3D SYSTEMS CORP
Form 10-K
March 14, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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FORM 10 K

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

For the fiscal year ended December 31, 2015

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

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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

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

Title of each class	Name of each exchange on which registered
Common stock, par value $0.001 per share	The New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes   No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes   No

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting 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

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant on June 30, 2015 was $2,048,138,460. For purposes of this computation, it has been assumed that the shares beneficially held by directors and executive officers of the registrant were "held by affiliates." This assumption is not to be deemed an admission by these persons that they are affiliates of the registrant.

The number of outstanding shares of the registrant's common stock as of March 7, 2016 was 111,627,748.

DOCUMENTS INCORPORATED BY REFERENCE: Portions of the registrant's definitive proxy statement for its 2016 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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3D SYSTEMS CORPORATION

Annual Report on Form 10 K for the
Year Ended December 31, 2015

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PART I

Item 1. Business

General

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 the Americas, Europe and the Middle East (collectively referred to as "EMEA") and the Asia Pacific region ("APAC" or "Asia Pacific"). We market our products and services in those areas as well as in other parts of the world. We provide comprehensive 3D products and services, including 3D printers, print materials, on-demand parts services and digital design and manufacturing tools. Our ecosystem supports advanced applications from the product design shop to the factory floor to the operating room. Our precision healthcare capabilities include simulation, Virtual Surgical Planning ("VSP™"), and printing of medical and dental devices as well as patient-specific surgical instruments.

As the originator of 3D printing and a shaper of future 3D solutions, we have spent our 30 year history enabling professionals and companies to optimize their designs, transform their workflows, bring innovative products to market and drive new business models.

Customers can use 3D printing to design and manufacture complex and unique parts, eliminate expensive tooling, reduce lead times and produce parts locally. Over the past decades, many of our customers have strengthened their competitive advantage by embracing our solutions to enhance and accelerate their product development cycles. A growing number of customers have also transitioned to manufacturing end-use parts and custom products using 3D printing.

Today, we continue to drive the adoption of 3D printing solutions through ongoing product and technology development, focusing on professional and industrial applications and marketplaces, including aerospace and defense, automotive and healthcare.

Products

We offer a comprehensive range of 3D printers, print materials, software, haptic devices, scanners and virtual surgical simulators.

3D Printers

Our 3D printers transform digital data input generated by 3D design software, CAD software, or other 3D design tools, into printed parts using several unique print engines that employ proprietary, additive layer by layer building processes with a variety of print materials, including plastic, metal, nylon, rubber, wax and composite materials. We offer a broad range of 3D printing technologies including Stereolithography ("SLA"), Selective Laser Sintering ("SLS"), Direct Metal Printing ("DMP"), MultiJet Printing ("MJP"), ColorJet Printing ("CJP") and PlasticJet Printing ("PJP").

Our proprietary print engines, which are discussed in more detail below, can produce highly accurate geometries in a wide range of sizes, shapes and materials for parts with a variety of performance characteristics.

SLA Printers

Our SLA 3D printers cure liquid resin materials with a laser beam to produce durable plastic parts with surface smoothness, high resolution, edge definition and tolerances that rival the accuracy of machined or molded plastic parts. We offer SLA printers with a wide range of materials, sizes and price points that are well-suited for prototypes, end-use parts, casting patterns and molds, tooling, fixtures and medical models.

SLS Printers

Our SLS 3D printers use a laser beam to melt and fuse powder-based nylon and engineered plastic and composite print materials to produce very strong and durable parts. Customer uses of our SLS printers include functional test models and end-use parts, such as housings, machinery components, ducting, jigs and fixtures and medical devices and personalized surgery kits and guides.

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DMP Printers

Our Direct Metal 3D printers use a laser beam to sinter powders in a variety of metal materials to produce fully dense metal parts with outstanding surface finish and resolution. We offer DMP printers that can process a wide range of materials and powders, including those with very fine granularity, and have been proven in high volume manufacturing applications. We sell DMP systems in various sizes and certain models optimized for specific metals, including titanium, stainless steel and nickel super alloys. Our DMP printers are well-suited for medical and dental implants, aerospace, automotive, hi-tech and industrial applications, such as conformal cooling, simplifying assemblies, light weight parts, enhanced fluid flow, topology optimization and other complex parts.

MJP Printers

Our MultiJet 3D printers utilize jetting head technology to deliver precise, tough parts with exceptional resolution in tough plastic, wax, elastomer and engineered materials. These printers offer the capability to print in rigid or flexible materials and multiple materials in one build, making them ideal for mechanical functional testing, rapid tooling, jigs and fixtures, casting patterns, over-molding and medical models.

