Infor CloudSuite Industrial SytePlan Implementation and User Guide

for Sales and Operations Planning

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Table of Contents (control-click to follow link)

Sales and Operations Planning Overview

Sales and Operations Planning (S&OP) is the formal monthly process to balance supply and demand with the overall goals of increased throughput, reduced operating expense and increased inventory turnover. It is often referred to as "Management's Handle on the Business".

- Its **FORMAL** – the demand, supply, revenue and inventory forecasts are in writing and agreed to by all the business functions
- Its **Scheduled** – the Demand Planner coordinates a monthly recurring meeting with a standing schedule attended by all functional areas
- Its **Documented –** we can see what we said we were going to do, are going to do, and have done

SytePlan is focused in two basic areas: We provide the tools necessary to create, maintain and accurately monitor the Annual Operating Plan (AOP) year over year, year after year, and we will provide the views, forms and reports necessary to relate the current forecasts and business activities to these plans.

The compilation of the AOP is a significant annual effort culminating in the consensus revenue plan for the next operating year. SytePlan provides the ability to monitor performance versus the plan within the integrated ERP system.   Instead of a managing a large group of difficult to integrate spreadsheets and planning documents we can see the Plan, the Forecast, and our performance and investigate the root causes of shortcomings.

SytePlan provides a variety of tools that are integrated with the ERP system to support the S&OP process.   The tools are broken down into the phases of Sales and Operations Planning:

1. Creating Plans
2. Managing attainment of the Plans
3. Identifying future demand/supply balance problems
4. Analyzing performance vs the Plans
5. Investigating root causes
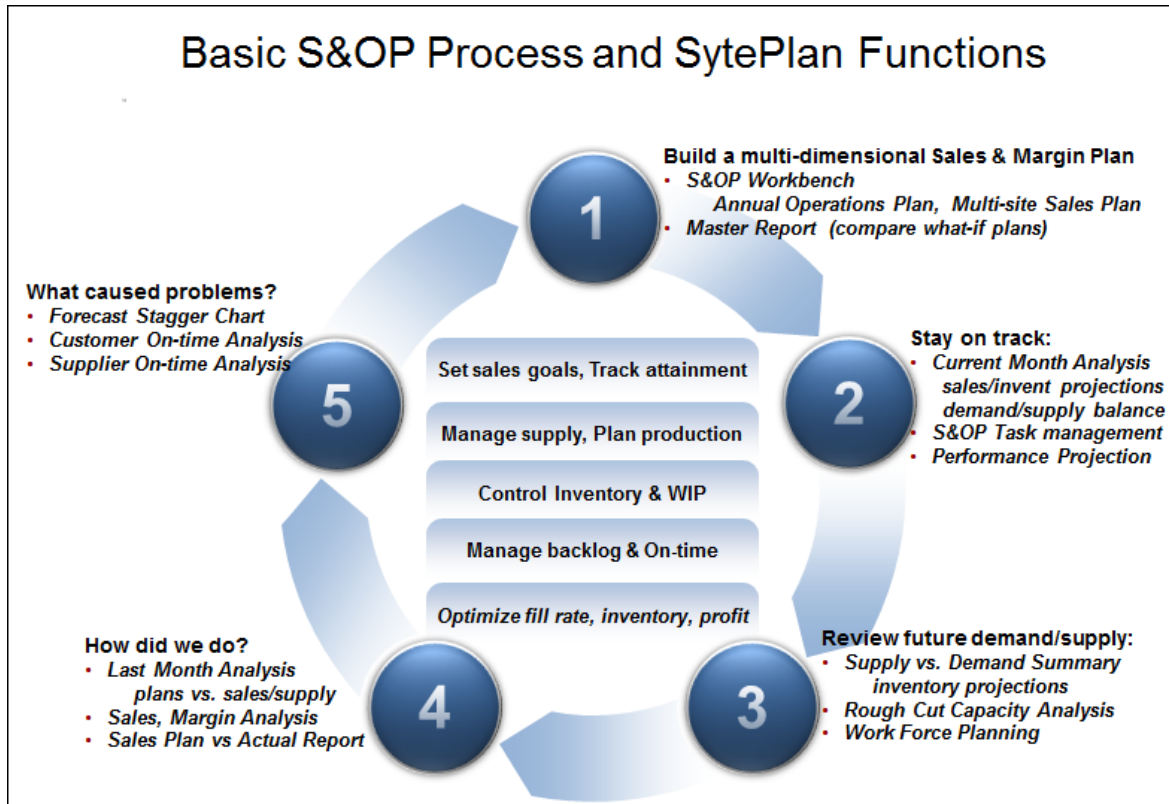
SytePlan does not dictate what your S&OP goals or process should be, but rather provides information and analysis that can help you build an integrated, organized S&OP process to align company activities to balance supply and demand and accomplish company goals.   Your company needs to develop the goals and decide what actvities to monitor that make sense for your company and then select what tools and reports in SytePlan will help support that process.   The below chart shows what areas of the S&OP process can be supported with tools and reports in SytePlan.

What's New in Version 9

- **Plan Workbench performance improvements".** Changes in the code to read the source data faster and build the workbench faster and save a plan faster. For very large databases, there is a new parameter setting that allows the workbench to read directly from the database rather than go through IDO's. Ability to tab quickly through cells on the workbench.

- **Margin Analysis.** A drag/drop/pivot form that functions in the same manner as the S&OP Workbench.   In addition to analyzing sales and margin by multiple dimensions, now the tool allows analysis of Plan or Forecast Variances.

- **Copy Plans to Forecasting** (and vice versa). For situations where the marketing or sales group develops a top down revenue forecast and passes it to the material planners to use as a forecast to drive APS planning.

- **Workforce Planning and Analysis**. Used to develop a multi-dimensional plan for headcount and labor costs using a drag/drop, top down or bottom up graphical workbench like the workbench used to develop an AOP or MSSP.

SytePlan Home Page

The SytePlan Home Page provides quick access links to the most common SytePlan forms and also offers graphs of important S&OP information and S&OP task monitoring.   The below tabs display data based on today's date, which can be specified in the Forecasting Parameters "Testing Run Date".

- The Planning tab shows a graph of Forecast vs AOP vs Actual <u>Revenue</u> using the ASP pricing for all items in the "current" AOP.
- The Monthly Analysis tab shows an analysis of the top AOP items for the current month.   Also shows number of late PO lines, late customer order lines, and late jobs. Also compares the current AOP $$ to the Forecast $$ (using the pricing in the current AOP) and the bookings $$ for the month based on the order date.
- The AOP tab compare the current year AOP to the previous year.
- The Task tab shows a list of tasks for all users (multi-user task list) that has a task name beginning with "SOP".

SytePlan Basic Implementation

1. Implement the basics of MRP/APS in the ERP system and have an understanding of how material planning, BOM explosions, time phasing, and forecast consumption works.

2. Implement the CloudSuite Forecasting application.   This is not required, but having demand forecasts that drive the material planning system is an important component of Sales & Operations Planning. You can manually enter your forecasts into the Forecast form, or you can use a third party forecasting application that exports the forecasts to the Forecast form.   It is also possible to use SytePlan without forecasts and just not use the parts that analyze material demand forecasts.

3. Install the SytePlan application in each of the desired sites.

4. Setup the SytePlan Parameters.

5. Decide if you will build your Plan using AOP or MSSP or both. Then if needed, Define the AOP's.

6. Develop the Plan (AOP and/or MSSP) in the Plan Workbench.   This can involve creating multiple "what-if" AOP's and MSSP's and documenting the assumptions for each then meeting with S&OP team members to agree on a final plan.   This also can include copying the final MSSP to each site's AOP and/or copying AOP's to the Forecasting application.

7. Now you have a companywide, multi-dimensional sales revenue, margin and units plan which is the core of the S&OP process.   You can expand your planning to include goals/plans in some or all of the following areas:
    a. Customer on-time delivery
    b. Vendor on-time delivery
    c. Backlog
    d. Production
    e. Inventory levels
    f. Supply shortfalls
    g. Headcount and labor costs
    h. Forecast accuracy
    i. Materials demand forecast
    j. Financial budgeting (in the core CloudSuite application)
    Then use the tools in SytePlan to monitor the attainment of the goals and investigate the source problems when the goals are not accomplished.

