



**PTC PREPARED REMARKS
FIRST QUARTER FISCAL 2018
January 17, 2018**

Please refer to the "Important Disclosures" section of these prepared remarks for important information about our operating metrics (including Subscription ACV, License and Subscription Bookings, and Subscription % of Bookings), GAAP and non-GAAP definitions, and other important disclosures. Additional financial information is provided in the PTC Financial Data Tables posted with these prepared remarks to PTC's Investor Relations website at investor.ptc.com.

Any reference to "total recurring software revenue" or "recurring software revenue" means the sum of subscription revenue and support revenue. Any reference to "total software revenue" or "software revenue" means the sum of subscription revenue, support revenue and perpetual license revenue. "Subscription revenue" includes cloud services revenue.

Q1'18 Results vs. October 25, 2017 Guidance

Operating Measures	Guidance		Results
	Q1'18 Low	Q1'18 High	Actual
In millions			
Subscription ACV	\$28	\$31	\$34
License and Subscription Bookings	\$82	\$92	\$104
Subscription % of Bookings	68%	68%	67%

Financial Measures	GAAP Guidance		GAAP Results	Non-GAAP Guidance		Non-GAAP Results	Non-GAAP at Guidance Mix ⁽¹⁾
	Q1'18 Low	Q1'18 High		Q1'18 Low	Q1'18 High		
In millions, except per share amounts							
Subscription Revenue	\$98	\$100	\$100	\$98	\$100	\$100	\$100
Support Revenue	\$132	\$132	\$131	\$132	\$132	\$131	\$131
Recurring Software Revenue	\$230	\$232	\$231	\$230	\$232	\$231	\$231
Perpetual License Revenue	\$27	\$30	\$34	\$27	\$30	\$34	\$33
Software Revenue	\$257	\$262	\$265	\$257	\$262	\$265	\$265
Professional Services Revenue	\$40	\$40	\$41	\$40	\$40	\$42	\$42
Total Revenue	\$297	\$302	\$307	\$297	\$302	\$307	\$306
Operating Expense	\$199	\$202	\$206	\$176	\$180	\$183	\$183
Operating Margin	5%	7%	6%	16%	17%	17%	16%
Tax Rate	25%	25%	(114%)	11%	9%	9%	9%
EPS	\$0.03	\$0.05	\$0.12	\$0.28	\$0.32	\$0.31	\$0.30

⁽¹⁾ Operating measure that adjusts Non-GAAP results to guidance mix of 68% vs. actual Q1'18 mix of 67% and includes other adjustments as described in "Important Disclosures" set forth below.

Key Highlights of Operating Measures

In millions	Q1'18	YoY	YoY CC	Management Comments
License and Subscription Bookings	\$104	16%	11%	<ul style="list-style-type: none"> Q1'18 bookings of \$104M were \$12M above the high end of our guidance range of \$82M to \$92M. Bookings grew 16% as reported and 11% in constant currency despite an eight-figure IoT mega-deal in the Americas in a strong Q1'17. Strength in subscription bookings drove the majority of the beat. The quarter included one mega-deal that was just under \$7 million. We saw continued strength across the product portfolio, particularly from PLM, CAD, and IoT (when adjusting for an eight-figure mega-deal in Q1'17), which all grew well above our estimated market growth rates. Additionally, our global channel continues to exceed expectations, growing in double-digits for the eighth consecutive quarter. Geographically, Europe continues to perform well, growing 35% YoY (23% CC); APAC grew 26% YoY (21% CC), driven by China and Korea, and helped by modest YoY growth in Japan; and Americas declined 3% YoY due to the difficult compare with the eight-figure IoT mega-deal in Q1'17. Excluding the Q1'17 mega-deal, the Americas would have grown greater than 30% YoY. We estimate that the discontinuation of new perpetual license sales in the Americas and Western Europe as of January 1, 2018 resulted in approximately \$4M of last time perpetual buys.
Subscription ACV	\$34	18%	13%	<ul style="list-style-type: none"> Q1'18 new subscription ACV of \$34 million was \$3M above the high end of our guidance range of \$28M to \$31M due to strong bookings in the quarter and a higher subscription mix YoY.
Subscription % of Bookings	67%	2%	2%	<ul style="list-style-type: none"> Q1'18 subscription mix of 67% was one percentage point below our guidance of 68%, due in part to a higher than anticipated volume of perpetual bookings in the quarter ahead of the discontinuation of new perpetual license sales in the Americas and Western Europe, excluding Kepware, as of January 1, 2018. We estimate that approximately \$4M of perpetual bookings were associated with last-time perpetual buys, which negatively impacted subscription mix by approximately three percentage points.



