

The ABCs of Creating KPIs Using Solver & Power BI











March 19, 2026

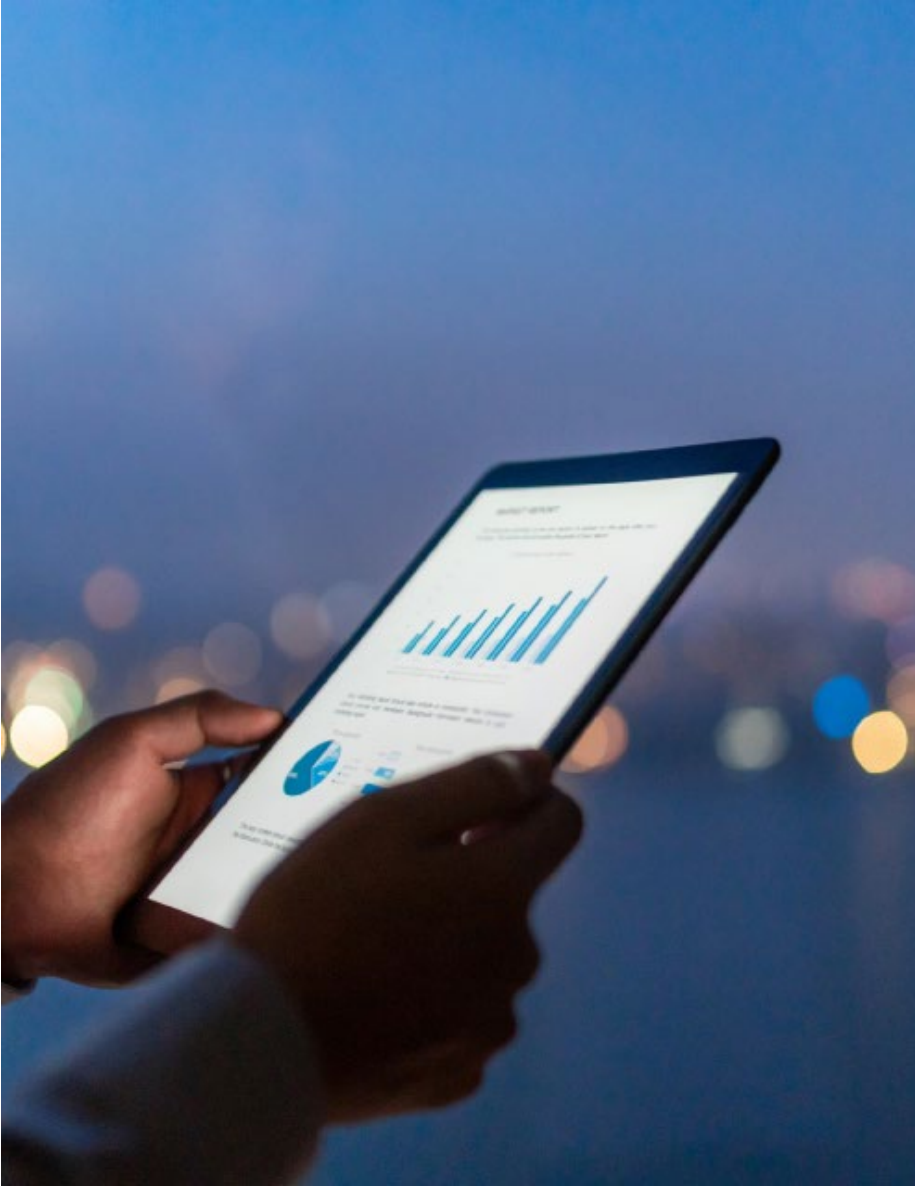
Business Technology Services

We solve for business challenges & support innovation through technology solutions.

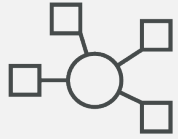
Our toolbox is equipped with leading enterprise resource planning (ERP), customer relationship management (CRM), artificial intelligence (AI), automation, & business intelligence (BI) tools.

Our end-to-end technology solutions & managed services help clients achieve their digital transformation goals. Services include:

-  Solution Assessment & Selection
-  Implementation Project Rescues
-  System Implementation & Integration
-  Business Intelligence (BI) & Analytics
-  Process & Technology Design
-  Robotic Process Automation (RPA)
-  Upgrades, Enhancements, & Automation
-  Custom Application Development
-  Training, Monitoring, & Support
-  IT & Cybersecurity Managed Services



Business Technology Services For Middle Market & Global Organizations



System Integration

ERP

- Microsoft Dynamics 365 Finance, Supply Chain Management, Project Operations, Commerce, Business Central (GP, NAV, AX)
- Oracle NetSuite
- Sage Intacct, Sage 100, Sage 500, Sage Fixed Assets
- Trimble Construction One, Viewpoint, Spectrum, Vista

Intelligence & Automation

- Microsoft Copilot Studio
- Microsoft Power Platform
- Microsoft Azure
- Workato
- Artificial Intelligence (AI)
- Robotic Process Automation (RPA)
- Custom Application Development
- Business Intelligence (BI)
- Solver Extended Financial Planning & Analysis (xFP&A)