8. Design your S&OP process.
    a. Establish what plans/goals will be used and who is responsible for each.
    b. Decide which SytePlan tools will be used to monitor each plan/goal and how frequently.
    c. Plan when to hold Demand meetings, Supply meetings, operational, and executive meetings and who should attend and what is general agenda for each meeting.
    d. Design any custom reporting that is needed to monitor and analyze the plans/goals.
    e. Identify training needed for the members of the S&OP team.

SytePlan Setup and Parameters
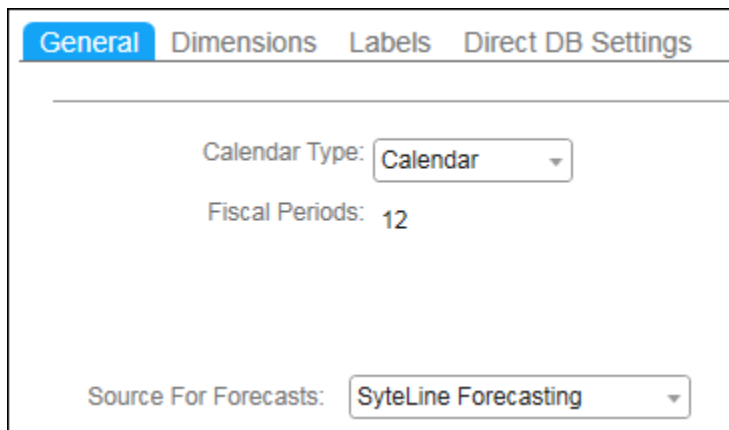
Before using SytePlan, the Accounting Periods, APS Plan Horizon and the S&OP parameters must be setup. Then SytePlan is ready to create an Annual Operating Plan and use SytePlan analysis and reports.

Accounting Periods and Plan Horizon

First be sure the accounting periods are setup in the Accounting Periods form to include all planning periods. Also be sure the Plan Horizon is setup to cover the planning periods on the Planning Parameters form, APS tab.

S&OP Parameters

Use the S&OP Parameters form to define the fiscal calendar and specify the dimensions that will be available to the SytePlan Workbench to build an AOP.   On the General tab, specify if the accounting system uses a Calendar or fiscal year. If fiscal year, enter the number of periods in a year (12 or 13). If the CloudSuite Forecasting application is not used, then you can select for SytePlan to pull forecast information from the CloudSuite Forecast form, rather than from the Forecasting application.

Plan Dimensions

The dimensions are used to group, pivot and adjust the AOP in the workbench.   The list should include all dimensions you may want to use, but the more dimensions listed will have a negative affect on the preformance of how fast the S&OP Workbench calculates.   You can add or delete dimensions at any time, but if you delete a dimension after creating a plan that includes that dimension, then that dimension will no longer be viewable in the S&OP Workbench. However, the data related to that dimension remains in the AOP.   For these reasons, it is recommended that the list not contain dimensions that may not be needed and that changes to the list of dimensions be thought through carefully and not be done very frequently.

General	Dimensions	Labels	Direct DB Settings

	Seq	Dimension
1 ▶	1	ProductCode ▾
2	2	CustNum
3	3	Item
4	4	Whse
5	5	CustType
6	6	Salesperson
7	7	SalesMgr
8	8	SalesClass
9	9	FamilyCode
10	10	EndUserType

The first three dimensions will be the default dimensions displayed when you generate the workbench. This is just the default order/hierarchy and can be changed in the workbench. This sequence should start with 1 and go up in increments of 1. The other listed dimensions can be added to the view from within the workbench from the Show Field List option on the right click menu in the workbench. Selecting CustNum will also provide the Customer Name in the Field List, and selecting Item will also provide the Item Description.

Period Labels

Enter the labels to be used for the accounting periods.

Direct DB Settings

This allows you to select to have the SytePlan Workbench read directly from the database rather than go through IDO's. Most companies will leave this page blank. It is suggested that you first use the workbench without direct DB access. If faster performance is needed then your company administrator can fill in the connection string used to access the SQL db.

S&OP Plan Definition

Before you can build an AOP, you must give it a name and specify the year it covers. The S&OP Plan/Budget Definition form allows you to create or delete Annual Operating Plans (AOP). Multisite Sales Plans (MSSP) are created in the SOP Plan Workbench and can be copied to the Forecasting app, or an AOP, or deleted in this Plan/Budget Definition form. A Plan consists of both a Unit Plan and an Average Selling Price Plan (ASP) for the year.   The unit plan and ASP plan details can be manually entered here, or you can use the SOP Workbench to create the details.

Define the AOP

Plan ID: User Defined.   The same ID may be used for different years

Description: User Defined

Plan Type: Annual Operating Plan (AOP) or Multisite Sales Plan (MSSP). Only an AOP can be created with this form.   MSSP's are created in the SOP Workbench, then can be viewed, deleted and copied to an AOP or Forecast from this form.

Year: Year the plan covers

Plan Group: User Defined (group by user, group by assumption, multiple years in a single group, etc) This has no effect on functionality, it is simply an identifier. Ex: if building a 3 year plan, create an AOP for each year and assign each AOP to a single Plan Group. The plan group is a free form field which only lists what has been entered on other plans. New values entered will show in the drop down after the form is closed and re-opened.

Plan Locking: Control how the plan can be edited (workbench or manually in Plan Detail form). Normally you would only use the Plan Workbench to change the values in a plan since if you manually change a plan in the Plan detail form you cannot modify it after that using the Plan workbench.

Current Plan: Select the plan to use for this year. Only allows one current AOP for each year. The "current plan" is used for comparisons to actual performance (versus a plan alternative or inactive plan).   Note that an MSSP does not have a "current" status, since the only report that uses the MSSP is the Multi Site Sales Plan vs Actual report which allow you to select the MSSP.

Copy to Forecasting

Click the Copy button to copy the AOP or MSSP to the Forecasting application. Select "Forecast" to copy to the unadjusted "Forecast" column on Forecast Main. Select "Multiplier Adjustment" to copy to the Item Adj column on Forecast Main and set the adjustment type to "Override", or select "Replace Adjustment" to copy to the Item Adjustment column and set the adjustment type to "Replace".   For PBOM items with Forecast-As relationships, the copy will sum up the sales of the Forecast-As items into the parent PBOM.

Below is an example of an S&OP process that passes Plans to Forecasts and Forecasts back to Plans. This might apply to a situation where the marketing or sales group develops a top down revenue forecast and passes it to the material planners to use as a forecast to drive APS planning:

Last Month of Prior Year (ex: December):
1. Create unit forecasts in SL Forecasting.
2. Create MSSP in the SytePlan WB for Jan-Dec using the SL Forecast as the source (units come from SL Forecasting, dollars some from CO lines. This will be the baseline AOP for the new year and is a fixed 12 calendar months.
3. Copy the MSSP to the AOP which is frozen and will not be changed for the calendar year.   (the monthly changes will be made to the MSSP)

Month 1 of New Year (January):
1. Calculate the statistical forecasts in SL Forecasting (Forecast Monthly Utility)
2. Copy MSSP to SL Forecasting as a Multiplier (implied multiplier based on what is the current calculated forecast "green column". The Forecast-As items are totaled up to the PBOM level.
3. Manually adjust the multiplier (item adjustment) as needed for individual items.
4. Load the forecast into SL planning (Forecast Update MRP for All Items Utility).
5. Load the forecast into the MSSP (which will allocate the changes that were made in SL Forecasting to the non-item dimensions and dollarize the forecast, and will break the PBOM forecasts down to the Item level considering the quantity per in the PBOM (units come from SL Forecasting, dollars come from MSSP previously created.

Month 2 through 12 of New Year:

1. Update the MSSP in multiple dimensions and dollars
2. Copy the MSSP to SL Forecasting (implied multiplier based on what is the current calculated forecast "green column".
3. Follow steps 3-5 above.

|-------SL Forecasting----------------| |---------------SytePlan------------------------|

Period-12

Create Unit forecasts for period 12/12-11/13.

→ Create MSSP for period 12/12-11/12, using SL Forecasting as unit source and CO-lines as non-unit dimensions source. Roll forward MSSP from 12/12-11/12 to 1/13-12/13.

Revise units/dollars for item dimensions and non-item dimensions. → Save MSSP as AOP and freeze AOP.

Period-1

Calculate statistical forecasts for comparison to MSSP.

