PTC
THIRD QUARTER FISCAL 2017
PREPARED REMARKS
JULY 19, 2017

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.

Q3'17 Results vs. April 19, 2017 Guidance

Operating Measures	Guidance		Results
In millions	Q3'17 Low	Q3'17 High	Actual
Subscription ACV	$32	$36	**$29**
License and Subscription Bookings	$95	$105	**$90**
Subscription % of Bookings	68%	68%	**64%**

Financial Measures	GAAP Guidance		GAAP Results	Non-GAAP Guidance		Non-GAAP Results	Non-GAAP at Guidance Mix(1)
In millions, except per share amounts	Q3'17 Low	Q3'17 High		Q3'17 Low	Q3'17 High		
Subscription Revenue	$74	$75	**$75**	$74	$75	**$75**	**$75**
Support Revenue	$140	$140	**$140**	$140	$140	**$140**	**$140**
Perpetual License Revenue	$29	$33	**$32**	$29	$33	**$32**	**$29**
Software Revenue	$243	$248	**$248**	$243	$248	**$248**	**$244**
Professional Services Revenue	$45	$45	**$44**	$45	$45	**$44**	**$44**
Total Revenue	$288	$293	**$291**	$288	$293	**$292**	**$288**
Operating Expense	$195	$200	**$198**	$168	$173	**$174**	**$174**
Operating Margin	2%	4%	**4%**	15%	16%	**15%**	**14%**
Tax Rate	5%	5%	**236%**	10%	8%	**5%**	**5%**
EPS	($0.04)	$0.00	**($0.01)**	$0.24	$0.29	**$0.28**	**$0.25**

(1) Operating measure that adjusts Non-GAAP results to guidance mix of 68% vs. actual Q3'17 mix of 64% and includes other adjustments as described in "Important Disclosures" set forth below.

Key Highlights of Quarterly Operating Measures

In millions	Q3'17	YoY	YoY CC	Q3 YTD	YTD	YTD CC	Management Comments
Subscription ACV	$29	(6%)	(5%)	$91	42%	43%	• Third quarter subscription ACV was below our guidance of $32M to $36M, largely due to sales execution issues in Japan (see below for additional information). • On a YTD basis, subscription ACV increased 42% over the prior year as reported and 43% constant currency.
License and Subscription Bookings	$90	(14%)	(13%)	$275	6%	7%	• Third quarter bookings were below the low end of our guidance of $95M, largely due to sales execution issues in Japan. Japan missed its operating plan for the quarter by $11M, and YoY bookings declined $12M. YTD, Japan bookings declined $20M. • In the first-half of the year, exceptionally strong performance in the Americas, Europe, and in our global channel offset weak performance in Japan, but that was not the case in Q3. There were a few large deals in play in the Americas and Europe that could have offset the impact in Japan, but we were unable to close them in the quarter. • About a year ago, we reassigned the Japan country manager to the US to drive some larger global initiatives. During his seven years running Japan, he had a strong track record, growing bookings at a CAGR of 14%. We thought we had adequate bench strength to backfill the sales leadership in Japan, but it is now apparent we did not. We have relocated the former country manager back to Japan where he is leading a full remediation plan. • For the quarter, total bookings were down 14% from a very strong Q3'16, due almost entirely to Japan. Q3'16 also presented a tough comparison, as bookings grew 32% YoY over Q3'15. • On a YTD basis, total bookings increased 6% as reported and 7% in constant currency. On a YTD constant currency basis, Americas bookings have increased 17%, Europe bookings have increased 26%, and globally our channel has grown in the double-digits for six quarters.
Subscription % of Bookings	64%	10%	10%	67%	37%	37%	• Third quarter bookings mix was below our guidance of 68%, due to the impact of the bookings shortfall (deals that did not close were predominantly subscription). Additionally, one large (>$1M) IoT deal closed as a perpetual license transaction. • We previously announced the end-of-life of perpetual licenses in the Americas and Western Europe as of January 1, 2018 for all of our products except Kepware.

