

# FINANCIAL SUPPLEMENT Q3 FY2018

August 22, 2018

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## FISCAL YEAR 2018 FINANCIAL TARGETS <sup>(1)</sup>

	Q4 FY2018	FY2018
Revenue (million)	\$774 - \$804	\$3,100 - \$3,130 <sup>(2)</sup>
GAAP Expenses (million)	\$722 - \$738	
Non-GAAP Expenses (million)	\$655 - \$665	
Other Income and Expense Net (million)	(\$3) - (\$1)	(\$5) - (\$3)
Annual Non-GAAP Tax Rate	13%	13%
Fully Diluted Outstanding Shares (million)	153 - 156	153 - 156
GAAP Earnings Per Share	\$0.39 - \$0.47	\$1.55 - \$1.63
Non-GAAP Earnings Per Share	\$0.76 - \$0.80	\$3.89 - \$3.93 <sup>(2)</sup>
Cash Flow from Operations (million)		\$460 - \$500 <sup>(3)</sup>
Capital Expenditures (million)		~\$110
Average Renewable License Duration		~3 years
Stock-Based Compensation (million)		~\$140

(1) These targets were provided by Synopsys as of August 22, 2018, and are not being updated at this time.

(2) Black Duck acquisition is expected to contribute approximately \$55-60M in revenue (after deferred revenue haircut of ~\$20M), and be approximately 12 cents dilutive to non-GAAP EPS.

(3) Reflects one-time cash payments totaling approximately \$165M (~\$33M cash tax payment associated with the fiscal 2017 repatriation of offshore cash, initiated in Q4'17; \$66M payment in connection with an ongoing tax dispute with the Hungarian tax authority; \$65M payment settling outstanding litigation with Mentor Graphics).

## RECENT ACQUISITION

### Black Duck Software

- Closed Dec. 2017
- Synopsys paid \$544 million net of cash and short-term investments acquired. U.S. cash.
- Well-known Software Composition Analysis solution enhances Synopsys efforts in the software security market. Black Duck's industry-leading products automate the process of identifying open source code and testing for known security vulnerabilities.

## REVENUE BY PRODUCT GROUP (Unaudited)

(in millions)	Q116	Q216	Q316	Q416	FY16	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318
Core EDA	339.7	355.9	384.4	371.3	1,451.4	368.5	390.6	407.2	402.8	1,569.1	416.8	426.7	428.5
% of Revenue	60%	59%	62%	59%	60%	56%	57%	59%	58%	58%	54%	55%	55%
IP/Systems/SI	167.0	182.6	167.6	199.6	716.8	214.2	221.9	216.5	226.2	878.8	273.1	279.3	273.5
% of Revenue	29%	30%	27%	31%	30%	33%	33%	31%	32%	32%	35%	36%	35%
Manufacturing	48.6	54.5	52.9	54.1	210.1	58.4	54.5	58.1	56.5	227.4	65.4	59.1	64.5
% of Revenue	9%	9%	9%	9%	9%	9%	8%	8%	8%	8%	8%	8%	8%
Services & Other	13.3	11.9	10.3	8.8	44.3	11.8	13.1	13.6	11.2	49.7	14.2	11.8	13.1
% of Revenue	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
<b>Total</b>	<b>568.6</b>	<b>605.0</b>	<b>615.2</b>	<b>633.7</b>	<b>2,422.5</b>	<b>652.8</b>	<b>680.1</b>	<b>695.4</b>	<b>696.6</b>	<b>2,724.9</b>	<b>769.4</b>	<b>776.8</b>	<b>779.7</b>

Revenue from our products and services is categorized into four groups:

- Core EDA, which includes digital and custom integrated circuit (IC) design software, verification products, and field-programmable gate array (FPGA) design software;
- IP, Systems and Software Integrity (SI), which includes our DesignWare® IP portfolio, system-level design products, prototyping and software quality and security testing solutions;
- Manufacturing Solutions, which includes TCAD, mask & yield management tools; and
- Professional Services and Other, which includes a broad range of consulting and design services, along with the impact of gains and losses from foreign currency hedges.

Note: Amounts included in the table above may not foot due to rounding. Product revenue data for multi-product transactions is determined using management methodologies and allocations and is therefore subject to certain assumptions. In addition, we allocate maintenance revenue to the products to which those maintenance services relate.

