



**ANSYS, INC. FOURTH QUARTER 2018
EARNINGS ANNOUNCEMENT
PREPARED REMARKS
February 27, 2019**

ANSYS is providing a copy of its prepared remarks in connection with our earnings announcement. These remarks are offered to provide additional detail for analyzing our fourth quarter and fiscal year 2018 results in advance of our quarterly conference call. These prepared remarks will not be read on the call.

**Conference call details:
February 28, 2019
8:30 a.m. Eastern Time**

- To access the live broadcast, please visit the Investor Relations section of ANSYS' website at <https://investors.ansys.com> and click on News & Events, then Presentations.
- The call can also be heard by dialing (855) 239-2942 (US) or (412) 542-4124 (CAN & INT'L) at least five minutes prior to the call and asking the operator to connect you to the ANSYS conference call.
- A replay will be available within two hours of the call's completion at <https://investors.ansys.com/news-and-events/events-calendar> or by dialing (877) 344-7529 (US), (855) 669-9658 (CAN) or (412) 317-0088 (INT'L) and referencing the access code 10128385.

SUPPLEMENTAL INFORMATION

In addition to our GAAP information, ANSYS has historically provided non-GAAP supplemental information. Our reasons for providing this information are described later in this document, as well as in our Q4 earnings press release, which can be found on our website in the Press Releases section. Reconciliations of GAAP to non-GAAP information are also provided. In line with our historical practice, the financial information below is presented on a supplemental, non-GAAP basis unless otherwise indicated.

We transitioned to ASC 606 on January 1, 2018, which impacted the timing and amounts of revenue recognized. The most significant impact relates to the accounting for lease licenses. Under ASC 605, the revenue associated with these licenses was recognized ratably, over the lease term, and was accounted for entirely as lease license revenue. Under ASC 606, approximately 50% of the value of the lease license is recognized up front as lease license revenue, while the remainder is recognized as maintenance revenue ratably over the contract duration. The upfront recognition of the amount attributed to license revenue results in greater volatility in our revenue and earnings results. To assist analysts and investors with their understanding of our operating results, we have introduced a new performance metric, Annual Contract Value (ACV). We believe this new measure is an improved metric as compared to the historically provided bookings metric because it adjusts the sales bookings metric to reflect only the annual value of a contract and also adjusts to reflect the sales booking at the date of the contract inception or renewal.

For comparability purposes, the amounts presented in the sections below refer to non-GAAP results under ASC 605, as if the previous revenue recognition guidance was still in effect, unless otherwise specified.

FOURTH QUARTER AND FY 2018 OVERVIEW

We finished the year with outstanding results, including EPS that exceeded the high end of our guidance. We reported fourth quarter consolidated non-GAAP revenue of \$340.1 million, an increase of 12% in reported currency and 14% in constant currency. We reported FY 2018 consolidated non-GAAP revenue of \$1,232.1 million, an increase of 12% in reported currency and 11% in constant currency. We also achieved non-GAAP EPS of \$1.39 and \$5.30 in the fourth quarter and FY 2018, respectively, which represented 30% and 32% growth over Q4 and FY 2017, respectively. Our financial results for Q4 and FY 2018 included cash flows from operations of \$132.9 million and \$486.4 million, respectively.

The following are other notable comments related to Q4 2018 and FY 2018:

- Lease license revenue grew 18% and maintenance revenue grew 14% for the quarter, both in constant currency. Lease license revenue grew 12% and maintenance revenue grew 13% for FY 2018, both in constant currency. Perpetual license revenue grew 5% and 3% for the quarter and for FY 2018, respectively, both in constant currency.

As we had communicated throughout the year, an important area of increased investment in 2018 was in the form of additional resources across our field engineering teams. These investments were instrumental in supporting key customer initiatives that enabled us to continue to expand our relationships at both major and strategic accounts. This also drove measurable business results in our services business as evidenced by the constant currency services revenue growth of 38% for Q4 and 33% for FY 2018.

