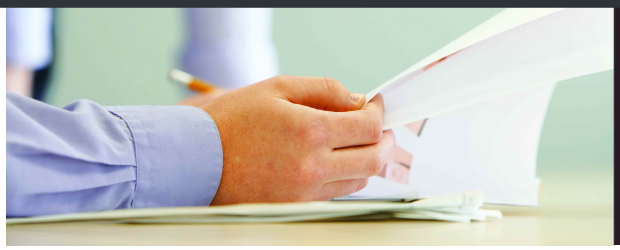
Version 1

SAMPLES OPTIMIZATION



COGNOS PERFORMANCE BLUEPRINT

APPLICATION BRIEF

A WEB-BASED PERFORMANCE MANAGEMENT APPLICATION

COGNOS | INNOVATION CENTER
for Performance Management™

INTRODUCTION

This application brief introduces the *Samples Optimization Performance Blueprint*, a Web-based Cognos 8 Planning application that enables a pharmaceutical sales and marketing organization to optimize sample distribution, increase return-on-investment (ROI), and increase prescription volume.

The *Blueprint* provides rich reporting and analysis features that show regional/district/territory sample distribution, market trend analysis and insight to the current allocation process status and its affect on sample adjustments.

Implementing this *Blueprint* will enable sales and marketing organizations to combine market analysis and field-level knowledge to determine and fine-tune resource allocations at the corporate, district, region, territory, or rep level, and across various brand or product lines.

With the *Samples Optimization Performance Blueprint*, Cognos 8 Planning delivers substantive value to pharmaceutical sales and marketing organizations by offering:

- Optimized sample allocation process
- Increased ROI from samples
- Simplified gathering and validation of field input
- Flexible model development
- High-participation work flow and Web-based deployment for data collection and consolidation
- Real-time workflow
- Real-time consolidation
- Real-time calculations in the browser for immediate results
- Single operations system that can be used across multiple products and sales forces
- Scalable architecture with proven deployments to thousands of users
- Support for SAP, Oracle, and other ERP systems

OVERVIEW

Product samples, field marketing programs, and education programs are some of the largest expense categories in a pharmaceutical company's marketing plan. Consequently, companies must deliver on one of their top goals: increasing prescription volume.

Every pharmaceutical company must allocate an optimal amount and mix of resources to its sales force. This is a complex task. Pharmaceutical companies maintain a wide variety of internal data sources—such as CRM and External Market Sales systems—that provide valuable insights into customer behavior, buying patterns, and other market trends. Companies must also look outward to analyze the complex interplay of demographic and market trends that may point to new or emerging opportunities. Finally, the company's regional and district sales managers provide valuable input based on first-hand knowledge of their territories and customers.

All of this information needs to be analyzed to help answer such questions as:

- Is our current samples allocation driving an increase in prescription volume?
- If not, what do we have to change? (volume, mix, frequency, geographic distribution, etc.)
- If we were to secure more resources, how would we allocate them?

The more readily companies can answer such questions, the more effectively they can distribute resources. Though most companies know this, many continue to struggle to build an effective allocation model. There are many reasons why:

- Data is difficult to access or understand.
- Spreadsheets strain under the weight of complex calculations.
- Input from sales managers comes in different formats, at different times, or at irregular intervals.

To simplify the problem, most companies create territories with equal sales potential and workload. But opportunities are not distributed equally across a given area. Each area may be characterized by unique trends in population growth, demographics, and the impact of managed care, the complex interplay of which creates very specific markets. An effective resource allocation model must take these variations into account.

DRIVER-BASED PLANNING

Finance experts tend to agree that conventional methods of planning, budgeting, and forecasting involve too much detail and not enough focus on the key metrics that drive expenses. *Driver-based planning* is based on common components that typically underlie a given expense.

Using a driver-based model, pharmaceutical companies can ensure that they allocate the appropriate mix and amount of resources to leverage opportunities in each area. A driver-based samples optimization planning model should:

- Accommodate differences (or similarities) within and across territories.
- Provide a standard corporate rationale for sample distribution.
- Enable resources to be transferred to new areas to maximize sales.
- Accommodate the input of hundreds or thousands of sales managers and reps.
- Provide senior executives visibility into their overall spend.

The *Cognos Samples Optimization Performance Blueprint* uses driver data from sales and marketing information systems to determine the most effective resource allocations down to the territory level. Driver data for optimal resource distribution may include:

- Total number of physicians and target physicians in a territory
- Overall market volume
- Existing sample inventory in territory (rep inventory)
- Overall market volume growth
- Total number of a type of physician (i.e. CD, OBG, GP)
- Sample sensitivity index
- Physician or account segmentation
- Managed care influence index
- Territory-level product volume and competitive product(s)
- Portion of territory sales with cash as pay-type
- Market share of product(s) and competitive product(s)
- Territory refill ratio

The *Samples Optimization Blueprint* model described in this application brief enables product management teams to determine which allocations will deliver the highest ROI. Field sales teams can fine-tune distributions through an operations system that tracks all changes and monitors the work flow.

The *Blueprint* model can accommodate multiple products and product versions. This enables companies with multiple brand teams to standardize on a single system for resource allocation, yet maintain unique calculations for each brand.

MODEL OBJECTIVES

Cognos designed the *Samples Optimization Blueprint* to:

1. Provide a unified and standardized process for optimized product sample distribution across multiple products and sales forces.
2. Combine driver-based analytics with field input for final resource distribution.
3. Provide flexibility to accommodate different models across multiple brands and product types.
4. Provide a system that can be maintained and operated by business users with minimal IT intervention.
5. Provide automated refreshing of driver data to ensure that resource allocation decisions are always based upon the most current information.
6. Easily integrate with in-place supporting systems.