Key Highlights of Quarterly Financial Measures

In millions, except per share amounts	Q1'18	YoY	YoY CC	Management Comments
Software Revenue: GAAP Non-GAAP	\$265 \$265	10% 10%	8% 8%	<ul style="list-style-type: none"> Software revenue grew double digits for the second consecutive quarter. Recurring software revenue grew 12% YoY in Q1'18 and has now grown double-digits for four consecutive quarters, demonstrating the momentum we have been building due to the success of our subscription transition program and continued bookings growth. Please note that Q1'18 had one less day than Q1'17, which we estimate negatively impacted recurring software revenue growth by approximately 1 percentage point.
Total Revenue: GAAP Non-GAAP	\$307 \$307	7% 7%	4% 4%	<ul style="list-style-type: none"> Total revenue grew more slowly than software revenue due to our strategy of leveraging our services partner ecosystem, which led to a 10% decline in professional services revenue YoY.
EPS: GAAP Non-GAAP	\$0.12 \$0.31	249% 17%	158% 15%	<ul style="list-style-type: none"> GAAP EPS improved by \$0.20 YoY in Q1'18 due to a combination of revenue growth, lower restructuring charges in the quarter (\$0.1M in Q1'18 vs. \$6.3M in Q1'17), disciplined expense management, and a tax benefit from new US tax legislation (this tax benefit is excluded from our non-GAAP results). Non-GAAP EPS improved by \$0.05 YoY in Q1'18 due to a combination of revenue growth and disciplined expense management.



Software Revenue Performance by Group
All references are to GAAP revenue, unless otherwise noted

In millions	Q1'18	YoY	YoY CC	Management Comments
Solutions Software Revenue	\$239	9%	7%	<ul style="list-style-type: none"> Solutions software revenue growth was driven by strong CAD, PLM and global channel bookings. Solutions recurring software revenue grew 11% YoY and has grown double-digits for four consecutive quarters. As our transition matures, recurring software revenue growth is expected to accelerate due to the compounding benefit of a subscription business model, driving accelerated total software revenue growth.
IoT Software Revenue	\$26	23%	22%	<ul style="list-style-type: none"> Excluding an eight-figure IoT mega-deal from Q1'17, IoT bookings once again grew above estimated market growth rates of 30-40%. IoT software revenue grew 23% YoY and 4% sequentially; recurring software revenue grew 31% YoY and 10% sequentially on continued strong bookings growth. As our transition matures, recurring software revenue growth is expected to accelerate due to the compounding benefit of a subscription business model, driving accelerated total software revenue growth.

Software Revenue Performance by Region
All references are to GAAP revenue, unless otherwise noted

In millions	Q1'18	YoY	YoY CC	Management Comments
Americas Software Revenue	\$113	6%	5%	<ul style="list-style-type: none"> Americas recurring software revenue has grown double-digits for four consecutive quarters. Americas bookings declined 3% YoY due to a tough compare with an eight-figure IoT mega-deal in Q1'17. Excluding the mega-deal, Americas bookings would have grown greater than 30% YoY.
Europe Software Revenue	\$101	21%	14%	<ul style="list-style-type: none"> Europe recurring software revenue has grown double-digits for four consecutive quarters in constant currency. Europe bookings grew 35% YoY and 23% in CC, continuing its run of strong bookings performance.
APAC Software Revenue	\$51	3%	3%	<ul style="list-style-type: none"> APAC recurring software revenue grew 7%, slightly behind the other regions largely due to a bookings decline in FY'17. However, APAC bookings grew 26% YoY and 21% in constant currency, improving from a difficult FY'17, driven by growth in China and Korea. Recovery in Japan continued, with modest bookings growth YoY.

Operating Performance

All references are to GAAP revenue, unless otherwise noted

In millions	Q1'18	Management Comments
<u>Professional Services</u> <u>Gross Margin:</u> GAAP Non-GAAP	 12% 17%	<ul style="list-style-type: none"> Our Q1'18 non-GAAP margin of 17% is slightly below our expectation for the quarter primarily due to a revenue deferral related to a PO that was not received until January 2nd (our fiscal Q2) for work performed in Q1. We expect to achieve our target non-GAAP professional services gross margin of 20% in FY'18.
<u>Operating Expense:</u> GAAP Non-GAAP	 \$206 \$183	<ul style="list-style-type: none"> GAAP operating expenses were above the high end of our guidance by \$4M due to a combination of higher commissions related to bookings over-performance, incremental stock-based compensation expenses and the impact from changes in foreign currency rates. Non-GAAP operating expenses were above the high end of our guidance by \$3M due primarily to higher commissions related to bookings over-performance as well as the impact from changes in foreign currency rates.
<u>Operating Margin:</u> GAAP Non-GAAP	 6% 17%	<ul style="list-style-type: none"> GAAP operating margin of 6% was at the midpoint of our guidance range and an improvement of 410 basis points YoY and non-GAAP operating margin of 16.5% was at the midpoint of our guidance range and an improvement of 110 basis points YoY. Both GAAP and non-GAAP operating margin improved despite (1) a higher bookings subscription mix in the quarter than in the same period last year (67% vs. 65%), and (2) higher commissions on higher bookings.
<u>Tax Rate:</u> GAAP Non-GAAP	 (114%) 9%	<ul style="list-style-type: none"> Our GAAP tax rate was impacted by a \$7M non-cash benefit related to the enactment of the US Tax Cuts and Jobs Act in December 2017, as well as a \$0.5M non-cash benefit related to the new stock compensation accounting guidance. We have excluded these benefits from our non-GAAP results.



