



Working With Dashboards for Risk Measurement

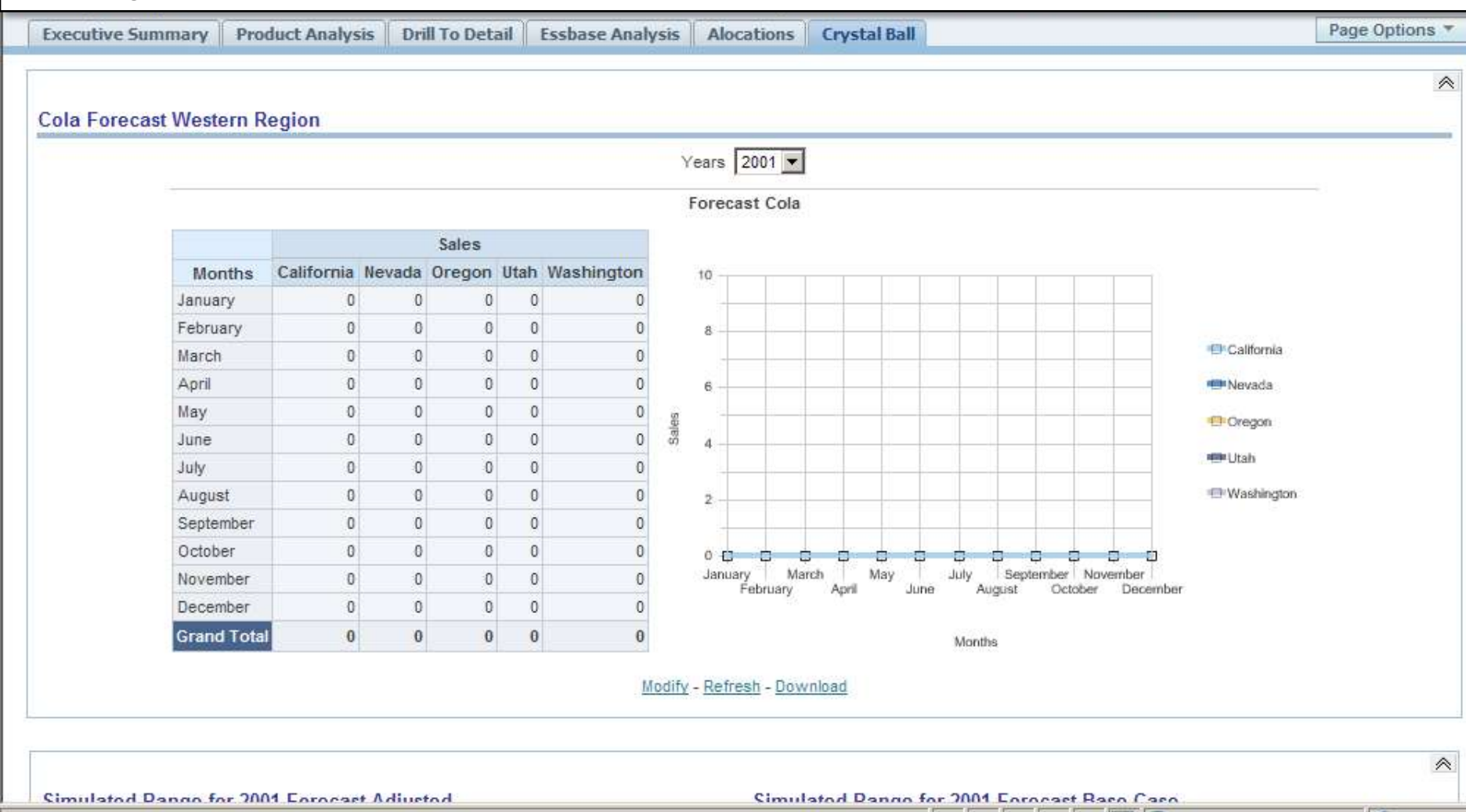
An OBIEE, Essbase and Crystal Ball Integrated Demo

Risk Reporting

- Let's look at how we can use historical data and subject matter expertise with predictive analytics to for better forecasting
- We're going to focus on Cola sales forecast for California to illustrate this workflow:
 - Access historical data and analyze it for trend and seasonality to more accurately forecast the next 12 periods
 - Improve our forecasting model by capturing the best range estimates of subject matter experts
 - Use the model to understand likelihood of success – see the probabilities instead of just the possibilities
 - Make an informed decision as to what sales targets we feel confident in committing to, communicate those results, and provide reports and statistics to back up our analysis.