USERS OF THE MODEL

Users within sales and marketing teams include:

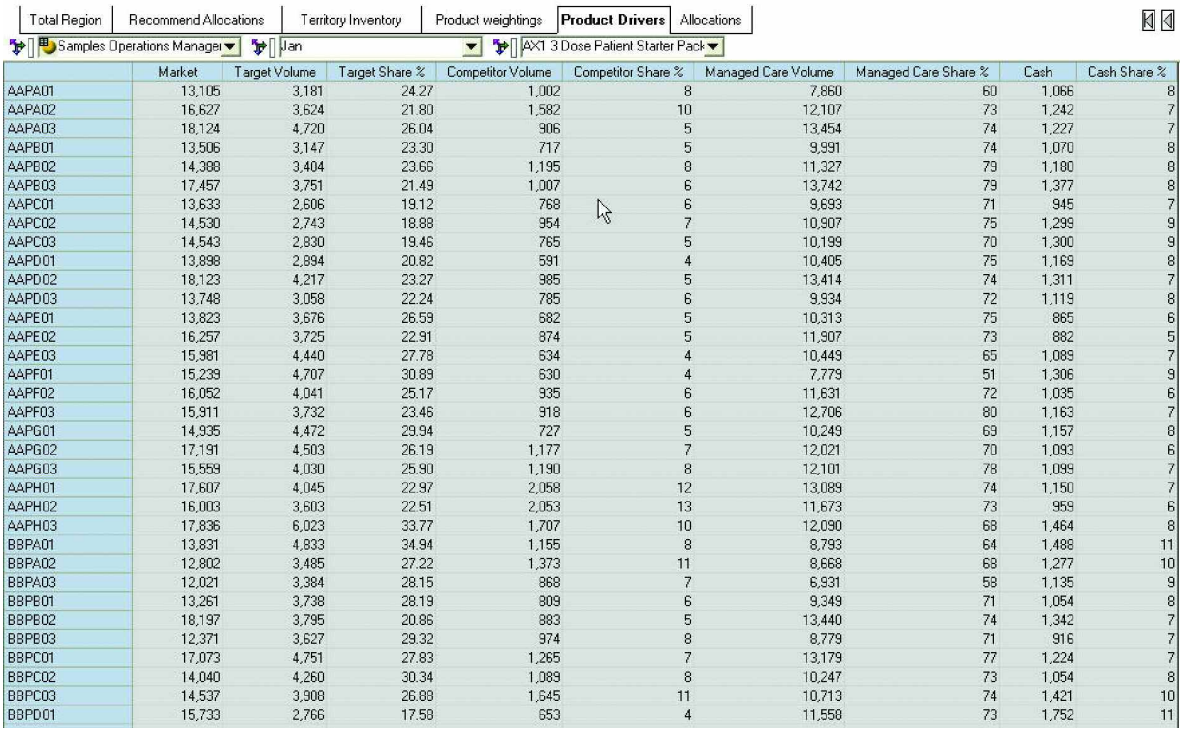
DEPARTMENT	
Marketing	**Roles and Responsibilities**
Brand Manager	Responsible for product marketing plan. Includes setting budgets for each plan component (for example: samples).
Market Research Director	Analyzes market dynamics to determine proper mix and drivers of prescription volume. Critical to determining the weighting of drivers in distribution model.
Sales	
Regional Manager	Manages sales reps and oversees resource distribution.
District Manager	Manages sales reps and oversees resource distribution. Requests sample distributions to individual sales territories.
Territory Sales Rep	Receives and uses resources and samples. Responsible for distribution to practitioners and associated record-keeping.
Sales Analyst	Usually reports to regional manager. Helps determine district and territory sample allocations.
Manufacturing & Distribution	
Line Manager	Uses forecasts to determine production plan and material requirements.
Inventory Shipping	Uses final plan to ship samples to territory sales representatives.

MODEL OVERVIEW

In the *Cognos Samples Optimization Blueprint*, allocations are determined by assigning weights for each driver by brand and/or product lines. For example: The company's market research group has decided to distribute product samples to a territory based on market volume, competitive share, and share of prescriptions paid for by cash within a given territory. This *Blueprint* application brief will illustrate such a process.

1. Loading Market and Territory Inventory Data

A key component of resources allocation is the loading of market-based sales and demographic data. For this example, Market Volume, Target Drug Volume, Key Competitor Volume, Key Competitor Share, Third-Party Share, and Cash Share have been imported by product by month for all of the territories into the model. Data can be loaded from supporting CRM systems, ERP systems, or data marts. These metrics will provide the proportional spreading of samples based on a sample operations manager's product distribution mix.



	Market	Target Volume	Target Share %	Competitor Volume	Competitor Share %	Managed Care Volume	Managed Care Share %	Cash	Cash Share %
AAPA01	13,105	3,181	24.27	1,002	8	7,860	60	1,066	8
AAPA02	16,627	3,624	21.80	1,582	10	12,107	73	1,242	7
AAPA03	18,124	4,720	26.04	906	5	13,454	74	1,227	7
AAPB01	13,506	3,147	23.30	717	5	9,991	74	1,070	8
AAPB02	14,398	3,404	23.65	1,195	8	11,327	79	1,180	8
AAPB03	17,457	3,751	21.49	1,007	6	13,742	79	1,377	8
AAPC01	13,633	2,606	19.12	768	6	9,693	71	945	7
AAPC02	14,530	2,743	18.88	954	7	10,907	75	1,299	9
AAPC03	14,543	2,830	19.46	765	5	10,199	70	1,300	9
AAPD01	13,898	2,894	20.82	591	4	10,405	75	1,169	8
AAPD02	18,123	4,217	23.27	985	5	13,414	74	1,311	7
AAPD03	13,748	3,058	22.24	785	6	9,934	72	1,119	8
AAPE01	13,823	3,676	26.59	682	5	10,313	75	865	6
AAPE02	16,257	3,725	22.91	874	5	11,907	73	882	5
AAPE03	15,981	4,440	27.78	634	4	10,449	65	1,089	7
AAPF01	15,239	4,707	30.89	630	4	7,779	51	1,306	9
AAPF02	16,052	4,041	25.17	935	6	11,631	72	1,035	6
AAPF03	15,911	3,732	23.46	918	6	12,706	80	1,163	7
AAPG01	14,935	4,472	29.94	727	5	10,249	69	1,157	8
AAPG02	17,191	4,503	26.19	1,177	7	12,021	70	1,093	6
AAPG03	15,559	4,030	25.90	1,190	8	12,101	78	1,099	7
AAPH01	17,607	4,045	22.97	2,058	12	13,089	74	1,150	7
AAPH02	16,003	3,603	22.51	2,053	13	11,673	73	959	6
AAPH03	17,836	6,023	33.77	1,707	10	12,090	68	1,464	8
BBPA01	13,831	4,833	34.94	1,155	8	8,793	64	1,488	11
BBPA02	12,802	3,485	27.22	1,373	11	8,668	68	1,277	10
BBPA03	12,021	3,384	28.15	868	7	6,931	58	1,135	9
BBPB01	13,261	3,738	28.19	809	6	9,349	71	1,054	8
BBPB02	18,197	3,795	20.86	883	5	13,440	74	1,342	7
BBPB03	12,371	3,627	29.32	974	8	8,779	71	916	7
BBPC01	17,073	4,751	27.83	1,265	7	13,179	77	1,224	7
BBPC02	14,040	4,260	30.34	1,089	8	10,247	73	1,054	8
BBPC03	14,537	3,908	26.88	1,545	11	10,713	74	1,421	10
BBPD01	15,733	2,766	17.58	653	4	11,558	73	1,752	11