Other Highlights in Quarterly and Annual Operating Performance

- In Q1'18, subscription bookings exceeded the high end of our guidance range and represented 67% of total bookings, one percentage point lower than our guidance of 68% and two percentage points higher than our Q1'17 bookings mix of 65%. We estimate that approximately \$4M of perpetual bookings were associated with last-time perpetual buys, which negatively impacted subscription mix by approximately three percentage points. Programs promoting the benefits of subscription as well as our support conversion program are driving our ongoing success in our transition to a subscription business model.
- For Q1'18, annualized recurring revenue (ARR) was approximately \$928 million, which grew 13% or \$109 million year-over-year and grew 3% or \$23 million sequentially. ARR has now grown double-digits for four consecutive quarters. Due to our calculation methodology, quarterly variability in this metric should be expected, primarily due to the linearity of support billings during the year and the percentage of on-time renewals, the amount of support win-backs in a quarter, and whether the win-backs are traditional support, with immediate revenue recognition of the past-due amount, or a conversion to subscription, where all revenue is recognized over the future period. Multiple other contractual factors including ramping of committed monthly payments and other elements that may be sold with the subscription or support contract can impact the timing of revenue and calculated ARR.
- Total Deferred Revenue consists of Billed Deferred Revenue and Unbilled Deferred Revenue. Billed Deferred Revenue primarily relates to software agreements invoiced to customers for which the revenue has not yet been recognized. Unbilled Deferred Revenue is contractually committed orders for license, subscription and support with a customer for which the customer has not been invoiced and the associated revenue has not been recognized. We generally do not invoice prior to the contractual subscription start date. We do not record Unbilled Deferred Revenue on our Consolidated Balance Sheet until we invoice the customer. In Q1'18, Total Deferred Revenue grew 42% year-over-year and 7% sequentially.
- Billed Deferred Revenue grew 15% year-over-year, and declined 6% sequentially due to the timing of billings in the year. Please recall that we expected Billed Deferred Revenue to decline sequentially for this reason. Billed deferred revenue can fluctuate quarterly based upon the contractual billings dates in our recurring revenue contracts, as well as the timing of our fiscal reporting periods. Note that Q1'18 ended on December 30th this year, as opposed to December 31st in FY'17, and January 2nd in FY'16. Recurring revenue billings from December 31, 2017 to January 2, 2018 were approximately \$100 million.
- Unbilled Deferred Revenue grew 64% year-over-year and 17% sequentially. Note that the increase in unbilled deferred revenue is not due to a longer average contract duration, which remained at approximately 2 years for new subscription contracts. Also please note that we believe that Total Deferred Revenue is the most relevant indicator, as billed deferred revenue fluctuates throughout the year based upon the seasonality of our recurring revenue billings and the timing of our fiscal quarter ends. For example, recurring revenue billings from December 31, 2017 to January 2, 2018 were approximately \$100 million.

(in millions)	Q1'18 12/30/17	Q4'17 9/30/17	Q1'17 12/31/16	Q/Q % Change	Y/Y % Change
Billed Deferred Revenue	\$431	\$459	\$375	(6%)	15%
Unbilled Deferred Revenue	\$738	\$633	\$450	17%	64%
Total Deferred Revenue	\$1,169	\$1,092	\$825	7%	42%



- For Q1'18, approximately 87% of GAAP and non-GAAP software revenue came from recurring revenue streams.
- For Q1'18, cash flow provided by operating activities was \$25 million, and free cash flow was \$19 million, both of which include cash payments related to our October 2015 restructuring plan of approximately \$1 million.
- Cash, cash equivalents, and marketable securities totaled \$342 million as of December 30, 2017.
- As of December 30, 2017, gross borrowings totaled \$748 million, including \$500 million of senior notes and \$248 million outstanding under our revolving credit facility. Under our revolving credit facility, our leverage covenant is limited to 4.5 times adjusted EBITDA. Further, if our leverage covenant ratio exceeds 3.25 times adjusted EBITDA, our stock repurchases are limited to \$50 million in a year plus a \$100 million aggregate basket through June 30, 2018. Our leverage ratio at the end of Q1'18 was 2.40. As of December 30, 2017, we had approximately \$332 million available to borrow under the credit facility.
- Continuing the phased global rollout of our subscription licensing model, we separately announced that new software licenses for our core solutions and ThingWorx industrial innovation platform will be available globally only by subscription, effective January 1, 2019, with a few exceptions. Those exceptions apply to China, Korea, Taiwan, Russia, Turkey and India where we have not announced the end-of-life of perpetual licenses. Also, Kepware will continue to be available under perpetual licensing. We previously announced the transition to subscription-only licensing in the Americas and Western Europe effective January 1, 2018. Customers globally will be able to continue to use their existing perpetual licenses and renew support on active licenses.
- On December 22, 2017, the United States enacted tax reform legislation through the Tax Cuts and Jobs Act, which significantly changed existing U.S. tax laws, including a reduction in the corporate tax rate from 35% to 21%, and a move from a worldwide tax system to a territorial system. We have recorded the impact of this legislation in our Q1 GAAP earnings, resulting in a non-cash tax benefit of approximately \$7 million. In addition, we recorded a non-cash tax benefit of approximately \$0.5 million related to the new stock-based compensation accounting guidance. We have excluded these benefits from our non-GAAP results. We continue to expect our FY18 non-GAAP effective tax rate to be between 9% and 11%, and we continue to expect our long term non-GAAP effective tax rate to be between 15% and 20%. We also do not expect a significant change to our cash tax payments due to the new legislation because, while we have accumulated international earnings and profits that are subject to the new toll tax, we have offsetting tax attributes, such as NOL carryforwards and tax credits.