- Both lease licenses and maintenance contributed to a steady stream of growing recurring revenue that totaled 72% of revenue for the quarter and 76% of revenue for FY 2018.
- Our direct and indirect businesses contributed 77% and 23%, respectively, of both Q4 and FY 2018 revenue.
- ACV increased 28% and 17%, both in constant currency, for the fourth quarter and FY 2018, respectively.
- We continued to drive sales execution, which resulted in a deferred revenue and backlog balance of \$957.1 million, an increase of 24% over Q4 2017.
- For the fourth quarter, we had 68 customers with cumulative orders over \$1 million, including four customers with cumulative orders over \$10 million. This compares to 49 customers with orders over \$1 million in the fourth quarter of 2017, including three customers with cumulative orders over \$10 million. For FY 2018, we had 162 customers with cumulative orders over \$1 million, including 17 customers with cumulative orders over \$10 million. This compares to 149 customers with cumulative orders in excess of \$1 million for FY 2017, including 10 customers with cumulative orders over \$10 million.
- The fourth quarter and FY 2018 results include a four-year transaction which totaled \$59.0 million and was the largest deal in the Company's history. This transaction, which was not included in our Q4 financial guidance, contributed revenue of approximately \$29.8 million and diluted EPS of approximately \$0.28 under ASC 606. The revenue and diluted EPS impacts were not material under ASC 605 due to the ratable revenue recognition.
- During the fourth quarter, we repurchased 0.5 million shares at an average price of \$154.03. During FY 2018, we repurchased 1.7 million shares at an average price of \$161.12. As of December 31, 2018, the Company had 3.8 million shares remaining in its authorized share repurchase program.

- Total headcount on December 31, 2018 was approximately 3,400 employees as compared to approximately 2,900 employees at December 31, 2017.

Other Recent Highlights

- During Q1 2019, we acquired Granta Design Limited (Granta Design) and Helic, Inc. (Helic) for a combined purchase price of approximately \$261.5 million. The acquisition of Granta Design, the premier provider of materials information technology, expands the Company's portfolio into this important area, giving customers access to material intelligence, including data that is critical to successful simulations. The acquisition of Helic, the industry-leading provider of electromagnetic crosstalk solutions for systems on chips, combined with our flagship electromagnetic and semiconductor solvers, will provide a comprehensive solution for on-chip, 3D integrated circuit and chip-package-system electromagnetics and noise analysis.
- In February 2019, the Company released ANSYS 2019 R1, which enables engineers at every level to develop the most innovative products across a multitude of industries. The release revolutionized the user experience and introduced a new product line, ANSYS Motion, making simulation even more accessible.
- Also, in February 2019, the Company entered into a \$500 million unsecured revolving credit facility. The revolving credit facility will be available for general corporate purposes, including, among others, to finance acquisitions, share repurchases and capital expenditures.

DEFERRED REVENUE AND BACKLOG

<i>(in thousands)</i>	ASC 606		ASC 605			
	December 31, 2018	September 30, 2018	December 31, 2018	September 30, 2018	December 31, 2017	September 30, 2017
Current Deferred Revenue	\$ 328,584	\$ 272,872	\$ 526,168	\$ 434,129	\$ 440,491	\$ 381,727
Current Backlog	147,299	139,241	142,284	133,673	97,283	91,885
Total Current	475,883	412,113	668,452	567,802	537,774	473,612
Long-Term Deferred Revenue	14,590	13,581	29,371	24,418	28,069	23,971
Long-Term Backlog	168,699	119,021	259,259	169,340	203,867	171,686
Total Long-Term	183,289	132,602	288,630	193,758	231,936	195,657
Total Deferred Revenue and Backlog	\$ 659,172	\$ 544,715	\$ 957,082	\$ 761,560	\$ 769,710	\$ 669,269

The table above represents GAAP deferred revenue and backlog. As a result of the fair value provisions applicable to the accounting for business combinations, the Company typically records acquired deferred revenue at an amount that is lower than the historical carrying value. The expected impacts on reported revenue under ASC 606, including an estimate for the Granta and Helic acquisitions, are \$2.2 million and \$6.5 million for the quarter ending March 31, 2019 and the year ending December 31, 2019, respectively. The Company has not yet performed a valuation of the Granta and Helic acquired deferred revenue. Until such valuation is completed, the expected impacts on revenue will remain preliminary estimates that are likely to change. We will not be reporting on ASC 605 in 2019.

ACV AND SEVEN-FIGURE CUSTOMER ORDERS

<i>(in thousands)</i>	Q4 QTD 2018	Q4 QTD 2017	% Change	% Change in Constant Currency
ACV	\$ 480,487	\$ 380,743	26.2%	27.7%

<i>(in thousands)</i>	FY 2018	FY 2017	% Change	% Change in Constant Currency
ACV	\$ 1,325,211	\$ 1,123,930	17.9%	16.5%

The Company had customers with seven-figure cumulative orders as follows:

	Q4 QTD 2018	Q4 QTD 2017	FY 2018	FY 2017
≥ \$1.0 - < \$5.0 million	51	43	129	127
≥ \$5.0 - < \$10.0 million	13	3	16	12
≥ \$10.0 million	4	3	17	10
Total ≥ \$1.0 million	<u>68</u>	<u>49</u>	<u>162</u>	<u>149</u>

