

FINANCIAL SUPPLEMENT Q4 & FY2018

December 5, 2018

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I. FISCAL YEAR 2019 SELECTED FINANCIAL TARGETS ^{(1) (2)}

FY2019	FY2018A ⁽³⁾ (ASC 605)	Implied FY2019 Comparative Metrics (ASC 605)	FY2019 Targets (ASC 606)
Revenue (million) <i>Year-over-year growth rate</i>	\$3,121.1	\$3,340 - \$3,370 7%-8%	\$3,290 - \$3,340 5.5%-7%
GAAP Expenses (million)	\$2,760.8	\$2,787 - \$2,817	\$2,787 - \$2,817
Non-GAAP Expenses (million)	\$2,430.4	\$2,530 - \$2,550	\$2,530 - \$2,550
Other Income and Expense Net (million)	(\$1.3)	(\$14) - (\$10)	(\$14) - (\$10)
Normalized Annual Non-GAAP Tax Rate	13%	16%	16%
Fully Diluted Outstanding Shares (million)	153.4	153 - 156	153 - 156
GAAP Earnings Per Share	\$2.82	\$3.01 - \$3.11	\$2.80 - \$2.90
Non-GAAP Earnings Per Share <i>Year-over-year growth rate</i>	\$3.91	\$4.40 - \$4.47 12.5%-14%	\$4.20 - \$4.27 7.5%-9%
Cash Flow from Operations (million)	\$424.2	~\$700	~\$700
Capital Expenditures (million)	\$99.0	~\$270	~\$270
Average Renewable License Duration	~2.7 years	~3 years	~3 years
Stock-Based Compensation (million)	\$140	~\$160	~\$160

Q1 FY2019	Q1 FY2018A ⁽³⁾ (ASC 605)	Implied Q1 FY2019 Comparative Metrics (ASC 605)	Q1 FY2019 Targets (ASC 606)
Revenue (million)	\$769.4	\$790 - \$820	\$775 - \$810
GAAP Expenses (million)	\$661.7	\$677 - \$693	\$677 - \$693
Non-GAAP Expenses (million)	\$573.5	\$612 - \$622	\$612 - \$622
Other Income and Expense Net (million)	(\$1.1)	(\$5) - (\$3)	(\$5) - (\$3)
Normalized Annual Non-GAAP Tax Rate	13%	16%	16%
Fully Diluted Outstanding Shares (million)	154.1	153 - 156	153 - 156
GAAP Earnings Per Share	\$0.02	\$0.60 - \$0.67	\$0.56 - \$0.64
Non-GAAP Earnings Per Share	\$1.10	\$0.99 - \$1.03	\$0.95 - \$1.00

(1) These targets were provided by Synopsys as of December 5, 2018.

(2) As required by the new revenue recognition standard (ASC 606), Synopsys will report results under ASC 605 and ASC 606 for the fiscal 2019 transition year. We will provide financial targets in fiscal 2019 under ASC 606, and to enable historical comparability, we will translate these targets into ASC 605 comparative metrics.

(3) Extra week in Q1'FY18 contributed approximately \$46M additional revenue and 7 cents per share to non-GAAP EPS.

II. SUMMARY OF CERTAIN DISCRETE ITEMS

Revenue FY17-FY18	FY17A ASC 605	FY18A ASC 605
Reported results	\$2,724.9	\$3,121.1
Extra week in Q1'18		~+\$46M
Black Duck impact (acquired Q1'18)		~+\$60M

Revenue FY18-FY19	FY18A ASC 605	FY19E* ASC 606
Reported results; Guidance midpoint	\$3,121.1	\$3,315.0
Extra week in Q1'18		~+\$46M
ASC 606 transition year impact		~(\$40M)

Non-GAAP EPS FY17-FY18	FY17A ASC 605	FY18A ASC 605
Reported results	\$3.42	\$3.91
Extra Week in Q1'18		~+7 cents
Black Duck impact (acquired Q1'18)		~(10 cents)

