation of this guidance will not have a material effect 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 arising from operating leases on the balance sheet. It is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those fiscal years. Though still evaluating the impact of ASU 2016-02, 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.

In August 2015, the FASB issued ASU No. 2015-14, “Revenue from Contracts with Customers: Deferral of the Effective Date” (“ASU 2015-14”), a revision to Accounting Standards Update No. 2014-09, “Revenue from Contracts with Customers”, which was originally issued on May 28, 2014. For public business entities, certain not-for-profit entities, and certain employee benefit plans, the effective date was for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. ASU 2015-14 will defer these effective dates for all entities by one year. During 2016, the Company continued its evaluation of ASU 2014-09, including the expected impact on its business processes, systems and controls, and potential differences in the timing and/or method of revenue recognition for its contracts. The Company expects to complete its assessment of the cumulative effect of adopting ASU 2014-09 as well as the expected impact of adoption during 2017. The Company will continue its

evaluation of ASU 2014-09, including how it may impact new contracts it receives as well as new or emerging interpretations of the standard, through the date of adoption.

No other new accounting pronouncements, issued or effective during the first quarter of 2017, have had or are expected to have a significant impact on the Company's consolidated financial statements.

(2) Acquisitions

On January 31, 2017, the Company acquired 100 percent of the shares of Vertex-Global Holding B.V. ("Vertex"), a provider of dental materials worldwide under the Vertex and NextDent brands. The cash portion of the purchase price is included in cash paid for acquisitions, net of cash assumed, in the unaudited Condensed Consolidated Statement of Cash Flows. The share portion of the purchase price is included in issuance of stock for acquisitions in the unaudited Condensed Consolidated Statement of Equity. The operating results of Vertex have been included in the Company's reported results since the closing date. The purchase price of the acquisition has been allocated to the estimated fair value of net tangible and intangible assets acquired, with any excess purchase price recorded as goodwill. The Company did not acquire any businesses in 2016.

(3) Inventories

Components of inventories, net, as of March 31, 2017 and December 31, 2016 were as follows:

(in thousands)	2017	2016
Raw materials	$ 38,651	$ 38,383
Work in process	4,143	3,109
Finished goods and parts	62,311	61,839
Inventories, net	$ 105,105	$ 103,331

(4) Property and Equipment

Property and equipment, net, as of March 31, 2017 and December 31, 2016 were as follows:

(in thousands)	2017	2016	Useful Life (in years)
Land	$ 903	$ 903	N/A
Building	11,122	11,122	25-30
Machinery and equipment	116,831	108,682	2-7
Capitalized software	8,709	8,651	3-5
Office furniture and equipment	3,507	3,130	1-5
Leasehold improvements	25,037	24,423	Life of lease (a)
Rental equipment	452	144	5
Construction in progress	9,125	7,760	N/A
Total property and equipment	175,686	164,815	
Less: Accumulated depreciation and amortization	(90,883)	(84,837)	
Total property and equipment, net	$ 84,803	$ 79,978	

(a) Leasehold improvements are amortized on a straight-line basis over the shorter of (i) their estimated useful lives and (ii) the estimated or contractual life of the related lease.

For the quarters ended March 31, 2017 and 2016, depreciation expense on property and equipment was $5,873 and $6,000, respectively.

(5) Intangible Assets

Intangible assets, net, other than goodwill, as of March 31, 2017 and December 31, 2016 were as follows:

	2017			2016				
(in thousands)	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net	Useful Life (in years)	Weighted Average Useful Life Remaining (in years)
Intangible assets with finite lives:								
Patent costs	$ 16,969	$ (6,337)	$ 10,632	$ 16,263	$ (5,873)	$ 10,390	1-20	9
Acquired technology	54,192	(31,125)	23,067	52,881	(27,543)	25,338	1-16	4
Acquired patents	16,982	(11,093)	5,889	17,047	(9,454)	7,593	1-6	4
Customer relationships	103,106	(49,576)	53,530	99,067	(46,252)	52,815	1-14	6
Trade secrets	19,254	(9,926)	9,328	19,530	(7,919)	11,611	7	4
Trade names	32,926	(16,936)	15,990	28,110	(16,015)	12,095	1-8	5
Other	23,971	(19,813)	4,158	22,953	(21,294)	1,659	2-4	2
Total intangible assets	$ 267,400	$ (144,806)	$ 122,594	$ 255,851	$ (134,350)	$ 121,501	1-20	4

Amortization expense related to intangible assets was $8,832 and $8,819 for the quarters ended March 31, 2017 and 2016, respectively.