CRM

- Microsoft Dynamics 365 Sales, Customer Insights, Customer Service, Field Service
- Marketing Automation



Managed Services

Cybersecurity

- 24/7/365 Security Operations Center (SOC)
- Managed Detection & Response (MDR)
- Managed Security Information & Event Management (SIEM)
- Vulnerability Management
- Managed Brand Protection
- Managed Incident Response
- Virtual CISO (vCISO) Advisory
- Partnerships With SentinelOne, Elastic, Qualys, & More

IT Operations

- Virtual Chief Information Officer (CIO)
- Network Operations Center (NOC)
- Cloud Infrastructure (Azure & AWS)
- Managed Server & Desktop
- Managed Backup & Recovery
- Procurement

Business Applications

- Microsoft Dynamics ERP & CRM
- Microsoft Power Platform
- Microsoft 365
- Oracle NetSuite
- Sage & Sage Intacct
- ISV Add-On Management
- Release & Upgrades Management
- Automated Testing Setup & Support
- End-User Training

Today's Presenter



Charles Allen

Senior Managing Consultant

charles.allen@us.forvismazars.com



Transforming Decision Making With Solver's AI-Enhanced xFP&A

© 2026 Forvis Mazars, LLP. All rights reserved.



Objectives

1. Explain how to create KPIs using Solver expressions and KPI functionality.
2. Outline how to add KPIs to Solver reports.
3. Describe how to create measures in Power BI reports to support KPI visualization.



Agenda

- 1. KPIs
- 2. Creating KPIs in Solver
- 3. Creating KPIs in Power BI



Transforming Decision Making With Solver's AI-Enhanced xFP&A



© 2026 Forvis Mazars, LLP. All rights reserved.



01

KPIs



Just what is a KPI?