REVENUE HIGHLIGHTS

<i>(in thousands, except percentages)</i>	ASC 606		ASC 605					
	Q4 QTD 2018	% of Total	Q4 QTD 2018	% of Total	Q4 QTD 2017	% of Total	% Change	% Change in Constant Currency
Lease	\$ 126,824	30.3%	\$ 114,203	33.6%	\$ 97,732	32.2%	16.9%	18.0%
Perpetual	99,597	23.8%	82,359	24.2%	79,565	26.2%	3.5%	4.9%
Maintenance	178,466	42.7%	130,438	38.4%	116,497	38.4%	12.0%	13.6%
Service	13,090	3.1%	13,065	3.8%	9,650	3.2%	35.4%	37.6%
Total	<u>\$ 417,977</u>		<u>\$ 340,065</u>		<u>\$ 303,444</u>		12.1%	13.5%

<i>(in thousands, except percentages)</i>	ASC 606		ASC 605					
	FY 2018	% of Total	FY 2018	% of Total	FY 2017	% of Total	% Change	% Change in Constant Currency
Lease	\$ 275,661	21.2%	\$ 427,452	34.7%	\$ 378,874	34.5%	12.8%	11.7%
Perpetual	301,098	23.1%	258,513	21.0%	248,078	22.6%	4.2%	3.2%
Maintenance	686,283	52.7%	505,973	41.1%	441,296	40.2%	14.7%	12.9%
Service	40,036	3.1%	40,114	3.3%	29,858	2.7%	34.3%	33.4%
Total	<u>\$ 1,303,078</u>		<u>\$ 1,232,052</u>		<u>\$ 1,098,106</u>		12.2%	10.8%

As a result of the Company's application of the fair value provisions applicable to the accounting for business combinations, there were impacts on GAAP revenue under ASC 606 of \$2.5 million and \$9.4 million for the fourth quarter and FY 2018, respectively. The impacts on GAAP revenue under ASC 605 were \$4.1 million and \$1.1 million for the fourth quarters of 2018 and 2017, respectively. The impacts on GAAP revenue under ASC 605 were \$15.6 million and \$2.9 million for FY 2018 and 2017, respectively.

GEOGRAPHIC REVENUE HIGHLIGHTS

<i>(in thousands, except percentages)</i>	ASC 606		ASC 605					
	Q4 QTD 2018	% of Total	Q4 QTD 2018	% of Total	Q4 QTD 2017	% of Total	% Change	% Change in Constant Currency
Americas	\$ 184,857	44.2%	\$ 141,898	41.7%	\$ 118,917	39.2%	19.3%	19.4%
Germany	43,602	10.4%	33,025	9.7%	29,140	9.6%	13.3%	17.0%
United Kingdom	9,915	2.4%	9,490	2.8%	9,313	3.1%	1.9%	5.3%
Other EMEA	70,287	16.8%	57,926	17.0%	56,079	18.5%	3.3%	6.4%
EMEA	123,804	29.6%	100,441	29.5%	94,532	31.2%	6.3%	9.5%
Japan	37,523	9.0%	36,924	10.9%	31,604	10.4%	16.8%	16.7%
Other Asia-Pacific	71,793	17.2%	60,802	17.9%	58,391	19.2%	4.1%	6.2%
Asia-Pacific	109,316	26.2%	97,726	28.7%	89,995	29.7%	8.6%	9.9%
Total	\$ 417,977		\$ 340,065		\$ 303,444		12.1%	13.5%

<i>(in thousands, except percentages)</i>	ASC 606		ASC 605					
	FY 2018	% of Total	FY 2018	% of Total	FY 2017	% of Total	% Change	% Change in Constant Currency
Americas	\$ 531,176	40.8%	\$ 507,175	41.2%	\$ 444,705	40.5%	14.0%	14.0%
Germany	141,644	10.9%	126,510	10.3%	108,373	9.9%	16.7%	12.1%
United Kingdom	38,378	2.9%	37,105	3.0%	33,510	3.1%	10.7%	7.3%
Other EMEA	224,744	17.2%	211,118	17.1%	186,843	17.0%	13.0%	9.5%
EMEA	404,766	31.1%	374,733	30.4%	328,726	29.9%	14.0%	10.2%
Japan	148,358	11.4%	141,555	11.5%	126,357	11.5%	12.0%	10.4%
Other Asia-Pacific	218,778	16.8%	208,589	16.9%	198,318	18.1%	5.2%	5.1%
Asia-Pacific	367,136	28.2%	350,144	28.4%	324,675	29.6%	7.8%	7.1%
Total	\$ 1,303,078		\$ 1,232,052		\$ 1,098,106		12.2%	10.8%

Regional Commentary

Americas

The Americas led the regions with 19% and 14% constant currency revenue growth in the fourth quarter and FY 2018, respectively, including double-digit constant currency growth across all classes of revenue. The Americas continued to lead in large deal sales with 36 customers with cumulative orders over \$1 million during the quarter compared to 24 customers during the fourth quarter of 2017. The region also led for FY 2018 with a total of 72 customers with cumulative orders over \$1 million during the year compared to 68 customers during FY 2017.