(6) Accrued and Other Liabilities

Accrued liabilities as of March 31, 2017 and December 31, 2016 were as follows:

(in thousands)	2017	2016
Compensation and benefits	$ 20,256	$ 22,771
Vendor accruals	8,531	8,231
Accrued professional fees	538	810
Accrued taxes	9,887	9,831
Royalties payable	2,417	2,092
Accrued interest	112	39
Accrued earnouts related to acquisitions	3,971	3,238
Accrued other	3,024	2,956
Total	$ 48,736	$ 49,968

Other liabilities as of March 31, 2017 and December 31, 2016 were as follows:

(in thousands)	2017	2016
Arbitration award	$ 11,282	$ 11,282
Long term employee indemnity	11,974	11,152
Defined benefit pension obligation	7,742	7,613
Long term tax liability	7,190	7,183
Long term earnouts related to acquisitions	3,897	7,568
Long term deferred revenue	7,019	7,464
Other long term liabilities	5,759	5,726
Total	$ 54,863	$ 57,988

(7) 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 income, net" in the condensed consolidated statements of operations and comprehensive income (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 $35,302 in notional foreign exchange contracts outstanding as of March 31, 2017, for which the fair value was not material. No foreign exchange contracts were outstanding as of December 31, 2016.

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. The impact of translating the Company's non-U.S. operations' revenue and earnings into U.S. dollars was not material to the Company's results of operations for the quarters ended March 31, 2017 and 2016.

(8) Borrowings

Credit Facility

As of March 31, 2017, 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 March 31, 2017 and December 31, 2016. There were no outstanding borrowings as of March 31, 2017.

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. Capitalized lease obligations decreased to $8,038 at March 31, 2017 from $8,159 at December 31, 2016, due to the normal scheduled timing of payments.

(9) Pension Benefits

The components of the Company’s pension cost recognized in the condensed consolidated statements of operations and comprehensive income (loss) for the quarters ended March 31, 2017 and 2016 were as follows:

	Quarter Ended March 31,	
(in thousands)	2017	2016
Service cost	$ 67	$ 83
Interest cost	65	73
Amortization of actuarial loss	58	32
Total periodic cost	$ 190	$ 188

(10) 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 March 31,	
(in thousands, except per share amounts)	2017	2016
Numerator:		
Net loss attributable to 3D Systems Corporation	$ (9,971)	$ (17,788)
Denominator for basic and diluted net loss per share:		
Weighted average shares	111,289	112,197
Net loss per share — basic and diluted	$ (0.09)	$ (0.16)

For the quarters ended March 31, 2017 and 2016, 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 because the Company recognized a net loss for the period and their inclusion would be anti-dilutive. The effect of dilutive securities excluded was 5,503 weighted average shares and 88 weighted average shares for the quarters ended March 31, 2017 and 2016, respectively.

(11) 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 March 31, 2017			
(in thousands)	Level 1	Level 2	Level 3	Total
Description				
Cash equivalents (a)	$ 24,133	$ —	$ —	$ 24,133
Earnout consideration (b)	$ —	$ —	$ 7,868	$ 7,868

	Fair Value Measurements as of December 31, 2016			
(in thousands)	Level 1	Level 2	Level 3	Total
Description				
Cash equivalents (a)	$ 25,206	$ —	$ —	$ 25,206
Earnout consideration (b)	$ —	$ —	$ 10,806	$ 10,806

(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 $3,206 payment, partially offset by $268 of accretion.

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 ended March 31, 2017.

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 our Form 10-K.

(12) Income Taxes

For the quarters ended March 31, 2017 and 2016, the Company recorded provisions of $1,041 and $1,179, respectively, resulting in effective tax rates of 11.7% and 7.1%, respectively.

The Company has not provided for any taxes on the unremitted earnings of its foreign subsidiaries, as the Company intends to permanently reinvest all such earnings outside of the U.S. We believe a calculation of the deferred tax liability associated with these undistributed earnings is impracticable.

Tax years 2003 through 2015 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 net operating losses. The Company files income tax returns (which are open to examination beginning in the year shown in parentheses) in Australia (2012), Belgium (2013), Brazil (2011), China (2013), France (2013), Germany (2013), India (2013), Israel (2012), Italy (2011), Japan (2012), Korea (2012), Mexico (2011), Netherlands (2011), Switzerland (2011), the United Kingdom (2015) and Uruguay (2011).