Net Reporting of Deferred Revenue Changes

PTC has historically reported the impact of deferred revenue changes on cash flow from operations using a "net" method. Under this "net" method, the change in deferred revenue is presented net of the change in uncollected receivables related to such deferred revenues. Particularly in quarters where we have significant billings at or near the end of a quarter (like January 1 or April 1), this presentation provides a more accurate reflection of the cash flows in the period. Under the "gross" method (illustrated on the right-side of the table below), the total change in deferred revenue on the balance sheet is presented (\$27 million, plus a \$2 million impact related to changes in foreign currency exchange rates), offset by a change in other current assets of \$51 million. Cash flow from operating activities is the same in both cases.

(in millions)	As Reported (Net)	Pro Forma (Gross)
Cash flows from operating activities:	Q1'18	Q1'18
	12/30/17	12/30/17
Net income	\$14	\$14
Stock-based comp and D&A	39	39
Accounts receivable	22	22
Deferred revenue	22	(29)
Other	(72)	(21)
Net cash provided by operating activities	\$25	\$25



Q2'18 and FY'18 Guidance

Our Q2'18 and FY'18 guidance includes the following general considerations:

- We discontinued new perpetual license sales in the Americas and Western Europe as of January 1, 2018, except for Kepware.
- A higher mix of subscription bookings is expected to benefit us over the long term, but results in lower revenue and lower earnings in the near term.
- It can be challenging to forecast the rate of customer adoption of the subscription offering in certain geographies and therefore the overall impact to near-term reported financial results.
- Global macroeconomic conditions appear to have mostly stabilized and no longer appear to be a headwind to our performance, particularly in the industrial sector, creating an improving backdrop in the more mature CAD and PLM markets, which tend to be more cyclical. These more favorable economic conditions have been factored into our guidance.
- While our performance in Japan has improved in the past two quarters, we still have work to do. Therefore, we have been cautious about our performance expectation for Japan in FY'18. In fact, while we are assuming some growth vs. FY'17, our internal plan calls for much lower bookings than in FY'14, FY'15 or FY'16.
- Our Fx assumptions in our guidance approximate current rates.

Q2'18 and FY'18 Operating Guidance

In millions	Q2'18 Low	Q2'18 High	FY'18 Low	FY'18 High	Management Comments
Subscription ACV	\$37	\$41	\$181	\$189	<ul style="list-style-type: none"> • We increased FY'18 guidance by \$4M, based on Q1'18 performance, our outlook for the remainder of the year and modest Fx tailwinds. • FY'18 guidance is up approximately 26% YoY at the low end to 32% YoY at the high end compared to FY'17, based on continued adoption of our subscription offerings and the discontinuation of new perpetual license sales (except for Kepware) in the Americas and Western Europe which went into effect January 1, 2018. • Q2'18 guidance is up approximately 11% YoY at the low end to 22% YoY at the high end compared to Q2'17.
License and Subscription Bookings	\$94	\$104	\$455	\$475	<ul style="list-style-type: none"> • We increased FY'18 guidance by \$10M, based on Q1'18 performance, our outlook for the remainder of the year and modest Fx tailwinds. • FY'18 guidance is up approximately 9% YoY at the low end to 14% YoY at the high end compared to FY'17, driven by continuing momentum from our sales execution strategy and consistent with our long-term plan. • Q2'18 guidance represents 4% YoY growth at the midpoint and 9% YoY growth at the high end, due to a difficult comparison with a strong Q2'17.
Subscription % of Bookings	79%	79%	80%	80%	<ul style="list-style-type: none"> • We still expect 80% of our bookings to be subscription in FY'18 vs. 69% in FY'17, with subscription mix exiting the year at 85% in Q4'18. • For Q2'18 we expect 79% of our bookings to be subscription, based on our current view of the pipeline and the discontinuation of new perpetual license sales (except for Kepware) in the Americas and Western Europe as of January 1, 2018.