Non-GAAP EPS FY18-FY19	FY18A ASC 605	FY19E* ASC 606
Reported results; Guidance midpoint	\$3.91	\$4.24
Extra Week in Q1'18		~+7 cents
ASC 606 transition year impact		~(20 cents)

Cash Flow Statement: Certain Discrete Items

Operating Cash Flow		
One-time Items	FY18A	FY19E
Reported results; Guidance	\$424.2	~\$700M
Hungary tax dispute (Q1'18) ⁽¹⁾	~(\$66M)	
Repatriation tax (Q2'18) ⁽²⁾	~(\$33M)	
Siemens/Mentor litigation settlement (Q3'18) ⁽³⁾	~(\$65M)	
IP transfer tax (Q4'18) ⁽⁴⁾	~(\$67M)	

(1) Outstanding dispute with Hungarian tax authorities; payment required in order to appeal ruling

(2) Tax on 4Q'17 repatriation of ~\$825M in offshore cash

(3) Conclusion of all outstanding patent litigation with Siemens/Mentor

(4) One-time tax payment on transfer of IP resulting from tax restructuring due to US tax reform

* Midpoint of FY19 targets

Capital Expenditures	
2019 Capital Projects	FY19E
Guidance	~\$270M
Wuhan facility ⁽⁵⁾	~\$50M
Infrastructure ⁽⁶⁾	~\$110M
SV office consolidation ⁽⁷⁾	~\$110M

(5) Development costs associated with Wuhan, China facility

(6) IT and facility infrastructure upgrades to support growth

(7) Relocation of several Silicon Valley corporate offices to single location

III. LONG-TERM FINANCIAL OBJECTIVES (EFFECTIVE Q1 FY2019)

While the results in any given period may vary due to acquisitions or other near-term priorities, our primary long-term objective is to drive **double-digit non-GAAP EPS growth** on a multi-year basis, through a mix of the following elements:

- Grow **total revenue** generally in the **high-single-digit range**
 - **EDA revenue** generally in the **mid-to-high single digits**
 - **IP/Systems revenue** generally in the **low double-digits**
 - **Software Integrity revenue** generally in the **20% range**
- Drive non-GAAP **operating margin** into the **high 20% range over time, with a goal of ~26% by 2021**
- Utilize our strong **cash flow** primarily for **M&A** and **share buybacks**

IV. REVENUE BY PRODUCT GROUP (Unaudited)

(in millions)	FY16 ASC 605	Q117 ASC 605	Q217 ASC 605	Q317 ASC 605	Q417 ASC 605	FY17 ASC 605	Q118 ASC 605	Q218 ASC 605	Q318 ASC 605	Q418 ASC 605	FY18 ASC 605
Core EDA	1,451.4	368.5	390.6	407.2	402.8	1,569.1	416.8	426.7	428.5	412.0	1,684.0
<i>% of Revenue</i>	60%	56%	57%	59%	58%	58%	54%	55%	55%	52%	54%
IP/Systems/SI	716.8	214.2	221.9	216.5	226.2	878.8	273.1	279.3	273.5	303.9	1,129.9
<i>% of Revenue</i>	30%	33%	33%	31%	32%	32%	35%	36%	35%	38%	36%
Manufacturing	210.1	58.4	54.5	58.1	56.5	227.4	65.4	59.1	64.5	64.2	253.2
<i>% of Revenue</i>	9%	9%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Services & Other	44.3	11.8	13.1	13.6	11.2	49.7	14.2	11.8	13.1	14.9	54.0
<i>% of Revenue</i>	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Total	2,422.5	652.8	680.1	695.4	696.6	2,724.9	769.4	776.8	779.7	795.1	3,121.1

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.