MSSP loaded as adjust to Net forecast for 1/12-12/12

Can manual adjust multiplier

Load Net Forecast into SL Planning → SyteLine APS

Copy 1/12-12/12 Net Forecast to MSSP, allocate unit changes to dimensions. → Roll forward MSSP for 1/12-12/12 to 2/12-1/13.

Revise units/dollars for item dimensions and non-item dimensions.

Period-2

Calculate statistical forecasts for comparison to MSSP.

MSSP loaded as adjust to Net forecast for 2/12-1/13

Same as above for months 2/12-12/12.

Sales and Operations Plan/Budget Detail

The "Unit Plan" button on the Plan/Budget Definition form opens the S&OP Plan/Budget Detail form for the selected plan and displays the unit quantities. The "ASP" button opens the same form with the Average Selling Price details for the selected plan. These forms allow you to populate the monthly values for both your ASP Plan and your Unit Plan for any year. The easiest way to access it is via the buttons on the S&OP Plan Definition form which will automatically filter the Plan Type properly to show you just the Unit Plan or just the ASP Plan.

Unit Plan
ASP
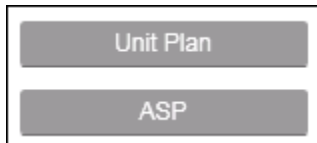
The SOP Plan/Budget Detail is automatically created when you post to a plan on the S&OP Workbench. However, any changes made in the SOP Plan/Budget Detail form are not viewable in the workbench and will be over written by saving to a plan from the workbench. Therefore, if you want to maintain a plan's detail in this form, be sure to select Plan Locking to "Manual Only", which keeps it from being saved to from the workbench.

Plan ID	Description	Type	Year	Item	Description	Family	Planner	Product Code	Jan	Feb	Mar
2013AOP	AOP For 2013	ASP Plan	2013	CP-30000	Shaft,Steel,14"		PP	PP	3	3	3
2013AOP	AOP For 2013	ASP Plan	2013	CU-10000	Cushion,Touring,Seat		PP	PP	4	4	4
2013AOP	AOP For 2013	ASP Plan	2013	FA-10000	Bicycle,Model-30,26"	FG-30	FG	FG-100	40	40	40
2013AOP	AOP For 2013	ASP Plan	2013	FA-11500	Bicycle,Model-30,27"	FG-30	FG	FG-100	240	240	247
2013AOP	AOP For 2013	ASP Plan	2013	FA-14000	Bicycle,Model-30,26"		FG	FG-100	260	260	260
2013AOP	AOP For 2013	ASP Plan	2013	FA-20000	Bicycle,Model-50,26"	FG-50	FG	FG-100	330	330	330
2013AOP	AOP For 2013	ASP Plan	2013	FA-30000	Bicycle,Model-100,700m...	FG-100	FG	FG-100	408	408	410
2013AOP	AOP For 2013	ASP Plan	2013	FL-10000	Flag,Red-White-Blue		PP	PP	0	0	0

Plan ID:	Choose a valid Plan ID, Defined in the S&OP Plan Definition Form
Description:	Defaults from the Plan ID
Year:	Defaults from the Plan ID
Plan Type:	Identifies if the data is the ASP Plan or the Unit Plan
Item:	Item in the Plan
Family Code:	Defaults from the Item
Product Code:	Defaults from the Item
Planner Code:	Defaults from the Item
Period 1 – 13:	Quantity or ASP for this item for this period for this plan year

Plan ID	Item	Description	Type
2013AOP	BK-27000	AOP For 2013	Unit Plan
2013AOP	BK-27000-0...	AOP For 2013	Unit Plan
2013AOP	BR-20000	AOP For 2013	Unit Plan
2013AOP	CC-10001	AOP For 2013	Unit Plan
2013AOP	CC-10002	AOP For 2013	Unit Plan
2013AOP	COOR-LAB1...	AOP For 2013	Unit Plan
2013AOP	CP-10000	AOP For 2013	Unit Plan
2013AOP	CP-15000	AOP For 2013	Unit Plan
2013AOP	CP-20000	AOP For 2013	Unit Plan
2013AOP	CP-30000	AOP For 2013	Unit Plan
2013AOP	CU-10000	AOP For 2013	Unit Plan
2013AOP	FA-10000	AOP For 2013	Unit Plan
2013AOP	FA-11500	AOP For 2013	Unit Plan
2013AOP	FA-14000	AOP For 2013	Unit Plan
2013AOP	FA-20000	AOP For 2013	Unit Plan
2013AOP	FA-30000	AOP For 2013	Unit Plan
2013AOP	FL-10000	AOP For 2013	Unit Plan
2013AOP	FUEL CHAR...	AOP For 2013	Unit Plan
2013AOP	INGOT-01	AOP For 2013	Unit Plan
2013AOP	INGOT-02	AOP For 2013	Unit Plan
2013AOP	INGOT-03	AOP For 2013	Unit Plan

Plan ID: 2013AOP   Description: AOP For 2013
Type: Unit Plan   Year: 2013

Item: FA-10000
Description: Bicycle,Model-30,26"
Family: FG-30   Product Code: FG-100   Planner: FG

Jan: 538
Feb: 538
Mar: 560
Apr: 576
May: 631
Jun: 650
Jul: 706
Aug: 743
Sep: 780
Oct: 743
Nov: 799
Dec: 817
Per13: 0

This form holds the detail for each item being planned for each year. Open this form as a non-linked form to be able to view:

1) Year to year comparisons of item price and/or planned quantities
2) Filter or sort by Product Code, Family Code, Planner Code, etc.

S&OP Plan Workbench

The S&OP Plan Workbench is provided to allow you to use historical sales data, another AOP, or forecast data to prepare an Annual Operating Plan. You can use this data as a starting point, then analyze and adjust this starting point into a new operating plan. The workbench can also be used to create a Multi-Site Sales Plan. A MS Sales Plan is like an AOP, but is for a rolling twelve months instead of a fiscal year, and it can include multiple SyteLine sites.

Generate the Workbench

Before you can use the workbench to build an AOP, the plan must be created by giving it a name and a year using the Plan Definition form. Then the AOP can be generated from one of the following sources:

1) Calculated Average – this is a simple average of sales units. The period to look for sales is defined by what you enter on the Starting/Ending date ranges. The coitem.due_date field is used to filter.
2) Forecast – This is the data from Forecasting for the specified period
3) Plan data – this allows you to choose an existing PLAN as the basis for your analysis

Select the source Data, Click the Regenerate Data View Button and the default view will display:
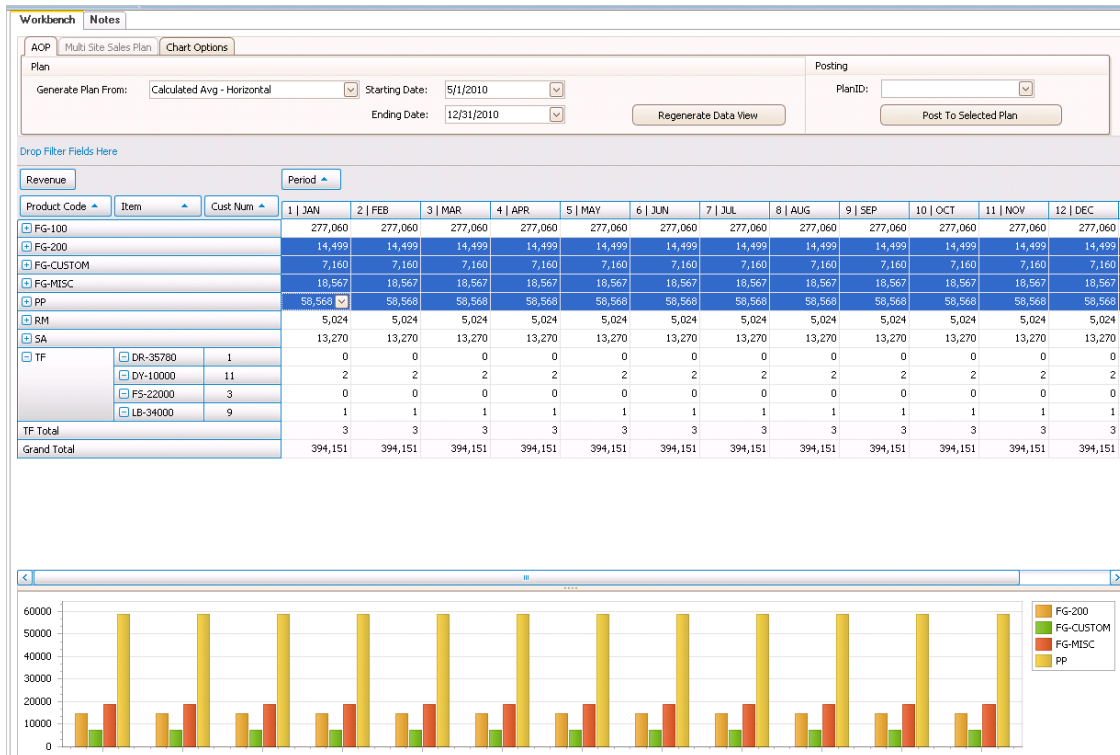
Chart Options

The Chart Options Frame allows you to choose from a variety of charts:

The Default View is defined by how you have setup your dimensions in the S&OP Parameters form->Dimensions tab. This example shows Revenue by Product Code by Month for the selected date periods:

The imbedded chart displays the highlighted rows. For instance, in the display below we have highlighted December and the graph depicts the relationship between each product code.