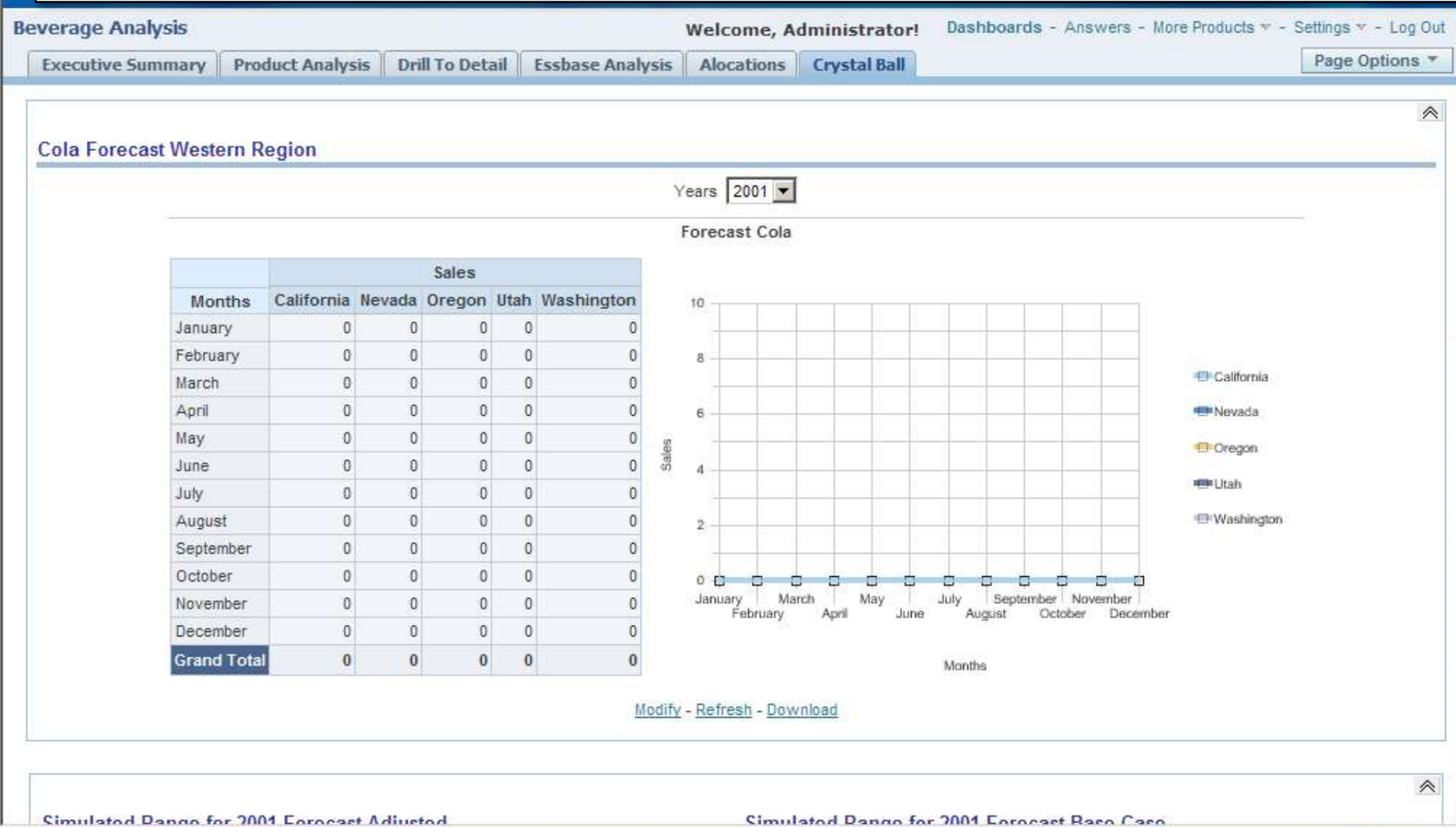
In the Crystal Ball dashboard, we see it's time to commit to a sales forecast for 2001. From a Planner, we get the sales targets we're supposed to attain in 2001:

California: 60,000
Nevada: 9,000
Oregon: 12,000
Utah: 10,000
Washington: 14,000



Because it's important that we not miss out numbers in the coming year, before committing to those numbers and updating our dashboard with the forecast, we'd like to take a step back and think about two questions:

- 1) How likely are we to achieve these numbers
- 2) If not likely (or not likely enough) what can we do to increase our likelihood of meeting or exceeding our targets.



BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

Activate Reset Data Source Manager Connections Zoom In Zoom Out Pivot Ad Hoc Analysis Keep Only Remove Only Select Form Instructions Take Offline Refresh Offline Sync Back To Server Lock Expand Collapse Forms Refresh All Submit Data Review Undo Redo Copy Data Paste Data R&A Import R&A Edit POV Manager Member Selection Function Builder Task

D7 3881.09216320784

	A	B	C	D	E	F	G	H
1	State	SKU	Month	Sales				
2	California	Cola	1998-01	822.0907695				
3	California	Cola	1998-02	1461.685137				
4	California	Cola	1998-03	2077.161483				
5	California	Cola	1998-04	362.9447678				
6	California	Cola	1998-05	1811.746082				
7	California	Cola	1998-06	3881.092163				
8	California	Cola	1998-07	3232.295594				
9	California	Cola	1998-08	6714.200998				
10	California	Cola	1998-09	2329.496591				
11	California	Cola	1998-10	3598.623891				
12	California	Cola	1998-11	1314.682319				
13	California	Cola	1998-12	3673.790518				
14	California	Cola	1999-01	1802.786283				
15	California	Cola	1999-02	2325.303866				
16	California	Cola	1999-03	2428.693942				
17	California	Cola	1999-04	664.7861803				
18	California	Cola	1999-05	3011.544799				
19	California	Cola	1999-06	5921.010532				
20	California	Cola	1999-07	6057.117013				
21	California	Cola	1999-08	9037.96293				
22	California	Cola	1999-09	4728.18936				
23	California	Cola	1999-10	6657.221038				
24	California	Cola	1999-11	5544.492738				
25	California	Cola	1999-12	4701.406611				

POV [BevPlus-Western regio]

[Market].[Director]

[Market].[Region].[West]

[Product].[Caffienated]

[Product].[Date Introduced]

[Product].[Family Description]

[Product].[Ounces]

[Product].[Package Types]

[Time].[Calendar Month Name]

[Time].[Calendar Quarter Number]

[Time].[Calendar Quarter]

[Time].[Calendar Week Number]

[Time].[Calendar Year]

[Time].[Day Name]

[Time].[Day]

[Time].[Fiscal Quater Name]

[Time].[Fiscal Week Number]

[Time].[Fiscal Year]

Refresh

Smart View Data Source Manager

Provider URL: http://demodrive:13080/aps/SmartView

Oracle BI Server

- demodrive
 - Beverage Plus
 - Beverage Plus Accounting
 - Beverage Plus History
 - Beverage Plus History - demodrive
 - BevPlus
 - Crystal Ball
 - Drill to Detail
- Oracle Essbase
 - DEMODRIVE
 - ASO_10M
 - ASO_B2m
 - ASOsamp
 - AT

With SmartView we connect to our historical data in our database

Data link to table Western Historical Cola Sales Base Case forecast Adjusted Forecast