Q2'18 and FY'18 Financial Guidance

In millions	Q2'18 Low	Q2'18 High	FY'18 Low	FY'18 High	Management Comments
Subscription Revenue	\$111	\$113	\$460	\$470	<ul style="list-style-type: none"> We increased FY'18 guidance by \$20M, based on Q1'18 performance and our outlook for the remainder of the year, due to the continued success of our subscription transition and conversion programs. FY'18 guidance is up approximately 64% YoY at the low end to 67% YoY at the high end compared to FY'17. Q2'18 guidance is up approximately 68% YoY at the low end to 71% YoY at the high end compared to Q2'17.
Support Revenue	\$126	\$126	\$510	\$510	<ul style="list-style-type: none"> We decreased FY'18 guidance by \$15M, as more customers converted their perpetual licenses to subscription in the first quarter. FY'18 guidance is down approximately 11% YoY compared to FY'17. Q2'18 guidance is down approximately 11% YoY compared to Q2'17.
Perpetual License Revenue	\$20	\$23	\$92	\$97	<ul style="list-style-type: none"> We increased FY'18 guidance by \$2M, based on Q1'18 performance and our outlook for the remainder of the year. FY'18 guidance is down approximately 29% YoY at the midpoint compared to FY'17 as an increasing proportion of our customers purchase software as a subscription. Q2'18 guidance is down approximately 24% YoY at the midpoint compared to Q2'17. New perpetual licenses are no longer available for sale in the Americas and Western Europe as of January 1, 2018, except for Kepware.
Software Revenue	\$257	\$262	\$1,062	\$1,077	<ul style="list-style-type: none"> We increased FY'18 guidance by \$7M, based on Q1'18 performance and our outlook for the remainder of the year. FY'18 guidance is up approximately 7% YoY at the low end to 9% YoY at the high end compared to FY'17, and recurring software revenue is up approximately 13% to 15% YoY compared to FY'17. Q2'18 guidance is up approximately 9% YoY at the low end to 11% YoY at the high end compared to Q2'17 and recurring software revenue is up approximately 14% to 15% YoY compared to Q2'17.
Professional Services Revenue	\$43	\$43	\$173	\$173	<ul style="list-style-type: none"> We increased FY'18 guidance by \$3M, based on Q1'18 performance and our outlook for the remainder of the year. FY'18 guidance is down approximately 3% YoY compared to FY'17 because of fewer large services engagements as we continue to emphasize more standard implementations of our products, continue to execute on our strategy of growing our service partner ecosystem, and focus on expanding our professional services gross margins. Q2'18 guidance is down approximately 6% YoY compared to Q2'17.
Total Revenue	\$300	\$305	\$1,235	\$1,250	<ul style="list-style-type: none"> We increased FY'18 guidance by \$10M, based on Q1'18 performance and our outlook for the remainder of the year, based on the continued success of our subscription transition and conversion programs, continuing momentum with our sales execution strategy and modest Fx tailwinds. FY'18 guidance is up approximately 6% YoY at the low end to 7% YoY at the high end YoY compared to FY'17. Q2'18 guidance is up approximately 7% YoY at the low end to 9% YoY at the high end compared to Q2'17.



Q2'18 and FY'18 Financial Guidance, Continued

In millions	Q2'18 Low	Q2'18 High	FY'18 Low	FY'18 High	Management Comments
Operating Expense: GAAP Non-GAAP	\$202	\$205	\$825	\$836	<ul style="list-style-type: none"> We increased FY'18 non-GAAP guidance by \$4M, and FY'18 GAAP guidance by \$12M, due to the improved outlook for bookings, associated incremental incentive compensation and a modest Fx headwind. FY'18 non-GAAP guidance is up approximately 6% YoY at the low end and 7% YoY at the high end compared to FY'17. Consistent with our long-term model, non-GAAP operating expense growth is targeted at about half of bookings growth. Approximately 200 basis points of the YoY growth is Fx.
	\$176	\$179	\$727	\$737	
Operating Margin: GAAP Non-GAAP	4%	6%	6%	7%	<ul style="list-style-type: none"> We are maintaining our FY'18 non-GAAP operating margin % guidance. FY'18 non-GAAP guidance is up approximately 105 bps YoY at the low end and 170 bps YoY at the high end; Q2'18 non-GAAP guidance is up approximately 10 bps YoY at the low end to 120 bps YoY at the high end. The increases are despite higher subscription mix guidance compared to last year. FY'18 GAAP guidance is up approximately 300 bps YoY at the midpoint and Q2'18 GAAP guidance is up approximately 230 bps YoY at the midpoint. The increases are despite higher subscription mix guidance compared to last year.
	16%	17%	17%	18%	
Tax Rate: GAAP Non-GAAP	15%	15%	(5%)	(5%)	<ul style="list-style-type: none"> Both GAAP and non-GAAP guidance are based on current estimates. Non-GAAP guidance excludes the \$7.5M tax benefit recorded in Q1'18.
	11%	9%	11%	9%	
Shares Outstanding: GAAP Non-GAAP	117	117	117	117	<ul style="list-style-type: none"> Both GAAP and non-GAAP guidance are based on current estimates.
	117	117	117	117	
EPS: GAAP Non-GAAP	\$0.01	\$0.04	\$0.28	\$0.37	<ul style="list-style-type: none"> We increased FY'18 non-GAAP guidance by \$0.02 and raised the midpoint of FY'18 GAAP guidance by \$0.05 based on Q1'18 performance and the improved outlook for the year. FY'18 non-GAAP EPS is up approximately 10% YoY at the low end to 19% YoY at the high end compared to FY'17 and FY'18 GAAP EPS is up approximately 450% YoY at the low end and 630% at the high end YoY compared to FY'17, despite the higher subscription mix guidance compared to last year. Q2'18 non-GAAP EPS is up approximately 2% YoY at the midpoint to 9% at the high end compared to Q2'17 and Q2'18 GAAP EPS improves \$0.02 YoY at the low end and \$0.05 at the high end YoY compared to Q2'17, despite the higher subscription mix guidance compared to last year.
	\$0.28	\$0.32	\$1.29	\$1.39	
Free Cash Flow Adjusted Free Cash Flow			\$195	\$205	<ul style="list-style-type: none"> We increased Free Cash Flow guidance by \$5 million to reflect our increased non-GAAP EPS outlook. FCF guidance includes approximately \$40 million of capex in FY'18, up from \$25M in FY'17, primarily due to the buildout of our new headquarters. We expect capex to decline to historical levels when the buildout is complete, which we estimate to be in Q2 of FY'19. Guidance also includes approximately \$4M of payments related to our October 2015 restructuring plan, which we exclude from Adjusted Free Cash Flow.
			\$199	\$209	