V. REVENUE BY GEOGRAPHIC REGION (Unaudited)

(in millions)	FY16 ASC 605	Q117 ASC 605	Q217 ASC 605	Q317 ASC 605	Q417 ASC 605	FY17 ASC 605	Q118 ASC 605	Q218 ASC 605	Q318 ASC 605	Q418 ASC 605	FY18 ASC 605
North America	1,225.6	333.2	348.3	367.1	335.8	1,384.4	400.5	387.6	373.8	387.7	1,549.6
<i>% of Revenue</i>	51%	51%	51%	53%	48%	51%	52%	50%	48%	49%	50%
Europe	287.4	75.6	78.4	80.3	74.2	308.4	85.5	97.0	90.7	96.0	369.1
<i>% of Revenue</i>	12%	12%	12%	12%	11%	11%	11%	12%	12%	12%	12%
Japan	240.0	61.7	57.2	64.1	64.6	247.6	68.4	70.4	72.0	72.5	283.3
<i>% of Revenue</i>	10%	9%	8%	9%	9%	9%	9%	9%	9%	9%	9%
Asia Pacific	669.6	182.3	196.1	183.9	222.1	784.5	215.1	221.8	243.3	238.9	919.0
<i>% of Revenue</i>	28%	28%	29%	26%	32%	29%	28%	29%	31%	30%	29%
Total	2,422.5	652.8	680.1	695.4	696.6	2,724.9	769.4	776.8	779.7	795.1	3,121.1

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.

VI. SELECTED FINANCIAL AND OPERATING METRICS

	FY16	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318	Q418	FY18
	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605	ASC 605
Revenue Mix (millions) ⁽¹⁾											
- Time-Based Products	\$1,910.9	\$489.4	\$501.1	\$503.5	\$527.8	\$2,021.8	\$570.9	\$556.8	\$570.1	\$605.6	\$2,303.3
% of total revenue	79%	75%	74%	72%	76%	74%	74%	72%	73%	76%	74%
- Upfront Products	\$248.1	\$79.6	\$83.5	\$100.3	\$74.9	\$338.2	\$91.6	\$100.0	\$99.6	\$66.6	\$357.7
% of total revenue	10%	12%	12%	14%	11%	12%	12%	13%	13%	8%	11%
- Maintenance and Service ⁽²⁾	\$263.5	\$83.8	\$95.5	\$91.6	\$93.9	\$364.9	\$106.9	\$120.1	\$110.1	\$123.0	\$460.0
% of total revenue	11%	13%	14%	13%	13%	13%	13%	15%	14%	15%	15%
Avg renewable license duration (yrs) ⁽³⁾	~3.0	~2.8	~2.7	~2.5	~2.9	~2.7	~3.0	~2.6	~2.5	~2.7	~2.7
Backlog ⁽⁴⁾	\$3.54 bn					\$3.7 bn					\$4.0 bn
- Portion of projected revenue to come from backlog ⁽⁵⁾	~80% of '17 rev					~75% of '18 rev					~70% of '19 rev
Non-GAAP Operating Margin ⁽⁶⁾	23.5%	26.9%	24.6%	25.1%	18.9%	23.8%	25.5%	24.5%	21.5%	17.1%	22.1%
Cash, Cash Equivalents & Short-term Investments (millions)	\$1,117	\$966	\$1,132	\$1,302	\$1,048	\$1,048	\$606	\$571	\$741	\$723	\$723
- % held in U.S.	15%	16%	11%	8%	53%	53%	24%	23%	18%	25%	25%
Outstanding Debt	\$205	\$320	\$418	\$436	\$144	\$144	\$572	\$524	\$622	\$469	\$469
Operating Cash Flow ^{(1),(7)}	\$587	\$47	\$123	\$280	\$185	\$635	(\$59)	\$63	\$289	\$131	\$424
Capital Expenditures	\$66.9	\$18.2	\$13.0	\$19.0	\$20.1	\$70.3	\$28.3	\$20.3	\$21.9	\$29.0	\$99.0
Share Repurchases (millions) ⁽¹⁾											
- Number of Shares	8.5	1.4	1.4	1.6	1.0	5.4	2.3	0.4	1.8	-	4.5
- Gross Share Repurchases	(\$400)	(\$100)	(\$100)	(\$100)	(\$100)	(\$400)	(\$200)	(\$35)	(\$165)	-	(\$400)
- Remaining Repurchase Authorization	\$435	\$335	\$235	\$500	\$400	\$400	\$200	\$490	\$325	\$325	\$325
DSO		46	50	54	59		64	67	59	64	
Employee Headcount	~10,665	~11,280	~11,260	~11,490	~11,680		~12,290	~12,590	~13,030	~13,250	

