ptc

DIGITAL TRANSFORMS PHYSICAL

Q4'22 AND FY'22 FINANCIAL RESULTS



Investor Relations

November 2, 2022

FORWARD LOOKING STATEMENTS

This presentation includes forward looking statements regarding PTC's future financial performance, strategic outlook and expectations, anticipated future operations, and expected effects of strategic investments and initiatives. Because such statements deal with future events, actual results may differ materially from those projected in the forward-looking statements. Information about factors that could cause actual results to differ materially from those in the forward-looking statements can be found in the appendix to this presentation and in PTC's Annual Report on Form 10-K, Forms 10-Q and other filings with the U.S. Securities and Exchange Commission.

IMPORTANT INFORMATION ABOUT OPERATING AND NON-GAAP FINANCIAL MEASURES

This presentation includes supplemental operating and non-GAAP financial measures, targets and estimates. The non-GAAP financial measures are not prepared in accordance with generally accepted accounting principles. The definitions of these items and reconciliations of non-GAAP financial measures to comparable GAAP measures are included in the appendix to this presentation.

Q4'22 AND FY'22 HIGHLIGHTS

JIM HEPPELMANN – PRESIDENT & CEO

STRONG Q4'22 AND FY'22 FINANCIAL RESULTS

Top Line



ARR at the end of Q4'22

- $1.57 billion as reported, up 7% YoY; $1.56 billion organic (excluding Codebeamer) up 6%
- $1.71 billion constant currency, up 16% YoY, exceeded guidance
- $1.69 billion organic constant currency, up 15% YoY
- FY'22 organic churn improvement of 193bps[1] exceeded guidance
- Broad-based strength across all product groups and geographic regions

Bottom Line



Cash Flow in FY'22

- $435 million cash from operations, up 18% YoY
- $416 million free cash flow, up 21% YoY
- $468 million adjusted free cash flow, up 20% YoY
- Exceeded all cash flow guidance in FY'22 and Q4'22
- Operational changes continue to generate the positive results we expect

[1] Excludes Arena acquisition, Russia exit, and Codebeamer acquisition; using FX rates as of September 30, 2021

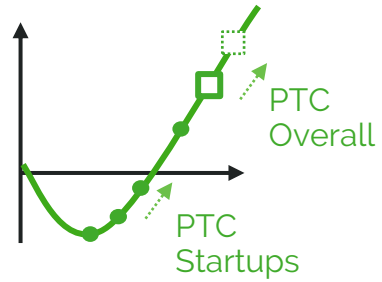
DELIVERING ON OUR MARGIN OPPORTUNITY

Adoption of SaaS best practices produced FY'22 expansion



- Evolution of organization model to align to SaaS business model led to increased SaaS investment while eliminating ~330 positions
  - Change in Customer Success model reduced inefficiency while improving customer service
  - Combined R&D, Cloud Operations, and Tech Support to adopt common SaaS DevOps practice
- Expanded operating margin by ~200bps, non-GAAP operating margin by ~300bps, and non-GAAP cash contribution margin by ~300bps in FY'22

Portfolio rebalancing drives further margin expansion opportunities in FY'23 and beyond



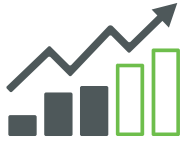
- Rebalancing of resources across portfolio to better align to growth outlook led to further increase in SaaS investment while closing ~500 open positions
- "J-curve" startup business to continue to improve profitability with scale
  - Arena PLM profitable since acquisition
  - Thingworx IOT crossing into profitability
  - Onshape CAD and Vuforia AR have negative burn rates but profitability expected to improve with scale

Continued disciplined cost management, with non-GAAP operating expenses growing more slowly than top line

STRONG FY'22 BOOKINGS GROWTH

Driven by demand for digital transformation and SaaS

Top Line



Bookings

- Record bookings in Q4'22: low-single digit organic constant currency bookings growth YoY, versus strong Q4'21, consistent with expectations
- Strong FY'22: mid-teens % organic constant currency bookings growth, consistent with organic constant currency ARR growth in FY'22
- Strong bookings growth in both Digital Thread and Velocity
- Strength in PLM, SaaS, and larger deals, partially offset by softness in smaller deals, notably in Europe, and deals in China
- Codebeamer acquisition continues to perform well

STRONG ARR RESULTS ACROSS GEOGRAPHIC REGIONS

Americas

- Strong double-digit growth across all product groups
- Absolute growth primarily driven by Digital Thread – Core
- Mid-20s% growth in both Digital Thread – Growth and Velocity

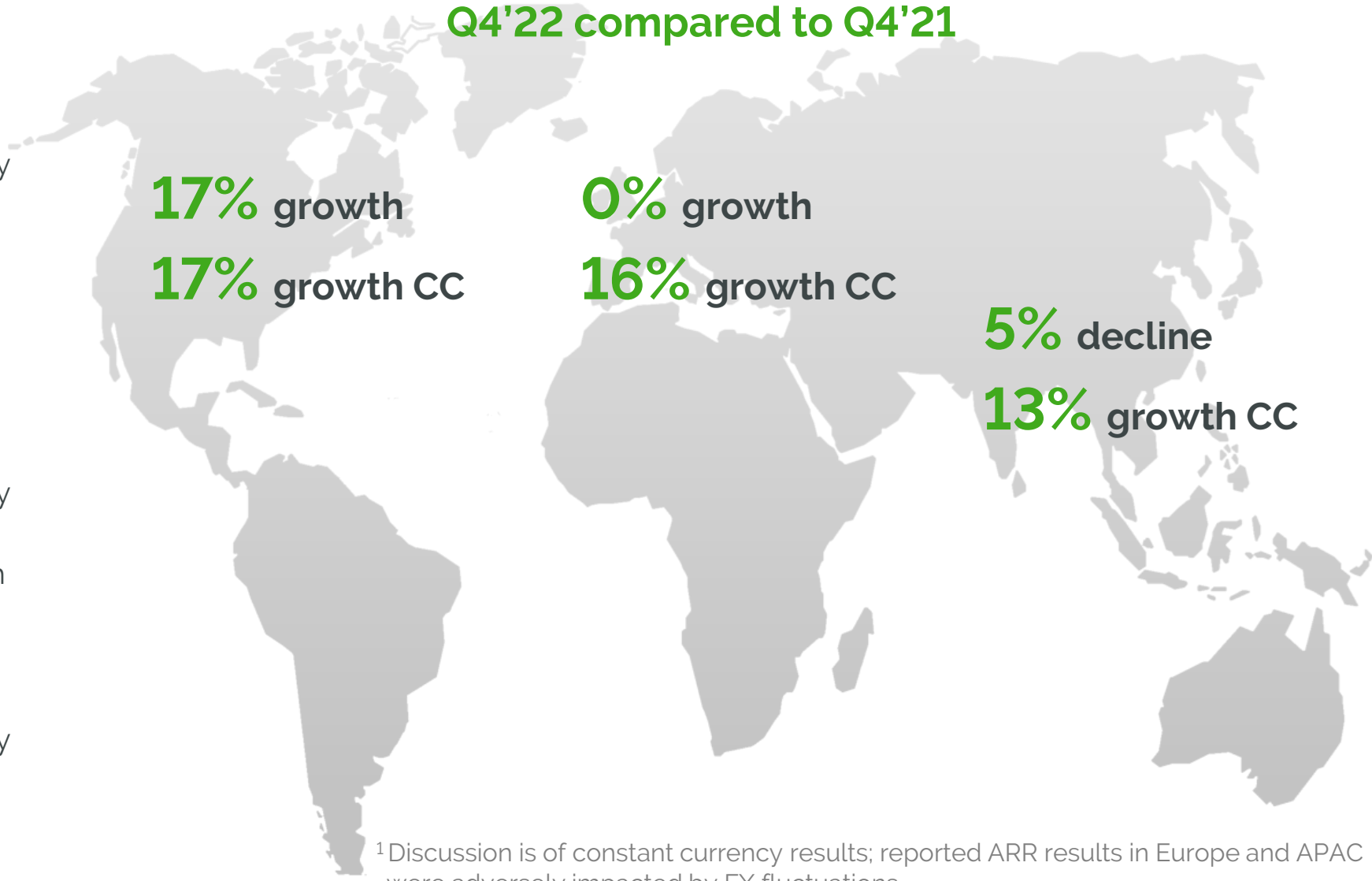
Europe[1]

