

SOLVER for Manufacturing Companies

Get Complete Insight

Updated: Jan/2020



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Introduction

The purpose of this white paper is to provide an overview of Solver. With frequent, automated cloud updates, the solution is continuously being enhanced to drive faster, better decisions across its global customer base. For the latest information or to discuss your specific needs, please contact your local Solver partner, visit Solver's web-site or email us at info@solverglobal.com.

Product Summary

Solver provides a single, cloud-based solution that automates reporting and planning processes, and supports faster and better decisions based on key information from across the organization's data sources.

Key benefits that Solver provides include:

- A top-rated <u>Corporate Performance Management (CPM) solution</u> by G2 based on user satisfaction
- Global partner channel with industry expertise to help you whenever and wherever
- Cloud software, support, and upgrades packaged into a subscription price providing unmatched ROI over traditional CPM solutions
- Built for business users to manage the entire solution without the need for developers
- Executive and management data from across the organization that is easily accessible in ONE place with Solver's intelligent data warehouse
- Solver's multi-tenant cloud application provides quick initiation, SOC 2 compliance, automatic software upgrades, and scalability at one's convenience
- Solver provides the power and the familiarity of cloud-connected Excel to solve the most complex formula and layout requirements for reporting and planning template designers
- Easy-to-use, pre-built integration to Power BI, the world's #1 visualization solution
- Fast and cost effective integrations provided with Solver's wizard-driven CSV, SQL, and prebuilt ERP/CRM Connectors
- Unlimited access to reports and dashboards from secure web portal
- Hybrid cloud option provides customers with real-time cloud reporting capabilities for their on-premise ERP system





Company Summary

Solver, Inc. is redefining the category of cloud-based reporting and planning. The Solver solution is built to enable faster and better business decisions across the entire organization. Solver combines financial and other key data into a single tool, powered by the most flexible report and planning form designer on the market. Organizations use this solution to automate and streamline financial and operational reports, consolidations, and budgeting and forecasting processes. Solver empowers users with complete insight that drives intelligent decisions and competitive advantages. Headquartered in the United States, Solver, Inc. has more than a dozen offices and hundreds of partners globally that provide local and industry expertise. To learn more, visit www.solverglobal.com.



MFG02 - Executive Dashboard

This is an example of an executive dashboard. It shows the use of the Solver Data Warehouse to combine numerous important data sources on a single dashboard and present whatever a company determines as the most essential information to an executive. In this sample dashboard, the following information is included:



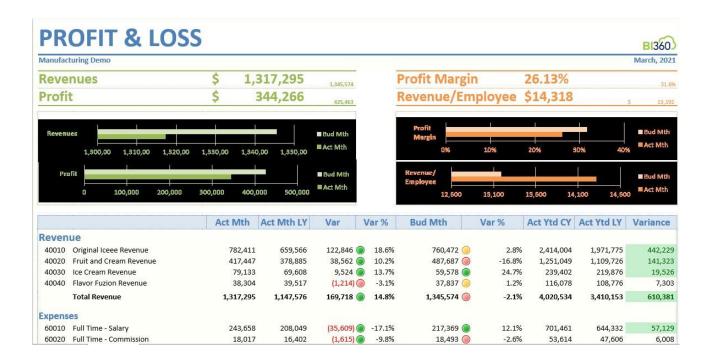
- Actual vs Budgeted Revenues Monthly
- Actual vs Budgeted Revenues Twelve month trend
- COS Twelve month trend
- Inventory turnover rate by distribution center
- Top Customers with drill down to Items
- Top Products (Items) with drill down to Customers
- **Top Suppliers**



MFG03 - Profit and Loss

This Report shows your Net Income and associated account details in Month to date, as well

- Revenue and Profit Chart
- Profit Margin (%) and Revenue/Employee Chart
- Revenue by Products
- ACT MTD, YTD, and Comparative/Variance Columns

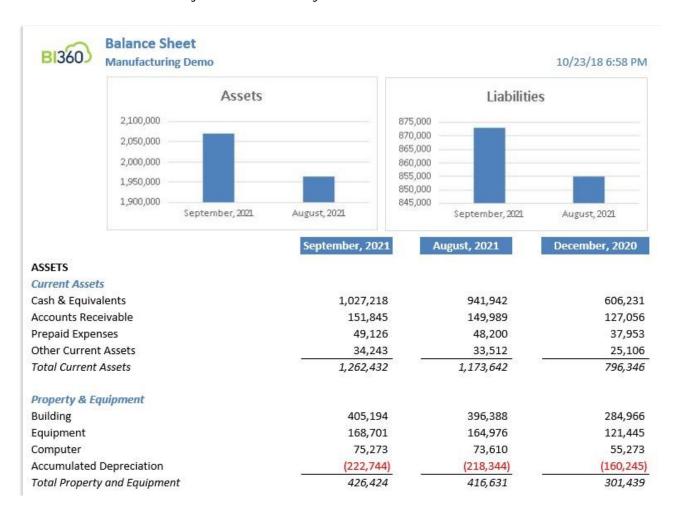




MFG04 - Balance Sheet

This is a standard Balance Sheet for a Manufacturing Company that includes:

- Assets MTD, Prior MTD Chart
- Liabilities MTD, Prior MTD Chart
- Custom Account Attributes (Rollups) Custom categories of accounts may be used in reporting; the data source may be custom built in the Data Warehouse or come directly from the ERP system.





MFG05 - Cash Flow

This report is a standard Cash Flow for Manufacturing. The following information is included:

- Cash Flow from Operating Activities MTD, Prior MTD
- Net Cash provided by Operating Activities
- Cash from Investing
- Cash from Financing
- Net Increase in Cash

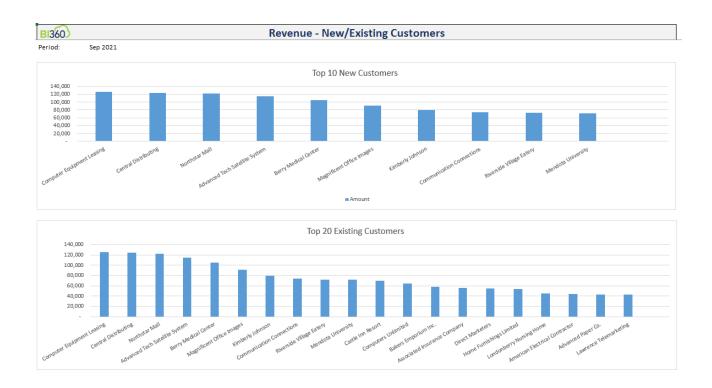
BI360) Manufacturing Demo		10/23/18 6:59 PN
	September, 2021	August, 2021
Cash Flow from Operating Activities		
Net Income	88,605	(46,766
Adj NI to Net Cash Provided by Ops. Activities		
Depreciation & Amortization Expense	(37,987)	(47,301
Other Current Assets	(731)	(819
Non-Current Assets	(8,096)	(9,887
Accounts Receivable	(1,857)	(2,434
Accounts Payable	2,029	2,239
Prepaid Expenses	(926)	(1,000
Net Cash Provided by Operating Activities	41,037	(105,968
Cash Flows from Investing Activities		
Purchase of Property, Plant, and Equipment	(14,194)	(17,993
Accumulated Depreciation	42,387	52,830
Net Cash from Investing Activities	28,194	34,837
Cash Flows from Financing Activities		
Proceeds from Loans	16,044	18,805
Net Cash from Financing Activities	16,044	18,809
Net Increase in Cash	85,276	(52,326
Cash at Beginning of Period	941,942	993,837



MFG06 - Revenue New/Existing Customers

This dashboard example focuses on Revenue from Existing Customers as well as New Customers. The following dashboard features are enabled:

- Custom Filtering by Customers Top 10 New and Top 20 Existing, Measure Sorting (Revenue), Highest Revenue Producers to Lowest
- Period Selection, Drill to Period (Interactive Charts)





MFG07 - Direct Labor Cost by Manufacturing Process

This example shows Labor Cost Totals by Plant, as well as by Employee and Manufacturing Process.



MFG07 - Direct Labor Cost by Manufacturing Proces

Report End: 5/31/2021 Plant: 100 Entity: SUS

Labor Cost by	Process			
Process	Actual	Forecasted	Var	Var %
Blending	\$7,660		\$7,660	100.0%
Cooling	\$6,192		\$6,192	100.0%
Freezing	\$6,075		\$6,075	100.0%
Packaging	\$4,350		\$4,350	100.0%
Storage/Distr	\$5,710		\$5,710	100.0%