Territory inventory is imported from the pharmaceutical company's inventory management system. The beginning territory inventory lets sales management know what each territory currently has available. This information will be used to ensure that all resources are utilized efficiently.

Total Region | Allocations | Recommend Allocations | **Territory Inventory**

Samples Operations Manager | Jan

		Beginning Inventory
Total Territories	AX1 3 Dose Patient Starter Pack	**2,500**
	AX2 7 Dose Compliance Pack	**3,500**
	AX3 7 Dose Voucher	**5,500**
	AX4 Stock Bottle	**7,700**
	TOTAL AXIS PRODUCT FAMILY	**19,200**
AAPA01	AX1 3 Dose Patient Starter Pack	55
	AX2 7 Dose Compliance Pack	24
	AX3 7 Dose Voucher	37
	AX4 Stock Bottle	52
	TOTAL AXIS PRODUCT FAMILY	**169**
AAPA02	AX1 3 Dose Patient Starter Pack	17
	AX2 7 Dose Compliance Pack	24
	AX3 7 Dose Voucher	37
	AX4 Stock Bottle	52
	TOTAL AXIS PRODUCT FAMILY	**130**
AAPA03	AX1 3 Dose Patient Starter Pack	17
	AX2 7 Dose Compliance Pack	24
	AX3 7 Dose Voucher	37
	AX4 Stock Bottle	52
	TOTAL AXIS PRODUCT FAMILY	**130**

Total Region | Recommend Allocations | Territory Inventory | Product weightings | **Product Drivers** | Allocations

Samples Operations Manager | Jan | AX1 3 Dose Patient Starter Pack

	Market	Target Volume	Target Share %	Competitor Volume	Competitor Share %	Managed Care Volume	Managed Care Share %	Cash	Cash Share %
AAPA01	13,105	3,181	24.27	1,002	8	7,860	60	1,066	8
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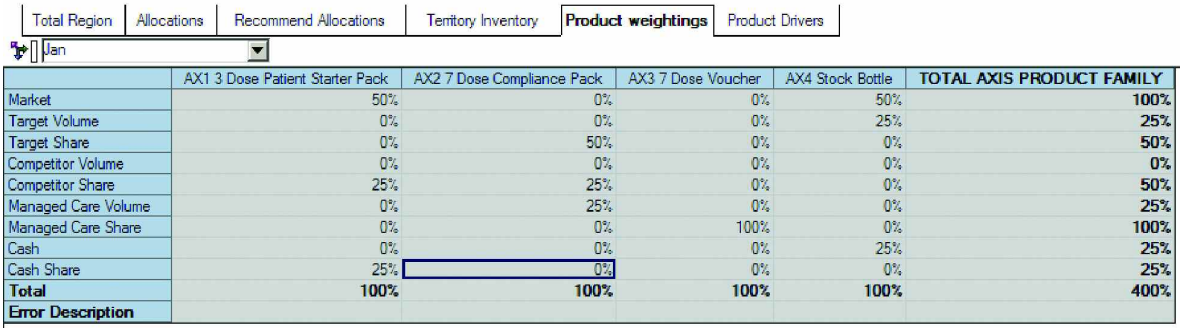
BBPC03	14,537	3,908	26.88	1,645	11	10,713	74	1,421	10
BBPD01	15,733	2,766	17.58	653	4	11,558	73	1,752	11

2. Product Weighting

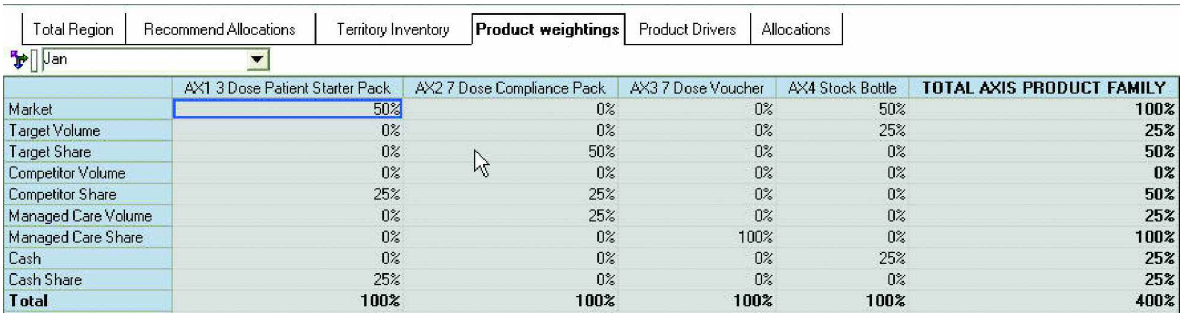
The samples operations manager or brand manager can vary driver weighting by individual product SKU to account for variances in each brand or product. Business users can adjust drivers at any time to accommodate changes in the selling environment. The total weighting for any product should equal 100 percent to ensure that all available product drivers are allocated.