The second quarter and full year FY'18 revenue, non-GAAP operating margin and non-GAAP EPS guidance exclude the estimated items outlined below, as well as any tax effects and discrete tax items that occur (which are not known nor reflected).

In millions	Q2'18	FY'18
Effect of acquisition accounting on fair value of acquired deferred revenue	\$ 0	\$ 2
Restructuring charges	-	0
Intangible asset amortization expense	15	58
Stock-based compensation expense	21	79
Total Estimated GAAP adjustments	\$ 36	\$ 139

Long-Range Targets (Non-GAAP)

Our long-range, non-GAAP targets are noted below. Please note that these targets are included in a long-term operating model presentation posted on our investor relations website at investor.ptc.com.

- o \$1.8 billion in total revenue, growing double-digits; \$1.6 billion of software revenue, growing double-digits
- o 85% subscription mix, yielding 95% recurring software revenue
- o Non-GAAP operating margin in the low 30% range
- o Non-GAAP EPS of \$4.15, and
- o Free cash flow of \$525 million
- o Given the compounding benefit of a subscription business model, we expect operating margin, EPS, and free cash flow growth will accelerate significantly beginning in fiscal '19, including between 400 to 600 basis points of annual operating margin expansion through fiscal '21.

Please note that these future targets do not take into consideration the impact of ASC 606, which PTC will adopt as of October 1, 2018 (fiscal year 2019).

Important Disclosures

Reporting metrics and non-GAAP definitions – Management believes certain operating measures and non-GAAP financial measures provide additional meaningful information that should be considered when assessing our performance. These measures should be considered in addition to, not as a substitute for, the reported GAAP results.

Software licensing model – A majority of our software sales historically were perpetual licenses, where customers own the software license. Typically, our customers choose to pay for ongoing support, which includes the right to software upgrades and technical support, and attach rates on support are in the high 90% range with retention rates also in the 90% range. For fiscal 2016 and fiscal 2017, a majority of our new license bookings have consisted of ratably recognized subscriptions. Under a subscription, customers pay a periodic fee for the continuing right to use our software, including access to technical support. They may also elect to use our cloud services and have us manage the application. We began offering subscription pricing as an option for most PTC products in Q1 FY'15, and beginning in January of 2018, we will no longer offer new perpetual licenses in the Americas and Western Europe, except for Kepware. We believe subscription has proved attractive to customers as it: (1) increases customer flexibility and opportunity to change their mix of licenses; (2) lowers the initial purchase commitment; and (3) allows customers to use operating rather than capital budgets. Over a four to five-year period we believe the value of a subscription is likely to exceed that of a perpetual license, assuming similar seat counts. However, initial revenue, operating margin, and EPS will be lower as revenue is recognized ratably in a subscription, rather than up front.

Bookings Metrics – We offer both perpetual and subscription licensing options to our customers, as well as monthly software rentals for certain products. Given the difference in revenue recognition between the



sale of a perpetual software license (revenue is recognized at the time of sale) and a subscription (revenue is deferred and recognized ratably over the subscription term), we use bookings for internal planning, forecasting and reporting of new license and cloud services transactions. In order to normalize between perpetual and subscription licenses, we define subscription bookings as the subscription annualized contract value (subscription ACV) of new subscription bookings multiplied by a conversion factor of 2. We arrived at the conversion factor of 2 by considering a number of variables including pricing, support, length of term, and renewal rates. We define subscription ACV as the total value of a new subscription booking divided by the term of the contract (in days) multiplied by 365. If the term of the subscription contract is less than a year, the ACV is equal to the total contract value. Note that both in FY'16 as well as FY'17, the weighted average contract length of our subscription bookings was approximately 2 years.