Key Highlights of Quarterly Financial Measures

In millions, except per share amounts	Q3'17	YoY	YoY CC	Management Comments
Total Revenue **GAAP** **Non-GAAP**	 $291 $292	 1% 1%	 2% 2%	• Total GAAP and non-GAAP revenue were both near the high-end of our guidance range of $288M to $293M and grew 1% YoY, despite a higher subscription mix than last year (64% vs. 58%) and professional services revenue declining by $7M YoY, as expected.
Software Revenue	$248	4%	5%	• Software revenue was at the high end of our guidance range of $243M to $248M and grew 4% YoY despite a higher subscription mix than last year (64% vs. 58%) and $12M less perpetual license revenue. • Software revenue has grown YoY for the past two quarters, further demonstrating that we have exited the subscription trough. Recurring software revenue grew 11% YoY. • Subscription revenue increased 135% or $43M YoY, perpetual license revenue declined 28% or $12M YoY, and support revenue declined 13% or $21M YoY as we continue to transition to a subscription-based business model. • The decline in support is due to the mix of subscription bookings and support conversions to subscription.
EPS **GAAP** **Non-GAAP**	 ($0.01) $0.28	 (131%) 7%	 (161%) 6%	• Both GAAP and non-GAAP EPS results were at the high end of our guidance ranges for the quarter. • GAAP EPS decreased $0.04 year-over-year to a loss of $0.01 due in part to a less favorable tax rate in the period. • Non-GAAP EPS increased $0.02 year-over-year to $0.28 despite a higher subscription mix than last year (64% vs. 58%).

Quarterly Software Revenue Performance by Group

All references to revenue are to GAAP revenue, unless otherwise noted

In millions	Q3'17	YoY	YoY CC	Management Comments
Solutions Software Revenue	$222	2%	3%	• Despite a higher subscription mix, CAD and PLM delivered low-single digit software revenue growth in the quarter. • SLM declined year-over-year due to an increase in subscription mix of approximately 1700 basis points. Recurring SLM revenue grew approximately 15% YoY and 2% sequentially.
IoT Software Revenue	$25	21%	22%	• Strong IoT software revenue growth was the result of a series of strong bookings quarters driven by the continued adoption and expansion of the ThingWorx platform. • We booked one large (>$1M) perpetual deal in the quarter, which influences some of the comparisons, yet recurring software revenue (subscription plus support) increased 30% year-over-year and 8% sequentially.

Quarterly Software Revenue Performance by Region

All references to revenue are to GAAP revenue, unless otherwise noted

In millions	Q3'17	YoY	YoY CC	Management Comments
Americas Software Revenue	$108	3%	3%	• Americas bookings declined 9% year-over-year against a strong Q3'16 when bookings grew 38% YoY over Q3'15, and increased 17% year-to-date. • Subscription mix of greater than 75%. • Subscription revenue grew 135% year-over-year.
Europe Software Revenue	$91	10%	13%	• Europe bookings increased 25% year-over-year in constant currency and 26% year-to-date in constant currency. • Subscription mix of greater than 75% in our direct business. • Subscription revenue grew 140% year-over-year.
APAC Software Revenue	$49	(3%)	(5%)	• APAC bookings declined 46% year-over-year in constant currency and 22% year-to-date in constant currency, largely due to sales execution issues in Japan, where bookings declined 74% year-over-year in constant currency and 54% year-to-date in constant currency. • Subscription mix, which was weighed down by a number of large subscription deals in Japan that did not close in the quarter, declined sequentially. • Subscription revenue grew 128% year-over-year.

Quarterly Operating Performance

In millions	Q3'17 GAAP	Q3'17 Non-GAAP	Management Comments
Professional Services Gross Margin	15%	19%	• We delivered solid professional services results for the quarter, with revenue of $44M, margins ahead of expectations and partner bookings growing 49% YoY.
Operating Expense	$198	$174	• GAAP and non-GAAP operating expenses were both down approximately $1M YoY.
Operating Margin	4%	15%	• Despite a higher subscription mix than last year (64% vs. 58%), both GAAP and non-GAAP operating margins improved year-over-year. • GAAP operating margin was at the high end of our guidance range of 2% to 4% and improved approximately 120 basis points from a year ago. • Non-GAAP operating margin was within our guidance range of 15% to 16% and improved approximately 130 basis points from a year ago.
Tax Rate	236%	5%	