- Strong double-digit growth across all product groups
- Absolute growth primarily driven by Digital Thread – Core
- Particularly strong % growth in both FSG and Velocity

APAC[1]

- Absolute growth primarily driven by Digital Thread – Core
- Strong % growth in Velocity

Q4'22 compared to Q4'21

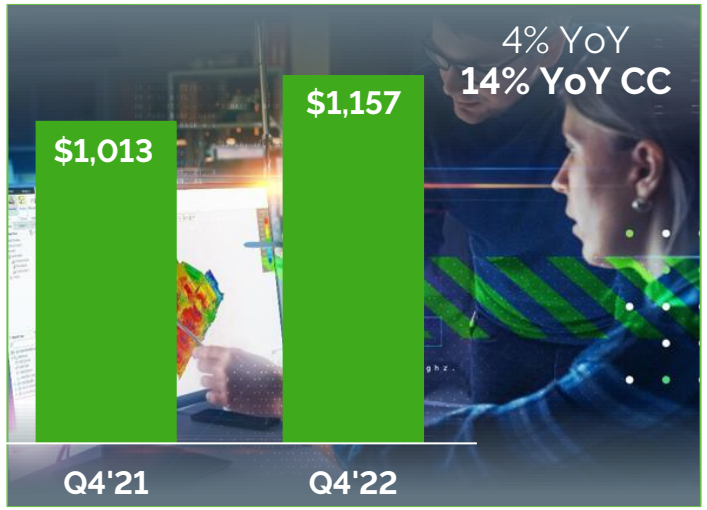


[1] Discussion is of constant currency results; reported ARR results in Europe and APAC were adversely impacted by FX fluctuations

DIGITAL THREAD ARR RESULTS[1]

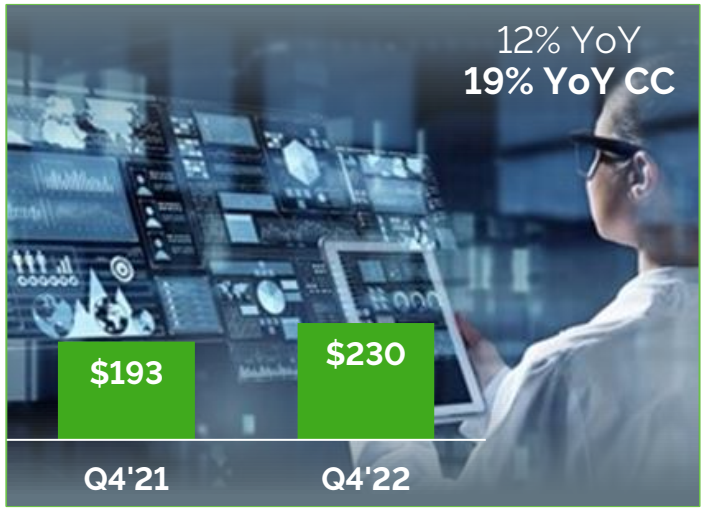
Core

In millions
(constant currency)



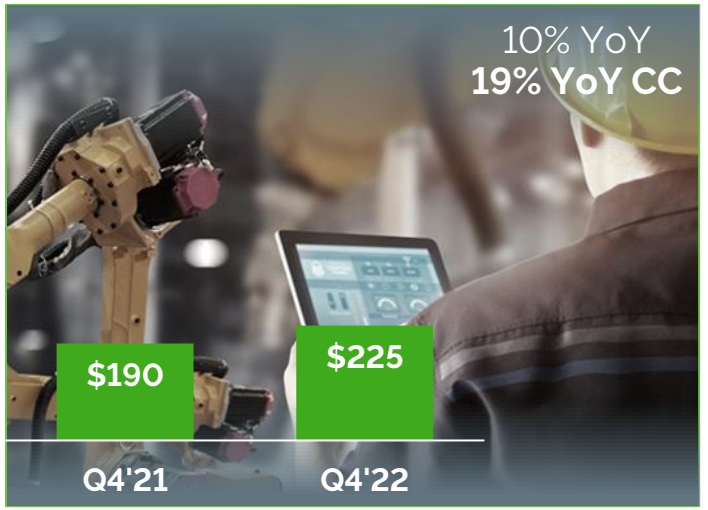
- CAD and PLM both grew in the double-digits, and continued to grow faster than the market
- Strong growth across all 3 geographic regions
- 20th consecutive quarter of double-digit ARR growth in Digital Thread – Core

Growth



- ARR growth near "2 handle"
- Growth across all 3 geographic regions, with strong growth in the Americas and in Europe
- Increased focus on cross-selling into our core customer base

FSG



- Organic constant currency growth of 9% YoY (excluding Codebeamer)
- Strong customer demand, as ALM, Retail PLM, and Arbortext performed well
- Strong growth across all three geographic regions

[1] Amounts shown and discussed on this slide are on a constant currency basis; slide 21 shows constant currency and reported ARR

WINDCHILL+ CUSTOMERS INCLUDE:

RAYMOND
RUN BETTER. MANAGE SMARTER.



BALLUFF



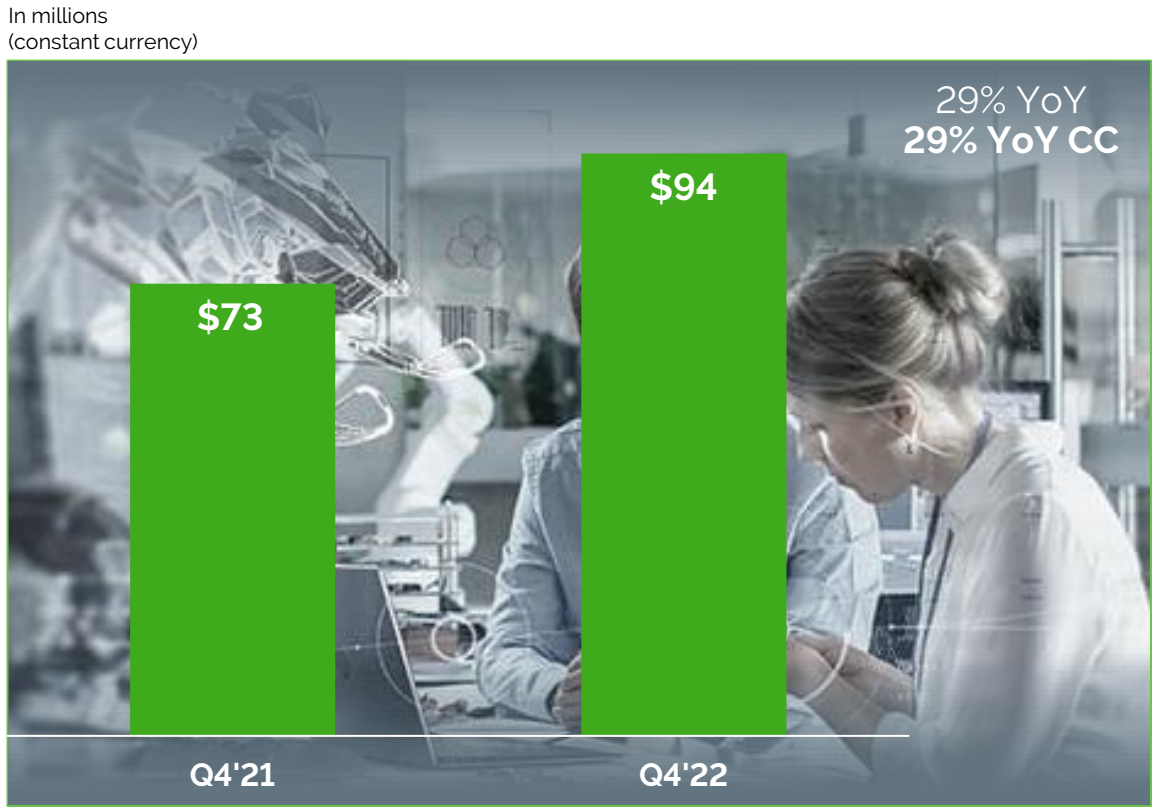
ARGO HYTOS



Zamil
Air Conditioners



VELOCITY ARR RESULTS [1]



