

## Sales and Operations Planning

The secret to world class Supply Chain

Apics dinner meeting  
Rob McPhail, CPIM, CIRM,  
CSCP

## Agenda

1. Overview
2. Simple Example
3. Process Details
4. Real life examples
5. Q and A
6. Resources

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## APICS Definition

- “A process that provides management the ability to strategically direct its businesses to achieve competitive advantage on a continuous basis by integrating customer focused marketing plans for new and existing products with the management of the supply chain.

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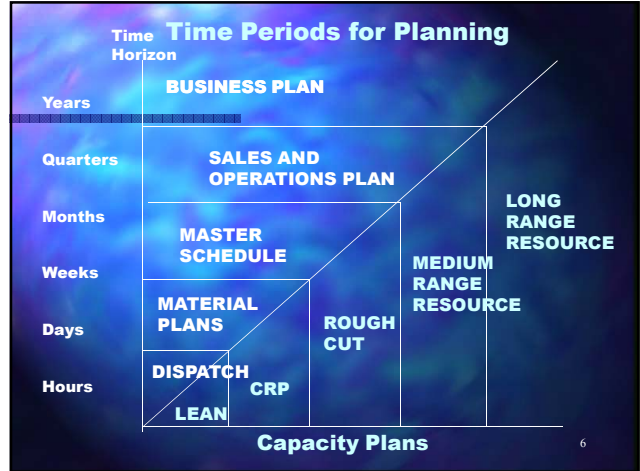
## APICS Definition

- “the process must reconcile all supply, demand, and new product plans at both the detail and aggregate level and tie to the business plan”
- “It is the definitive statement of the company plans for the near to intermediate term covering a horizon sufficient to plan for resources and to support the annual business planning process.”

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# 1. Bring on the Consultants!! NOT

- Omg not the consultant slides!!



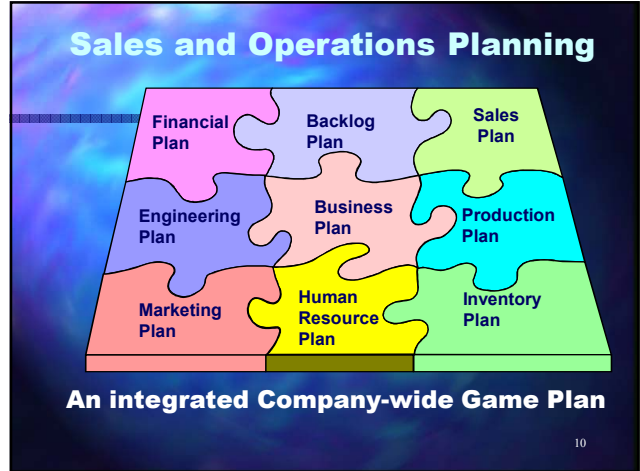
# Sales & Operations Planning



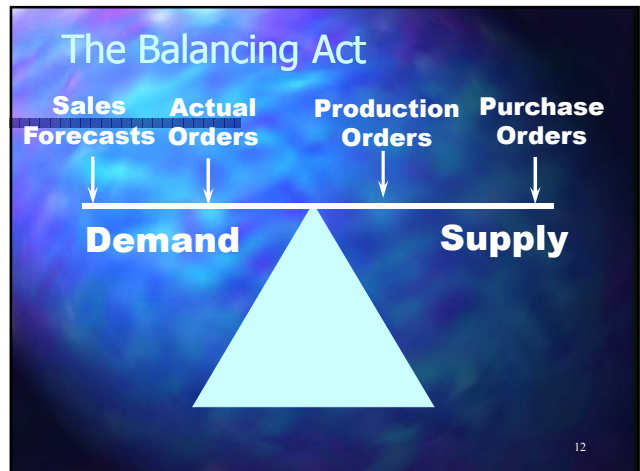
Source: Wallace, Tom F. "Sales and Operations Planning, A How-To Guide." T.F. Wallace & Co. 1999.

# The Monthly S & OP Process





- ### Why Plan?
- To anticipate and prepare for the future
  - To ensure adequate available resources
  - Customer service
  - To focus on being proactive
  - To avoid problems
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## What's the Alternative?

- ⌚ The only alternative to planning is NOT planning
  - ⌚ NOT planning means difficult to control
  - ⌚ NOT planning means difficult to manage
  - ⌚ Expediting is the opposite of planning
- ⌚ Companies that plan and not expedite will win vs those who don't.

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## The Guru



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## 2. Lets walk thru an example

- The number one planning software in the world is??