Other Highlights in Quarterly and Annual Operating Performance

- In Q3'17, subscription bookings represented 64% of total bookings, below our guidance of 68%. Subscription mix results were impacted by the bookings shortfall, where a number of large subscription deals did not close in the quarter. Compared to Q3'16, subscription mix increased 6 percentage points from 58% a year ago. 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 Q3'17, annualized recurring revenue (ARR) was approximately $865 million, which grew 11% or $85 million year-over-year and grew 4% or $31 million sequentially. 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. We define Unbilled Deferred Revenue as contractually committed orders for license, subscription and support with a customer for which the associated revenue has not been recognized and the customer has not been invoiced. We do not record Unbilled Deferred Revenue on our Consolidated Balance Sheet until we invoice the customer. Billed Deferred Revenue primarily relates to software agreements invoiced to customers for which the revenue has not yet been recognized. In Q3'17, Total Deferred Revenue grew 38% year-over-year and 3% sequentially. Billed Deferred Revenue grew 9% year-over-year, and declined 6% sequentially, as expected, due to the timing of our support billings during the year. 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.

(in millions)	Q3'17 7/1/17	Q2'17 4/1/17	Q3'16 7/2/16	Q/Q % Change	Y/Y % Change
Billed Deferred Revenue	$465	$492	$425	(6%)	9%
Unbilled Deferred Revenue	$443	$389	$232	14%	91%
Total Deferred Revenue	**$909**	**$881**	**$658**	**3%**	**38%**

Note: Totals may not sum due to rounding

- In keeping with our strategy to grow our professional services partner ecosystem, Q3'17 service partner bookings grew approximately 49% YoY, with strong bookings growth among our large system integrator partners.

- For Q3'17, approximately 87% of software revenue came from recurring revenue streams, up from 81% in Q3'16.

- For Q3'17, cash flow provided by operating activities was $74 million, and free cash flow was $69 million, both of which include restructuring payments of approximately $6 million and legal

payments of approximately $2 million, which we exclude from our Adjusted Free Cash Flow operating metric.

- Cash, cash equivalents, and marketable securities totaled $311 million as of July 1, 2017.

- As of July 1, 2017, gross borrowings totaled $718 million, including $500 million of senior notes and $218 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 Q3'17 was 3.2. As of July 1, 2017, we had approximately $300 million available to borrow under the credit facility.

- We resumed share buybacks in Q3'17 and repurchased $35 million worth of shares in the quarter, which represents approximately 50% of our free cash flow in the quarter.

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, which includes a $9 million impact related to changes in foreign currency exchange rates), offset by a change in other current assets of $55 million. Cash flow from operating activities is the same in both cases.

(in millions) **Cash flows from operating activities:**	**As Reported (Net) FY'17 Qtr End 1-Jul**	**Pro Forma (Gross) FY'17 Qtr End 1-Jul**
Net income (loss)	$(1)	$(1)
Stock-based comp and D&A	38	38
Accounts receivable	20	20
Deferred revenue	19	(36)
Other	(2)	53
Net cash provided by (used in) operating activities	**$74**	**$74**

Guidance and Long-Range Targets

Our Q4 and FY'17 guidance includes the following general considerations:

- Our Q4 pipeline is very strong, and our forecast is not dependent upon immediate improvement in Japan. Our current Q4 forecast and guidance is essentially unchanged from last quarter.

- When looking at the full year, we suggest our FY'17 bookings guidance should be compared to FY'16 excluding the $20 million SLM booking recorded in Q4'16, due to the unusual size of that transaction.

- 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.

- Because we are only 21 months into our strategic objective of becoming a subscription company, it can be challenging to forecast the rate of customer adoption, the pace of our subscription transition and the overall impact to near-term reported financial results.

- We expect large deals, which historically represented 30% to 50% of quarterly bookings on average, will remain at the lower end of that range. This is based on the effect of a mixed global manufacturing economy on large deal volumes in our Solutions Group business and the potential for smaller average deal sizes as the subscription transition continues.