EMEA

EMEA delivered constant currency revenue growth of 10% for both the fourth quarter and FY 2018, including double-digit growth in both maintenance and service revenue. Germany and France, the region's two largest geographies, each delivered double-digit constant currency revenue growth, but this strength was partially offset by lower growth in the United Kingdom. EMEA increased its large deals to 21 customers with cumulative orders over \$1 million during the quarter compared to 16 customers during the fourth quarter of 2017. For FY 2018, the region had a total of 50 customers with cumulative orders over \$1 million compared to 47 customers during FY 2017. The overall results in the region continue to demonstrate our strong sales execution and an improved go-to-market strategy.

Asia-Pacific

Asia-Pacific experienced constant currency revenue growth of 10% and 7% for the fourth quarter and FY 2018, respectively, including double-digit growth in lease, maintenance and service revenue. Japan, the region's largest geography, led the region with double-digit constant currency revenue growth, partially offset by South Korea. Asia-Pacific produced a total of 11 customers with cumulative orders over \$1 million during the quarter compared to 9 customers during the fourth quarter of 2017. For FY 18, the region had a total of 40 customers with cumulative orders over \$1 million compared to 34 customers during FY 2017.

Industry Commentary

Due to the continued investments in autonomous vehicles and electrification, the automotive industry remained strong throughout 2018. Investments in smart, connected products and 5G by companies around the globe bolstered the high-tech industry during the year. Increased defense spending in both the United States and Europe supported strong performance in aerospace and defense. The industrial equipment sector saw growth due to the continued focus on efficiency and reliability.

INCOME STATEMENT HIGHLIGHTS

Q4 and FY 2018 MARGINS AND TAX RATE: The gross margins, operating margins and effective tax rates were as follows:

	ASC 606		ASC 605	
	Q4 QTD 2018	FY 2018	Q4 QTD 2018	FY 2018
Gross Margin	91.6%	90.5%	89.7%	90.0%
Operating Margin	51.6%	47.4%	40.5%	44.4%
Effective Tax Rate	17.6%	18.2%	17.1%	18.3%

The FY 2018 tax rates presented above include a benefit of \$6.7 million, or approximately 1%, related to global entity structuring activities that occurred in the third quarter.

BALANCE SHEET AND CASH FLOW HIGHLIGHTS

- Cash and short-term investments totaled \$777.4 million as of December 31, 2018, of which 79% was held domestically.
- Cash flows from operations were \$132.9 million for the fourth quarter of 2018 as compared to \$103.5 million for the fourth quarter of 2017. Cash flows from operations were \$486.4 million for FY 2018 as compared to \$430.4 million for FY 2017.
- Consolidated net DSO was 39 days under ASC 605. Consolidated net DSO was 72 days under ASC 606, which significantly increased upon the adoption of ASC 606 on January 1, 2018.

- Capital expenditures totaled \$8.7 million and \$21.8 million for the fourth quarter and FY 2018, respectively. We are currently planning total 2019 capital expenditures in the range of \$35 - \$40 million.

SHARE COUNT AND SHARE REPURCHASES

We had 85.5 million fully diluted weighted average shares outstanding in Q4. In line with our commitment to return capital to stockholders, we repurchased 0.5 million shares during Q4 at an average price of \$154.03 and repurchased 1.7 million shares in FY 2018 at an average price of \$161.12. As of December 31, 2018, the Company had 3.8 million shares remaining in its authorized share repurchase program.

STOCK-BASED COMPENSATION EXPENSE

<i>(in thousands, except per share data)</i>	Three Months Ended		Twelve Months Ended	
	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
Cost of sales:				
Software licenses	\$ 319	\$ 258	\$ 1,257	\$ 969
Maintenance and service	1,025	639	3,967	2,533
Operating expenses:				
Selling, general and administrative	13,811	7,507	47,099	30,817
Research and development	9,304	5,342	31,023	18,835
Stock-based compensation expense before taxes	24,459	13,746	83,346	53,154
Related income tax benefits	(4,207)	3,477	(34,518)	(20,503)
Stock-based compensation expense, net of taxes	\$ 20,252	\$ 17,223	\$ 48,828	\$ 32,651
Net impact on earnings per share:				
Diluted earnings per share	\$ (0.24)	\$ (0.20)	\$ (0.57)	\$ (0.38)

CURRENCY

CURRENCY IMPACTS: The fourth quarter and FY 2018 revenue and operating income under ASC 605 as compared to the fourth quarter and FY 2017 were impacted by fluctuations in the U.S. Dollar. The impacts on revenue and operating income are reflected in the table below. Amounts in brackets indicate an adverse impact from currency fluctuations.