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## ACME Bulb

- 500 sku's
  - Retail packs, warehouse packs,
  - 40, 60, 100 etc... watt
  - Oem bulk supply
  - Ornamental, regular
- Stocking , Catalogue make to order.

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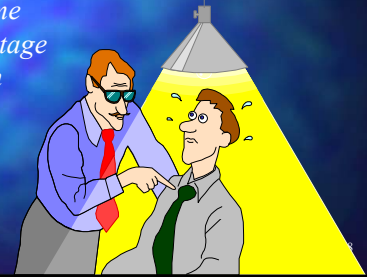
## Acme bulb -families

domestic retail bulb
oem retail bulb
ornamental

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## Planning; Information From Sales

*Just give me  
the percentage  
changes in  
mix!*

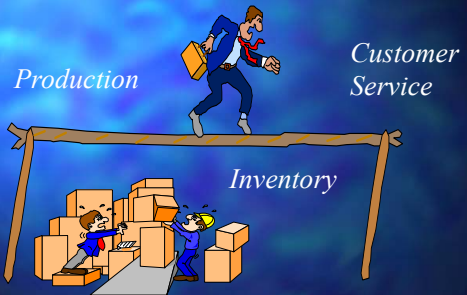


## ACME bulb -sales forecast

sales	m1	m2	m3	m4
domestic retail bulb	10	15	15	12

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## Planning; Service, Production & Inventory, A Delicate Balance



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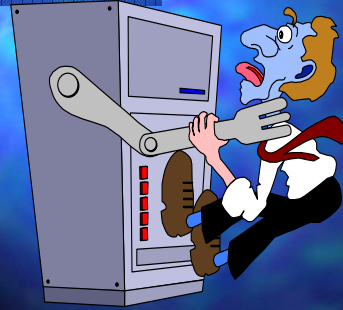
## AMCE bulb plan

		m1	m2	m3	m4
retail bulb					
sales		10	15	15	12
production		10	10	15	15
inventory	10	10	5	5	8

	mt0	m1	m2	m3	m4
ornamental					
sales		10	15	15	12
production		10	10	15	15
backlog	10	10	15	15	13

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## Planning; Get Input From Operations



*OK, OK, I'll  
increase  
production*

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## AMCE bulb production plans with resource

Production plan

production plans					
domestic retail bulb		10	10	15	15
oem retail bulb		20	25	20	25
Total		30	35	35	40
total resource available bulb line		35	35	35	35
loading		86%	100%	100%	114%

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## Planning - Final Step; Enter Plan into System



*Last minute  
minor  
adjustments*

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### 3. Process details

- Elements that make up the process

### The Monthly S & OP Process



### Sales & Operations Planning



Source: Wallace, Tom F. "Sales and Operations Planning, A How-To Guide." T.F. Wallace & Co. 1999.

### Forecasting

- Primary input to S+OP
- An necessary Evil.
- Forecasts will be always be wrong
- You need to manage the degree of "wrongness"
- Forecast vs budget
- Separate and distinct to S&OP process

## What is a Resource?

**Anything that adds value to a product or service in its creation, production or delivery**

## Units of Measure

The unit of measure should be defined in terms of common use of capacity (typical) examples are:-

- Each
- Pair
- Cases
- Thousands
- Thousands of cases
- Gallons
- Conductor Feet
- Kilograms

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## The First steps

- Set up champion
- Process owner
- Spreadsheet owner
- Policies
- The players
- The process
- Then the technical stuff

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## S & OP Policies

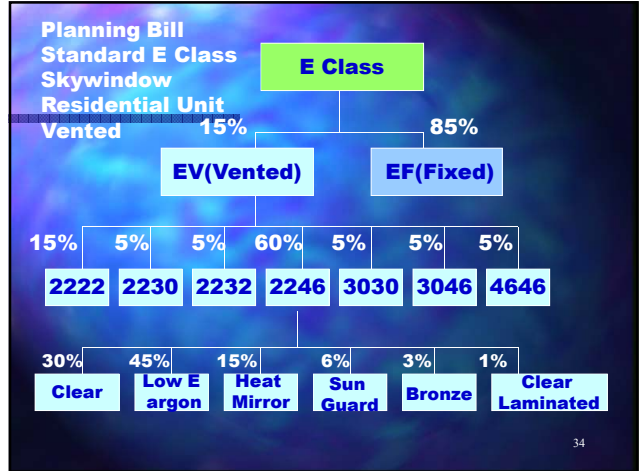
- Who attends
- How far out
- What families
- What target strategy
- What resources and levels
- Monthly timing