- Despite recent improvements in certain global macroeconomic factors, we continue to remain cautious of the global macroeconomic environment. This caution has been factored into our guidance.

- Our Fx assumptions in our guidance approximate current rates.

Q4'17 and FY'17 Operating Guidance

In millions	**Q4'17 Low**	**Q4'17 High**	**FY'17 Low**	**FY'17 High**	**Management Comments**
Subscription ACV	$41	$44	$133	$136	• At the midpoint, Q4 guidance is down approximately 15% YoY, yet when excluding the one mega-deal from Q4'16 (approximately $10M in ACV), at the midpoint, guidance is up approximately 8% YoY. • At the midpoint, FY'17 guidance is up approximately 18% YoY, yet when excluding the one mega-deal from Q4'16 referenced above, guidance is up approximately 30% YoY at the midpoint. • We have lowered our FY'17 subscription ACV guidance by approximately $5M at the midpoint to account for the Q3 sales execution issues in Japan.
License and Subscription Bookings	$120	$130	$395	$405	• Excluding the mega-deal in Q4'16 (approximately $20M in bookings), at the midpoint, Q4 bookings guidance is up approximately 3% YoY. • Excluding the mega-deal noted above, at the midpoint, FY'17 bookings guidance is up approximately 5% YoY. • We have lowered our FY'17 bookings guidance by approximately $10M at the midpoint to account for Q3 (sales execution issues in Japan).
Subscription % of Bookings	68%	68%	67%	67%	• For Q4, we expect 68% of our bookings to be subscription, based on our current view of the pipeline. • Our FY'17 guidance takes into account Q3 results.

Q4'17 and FY'17 Financial Guidance

In millions	Q4'17 Low	Q4'17 High	FY'17 Low	FY'17 High	Management Comments
Subscription Revenue	$84	$86	$280	$282	• At the midpoints, Q4 guidance is up approximately 110% YoY and FY'17 guidance is up approximately 130% YoY as the subscription transition continues to accelerate. • We are raising our FY'17 guidance by $4M at the midpoint due to the continued success of the subscription transition and our conversion program.
Support Revenue	$138	$138	$572	$572	• At the midpoints, Q4 guidance is down approximately 12% YoY and FY'17 guidance is down approximately 12% YoY as fewer customers purchase perpetual licenses and support in favor of our subscription offering, and more customers are converting their existing perpetual licenses to subscription. • We are lowering our FY'17 guidance by $3M at the midpoint due to continued success of the subscription transition and our conversion program.
Perpetual License Revenue	$38	$41	$132	$135	• At the midpoints, Q4 guidance is down approximately 5% YoY and FY'17 guidance is down approximately 23% YoY as an increasing proportion of our customers purchase software as a subscription. • We are raising our FY'17 guidance by $1M at the midpoint based on our current view of the pipeline.
Software Revenue	$260	$265	$984	$989	• At the midpoints, Q4 guidance is up approximately 10% YoY, with recurring software revenue up approximately 12% YoY. • FY'17 guidance is up approximately 5% YoY due to the continued success of the subscription transition and our conversion program. • We are raising our FY'17 guidance by $2M at the midpoint for the reasons noted above. • We are guiding to full-year software revenue growth, despite a higher mix of subscription than last year (67% FY'17 vs. 56% in FY'16).
Professional Services Revenue	$43	$43	$179	$179	• At the midpoints, Q4 guidance is down approximately 12% YoY and FY'17 guidance is down approximately 10% YoY because of fewer large services engagements as we emphasize more standard implementations of our products and as we continue to execute on our strategy of growing our service partner ecosystem and expanding margins. • We are lowering our FY'17 guidance by $3M at the midpoint due to continued success in the strategy stated above.
Total Revenue	$303	$308	$1,163	$1,168	• At the midpoints, Q4 guidance is up approximately 6% YoY and FY'17 guidance is up approximately 2% YoY due to the continued success of the subscription transition and our conversion program. • We are lowering our FY'17 guidance by approximately $2M at the midpoint for the reasons noted above.