- (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 approximately \$4.0 billion on October 31, 2018, representing an approximate 8% increase from backlog of ~\$3.7 billion on October 31, 2017. 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. This reported backlog is under ASC 605 rules. 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 these 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 our Form 8-K filed with the SEC on December 5, 2018, and the reconciliations of the non-GAAP financial measures to their comparable GAAP measures found in this Financial 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, it is important to look at multi-year averages. 2018 operating cash flow reflected approximately \$230 million of one-time payments, as summarized in the Operating Cash Flow One-Time Items table on page 2 of this Financial Supplement.

VII. ASC TOPIC 606 – DESCRIPTION OF CHANGES

“Accounting Standards Codification Topic 606 – Revenue from Contracts with Customers” (implemented in Q1 FY19)

In May 2014, the Financial Accounting Standards Board issued new revenue recognition requirements that become effective for Synopsys in FY19. We will adopt these changes using the “modified retrospective method,” under which the cumulative effect of initially applying the new recognition standards is recognized at the date of initial application (Q1 of FY19). The estimated transition impact described below is based on calculations that remain ongoing and will likely change throughout the year.

What won’t change:

- Adoption of ASC 606 is an accounting change regarding the rules of revenue recognition for multi-product contracts.
- ASC 606 will not change our operations or how we run our business. It will have no impact on cash flow or compensation plans, and revenue from the majority of our contracts will be unchanged.

What will change:

- **One-time:** using the “modified retrospective method,” a portion of our backlog will be recast at the beginning of FY19. Revenue during the 2019 transition year is estimated to be approximately \$40 million lower under ASC 606 than it would be under ASC 605.
- **Ongoing:** our time-based revenue from multi-year IP license contracts that was previously recognized ratably will instead be recognized in the period in which the IP is delivered, resulting in greater quarterly variability.

However, there is no change to our IP arrangements, the economic value of those arrangements, or the cash flow they generate.

Metric	Primary Accounting Treatment		Impact
	ASC 605	ASC 606	
Software License Revenue	Time-based	Time-based	n/m*
IP License Revenue	Majority time-based	Recognized upon delivery throughout the contract term <i>(see below example)</i>	Moderate
Hardware Revenue	Upfront	Upfront	n/m*
Maint & Service Revenue	Time-based	Time-based	n/m*
Commission Expense	On shipment	Over contract term	n/m*

* Not material

Example: Customer signs contract for use of \$9 million worth of IP licenses over 3-year period			
	Year 1	Year 2	Year 3
Customer Activity:	5 IP titles delivered to customer with total value of \$3M	7 IP titles delivered to customer with total value of \$4M	3 IP titles delivered to customer with total value of \$2M
Revenue Recognized:			
Under previous ASC 605 rules:	\$3M <i>(1/3 of 3-year contract)</i>	\$3M <i>(1/3 of 3-year contract)</i>	\$3M <i>(1/3 of 3-year contract)</i>
Under new ASC 606 rules:	\$3M <i>(value of IP used in period)</i>	\$4M <i>(value of IP used in period)</i>	\$2M <i>(value of IP used in period)</i>

What to expect:

- Throughout FY19, we will provide actual results under both ASC 605 and ASC 606 rules.
- We will provide targets for FY19 based on ASC 606. In addition, to ensure comparability to historical periods, we will provide ASC 605-based comparative metrics.