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## Key S+OP strategies

- Type
  - Chase
  - Level
  - Hybrid
- Strategic Inventory
  - Where and What

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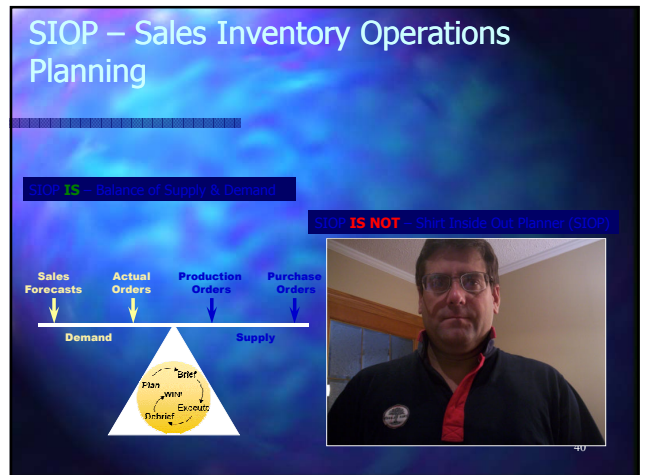
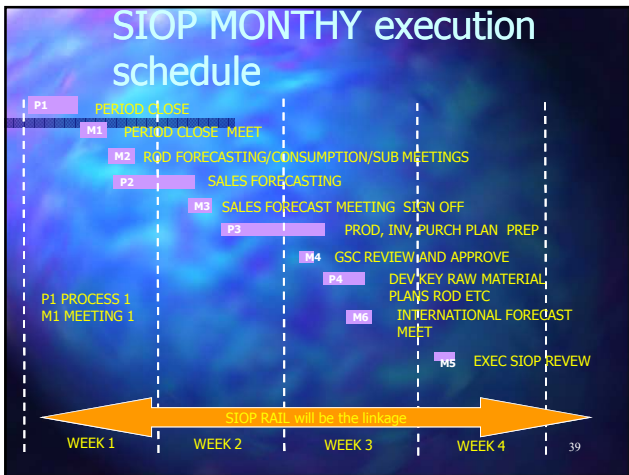
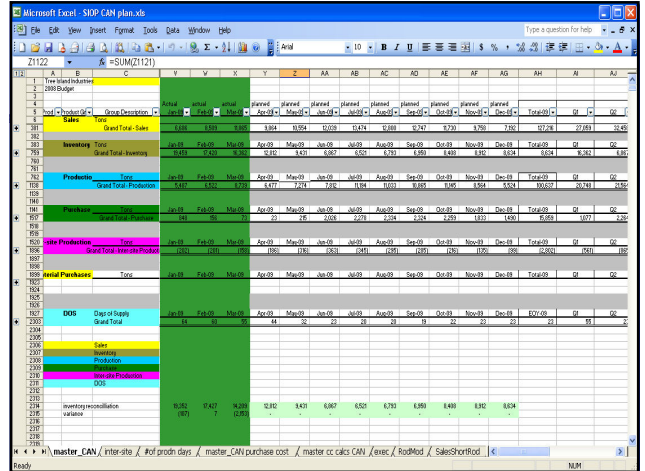
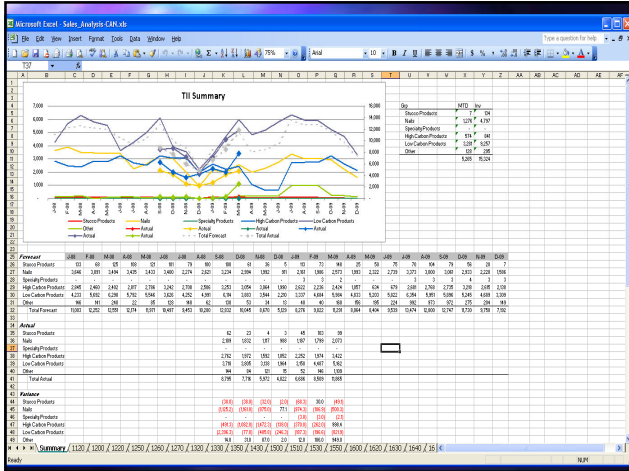
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## 4. Yes Victoria , there is SIOP