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

PivotTable Tools: Options, Design

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

Clipboard Font Alignment Number Styles Cells Editing

Conditional Formatting as Table Cell Styles

Insert Delete Format Cells

Σ Sort & Filter Find & Select

Sum of Sales

SKU State

Cola

Month California Nevada Oregon Utah Washington

Month	California	Nevada	Oregon	Utah	Washington
1998-01	822.0907695	62.44238436	832.9460656	531.8802765	162.118691
1998-02	1461.685137	80.78361196	349.3253811	458.7236327	204.867665
1998-03	2077.161483	305.9595542	678.057348	524.1235788	15.88450535
1998-04	362.9447678	175.9196057	204.8874557	193.7672135	178.1882431
1998-05	1811.746082	194.4330938	463.5484934	639.0132566	80.74862046
1998-06	3881.092163	166.2720831	215.2984149	384.2509643	60.31396928
1998-07	3232.295594	189.0294054	88.41805322	141.4835139	109.9055537
1998-08	6714.200998	297.1524558	165.4778653	23.15096733	337.7100924
1998-09	2329.496591	285.2303758	475.147092	123.1167688	87.85190627
1998-10	3598.623891	235.3423365	811.5522629	279.9017784	188.9658057
1998-11	1314.682319	84.27867152	505.8278258	608.7833821	200.23405
1998-12	3673.790518	134.7532091	253.1894381	192.084162	218.2577819
1999-01	1802.786283	383.4759321	1478.598069	851.8716677	194.8463931
1999-02	2325.303866	296.676978	949.2953691	799.39183	
1999-03	2428.693942	431.385328	1272.881417	656.49969	
1999-04	664.7861803	316.00105	737.4578667	361.9223528	332.2564415
1999-05	3011.544799	353.1642347	823.5728585	1021.751138	177.7546341
1999-06	5921.010532	608.8817316	417.4276509	656.8649046	298.5876834
1999-07	6057.117013	336.9135166	480.8148707	459.7866847	229.4906493
1999-08	9037.96293	454.971418	643.6260445	156.6511945	423.420729
1999-09	4728.18936	561.8951768	714.5216514	407.2107649	257.9882359
1999-10	6657.221038	513.7591632	1046.681566	640.8601891	232.5961069
1999-11	5544.492738	292.9853758	723.8588647	1178.68508	340.9452101

PivotTable Field List

Choose fields to add to report:

- ☒ State
- ☒ SKU
- ☒ Month
- ☒ Sales

Drag fields between areas below:

Report Filter Column Labels

Row Labels Values

Month Sum of Sales

Defer Layout Update Update

Data link to table Western Historical Cola Sales Base Case forecast Adjusted Forecast Submit For

And use Excel to arrange it quickly in a pivot table

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

Define Assumption Define Decision Define Forecast Copy Paste Clear Select Freeze Cell Prefs

Start Stop Reset Step

General Tools

CB Predictor

Batch Fit

Bootstrap

Correlation Matrix

Data Analysis

Decision Table

Scenario Analysis

Tornado Chart

2D Simulation

Utilities

Compare Run Modes

View Charts Create Report Extract Data Analyze Help Resources About Help

H9

	A	B	C	D	E	F
1	Sum of Sales	SKU	State			
2		Cola				
3	Month	California	Nevada	Oregon	Utah	Washingt
4	1998-01	822.0907695	62.44238436	832.9460656	531.8802765	162.118
5	1998-02	1461.685137	80.78361196	349.3253811	458.7236327	204.867
6	1998-03	2077.161483	305.9595542	678.057348	524.1235788	15.88450
7	1998-04	362.9447678	175.9196057	204.8874557	193.7672135	178.1882
8	1998-05	1811.746082	194.4330938	463.5484934	639.0132566	80.74862
9	1998-06	3881.092163	166.2720831	215.2984149	384.2509643	60.31396
10	1998-07	3232.295594	189.0294054	88.41805322	141.4835139	109.9055
11	1998-08	6714.200998	297.1524558	165.4778653	23.15096733	337.7100
12	1998-09	2329.496591	285.2303758	475.147092	123.1167688	87.85190
13	1998-10	3598.623891	235.3423365	811.5522629	279.9017784	188.9658
14	1998-11	1314.682319	84.27867152	505.8278258	608.7833821	200.23
15	1998-12	3673.790518	134.7532091	253.1894381	192.084162	218.2577
16	1999-01	1802.786283	383.4759321	1478.598069	851.8716677	194.8463
17	1999-02	2325.303866	296.676978	949.2953691	799.3918306	314.2423
18	1999-03	2428.693942	431.385328	1272.881417	656.4996975	181.6602
19	1999-04	664.7861803	316.00105	737.4578667	361.9223528	332.2564
20	1999-05	3011.544799	353.1642347	823.5728585	1021.751	
21	1999-06	5921.010532	608.8817316	417.4276509	656.8649	
22	1999-07	6057.117013	336.9135166	480.8148707	459.7866	
23	1999-08	9037.96293	454.971418	643.6260445	156.6511	
24	1999-09	4728.18936	561.8951768	714.5216514	407.210745	237.588233
25	1999-10	6657.221038	513.7591632	1046.681566	640.8601891	232.5961069
26	1999-11	5544.492738	292.9853758	723.8588647	1178.68508	340.9452101