Plant 100																
P001	Blending			Da	y Rate	AVG Utilization %	J	an-21	Feb-21	N	lar-21	А	pr-21	N	1ay-21	YTD
Dec-97	Staff	1005	Eric Suzuki	\$	64.11	100.00%	\$	1,950	\$ 1,950	\$	1,950	\$	1,950	\$	1,950	\$ 9,750
Jul-07	Staff	1006	Chris Molina	\$	60.57	100.00%	\$	1,842	\$ 1,842	\$	1,842	\$	1,842	\$	1,842	\$ 9,212
Dec-97	Staff	1015	Orlando Iannetta	\$	66.58	98.80%	\$	1,985	\$ 2,005	\$	1,964	\$	2,025	\$	2,025	\$ 10,004
Jun-06	Supervisor	1367	Kurt Stults	\$	60.57	100.00%	\$	1,842	\$ 1,842	\$	1,842	\$	1,842	\$	1,842	\$ 9,212
P002	Cooling		Da	y Rate	AVG Utilization %	J	an-21	Feb-21	N	lar-21	А	pr-21	N	1ay-21	YTD	
Apr-04	Staff	1209	Clay Cust	\$	78.90	100.00%	\$	2,400	\$ 2,400	\$	2,400	\$	2,400	\$	2,400	\$ 12,000
Mar-03	Staff	1210	Kevin Stubbs	\$	64.11	100.00%	\$	1,950	\$ 1,950	\$	1,950	\$	1,950	\$	1,950	\$ 9,750

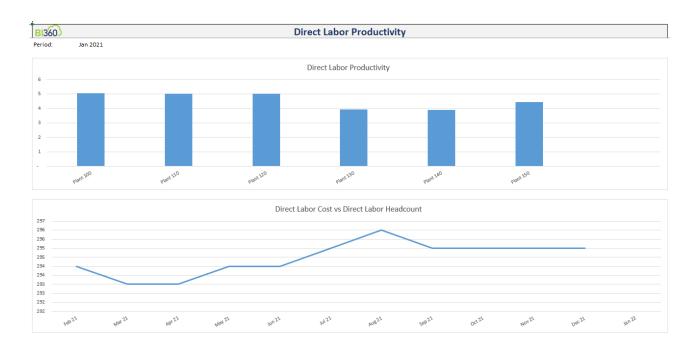
The following information is included in this example:

- Labor Cost Summary by Process/Plant
- Employee Cost Per Day
- **Employee Utilization Rate**
- Labor Cost YTD and YTD Total



MFG08 - Direct Labor Productivity Dashboard

This dashboard example focuses on Direct Labor Productivity, Direct Labor Cost and Direct Labor Headcount.





MFG09 - Direct Labor Turnover Dashboard

This dashboard example focuses on Labor Headcount and Turnover. The following dashboard features are enabled:

- Filtering by Employee
- Period Selection, Drill to Plant ID to view Plant-specific data (Interactive Charts)
- 12 Month Turnover Rate Trend

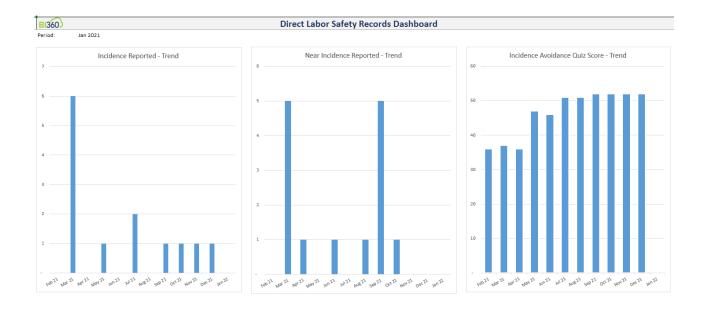




MFG10 - Direct Labor Safety Records Dashboard

This example shows Number of Safety Incidents and Near Incidents Reported. The following dashboard features are enabled:

- Number of Incidents/Near Incidents Reported 12 Months
- Period Selection, Drill to Plant ID to view Plant-specific data (Interactive Charts)
- Safety Quiz Score 12 Month Trend





MFG11 – Labor Forecast by Employee

This report is an example of a Web Budgeting Input Form. Users can track and manage Labor Cost Scenarios by Employee. The report displays the Monthly spread based on Annual Salary. Users can save Monthly Forecasts for Remaining Periods in the Year and compare to Actual Labor Costs incurred.





MFG12 - Open Orders

The Open Orders Report shows following metrics per Product, and is represented by a Pie Chart that shows data as a visual percentage of the whole.