Total Region | Allocations | Recommend Allocations | Territory Inventory | **Product weightings** | Product Drivers

Jan

	AX1 3 Dose Patient Starter Pack	AX2 7 Dose Compliance Pack	AX3 7 Dose Voucher	AX4 Stock Bottle	TOTAL AXIS PRODUCT FAMILY
Market	50%	0%	0%	50%	**100%**
Target Volume	0%	0%	0%	25%	**25%**
Target Share	0%	50%	0%	0%	**50%**
Competitor Volume	0%	0%	0%	0%	**0%**
Competitor Share	25%	25%	0%	0%	**50%**
Managed Care Volume	0%	25%	0%	0%	**25%**
Managed Care Share	0%	0%	100%	0%	**100%**
Cash	0%	0%	0%	25%	**25%**
Cash Share	25%	0%	0%	0%	**25%**
Total	**100%**	**100%**	**100%**	**100%**	**400%**
Error Description					

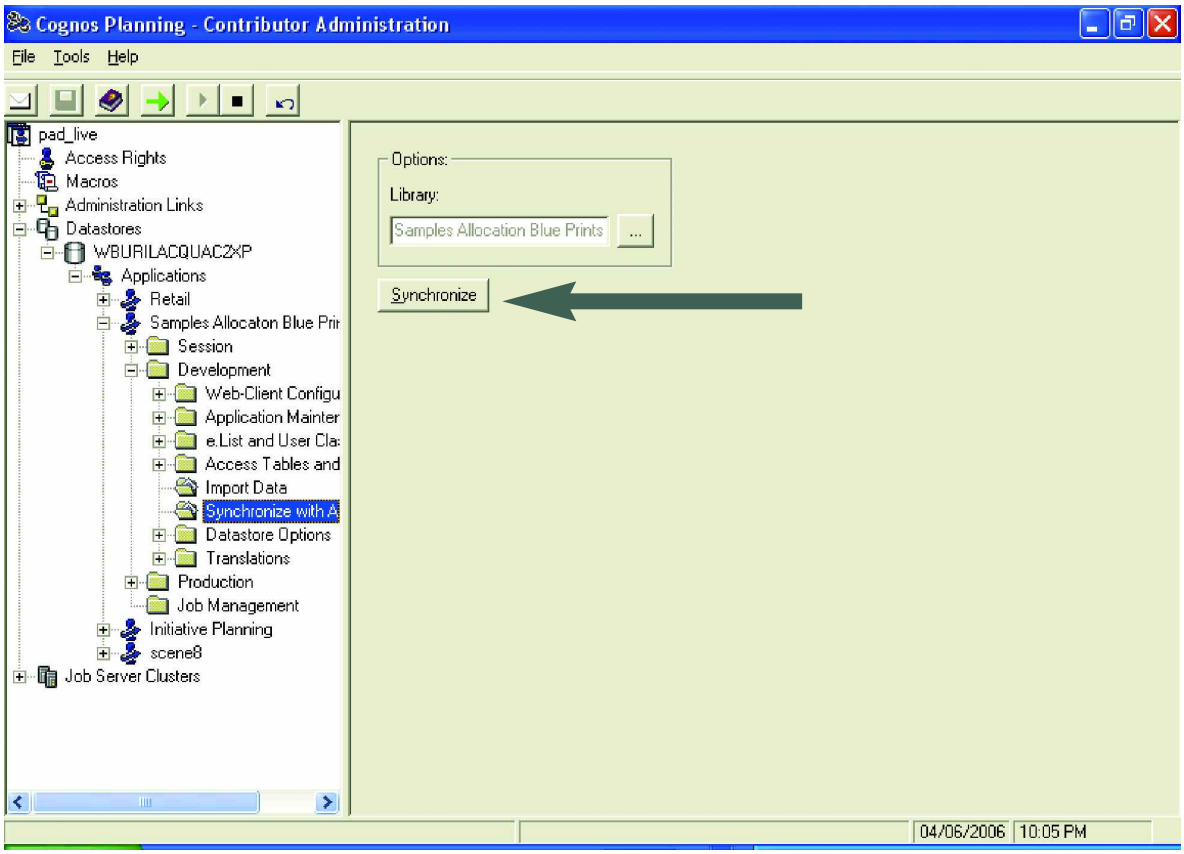


Total Region | Recommend Allocations | Territory Inventory | **Product weightings** | Product Drivers | Allocations

Jan

	AX1 3 Dose Patient Starter Pack	AX2 7 Dose Compliance Pack	AX3 7 Dose Voucher	AX4 Stock Bottle	TOTAL AXIS PRODUCT FAMILY
Market	50%	0%	0%	50%	**100%**
Target Volume	0%	0%	0%	25%	**25%**
Target Share	0%	50%	0%	0%	**50%**
Competitor Volume	0%	0%	0%	0%	**0%**
Competitor Share	25%	25%	0%	0%	**50%**
Managed Care Volume	0%	25%	0%	0%	**25%**
Managed Care Share	0%	0%	100%	0%	**100%**
Cash	0%	0%	0%	25%	**25%**
Cash Share	25%	0%	0%	0%	**25%**
Total	**100%**	**100%**	**100%**	**100%**	**400%**

Note: These product weightings are input using the Cognos Planning-Analyst application.