Q4'17 and FY'17 Financial Guidance Continued

In millions	Q4'17 Low	Q4'17 High	FY'17 Low	FY'17 High	Management Comments
Operating Expense **GAAP** **Non-GAAP**	 $195 $173	 $198 $176	 $783 $680	 $786 $683	• At the midpoints, Q4 GAAP guidance is down approximately 18% YoY and FY'17 guidance is down approximately 8%. • At the midpoints, Q4 non-GAAP guidance is down approximately 5% YoY and FY'17 guidance is approximately flat YoY. • Both GAAP and non-GAAP operating expense guidance reflect strong execution and continued expense discipline.
Operating Margin **GAAP** **Non-GAAP**	8% 18%	9% 19%	4% 16%	4% 17%	• At the midpoints, Q4 GAAP guidance is up approximately 2000 basis points YoY and FY'17 guidance is up approximately 725 basis points YoY. • At the midpoints, Q4 non-GAAP guidance is up approximately 760 basis points YoY and FY'17 guidance is up approximately 140 basis points YoY. • Despite a higher subscription mix in FY'17, both GAAP and non-GAAP operating margin guidance reflect strong execution and continued expense discipline.
Tax Rate **GAAP** **Non-GAAP**	 0% 10%	 0% 8%	 66% 8%	 66% 7%	• Both GAAP and non-GAAP guidance are based on current estimates.
Shares Outstanding **GAAP** **Non-GAAP**	 117 117	 117 117	 117 117	 117 117	• Both GAAP and non-GAAP guidance are based on current estimates.
EPS **GAAP** **Non-GAAP**	$0.09 $0.33	$0.14 $0.38	($0.01) $1.17	$0.04 $1.22	• At the midpoints, Q4 GAAP guidance is up approximately $0.37 YoY and FY'17 guidance is up approximately $0.50 YoY. • At the midpoints, Q4 non-GAAP guidance is up approximately $0.16, YoY and FY'17 guidance is approximately flat YoY. • Despite a higher subscription mix in FY'17, both GAAP and non-GAAP EPS guidance reflect strong execution and continued expense discipline, as well as the impact of higher interest expense related to the $500 million outstanding notes issued in May 2016 and a less favorable tax rate than in FY'16.
Free Cash Flow **Adjusted FCF**			$115 $158	$125 $168	• We exclude an estimated $40 million of restructuring payments and $3 million of litigation payments from our adjusted free cash flow guidance.

Our guidance above assumes 68% mix of subscription bookings in Q4'17 and 67% for the full-year FY'17. If subscription bookings mix varies from our guidance, it will affect our income statement and cash flow results. Assuming bookings of equal value, we estimate that every 1% change in subscription mix will impact annual revenue by approximately $4 million, annual non-GAAP operating margin by approximately 30 basis points and annual non-GAAP EPS by approximately $0.03. (We cannot estimate the effect on GAAP operating margin and EPS due to the number of unknown items, including tax items, included in GAAP operating margin and EPS.) Of course, the higher mix of subscription bookings is expected to ultimately benefit our financial performance over the long-term.

The fourth quarter and full year FY'17 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 or reflected).

In millions	**Q4'17**	**FY'17**
Effect of acquisition accounting on fair value of acquired deferred revenue	$ -	$ 3
Stock-based compensation expense	17	73
Intangible asset amortization expense	15	58
Restructuring charges	-	8
Acquisition-related charges	-	1
Non-operating credit facility refinancing costs	-	1
Total Estimated GAAP adjustments	**$ 32**	**$ 144**

Long-Range Targets (Non-GAAP)

Our long-range target model we presented in November 2016 is available on our investor relations website at investor.ptc.com.

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 year-to-date in 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 earlier this year, we announced that beginning in January of 2018, we will no longer offer 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 in FY'16 as well as YTD 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.

License Mix-Adjusted Metrics - These metrics assume that all new software and cloud services bookings since the start of FY'14 were perpetual license sales that included support in subsequent periods. The license mix-adjusted amount is calculated by converting the ACV (as defined above) of a new subscription solutions booking in the period to an assumed perpetual license equivalent by multiplying the ACV by a conversion factor of 2 (as defined above), and adding that amount to the perpetual license revenue amounts recognized in that period. Support calculated at 20% of the annual value of the converted amount is added to support revenue in future periods, beginning the quarter after the converted booking is assumed to be recognized. The assumed support revenue is spread ratably over a 12-month period and is assumed to renew in subsequent years.