- Cloud-native, pure-SaaS, CAD/PLM market leader
- Mid-30s % Onshape CAD ARR growth driven by upsell/expansions and improved churn rate
- Mid-20s % Arena PLM ARR growth driven by upsell/expansions, new logos, and improved churn rate
- Absolute growth primarily driven by Arena in the Americas
- Particularly strong % growth in Europe for both Arena and Onshape

[1] Amounts shown and discussed on this slide are on a constant currency basis; slide 21 shows constant currency and reported ARR

RESILIENCE OF OUR BUSINESS

PTC is positioned for a strong FY'23

		Constant Currency Organic ARR Growth	Bookings YoY Scenario	Churn YoY Scenario	Free Cash Flow[1]
	FY'22 Actual	15%	+mid-teens%	195bps better	$416 million
Most Plausible Scenarios	**FY'23 Guidance Range[1]**	**14%**	~5%	Flattish	**~$560 million**
		12%	Flattish	~100bps worse	**~$560 million**
		10%	~(15)%	~100bps worse	**~$560 million**
	Other FY'23 Scenarios	7%	~(30)%	~100bps worse	<$560 million
		0%	~(75)%	~200bps worse	<$560 million

[1] Free cash flow guidance assumes more spending if we are at the high end of the ARR range and less spending if we are at the low end

NEW REPORTING STRUCTURE

NEW REPORTING STRUCTURE[1]

New structure aligns to our strategy, product offerings, and industry segments

Historical categories

	FY'22 ARR growth	FY'23 ARR guidance
Digital Thread – Core • Creo CAD • Windchill PLM	**14%**	**10% - 14%**
Digital Thread – Growth • Thingworx IoT • Vuforia AR	**19%**	**15% - 20%**
Digital Thread – FSG • Arbortext • Retail PLM • Codebeamer ALM • Servigistics • Classic products	**19%**[2]	**5% - 10%**
Velocity • Onshape CAD • Arena PLM	**29%**	**20% - 25%**
Total PTC	**16%**[4]	**10% - 14%**

Going forward

	FY'22 ARR growth	FY'23 ARR guidance
CAD (product data authoring) • Creo CAD • Onshape CAD • Vuforia AR • Arbortext	**11%**	**8% - 10%**
PLM (product data management and process orchestration) • Windchill PLM • Arena PLM • Retail PLM • Codebeamer ALM • Thingworx IoT • Servigistics • Classic products	**20%**[3]	**12% - 17%**
Total PTC	**16%**[4]	**10% - 14%**

Categories in **Bold Green** will be disclosed

[1] Constant currency
[2] Organic ARR growth of 9% in FY'22 for Digital Thread – FSG, excluding Codebeamer
[3] Organic ARR growth of 18% in FY'22 for PLM, excluding Codebeamer
[4] Organic ARR growth of 15% in FY'22 for PTC, excluding Codebeamer

PTC'S FULL PLM SUITE

- **Windchill** is core PLM for Industrial companies
- **Arena** is PLM for outsourced manufacturing
- **FlexPLM** is core PLM for Retail companies
- **Codebeamer/ALM** is PLM for software components
- **ThingWorx** is closed-loop PLM
- **Servigistics/SLM** is PLM for Service departments

From 2012

PTC To Acquire Servigistics
Will Enhance PTC's Ability to Help Manufacturers Gain Competitive Edge from Their Service Strategies

August 8, 2012
"…this acquisition further enhances PTC's ability to help customers gain competitive advantage throughout the entire product lifecycle — from conception and design to sourcing and service."

From 2017

← Tweet



Jim Heppelmann
@JimHeppelmann

When I co-founded Windchill nearly 20 yrs ago, it was 1st to market as an internet-based PLM solution. The vision to see #IoT = #PLM is why @PTC ranks the highest in the new @Forrester Wave PLM For Discrete Manufacturers report. ptc.co/IbWP30h0ihk



PTC and Windchill, a PTC Technology

10:59 AM · Dec 6, 2017 · Twitter Web Client

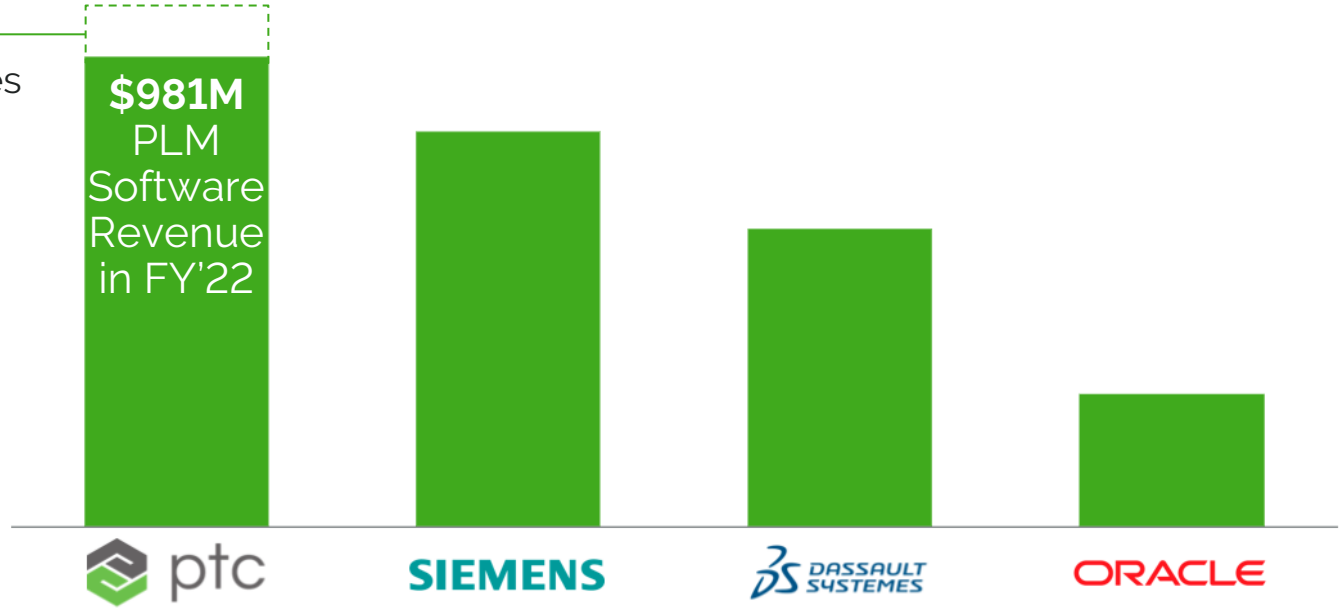
PTC IS THE CATEGORY LEADER IN PLM

Our category leadership has been masked by fragmentation of PTC's PLM position in external reporting

PLM software market share using comparable definitions of PLM[1]

$1,137M Total PLM Revenue
inclusive of Professional services

$950M PLM ARR in FY'22
18% organic constant currency growth[2]



Consistent definition of two industry segments

- **PLM** (Product Lifecycle Management) = Product data management and process orchestration
- **CAD** (Computer Aided Design) = Product data authoring
- Under this definition, PLM does not include CAD, EDA (Electronic Design Automation), or Simulation software

[1] Source: Company data, industry analyst data, and estimates; latest trailing 12 months pro forma revenue data using a consistent definition of PLM as shown on slide 13
[2] PTC constant currency and reported ARR data on slide 38 (organic growth excludes Codebeamer)

UPCOMING INVESTOR EVENTS

November 17, 2022
FY'23 Investor Day (virtual)

- Focused on financial plan for FY'23 and mid-term

May 15 – 16, 2023
LiveWorx (in-person in Boston)

- Focused on strategy and customers
- Large global event with customers, partners, investors, and employees
- Dedicated investor track, featuring keynotes, investor sessions, and opportunities to interact directly with management, customers, and partners