KPIs

What Are KPIs



Key Performance Indicators



Used to monitor progress toward reaching goals



Used across the organization



Helps companies track results based on strategy

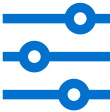
KPIs Categories



Strategic



Operational



Functional

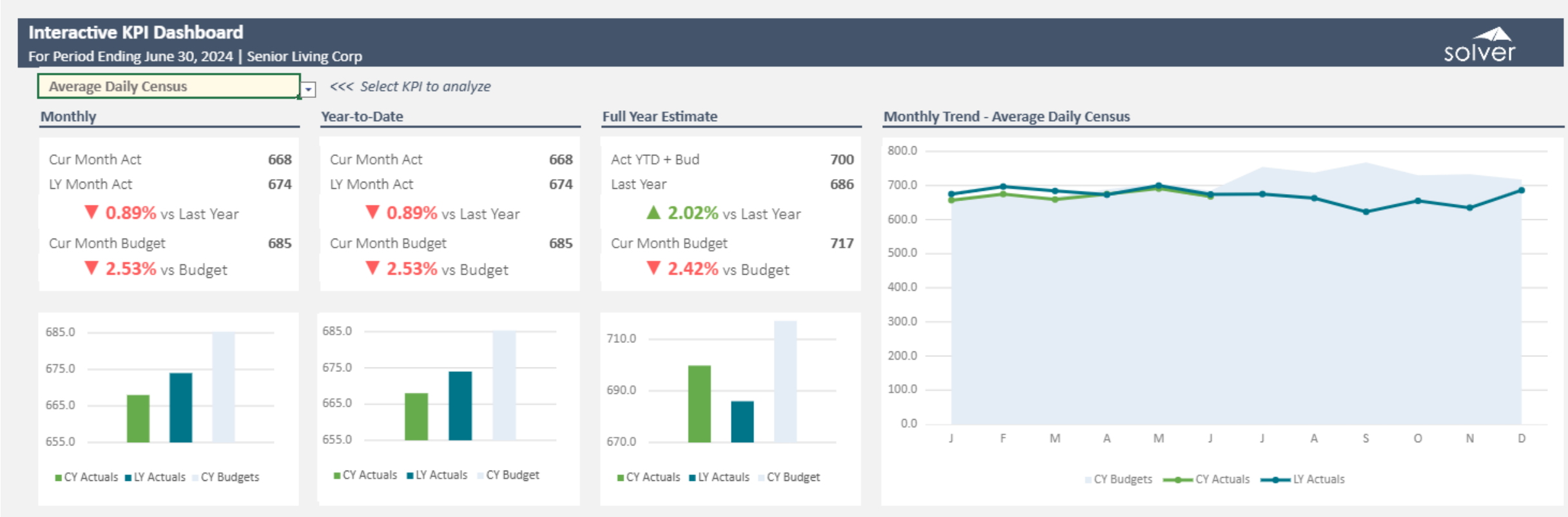


Leading and Lagging

<https://www.investopedia.com/terms/k/kpi.asp>

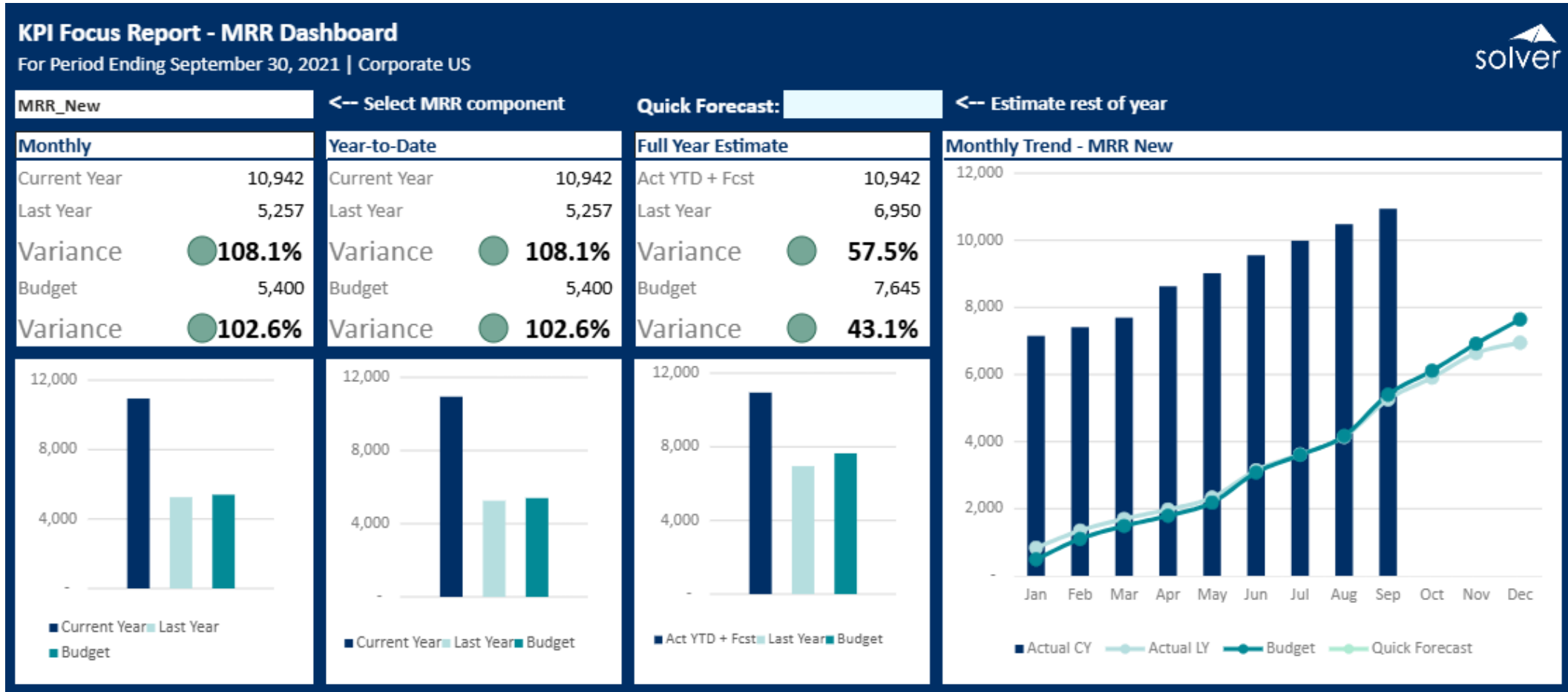
KPIs Examples

Senior Living



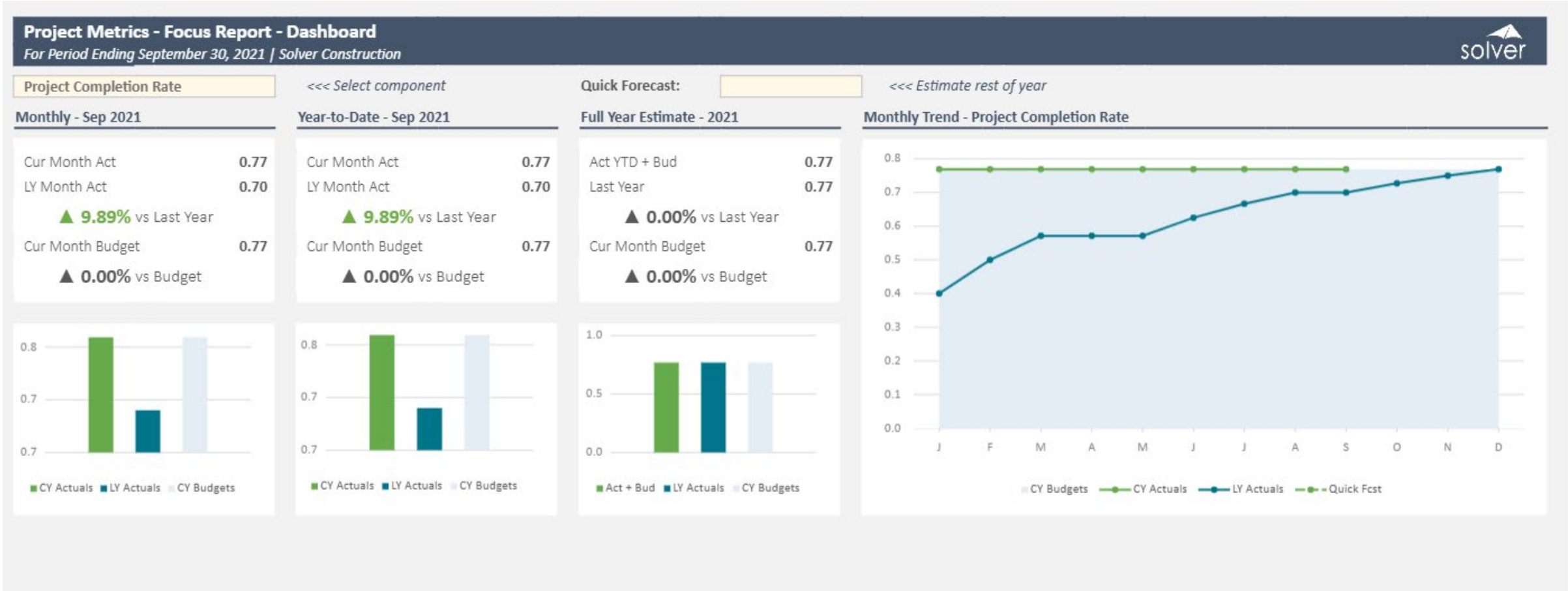
KPIs Examples

SaaS



KPIs Examples

Construction



KPIs Examples

Nonprofit

KPI Summary Report												
For Period Ending September 30, 2025 Mission Forward												
KPI Description	CURRENT PERIOD							YEAR TO DATE				
	Sep - 2001 Actual	Sep - 2001 Actual (LY)	Sep - 2001 Budget	Actual Var (YoY)	Actual Var % (YoY)	Act vs Bud Var (CP)	Act vs Bud Var % (CP)	Sep - 2001 Actual	Sep - 2001 Actual (LY)	Sep - 2001 Budget	Actual Var (YoY)	Actual Var % (YoY)
FINANCIAL KPIs												
Total Revenue	1,363,145	1,396,880	1,220,578	(33,734)	-2.41%	142,567	11.68%	12,795,691	11,883,187	12,453,976	912,504	7.68%
Gross Profit	1,108,630	1,112,554	966,292	(3,924)	-0.35%	142,339	14.73%	10,065,129	9,475,337	9,710,831	589,792	6.22%
Gross Margin	81.3%	79.6%	79.2%	1.7%	2.11%	2.2%	2.73%	78.7%	79.7%	78.0%	-1.1%	-1.35%
EBITDA	3,705,481	219,143	667,957	3,486,337	1590.89% ▲	3,037,524	454.75% ▲	34,978,612	1,642,698	6,923,930	33,335,914	2029.34% ▲
EBITDA Margin	271.8%	15.7%	54.7%	256.1%	1632.75% ▲	217.1%	396.73% ▲	273.4%	13.8%	55.6%	259.5%	1877.49% ▲