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.

Non-GAAP Revenue – Excludes the fair value adjustment for acquired deferred revenue. In Q1'15, we began including cloud services revenue, which was formerly reported in services, in subscription revenue.

Navigate Allocation -- In FY'16, we launched Navigate, a ThingWorx-based IoT solution for PLM. In FY'17, revenue and bookings for Navigate are being allocated 50% to Solutions and 50% to IoT. FY'16 reported

amounts have been reclassified to conform with the current presentation. The impact of the reclassification on FY'16 revenue was immaterial.

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.

<u>Important Information about Non-GAAP References</u>

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* is a purchase accounting adjustment recorded to reduce acquired deferred revenue to the fair value of the remaining obligation, so our GAAP revenue after an acquisition does not reflect the full amount of revenue that would have been reported if the acquired deferred revenue was not written down to fair value. We believe excluding these adjustments to revenue from these contracts (and associated costs in *fair value adjustment to deferred services cost*) is useful to investors as an additional means to assess revenue trends of our business.
- *Stock-based compensation* is a non-cash expense relating to stock-based awards issued to executive officers, employees and outside directors and to our employee stock purchase plan. We exclude this expense as it is a non-cash expense and we assess our internal operations excluding this expense and believe it facilitates comparisons to the performance of other companies in our industry.
- *Amortization of acquired intangible assets* is a non-cash expense that is impacted by the timing and magnitude of our acquisitions. We believe the assessment of our operations excluding these costs is relevant to our assessment of internal operations and comparisons to the performance of other companies in our industry.
- *Acquisition-related charges included in general and administrative costs* are direct costs of potential and completed acquisitions and expenses related to acquisition integration activities, including transaction fees, due diligence costs, severance and professional fees. In addition, subsequent adjustments to our initial estimated amount of contingent consideration associated

with specific acquisitions are included within acquisition-related charges. These costs are not considered part of our normal operations as the occurrence and amount will vary depending on the timing and size of acquisitions.

- *U.S. pension plan termination-related costs* include charges related to our plan that we began terminating in the second quarter of 2014. Costs associated with the termination are not considered part of our regular operations.
- *Restructuring charges* include excess facility restructuring charges and severance costs resulting from reductions of personnel driven by modifications to our business strategy and not considered part of our normal operations. These costs may vary in size based on our restructuring plan.
- *Non-operating credit facility refinancing costs* are non-operating charges we record as a result of the refinancing of our credit facility. We assess our internal operations excluding these costs and believe it facilitates comparisons to the performance of other companies in our industry.
- *Income tax adjustments* include the tax impact of the items above and assumes that we are profitable on a non-GAAP basis in the U.S. and one foreign jurisdiction, and eliminates the effect of the valuation allowance recorded against our net deferred tax assets in those jurisdictions. Additionally, we exclude other material tax items that we view as non-ordinary course.