WRAP UP

STRONG PORTFOLIO AND STRATEGY

Portfolio of products is unique and compelling

Portfolio and Strategy align well to customer demand

Category leader in PLM

STRONG EXECUTION

Mid-teens % organic constant currency growth for both ARR and bookings in FY'22

FY'23 forecasted to be our 6th consecutive year of double-digit constant currency ARR growth

PROFITABILITY EXPANSION

FY'22 operating margin of 23%; non-GAAP operating margin of 38%

Cost optimization in FY'22

J-curve businesses continue to scale

Cautious on hiring

POSITONED TO DRIVE STRONG GROWTH

Business model, market position, and execution support continued growth

Highly resilient model with SaaS tailwinds

PTC has never been in a better position to create shareholder value

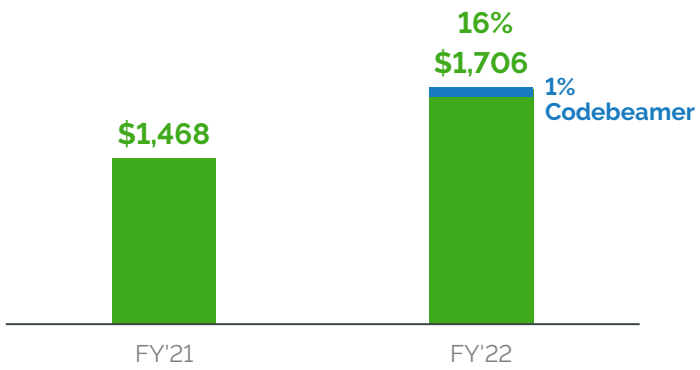
FINANCIAL REVIEW AND GUIDANCE

KRISTIAN TALVITIE – EVP & CFO

FY'22 RESULTS VS PRIOR YEAR

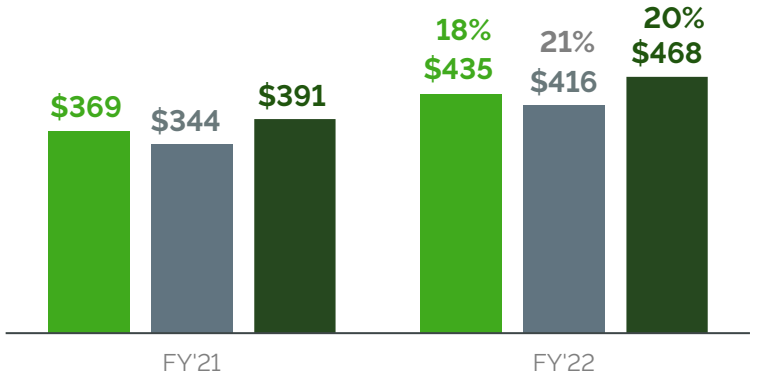
In millions

Constant Currency ARR



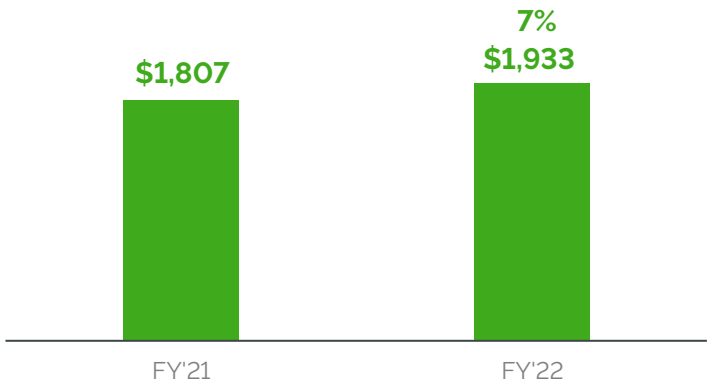
- ARR growth of 7%; organic growth of 6% (excluding Codebeamer)
- Constant currency ARR growth of 16%; organic growth of 15%
- $134M FX headwind in FY'22
- ARR at the end of Q4'22 includes a $4 million reduction associated with discontinuing our business operations in Russia in Q2'22

Cash Flow[1]



- Cash flow performance reflects continued operational execution, despite FX headwinds
- Free cash flow is primarily a function of ARR rather than revenue

Revenue



- Revenue growth of 7%, 11% constant currency
- While every $1 of ARR becomes $1 of revenue over the term of the contract, the timing of revenue recognition for on-premise subscription revenue under ASC 606 can vary significantly, impacting reported revenue and growth rates

[1] Refer to the Non-GAAP Reconciliation Table on slide 42

BALANCE SHEET AND SHARE REPURCHASES

Strong balance sheet as of September 30, 2022

- Cash and cash equivalents of $272 million
- Gross borrowings of $1.359 billion with an aggregate interest rate of 3.9%
  - $1.0 billion of senior notes with an aggregate interest rate of 3.8%
  - $359 million drawn on revolving credit facility with a variable interest rate of 4.1%

Debt/EBITDA ratio less than 3x

Share repurchase program

- Completed repurchases of $125 million in FY'22
- Our long-term goal, assuming our Debt/EBITDA ratio is below 3x, is to return approximately 50% of our free cash flow to shareholders via share repurchases, while also taking into consideration the interest rate environment and strategic opportunities

FX IN FY'22: IMPACT TO ARR

In millions	FY'21				FY'22			
ARR by Product Group (Constant Currency)	Qtr Ended				Qtr Ended			
Using FX rates as of September 30, 2021	31-Dec	31-Mar	30-Jun	30-Sep	31-Dec	31-Mar	30-Jun	30-Sep
Digital Thread - Core	$ 940	$ 956	$ 976	$ 1,013	$ 1,041	$ 1,079	$ 1,110	$ 1,157
Digital Thread - Growth	174	180	180	193	198	207	214	230
Digital Thread - FSG	178	180	181	190	190	195	213	225
Digital Thread (Total)	$ 1,292	$ 1,315	$ 1,337	$ 1,396	$ 1,429	$ 1,481	$ 1,537	$ 1,612
Velocity	10	65	69	73	78	83	89	94
Ending ARR	**$ 1,302**	**$ 1,380**	**$ 1,406**	**$ 1,468**	**$ 1,507**	**$ 1,564**	**$ 1,625**	**$ 1,706**

In millions	FY'21				FY'22			
ARR by Product Group (as Reported)	Qtr Ended				Qtr Ended			
	31-Dec	31-Mar	30-Jun	30-Sep	31-Dec	31-Mar	30-Jun	30-Sep
Digital Thread - Core	$ 967	$ 960	$ 986	$ 1,013	$ 1,033	$ 1,055	$ 1,047	$ 1,054
Digital Thread - Growth	177	181	181	193	197	204	205	216
Digital Thread - FSG	182	180	183	190	189	191	203	209
Digital Thread (Total)	$ 1,326	$ 1,321	$ 1,350	$ 1,396	$ 1,418	$ 1,450	$ 1,456	$ 1,478
Velocity	10	65	69	73	78	83	88	94
Ending ARR	$ 1,336	$ 1,386	$ 1,418	$ 1,468	$ 1,496	$ 1,532	$ 1,544	$ 1,572

For comparative purposes in FY'22, we reported constant currency ARR using rates as of September 30, 2021 for all periods

FX IN FY'23: CONSTANT CURRENCY ARR HISTORY RECASTED

In millions	FY'21				FY'22			
ARR by Product Group (Constant Currency)	Qtr Ended				Qtr Ended			
Using FX rates as of September 30, 2022	**31-Dec**	**31-Mar**	**30-Jun**	**30-Sep**	**31-Dec**	**31-Mar**	**30-Jun**	**30-Sep**
CAD (Product data authoring)	$ 573	$ 581	$ 594	$ 615	$ 632	$ 648	$ 665	$ 685
PLM (Product data management and process orchestration)	623	690	701	738	757	792	831	887
Ending ARR	**$ 1,195**	**$ 1,272**	**$ 1,295**	**$ 1,353**	**$ 1,389**	**$ 1,440**	**$ 1,496**	**$ 1,572**