Current Ratio	8.88	10.20	0.00	-1.33	-12.99%	8.88	-	3.15	3.66	0.00	-0.50	-13.76%
Debt to Asset Ratio	0.17	0.16	0.00	0.01	7.56%	0.17	-	0.37	0.34	0.00	0.03	9.76%
Debt to Equity Ratio	0.01	0.19	0.00	-0.18	-97.30% ▼	0.01	-	0.04	0.51	0.00	-0.47	-92.04% ▼
Nonprofit KPIs												
Grant Utilization Rate	32	26		5	20.56% ▲	32	-	26	28		(2)	-7.45% ▼
Grant Program Efficiency Ratio	0	0		0	20.56% ▲	0	-	0	0		(0)	-7.45% ▼
Grant Remaining Funds Percentage	68	74		(5)	-7.31% ▼	68	-	74	72		2	2.91% ▲
Grant Restricted Funds Ratio	35	25		10	39.63% ▲	35	-	33	32		1	1.91%
Donor Gift Frequency	7	9		(2)	-26.38% ▼	7	-	7	9		(2)	-26.27% ▼
Donor Major Gift Percentage	35	36		(1)	-1.59%	35	-	35	35		1	1.69%
Average Donor Gift Amount	234	188		46	24.69% ▲	234	-	179	212		(32)	-15.32% ▼
Total Donataion Revenue	34,179	27,538		6,641	24.12% ▲	34,179	-	234,062	276,996		(42,934)	-15.50% ▼
Total Membership Revenue	3,800	7,160		(3,360)	-46.93% ▼	3,800	-	51,777	52,232		(455)	-0.87%
Eligible Member Renewals	1,406	2,180		(774)	-35.50% ▼	1,406	-	16,974	17,077		(103)	-0.60%
Lapsed Member Potential Revenue	1,318	2,576		(1,258)	-48.84% ▼	1,318	-	16,894	17,688		(794)	-4.49% ▼
Total Volunteer Hours	29,475	23,227		6,248	26.90% ▲	29,475	-	247,821	193,668		54,153	27.96% ▲
Volunteer Hours Per Organization	144	112		32	28.14% ▲	144	-	138	106		32	30.03% ▲
Total Events Partipated	4,664	3,712		952	25.65% ▲	4,664	-	39,671	30,883		8,788	28.46% ▲
Volunteer Hours Per Event	6	6		0	1.00%	6	-	6	6		(0)	-0.38%