Select the data set and in the Crystal Ball ribbon (Excel 2007) or toolbar (Excel 2000 or 2003), select CB Predictor, the time-series forecasting tool

Data link to table Western Historical Cola Sales Base Case forecast Adjusted Forecast Submit Forecast Crystal Ball Report Sheet3

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

PivotTable Tools: Options, Design

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

Define Assumption Define Decision Define Forecast Clear Select Freeze Cell Prefs

Start Stop Reset Step Tools Save or Restore Run Preferences OptQuest View Charts Create Report Extract Data Help Resources About Help

E16 Month

	A	B	C	D	E	F	G	H	I	J	K
1	Sum of Sales	SKU	State								
2		Cola									
3	Month	California	Nevada	Oregon	Utah						
4	1998-01	822.0907695	62.44238436	832.9460656	531						
5	1998-02	1461.685137	80.78361196	349.3253811	458						
6	1998-03	2077.161483	305.9595542	678.057348	524.1253788	13.88430333					
7	1998-04	362.9447678	175.9196057	204.8874557	193.7672135	178.1882431					
8	1998-05	1811.746082	194.4330938	463							
9	1998-06	3881.092163	166.2720831	215							
10	1998-07	3232.295594	189.0294054	88							
11	1998-08	6714.200998	297.1524558	165							
12	1998-09	2329.496591	285.2303758	4							
13	1998-10	3598.623891	235.3423365	81							
14	1998-11	1314.682319	84.27867152	505							
15	1998-12	3673.790518	134.7532091	253							
16	1999-01	1802.786283	383.4759321	147							
17	1999-02	2325.303866	296.676978	949							
18	1999-03	2428.693942	431.385328	127							
19	1999-04	664.7861803	316.00105	737							
20	1999-05	3011.544799	353.1642347	823							
21	1999-06	5921.010532	608.8817316	417							
22	1999-07	6057.117013	336.9135166	480							
23	1999-08	9037.96293	454.971418	643							
24	1999-09	4728.18936	561.8951768	714							
25	1999-10	6657.221038	513.7591632	104							
26	1999-11	5544.492738	292.9853758	723.8588647	1178.68508	340.9452101					

Use the Predictor wizard to define the forecast parameters for the next 12 months, based on the past 5 years of data

CB Predictor

Input Data | Data Attributes | Method Gallery | Results

Step 1. Enter a cell range on your spreadsheet that contains one or more data series:
Range: Western Historical Cola Sales!\$A\$3:\$F\$39

Step 2. Show how your data is arranged:
☒ First row has headers
☐ Data in rows
☒ Data in columns
☒ First column has dates

Step 3. Optional -- view a graph of your data along with summary statistics: View Data...

<< Back Next >> Preview... Run Cancel Help

Data link to table Western Historical Cola Sales Base Case forecast Adjusted Forecast Submit Forecast Crystal Ball Report Sheet3