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 these prepared remarks that are not historic facts, including statements about our fourth quarter and full fiscal 2017 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 not improve or 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 customers may purchase more of our solutions as subscriptions than we expect, which would adversely affect near-term revenue, operating margins, and EPS; customers may not purchase subscriptions as we expect, which could impact our ability to achieve targeted subscription bookings and subscription mix; sales of our solutions as subscriptions may not have the longer-term effect on revenue that 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; and any repatriation of cash held outside the U.S., which constitutes a significant portion of our cash, could be subject to significant taxes. 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 and loans and cash repatriations from foreign subsidiaries. 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		Nine Months Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
GAAP revenue	$ 291,293	$ 288,652	$ 857,660	$ 852,296
Fair value adjustment of acquired deferred subscription revenue	373	746	1,430	1,711
Fair value adjustment of acquired deferred services revenue	258	277	788	873
Non-GAAP revenue	$ 291,924	$ 289,675	$ 859,878	$ 854,880
GAAP gross margin	$ 209,025	$ 206,182	$ 611,447	$ 609,487
Fair value adjustment of acquired deferred revenue	631	1,023	2,218	2,584
Fair value adjustment to deferred services cost	(108)	(121)	(329)	(378)
Stock-based compensation	2,991	2,500	9,092	8,235
Amortization of acquired intangible assets included in cost of revenue	6,517	6,383	19,294	18,235
Non-GAAP gross margin	$ 219,056	$ 215,967	$ 641,722	$ 638,163
GAAP operating income (loss)	$ 11,256	$ 7,596	$ 23,330	$ (3,939)
Fair value adjustment of acquired deferred revenue	631	1,023	2,218	2,584
Fair value adjustment to deferred services cost	(108)	(121)	(329)	(378)
Stock-based compensation	16,574	13,796	56,139	51,821
Amortization of acquired intangible assets included in cost of revenue	6,517	6,383	19,294	18,235
Amortization of acquired intangible assets	7,973	8,294	23,986	25,040
Acquisition-related charges included in general and administrative costs	264	937	987	3,215
US pension plan termination-related costs	285	-	285	-
Restructuring charges	1,551	2,815	8,300	44,541
Non-GAAP operating income (1)	$ 44,943	$ 40,723	$ 134,210	$ 141,119
GAAP net income (loss)	$ (951)	$ 3,073	$ (11,196)	$ (25,992)
Fair value adjustment of acquired deferred revenue	631	1,023	2,218	2,584
Fair value adjustment to deferred services cost	(108)	(121)	(329)	(378)
Stock-based compensation	16,574	13,796	56,139	51,821
Amortization of acquired intangible assets included in cost of revenue	6,517	6,383	19,294	18,235
Amortization of acquired intangible assets	7,973	8,294	23,986	25,040
Acquisition-related charges included in general and administrative costs	264	937	987	3,215
US pension plan termination-related costs	285	-	285	-
Restructuring charges	1,551	2,815	8,300	44,541
Non-operating credit facility refinancing costs	-	-	1,152	2,359
Income tax adjustments (2)	(171)	(6,202)	(2,810)	(6,481)
Non-GAAP net income	$ 32,565	$ 29,998	$ 98,026	$ 114,944
GAAP diluted earnings (loss) per share	$ (0.01)	$ 0.03	$ (0.10)	$ (0.23)
Fair value of acquired deferred revenue	0.01	0.01	0.02	0.02
Stock-based compensation	0.14	0.12	0.48	0.45
Amortization of acquired intangibles	0.12	0.13	0.37	0.38
Acquisition-related charges	-	0.01	0.01	0.03
Restructuring charges	0.01	0.02	0.07	0.39
Non-operating credit facility refinancing costs	-	-	0.01	0.02
Income tax adjustments	-	(0.05)	(0.02)	(0.06)
Non-GAAP diluted earnings per share	$ 0.28	$ 0.26	$ 0.84	$ 1.00
GAAP diluted weighted average shares outstanding	115,615	115,698	115,511	114,499
Dilutive effect of stock based compensation plans	1,962	-	1,812	807
Non-GAAP diluted weighted average shares outstanding	117,577	115,698	117,323	115,306

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

	Three Months Ended		Nine Months Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
GAAP operating margin	3.9%	2.6%	2.7%	-0.5%
Fair value of acquired deferred revenue	0.2%	0.4%	0.3%	0.3%
Fair value adjustment to deferred services cost	0.0%	0.0%	0.0%	0.0%
Stock-based compensation	5.7%	4.8%	6.5%	6.1%
Amortization of acquired intangibles	5.0%	5.1%	5.0%	5.1%
Acquisition-related charges	0.1%	0.3%	0.1%	0.4%
US pension plan termination-related costs	0.1%	0.0%	0.0%	0.0%
Restructuring charges	0.5%	1.0%	1.0%	5.2%
Non-GAAP operating margin	15.4%	14.1%	15.6%	16.5%

(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 2017 and 2016 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. For the three and nine months ended July 1, 2017 and July 2, 2016 our non-GAAP tax provision is based on our annual expected non-GAAP tax rate applied to our year-to-date non-GAAP earnings.