Cognos Planning - Contributor Administration
File Tools Help
pad_live
Access Rights
Macros
Administration Links
Datastores
WBURILACQUAC2XP
Applications
Retail
Samples Allocaton Blue Prir
Session
Development
Web-Client Configu
Application Mainter
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Import Data
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Datastore Options
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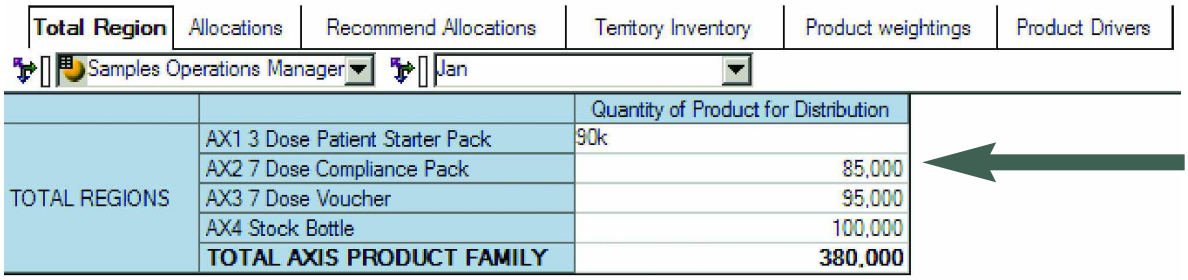
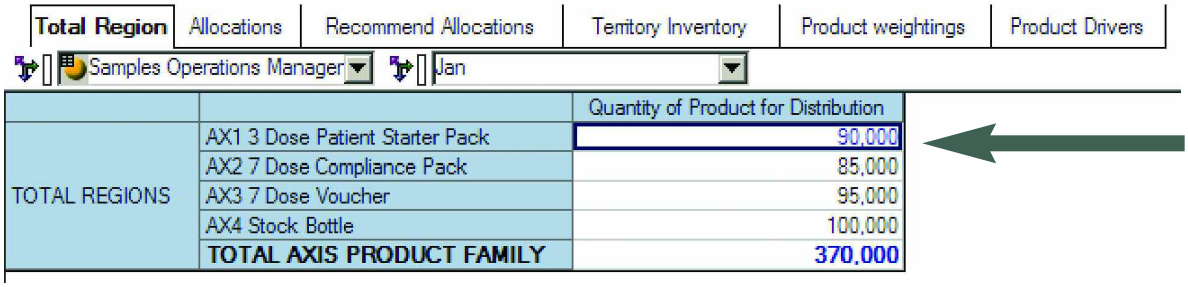
3. National Starter Distribution

The samples operations manager takes known business information and determines the total number of samples quantities that are available for distribution, and then enters the total quantity of product for distribution at a national level.



		Quantity of Product for Distribution
TOTAL REGIONS	AX1 3 Dose Patient Starter Pack	90k
	AX2 7 Dose Compliance Pack	85,000
	AX3 7 Dose Voucher	95,000
	AX4 Stock Bottle	100,000
	TOTAL AXIS PRODUCT FAMILY	**380,000**

As the sample operations manager hits the **Enter** key, model changes and any related calculations are highlighted in blue.



		Quantity of Product for Distribution
TOTAL REGIONS	AX1 3 Dose Patient Starter Pack	90,000
	AX2 7 Dose Compliance Pack	85,000
	AX3 7 Dose Voucher	95,000
	AX4 Stock Bottle	100,000
	TOTAL AXIS PRODUCT FAMILY	**370,000**

Once the quantity has been entered, initial allocations are calculated based on territory drivers and product driver weightings.

Total Region | **Allocations** | Recommend Allocations | Territory Inventory | Product weightings | Product Drivers

Total Territories | Samples Operations Manager | Blended Cases | Jan

	AX1 3 Dose Patient Starter Pack	AX2 7 Dose Compliance Pack	AX3 7 Dose Voucher	AX4 Stock Bottle	TOTAL AXIS PRODUCT FAMILY
Market	45,000			50,000	95,000
Target Volume				25,000	25,000
Target Share		42,500			42,500
Competitor Volume					
Competitor Share	22,500	21,250			43,750
Managed Care Volume		21,250			21,250
Managed Care Share			95,000		95,000
Cash				25,000	25,000
Cash Share	22,500				22,500
TOTAL	90,000	85,000	95,000	100,000	370,000

Note that the 90,000 samples were allocated to all of the drivers based on the product weightings. The samples allocation for Total Territories is 90,000. However, the samples operations manager can easily adjust the view to see the allocation for an individual region, district, or territory.

Total Region | **Allocations** | Recommend Allocations | Territory Inventory | Product weightings | Product Drivers

AX1 3 Dose Patient Starter Pack | Samples Operations Manager | Blended Cases | Jan

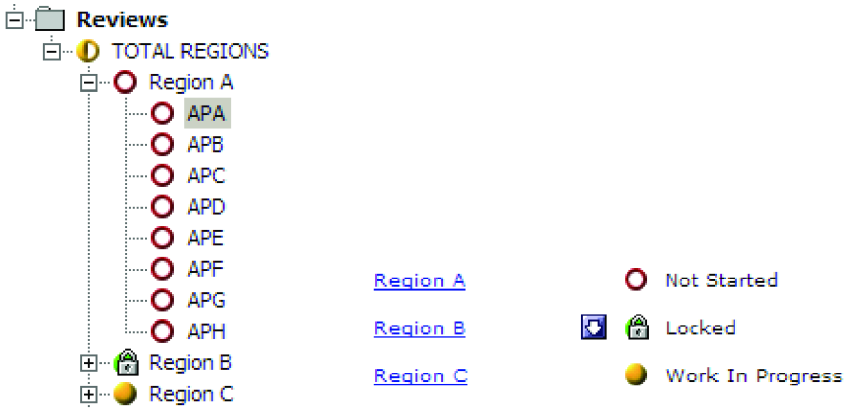
	Market	Target Volume	Target Share	Competitor Volume	Competitor Share	Managed Care Volume	Managed Care Share	Cash	Cash Share	TOTAL
Total Territories	45,000				22,500				22,500	90,000
AAPA01	243				125				122	490
AAPA02	308				156				112	576
AAPA03	335				82				102	519

When the samples operations manager has completed a review, the samples quantities and beginning inventory are updated at region, district, and territory levels. This update is executed by processing an Administrative Link.