Configuring the Data View

When you Right Click in the Gray "header area" of the Data you may select from one of three choices:

1) Refresh your data
2) Define "Pre-Filters" for your data or
3) Open a list of Fields available in the Workbench

Pre-filter Example: The example view shows All Product Codes and you wish to "pre-filter" this view and subsequent views to exclude the Product Code TF

Right Click and Choose "Show Pre-Filter
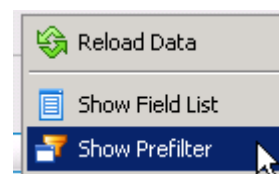
Then Create this Filter:

Notice that in the subsequent display, the Product Code TF Is not displayed.

Show Field List

To sort the grid just click the triangle icon on any of the dimension buttons in the Row Area. To sort by a monetary column, right click on the header of the monetary column and select which dimension to sort by the values in the monetary column.

Show Field List

To modify the data elements you may either drag the items you wish to display to and from the Grey header area or you can use the Row, Column, Data and Filter areas beneath the Field List.

To REMOVE a Dimension from your data:

In this example Left Click on Item, drag it into the upper area until the X appears and then release. This will eliminate the Item detail from your view

To ADD A Dimension from your data:

Right Click and choose "Show Field List

In this example we will choose Salesman:

It is important whether you Add Salesman before or after the Product Code (in this example)

Note that by **Adding Salesman "BEFORE" the Product Code** you see this view

Whereas "AFTER" shows this data

There is no limit to the dimensions you are able to analyze in the S&OP workbench.

Modifying Data in the S&OP Workbench

A very powerful feature of the S&OP Workbench is the ability to modify your data within the workbench.   Going back to our Example we illustrate this functionality. In the data set below, our Salesperson BJS believes he will do more in FG100 and FG200 than the analysis implies:

Revenue	Period ▲												
Sal... ▲	Product Code ▲	1 | Jan	2 | FEB	3 | MAR	4 | APR	5 | MAY	6 | JUN	7 | JUL	8 | AUG	9 | SEP	10 | OCT	11 | NOV	12 | DEC	Grand Total
⊞		100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	1,206,160
⊟ BJS	FG-100	216,184	216,184	216,184	216,184	216,184	216,184	216,184	216,184	216,184	216,184	216,184	216,184	2,594,210
	FG-200	90,258	90,258	90,258	90,258	90,258	90,258	90,258	90,258	90,258	90,258	90,258	90,258	1,083,100
	FG-CUSTOM	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	2,727,340
	FG-MISC	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	221,400

From this data we can see total of about $2.6MM on FG-100 and $1.1MM for FG-200

Mr. Simpson is forecasting $3MM and $1.5MM for both the two product codes. He simply changes the totals and the system pro-rates the changes back to the individual periods. His totals, and the grand Totals are updated in real time.

Revenue	Period ▲												
Sal... ▲	Product Code ▲	1 | Jan	2 | FEB	3 | MAR	4 | APR	5 | MAY	6 | JUN	7 | JUL	8 | AUG	9 | SEP	10 | OCT	11 | NOV	12 | DEC	Grand Total
⊞		100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	100,513	1,206,160
⊟ BJS	FG-100	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	3,000,...
	FG-200	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	1,500,000
	FG-CUSTOM	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	227,278	2,727,340
	FG-MISC	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	221,400
	PP	3,689	3,689	3,689	3,689	3,689	3,689	3,689	3,689	3,689	3,689	3,689	3,689	44,266
	RM	5,006	5,006	5,006	5,006	5,006	5,006	5,006	5,006	5,006	5,006	5,006	5,006	60,077
	SA	8,371	8,371	8,371	8,371	8,371	8,371	8,371	8,371	8,371	8,371	8,371	8,371	100,450
	TF	1	1	1	1	1	1	1	1	1	1	1	1	13
BJS Total		637,795	637,795	637,795	637,795	637,795	637,795	637,795	637,795	637,795	637,795	637,795	637,795	7,653,545
⊞ JAR		108,488	108,488	108,488	108,488	108,488	108,488	108,488	108,488	108,488	108,488	108,488	108,488	1,301,856
⊞ RMW		427,788	427,788	427,788	427,788	427,788	427,788	427,788	427,788	427,788	427,788	427,788	427,788	5,133,450
⊞ RPC		221,066	221,066	221,066	221,066	221,066	221,066	221,066	221,066	221,066	221,066	221,066	221,066	2,652,786
Grand Total		1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	1,495,650	17,947,796

And finally he believes that March will have an increase of at least 15% over that:

Sal... ▲	Product Code ▲	1 | Jan	2 | FEB	3 | MAR	4
⊞		100,513	100,513	100,513	
⊟ BJS	FG-100	250,000	250,000	250,000	
	FG-200	125,000	125,000	143,750	
	FG-CUSTOM	227,278	227,278	227,278	
	FG-MISC	18,450	18,450	18,450	
	PP	3,689	3,689	3,689	
	RM	5,006	5,006	5,006	
	SA	8,371	8,371	8,371	
	TF	1	1	1	
BJS Total		637,795	637,795	656,545	
⊞ JAR		108,488	108,488	108,488	
⊞ RMW		427,788	427,788	427,788	
⊞ RPC		221,066	221,066	221,066	
Grand Total		1,495,650	1,495,650	1,514,400	

Again, updating the totals as you go

Plan Notes

Notes can be entered on the Notes tab on the SOP Workbench. If the Workbench was loaded with a previous Plan, the Plan ID is defaulted to the Plan that was loaded. If working on a new plan, or, revising another plan that will be saved to a new plan, then the user must type in the name of the Plan ID that the Plan will be saved to. Once a note has been entered with Plan ID, new notes will default to this Plan ID. If loading a previous plan and saving to a new plan, the notes of the old plan are not copied to the new plan.

	Plan ID	Date	User Name	Dimension	Starting Date	Ending Date	Notes
1▶	Steve-1[2011]	05/09/2012	sa		05/01/2012	06/30/2012	Increased total revenue for all categories b
2		05/11/2012	sa	CustType			Increased the distributors by 10% for entire
3	TEST[2012]	05/07/2012	sa	ProductCode	09/01/2012	12/31/2012	Increase Sep-Dec by 20% for FG-100 produ
✱							

Creating a NEW Plan from the S&OP Workbench

When you have completed your analysis and choose to create a new Annual Operating Plan please follow these Steps:

Update an Existing Plan:
Choose an Existing Plan (this will over write any
Data in this plan) or

Create a New Plan in the BTOSP Plan Definitions form and
Post to that new plan.

All plans used by the system must be first defined in the BTSOP Plan Definition form:

Once they are in this form you can select them in Generate Plan From and Posting dropdowns on the workbench.

Note that regardless of the dimensions in the S&OP Workbench your plan will contain Units and Average Selling Price.

You can also choose to export your plan to Excel. Simply choose the Export Button and whatever dimensions you have currently selected will be passed to Excel.