- Real life example of SIOP in action

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SIOP - Subject - Scenario - Sub-Item - Scenario																				
File	Edit	Comment	Total	Graph	SIOP Functions	Sort	New SIOP Sheet	Help	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	
M-T-S	>>	MAKE-TO-STOCK																		
<< General Comment >>		GrossMargin \$																		
		Inventory \$																		
MAY01		Sales Forecast	N/A	N/A	N/A	1,350	1,150	1,200	700	190	480	190	270							
MAYONNAISE	M-T-S	<<Sales Forecast Adjustment>>				0	0	0	0	0	0	0	0							
		Inventory On Hand	1,850	Actual Sales / Orders On Hand	630	980	1,000	0	0	0	0	0	0							
		Lead Time (Months)	1	Forecast Accuracy	0.0%	0.0%	0.0%													
		Price	1.00	Forecast Deviation	-	-	-	-1,350	-1,150	-1,200	-700	-190	-480	-190	-270					
		Standard Cost	1.00	Forecast Cumul. Dev	-	-	-													
		Margin	0.00	<<Production Plan (Daily)>>				34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
		Inventory Flag Months	24	<<Production Plan (Monthly)>>	N/A	N/A	N/A	679	679	679	679	679	679	679	679	679	679	679	679	679
		Level Policy	779	<<Production Plan Adjustment>>				0	0	0	0	0	0	0	0	0	0	0	0	0
		Production %Change	0	Actual Production	0	0	0													
		Min Production	200	Production Plan Accuracy	0.0%	0.0%	0.0%													
		Max Production	1,500	Production Plan Deviation	-	-	-													
		Months Listed In ASF Calc	12	Production Plan Cumul. Dev	-	-	-													
		Cum Year Prod Budget	0	Production Budget	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Variance	0.0%	Production Budget Variance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		Next Year Prod Budget	0	Inventory Plan	N/A	N/A	N/A	1,279	809	458	437	937	1,306	1,795	2,205					
		Variance	0.0%	<<Min Months Of Supply>>				0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
		Next Year Prod Plan	4,416	<<Max Months Of Supply>>				1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
		Variance	0.0%	Actual Inventory	0	0	0													
		Next Year Prod Plan	0	Inventory Plan Accuracy	0.0%	0.0%	0.0%													
		Variance	0.0%	Inventory Plan Deviation	-	-	-													
		Next Year Prod Plan	0.0%	Sales Forecast \$				1,350	1,150	1,200	700	190	480	190	270					
		Variance	0.0%	Production Plan \$				679	679	679	679	679	679	679	679	679	679	679	679	679
		<< General Comment >>		GrossMargin \$				0	0	0	0	0	0	0	0	0	0	0	0	0
				Inventory \$				1,279	809	458	437	937	1,306	1,795	2,205					



## Questions for discussion

1. Is it more important to have an accurate forecast or a process that can adjust?
2. What is the #1 fear from sales and operations?
3. What do you do if operations won't (can't) commit?

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## Conflict

- If you don't have any, something is wrong
- Stick to the facts
- Use the spreadsheet to deflect conflict
- Remember having a plan is better than no plan

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## Final Thoughts

- Any plan is better than no plan
- Make a best guess baseline
- Then, adjust, adjust, adjust
- Executive Sponsorship
- It's a team process

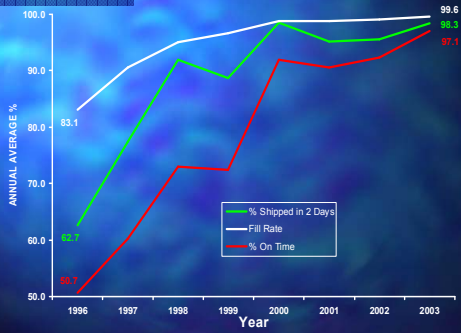
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## Customer Satisfaction



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## Customer Service Trend



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## Resources

- Rob McPhail - [rmcphail@treeisland.com](mailto:rmcphail@treeisland.com)
- Software and Resources
  - [www.steelwedge.com](http://www.steelwedge.com) supply chain planning/software S+OP
  - [www.johnqall.com](http://www.johnqall.com) demand mgt, forecasting
  - [www.ibf.org](http://www.ibf.org) integration of forecasting to planning
  - [www.supply-chain.org](http://www.supply-chain.org) standard business models
  - [www.greyresearch.com](http://www.greyresearch.com) S+op guru, good resource site
  - [www.tfwallace.com](http://www.tfwallace.com) S+OP guru. Good exec kits
  - Google S&OP
  - APICS and IBF conferences
- APICS Dictionary, Tenth Edition
- "Sales and Operations Planning" by R.D. Garwood. 03818
- "Sales and operations Planning" by Thomas F Wallace 03160

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## Qad.com free webinar

### Sales and Operations Planning

**Date:** April 29, 2009

**Location:** Online Webinar

Sales & Operations Planning is quickly becoming standard operating procedure for consumer-centric manufacturers who want to synchronize and align supply capabilities with customer demand. Join us April 29 for this complimentary Webinar to learn how S&OP can add value to your organization: Synchronize Your Supply Chain

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## Thank you

- "The needs of the many outway the needs of a few" (Spock)

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