License and subscription bookings equal subscription bookings (as described above) plus perpetual license bookings plus any monthly software rental bookings during the period. Total ACV equals subscription ACV (as described above) plus the annualized value of incremental monthly software rental bookings during the period.

Because subscription bookings is a metric we use to approximate the value of subscription sales if sold as perpetual licenses, it does not represent the actual revenue that will be recognized with respect to subscription sales or that would be recognized if the sales were perpetual licenses, nor does the annualized value of monthly software rental bookings represent the value of any such booking.

Annualized Recurring Revenue (ARR) - To help investors understand and assess the success of our subscription transition, we provide an Annualized Recurring Revenue operating measure. Annualized Recurring Revenue (ARR) for a given quarter is calculated by dividing the portion of non-GAAP software revenue attributable to subscription and support for the quarter by the number of days in the quarter and multiplying by 365. (A related metric is Subscription ARR, which is calculated by dividing the portion of non-GAAP revenue attributable to subscription for the quarter by the number of days in the quarter and multiplying by 365.) ARR should be viewed independently of revenue and deferred revenue as it is an operating measure and is not intended to be combined with or to replace either of those items. ARR is not a forecast of future revenue, which can be impacted by contract expiration and renewal rates, and does not include revenue reported as perpetual license or professional services revenue in our consolidated statement of income. Subscription and support revenue and ARR disclosed in a quarter can be impacted by multiple factors, including but not limited to (1) the timing of the start of a contract or a renewal, including the impact of on-time renewals, support win-backs, and support conversions, which may vary by quarter, (2) the ramping of committed monthly payments under a subscription agreement over time, and (3) multiple other contractual factors with the customer including other elements sold with the subscription or support contract. These factors can result in variability in disclosed ARR.

Navigate Allocation -- Revenue and bookings for Navigate, a ThingWorx-based IoT solution for PLM are allocated 50% to Solutions and 50% to IoT.

Foreign Currency Impacts on our Business – We have a global business, with Europe and Asia historically representing approximately 60% of our revenue, and fluctuation in foreign currency exchange rates can significantly impact our results. We do not forecast currency movements; rather we provide detailed constant currency commentary. We employ a hedging strategy to limit our exposure to currency risk.

Constant Currency Change Measure (YoY CC) – Year-over-year changes in revenue on a constant currency basis compare reported results excluding the effect of any hedging converted into U.S. dollars based on the corresponding prior year's foreign currency exchange rates to reported results for the comparable prior year period.



Important Information about Non-GAAP References

PTC provides non-GAAP supplemental information to its financial results. We use these non-GAAP measures, and we believe that they assist our investors, to make period-to-period comparisons of our operational performance because they provide a view of our operating results without items that are not, in our view, indicative of our core operating results. We believe that these non-GAAP measures help illustrate underlying trends in our business, and we use the measures to establish budgets and operational goals, communicated internally and externally, for managing our business and evaluating our performance. We believe that providing non-GAAP measures affords investors a view of our operating results that may be more easily compared to the results of peer companies. In addition, compensation of our executives is based in part on the performance of our business based on these non-GAAP measures. However, non-GAAP information should not be construed as an alternative to GAAP information as the items excluded from the non-GAAP measures often have a material impact on our financial results and such items often recur. Management uses, and investors should consider, non-GAAP measures in conjunction with our GAAP results.

Non-GAAP revenue, non-GAAP operating expense, non-GAAP operating margin, non-GAAP gross profit, non-GAAP gross margin, non-GAAP net income and non-GAAP EPS exclude the effect of the following items: fair value of acquired deferred revenue, fair value adjustment to deferred services cost, stock-based compensation, amortization of acquired intangible assets, acquisition-related charges included in general and administrative costs, restructuring charges, and income tax adjustments. Additional information about the items we exclude from our non-GAAP financial measures and the reasons we exclude them can be found in "Non-GAAP Financial Measures" beginning on page 33 of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

A reconciliation of non-GAAP measures to GAAP results is provided within these prepared remarks.

PTC also provides information on "free cash flow" and "adjusted free cash flow" to enable investors to assess our ability to generate cash without incurring additional external financings and to evaluate our performance against our announced long term goal of returning approximately 40% of our free cash flow to shareholders via stock repurchases. Free cash flow is net cash provided by (used in) operating activities less capital expenditures; adjusted free cash flow is free cash flow excluding restructuring payments and certain identified non-ordinary course payments. Free cash flow and adjusted free cash flow are not measures of cash available for discretionary expenditures.