## REVENUE BY GEOGRAPHIC REGION (Unaudited)

(in millions)	Q116	Q216	Q316	Q416	FY16	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318
North America	282.9	303.5	322.6	316.6	1,225.6	333.2	348.3	367.1	335.8	1,384.4	400.5	387.6	373.8
% of Revenue	50%	50%	52%	50%	51%	51%	51%	53%	48%	51%	52%	50%	48%
Europe	71.9	73.1	66.9	75.4	287.4	75.6	78.4	80.3	74.2	308.4	85.5	97.0	90.7
% of Revenue	13%	12%	11%	12%	12%	12%	12%	12%	11%	11%	11%	12%	12%
Japan	53.2	58.5	63.1	65.1	240.0	61.7	57.2	64.1	64.6	247.6	68.4	70.4	72.0
% of Revenue	9%	10%	10%	10%	10%	9%	8%	9%	9%	9%	9%	9%	9%
Asia Pacific	160.5	169.8	162.6	176.6	669.6	182.3	196.1	183.9	222.1	784.5	215.1	221.8	243.3
% of Revenue	28%	28%	26%	28%	28%	28%	29%	26%	32%	29%	28%	29%	31%
<b>Total</b>	<b>568.6</b>	<b>605.0</b>	<b>615.2</b>	<b>633.7</b>	<b>2,422.5</b>	<b>652.8</b>	<b>680.1</b>	<b>695.4</b>	<b>696.6</b>	<b>2,724.9</b>	<b>769.4</b>	<b>776.8</b>	<b>779.7</b>

Note: Amounts included in the table above may not foot due to rounding. Geographic revenue data for multi-regional, multi-product transactions reflect internal allocations and are therefore subject to certain assumptions and to management's methodology.

## SELECTED FINANCIAL AND OPERATING METRICS

	Q116	Q216	Q316	Q416	FY16	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318
Revenue Mix (millions) <sup>1</sup>													
- Time-Based Products	464.3	\$484.2	\$479.3	\$483.2	\$1,910.9	\$489.4	\$501.1	\$503.5	\$527.8	\$2,021.8	\$570.9	\$556.8	\$570.1
% of total revenue	82%	80%	78%	76%	79%	75%	74%	72%	76%	74%	74%	72%	73%
- Upfront Products	43.4	\$58.2	\$66.9	\$79.7	\$248.1	\$79.6	\$83.5	\$100.3	\$74.9	\$338.2	\$94.6	\$100.0	\$99.6
% of total revenue	8%	9.6%	10.9%	13%	10%	12%	12%	14%	11%	12%	12%	13%	13%
- Maintenance and Service <sup>2</sup>	60.9	\$62.7	\$69.0	\$70.9	\$263.5	\$83.8	\$95.5	\$91.6	\$93.9	\$364.9	\$106.9	\$120.1	\$110.1
% of total revenue	11%	10%	11%	11%	11%	13%	14%	13%	13%	13%	13%	15%	14%
Avg renewable license duration (yrs) <sup>3</sup>	~3.7	~2.3	~3.1	~2.7	~3.0	~2.8	~2.7	~2.5	~2.9	~2.7	~3.0	~2.6	~2.5
Backlog <sup>4</sup>					\$3.54 bn					\$3.7 bn			
- Portion of projected revenue to come from backlog <sup>5</sup>					~80% of '17 rev					~75% of '18 rev			
Non-GAAP Operating Margin <sup>6</sup>	22.5%	25.4%	23.0%	22.9%	23.5%	26.9%	24.6%	25.1%	18.9%	23.8%	25.5%	24.5%	21.5%
Cash, Cash Equivalents & Short-term Investments (millions)	\$706	\$960	\$1,090	\$1,117	\$1,117	\$966	\$1,132	\$1,302	\$1,048	\$1,048	\$606	\$571	\$741
- % held in U.S.	16%	14%	12%	15%	15%	16%	11%	8%	53%	53%	24%	23%	18%
Outstanding Debt	\$228	\$250	\$278	\$205	\$205	\$320	\$418	\$436	\$144	\$144	\$572	\$524	\$622
Operating Cash Flow <sup>1,7</sup>	(\$35)	\$222	\$252	\$148	\$587	\$47	\$123	\$280	\$185	\$635	(\$59)	\$63	\$289
Capital Expenditures	\$15.3	\$13.6	\$19.3	\$18.7	\$66.9	\$18.2	\$13.0	\$19.0	\$20.1	\$70.3	\$28.3	\$20.3	\$21.9
Share Repurchases (millions) <sup>1</sup>													
- Number of Shares	3.8	0.5	2.5	1.6	8.5	1.4	1.4	1.6	1.0	5.4	2.3	0.4	1.5
- Gross Share Repurchases <sup>8</sup>	(\$200)	\$0	(\$125)	(\$75)	(\$400)	(\$100)	(\$100)	(\$100)	(\$100)	(\$400)	(\$200)	(\$35)	(\$165)
- Remaining Repurchase Authorization	\$300	\$300	\$175	\$435	\$435	\$335	\$235	\$500	\$400	\$400	\$200	\$490	\$325
DSO	57	45	47	63		46	50	54	59		64	67	59
Employee Headcount	~10,290	~10,360	~10,535	~10,665	~10,665	~11,280	~11,260	~11,490	~11,680	~11,680	~12,290	~12,590	~13,030