02

Creating KPIs in Solver



Creating KPIs Using Solver

The Final Product



Monthly Flash Report

September, 2021

Corporate US

U.S. Dollars

	September-2021				August-2021		September-2020	
	Actual	2020 Actual	BUD	% Var	Actual	% Var	Actual	% Diff
PROFIT & LOSS METRICS								
Revenue	1,363,145	1,271,357	1,146,463	118.9%	1,600,649	117.4%	1,271,357	107.2%
Expenses	930,355	980,306	876,962	106.1%	1,194,073	128.3%	980,306	94.9%
Other Expenses	89,671	89,731	84,107	106.6%	106,850	119.2%	89,731	99.9%
Net Income [\$]	432,791	201,320	185,394	233.4%	299,727	69.3%	201,320	215.0%
Net Income [%]	31.7%	15.8%	16.2%	196.3%	18.7%	59.0%	15.8%	200.5%
Return on Assets (ROA)	37.8%	1458.2%	0.0%	0.0%	36.2%	95.7%	33.7%	112.4%
BALANCE SHEET METRICS								
Cash	1,027,218	(62,676)		0.0%	941,942	91.7%	(62,676)	-1638.9%
Current Ratio	2.68	(6.08)	0.00	0.0%	2.55	95.0%	2.30	116.8%
Accounts Receivable (Current)	151,845	1,798		0.0%	149,989	98.8%	1,798	8445.8%
Accounts Payable (Current)	117,473	2,167		0.0%	115,444	98.3%	2,167	5420.8%
Debt to Equity	0.19	0.06	0.00	18045.1%	0.20	108.0%	0.16	117.5%
Debt to Assets	0.76	0.94	0.00	0.0%	0.76	99.8%	0.74	103.3%
DATA METRICS								
Employee Headcount	78	73	76	102.5%	78	100.0%	73	106.8%
Avg Revenue per Day	19,199	0	1,724	1113.6%	22,544	117.4%	17,906	107.2%
Gross Revenue/Headcount	17,476	17,416	15,065	116.0%	20,521	117.4%	17,416	100.3%

Creating KPIs Using Solver

The Process

- Create a row
- Create one or more columns
- Add filters
- Add your measures
- Publish the report



Creating KPIs Using Solver Steps

Row Information

The screenshot displays a financial report titled "Monthly Flash Report" with a "Layout Editor" overlay. The report is organized into sections: "PROFIT & LOSS METRICS" and "BALANCE SHEET METRICS". The "Layout Editor" is currently focused on Row 36, which is "Employee Headcount". The editor shows a filter for "Account" with a value of "90010".

	Actual	#VALUE!	[@Scenario]	% Var	
PROFIT & LOSS METRICS					
Revenue	#VALUE!	#VALUE!	0	0.0%	
Expenses	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly]
Other Expenses	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly]
Net Income [\$]	#VALUE!	#VALUE!	#VALUE!	0.0%	
Net Income [%]	0.0%	0.0%	0.0%	0.0%	
Return on Assets (ROA)	0.0%	0.0%	0.0%	0.0%	
BALANCE SHEET METRICS					
Cash	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly]
Current Ratio	0.00	0.00	0.00	0.0%	
Accounts Receivable (Current)	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly]
Accounts Payable (Current)	#VALUE!	#VALUE!	[Monthly Amount]	0.0%	
Debt to Equity	0.00	0.00	0.00	0.0%	
Debt to Assets	0.00	0.00	0.00	0.0%	
DATA METRICS					
Employee Headcount	#VALUE!	#VALUE!	#VALUE!	0.0%	#VALUE! 0.0% #VALUE! 0.0% #VALUE! [Monthly Amount] [Monthl

Creating KPIs Using Solver Steps

Sheet Filters

Monthly Flash Report					
[FYMonth Label], bel					
[Entity Description]					
[Currency Description]					
	[FYMonth Label]-bel				[FYM
	Actual	#VALUE!	[@Scenario]	% Var	Ac
PROFIT & LOSS METRICS					
Revenue	#VALUE!	#VALUE!	0	0.0%	█
Expenses	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly
Other Expenses	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly
Net Income [\$]	#VALUE!	#VALUE!	#VALUE!	0.0%	█
Net Income [%]	0.0%	0.0%	0.0%	0.0%	█
Return on Assets (ROA)	0.0%	0.0%	0.0%	0.0%	█
BALANCE SHEET METRICS					
Cash	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly
Current Ratio	0.00	0.00	0.00	0.0%	█
Accounts Receivable (Current)	[Monthly Amount]	[Monthly Amount]	[Monthly Amount]	0.0%	[Monthly
Accounts Payable (Current)	#VALUE!	#VALUE!	[Monthly Amount]	0.0%	█
Debt to Equity	0.00	0.00	0.00	0.0%	█
Debt to Assets	0.00	0.00	0.00	0.0%	█
DATA METRICS					
Employee Headcount	#VALUE!	#VALUE!	#VALUE!	0.0%	█
Avg Revenue per Day	0	0	0	0.0%	█
Gross Revenue/Headcount	0	0	0	0.0%	█