4. Allocation Overview to Territories

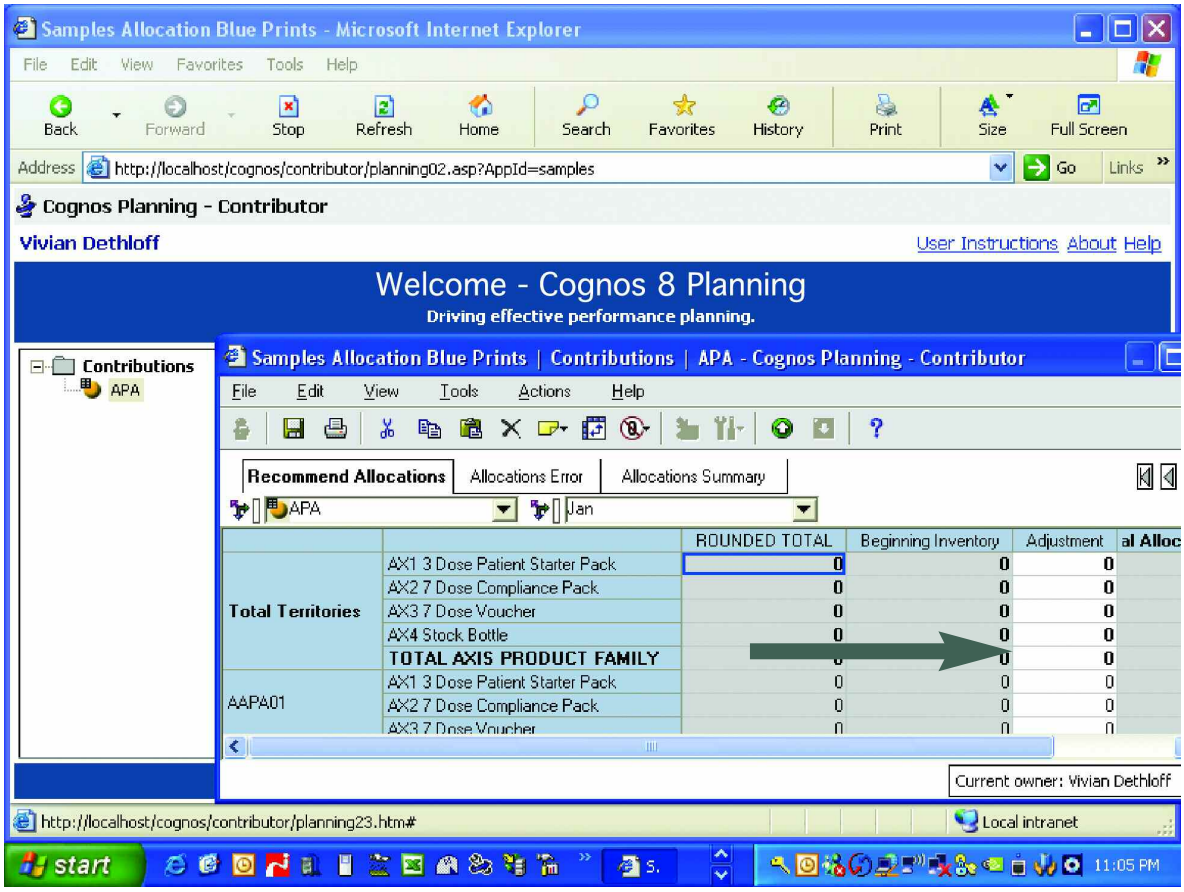
The samples operations manager can communicate to sales management that they have the ability adjust the recommended samples allocation to their territories. District managers will have the ability to make adjustments and then submit their adjustments to their regional managers for approval. The *Blueprint* provides an easy-to-use Web-browser interface, which allows region and district managers to adjust samples quantities at a territory level.

The *Blueprint*'s built-in workflow enables sales management to track the contribution status of all regional and district managers.

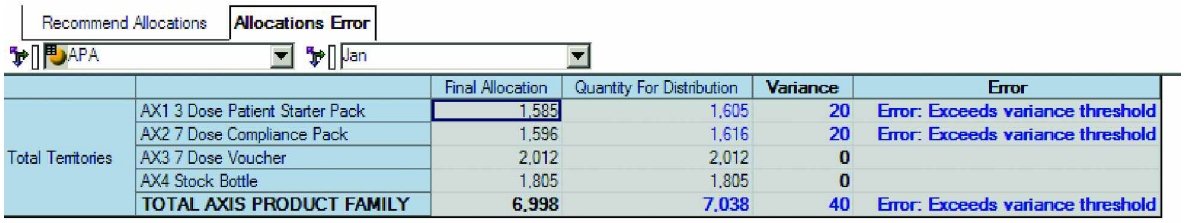


5. Field Validation and Adjustment

Once the *Blueprint* has calculated the territory allocation, it distributes the data to the field sales management team for further fine-tuning via the Web. Based on first-hand field knowledge, a district manager can adjust the sample allocations to the territories under their supervision.

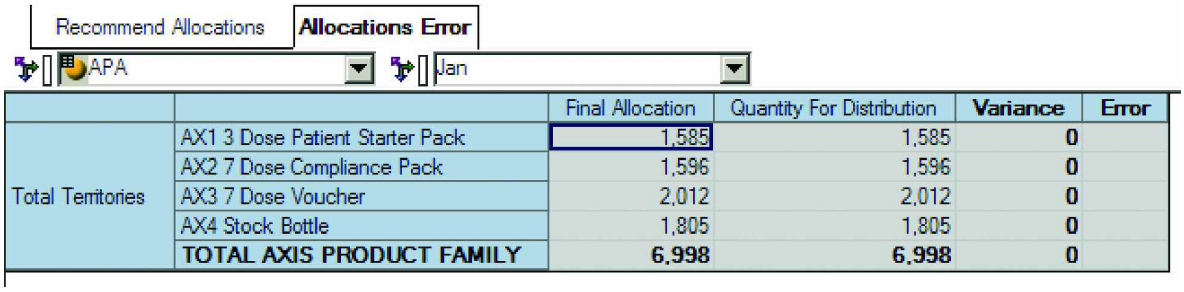


Allocation error-checking makes sure that adjustments to not exceed regional allocation totals.