- (1) Amounts may not foot due to rounding.
- (2) Includes maintenance on term and perpetual licenses.
- (3) Weighted average duration of the license arrangements closed in the period reported.
- (4) Synopsys' three-year backlog was \$3.7 billion on October 31, 2017, representing an approximately 5% increase from backlog of ~\$3.54 billion on October 31, 2016. This increase resulted primarily from the timing of large multi-year contract renewals. Backlog represents committed orders that are expected to be recognized as revenue during the following three years. Backlog may not be a reliable predictor of our future sales as business conditions may change and technologies may evolve, and customers may seek to renegotiate their arrangements or default on their payment obligations. For this and other reasons, we may not be able to recognize expected revenue from backlog when anticipated.
- (5) Amount of projected subsequent fiscal year revenue expected to come from backlog as of the end of the applicable fiscal year.
- (6) Should be read in conjunction with the company's 8-K filed with the SEC and the reconciliations of the non-GAAP financial measures to their comparable GAAP measures found in this Supplement.
- (7) Will typically track earnings before interest, taxes, depreciation and amortization (EBITDA) over time (less cash taxes). As operating cash flow is inherently lumpy, we believe it is important to look at multi-year averages.
- (8) During Q118, we entered into an accelerated share repurchase (ASR) agreement for \$200 million. Under this agreement, we received approximately 1.8 million shares on Dec 7, 2017, 0.2 million additional shares on Feb 12, 2018, and the remaining 0.3 million shares on Mar. 2, 2018. Independent of our ASR agreement, in Q218, we completed open market share repurchases totaling \$35 million, or 0.4 million shares. During Q318 we entered into an ASR agreement for \$165 million. Under this agreement, we received approximately 1.5 million shares in May 2018, with the remaining shares to be delivered in Q418.

## SUPPLEMENTAL GAAP TO NON-GAAP RECONCILIATION

(Unaudited and in thousands, except per share amounts)

	<b>Three Months Ended July 31, 2018</b>		
	<b>GAAP</b>	<b>Adjustments (1)</b>	<b>Non-GAAP</b>
<b>Cost of revenue:</b>			
Products	\$ 115,437	\$ (4,826)	\$ 110,611
Maintenance and service	49,790	(1,590)	48,200
Amortization of intangible assets	20,154	(20,154)	-
<b>Operating expenses:</b>			
Research and development	\$ 277,402	\$ (23,531)	\$ 253,871
Sales and marketing	157,953	(8,770)	149,183
General and administrative	84,336	(34,334)	50,002
Amortization of intangible assets	10,651	(10,651)	-
Restructuring charges	23	(23)	-
Operating income	\$ 63,968	\$ 103,879	\$ 167,847
Other income (expense), net	\$ 7,925	\$ (8,397)	\$ (472)
Provision (benefit) for income taxes	\$ (7,516)	\$ 29,275	\$ 21,759
Net income	\$ 79,409	\$ 66,207	\$ 145,616
Net income per share (Diluted)	\$ 0.52	\$ 0.43	\$ 0.95

Shares used in computing per share amounts:

Diluted	152,614	152,614
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- (1) The adjustments to the various line items resulted from excluding the following from non-GAAP measures: stock compensation of \$37.3 million, amortization of intangible assets of \$30.8 million, legal matter of \$26.0 million, acquisition-related costs of \$1.4 million, changes in the fair value of the non-qualified deferred compensation plan of \$8.4 million, and tax effect of non-GAAP adjustments of \$29.3 million.

## GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION

(Unaudited)

	<b>Three Months Ended July 31, 2018</b>
GAAP operating margin	8.2%
Amortization of intangible assets	4.0%
Stock compensation	4.7%
Acquisition-related costs	0.2%
Restructuring charges	0.0%
Legal matters	3.3%
Change in value of non-qualified deferred compensation	1.1%
Non-GAAP operating margin	<u>21.5%</u>

## GAAP TO NON-GAAP RECONCILIATION OF FOURTH QUARTER FY2018 TARGETS

(in thousands, except per share amounts)

	Range for Three Months	
	Ending October 31, 2018 (1)	
	Low	High
Target GAAP expenses	\$ 722,000	\$ 738,000
Adjustments:		
Estimated impact of amortization of intangible assets	(28,000)	(31,000)
Estimated impact of stock compensation	(39,000)	(42,000)
Target non-GAAP expenses	\$ 655,000	\$ 665,000