(13) Segment Information

The Company operates in one reportable business segment. The Company conducts its business through various offices and facilities located throughout the Asia Pacific region (Australia, China, India, Japan and Korea), Europe (Belgium, France, Germany, Italy, the Netherlands, Switzerland and the United Kingdom), Israel, Latin America (Brazil, Mexico and Uruguay), Russia and the United States. 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 March 31,	
(in thousands)	2017	2016
Revenue from unaffiliated customers:		
Americas	$ 80,291	$ 83,490
Germany	19,816	18,882
Other EMEA	33,142	28,549
Asia Pacific	23,182	21,634
Total revenue	$ 156,431	$ 152,555

	Quarter Ended March 31,	
(in thousands)	2017	2016
Revenue by class of product and service:		
Products	$ 51,906	$ 52,495
Materials	42,824	38,469
Services	61,701	61,591
Total revenue	$ 156,431	$ 152,555

	Quarter Ended March 31, 2017 Intercompany Sales to				
(in thousands)	Americas	Germany	Other EMEA	Asia Pacific	Total
Americas	$ 361	$ 9,791	$ 2,954	$ 3,898	$ 17,004
Germany	16	—	1,815	2	1,833
Other EMEA	16,531	1,160	2,199	1,011	20,901
Asia Pacific	537	—	135	1,014	1,686
Total	$ 17,445	$ 10,951	$ 7,103	$ 5,925	$ 41,424

	Quarter Ended March 31, 2016 Intercompany Sales to				
(in thousands)	Americas	Germany	Other EMEA	Asia Pacific	Total
Americas	$ 289	$ 6,201	$ 3,265	$ 2,956	$ 12,711
Germany	634	—	451	—	1,085
Other EMEA	13,169	833	881	1,161	16,044
Asia Pacific	1,030	—	3	891	1,924
Total	$ 15,122	$ 7,034	$ 4,600	$ 5,008	$ 31,764

(in thousands)	Quarter Ended March 31, 2017	2016
Income (loss) from operations:		
Americas	$ (13,450)	$ (14,186)
Germany	2,057	1,011
Other EMEA	(1,524)	(8,118)
Asia Pacific	4,341	5,182
Subtotal	(8,576)	(16,111)
Intercompany elimination	(495)	(648)
Total	$ (9,071)	$ (16,759)

(in thousands)	March 31, 2017	December 31, 2016
Assets:		
Americas	$ 307,826	$ 345,412
Germany	42,788	40,547
Other EMEA	398,470	341,616
Asia Pacific	116,546	121,578
Total	$ 865,630	$ 849,153

(in thousands)	March 31, 2017	December 31, 2016
Cash and cash equivalents:		
Americas	$ 79,057	$ 105,750
Germany	7,488	8,885
Other EMEA	42,735	35,992
Asia Pacific	32,382	34,320
Total	$ 161,662	$ 184,947

(14) Commitments and Contingencies

The Company leases certain of its facilities and equipment under non-cancelable operating leases. For the quarters ended March 31, 2017 and 2016, rent expense under operating leases was $3,682 and $3,256, respectively.

Certain of the Company's acquisitions contain earnout provisions under which the sellers of the acquired businesses can earn additional amounts. The total liability recorded for these earnouts at March 31, 2017 and December 31, 2016 was $7,868 and $10,806, respectively. See Note 6.

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 March 31, 2017, 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 balance sheet at March 31, 2017 and December 31, 2016. 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.

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 derivatives 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 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 putative securities class action and 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 in to 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 June 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 is 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 Western District of North Carolina. Claimants also filed a motion to confirm the arbitration award. A hearing was held on the motions on June 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, which is currently pending before the court. On September 28, 2016 the Company filed a motion to alter or amend the judgment. Plaintiff opposed the motion and the parties submitted briefing, which is currently pending before the court.

Notwithstanding the Company's right to appeal, given the arbitrator's decision, the Company recorded an $11,282 expense provision for this matter in the quarter ended September 30, 2015. The provision is subject to adjustment based on the ultimate outcome of the Company's appeal. If it is ultimately determined that money is owed following the full appellate process in federal court, the Company intends to fund any amounts to be paid from cash on hand. This amount has been classified as a long-term liability given the customary timeline of an appeals process. The Company will review this classification periodically.

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. The Court is expected to order an accounting with respect to the counterclaim.

The Company is involved in various other legal matters incidental to its business. Although the Company cannot predict the results of litigation with certainty, the Company believes that the disposition of these legal matters will not have a material adverse effect on its consolidated results of operations or consolidated financial position.

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.

(15) 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	Total
Balance at December 31, 2016	$ (50,450)	$ (2,775)	$ (53,225)
Other comprehensive income	8,331	20	8,351
Balance at March 31, 2017	$ (42,119)	$ (2,755)	$ (44,874)

The amounts presented above are included in other comprehensive income (loss) and are net of taxes. For additional information about foreign currency translation, see Note 7.

(16) Noncontrolling Interests

As of March 31, 2017, the Company owned approximately 70% of the capital and voting rights of Robtec, a service bureau and distributor of 3D printing and scanning products. Robtec was acquired on November 25, 2014.

As of March 31, 2017, the Company owned approximately 65% of the capital and voting rights of Easyway, a service bureau and distributor of 3D printing and scanning products in China. Easyway was acquired on April 2, 2016.