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

PivotTable Tools

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball Options Design

Define Assumption Define Decision Define Forecast Define

Copy Paste Clear Select Freeze Cell Prefs

Start Stop Reset Step Tools Save or Restore Run Preferences OptQuest

View Charts Create Report Extract Data Analyze Help Resources About Help

	A	B	C	D	E	F	G	H	I	J	K
E16											
	Month										
1	Sum of Sales	SKU	State								
2		Cola									
3	Month	California	Nevada	Oregon	Utah						
4	1998-01	822.0907695	62.44238436	832.9460656	531.8802765	162.118691					
5	1998-02	1461.685137	80.78361196	349.3253811	458.7236327	204.867665					
6	1998-03	2077.161483	305.9595542	678.057348	524.1235788	15.88450535					
7	1998-04	362.9447678	175.9196057	204.8874557	193.7672135	178.1882431					
8	1998-05	1811.746082	194.4330938	463.1111111	193.7672135	178.1882431					
9	1998-06	3881.092163	166.2720831	215.1111111	193.7672135	178.1882431					
10	1998-07	3232.295594	189.0294054	88.11111111	193.7672135	178.1882431					
11	1998-08	6714.200998	297.1524558	165.1111111	193.7672135	178.1882431					
12	1998-09	2329.496591	285.2303758	4.111111111	193.7672135	178.1882431					
13	1998-10	3598.623891	235.3423365	81.11111111	193.7672135	178.1882431					
14	1998-11	1314.682319	84.27867152	50.11111111	193.7672135	178.1882431					
15	1998-12	3673.790518	134.7532091	25.11111111	193.7672135	178.1882431					
16	1999-01	1802.786283	383.4759321	14.11111111	193.7672135	178.1882431					
17	1999-02	2325.303866	296.676978	94.11111111	193.7672135	178.1882431					
18	1999-03	2428.693942	431.385328	12.11111111	193.7672135	178.1882431					
19	1999-04	664.7861803	316.00105	73.11111111	193.7672135	178.1882431					
20	1999-05	3011.544799	353.1642347	82.11111111	193.7672135	178.1882431					
21	1999-06	5921.010532	608.8817316	41.11111111	193.7672135	178.1882431					
22	1999-07	6057.117013	336.9135166	48.11111111	193.7672135	178.1882431					
23	1999-08	9037.96293	454.971418	64.11111111	193.7672135	178.1882431					
24	1999-09	4728.18936	561.8951768	71.11111111	193.7672135	178.1882431					
25	1999-10	6657.221038	513.7591632	104.1111111	193.7672135	178.1882431					
26	1999-11	5544.492738	292.9853758	723.8588647	1178.68508	340.9452101					

Include data type and seasonality

CB Predictor

Input Data Data Attributes Method Gallery Results

Step 4. Indicate the type of data you have and its seasonality:

Data is in **months** with ☒ seasonality of **12** months
☐ no seasonality (all seasonal methods skipped)

Step 5. Optional -- check here if you have dependencies within your data and you would like to use linear regression to forecast the dependent variables:

☐ Use multiple linear regression: **Select Variables...**

Method: **Standard** **Stepwise Options...**

☒ Include constant in regression equation

<< Back Next >> Preview... Run Cancel Help

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

PivotTable Tools

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball Options Design

Define Assumption Define Decision Define Forecast Define

Copy Paste Clear Select Freeze Cell Prefs

Start Stop Reset Step Tools Save or Restore Run Preferences

OptQuest View Charts Create Report Extract Data Analyze

Help Resources About Help

	F12		Month											
	A	B	C	D	E	F	G	H	I	J	K			
1	Sum of Sales	SKU	State											
2		Cola												
3	Month	California	Nevada	Oregon	Utah									
4	1998-01	822.0907695	62.44238436	832.9460656	531.8									
5	1998-02	1461.685137	80.78361196	349.3253811	458.7250527	204.8874557								
6	1998-03	2077.161483	305.9595542	678.057348	524.1235788	15.88450535								
7	1998-04	362.9447678	175.9196057	204.8874557	193.7672135	178.1882431								
8	1998-05	1811.746082	194.4330938	463.7250527	204.8874557	178.1882431								
9	1998-06	3881.092163	166.2720831	215.9196057	193.7672135	178.1882431								
10	1998-07	3232.295594	189.0294054	88.7250527	204.8874557	178.1882431								
11	1998-08	6714.200998	297.1524558	165.9196057	193.7672135	178.1882431								
12	1998-09	2329.496591	285.2303758	47.7250527	204.8874557	178.1882431								
13	1998-10	3598.623891	235.3423365	81.7250527	204.8874557	178.1882431								
14	1998-11	1314.682319	84.27867152	50.7250527	204.8874557	178.1882431								
15	1998-12	3673.790518	134.7532091	25.7250527	204.8874557	178.1882431								
16	1999-01	1802.786283	383.4759321	14.7250527	204.8874557	178.1882431								
17	1999-02	2325.303866	296.676978	94.7250527	204.8874557	178.1882431								
18	1999-03	2428.693942	431.385328	12.7250527	204.8874557	178.1882431								
19	1999-04	664.7861803	316.00105	73.7250527	204.8874557	178.1882431								
20	1999-05	3011.544799	353.1642347	82.7250527	204.8874557	178.1882431								
21	1999-06	5921.010532	608.8817316	41.7250527	204.8874557	178.1882431								
22	1999-07	6057.117013	336.9135166	48.7250527	204.8874557	178.1882431								
23	1999-08	9037.96293	454.971418	64.7250527	204.8874557	178.1882431								
24	1999-09	4728.18936	561.8951768	71.7250527	204.8874557	178.1882431								
25	1999-10	6657.221038	513.7591632	10.7250527	204.8874557	178.1882431								
26	1999-11	5544.492738	292.9853758	723.8588647	1178.68508	340.9452101								