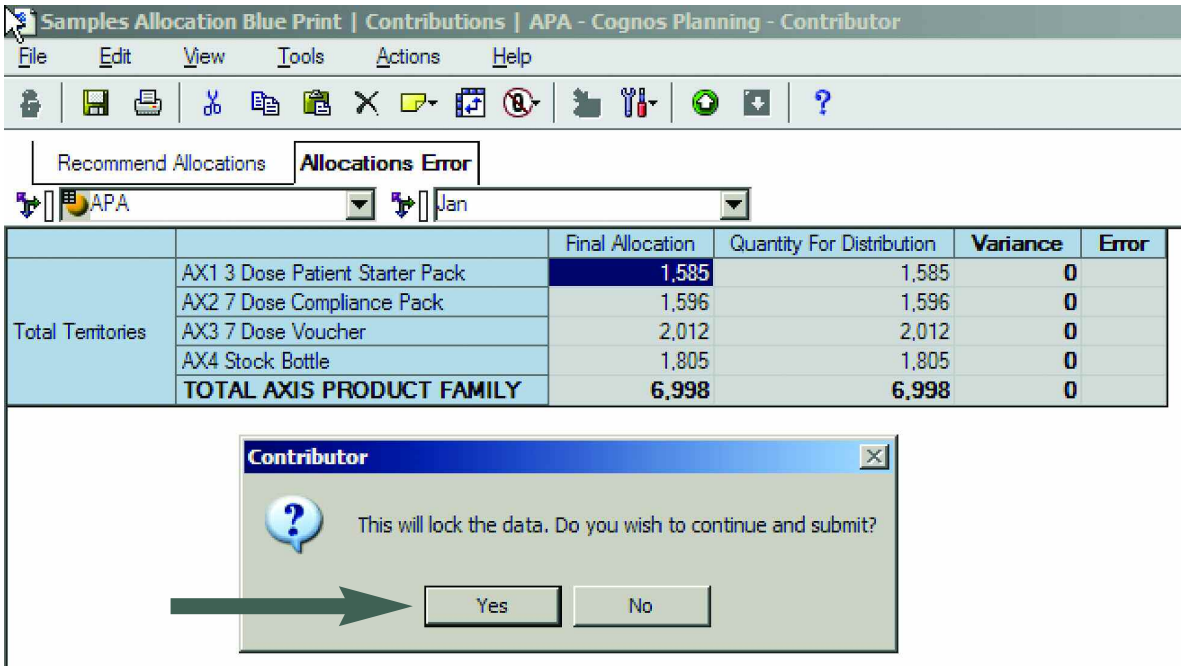
		Final Allocation	Quantity For Distribution	Variance	Error
Total Territories	AX1 3 Dose Patient Starter Pack	1,585	1,605	20	Error: Exceeds variance threshold
	AX2 7 Dose Compliance Pack	1,596	1,616	20	Error: Exceeds variance threshold
	AX3 7 Dose Voucher	2,012	2,012	0	
	AX4 Stock Bottle	1,805	1,805	0	
	TOTAL AXIS PRODUCT FAMILY	6,998	7,038	40	Error: Exceeds variance threshold

The district manager must ensure that territory allocations do not exceed a district allocation.



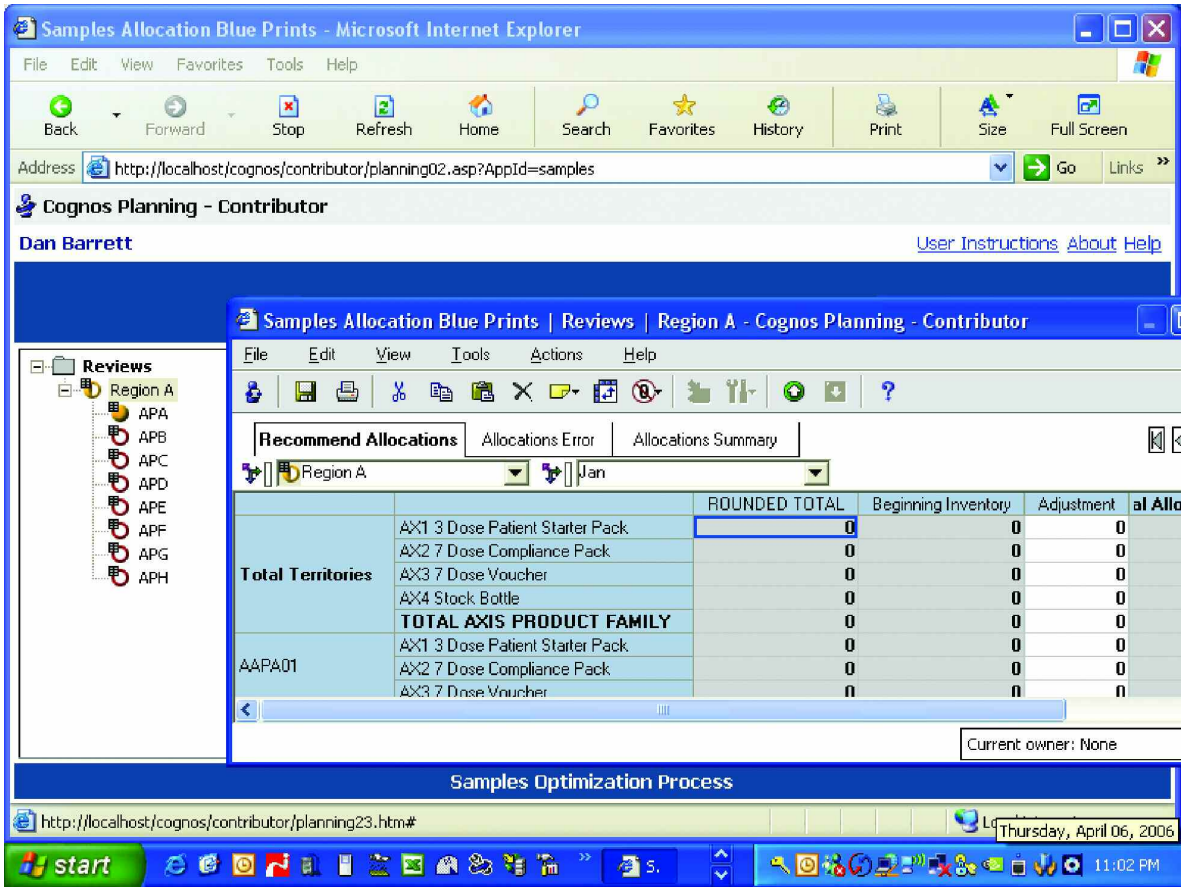
		Final Allocation	Quantity For Distribution	Variance	Error
Total Territories	AX1 3 Dose Patient Starter Pack	1,585	1,585	0	
	AX2 7 Dose Compliance Pack	1,596	1,596	0	
	AX3 7 Dose Voucher	2,012	2,012	0	
	AX4 Stock Bottle	1,805	1,805	0	
	TOTAL AXIS PRODUCT FAMILY	**6,998**	**6,998**	**0**	