Layout Editor

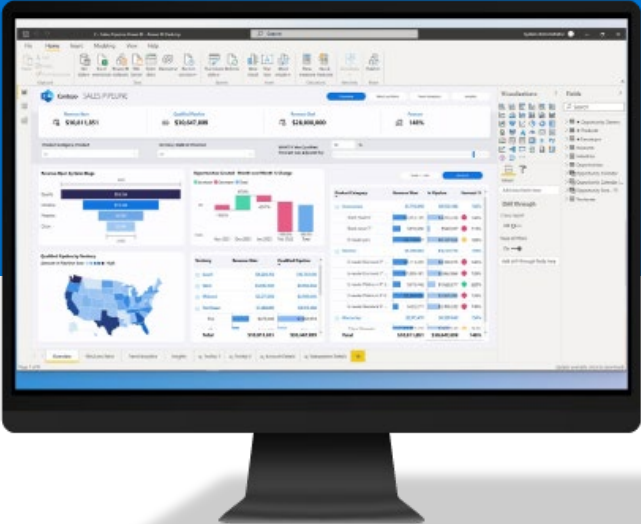
Sheet Filters

Drag fields into area below to create filters

- Entity: In [Entity]
- Category: In [MAIN]
- Scenario: In [ACT:OBA]
- Period: In [@Period]
- Currency: In [USD]

Filters

Demo



Creating KPIs Using Solver Another Option

Copilot Analysis Agent

- Works with reports
- Ask questions
- Make requests

The screenshot displays the Solver Copilot interface. On the left is a navigation sidebar with options like History, Budget, Department, Entity, Forecast, and Period. The main area shows report parameters (Period: 202109, Entity: SUS, Department: 100:500) and a 'Run' button. Below this is a 'Consolidated Profit & Loss' report for 'Entity: SUS - Corporate US' with a 20% variance threshold. The report table compares actuals for Sep-2021 and Sep-2020 against budget and variance.

	Sep-2021 Actual	Sep-2020 Actual LY	Sep-2021 Budget	Act vs Ac Var
REVENUE				
TOTAL REVENUE	2,563,145	1,271,357	1,267,233	1,295,912
COST OF SALES				
TOTAL COST OF SALES	1,454,515	262,877	246,880	1,187,638
GROSS MARGIN	1,108,630	1,008,480	1,020,353	108,127
GROSS MARGIN %	43.25%	79.32%	80.52%	10.00%

On the right, the 'Analysis Agent' chat window is open, displaying a 'Welcome to Solver Copilot' message and a text input field with the analysis scope: 'Consol P&L'.

Creating KPIs Using Solver Another Option

Copilot Analysis Agent

The screenshot shows the Solver interface for a report titled "R111 - Monthly Reporting Package". The left sidebar contains filters for Budget (BUD), Department (100:500), Entity (SUS), Forecast (FCST), and Period (202109). The main area displays report parameters and a "Run" button. Below the parameters is a "Consolidated Profit & Loss" table for Entity: SUS - Corporate US. The table compares Actual vs Budget for Sep-2021 and Sep-2020. A 20% variance flag is shown for the Revenue section.

Report parameters	Period	Entity	Department
	202109	SUS	100:500
Report parameters	Budget Scenario	Forecast Scenario	
	BUD	FCST	Run

Consolidated Profit & Loss				
Entity: SUS - Corporate US				
20% <--- Flag Any Cell Variance Above/Below				
These Accounts have management comments				
	Sep-2021 Actual	Sep-2020 Actual LY	Sep-2021 Budget	Act vs Ac Var
REVENUE				
TOTAL REVENUE	2,563,145	1,271,357	1,267,233	1,295,912
COST OF SALES				
TOTAL COST OF SALES	1,454,515	262,877	246,880	1,191,638
GROSS MARGIN	1,108,630	1,008,480	1,020,353	108,277
GROSS MARGIN %	43.25%	79.32%	80.52%	10.27%

Key KPIs: Actual YTD vs Budget YTD

KPI	Actual YTD	Budget YTD
Revenue	\$8,996,417	\$8,648,634
Gross Profit	\$10,206,057	\$9,952,618
EBITDA	\$1,209,640	\$1,303,984
Net Income	\$359,903	\$465,129

Executive Summary:

- **Revenue and Gross Profit** outperformed budget, both showing positive variance (▲).
- **EBITDA and Net Income** were below budget, indicating negative trends (▼), with Net Income showing a significant underperformance at **-22.6%** vs plan.

Analysis scope: "Consol P&L".