You can also select the number of periods to forecast and other options.

CB Predictor

Input Data | Data Attributes | Method Gallery | Results

Step 7. Enter the number of periods to forecast: 12

Step 8. Select a confidence interval: 5% and 95%

Step 9. Select the results you want:

☒ Paste forecasts at cell: Base Case for Select... by ☐ rows ☒ columns

☐ Report ☐ Charts ☐ Results table ☐ Methods table Preferences...

Title: Western Region Cola

Step 10. Click Preview to see a graph of the results. Click Run to output the results.

<< Back Next >> Preview... Run Cancel Help

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

PivotTable Tools

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball Options Design

Define Assumption Define Decision Define Forecast Define

Copy Paste Clear Select Freeze Cell Prefs

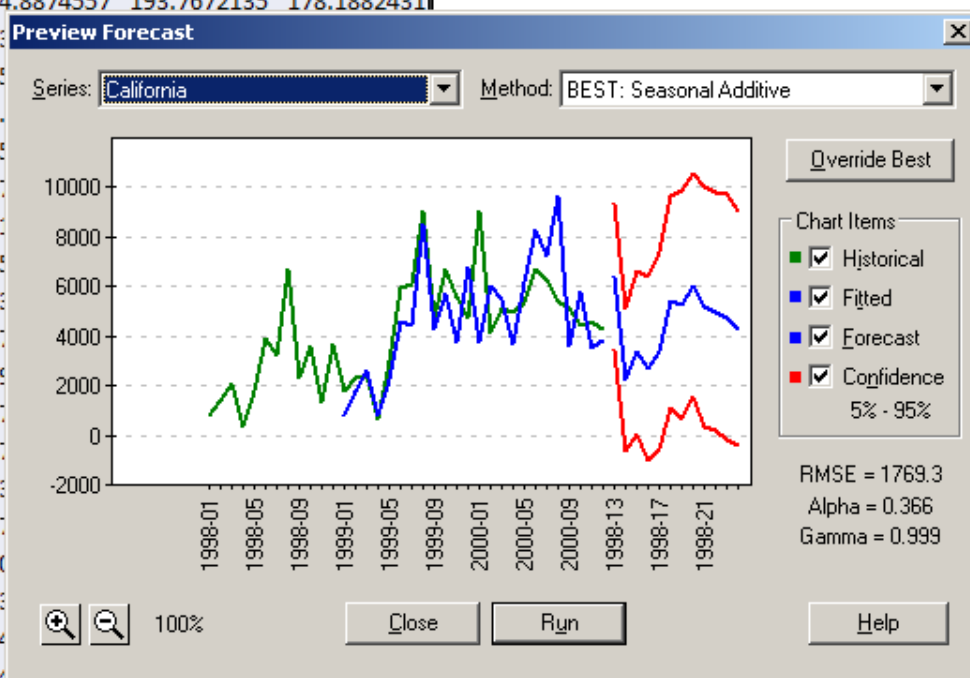
Start Stop Reset Step Tools Save or Restore Run Preferences