CJP Printers

Our ColorJet 3D printers produce parts from ceramic-like powder based materials. CJP printers build high-definition, full-color parts that can be sanded, drilled, tapped, painted and electroplated, which further expands the options available for finished part characteristics. CJP printers are ideal for producing models used in mechanical design, healthcare, architecture, education, entertainment and packaging applications.

PJP Printers

Our PlasticJet 3D printers utilize a simple, clean and compact plastic extrusion print engine technology to print parts in nylon and other plastics. Our PJP printers are designed to be accurate and affordable for prototyping, assembly and functional testing.

Materials

Our printers utilize a wide range of print materials, the majority of which are proprietary materials that we develop, blend and market. Our comprehensive range of print materials includes plastic, nylon, metal, composite, elastomeric, wax and Class IV bio-compatible materials. We augment and complement our own portfolio of engineered print materials with materials that we develop with or purchase from third parties under private label and distribution arrangements.

We work closely with our customers to optimize the performance of our print materials in their applications. Our expertise in materials science and formulation, combined with our process, software and equipment, enables us to help our customers select the material that best meets their needs with optimal cost and performance results.

As part of our solutions approach our currently offered printers, with the exception of direct metal printers, have built-in intelligence to make them integrated, closed systems. For these printers, we furnish integrated print materials that are specifically designed for use in those printers and that are packaged in smart cartridges and delivery systems. Integrated materials are designed to enhance system functionality, up-time, materials shelf life and overall printer reliability, in addition to the objective of providing our customers with a built-in quality management system and a fully integrated workflow solution.

SLA Materials

We offer a variety of liquid resin materials under the Accura® brand name that are designed to mimic specific, engineered thermoplastic and provide a wide range of characteristics, including tough, durable, clear, castable, polypropylene-like, ABS-like, high-temperature resistant, and Class IV bio-compatible. SLA print materials include general purpose as well as specialized materials, and are ideal for product design and testing, casting, patterns and molds, and healthcare applications such as medical models and devices.

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SLS Materials

Our proprietary selective laser sintering materials include a range of soft and rigid plastics, nylon and composite materials marketed under the DuraForm, LaserForm™ and CastForm™ brand names. These lightweight, tough, versatile materials are available in formulations for a wide array of rapid prototyping and direct manufacturing applications. SLS materials are used for high-temperature resistant parts, flexible parts, functional tooling, injection molding tool inserts, investment casting, end-use parts for advanced manufacturing and patient-specific surgical guides.

DMP Materials

Our direct metal printing materials include metal powders. These materials include titanium, stainless steels, tool steels, super alloys, non-ferrous alloys, precious metals and aluminum. Our DMP printers and materials are used for fully dense, fine feature detail parts for industrial and healthcare applications, including aerospace, automotive, semi-conductor and medical and dental devices and implants.

VisiJet Print Materials

Our MJP and CJP printers utilize materials that we market under the VisiJet® brand name. These materials consist of a wide range of plastic, wax, elastomeric, ceramic-like, and engineered materials. VisiJet materials are used in advanced prototyping, design communication and testing, casting, medical modeling, and manufacturing applications.

PJP Print Materials

Materials for use in our PJP 3D printers include polylatic acid (PLA), acrylonitrile butadiene styrene (ABS), polyamide (Nylon) and rinse away support materials.

Software and Related Products

We also provide digital design tools, including software, scanners and haptic devices. We offer products for product design, mold & die design, 3D scan-to-print, reverse engineering, production machining and inspection. These products are designed to enable a more seamless workflow for customers. We also offer proprietary software and

drivers embedded within our printers that provide part preparation, part placement, support placement, build platform management and print queue management.

Other Products

As part of our solutions for precision healthcare, we also offer 3D virtual reality simulators and simulator modules for medical applications. These 3D simulators offer clinicians a realistic hands-on experience to master critical skills, prepare for upcoming procedures and create patient specific simulations. We also provide digitizing scanners for medical and mechanical applications.

Services

Warranty, Maintenance and Training Services

We provide a variety of customer services, local application support and field support on a worldwide basis for our products, including installation of new printers at customers' sites, printer warranties, maintenance agreements, periodic hardware upgrades and software updates. We also provide services to assist our customers and partners in developing new applications for our technologies, to facilitate the use of our technology for specific applications, to train customers on the use of printers and to maintain our printers at customers' sites.

We provide these services and field support either directly or through a network of partners. We employ customer-support sales engineers globally to support our worldwide customer base, and we are continuing to strengthen and enhance our partner network. We distribute spare parts on a worldwide basis to our customers, primarily from locations in the Americas, EMEA and APAC.