Ask anything

Solver Copilot uses AI. Verify results.



03

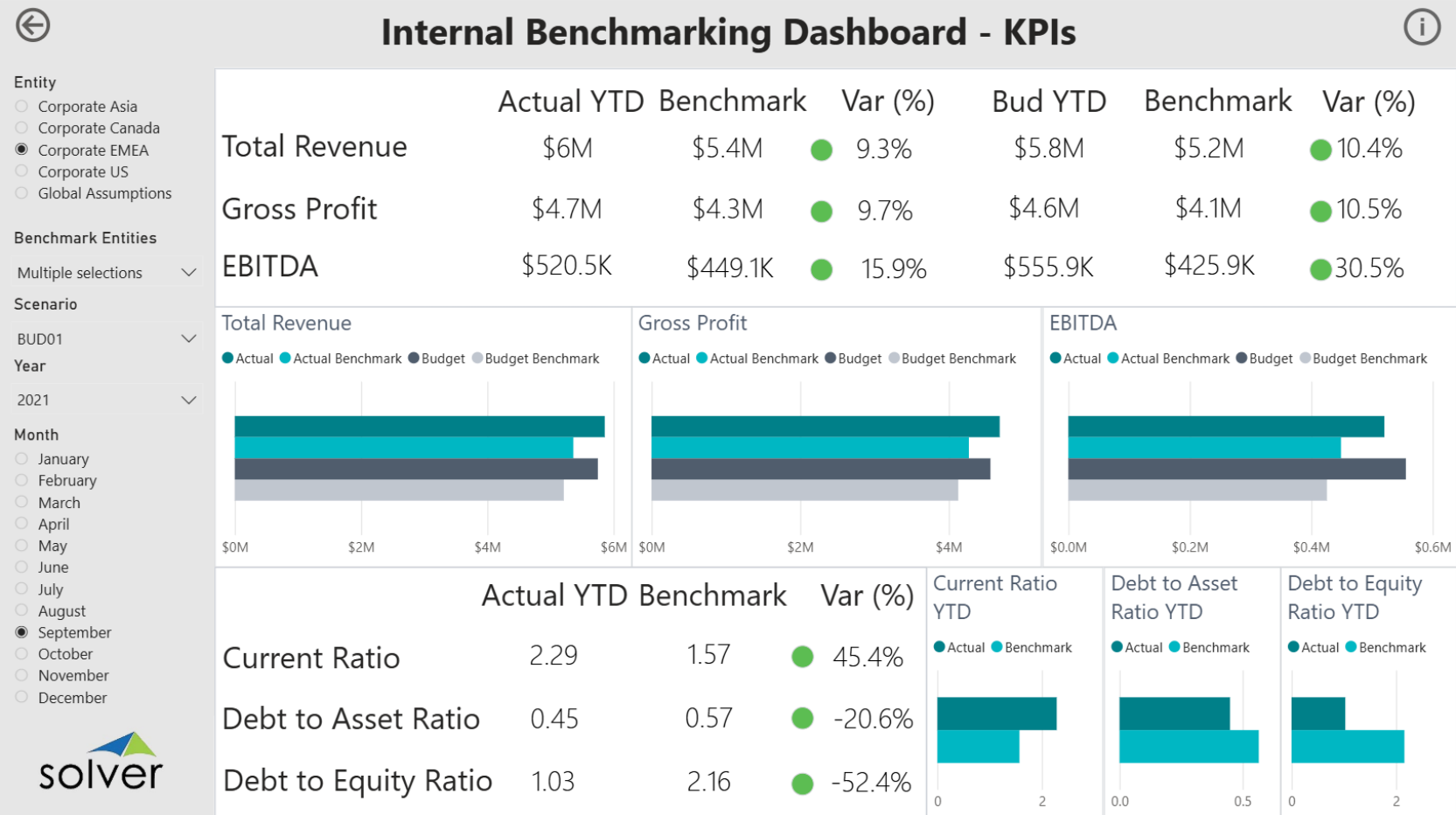
Creating KPIs in Power BI



Power BI

Creating KPIs in Power BI

Example



Creating KPIs in Power BI

Import data

```
graph TD; A[Import data] --> B[Create measures]; B --> C[Use the KPI visualization];
```