In millions	FY'21				FY'22			
ARR by Product Group (as Reported)	Qtr Ended				Qtr Ended			
	31-Dec	**31-Mar**	**30-Jun**	**30-Sep**	**31-Dec**	**31-Mar**	**30-Jun**	**30-Sep**
CAD (Product data authoring)	$ 650	$ 644	$ 662	$ 678	$ 690	$ 698	$ 691	$ 685
PLM (Product data management and process orchestration)	686	742	757	790	806	834	854	887
Ending ARR	$ 1,336	$ 1,386	$ 1,418	$ 1,468	$ 1,496	$ 1,532	$ 1,544	$ 1,572

For comparative purposes in FY'23

- We will report constant currency ARR using rates as of September 30, 2022 for all periods
- We have recasted our historical constant currency ARR results using rates as of September 30, 2022 for all periods
  - Please see the Financial Data Tables published on our investor relations website
  - These amounts should be used when forecasting PTC's future constant currency ARR results

FX DYNAMICS: ARR SENSITIVITY TO EUR/USD AND USD/YEN

In millions	End of Q4'22
ARR base	$1,572
Estimated impact of $0.10 change in EUR/USD rate	$38
Estimated impact of 10 Yen change in USD/JPY rate	$7

As of the end of Q4'22

- 52% of our ARR is transacted in USD
- 24% of our ARR is transacted in EUR
- 6% of our ARR is transacted in JPY
- Also, we transact in 10+ additional currencies

BRIDGING GUIDANCE FOR FX

FY'22 actuals and FY'23 and Q1'23 guidance at 9/30/21 FX rates for illustrative purposes

In millions except percentages	FY'22 Actual	FY'23 Guidance	FY'23 YoY Growth Guidance	Q1'23 Guidance
ARR at Constant Currency	$1,706	$1,875 - $1,945	10% - 14%	$1,715 - $1,735
Revenue at Constant Currency	$1,985	$2,085 - $2,165	5% - 9%	

FY'23 guidance is provided on slide 25

FY'23 AND Q1'23 GUIDANCE

In millions except percentages	FY'22 Actual	FY'23 Guidance	FY'23 YoY Growth Guidance	Q1'23 Guidance
ARR at Constant Currency[1]	$1,572	$1,730 - $1,790	10% - 14%	$1,580 - $1,600
Cash from Operations	$435	~$580	~33%	~$170
Free Cash Flow	$416	~$560	~35%	~$165
Adjusted Free Cash Flow	$468	~$562	~20%	~$166
Revenue	$1,933	$1,910 - $1,990	(1)% - 3%	

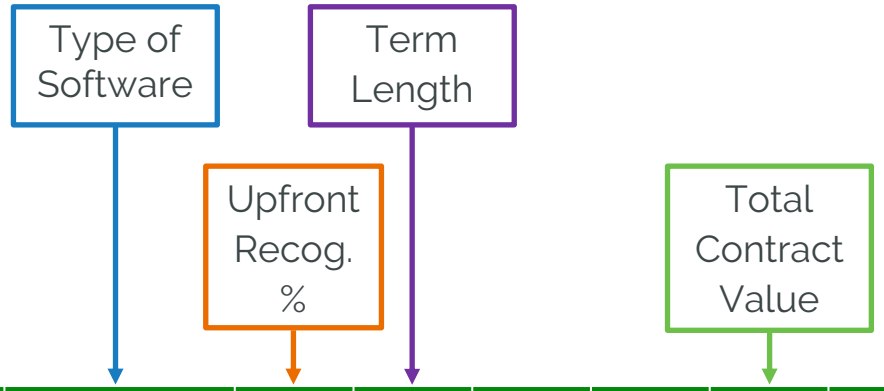
Reconciliation of Cash from Operations to Adjusted Free Cash Flow

In millions	FY'22 Actual	FY'23 Guidance	Q1'23 Guidance
Cash from Operations	$435	~$580	~$170
Capex	($19)	(~$20)	(~$5)
Free Cash Flow	$416	~$560	~$165
Restructuring payments	$41	~$1	~$1
Acquisition and transaction-related payments	$12	~$1	~$0
Adjusted Free Cash Flow	$468	~$562	~$166

In FY'23, we expect the quarterly distribution of full year Cash Flow results to follow a similar pattern as in FY'22 and FY'21

[1] On a constant currency basis, using our FY'23 Plan foreign exchange rates (rates as of September 30, 2022) for all periods

COMPARISON: ARR VS. REVENUE (PART 1)



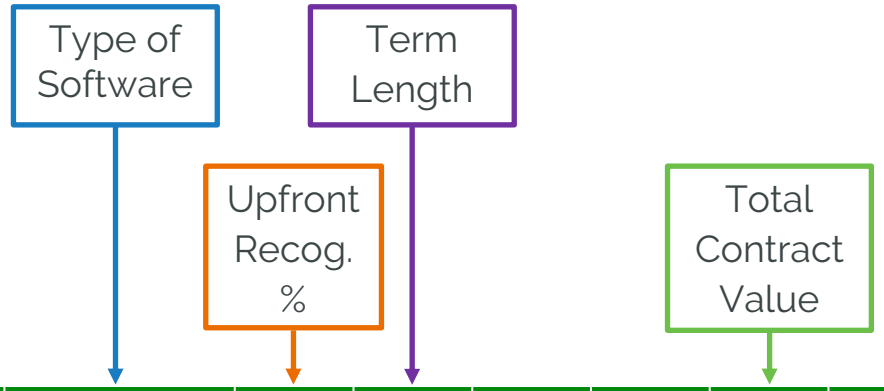
Primary variables impacting revenue

- Type of software
- Upfront recognition %
- Term length
- Contract size
- FX rates

Deal	Software Type	Upfront Recog.	Term Length	Renewal Quarter	ARR	TCV	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	On Prem Subs	50%	1	1	1,000	1,000	625	125	125	125	625	125	125	125	625	125	125	125	625	125	125	125
2	On Prem Subs	50%	1	4	1,000	1,000				625	125	125	125	625	125	125	125	625	125	125	125	625
3	On Prem Subs	50%	2	2	1,000	2,000		1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125	125
4	On Prem Subs	50%	2	3	1,000	2,000			1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125
5	On Prem Subs	50%	3	2	1,000	3,000		1,625	125	125	125	125	125	125	125	125	125	125	125	1,625	125	125
6	On Prem Subs	50%	4	1	1,000	4,000	2,125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
7	On Prem Support	0%	1	2	1,000	1,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
8	On Prem Support	0%	1	3	1,000	1,000			250	250	250	250	250	250	250	250	250	250	250	250	250	250
9	SaaS/Cloud	0%	2	1	1,000	2,000	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
10	SaaS/Cloud	0%	3	2	1,000	3,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250

Hypothetical example with 10 contracts

COMPARISON: ARR VS. REVENUE (PART 1)



Primary variables impacting revenue

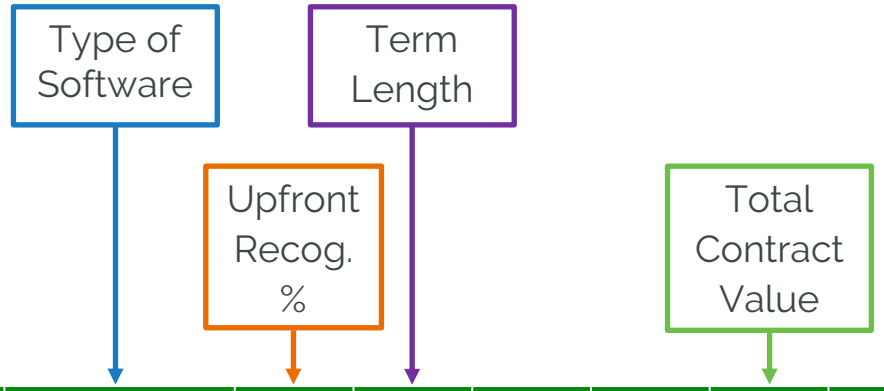
- Type of software
- Upfront recognition %
- Term length
- Contract size
- FX rates