Annual Operating Plan(AOP) VS. Multi-Site Sales Plan (MSSP)

The Plan Workbench can also be used to create a Multi-Site Sales Plan (MSSP). A MSSP is like an AOP, but is for a rolling twelve months instead of a fiscal year, and it can include multiple SyteLine sites.   The MSSP does not create a Unit Plan nor an ASP that is viewable in the Plan Definition form and does not require an item level plan.   Also, you do not need to define the MS Sales Plan before it can be saved in the S&OP workbench like you do with an AOP, in fact the only way to create an MSSP is by using the SOP Workbench.   Since the MSSP does not require item level detail, it is not in various SytePlan tools, like Last Month Analysis or Current Month Analysis, but can be compared to actual sales with the MS Sales Plan vs. Actual report.
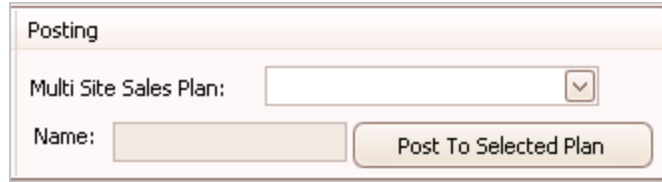
An MSSP is not just for multi-site companies, an MSSP can be created for a single site. Some companies use the AOP for the fiscal year sales and margin budget as this is normally created once a year for the fiscal year, and possibly updated quarterly. The AOP can be compared against the material Forecasts (which normally change monthly) using the [Master Report](#). Some companies may prefer to use an MSSP to have a rolling twelve month sales and margin plan that changes monthly, and may want to copy the MSSP to the Forecasting app to also drive the development of material forecasts.   The MSSP is not included on most SytePlan forms and reports, but if the MSSP is copied to the forecasts, or copied to the current AOP, then most forms and reports do include forecasts and/or AOP.   The ability to copy an MSSP to Forecasting provides the ability for a company to use the SOP workbench to create a "top down" sales plan that becomes the Forecast which drives the material planning system.   With this approach, a company could develop an MSSP, then copy it to an AOP to freeze it for the year for budgeting, then revise the MSSP and roll it forward monthly for material planning.

Creating a Multi-Site Sales Plan in the S&OP Workbench

The MS Sales Plan form allows you to use customer order history from all the sites of the selected site group to calculate the new MS Sales Plan, thereby generating a MS Sales Plan for all of your sites. You can pivot by Site and save to a new MS Sales Plan.

The process to create an initial 12 period rolling MS Sales Plan is as follows:

1) Create your initial MS Sales Plan

   a. Open the Plan Workbench and click on the MS Sales Plan tab. Select the Multi-Site group. Enter the starting/ending date to pull the customer order history from and enter the MS Sales Plan Starting Date (first month of the 12 month rolling MS Sales Plan. Click Regenerate Data View.

   b. Now you can manipulate the numbers by site, or any of the various dimensions available.

2) Save your MS Sales Plan

   a. Select NEW in the posting dropdown and give the MS Sales Plan a name, then click post:

   b. Now the MS Sales Plan is saved and you can bring it back up to view or roll forward at a later time.

The process to "roll" the previously created MS Sales Plan forward to a new 12 periods is as follows:

1) After a month has passed, the first period of the previously saved MS Sales Plan is now history, so we need to shift the old MS Sales Plan period values forward one period… OR… we need to drop off the old period 1 values and create new values for the new period 12.

a. Select last month's MS Sales Plan in the Source, the MS Sales Plan Starting Date defaults to how it was last saved. You can now change the start date to be the next month (ie the first date of the new 12 period MS Sales Plan). The system will ask if you want it to shift the period values forward so the previously saved MS Sales Plan values are retained, but start on the new start date)"Shift previous MS Sales Plan forward to new start date")… OR… to keep the values for each period the way they were in the last saved version of this MS Sales Plan, deleting the old period 1 MS Sales Plan and creating a new period 12 forecast using the same values as the previous period 12 forecast ("Keep each period's values and create new values for the new periods"):

b. Now you can make any changes and post to the same MS Sales Plan, or if you want to keep a history of MS Sales Plans then you can save this one under a new name just like last month.

The process to load a forecast from the SyteLine Forecasting application into a MSSP is as follows:

2) Select the source then check the "Use SL Forecast for Units", which will pull in the unit quantity forecast for all forecasted items. The selling prices and the non-item dimensions come from the following:

a. If "calculated avg" or "seasonal" is selected as the source, then the pricing and allocation to non-item dimensions come from the customer orders in the selected date range. Ie, if 40% of the orders in the date range were from customer 1 and 60% were from customer 2, this same ratio is used to build the MSSP based on the unit quantities in the forecast.

b. If a previously saved MSSP is selected as the source, then the pricing and non-item dimensions come from the selected MSSP, but the unit quantities come from the forecast. So, if you copied a MSSP to Forecasting and changed the forecast quantities, then loaded the new forecast into the same MSSP, the quantity changes that were made are updated in the MSSP and the non-item dimensions are updated by cascading the unit changes through all of the non-item dimensions. (see the flow chart under the Copy to Forecasting section).
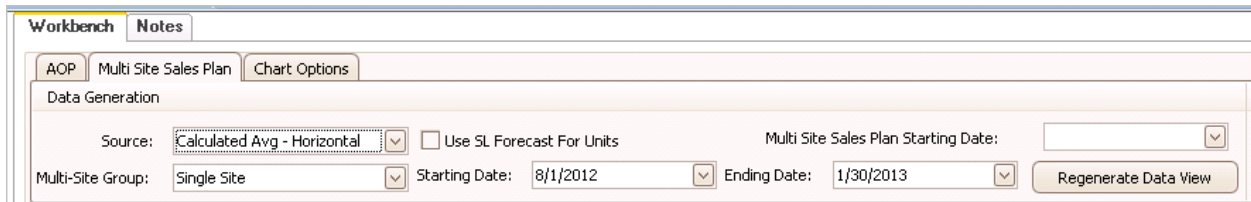
S&OP Operational Analysis

Current Month Analysis – Summary

This form is designed to aid in answering the question "How am I doing so far this month compared to what I said I was going to do?" To begin select the Product Code or Family Code ranges that you wish to analyze. Select if you wish to see the full item level detail or just a summary at the Family/Product code level. Then choose if you want to group by Family Code or Product Code and hit process. The S&OP Current Month Analysis form allows you to see your month from the perspective of Supply and Demand including your Plan and Forecast. This query builds data real time and is extremely capable at helping you see where to optimize your billing plan for the month.

	Group	Item	PLAN	FCST	Shipped	Backlog	Delta Fcst	F/G	Rcpts	WIP	Supply Fcst	Sales	Supply Reqd	Proj F/G
1▶	FG-100	Unit Sub Total	925	537	0	491	-46	476	325	525	1,001	461	30	540
2	FG-100	Dollars Sub Total	96	56	0	49	-7	14	10	16	30	19	30	11
3	FG-200	Unit Sub Total	500	1,112	146	37	-929	119	0	0	265	183	0	82
4	FG-200	Dollars Sub Total	62	141	17	5	-120	0	0	0	0	0	0	0
5	Total	Unit Total	1,425	1,649	146	528	-975	595	325	525	1,266	644	30	622
6	Total	Dollars Total	158	197	17	54	-127	14	10	16	30	19	30	11

Form definitions and calculations:

- Group - Based on the Sub Total By Selection, can be either the Family Code or Product Code of the Item
- Item - Item Number – SyteLine Item number.
- PLAN - This is the Item's AOP Plan for this year's plan that is marked as "Current"
- FCST – Forecast. Based on the Forecast parameter in S&OP Parameters, this is either the Forecast stored in SyteLine Forecasting application in the Syteline Forecast Form.
- Shipped - Qty Shipped from CO Shipments file for this month. Based on Ship Date.
- Backlog – these are all the unshipped customer orders due in the current month. Qty Ordered - Qty Shipped from Customer Order Lines files for this month. Based on Due Date.
- Delta Forecast – this is the difference between orders booked versus the forecast. Shipped + Backlog – Forecast.
- F/G – Nettable inventory when the query is performed.   Sum of Qty On Hand from Item Stock Room Locations for the item where MRB Flag is not checked and Dedicated Inventory is not checked on the warehouse.
- Rcpts – These are production receipts (Job Finishes, JIT Transactions and Production Schedule completions) during the current month.   Sum of Item's material transactions where((ref_type

in('K','J','S') and trans_type = 'F')or (ref_type in('T','P') and trans_type = 'R')). Based on Transaction Date.

- WIP – The total of all jobs and PS Item Releases where the due date is within this month. Qty Released - Qty Complete + Qty Scrapped of Released jobs where Rework Flag is off. Based on Job End Date. Then add in Open PO's Due, Qty Ordered - Qty Received + Qty Returned Where Poitem Status is Ordered. Based on Due Date. Finally add in T.O.'s in transit, Qty Req - Qty Received Where TO Line Status is "T". Based on Sch Rcv Date.