- Qty on Hand
- Qty on Customer Orders
- Qty Available
- Backlog Qty
- Quality %



MFG12 - Open Orders

Solver Global

Report End: 9/30/2021 0:00:00

Plant: 100 SUS Entity:

Item (Product)	Scenario	Qty on Hand	On Customer Orders	Qty Available	Backlog Qty	Quality %
	ACT	98	78	20	10	99.3
102 Berry Blast	PRDFCST	98	78	20	10	99.3
	Variance	0	0	0	0	0.0
Berry Blast			= Qty	on	On Cus	tomer
			= Qty		Backlos	g

426 Dh	ACT	107	64	43	11	99.3
126 Bomb Banana	PRDFCST	107	64	43	11	99.3
Banana	Variance	0	0	0	0	0.0
F-1-1-1	•					



con ci	ACT	153	176	-23	15	99.8
688 Strawberry	DDDECCT	152	176	22	10	00.0



MFG13 – Work Order Management

This report shows a detailed view of Open Work Orders by Plant ID and Product ID. The Note Sequence Column indicates the order in which work orders are processed according to each Facility.

- Plant ID
- Customer
- Work Order ID
- Item (Product)
- Manufacturing Sequence
- Hold Status, Comments, Inventory Status, Capacity Status



MFG13 - Work Order Management

Solver Global

Report End: 1/31/2021 0:00:00

Plant: 100 Entity: SUS Scenario: ACT

Demo Note: Sequence Column indicates order in which work ord

Plant ID	Customer	Work Order ID	Item (Product)	sku	Release Date	Qty Open	Qty Recvd	Status	Sequence	Hold	Comments	Inv Status	Capacity Status
100	CENTR0001	405920	Berry Blast	102	1/1/2021	100		С	1		WIP	ОК	OK
100	CENTR0001	405921	Berry Blast	102	1/1/2021	1		С	2		WIP	ОК	OK
100	CENTR0001	405922	Berry Blast	102	1/1/2021	1		С	3		WIP	ОК	OK
100	CENTR0001	405923	Berry Blast	102	1/1/2021	1		0	4		WIP	ОК	OK
100	CENTR0001	405924	Berry Blast	102	1/1/2021	10		R	5		WIP	ОК	OK
100	CENTR0001	405925	Berry Blast	102	1/1/2021	1		R	6		WIP	ОК	OK
100	CENTR0001	405926	Bomb Banana	126	1/1/2021	1		С	7		WIP	ОК	OK
100	CENTR0001	405927	Bomb Banana	126	1/1/2021	1		С	8		Past Released	SHORT	SHORT
100	CENTR0001	405928	Bomb Banana	126	1/1/2021	1		0	9		Past Released	SHORT	OK
100	CENTR0001	405929	Strawberry Dreams	194	1/1/2021	1		С	10		Past Released	ОК	OK
100	CENTR0001	405940	Berry Blast	102	1/1/2021	25		С	21			ОК	OK
100	CENTR0001	405941	Berry Blast	102	1/1/2021	1		С	22			ОК	OK
100	CENTR0001	405942	Berry Blast	102	1/1/2021	10		С	23			ОК	OK
100	CENTR0001	405943	Berry Blast	102	1/1/2021	1		С	24			ОК	OK
100	CENTR0001	405944	Berry Blast	102	1/1/2021	1		С	25		WIP	ОК	OK
100	CENTR0001	405945	Berry Blast	102	1/1/2021	1		С	26		WIP	ОК	OK
100	CENTR0001	405946	Bomb Banana	126	1/1/2021	1		С	27		WIP	ОК	OK
	1				- /- /	-							



MFG14 – Materials Usage Variance

This report shows the differential between Standard and Actual Cost, as well as Standard Qty and Actual Qty per material used.

- Charts display Actual Cost by Plant and Actual Qty by Plant
- Plant Summary (Top Level)
- Materials/Product Specific detail by Plant (Materials Detail by Product Type)



MFG14 - Materials Usage Variance

Solver Global

Report End: 1/31/2021 0:00:00

ALL Plants Plant: Entity:

Plant Summa	ant Summary Plant 100 Los Angeles		Actual Cost	Price Va		
Plant 100			\$14,610	\$110		
Plant 110	Portland	\$14,400	\$14,616	\$216		
Plant 120	Boise	\$14,400	\$14,639	\$239		
Plant 130	Reno	\$14,400	\$14,470	\$70		
Plant 140	Dallas	\$17,380	\$17,509	\$129		
Plant 150	Kansas City	\$15,100	\$15,204	\$104		

Standard Qty (kg)	Actual Qty (kg)	Qty Var	Var %
60,500	61,732	1,232	2.0%
60,500	60,500 61,048		0.9%
60,500	60,500 60,850		0.6%
60,500	60,830	330	0.5%
72,600	73,035	435	0.6%
61,000	61,000 61,566		0.9%