<i>(in thousands)</i>	Three Months Ended	Twelve Months Ended
	December 31, 2018	December 31, 2018
Revenue	\$ (4,347)	\$ 14,884
Operating income	\$ (483)	\$ 10,545

There were favorable foreign exchange impacts on deferred revenue and backlog of \$1.3 million for the fourth quarter 2018. There were adverse foreign exchange impacts on deferred revenue and backlog of \$9.7 million for FY 2018.

OUTLOOK

Q1 2019 OUTLOOK: We are currently forecasting the following for Q1 2019:

(in millions, except percentages and per share data)

	<u>GAAP</u>	<u>non-GAAP</u>
Revenue	\$286.0 - \$308.0	\$290.0 - \$310.0
Operating margin	22.0% - 25.0%	36.5% - 38.5%
Effective tax rate	13.0% - 16.0%	21.0% - 22.0%
Diluted earnings per share	\$0.61 - \$0.82	\$0.98 - \$1.11

FY 2019 OUTLOOK: We are currently forecasting the following for FY 2019:

(in millions, except percentages and per share data)

	<u>GAAP</u>	<u>non-GAAP</u>
Revenue	\$1,400.0 - \$1,465.0	\$1,410.0 - \$1,470.0
Operating margin	30.0% - 33.0%	43.0% - 44.0%
Effective tax rate	18.0% - 20.0%	21.0% - 22.0%
Diluted earnings per share	\$3.98 - \$4.61	\$5.55 - \$6.00

In addition, we are currently forecasting the following for FY 2019:

(in millions)

	<u>Other Financial Metrics</u>
ACV	\$1,410.0 - \$1,465.0
Operating cash flows	\$470.0 - \$510.0

The outlook presented above includes the impacts of the Company's acquisitions of Granta Design and Helic. For FY 2019, the Company's guidance includes approximately \$12.0 - \$22.0 million in GAAP revenue, \$20.0 - \$25.0 million in non-GAAP revenue and \$20.0 - \$25.0 million in ACV. The acquisitions are also expected to be dilutive to GAAP operating margins by approximately 2.0% - 3.0% and dilutive to non-GAAP operating margins by approximately 1.0% - 1.5% in FY 2019.

We are currently expecting approximately 86.0 million fully diluted shares outstanding for both Q1 2019 and FY 2019.

CURRENCY OUTLOOK: The Company's results have been, and will continue to be, impacted by currency fluctuations, particularly by rate movements in the Euro, British Pound and Japanese Yen. Our currency rate assumptions are as follows:

	<u>Euro</u>	<u>British Pound</u>	<u>Japanese Yen</u>
Q1 2019	1.12 - 1.15	1.29 - 1.32	108 - 111
FY 2019	1.12 - 1.15	1.29 - 1.32	109 - 112

The outlook presented above factors in actual and planned increases in sales and channel capacity, our current visibility around major account activity, sales pipelines and forecasts. However, as we have said in the past, and will continue to reiterate, there are many things that we have no control over, including the macro-economic environment, customer procurement patterns, government and tax policies, and currency rate volatility. We do, however, have the benefit of a solid, repeatable business base; a diversified geographic and industry footprint; and a world-class customer base that have helped us to succeed and to deliver on our commitments.

GLOSSARY OF TERMS

Annual Contract Value (ACV): ACV is composed of the following:

- the annualized value of maintenance and lease contracts with start dates or anniversary dates during the period, plus
- the value of perpetual license contracts with start dates during the period, plus
- the annualized value of fixed-term services contracts with start dates or anniversary dates during the period, plus
- the value of work performed during the period on fixed-deliverable services contracts.

Example 1: A \$300,000 lease or maintenance contract with a term of January 1, 2018 - December 31, 2020 would contribute \$100,000 to ACV in each of fiscal years 2018, 2019 and 2020.

Example 2: A perpetual license valued at \$200,000 with a contract start date of March 1, 2018 sold in connection with three years of annual maintenance valued at a total of \$120,000 would contribute to ACV as follows: fiscal year 2018: \$240,000 (\$200,000 + \$40,000); fiscal years 2019 and 2020: \$40,000 in each year.

Backlog: Installment billings for periods beyond the current quarterly billing cycle and customer orders received but not processed.

Deferred Revenue: Billings made or payments received in advance of revenue recognition.

Lease or Time-Based License: A license of a stated product of the Company's software that is granted to a customer for use over a specified time period, which can be months or years in length. In addition to the use of the software, the customer is provided with access to maintenance (unspecified version upgrades and technical support) without additional charge. The revenue related to these contracts is recognized ratably over the contract period for the maintenance portion and up front for the license portion under ASC 606. Both portions were recognized ratably under ASC 605.