- Supply Forecast – This is the sum of what has shipped, what is in finished goods, and what is still in WIP for this month.   WIP + FG + Shipped.

- Sales – Projected Sales by month end. This is the lesser of the Supply or the Demand. If Supply Forecast < Shipped+Backlog Then Supply Forecast else Shipped+Backlog.

- Supply Required – This is new Manufacturing Orders that, if we can execute, can be shipped. - If Backlog > (WIP+FG) then Backlog-(WIP+FG) else 0.

- Projected Finished Goods – Based on the existing Supply and Demand, this is our projection of available inventory at the end of the month. If WIP+FG > Backlog then WIP+FG-Backlog else 0.

Notice some apparent anomalies in the analysis – It is necessary to look at the detail to understand this data. For instance, we need to add units to the FG-100 supply, but our finished goods will also rise?

Current Month Analysis – Detail

	Group	Item	PLAN	FCST	Shipped	Backlog	Delta Fcst	F/G	Rcpts	WIP	Supply Fcst	Sales	Supply Reqd	Proj F/G
1 ▶	FG-100	BB10	575	294	0	75	-219	240	125	375	615	75	0	540
2	FG-100	BB20	350	243	0	416	173	236	200	150	386	386	30	0
3	FG-100	Unit Sub Total	925	537	0	491	-46	476	325	525	1,001	461	30	540
4	FG-100	Dollars Sub Total	96	56	0	49	-7	14	10	16	30	19	30	11
5	FG-200	BG10	300	342	45	17	-280	23	0	0	68	62	0	6
6	FG-200	BG20	200	770	101	20	-649	96	0	0	197	121	0	76
7	FG-200	Unit Sub Total	500	1,112	146	37	-929	119	0	0	265	183	0	82
8	FG-200	Dollars Sub Total	62	141	17	5	-120	0	0	0	0	0	0	0
9	Total	Unit Total	1,425	1,649	146	528	-975	595	325	525	1,266	644	30	622
10	Total	Dollars Total	158	197	17	54	-127	14	10	16	30	19	30	11

The answer to this anomaly lies with both items in the FG-100 family.

BB10
The analysis plainly shows we should stop our immediate focus on building BB10 – even though we are nowhere near the PLAN. WE do have units to satisfy the forecast.

BB20

On the other hand, the backlog is strong, in fact it is over the forecast, on BB20 – and we if could add 20 more units to the supply, they could ship

This type of information is vitally important to the factory and with allows the S&OP user to make better choices about resource allocation. Now for the bottom line:

- The Plan for this month was $158K
- The Forecast was $197K
- But our projected sales are pointing to $19K. And we can see where the problems are.

Last Month Analysis

	Group	Item	PLAN	Forecast	Shipped	Late Orders	Sales Mix Plan	Sales Mix Forecast	F/G	Rcpts	Late WIP	Supply Forecast	LOS	Plan Dollars	Forecast Dollars	Sales Dollars
1▶	FG-100	30F	0	0	0	0	0	0	0	0	0	0		0.0	0.0	0.0
2	FG-100	CC-10001	1	0	0	0	-1	0	900	0	0	900		0.5	0.0	0.0
3	FG-100	CC-10002	1	0	0	0	-1	0	900	0	0	900		0.5	0.0	0.0
4	FG-100	FA-10000	3	120	1	0	-2	-119	619	0	601	1,220		0.8	33.6	1.2
5	FG-100	FA-20000	25	184	0	0	-25	-184	2,866	0	200	3,066		8.2	60.4	0.0
6	FG-100	FA-30000	23	11	0	0	-23	-11	1,319	0	531	1,850		10.4	5.0	0.0
7	FG-100	LT-1000	1	0	0	0	-1	0	349	0	41	390		0.6	0.0	0.0
8	FG-100	SLCFG-10000	0	0	0	0	0	0	0	0	1	1		0.0	0.0	0.0
9	FG-100	ssl-Items	0	0	0	0	0	0	10	0	0	10		0.0	0.0	0.0
10	FG-100	Unit Sub Total	54	315	1	0	-53	-314	6,963	0	1,374	8,337		21.0	99.0	1.2
11	FG-100	Dollars Sub Total	21	99	1	0	-21	-99	2,027	0	406	3,314	0	0.0	0.2	0.0
12	Total	Unit Sub Total	54	315	1	0	-53	-314	6,963	0	1,374	8,337		21.0	99.0	1.2
13	Total	Dollars Total	21	99	1	0	-21	-99	2,027	0	406	3,314	0	0.0	0.2	0.0

Header Information:
· Family Code Range - Range of family codes
· Product Code Range - Range of product codes
· Year - Year to analyze
· Period - Period of year to analyze
· Disp Type - Detail to include item level, summary to only include Sub Total By level
· Sub Total By - Choose to group information by Product Code or Family Code

Grid Information:
· Group - Grouping based on Sub Total By selection
· Item - Item Number
· PLAN - Plan for the item for the period/year selected where current plan = 1
· Forecast - Forecast for the item for this period/year, source is Forecast Historical Forecast file
· Shipped - Shipments that occurred in this period
· Late Orders - Items that did not ship on time based on due date for this period
· Sales Mix Plan – Actual Sales vs. Plan (Shipped + LateOrders) - planned, ASP is used for $
· Sales Mix Forecast – Actual Sales vs. Forecast (Shipped + LateOrders) - forecast, ASP is used for $
· F/G - inventory from non dedicated warehouses where mrb_flag = 0

· Rcpts - JIT Finish + Job Finish + PS Finish + PO Receipt + TO Receipt for selected period

      1. JIT Finish = RefK,TransF from matltran

      2. Job Finish = RefJ,TransF from matltran

      3. PS Finish = RefS,TransF from matltran

      4. PO Receipt = RefP,TransR from matltran

      5. TO Receipts = RefT,TransR from matltran

· Late WIP - WIP + OPEN PO's + Production + TO's In Transit for the selected period

      1. WIP = QtyReleased-QtyComplete+QtyScrapped for released jobs in this period that are not rework jobs

      2. Open POs = QtyOrdered-QtyReceived+QtyReturned from PO Lines where Status is Ordered

      3. TO's In Transit = Qty Req - Qty Received from Transfer Lines where status is Transit

· Supply Forecast - FG + Rcpts + LateWIP

· LOS – Lost Opportunity Sales. When sales exceeds production, then you may want to only hold production accountable for the shortage up to the amount that was forecasted.
When SupplyForecast >= Forecast then 0,

      1. When Foreast < Shipped+LateOrders then Forecast$-SupplyForecast$

      2. Else Shipped$+LateOrders$-SupplyForecast$

· Sales Dollars – per customer orders shipped file, in 1000's

S&OP Supply and Demand Weekly Summary

	Item	Type	Past Due	4/11/2011	4/18/2011	4/25/2011	5/2/2011	5/9/2011	5/16/2011	5/23/2011	5/30/2011	6/6/2011	6/13/2011
1	Bb10	Forecast	0	74	74	74	59	59	59	59	59	74	74
2	Bb10	Backlog (Due)	4,073	0	64	11	0	0	0	347	101	0	0
3	Bb10	Shipments	0	0	0	0	0	0	0	0	0	0	0
4	Bb10	Production (Jobs,PS)	375	0	0	0	0	0	0	0	0	0	0
5▶	Bb10	Avail to Forecast	0	74	10	63	59	59	59	-288	-42	74	74

Item: Bb10   Type: Weekly   Process

This form will summarize data by item or Planning BoM (if you are using Forecast-As functionality)

Basically the form illustrates the Demand and Supply Plan at the item level.