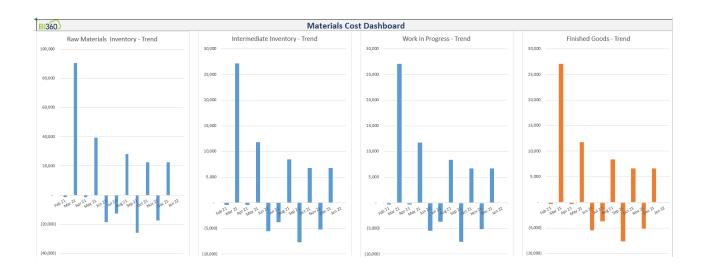




MFG15 - Materials Cost Dashboard

The following dashboard features are enabled:

- Key Manufacturing GL Accounts, 12 Month View
 - o Raw Materials
 - o Intermediate Inventory
 - Work in Progress (WIP)
 - o Finished Goods
- Period Selection, Drill to Department to view Department-level data





MFG16 - Utilities Cost Dashboard

The following dashboard features are enabled:

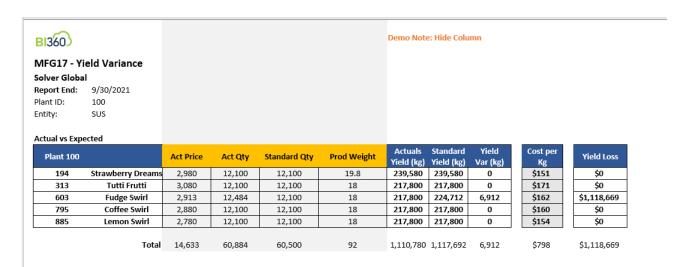
- Key Manufacturing GL Accounts, 12 Month View
 - Electricity Cost
 - Natural Gas Cost
 - Sewage Cost
 - Water Cost
- Period Selection, Drill to Department to view Department-level data (Interactive Charts)





MFG17 - Yield Variance

This report shows Product Yield figures by Plant ID. Yield Variance shows Standard Production Yield vs Actual Production Yield Outcome.





MFG18 - Capacity Utilization Dashboard

The following dashboard features are enabled:

- Capacity Utilization by Plant
- Average Utilization Rate 12 Month Trend
- Period Selection, Drill to Period to view Period-specific data (Interactive Charts)





MFG19 - Equipment Maintenance

This report shows key maintenance data relative to Manufacturing Equipment.

- Machine/Equipment ID
- Maintenance Interval (Hours)
- Maintenance Type
- Equipment Run-Time (Hours): MTD, YTD, YTD Expanding
- Compare CY vs PY Run-Time



MFG19 - Equipment Maintenance

Solver Global

9/30/2021 Plants: 100 SUS Entity:

Plant 100			Sep-21	Hours YTD	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
324000098	B Large Mold Compressor	CY	1,200	10,800	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Maintenance	Days Remaining: 92	PY	1,080	9,720	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080
Interval (hrs): 10000	Maintenance Type Standard	Var	120	1,080	120	120	120	120	120	120	120	120	120
324000099 Mixing Arm A		CY	1,200	10,800	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Maintenance Days Remaining: 92		PY	1,080	9,720	1,080	1,080	1,080	1,080		1,080	1,080	1,080	1,080
Interval (hrs): 8000	Maintenance Type Standard	Var	120	1,080	120	120	120	120	120	120	120	120	120
324000100 Large Cylindar Output Shaft		CY	1,200	10,800	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Maintenance	Days Remaining: 254	PY	1,080	9,720	1,080	1,080	1,080	1,080		1,080	1,080	1,080	1,080
Interval (hrs): 10000	Maintenance Type Standard	Var	120	1,080	120	120	120	120	120	120	120	120	120
22400040	I Minima Anna D	CV	1 200	10.800	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200
Maintenance	Mixing Arm B Days Remaining: 186	CY	1,200 1,080	10,800 9,720	1,200	1,200 1,080	1,200						
Interval (hrs): 9050	Maintenance Type Standard	Var	120	1,080	120	120	120	120	120	120	120	120	120
324000102	2 Freezer Coil	CY	1,200	10,800	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,20
Maintenance	Days Remaining: 254	PY	1,080	9,720	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080



MFG20 – Production Forecast by Plant

This report is an example of a Web Budgeting Input Form. Users can track and manage Production Cost Scenarios by Plant and Product. The report displays the Monthly spread based on Rate Table Selection. Users can save Monthly Forecasts for Remaining Periods in the Year and compare to Actual Labor Costs incurred.