SUPPLEMENTAL GAAP TO NON-GAAP INFORMATION – THREE MONTHS

(Unaudited and in thousands, except per share amounts)

	Three Months Ended October 31, 2018		
	GAAP	Adjustments (1)	Non-GAAP
Cost of revenue:			
Products	\$ 113,400	\$ (2,791)	\$ 110,609
Maintenance and service	52,760	(1,341)	51,419
Amortization of intangible assets	24,422	(24,422)	-
Operating expenses:			
Research and development	\$ 290,875	\$ (12,765)	\$ 278,110
Sales and marketing	167,325	(5,533)	161,792
General and administrative	63,043	(6,663)	56,380
Amortization of intangible assets	10,704	(10,704)	-
Restructuring charges	11,028	(11,028)	-
Operating income	\$ 61,525	\$ 75,247	\$ 136,772
Other income (expense), net	\$ (9,277)	\$ 9,956	\$ 679
Provision (benefit) for income taxes	\$ (202,080)	\$ 219,949	\$ 17,869
Net income	\$ 254,328	\$ (134,746)	\$ 119,582
Net income per share (Diluted)	\$ 1.66	\$ (0.88)	\$ 0.78

Shares used in computing per share amounts:

Diluted	153,038	153,038
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- (1) The adjustments to the various line items resulted from excluding the following from non-GAAP measures: stock compensation of \$37.5 million, amortization of intangible assets of \$35.1 million, acquisition-related costs of \$1.6 million, restructuring charges of \$11.0 million, changes in the fair value of the non-qualified deferred compensation plan of \$10.0 million, tax reform related transition tax of (\$10.3) million, tax rate change of \$5.4 million, tax restructuring of (\$172.0) million, and tax effect of non-GAAP adjustments of (\$43.1) million.

GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION – THREE MONTHS

(Unaudited)

	Three Months Ended October 31, 2018
GAAP operating margin	7.7%
Amortization of intangible assets	4.4%
Stock compensation	4.7%
Acquisition-related costs	0.2%
Restructuring charges	1.4%
Legal matters	0.0%
Change in value of non-qualified deferred compensation	-1.2%
Non-GAAP operating margin	<u>17.2%</u>

SUPPLEMENTAL GAAP TO NON-GAAP INFORMATION – TWELVE MONTHS

(Unaudited and in thousands, except per share amounts)

	Twelve Months Ended October 31, 2018		
	GAAP	Adjustments (1)	Non-GAAP
Cost of revenue:			
Products	\$ 448,430	\$ (15,163)	\$ 433,267
Maintenance and service	203,434	(5,554)	197,880
Amortization of intangible assets	84,034	(84,034)	-
Operating expenses:			
Research and development	\$ 1,084,822	\$ (73,983)	\$ 1,010,839
Sales and marketing	622,978	(35,103)	587,875
General and administrative	262,560	(62,044)	200,516
Amortization of intangible assets	41,630	(41,630)	-
Restructuring charges	12,945	(12,945)	-
Operating income	\$ 360,225	\$ 330,456	\$ 690,681
Other income (expense), net	\$ 3,318	\$ (4,636)	\$ (1,318)
Provision (benefit) for income taxes	\$ (68,975)	\$ 158,593	\$ 89,618
Net income	\$ 432,518	\$ 167,227	\$ 599,745
Net income per share (Diluted)	\$ 2.82	\$ 1.09	\$ 3.91

Shares used in computing per share amounts:

Diluted	153,393	153,393
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- (1) The adjustments to the various line items resulted from excluding the following from non-GAAP measures: stock compensation of \$140.0 million, amortization of intangible assets of \$125.7 million, legal matter of \$26.0 million, acquisition-related costs of \$21.2 million, restructuring charges of \$12.9 million, changes in the fair value of the non-qualified deferred compensation plan of (\$4.6) million, tax reform related transition tax of \$63.1 million, tax rate change of \$51.1 million, tax restructuring of (\$172.0) million, and tax effect of non-GAAP adjustments of (\$100.8) million.