Perpetual / Paid-Up License: A license of a stated product and version of the Company's software that is granted to a customer for use in perpetuity. The revenue related to this type of license is typically recognized up front.

Maintenance: A contract, typically one year in duration, that is purchased by the owner of a perpetual license and that provides access to unspecified version upgrades and technical support during the duration of the contract. The revenue from these contracts is recognized ratably over the contract period.

FORWARD-LOOKING STATEMENTS AND RISK FACTORS

Information provided by the Company or its spokespersons, including the above statements and any others in this document that refer to plans and expectations for the first quarter of 2019, FY 2019 and the future are forward-looking statements. The Company cautions investors that its performance (and, therefore, any forward-looking statement) is subject to risks and uncertainties. A detailed discussion of these risks and other factors that could affect ANSYS' results is included in ANSYS' SEC filings, including the Annual Report on Form 10-K.

RECONCILIATION OF GAAP TO NON-GAAP MEASURES

ANSYS, INC. AND SUBSIDIARIES ASC 606 Reconciliation of Non-GAAP Measures (Unaudited)

	Three Months Ended		
	December 31, 2018		
<i>(in thousands, except percentages and per share data)</i>	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 415,432	\$ 2,545 (1)	\$ 417,977
Operating income	179,936	35,646 (2)	215,582
Operating profit margin	43.3%		51.6%
Net income	\$ 153,163	\$ 28,919 (3)	\$ 182,082
Earnings per share – diluted:			
Earnings per share	\$ 1.79		\$ 2.13
Weighted average shares	85,472		85,472

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$24.5 million of stock-based compensation expense, \$0.5 million of excess payroll taxes related to stock-based awards, \$7.0 million of amortization expense associated with intangible assets acquired in business combinations, \$1.2 million of transaction expenses related to business combinations and the \$2.5 million adjustment to revenue as reflected in (1) above.
- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related income tax impact of \$6.9 million and increased for rabbi trust expense of \$0.2 million.

ANSYS, INC. AND SUBSIDIARIES ASC 606 Reconciliation of Non-GAAP Measures (Unaudited)

	Twelve Months Ended		
	December 31, 2018		
<i>(in thousands, except percentages and per share data)</i>	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 1,293,636	\$ 9,442 (1)	\$ 1,303,078
Operating income	476,574	141,442 (2)	618,016
Operating profit margin	36.8%		47.4%
Net income	\$ 419,375	\$ 94,510 (3)	\$ 513,885
Earnings per share – diluted:			
Earnings per share	\$ 4.88		\$ 5.98
Weighted average shares	85,913		85,913

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$83.3 million of stock-based compensation expense, \$4.3 million of excess payroll taxes related to stock-based awards, \$40.8 million of amortization expense associated with intangible assets acquired in business combinations, \$3.5 million of transaction expenses related to business combinations and the \$9.4 million adjustment to revenue as reflected in (1) above.

- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related income tax impact of \$47.9 million and increased for a measurement-period adjustment related to the Tax Cuts and Jobs Act of \$0.9 million and rabbi trust expense of \$0.1 million.

ANSYS, INC. AND SUBSIDIARIES
ASC 605 Reconciliation of Non-GAAP Measures
(Unaudited)

Three Months Ended

<i>(in thousands, except percentages and per share data)</i>	December 31, 2018			December 31, 2017		
	GAAP Results	Adjustments	Non-GAAP Results	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 335,918	\$ 4,147 (1)	\$ 340,065	\$ 302,336	\$ 1,108 (4)	\$ 303,444
Operating income	100,422	37,248 (2)	137,670	100,679	28,582 (5)	129,261
Operating profit margin	29.9%		40.5%	33.3%		42.6%
Net income	\$ 88,570	\$ 30,005 (3)	\$ 118,575	\$ 52,585	\$ 40,183 (6)	\$ 92,768
Earnings per share – diluted:						
Earnings per share	\$ 1.04		\$ 1.39	\$ 0.61		\$ 1.07
Weighted average shares	85,472		85,472	86,709		86,709

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$24.5 million of stock-based compensation expense, \$0.5 million of excess payroll taxes related to stock-based awards, \$7.0 million of amortization expense associated with intangible assets acquired in business combinations, \$1.2 million of transaction expenses related to business combinations and the \$4.1 million adjustment to revenue as reflected in (1) above.
- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related income tax impact of \$7.4 million and increased for rabbi trust expense of \$0.2 million.
- (4) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (5) Amount represents \$13.7 million of stock-based compensation expense, \$13.4 million of amortization expense associated with intangible assets acquired in business combinations, \$0.4 million of transaction expenses related to business combinations and the \$1.1 million adjustment to revenue as reflected in (4) above.
- (6) Amount represents the impact of the adjustments to operating income referred to in (5) above, decreased for the related income tax impact of \$11.0 million, excluding the impact of the Tax Cuts and Jobs Act, and rabbi trust income of \$0.1 million, and increased for total net impacts of the Tax Cuts and Jobs Act of \$22.7 million.