	Range for Three Months	
	Ending October 31, 2018 (1)	
	Low	High
Target GAAP earnings per share	\$ 0.39	\$ 0.47
Adjustments:		
Estimated impact of amortization of intangible assets	0.20	0.18
Estimated impact of stock compensation	0.27	0.25
Estimated impact of tax adjustments	(0.10)	(0.10)
Target non-GAAP earnings per share	\$ 0.76	\$ 0.80

Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500
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## GAAP TO NON-GAAP RECONCILIATION OF FY2018 TARGETS

	Range for Fiscal Year	
	Ending October 31, 2018 (1)	
	Low	High
Target GAAP earnings per share	\$ 1.55	\$ 1.63
Adjustments:		
Estimated impact of amortization of intangible assets	0.79	0.77
Estimated impact of stock compensation	0.94	0.92
Acquisition-related costs	0.13	0.13
Restructuring charges	0.01	0.01
Legal matters	0.17	0.17
Income tax related to transition tax	0.48	0.48
Income tax related to tax rate change	0.30	0.30
Estimated impact of tax adjustments	(0.48)	(0.48)
Target non-GAAP earnings per share	\$ 3.89	\$ 3.93

Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500
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(1) Synopsys' fourth quarter and fiscal year end on November 3, 2018. For presentation purposes, we refer to the closest calendar month end. The first quarter of fiscal 2018 included an extra week.

## GAAP TO NON-GAAP RECONCILIATIONS

Please see our Current Report on Form 8-K filed with the SEC on August 22, 2018 available at <http://www.sec.gov> for the reasons why Synopsys believes that the presentation of non-GAAP financial measures provides useful information to our shareholders regarding our financial condition and results of operations and the purposes for which management uses such non-GAAP financial measures. Certain non-GAAP data used by management, as well as the reconciliation of such data to its most directly comparable GAAP measures, is contained in the second quarter 2018 earnings release available on Synopsys' website at <https://www.synopsys.com/company/investor-relations/financial-news.html> and our Current Report on Form 8-K filed with the SEC on August 22, 2018. In addition to the adjustments described in the Current Report on Form 8-K, the non-GAAP financial measures provided in this Supplement also exclude changes in the fair value of our non-qualified deferred compensation plans since such changes typically do not require current cash settlement and because they are not used by us in assessing the profitability of our business operations.

## FORWARD-LOOKING STATEMENTS

This Supplement contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, including, but not limited to, the financial targets and the GAAP to Non-GAAP reconciliations of such financial targets, and the expected future revenue from the Black Duck acquisition as well as from current revenue backlog. These statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied in our forward-looking statements. Accordingly, we caution stockholders and prospective investors not to place undue reliance on these statements. Such risks, uncertainties and factors include, but are not limited to: uncertainty in the growth of the semiconductor and electronics industry; consolidation among our customers and our dependence on a relatively small number of large customers; uncertainty in the global economy; our ability to realize the potential financial or strategic benefits of acquisitions we complete; fluctuation of our operating results; our highly competitive industries and our ability to meet our customers' demand for innovative technology at lower costs; our ability to carry out our new product and technology initiatives; cybersecurity threats or other security breaches; risks and compliance obligations relating to the global nature of our operations; our ability to protect our proprietary technology; investments of more resources in research and development than anticipated; increased risks resulting from an increase in sales of our hardware products; changes in accounting principles or standards; changes in our effective tax rate; liquidity requirements in our U.S. operations; claims that our products infringe on third-party intellectual property rights; litigation; product errors or defects; the ability to obtain licenses to third-party software and intellectual property on reasonable terms or at all; the ability to timely recruit and retain senior management and key employees; evolving corporate governance and public disclosure regulations; the inherent limitations on the effectiveness of our controls and compliance programs; the impairment of our investment portfolio by the deterioration of capital markets; the accuracy of certain assumptions, judgments and estimates that affect amounts reported in our financial statements; and the impact of catastrophic events. More information on potential risks, uncertainties and other factors that could affect Synopsys' results is included in filings it makes with the Securities and Exchange Commission from time to time, including in the sections entitled "Risk Factors" in its Annual Report on Form 10-K for the fiscal year ended October 31, 2017, and in its latest Quarterly Report on Form 10-Q.

## EFFECTIVENESS OF INFORMATION

The information provided herein is as of August 22, 2018. Although this Supplement will remain available on Synopsys' website through the date of the fourth quarter and fiscal 2018 earnings call in December 2018, its continued availability through such date does not mean that Synopsys is reaffirming or confirming its continued validity. Synopsys does not currently intend to, and assumes no obligation to, report on its progress during the fourth quarter and fiscal 2018 or comment to analysts or investors on, or otherwise update, the information contained in this Supplement.