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 operates 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 market our products and services in those areas as well as in other parts of the world. We provide comprehensive 3D printing solutions, including 3D printers, print materials, software, on-demand manufacturing services and digital design tools. Our precision healthcare capabilities include simulation, Virtual Surgical Planning ("VSP™"), and printing of medical and dental devices and surgical guides and instruments. Our solutions support advanced applications in a wide range of industries including healthcare, aerospace, automotive and durable goods. 3D Systems has a 30 year history of experience and expertise which have proven vital to our development of an ecosystem that enables customers to optimize product designs, transform workflows, bring innovative products to market and drive new business models.

Customers can use our 3D printing 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.

Recent Developments

On January 31, 2017, we announced the acquisition of Vertex-Global Holding B.V. ("Vertex"), a provider of dental materials worldwide under the Vertex and NextDent brands. Vertex Dental and NextDent are manufacturers of photopolymer, thermoplastic, polymer and monomer materials for traditional and 3D printing dental applications. NextDent has developed 12 dental 3D printing materials to date and has obtained regulatory approval for use of these materials in more than 70 countries worldwide. NextDent's portfolio of 3D printing materials allow dental professionals to produce trays, models, drilling templates, dentures, orthodontic splints, crowns and bridges with enhanced speed, precision and efficiency and lower cost compared to conventional procedures. We believe together, our Figure 4 platform and NextDent's advanced 3D printing materials provide a strategic foothold in the multi-billion-dollar digital dentistry opportunity and will deliver materials innovation, regulatory compliance, manufacturing efficiency and vertical solutions expertise to advance our solutions across healthcare and other verticals.

Summary of 2017 Financial Results

Total consolidated revenue for the quarter ended March 31, 2017 increased by 2.6%, or $3.9 million, to $156.4 million, compared to $152.6 million for the quarter ended March 31, 2016. These results reflect an increase

in materials and services revenue, partially offset by a decrease in products revenue, as further discussed below.

Healthcare revenue includes sales of products, materials and services for healthcare-related applications, including simulation, training and planning, 3D printing of surgical guides and instruments and medical and dental devices. For the quarter ended March 31, 2017, healthcare revenue increased by 29.0%, to $43.2 million, and made up 27.6% of total revenue, compared to $33.5 million, or 21.9% of total revenue for the quarter ended March 31, 2016. The increase in healthcare revenue reflects increased products and services sales that were driven by customers increasing their investments and expanding their capabilities in precision healthcare, coupled with the acquisition of Vertex.

For the quarter ended March 31, 2017, total software revenue from products and services increased by 0.5%, to $20.4 million, and made up 13.0% of total revenue, compared to $20.3 million, or 13.3% of total revenue for the quarter ended March 31, 2016.

As of March 31, 2017 and December 31, 2016, our backlog was $34.6 million and $31.7 million, respectively. Production and delivery of our printers is generally not characterized by long lead times; backlog is more dependent on timing of customers' requested deliveries. In addition, on-demand parts services lead time and backlog depends on whether orders are for rapid prototyping or longer-range production runs. As of March 31, 2017, backlog included $8.7 million of on-demand parts manufacturing service orders, compared to $9.2 million at December 31, 2016.

Gross profit for the quarter ended March 31, 2017 increased by 3.4%, or $2.7 million, to $80.2 million, compared to $77.5 million for the quarter ended March 31, 2016. Gross profit margin for the quarters ended March 31, 2017 and 2016 was 51.3% and 50.8%, respectively. Our shift away from lower margin consumer products combined with cost reduction efforts drove higher gross profit and margin.

Operating expenses for the quarter ended March 31, 2017 decreased by 5.3%, or $5.0 million, to $89.3 million, compared to $94.3 million for the quarter ended March 31, 2016. These results primarily reflect lower selling, general and administrative expense, partially offset by higher research and development expense, as further discussed below.

Our operating loss for the quarter ended March 31, 2017 was $9.1 million, compared to an operating loss of $16.8 million for the quarter ended March 31, 2016, reflecting higher gross profit and lower operating expenses, as further discussed below.

For the quarters ended March 31, 2017 and 2016, we generated $19.4 million and $18.1 million of cash in operations, respectively, as further discussed below. In total, our unrestricted cash balance at March 31, 2017 and December 31, 2016 was $161.7 million and $184.9 million, respectively.

Results of Operations – Quarter Comparison

First quarter comparison of revenue by class

We earn revenues from the sale of products, materials and services. The products category includes 3D printers, healthcare simulators and digitizers, as well as software, 3D scanners and haptic devices. The materials category includes a wide range of print materials to be used with our 3D printers, the majority of which are proprietary. The services category includes warranty and maintenance on 3D printers and simulators, software maintenance, on-demand solutions and healthcare services.