ANSYS, INC. AND SUBSIDIARIES
ASC 605 Reconciliation of Non-GAAP Measures
(Unaudited)

Twelve Months Ended

<i>(in thousands, except percentages and per share data)</i>	December 31, 2018			December 31, 2017		
	GAAP Results	Adjustments	Non-GAAP Results	GAAP Results	Adjustments	Non-GAAP Results
Total revenue	\$ 1,216,469	\$ 15,583 (1)	\$ 1,232,052	\$ 1,095,250	\$ 2,856 (4)	\$ 1,098,106
Operating income	399,407	147,583 (2)	546,990	390,728	118,567 (5)	509,295
Operating profit margin	32.8%		44.4%	35.7%		46.4%
Net income	\$ 356,851	\$ 98,832 (3)	\$ 455,683	\$ 259,251	\$ 88,663 (6)	\$ 347,914
Earnings per share – diluted:						
Earnings per share	\$ 4.15		\$ 5.30	\$ 2.98		\$ 4.01
Weighted average shares	85,913		85,913	86,854		86,854

- (1) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (2) Amount represents \$83.3 million of stock-based compensation expense, \$4.3 million of excess payroll taxes related to stock-based awards, \$40.8 million of amortization expense associated with intangible assets acquired in business combinations, \$3.5 million of transaction expenses related to business combinations and the \$15.6 million adjustment to revenue as reflected in (1) above.
- (3) Amount represents the impact of the adjustments to operating income referred to in (2) above, decreased for the related income tax impact of \$49.7 million and increased for a measurement-period adjustment related to the Tax Cuts and Jobs Act of \$0.9 million and rabbi trust expense of \$0.1 million.
- (4) Amount represents the revenue not reported during the period as a result of the acquisition accounting adjustment associated with the accounting for deferred revenue in business combinations.
- (5) Amount represents \$53.2 million of stock-based compensation expense, \$49.8 million of amortization expense associated with intangible assets acquired in business combinations, \$11.7 million of restructuring charges, \$1.1 million of transaction expenses related to business combinations and the \$2.9 million adjustment to revenue as reflected in (4) above.
- (6) Amount represents the impact of the adjustments to operating income referred to in (5) above, decreased for the related income tax impact of \$52.5 million, excluding the impact of the Tax Cuts and Jobs Act, and rabbi trust income of \$0.1 million, and increased for total net impacts of the Tax Cuts and Jobs Act of \$22.7 million.

NON-GAAP MEASURES

Management uses non-GAAP financial measures (a) to evaluate the Company's historical and prospective financial performance as well as its performance relative to its competitors, (b) to set internal sales targets and spending budgets, (c) to allocate resources, (d) to measure operational profitability and the accuracy of forecasting, (e) to assess financial discipline over operational expenditures and (f) as an important factor in determining variable compensation for management and its employees. In addition, many financial analysts that follow the Company focus on and publish both historical results and future projections based on non-GAAP financial measures. The Company believes that it is in the best interest of its investors to provide this information to analysts so that they accurately report the non-GAAP financial information. Moreover, investors have historically requested, and the Company has historically reported, these non-GAAP financial measures as a means of providing consistent and comparable information with past reports of financial results.

While management believes that these non-GAAP financial measures provide useful supplemental information to investors, there are limitations associated with the use of these non-GAAP financial measures. These non-GAAP financial measures are not prepared in accordance with GAAP, are not reported by all the Company's competitors and may not be directly comparable to similarly titled measures of the Company's competitors due to potential differences in the exact method of calculation. The Company compensates for these limitations by using these non-GAAP financial measures as supplements to GAAP financial measures and by reviewing the reconciliations of the non-GAAP financial measures to their most comparable GAAP financial measures.

The adjustments to these non-GAAP financial measures, and the basis for such adjustments, are outlined below:

Acquisition accounting for deferred revenue and its related tax impact. Historically, the Company has consummated acquisitions in order to support its strategic and other business objectives. In accordance with the fair value provisions applicable to the accounting for business combinations, acquired deferred revenue is often recorded on the opening balance sheet at an amount that is lower than the historical carrying value. Although this acquisition accounting requirement has no impact on the Company's business or cash flow, it adversely impacts the Company's reported GAAP revenue in the reporting periods following an acquisition. In order to provide investors with financial information that facilitates comparison of both historical and future results, the Company provides non-GAAP financial measures which exclude the impact of the acquisition accounting adjustment. The Company believes that this non-GAAP financial adjustment is useful to investors because it allows investors to (a) evaluate the effectiveness of the methodology and information used by management in its financial and operational decision-making, and (b) compare past and future reports of financial results of the Company as the revenue reduction related to acquired deferred revenue will not recur when related annual lease licenses and software maintenance contracts are renewed in future periods.