Deal	Software Type	Upfront Recog.	Term Length	Renewal Quarter	ARR	TCV	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	On Prem Subs	50%	1	1	1,000	1,000	625	125	125	125	625	125	125	125	625	125	125	125	625	125	125	125
2	On Prem Subs	50%	1	4	1,000	1,000				625	125	125	125	625	125	125	125	625	125	125	125	625
3	On Prem Subs	50%	2	2	1,000	2,000		1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125	125
4	On Prem Subs	50%	2	3	1,000	2,000			1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125
5	On Prem Subs	50%	3	2	1,000	3,000		1,625	125	125	125	125	125	125	125	125	125	125	125	1,625	125	125
6	On Prem Subs	50%	4	1	1,000	4,000	2,125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
7	On Prem Support	0%	1	2	1,000	1,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
8	On Prem Support	0%	1	3	1,000	1,000			250	250	250	250	250	250	250	250	250	250	250	250	250	250
9	SaaS/Cloud	0%	2	1	1,000	2,000	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
10	SaaS/Cloud	0%	3	2	1,000	3,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250

Key takeaways

- For SaaS/Cloud and On-Prem support, revenue recognition is ratable
- Term length and contract value do not impact revenue on an annual basis

COMPARISON: ARR VS. REVENUE (PART 1)



Primary variables impacting revenue

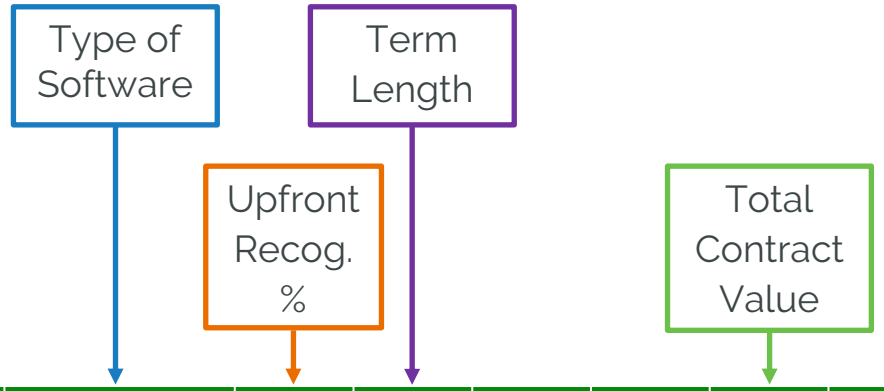
- Type of software
- Upfront recognition %
- Term length
- Contract size
- FX rates

Deal	Software Type	Upfront Recog.	Term Length	Renewal Quarter	ARR	TCV	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	On Prem Subs	50%	1	1	1,000	1,000	625	125	125	125	625	125	125	125	625	125	125	125	625	125	125	125
2	On Prem Subs	50%	1	4	1,000	1,000				625	125	125	125	625	125	125	125	625	125	125	125	625
3	On Prem Subs	50%	2	2	1,000	2,000		1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125	125
4	On Prem Subs	50%	2	3	1,000	2,000			1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125
5	On Prem Subs	50%	3	2	1,000	3,000		1,625	125	125	125	125	125	125	125	125	125	125	125	1,625	125	125
6	On Prem Subs	50%	4	1	1,000	4,000	2,125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
7	On Prem Support	0%	1	2	1,000	1,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
8	On Prem Support	0%	1	3	1,000	1,000			250	250	250	250	250	250	250	250	250	250	250	250	250	250
9	SaaS/Cloud	0%	2	1	1,000	2,000	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
10	SaaS/Cloud	0%	3	2	1,000	3,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250

Key takeaways

- For On-Prem subscription, a portion of the TCV of the contract is upfront recognition, and a portion is ratable
- Upfront Recognition %, Term length, and TCV significantly impact revenue on a quarterly and annual basis

COMPARISON: ARR VS. REVENUE (PART 1)



Primary variables impacting revenue

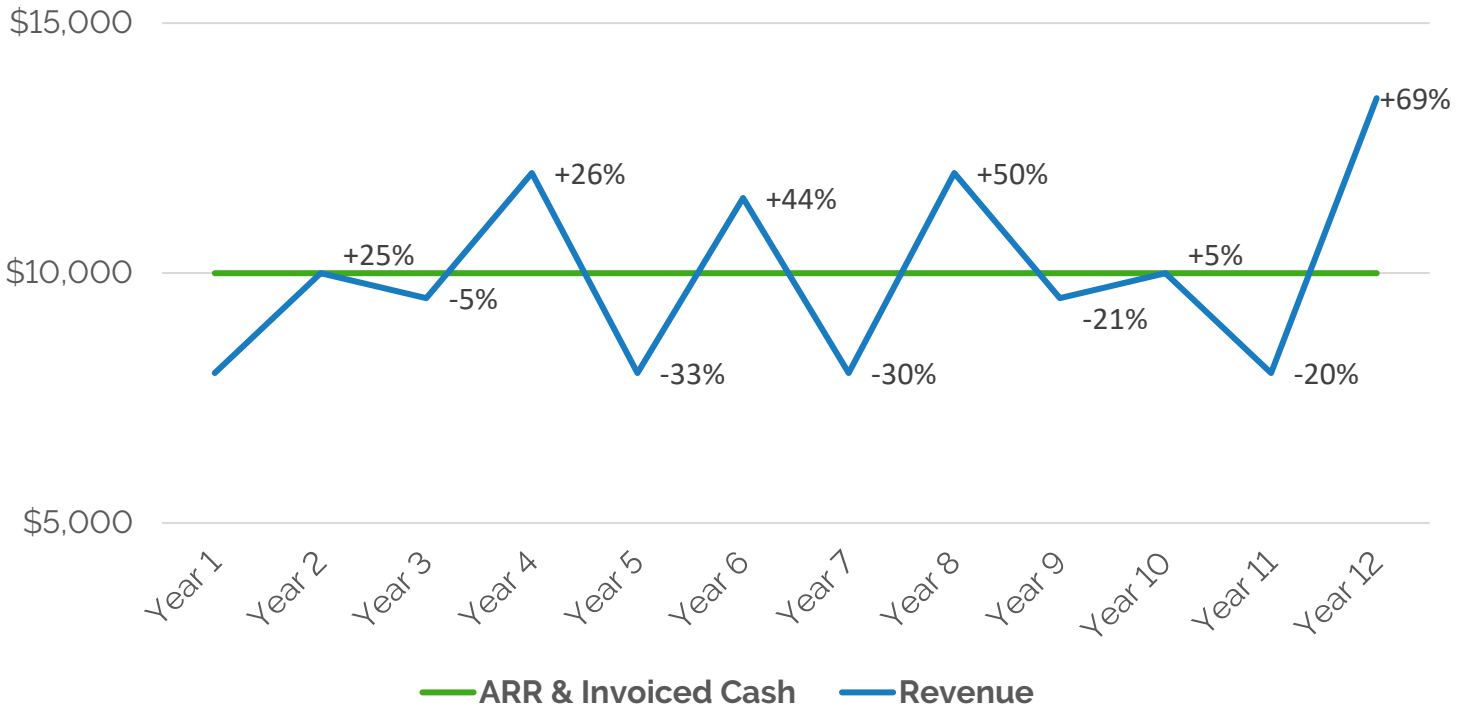
- Type of software
- Upfront recognition %
- Term length
- Contract size
- FX rates

Deal	Software Type	Upfront Recog.	Term Length	Renewal Quarter	ARR	TCV	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	On Prem Subs	50%	1	1	1,000	1,000	625	125	125	125	625	125	125	125	625	125	125	125	625	125	125	125
2	On Prem Subs	50%	1	4	1,000	1,000				625	125	125	125	625	125	125	125	625	125	125	125	625
3	On Prem Subs	50%	2	2	1,000	2,000		1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125	125
4	On Prem Subs	50%	2	3	1,000	2,000			1,125	125	125	125	125	125	125	125	1,125	125	125	125	125	125
5	On Prem Subs	50%	3	2	1,000	3,000		1,625	125	125	125	125	125	125	125	125	125	125	125	1,625	125	125
6	On Prem Subs	50%	4	1	1,000	4,000	2,125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
7	On Prem Support	0%	1	2	1,000	1,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
8	On Prem Support	0%	1	3	1,000	1,000			250	250	250	250	250	250	250	250	250	250	250	250	250	250
9	SaaS/Cloud	0%	2	1	1,000	2,000	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
10	SaaS/Cloud	0%	3	2	1,000	3,000		250	250	250	250	250	250	250	250	250	250	250	250	250	250	250

Key takeaways

- For On-Prem subscription, a portion of the TCV of the contract is upfront recognition, and a portion is ratable
- Upfront Recognition %, Term length, and TCV significantly impact revenue on a quarterly and annual basis

COMPARISON: ARR VS. REVENUE (PART 2)



Key takeaways

- ARR (Annual Run Rate) is the same ($10,000) every year
- Invoiced cash is the same ($10,000) every year
- Revenue is highly dependent on the mix of contracts starting/renewing in any given year; growth rates range from -33% to +69% (and everything in between!)