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, including the impact of revenue from acquisitions, 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.

Table 1 sets forth the change in revenue by class for the quarters ended March 31, 2017 and 2016:

Table 1

(Dollars in thousands)	Products		Materials		Services		Totals	
Revenue – first quarter 2016	$ 52,495	34.4 %	$ 38,469	25.2 %	$ 61,591	40.4 %	$ 152,555	100 %
Change in revenue:								
Volume	435	0.8	6,813	17.7	975	1.6	8,223	5.4
Price/Mix	(424)	(0.8)	(1,564)	(4.1)	—	—	(1,988)	(1.3)
Foreign currency translation	(599)	(1.1)	(895)	(2.3)	(865)	(1.4)	(2,359)	(1.5)
Net change	(588)	(1.1)	4,354	11.3	110	0.2	3,876	2.6
Revenue – first quarter 2017	$ 51,907	33.2 %	$ 42,823	27.4 %	$ 61,701	39.4 %	$ 156,431	100 %

Total consolidated revenue increased by 2.6%, primarily driven by higher healthcare revenue coupled with the acquisition of Vertex.

For the quarters ended March 31, 2017 and 2016, software revenue included in the products category, including scanners and haptic devices, contributed $9.8 million.

The increase in materials revenue primarily reflects increased demand for materials driven by industrial customers with production printers, coupled with the acquisition of Vertex.

The increase in services revenue reflects increased demand for healthcare services and our expanded software offering, which were partially offset by a decrease in on-demand parts manufacturing services. For the quarter ended March 31, 2017, services revenue from on-demand parts manufacturing services decreased 6.2% to $25.1 million, compared to $26.8 for quarter ended March 31, 2016. For the quarters ended March 31, 2017 and 2016, software services contributed $10.6 million and $10.5 million, respectively.

First quarter comparison of revenue by geographic region

Table 2 sets forth the change in revenue by geographic region for the quarters ended March 31, 2017 and 2016:

Table 2

(Dollars in thousands)	Americas		EMEA		Asia Pacific		Total	
Revenue – first quarter 2016	$ 83,490	54.7 %	$ 47,431	31.1 %	$ 21,634	14.2 %	$ 152,555	100 %
Change in revenue:								
Volume	(1,512)	(1.8)	5,937	12.5	3,798	17.6	8,223	5.4
Price/Mix	(1,864)	(2.2)	1,866	3.9	(1,990)	(9.2)	(1,988)	(1.3)
Foreign currency translation	177	0.2	(2,276)	(4.8)	(260)	(1.2)	(2,359)	(1.5)
Net change	(3,199)	(3.8)	5,527	11.6	1,548	7.2	3,876	2.6
Revenue – first quarter 2017	$ 80,291	51.3 %	$ 52,958	33.9 %	$ 23,182	14.8 %	$ 156,431	100 %

The decrease in revenue in the Americas region primarily reflects lower sales of 3D printers and on-demand parts manufacturing services, partially offset by increased healthcare-related solutions. The increase in revenue in the EMEA and Asia Pacific regions primarily reflects increased sales of materials, coupled with the acquisition of Vertex.

For the quarters ended March 31, 2017 and 2016, revenue from operations outside the U.S., including Latin America, EMEA and APAC, was 50.2% and 49.8% of total revenue, respectively.

Gross profit and gross profit margins

Table 3 sets forth gross profit and gross profit margins for the quarters ended March 31, 2017 and 2016:

Table 3

	Quarter Ended March 31,							
	2017		2016		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	$ 18,293	35.2 %	$ 16,805	32.0 %	$ 1,488	8.9 %	3.2	10.1 %
Materials	31,689	74.0	29,998	78.0	1,691	5.6	(4.0)	(5.1)
Services	30,204	49.0	30,710	49.9	(506)	(1.6)	(0.9)	(1.9)
Total	$ 80,186	51.3 %	$ 77,513	50.8 %	$ 2,673	3.4 %	0.5	0.9 %

The increase in total consolidated gross profit is primarily driven by higher products and materials gross profit, as further discussed below.

Gross profit margin for products increased, primarily due to cost reduction measures and a favorable impact to sales mix from our shift away from lower margin consumer products.

Gross profit margin for materials decreased, primarily due to an unfavorable impact of mix.

Gross profit margin for services decreased, primarily driven by lower field service margins, partially offset by increased on-demand parts manufacturing services margins. On-demand parts manufacturing services gross profit margin increased to 42.5% for the quarter ended March 31, 2017, compared to 41.8% for the quarter ended March 31, 2016.