S&OP Forecast Stagger Chart

The purpose of the Forecast Stagger Chart is to highlight issues related to large or constant changes to a forecast. Working only from the current Forecast it is sometimes difficult to understand the supply issues. This form will allow us to see if there have been significant changes within accumulated lead time in the Forecast History. This form looks at the Forecast Historical Forecasts form for three months back and forward 12 months and only shows items that have a forecast in the current month or 3 months back. If you uncheck the summarize box, it will show every version of the forecast, if checked it only shows the most recent one for the period.

|	Period	Product Code	Item	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	C
1▶	JAN-10	FG-100	FA-20000	162	294	884	920	697	979	514	67	973	3
2	FEB-10	FG-100	FA-20000	0	710	427	726	350	783	829	487	854	1
3	MAR-10	FG-100	FA-20000	0	0	1,481	293	810	1,754	1,338	377	587	1
4	APR-10	FG-100	FA-20000	0	0	0	177	471	424	467	670	776	7
5	MAY-10	FG-100	FA-20000	0	0	0	0	303	890	939	890	986	2
*													

Historical Forecasts

The Forecast Historical Forecasts form shows the history of forecasts for past periods. This information is used to build the Forecast Stagger Chart. Whenever a new forecast is loaded into SyteLine by the Forecasting application, the old forecast is saved in this form so you can see a history of how the forecast for an item has changed over time. The Forecast Update MRP utility saves your forecasts each time you run it, so there may be multiple forecasts for the same period. The below shows that on 3/14/11, which is period 3, a forecast was saved for item TA-40000 that forecasted 164 for period 3(which is first period of the forecast), 170 for period 4 (which is the next period of the forecast), etc.

	Item	Period	Year	Date	Period	Period + 1	Period + 2	Period + 3	Period + 4	Peri
12	TA-40000	3	2011	03/14/2011	164	170	176	182	188	195
13	TA-50000	3	2011	03/14/2011	452	452	452	452	452	452
14	TA-60000	3	2011	03/14/2011	122	122	122	122	122	122
15	FA-10000	2	2010	02/01/2010	330	110	110	110	110	120
16	FA-10000	2	2010	02/01/2010	1,300	200	90	255	500	0

S&OP Strategic Analysis

S&OP Margin Analysis
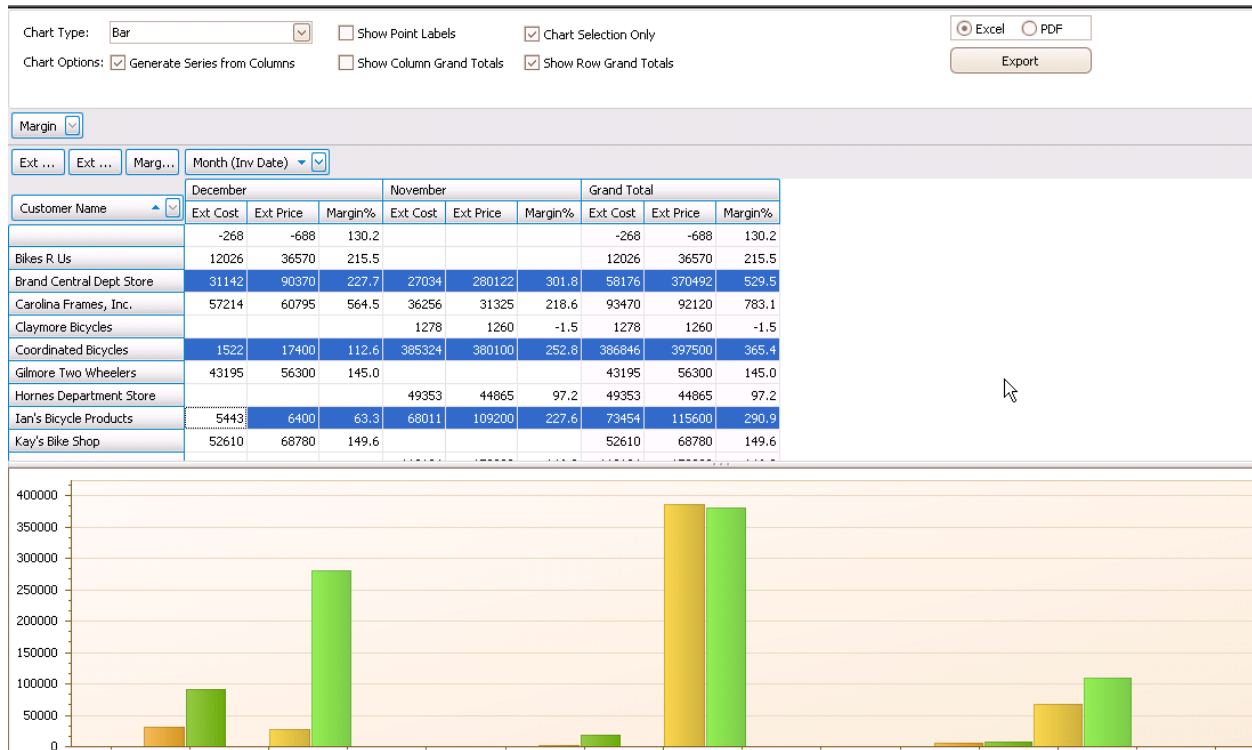
The S&OP Margin Analysis **and Plan or Forecast Variance Analysis** form functions in the same manner as the S&OP Workbench.   The pivot dimensions default from the SOP Parameters form and can be selected from the right click menu.

- Allows you to focus on dimensions from the Invoice Table, such as:
    - Dimensions: Customer, Corporate Customer, Family Code, Sales Rep, Invoice mo/yr, warehouse, etc
    - Measurements: Revenue, Cost, Margin, Margin%, Forecast Qty, Plan Qty, Invoiced Qty
- Besides Multi-Site revenue and margin analysis, you can also do variance analysis by comparing invoiced quantities to forecasted and plan (AOP) quantities.   It looks at the AOP marked as "current" and the most recent forecast for each period from the historical forecast table.
- Double click in grid to drill down to details

Sales Mangr	Salesperson	Dals		LA		Lond		Totals		
		Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	%
		$1,088,433	$685,727	$0	$237,510	$0	$41,472	$1,088,433	$964,709	12.8%
	BJS	$5,308	$79,407	$0	$175,522	$0	$68,473	$5,308	$323,402	-98.4%
	JAR	$45,280	$323,529					$45,280	$323,529	-86.0%
	RMW	$7	$68,061					$7	$68,061	-100.0%
	SA			$684	$74,589			$684	$74,589	-99.1%
	RPC	$0	$95,623			$0	$45,779	$0	$141,402	-100.0%
	Total:	$1,139,028	$1,252,347	$684	$487,621	$0	$155,724	$1,139,712	$1,895,692	-39.9%
Randall	SA	$266,017	$216,434					$266,017	$216,434	22.9%
	Total:	$266,017	$216,434					$266,017	$216,434	22.9%
rpc	JAR			$0	$213,049	$0	$94,179	$0	$307,228	-100.0%
	RMW			$0	$128,576	$0	$36,043	$0	$164,619	-100.0%
	Total:			$0	$341,625	$0	$130,222	$0	$471,847	-100.0%
SA	RPC			$0	$63,701			$0	$63,701	-100.0%
	Total:			$0	$63,701			$0	$63,701	-100.0%
	Grand Total:	$1,405,045	$1,468,781	$684	$892,947	$0	$285,946	$1,405,729	$2,647,674	-46.9%

Rough Cut Capacity Report

The SytePlan Rough Cut Capacity report displays the number of hours or 8 hour days required by each resource group. It reads the same data as the Resource Group Dispatch List which is created by running Planning.

S&OP Reports

Sales and Operations Master Report

The Sales and Operations Master Report allows you to:
- Print your Plan or Forecast
- Compare a Plan to a Forecast
- Compare a Plan to another Plan
- Compare the forecasts in SyteLine to a not yet posted Forecast in SyteLine Forecasting
- Compare a Forecast (in SL Forecasting) that was previously posted to SyteLine to another Forecast (in SL Forecasting) that was previously posted to SyteLine.

The pricing comes from the ASP that is linked to the selected plan. If Forecast is selected (forecasts are only units), then the pricing comes from the ASP marked as "current" for the selected forecast year.

To print a copy of just a Plan or Forecast, enter "None" in the "To" Section. Note that multiple Plans can have the same Plan ID if they are different years, so you must select the year. To compare a Plan to a Forecast (recorded in the Historical Forecast file), select the plan ID in the "Compare" selection then select "Forecast" in the "To" selection, and select the date that the forecast was generated (the last forecast that was saved in that generation period). To compare to the "Net Forecast", that may have not been posted to SyteLine yet, select "SL Forecast". The example below compares the Plan-AOP-1 for 2012 to the Forecast that was generated in period 1 of 2012.