This hypothetical model assumes

- No growth, price increases, or churn
- No changing software type (e.g. support to subscription, or subscription to SaaS)
- All contracts the same size ($1,000)
- No changing contract lengths (e.g. 1 year to 3 year, or 3 year to 1 year)
- No FX impact

Over the term of each contract, each $1 of ARR will turn into $1 of revenue

How and when that revenue is recognized can vary significantly from period to period

COMPARISON: ARR VS. REVENUE (SUMMARY)

$1 ARR → $1 Revenue

Free Cash Flow = f(ARR)

Revenue is noise[1] when assessing PTC's business performance

[1] Technical definition: irregular fluctuations that accompany a transmitted signal but are not part of it and tend to obscure it

FY'23 AND Q1'23 GUIDANCE

In millions except percentages	FY'22 Actual	FY'23 Guidance	FY'23 YoY Growth Guidance	Q1'23 Guidance
ARR at Constant Currency[1]	$1,572	$1,730 - $1,790	10% - 14%	$1,580 - $1,600
Cash from Operations	$435	~$580	~33%	~$170
Free Cash Flow	$416	~$560	~35%	~$165
Adjusted Free Cash Flow	$468	~$562	~20%	~$166
Revenue	$1,933	$1,910 - $1,990	(1)% - 3%	

Reconciliation of Cash from Operations to Adjusted Free Cash Flow

In millions	FY'22 Actual	FY'23 Guidance	Q1'23 Guidance
Cash from Operations	$435	~$580	~$170
Capex	($19)	(~$20)	(~$5)
Free Cash Flow	$416	~$560	~$165
Restructuring payments	$41	~$1	~$1
Acquisition and transaction-related payments	$12	~$1	~$0
Adjusted Free Cash Flow	$468	~$562	~$166

In FY'23, we expect the quarterly distribution of full year Cash Flow results to follow a similar pattern as in FY'22 and FY'21

[1] On a constant currency basis, using our FY'23 Plan foreign exchange rates (rates as of September 30, 2022) for all periods

FY'23 ILLUSTRATIVE CONSTANT CURRENCY ARR MODEL

What does PTC need to deliver to achieve the midpoint of FY'23 constant currency ARR guidance?

Using FX rates as of September 30, 2022

In millions	Actual FY'20	Actual FY'21	Actual FY'22	What you need to believe FY'23
Beginning ARR	$ 1,043	$ 1,156	$ 1,353	$ 1,572
Organic churn, net of acquisitions and exits	(95)	(89)	(78)	(102)
Acquisitions and exits[1]	5	48	7	-
New ACV	202	238	290	290
New ACV growth %	*11%*	*18%*	*21%*	*0%*
Ending ARR	**$ 1,156**	**$ 1,353**	**$ 1,572**	**$ 1,760**
ARR growth	$ 113	$ 197	$ 219	$ 188
Organic ARR growth	**$ 107**	**$ 149**	**$ 212**	**$ 188**

- FY'23 Ending ARR modelled at the midpoint of our constant currency guidance range
- FY'23 Organic churn modelled assuming churn worsens by ~100bps
- With the above assumptions, to hit the midpoint of guidance for FY'23, we need to
  - add $188M of organic ARR in FY'23, which is $24M less, compared to FY'22
  - add $290M of new ACV, which is flat compared to FY'22
- Note that both organic ARR growth and new ACV increased in FY'20, FY'21 and FY'22

[1] Onshape in FY'20, Arena in FY'21, Russia exit in FY'22 and Codebeamer in FY'22; FY'22 organic churn of 5.6% using FX rates as of September 30, 2021

Q1'23 ILLUSTRATIVE CONSTANT CURRENCY ARR MODEL

What does PTC need to deliver to achieve the midpoint of Q1'23 constant currency ARR guidance?

Using FX rates as of September 30, 2022

In millions	Actual Q1'21	Actual Q2'21	Actual Q3'21	Actual Q4'21	Actual Q1'22	Actual Q2'22	Actual Q3'22	Actual Q4'22	What you need to believe Q1'23
Beginning ARR	$1,156	$1,195	$1,272	$1,295	$1,353	$1,389	$1,440	$1,496	$1,572
Sequential ARR growth	40	77	23	58	37	51	56	76	18
Sequential ARR growth %	3%	6%	2%	4%	3%	4%	4%	5%	1%
Ending ARR	**$1,195**	**$1,272**	**$1,295**	**$1,353**	**$1,389**	**$1,440**	**$1,496**	**$1,572**	**$1,590**
Sequential ARR growth	$40	$77	$23	$58	$37	$51	$56	$76	$18
Acquisitions and exits[1]		(51)				5	(13)		
Organic sequential ARR growth	**$40**	**$26**	**$23**	**$58**	**$37**	**$56**	**$43**	**$76**	**$18**

- Q1'23 Ending ARR modelled at the midpoint of our guidance range
- To hit the midpoint of guidance for Q1'23, we need to add $18M of organic ARR in Q1'23, on a sequential basis
  - $22M less, compared to Q1'21
  - $19M less, compared to Q1'22

[1] Arena acquisition in Q2'21, Russia exit in Q2'22, and Codebeamer acquisition in Q3'22

FY'23 ILLUSTRATIVE FREE CASH FLOW MODEL

What does PTC need to deliver to achieve FY'23 FCF guidance?

In millions	FY'22 Actual		FY'23 Illustrative		Comments
Annual Run Rate (ARR)	**$ 1,572**	**$ 1,572**	**$ 1,760**	**$ 1,760**	Midpoint of constant currency ARR guidance; FY'22 recasted at 9/30/22 rates
Perpetual revenue	34	34	25	25	
Professional services (PS) revenue	163	163	125	125	FX impacts FY'23, compared to FY'22; Roughly 1/3 of PS transitioning to DxP over time
Cash generation	**1,769**	**1,769**	**1,910**	**1,910**	
	GAAP	Non-GAAP	GAAP	Non-GAAP	
Cost of revenue	(386)	(338)	(383)	(341)	FX benefits FY'23, compared to FY'22
Operating expenses	(1,100)	(864)	(1,052)	(870)	FX benefits FY'23, compared to FY'22
Subtotal	(1,486)	(1,201)	(1,435)	(1,211)	
Contribution margin	283	568	475	699	
Contribution margin %	**16.0%**	**32.1%**	**24.9%**	**36.6%**	~890bps improvement in GAAP cash contribution margin; ~450bps improvement non-GAAP
Stock compensation expense	175	-	168	-	
Depreciation expense	27	27	28	28	
Amortization expense	61	-	56	-	
Restructuring-related	(5)	(41)	(1)	(1)	Payments related to our FY'22 restructuring have been completed
Acquisition and transaction-related	1	(12)	(1)	(1)	
Capex	(19)	(19)	(20)	(20)	
Other expense, net	(50)	(52)	(63)	(63)	YoY change primarily due to higher interest on revolving credit facility
Cash taxes	(55)	(55)	(65)	(65)	
Other	(1)	-	(17)	(17)	YoY change primarily due to working capital to support growth
Subtotal	133	(152)	85	(139)	
Free cash flow	**$ 416**	**$ 416**	**$ 560**	**$ 560**	
Net cash provided by operating activities	**$ 435**	**$ 435**	**$ 580**	**$ 580**	
Capex	(19)	(19)	(20)	(20)	
Free cash flow	**$ 416**	**$ 416**	**$ 560**	**$ 560**	
Non-ordinary course payments	53	53	2	2	
Adjusted Free cash flow	**$ 468**	**$ 468**	**$ 562**	**$ 562**	

Based on this model, in FY'23, $188M of incremental ARR would drive $94M of incremental adjusted free cash flow (50% flow through)

WEATHERING A STORM

PTC has a strong track record of disciplined operational management

- **Our top line is resilient** due to our subscription business model and customer stickiness
- **Recent cost optimization** is a tailwind for margins and free cash flow in FY'23, compared to FY'22
  - Restructuring in FY'22 optimized our organization to drive our SaaS strategy and improved our cost structure
  - Resource rebalancing in 2H'22
    - Further aligned our resources with our growth opportunities
    - Enabled the elimination of planned spending related to ~500 open requisitions
- While expecting to be relatively resilient to macro impacts, **we are prepared to adjust**
  - Planned hires as well as backfilling attrition
  - Variable compensation
  - Marketing spend
  - Travel spend
  - Etc.