Operating expenses

Table 4 sets forth the components of operating expenses for the quarters ended March 31, 2017 and 2016:

Table 4

	Quarter Ended March 31,					
	2017		2016		Change	
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	$	%
Selling, general and administrative expenses	$ 66,405	42.5 %	$ 73,967	48.5 %	$ (7,562)	(10.2)%
Research and development expenses	22,852	14.6	20,305	13.3	2,547	12.5
Total operating expenses	$ 89,257	57.1 %	$ 94,272	61.8 %	$ (5,015)	(5.3) %

Total operating expenses decreased, reflecting lower selling, general and administrative expenses, partially offset by higher research and development expenses, as discussed below.

Selling, general and administrative expenses decreased primarily due to a $5.5 million decrease in compensation costs driven by lower stock based compensation expense and $2.2 million decrease in bad debt expense.

Research and development expenses increased primarily due to a $1.4 million increase in compensation costs related to increased staffing, a $0.6 million increase in outside services associated with product development and a $0.4 million increase in materials purchases.

Loss from operations

Table 5 sets forth operating income (loss) by geographic region for the quarters ended March 31, 2017 and 2016:

Table 5

(Dollars in thousands)	Quarter Ended March 31, 2017	2016
Income (loss) from operations		
Americas	$ (13,450)	$ (14,186)
Germany	2,057	1,011
Other EMEA	(1,524)	(8,118)
Asia Pacific	4,341	5,182
Subtotal	(8,576)	(16,111)
Inter-segment elimination	(495)	(648)
Total	$ (9,071)	$ (16,759)

The improvement in operating loss was primarily driven by lower operating expenses. See “Gross profit and gross profit margins” and “Operating expenses” above.

With respect to the Americas, for the quarters ended March 31, 2017 and 2016, the changes in operating loss reflected the same factors relating to our consolidated operating loss that are discussed above. The changes in operating loss in our operations outside the Americas for the quarters ended March 31, 2017 and 2016 resulted primarily from transfer pricing, changes in sales volume and foreign currency translation.

Interest and other income, net

Table 6 sets forth the components of interest and other income, net, for the quarters ended March 31, 2017 and 2016:

Table 6

	Quarter Ended March 31,	
(Dollars in thousands)	2017	2016
Interest and other expense, net:		
Interest income	$ (167)	$ (216)
Foreign exchange gain	(329)	(1,518)
Interest expense	230	420
Other expense, net	65	1,188
Total interest and other income, net	$ (201)	$ (126)

Provision for income taxes

For the quarters ended March 31, 2017 and 2016, we recorded a $1.0 million and $1.2 million provision for income taxes, respectively.

Net loss

Table 7 sets forth the primary components of net loss attributable to 3D Systems for the quarters ended March 31, 2017 and 2016:

Table 7

(Dollars in thousands)	Quarter Ended March 31, 2017	2016	Change
Operating loss	$ (9,071)	$ (16,759)	$ 7,688
Less:			
Interest and other income, net	(201)	(126)	(75)
Provision for income taxes	1,041	1,179	(138)
Net income (loss) attributable to noncontrolling interests	60	(24)	84
Net loss attributable to 3D Systems	$ (9,971)	$ (17,788)	$ 7,817
Net loss per share — basic and diluted	$ (0.09)	$ (0.16)	

Liquidity and Capital Resources

Table 8

(Dollars in thousands)	March 31, 2017	December 31, 2016	Change $	Change %
Cash and cash equivalents	$ 161,662	$ 184,947	$ (23,285)	(12.6)%
Accounts receivable:				
Gross accounts receivable	136,005	140,034	(4,029)	(2.9)
Allowance for doubtful accounts	(11,424)	(12,920)	1,496	(11.6)
Accounts receivable, net	124,581	127,114	(2,533)	(2.0)
Inventories:				
Raw materials	44,828	45,122	(294)	(0.7)
Work in process	4,143	3,109	1,034	33.3
Finished goods	68,340	69,870	(1,530)	(2.2)
Inventories, gross	117,311	118,101	(790)	(0.7)
Inventory reserves	(12,206)	(14,770)	2,564	(17.4)
Inventories, net	105,105	103,331	1,774	1.7
Prepaid expenses and other current assets	17,909	17,558	351	2.0
Total current assets	$ 409,257	$ 432,950	$ (23,693)	(5.5)%
Current portion of debt and capitalized lease obligations	584	572	12	2.1
Accounts payable	40,752	40,514	238	0.6
Accrued and other liabilities	48,736	49,968	(1,232)	(2.5)
Customer deposits	6,549	5,857	692	11.8
Deferred revenue	45,079	33,494	11,585	34.6
Total current liabilities	$ 141,700	$ 130,405	$ 11,295	8.7%
Working capital	$ 267,557	$ 302,545	$ (34,988)	(11.6)%
Stockholders' equity attributable to 3D Systems Corporation	$ 637,504	$ 629,873	$ 7,631	1.2%

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, selling assets or restructuring debt.