District managers submit their respective district to the regional manager for approval by hitting the **Submit** button (green arrow below) on the Web page, which locks the district and prevents any future re-entry at any of the districts' respective territories.



		Final Allocation	Quantity For Distribution	Variance	Error
Total Territories	AX1 3 Dose Patient Starter Pack	1,585	1,585	0	
	AX2 7 Dose Compliance Pack	1,596	1,596	0	
	AX3 7 Dose Voucher	2,012	2,012	0	
	AX4 Stock Bottle	1,805	1,805	0	
	TOTAL AXIS PRODUCT FAMILY	**6,998**	**6,998**	**0**	

Once all of the district managers have submitted their allocation adjustments, the regional manager can adjust allocations in the context of the total region's requirements and make cross-regional adjustments to meet market requirements.

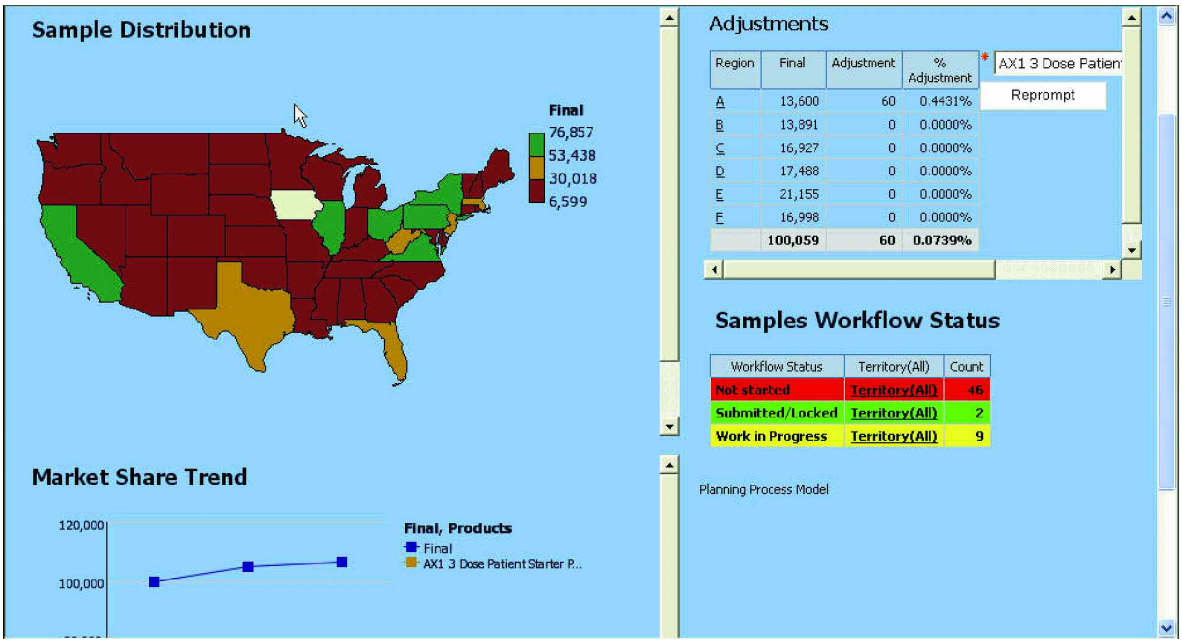


As regional managers make final adjustments to their territorial sample allocations, regional managers will submit their regions to the samples operations manager for review. The samples operations manager determine whether regional and district samples quantity adjustments are acceptable and whether additional quantities are needed.

Once the samples operations manager is pleased with the allocation process, they communicate resource requirements to manufacturing and distribution management to ensure that each territory receives the appropriate samples shipment.

6. Reporting and Analysis

All information in the *Samples Optimization Blueprint* is saved in the central database and is available for aggregated company-wide analytics and reporting. For example, managers and analysts can view aggregate sample and resource allocations at the territory, district, region, or sales force level to compare them with sales results and sales call activity to fine-tune future allocations. The samples operations manager can monitor the allocation process to see how many field managers have completed, are still working on, or have not started the sample validation process.



Analyze Allocations

ABOUT THE COGNOS INNOVATION CENTER FOR PERFORMANCE MANAGEMENT

The Cognos Innovation Center was established in North America and Europe to advance the understanding of proven planning and performance management techniques, technologies, and practices. The Innovation Center is dedicated to transforming routine performance management practices into "next practices" that help cut costs, streamline processes, boost productivity, enable rapid response to opportunity, and increase management visibility.

Staffed globally by experts in planning, technology, and performance and strategy management, the Innovation Center partners with more than 600 Cognos customers, academics, industry leaders, and others seeking to accelerate adoption, reduce risk, and maximize the impact of technology-enabled performance management practices.

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