APPENDIX: FY'23 GUIDANCE ASSUMPTIONS

- We provide ARR guidance on a constant currency basis, using our FY'23 Plan foreign exchange rates (rates as of September 30, 2022) for all periods.
- We expect FY'23 organic churn to be ~5.5%.
- For cash flow, due to invoicing seasonality, and consistent with the past 2 years, we expect the majority of our collections to occur in the first half of our fiscal year and for Q4'23 to be our lowest cash flow generation quarter.
- At the mid-point of ARR guidance, we expect FY'23 GAAP operating expenses to decrease approximately 4% to 5% and non-GAAP operating expenses to increase approximately 0% to 1% compared to FY'22.
- FY'23 GAAP P&L results are expected to include the items outlined below, totaling $216 million to $231 million, as well as their related tax effects:
  - $160 million to $175 million of stock-based compensation expense
  - $56 million of intangible asset amortization expense
- Our FY'23 GAAP and non-GAAP tax rate is expected to be approximately 22%.
- FY'23 capital expenditures are expected to be approximately $20 million.
- Our long-term goal, assuming our Debt/EBITDA ratio is below 3x, is to return approximately 50% of our free cash flow to shareholders via share repurchases, while also taking into consideration the interest rate environment and strategic opportunities.

APPENDIX: ARR RECASTED IN NEW REPORTING STRUCTURE

Using FY'22 Plan FX rates as of September 30, 2021

In millions	Actual FY'18	Actual FY'19	Actual FY'20	Actual FY'21	Actual FY'22	Growth FY'18	Growth FY'19	Growth FY'20	Growth FY'21	Growth FY'22
ARR by Product Group (Constant Currency)										
CAD (Product data authoring)	$ 501	$ 548	$ 611	$ 678	$ 755	10%	9%	12%	11%	11%
PLM (Product data management and process orchestration)	$ 512	$ 589	$ 648	$ 790	$ 950	13%	15%	10%	22%	20%
Ending ARR	**$ 1,012**	**$ 1,137**	**$ 1,258**	**$ 1,468**	**$ 1,706**	**12%**	**12%**	**11%**	**17%**	**16%**
ARR by Product Group (as Reported)										
CAD (Product data authoring)	$ 499	$ 534	$ 614	$ 678	$ 685	9%	7%	15%	10%	1%
PLM (Product data management and process orchestration)	$ 511	$ 578	$ 649	$ 790	$ 887	12%	13%	12%	22%	12%
Ending ARR	**$ 1,010**	**$ 1,111**	**$ 1,264**	**$ 1,468**	**$ 1,572**	**11%**	**10%**	**14%**	**16%**	**7%**

See slide 22 and the Financial Data Tables published on our investor relations website for constant currency ARR history recasted at FY'23 Plan rates as of September 30, 2022

FORWARD-LOOKING STATEMENTS

Statements in this presentation that are not historic facts, including statements about our future financial and growth expectations and targets, and potential stock repurchases, 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 when or as we expect, or may deteriorate, due to, among other factors, the effects of the COVID-19 pandemic, including supply chain disruptions, increasing interest rates and inflation, volatile foreign exchange rates and the current strength of the U.S. dollar, and the effects of the Russia/Ukraine conflict, including the effect on energy supplies to Europe, which could cause customers to delay or reduce purchases of new software, reduce the number of subscriptions they carry, or delay payments to us, all of which would adversely affect ARR and our financial results, including cash flow; our businesses, including our SaaS businesses, may not expand and/or generate the revenue or ARR we expect if customers are slower to adopt our technologies than we expect or if they adopt competing technologies; our strategic initiatives and investments, including our accelerated investments in our transition to SaaS, may not deliver the results when or as we expect; we may be unable to generate sufficient operating cash flow to return 50% of free cash flow to shareholders, and other uses of cash or our credit facility limits or other matters could preclude such repurchases; and foreign exchange rates may differ materially from those we expect. 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.

OPERATING MEASURES

ARR: We provide an ARR (Annual Run Rate) operating measure to help investors understand and assess the performance of our business as a SaaS and on-premises subscription company. ARR represents the annualized value of our portfolio of active subscription software, cloud, SaaS, and support contracts as of the end of the reporting period.

We believe ARR is a valuable operating metric to measure the health of a subscription business because it captures expected subscription and support cash generation from customers.

Organic Constant Currency ARR: We provide an organic constant currency ARR measure to help investors understand and assess the performance of our business without the effect of ARR (other than insignificant amounts) from acquisitions in the comparative period and foreign exchange rate fluctuations.

Because our ARR measures represent the annualized value of customer contracts as of a point in time, they do not represent revenue for any particular period or remaining revenue that will be recognized in future periods.

Churn: We provide churn measures to enable investors to understand and assess our customer contract retention. Churn represents the difference between the ARR amount for all subscription software, cloud, SaaS, and support contracts ended within a reporting period and the annualized renewal transactions started within a reporting period, as of the end of the reporting period.

NON-GAAP FINANCIAL MEASURES

PTC provides supplemental non-GAAP financial measures to its financial results. We use these non-GAAP financial measures, and we believe that they assist our investors, to make period-to-period comparisons of our operating performance because they provide a view of our operating results without items that are not, in our view, indicative of our operating results. These non-GAAP financial measures should not be construed as an alternative to GAAP results as the items excluded from the non-GAAP financial measures often have a material impact on our operating results, certain of those items are recurring, and others often recur. Management uses, and investors should consider, our non-GAAP financial measures only in conjunction with our GAAP results.

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: stock-based compensation; amortization of acquired intangible assets; acquisition-related and other transactional charges included in general and administrative expenses; restructuring and other charges, net; certain non-operating charges and credits; 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” on page 24 of our Annual Report on Form 10-K for the fiscal year ended September 30, 2021..

Free Cash Flow and Adjusted Free Cash Flow: PTC 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 goals and intent to return approximately 50% of our free cash flow to shareholders via stock repurchases. Free cash flow is cash provided by (used in) operations net of capital expenditures. Adjusted free cash flow is free cash flow net of restructuring payments, acquisition and transaction-related payments, and non-ordinary course tax-related payments or receipts. Free cash flow and adjusted free cash flow are not measures of cash available for discretionary expenditures.

Constant Currency (CC): We present CC information to provide a framework for assessing how our underlying business performed excluding the effects of foreign currency rate fluctuations. To present CC information, FY’22 and comparative prior period results for entities reporting in currencies other than United States dollars are converted into United States dollars using the foreign exchange rate as of September 30, 2021, rather than the actual exchange rates in effect during that period. All discussion of FY’23 and comparative prior period ARR results (including FY’22 baseline amounts) are reflected using the foreign exchange rates as of September 30, 2022.

NON-GAAP RECONCILIATION

In millions	FY'22	FY'21
Cash from Operations	$435.3	$368.8
Capital expenditures	($19.5)	($24.7)
Free Cash Flow	$415.8	$344.1
Restructuring payments	$40.8	$14.5
Transaction-related payments	$11.8	$15.0
Non-ordinary course tax payment		$17.9
Adjusted Free Cash Flow	$468.5	$391.4

ptc

DIGITAL TRANSFORMS PHYSICAL

THANK YOU

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