There is no assurance, however, that funds will be available from these sources in the amounts or on terms acceptable to us.

If we need to raise additional funds in the future to fund our activities, or for other reasons, and raise additional funds by issuing equity or convertible debt securities, the ownership percentages of existing shareholders would be diluted. In addition, the equity or debt securities that we may issue may have rights, preferences or privileges senior to those of our common stock.

Cash held outside the U.S. at March 31, 2017 was $87.0 million, or 53.8% of total cash and equivalents, compared to $83.5 million, or 45.2% of total cash and equivalents at December 31, 2016. Cash held outside the U.S. is used in our foreign operations for working capital purposes and is considered to be permanently invested; consequently, we have not provided for any taxes on repatriation.

Cash equivalents comprise 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 72 days at March 31, 2017 compared to 70 days at December 31, 2016 and accounts receivable more than 90 days past due decreased to 9.8% of gross receivables, from 12.5% at December 31, 2016. 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 arose in 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

Table 9 summarizes the cash provided by (used in) operating activities, investing activities and financing activities, as well as the effect of changes in foreign currency exchange rates on cash, for the quarters ended March 31, 2017 and 2016:

Table 9

	Quarter Ended March 31,	
	2017	2016
(Dollars in thousands)		
Cash provided by operating activities	$ 19,381	$ 18,118
Cash used in investing activities	(40,167)	(4,477)
Cash used in financing activities	(4,436)	(1,072)
Effect of exchange rate changes on cash	1,937	1,562
Net increase (decrease) in cash and cash equivalents	$ (23,285)	$ 14,131

Cash flow from operating activities

Table 10 summarizes the components of cash provided by operating activities for the quarters ended March 31, 2017 and 2016:

Table 10

	Quarter Ended March 31,	
	2017	2016
(Dollars in thousands)		
Net loss	$ (9,911)	$ (17,812)
Non-cash charges	21,190	28,052
Changes in working capital and all other operating assets	8,102	7,878
Net cash provided by operating activities	$ 19,381	$ 18,118

For further discussion of net loss, see “Net loss” above. Non-cash charges primarily consist of depreciation, amortization and stock-based compensation. For further discussion of changes in working capital, see “Liquidity and Capital Resources” above. 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 from investing activities

Table 11 summarizes the components of cash used in investing activities for the quarters ended March 31, 2017 and 2016:

Table 11

	Quarter Ended March 31,	
	2017	2016
(Dollars in thousands)		
Cash paid for acquisitions, net of cash assumed	$ (34,291)	$ —
Purchases of property and equipment	(5,620)	(4,246)
Proceeds from disposition of property and equipment	24	—
Additions to license and patent costs	(280)	(231)
Net cash used in investing activities	$ (40,167)	$ (4,477)

See Note 2 to the condensed consolidated financial statements for further discussion of acquisition activity. Capital expenditures primarily consisted of expenditures for leasehold improvements, including expanding facilities and investing in infrastructure, equipment to support our on-demand parts manufacturing service and printers associated with new product development efforts.

Cash flow from financing activities

Table 12 summarizes the components of cash used in financing activities for the quarters ended March 31, 2017 and 2016:

Table 12

	Quarter Ended March 31,	
	2017	2016
(Dollars in thousands)		
Payments on earnout consideration	$ (3,206)	$ —
Repurchase of stock, net, and employer paid tax on employee awards	(1,088)	(810)
Repayment of capital lease obligations	(142)	(262)
Net cash used in financing activities	$ (4,436)	$ (1,072)

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 March 31, 2017 and December 31, 2016, there was no outstanding balance on the credit facility. Based on current financial covenant limitations at March 31, 2017, availability on the credit facility would be approximately $150.0 million. Future results may impact availability. See Note 8 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 March 31, 2017 and December 31, 2016 was $8.0 million and $8.2 million, respectively.

Other contractual arrangements

We lease certain of our facilities and equipment under non-cancelable operating leases. For the quarters ended March 31, 2017 and 2016, rent expense under operating leases was $3.7 million and $3.3 million, 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 $7.9 million and $10.8 million at March 31, 2017 and December 31, 2016, respectively.

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 14 to the condensed consolidated financial statements. Management estimates, assuming that the subsidiary owned by us at March 31, 2017 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 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 March 31, 2017 and December 31, 2016.

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.

Financial instruments

We conduct business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, we are 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, we endeavor to match assets and liabilities in the same currency on our balance sheet and those of our subsidiaries in order to reduce these risks. We also, when we consider it to be appropriate, enter into foreign currency contracts to hedge exposures arising from those transactions. See Note 7 to the condensed consolidated financial statements.