Amortization of intangible assets from acquisitions and its related tax impact. The Company incurs amortization of intangible assets, included in its GAAP presentation of amortization expense, related to various acquisitions it has made. Management excludes these expenses and their related tax impact for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company because these costs are fixed at the time of an acquisition, are then amortized over a period of several years after the acquisition and generally cannot be changed or influenced by management after the acquisition. Accordingly, management does not consider these expenses for purposes of evaluating the performance of the Company during the applicable time period after the acquisition, and it excludes such expenses when making decisions to allocate resources. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the effectiveness of the methodology and information used by management in its financial and operational decision-making, and (b) compare past reports of financial results of the Company as the Company has historically reported these non-GAAP financial measures.

Stock-based compensation expense and its related tax impact. The Company incurs expense related to stock-based compensation included in its GAAP presentation of cost of software licenses; cost of maintenance and service; research and development expense; and selling, general and administrative expense. This non-GAAP adjustment also includes excess payroll tax expense related to stock-based compensation. Stock-based compensation expense (benefit) incurred in connection with the Company's deferred compensation plan held in a rabbi trust includes an offsetting benefit (charge) recorded in other income (expense). Although stock-based compensation is an expense of the Company and viewed as a form of compensation, management excludes these expenses for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company. Management similarly excludes income (expense) related to assets held in a rabbi trust in connection with the Company's deferred compensation plan. Specifically, the Company excludes stock-based compensation and income (expense) related to assets held in the deferred compensation plan rabbi trust during its annual budgeting process and its quarterly and annual assessments of the Company's and management's performance. The annual budgeting process is the primary mechanism whereby the Company

allocates resources to various initiatives and operational requirements. Additionally, the annual review by the board of directors during which it compares the Company's historical business model and profitability to the planned business model and profitability for the forthcoming year excludes the impact of stock-based compensation. In evaluating the performance of senior management and department managers, charges related to stock-based compensation are excluded from expenditure and profitability results. In fact, the Company records stock-based compensation expense into a stand-alone cost center for which no single operational manager is responsible or accountable. In this way, management can review, on a period-to-period basis, each manager's performance and assess financial discipline over operational expenditures without the effect of stock-based compensation. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting as well as comparability with competitors' operating results.

Restructuring charges and the related tax impact. The Company occasionally incurs expenses for restructuring its workforce included in its GAAP presentation of cost of software licenses; cost of maintenance and service; research and development expense; and selling, general and administrative expense. Management excludes these expenses for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company, as it generally does not incur these expenses as a part of its operations. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting as well as comparability with competitors' operating results.

Transaction costs related to business combinations. The Company incurs expenses for professional services rendered in connection with business combinations, which are included in its GAAP presentation of selling, general and administrative expense. These expenses are generally not tax-deductible. Management excludes these acquisition-related transaction expenses, derived from announced acquisitions, for the purpose of calculating non-GAAP operating income, non-GAAP operating profit margin, non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company, as it generally would not have otherwise incurred these expenses in the periods presented as a part of its operations. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting as well as comparability with competitors' operating results.

Tax Cuts and Jobs Act. The Company recorded charges in its income tax provision related to the enactment of the Tax Cuts and Jobs Act, specifically for the transition tax related to unrepatriated cash and the impacts of the tax rate change on net deferred tax assets. Management excludes these charges for the purpose of calculating non-GAAP net income and non-GAAP diluted earnings per share when it evaluates the continuing operational performance of the Company, as (i) the charges are not expected to recur as part of its normal operations and (ii) the charges resulted from the extremely infrequent event of major U.S. tax reform, the last such reform having occurred in 1986. The Company believes that these non-GAAP financial measures are useful to investors because they allow investors to (a) evaluate the Company's operating results and the effectiveness of the methodology used by management to review the Company's operating results, and (b) review historical comparability in the Company's financial reporting.

Non-GAAP financial measures are not in accordance with, or an alternative for, GAAP. The Company's non-GAAP financial measures are not meant to be considered in isolation or as a substitute for comparable GAAP financial measures and should be read only in conjunction with the Company's consolidated financial statements prepared in accordance with GAAP.

The Company has provided a reconciliation of the non-GAAP financial measures to the most directly comparable GAAP financial measures as listed below:

GAAP Reporting Measure

Revenue
Operating Income
Operating Profit Margin
Net Income
Diluted Earnings Per Share

Non-GAAP Reporting Measure

Non-GAAP Revenue
Non-GAAP Operating Income
Non-GAAP Operating Profit Margin
Non-GAAP Net Income
Non-GAAP Diluted Earnings Per Share

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