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All of our 3D printers are sold with maintenance support that generally covers a warranty period ranging from 90 days to one year. We generally offer service contracts that enable our customers to continue maintenance coverage beyond the initial warranty period. These service contracts are offered with various levels of support and options and are priced accordingly. Our service engineers provide regularly scheduled preventive maintenance visits to customer sites, and we also provide training to our partners to enable them to perform these services.

We also offer upgrade kits for certain of our printers that enable our existing customers to take advantage of new or enhanced printer capabilities. In some cases, we have discontinued upgrade support and maintenance agreements for certain of our older legacy printers.

On-Demand Parts Services

We provide on-demand custom parts manufacturing via our Quickparts® brand through a global network of facilities. We provide a broad range of production and finishing capabilities for precision plastic and metal parts and tooling with a wide range of additive and traditional manufacturing processes.

In addition to the sales of parts, we and our sales partners utilize our on-demand parts operation as a sales and lead generation tool, and third party preferred service providers can also use our on-demand parts service as their comprehensive order-fulfillment center. We also provide on-demand professional 3D scanning, printing and custom parts related to the entertainment industry through our Gentle Giant brand.

Software Services

In addition to our software license products, we offer software maintenance, which includes updates and software support for each software product. Our software products are sold with maintenance service that generally covers a period of one year. We generally offer multi-year maintenance contracts that enable our customers to continue maintenance coverage beyond the initial one year period. These software service contracts typically include free software updates and various levels of technical support.

Healthcare Services

Through our precision healthcare services, we provide medical prototyping and manufacturing services that involve printing and finishing of medical and dental devices, models and tools, as well as modeling and design services,

including VSP™. We also provide service on our surgical simulators that are sold under our Simbionix brand.

Global Operations

We operate in the Americas, Europe, the Middle East and the Asia Pacific regions, and market our products and services in those areas as well as to other parts of the world. Revenue in countries outside the U.S. accounted for 49.0%, 49.1% and 44.5% of consolidated revenue in the years ended December 31, 2015, 2014 and 2013, respectively.

In maintaining foreign operations, we expose our business to risks inherent in such operations, including currency fluctuations. Information on foreign exchange risk appears in Part I, Item 1A "Risk Factors", Part II, Item 7A, "Quantitative and Qualitative Disclosures about Market Risk" and Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10 K ("Form 10-K").

Financial information about geographic areas, including revenue, long-lived assets, and cash balances, appears in Note 21 to the Consolidated Financial Statements in Part II, Item 8, "Financial Statements and Supplementary Data," of this Form 10-K ("Consolidated Financial Statements").

Marketing and Customers

Our sales and marketing strategy focuses on an integrated approach that is directed at providing 3D printing centric solutions designed to meet a wide range of customer needs. This integrated approach includes the sales and marketing of our entire portfolio of products and services.

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Our sales organization is responsible for the sale of all of our products and services on a worldwide basis and for the management and coordination of our growing network of channel partners. We sell our products and services primarily through partners who are supported by our own channel managers and direct sales people, consisting of salespersons who work throughout the Americas, EMEA and Asia Pacific. In addition, our application engineers provide services through pre-sales and post-sales support and assist customers so that they can take advantage of our latest software, printers, materials and techniques to improve part quality, productivity and range of applications. Our applications engineers also leverage our customer contacts to help identify new application opportunities that utilize our products and services, including access to our on-demand parts service. We maintain our on-demand parts service, a global network of locations providing parts and tooling through both additive and traditional manufacturing solutions, which we sell through a direct sales team and our online platform. In addition to providing a comprehensive range of services to customers, our on-demand parts service also provides relationship building and lead generation opportunities for future sales. We also sell certain of our other products through our website.

In certain areas of the world where we do not operate directly, we have appointed channel partners and distributors who are authorized to sell our products and services on our behalf. Certain of those channel partners and distributors also provide additional services to customers in those geographic areas.

Our customers include major companies and small and midsize businesses in a broad range of industries, including automotive, aerospace, government, defense, technology, electronics, education, consumer goods, energy and healthcare. No single customer accounted for more than 10 percent of our consolidated revenue for the years ended December 31, 2015, 2014 or 2013.

Production and Supplies

At our Rock Hill, South Carolina location, we assemble PJP, MJP, CJP and certain models of our SLA 3D printers, as well as other equipment related to these printers. We produce Vidar branded digitizers in our Herndon, Virginia facility and our Simbionix branded 3D simulators are produced in Airport City, Israel and Rock Hill, South Carolina. Our DMP printers are produced in Corvallis, Oregon, Riom, France and Leuven, Belgium.