Percent Of Revenue
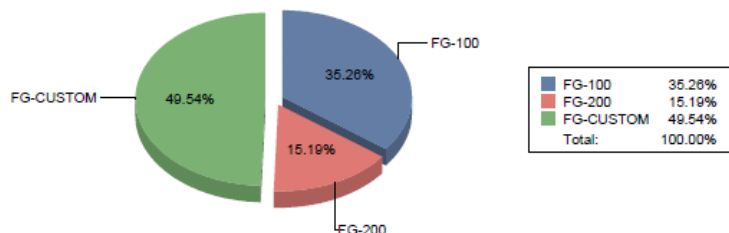
In addition to the detail of the data you have chosen, you "see" a graphical representation of your data following the report

Monthly Analysis Report

The SytePlan Monthly Analysis Report shows Plan, Forecast, Shipments and Bookings data for the last three periods and the next four periods.   The forecast data for the last four periods comes from the Forecast Historical Forecasts form using the most recent forecast for the period. The forecast data for the future periods comes from the "Net Forecast" on the SyteLine Forecasting main form.

Family:FG-100 — Finished Goods - Model 100

	P11		P12		P1		Avg Last 3		P2		P3		P4	
	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollar
Plan	112	$50,400	107	$48,150	81	$36,450	100	$45,000	86	$38,700	86	$38,700	87	$39,1:
Forecast	0	$0	0	$0	458	$206,100	153	$68,700	1	$450	2	$900	3	$1,3:
Bookings	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	:
Variance		-100%		-100%		-100%		-100%		-100%		-100%		-100
Shipments	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	:
Variance		-100%		-100%		-100%		-100%		-100%		-100%		-100

Performance Projection Report

The SytePlan Performance Projection Report uses actual invoice information for past sales and cost data and uses the selected plan for the future sales and cost data.   Therefore, the total for the report is the actual plus the planned sales and cost data, which projects for the year what revenue and margin will be by item, product code or family code.   For testing, "todays date" can be set in Forecasting Parameters

Multi-Site Sales Plan VS Actual Report

The SytePlan Multi-Site Sales Plan VS Actual Report allows you to compare a MSSP to what was actually booked on customer orders or what was invoiced and to group and subtotal in a variety of ways.

Discussion Points

S&OP Meetings

The typical S&OP Process calls for two meetings each month, the Demand meeting and Supply meeting. The goal of our S&OP process is to align our customer demand with our supply plan.

1. The first meeting will be the "Demand Meeting" and will be held the first Wednesday of the Month. At this meeting we will quickly assess our most recent performance and re-forecast both our near term and the 12 month rolling forecast.

Form Name	Owner	Purpose
Last Month Analysis	Demand Planner	Evaluate what just happened for the purpose of corrective action
Current Month Analysis	Demand Planner	Establish the Forecast/Plan for this month and review in detail any specific issues
New Demand Forecast	Demand Planner	What is the New Forecast (rolling 12 months)?
Variance to Budget	Demand Planner	How does this forecast compare to the Budget?
Variance to Last Month's Forecast	Demand Planner	How is this forecast different from the one presented in our last S&OP meeting?

2. The Second Meeting will be the "Supply Meeting" and will be held the second Wednesday of each Month. At this meeting we will, again, assess our near term performance and see what constraint (if any) the supply creates for the most recent demand forecast.

Form Name	Owner	Purpose
Current Month Analysis	Demand Planner	How has this picture changed in the last week? Are we still on track? Have we improved our sales or inventory position? What additional action can we take to maximize our throughput and minimize our operating expense
Supply Forecast	Production Planning Manager	What is our new forecast of supply?
Inventory Forecast	Production Planning Manager	Where are we purposefully using inventory to manage the fluctuations in demand?
Supply Constraints	Production Planning Manager	Where will the supply constrain the demand? And therefore affect our throughput
Billing Forecast and Variance to Plan	Demand Planner	Lesser of the Supply or Demand – what we are confident we can achieve as sales in the rolling 12 month window

Forecasting Vs. Sales & Operations Planning

Most midsized manufacturing companies have a process for developing estimates of the future demand for their products and developing a plan to meet this anticipated demand. The cliché "failing to plan is a plan for failure" certainly applies to manufacturers.   But, not all manufacturers need to "Forecast" inventory requirements and not all manufacturers benefit from a formal Sales & Operations Planning (S&OP) process.   For instance a job shop that carries little inventory and buys materials to the customer's job has little need for forecasting.   Low volume manufacturers with simple supply chains have little need for S&OP. Conversely, long lead times, high volume, high dollar inventory and capacity constraints can make profitability very difficult for a company that does not forecast inventory needs and follow a process for production planning and balancing supply and demand.

So what manufacturing environments benefit most from Forecasting or Sales & Operations Planning? Since the terms "Forecasting" and "S&OP" mean different things to different companies, I will start by explaining these terms based on how they are applied using and ERP system.

"Forecasting" In the ERP world…
"Forecasting" refers to the process of creating <u>unit</u> forecasts for the <u>specific items</u> that you sell (or you can forecast <u>components</u> if you are a job shop or ETO manufacturer, provided you use the component based forecast consumption logic in some ERP systems).   These forecasts are used to drive the ERP planning (APS/MRP) system, which provides suggestions on what should be made and purchased. Notice I said "units", not dollars, and I said "specific items", not product groups.

An ERP's forecasting application is used to create item forecasts and calculate safety stock levels that are used by the ERP planning system. It also has tools that allow you to analyze historical demand and compare that to what was forecasted and monitor the current forecasts versus the actual demand. With an ERP forecasting system you are generally dealing at the item/unit level and using statistical models or collaborative/consensus approaches to build the material forecast.

If planning in units of specific SKU's doesn't work for you, then the S&OP approach may be better as it provides the ability to start by building a plan with dollars of product groups (a top down sales plan vs. a material demand plan) and then disaggregate this into a unit and item specific plan, which is needed to be able to compare your plans to the actual sales and production.   Many refer to this as an Annual Operating Plan (AOP).

Forecasting is typically a sub process of S&OP…
S&OP is an integrated business management process to align company activities to <u>balance supply and demand</u>. Forecasting is just one part of the S&OP process, but S&OP does not necessarily require a Forecast, but it does require a plan, typically a Sales plan or an AOP. Whereas the goal of Forecasting is to develop a unit forecast to drive the MRP/APS system… the goal of S&OP is to maximize customer fill rates, optimize inventory levels, and maximize profits by:

- Establishing Sales goals and managing attainment
- Supply Chain management / Production planning
- Finished Goods & WIP management
- Backlog and on-time shipping management

This integrated process typically involves members from sales, production, material management, purchasing and accounting.   The S&OP team meets periodically in the form of three types of meetings… Demand Meeting, Supply Meeting, and the Executive Meeting. It starts with creating a sales plan and then linking this with production plans and then managing operations to balance demand and supply using S&OP tools that analyze ERP data.

Sales and Operations Planning with ERP…
S&OP applications are used to develop a Sales and Operations Plan in dollars (and also units) at multi-dimensional group levels (product code, family, territory, sales rep, whse, customer type, etc), which can be disaggregated into an item level unit plan and then compared to the forecasts. This is used by many companies to come up with an annual operating plan (AOP: sales dollars, units, costs, margin) and revise it quarterly, whereas material forecasts typically change every month. Some companies develop a material forecast, then give it to the sales/marketing folks to analyze and adjust at the group level by dollars… i.e. the initial material demand forecast is the starting point for developing the AOP.   Other companies develop the material forecast separately from the AOP and just compare the material forecast to the AOP that sales/operations created.   Some companies just need material forecasts and no AOP. Others just want an AOP Sales/Operations plan and do not need a forecast to drive the APS/MRP planning system. The latter benefit from what the S&OP process offers which also includes a number of workbenches and analytical tools to measure performance and balance supply/demand. S&OP tools also help facilitate weekly S&OP meetings with manufacturing, purchasing, inventory, and sales managers working together to balance supply/demand.

When to use Forecasting vs. S&OP…
Typically S&OP applications are used by sales, marketing, business planning, and operations people, whereas Forecasting is used by material planners… but that is a major generalization.   The best way to determine if either a Forecasting process or an S&OP process could benefit your company is to think about the primary goals of these processes. Forecasting is for driving the process of material planning, S&OP focuses on improving customer service, profitability and balancing supply and demand.   A ERP consultant that is familiar with the functionality, implementation process, and results achieved with Forecasting and S&OP applications can help you assess if either or both of these tools can efficiently help improve your company's performance.

To learn more about CloudSuite (SyteLine) SytePlan S&OP visit www.BTAsystems.com/apps