We do not hedge for trading or speculative purposes, and our foreign currency contracts are generally short-term in nature, typically maturing in 90 days or less. We have elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under ASC 815, “Derivatives and Hedging,” and therefore, we recognize all gains and losses (realized or unrealized) in interest and other expense, net in our Consolidated Statements of Operations and Other Comprehensive Income (Loss).

Changes in the fair value of derivatives are recorded in interest and other expense, net, in our unaudited condensed consolidated statements of operations and comprehensive income. Depending on their fair value at the end of the reporting period, derivatives are recorded either in prepaid and other current assets or in accrued liabilities in our unaudited condensed consolidated balance sheets.

Recent Accounting Pronouncements

Our critical accounting policies are disclosed in our 2016 Annual Report on Form 10-K and Note 1 of our condensed consolidated financial statements. The only change to our critical accounting policies during the quarter ended March 31, 2017 was a modification to the way in which we account for forfeitures of share-based awards. Specifically, beginning in the first quarter of 2017, we recognize forfeitures of share-based awards as they occur in the period of forfeiture rather than estimating the number of awards expected to be forfeited at the grant date and subsequently adjusting the estimate when awards are actually forfeited. This change did not have a material impact on our results of operations in the current period, and is not expected to have a material impact on results of operations in

subsequent periods

Critical Accounting Policies and Significant Estimates

For a discussion of our critical accounting policies and estimates, refer to “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Significant Estimates” in our Annual Report on Form 10-K for the year ended December 31, 2016 (“Form 10-K”).

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, 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 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, 2016, refer to Item 7A, “Quantitative and Qualitative Disclosures about Market Risk,” in our Form 10-K. During the first quarter of 2017, there were no material changes or developments that would materially alter the market risk assessment performed as of December 31, 2016.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

As of March 31, 2017, 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 March 31, 2017 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" in Note 14 – 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

On January 31, 2017, as part of the consideration for the acquisition of certain assets of Vertex-Global Holding B.V. ("Vertex"), we issued 191,533 unregistered shares of 3D Systems Corporation common stock to Vertex, in reliance on the private offering exemptions contained in Section 4(2) of the Securities Act of 1933, as amended. The fair value of the consideration paid for this acquisition, net of cash acquired, was $37,499,328, of which $34,291,128 was paid in cash and $3,208,200 was paid in unregistered shares of the Company's common stock.

Issuer Purchases of Equity Securities

We did not repurchase any of our equity securities during the quarter ended March 31, 2017, except for unvested restricted stock awards repurchased or forfeited pursuant to our 2004 and 2015 Incentive Stock Plans.

	Total number of shares (or units)	Average price paid per	Total number of shares (or units) purchased as	Maximum number (or approximate dollar value) of

	purchased		share (or unit)		part of publicly announced plans or programs		shares (or units) that may yet be purchased under the plans or programs
January 1, 2017 - January 31, 2017	31,761		$ 13.69		—		$ —
February 1, 2017 - February 28, 2017	35,710		16.61		—		—
March 1, 2017 - March 31, 2017	2,285		14.49		—		—
Total	69,756	(a)	$ 14.93	(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 Designation of Rights, Preferences and Privileges of Preferred Stock. (Incorporated by reference to Exhibit 2 to Registrant’s Registration Statement on Form 8-A filed on January 8, 1996.)

3.4 Certificate of Designation of the Series B Convertible Preferred Stock, filed with the Secretary of State of Delaware on May 2, 2003. (Incorporated by reference to Exhibit 3.1 to Registrant’s Current Report on Form 8-K, filed on May 7, 2003.)

3.5 Certificate of Elimination of Series A Preferred Stock filed with the Secretary of State of Delaware on March 4, 2004. (Incorporated by reference to Exhibit 3.6 of Registrant’s Annual Report on Form 10-K for the year ended December 31, 2003, filed on March 15, 2004.)

3.6	Certificate of Elimination of Series B Preferred Stock filed with the Secretary of State of Delaware on September 9, 2006. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K, filed on September 9, 2006.)
3.7	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.)
3.8	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.)
3.9	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.)
3.10	Certificate of Designations, Preferences and Rights of Series A Preferred Stock, filed with the Secretary of State of Delaware on December 9, 2008. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K, filed on December 9, 2008.)
3. 11	Certificate of Elimination of Series A Preferred Stock, filed with the Secretary of State of Delaware on November 14, 2013. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K, filed on November 15, 2013.)
3.12	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.)
3.13	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 December 28, 2016.)
31.1	Certification of Principal Executive Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated May 3, 2017.
31.2	Certification of Principal Financial Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated May 3, 2017.
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 May 3, 2017.
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 May 3, 2017.
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: May 3, 2017