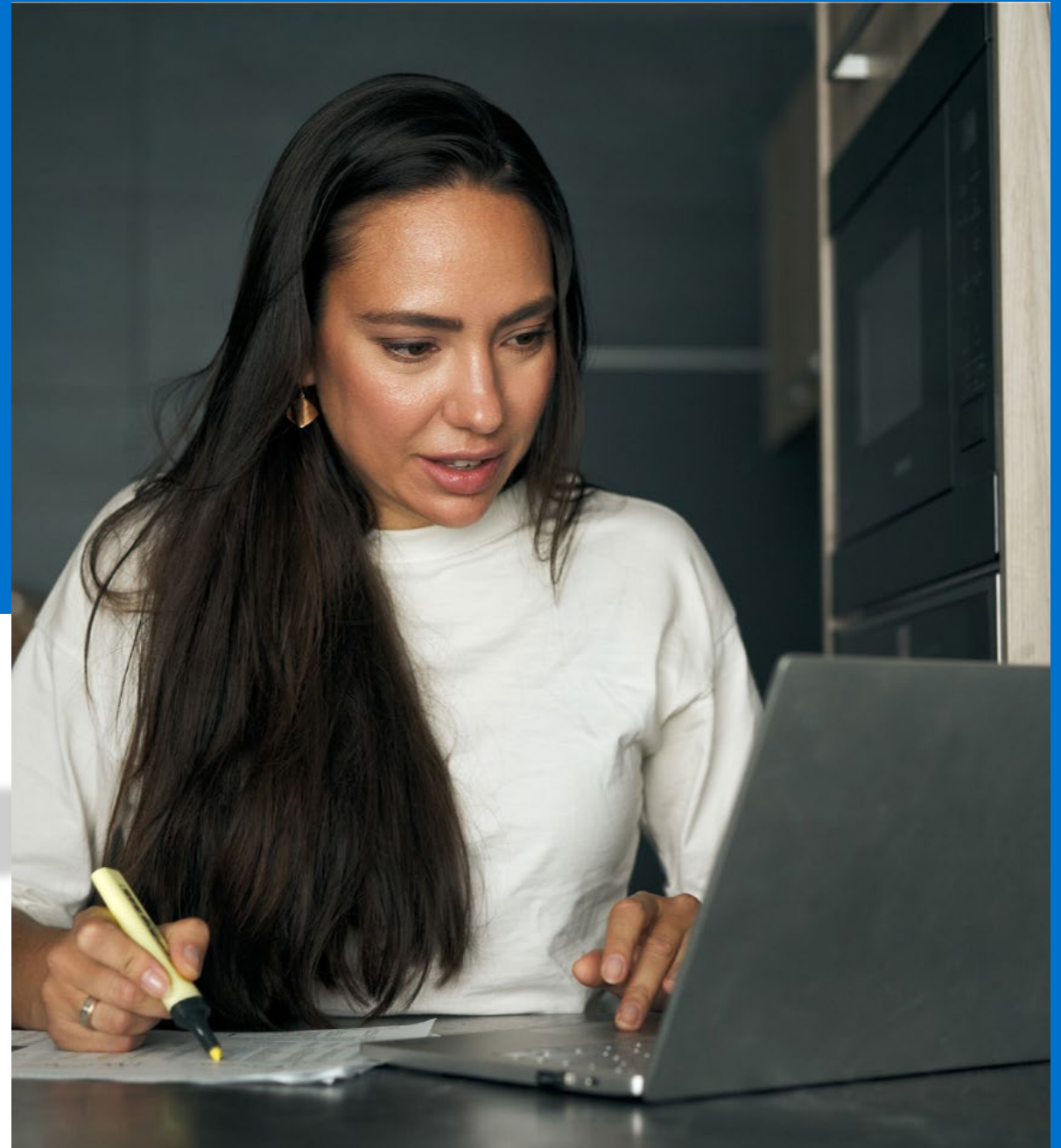
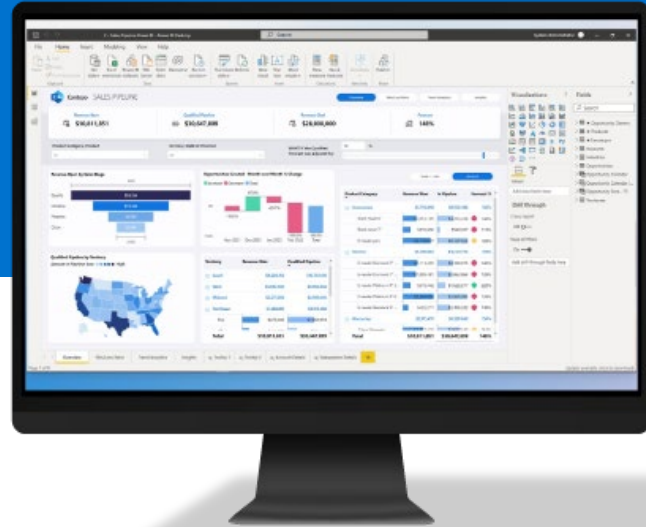
Create measures

Use the KPI
visualization

**No – You can use other
visualizations**

Is the KPI Visualization Required?

Demo



Q&A



Business
Technology
Services

Questions?

Contact

Forvis Mazars



Charles Allen

Senior Managing Consultant

charles.allen@us.forvismazars.com

The information set forth in this presentation contains the analysis and conclusions of the author(s) based upon his/her/their research and analysis of industry information and legal authorities. Such analysis and conclusions should not be deemed opinions or conclusions by Forvis Mazars or the author(s) as to any individual situation as situations are fact-specific. The reader should perform their own analysis and form their own conclusions regarding any specific situation. Further, the author(s)' conclusions may be revised without notice with or without changes in industry information and legal authorities.

© 2026 Forvis Mazars, LLP. All rights reserved.