GAAP TO NON-GAAP OPERATING MARGIN RECONCILIATION – TWELVE MONTHS

(Unaudited)

	<u>Twelve Months Ended</u> <u>October 31, 2018</u>
GAAP operating margin	11.5%
Amortization of intangible assets	4.0%
Stock compensation	4.5%
Acquisition-related costs	0.7%
Restructuring charges	0.4%
Legal matters	0.8%
Change in value of non-qualified deferred compensation	0.2%
Non-GAAP operating margin	<u>22.1%</u>

GAAP TO NON-GAAP RECONCILIATION OF FIRST QUARTER FISCAL YEAR 2019 TARGETS ⁽¹⁾

(in thousands, except per share amounts)

	ASC 606	
	Range for Three Months	
	Ending January 31, 2019 (2)	
	Low	High
Target GAAP expenses	\$ 677,000	\$ 693,000
Adjustments:		
Estimated impact of amortization of intangible assets	(28,000)	(31,000)
Estimated impact of stock compensation	(37,000)	(40,000)
Target non-GAAP expenses	\$ 612,000	\$ 622,000

	ASC 606	
	Range for Three Months	
	Ending January 31, 2019 (2)	
	Low	High
Target GAAP earnings per share	\$ 0.56	\$ 0.64
Adjustments:		
Estimated impact of amortization of intangible assets	0.20	0.18
Estimated impact of stock compensation	0.26	0.24
Estimated impact of tax adjustments	(0.07)	(0.06)
Target non-GAAP earnings per share	\$ 0.95	\$ 1.00

Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500
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GAAP TO NON-GAAP RECONCILIATION OF FULL FISCAL YEAR 2019 TARGETS ⁽¹⁾

(in thousands, except per share amounts)

	ASC 606	
	Range for Fiscal Year	
	October 31, 2019 (2)	
	Low	High
Target GAAP expenses	\$ 2,787,000	\$ 2,817,000
Adjustments:		
Estimated impact of amortization of intangible assets	(99,000)	(104,000)
Estimated impact of stock compensation	(158,000)	(163,000)
Target non-GAAP expenses	\$ 2,530,000	\$ 2,550,000

	ASC 606	
	Range for Fiscal Year	
	October 31, 2019 (2)	
	Low	High
Target GAAP earnings per share	\$ 2.80	\$ 2.90
Adjustments:		
Estimated impact of amortization of intangible assets	0.79	0.77
Estimated impact of stock compensation	0.93	0.91
Estimated impact of tax adjustments	(0.32)	(0.31)
Target non-GAAP earnings per share	\$ 4.20	\$ 4.27

Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500
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	ASC 606	
	Range for Fiscal Year	
	October 31, 2019 (2)	
At midpoint of revenue and expense guidance ranges: ⁽³⁾		
GAAP operating margin	15.5%	
Amortization of intangible assets	3.1%	
Stock compensation	4.8%	
Non-GAAP operating margin	23.4%	

(1) Synopsys will adopt new revenue recognition guidance ASC 606, *Revenue from Contracts with Customers*, at the beginning of fiscal 2019 under the modified retrospective method.

(2) Synopsys' first fiscal quarter and fiscal year will end on February 2, 2019 and November 2, 2019, respectively. For presentation purposes, we refer to the closest calendar month end.

(3) These numbers represent the midpoint of targets in the prepared remarks provided on December 5, 2018, and do not represent official guidance for 2019.