Forward-Looking Statements

Statements in this press release that are not historic facts, including statements about our second quarter and full fiscal 2018 targets, and other future financial and growth expectations and targets, and anticipated tax rates, are forward-looking statements that involve risks and uncertainties that could cause actual results to differ materially from those projected. These risks include: the macroeconomic and/or global manufacturing climates may deteriorate; customers may not purchase our solutions when or at the rates we expect; our businesses, including our Internet of Things (IoT) business, may not expand and/or generate the revenue we expect; foreign currency exchange rates may vary from our expectations and thereby affect our reported revenue and expense; the mix of revenue between license & subscription solutions, support and professional services could be different than we expect, which could impact our EPS results; our transition to subscription-only licensing in the Americas and Western Europe could adversely affect sales and revenue; sales of our solutions as subscriptions may not have the longer-term effect on revenue and earnings that we expect; we may be unable to expand our partner ecosystem as we expect and our partners may not generate the revenue we expect; we may be unable to improve performance in Japan when or as we expect; we may be unable to generate sufficient operating cash flow to return 40% of free cash flow to shareholders and other uses of cash or our credit facility limits could preclude share repurchases. In addition, our assumptions concerning our future GAAP and non-GAAP effective income tax rates are based on estimates and other factors that could change, including the geographic mix of our revenue, expenses and profits. Other risks and uncertainties that could cause actual results to differ



materially from those projected are detailed from time to time in reports we file with the Securities and Exchange Commission, including our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q.



PTC Inc.
NON-GAAP FINANCIAL MEASURES AND RECONCILIATIONS (UNAUDITED)
(in thousands, except per share data)

	Three Months Ended	
	December 30, 2017	December 31, 2016
GAAP revenue	\$ 306,644	\$ 286,327
Fair value adjustment of acquired deferred subscription revenue	117	646
Fair value adjustment of acquired deferred services revenue	246	268
Non-GAAP revenue	<u>\$ 307,007</u>	<u>\$ 287,241</u>
GAAP gross margin	\$ 223,686	\$ 204,212
Fair value adjustment of acquired deferred revenue	363	914
Fair value adjustment to deferred services cost	(104)	(113)
Stock-based compensation	2,927	2,894
Amortization of acquired intangible assets included in cost of revenue	6,675	6,388
Non-GAAP gross margin	<u>\$ 233,547</u>	<u>\$ 214,295</u>
GAAP operating income	\$ 17,472	\$ 4,561
Fair value adjustment of acquired deferred revenue	363	914
Fair value adjustment to deferred services cost	(104)	(113)
Stock-based compensation	18,331	17,988
Amortization of acquired intangible assets included in cost of revenue	6,675	6,388
Amortization of acquired intangible assets	7,821	8,067
Acquisition-related charges included in general and administrative costs	7	169
Restructuring charges, net	105	6,285
Non-GAAP operating income ⁽¹⁾	<u>\$ 50,670</u>	<u>\$ 44,259</u>
GAAP net income (loss)	\$ 13,877	\$ (9,141)
Fair value adjustment of acquired deferred revenue	363	914
Fair value adjustment to deferred services cost	(104)	(113)
Stock-based compensation	18,331	17,988
Amortization of acquired intangible assets included in cost of revenue	6,675	6,388
Amortization of acquired intangible assets	7,821	8,067
Acquisition-related charges included in general and administrative costs	7	169
Restructuring charges, net	105	6,285
Income tax adjustments ⁽²⁾	(11,000)	148
Non-GAAP net income	<u>\$ 36,075</u>	<u>\$ 30,705</u>
GAAP diluted earnings (loss) per share	\$ 0.12	\$ (0.08)
Fair value adjustment of acquired deferred revenue	-	0.01
Stock-based compensation	0.16	0.15
Amortization of acquired intangibles	0.12	0.12
Acquisition-related charges	-	-
Restructuring charges, net	-	0.05
Income tax adjustments	(0.09)	-
Non-GAAP diluted earnings per share	<u>\$ 0.31</u>	<u>\$ 0.26</u>
GAAP diluted weighted average shares outstanding	117,656	115,290
Dilutive effect of stock-based compensation plans	-	1,735
Non-GAAP diluted weighted average shares outstanding	<u>117,656</u>	<u>117,025</u>

(1) Operating margin impact of non-GAAP adjustments:

	Three Months Ended	
	December 30, 2017	December 31, 2016
GAAP operating margin	5.7%	1.6%
Fair value of acquired deferred revenue	0.1%	0.3%
Fair value adjustment to deferred services cost	0.0%	0.0%
Stock-based compensation	6.0%	6.3%
Amortization of acquired intangibles	4.7%	5.0%
Acquisition-related charges	0.0%	0.1%
Restructuring charges, net	0.0%	2.2%
Non-GAAP operating margin	<u>16.5%</u>	<u>15.4%</u>

(2) We have recorded a full valuation allowance against our U.S. net deferred tax assets and a valuation allowance against net deferred tax assets in certain foreign jurisdictions. As we are profitable on a non-GAAP basis, the 2018 and 2017 non-GAAP tax provisions are being calculated assuming there is no valuation allowance. Income tax adjustments reflect the tax effects of non-GAAP adjustments which are calculated by applying the applicable tax rate by jurisdiction to the non-GAAP adjustments listed above. We have recorded the impact of the Tax Cuts and Jobs Act in our Q1'18 GAAP earnings, resulting in a non-cash benefit of approximately \$7 million. We have excluded this benefit from our non-GAAP results.