GAAP TO NON-GAAP RECONCILIATION OF ASC 605 COMPARATIVE METRICS ⁽¹⁾

(in thousands, except per share amounts)

	ASC 605	
	Range for Three Months	
	Ending January 31, 2019 (2)	
	Low	High
Target GAAP expenses	\$ 677,000	\$ 693,000
Adjustments:		
Estimated impact of amortization of intangible assets	(28,000)	(31,000)
Estimated impact of stock compensation	(37,000)	(40,000)
Target non-GAAP expenses	\$ 612,000	\$ 622,000

	ASC 605	
	Range for Three Months	
	Ending January 31, 2019 (2)	
	Low	High
Target GAAP earnings per share	\$ 0.60	\$ 0.67
Adjustments:		
Estimated impact of amortization of intangible assets	0.20	0.18
Estimated impact of stock compensation	0.26	0.24
Estimated impact of tax adjustments	(0.07)	(0.06)
Target non-GAAP earnings per share	\$ 0.99	\$ 1.03
Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500

	ASC 605	
	Range for Fiscal Year	
	October 31, 2019 (2)	
	Low	High
Target GAAP expenses	\$ 2,787,000	\$ 2,817,000
Adjustments:		
Estimated impact of amortization of intangible assets	(99,000)	(104,000)
Estimated impact of stock compensation	(158,000)	(163,000)
Target non-GAAP expenses	\$ 2,530,000	\$ 2,550,000

	ASC 605	
	Range for Fiscal Year	
	October 31, 2019 (2)	
	Low	High
Target GAAP earnings per share	\$ 3.01	\$ 3.11
Adjustments:		
Estimated impact of amortization of intangible assets	0.79	0.77
Estimated impact of stock compensation	0.93	0.91
Estimated impact of tax adjustments	(0.33)	(0.32)
Target non-GAAP earnings per share	\$ 4.40	\$ 4.47
Shares used in non-GAAP calculation (midpoint of target range)	154,500	154,500

	ASC 605	
	Range for Fiscal Year	
	October 31, 2019 (2)	
At midpoint of revenue and expense guidance ranges: ⁽³⁾		
GAAP operating margin	16.5%	
Amortization of intangible assets	3.0%	
Stock compensation	4.8%	
Non-GAAP operating margin	24.3%	

(1) Synopsys will adopt new revenue recognition guidance ASC 606, *Revenue from Contracts with Customers*, at the beginning of fiscal 2019 under the modified retrospective method. For comparison purposes, we provide comparative metrics under old revenue guidance ASC 605, *Revenue Recognition*.

(2) Synopsys' first fiscal quarter and fiscal year will end on February 2, 2019 and November 2, 2019, respectively. For presentation purposes, we refer to the closest calendar month end.

(3) These numbers represent the midpoint of comparative metrics in the prepared remarks provided on December 5, 2018, and do not represent official guidance for 2019.

GAAP TO NON-GAAP RECONCILIATIONS

Please see our Current Report on Form 8-K filed with the SEC on December 6, 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 fourth quarter and fiscal 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 December 6, 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, financial targets for the first quarter and full fiscal year 2019, their comparative metrics under ASC 605, and GAAP to non-GAAP reconciliations of projections, as well as statements related to our long-term revenue, non-GAAP EPS and non-GAAP operating margin objectives, the expected impact of ASC 606, discrete items in fiscal year 2019, the portion of projected revenue to come from backlog, and the expected normalized tax rate. 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; fluctuation of our operating results; increased variability in our revenue due to the adoption of ASC 606; our highly competitive industries and our ability to meet our customers' demand for innovative technology at lower costs; risks and compliance obligations relating to the global nature of our operations; cybersecurity threats or other security breaches; our ability to protect our proprietary technology; our ability to realize the potential financial or strategic benefits of acquisitions we complete; our ability to carry out our new product and technology initiatives; investments of more resources in research and development than anticipated; increased risks resulting from an increase in sales of our hardware products, including increased variability in upfront revenue; 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; 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 December 5, 2018. Although this Supplement will remain available on Synopsys' website through the date of the first quarter of fiscal 2019 earnings call in February 2019, 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 first quarter of fiscal 2019 or comment to analysts or investors on, or otherwise update, the information contained in this Supplement.