OptQuest View Charts Create Report Extract Data Analyze

Help Resources About Help

A3	Month				
A	B	C	D	E	
1	Sum of Sales	SKU	State		
2		Cola			
3	Month	California	Nevada	Oregon	Utah
4	1998-01	822.0907695	62.44238436	832.9460656	531.88027
5	1998-02	1461.685137	80.78361196	349.3253811	458.72363
6	1998-03	2077.161483	305.9595542	678.057348	524.12357
7	1998-04	362.9447678	175.9196057	204.8874557	193.7672135
8	1998-05	1811.746082	194.4330938	469.7672135	178.1882431
9	1998-06	3881.092163	166.2720831	219.7672135	
10	1998-07	3232.295594	189.0294054	88.7672135	
11	1998-08	6714.200998	297.1524558	169.7672135	
12	1998-09	2329.496591	285.2303758	4.7672135	
13	1998-10	3598.623891	235.3423365	81.7672135	
14	1998-11	1314.682319	84.27867152	50.7672135	
15	1998-12	3673.790518	134.7532091	25.7672135	
16	1999-01	1802.786283	383.4759321	14.7672135	
17	1999-02	2325.303866	296.676978	94.7672135	
18	1999-03	2428.693942	431.385328	12.7672135	
19	1999-04	664.7861803	316.00105	73.7672135	
20	1999-05	3011.544799	353.1642347	82.7672135	
21	1999-06	5921.010532	608.8817316	41.7672135	
22	1999-07	6057.117013	336.9135166	48.7672135	
23	1999-08	9037.96293	454.971418	64.7672135	
24	1999-09	4728.18936	561.8951768	71.7672135	
25	1999-10	6657.221038	513.7591632	10.7672135	
26	1999-11	5544.492738	292.9853758	723.8588647	1178.68508
					340.9452101

The results of the best method can be previewed before running. The left part of the chart shows historical data with the fitted data and shorter right part of the chart shows the forecasted data, bounded by the confidence interval in red.



BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

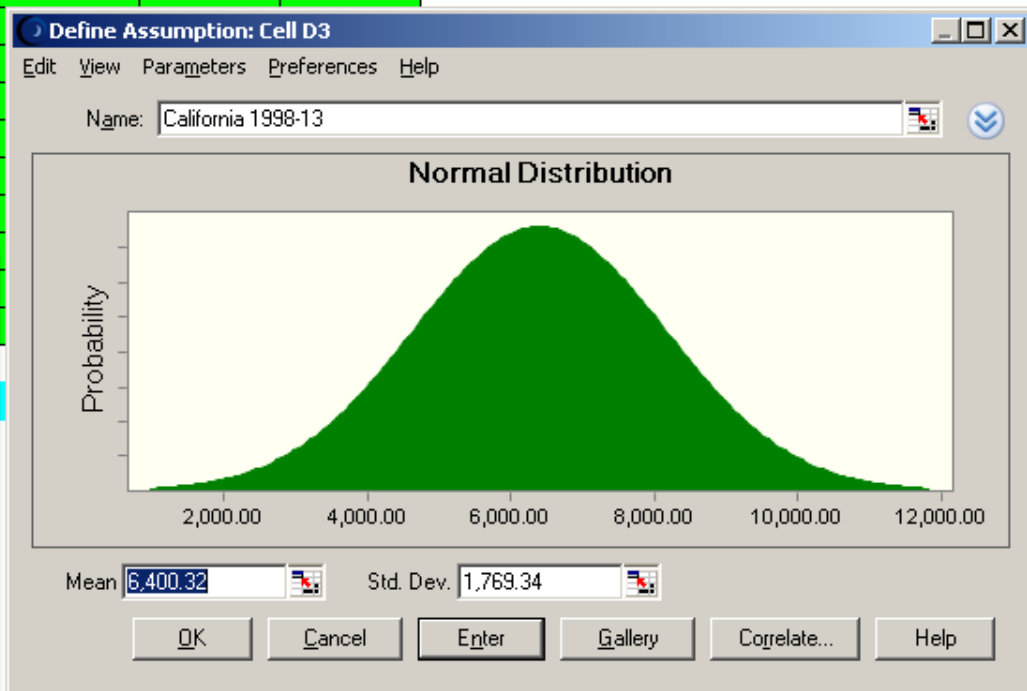
Define Assumption Define Decision Define Forecast Define Select Copy Paste Clear Freeze Cell Prefs Start Stop Reset Step Tools Save or Restore Run Preferences OptQuest View Charts Create Report Extract Data Help Resources About Help

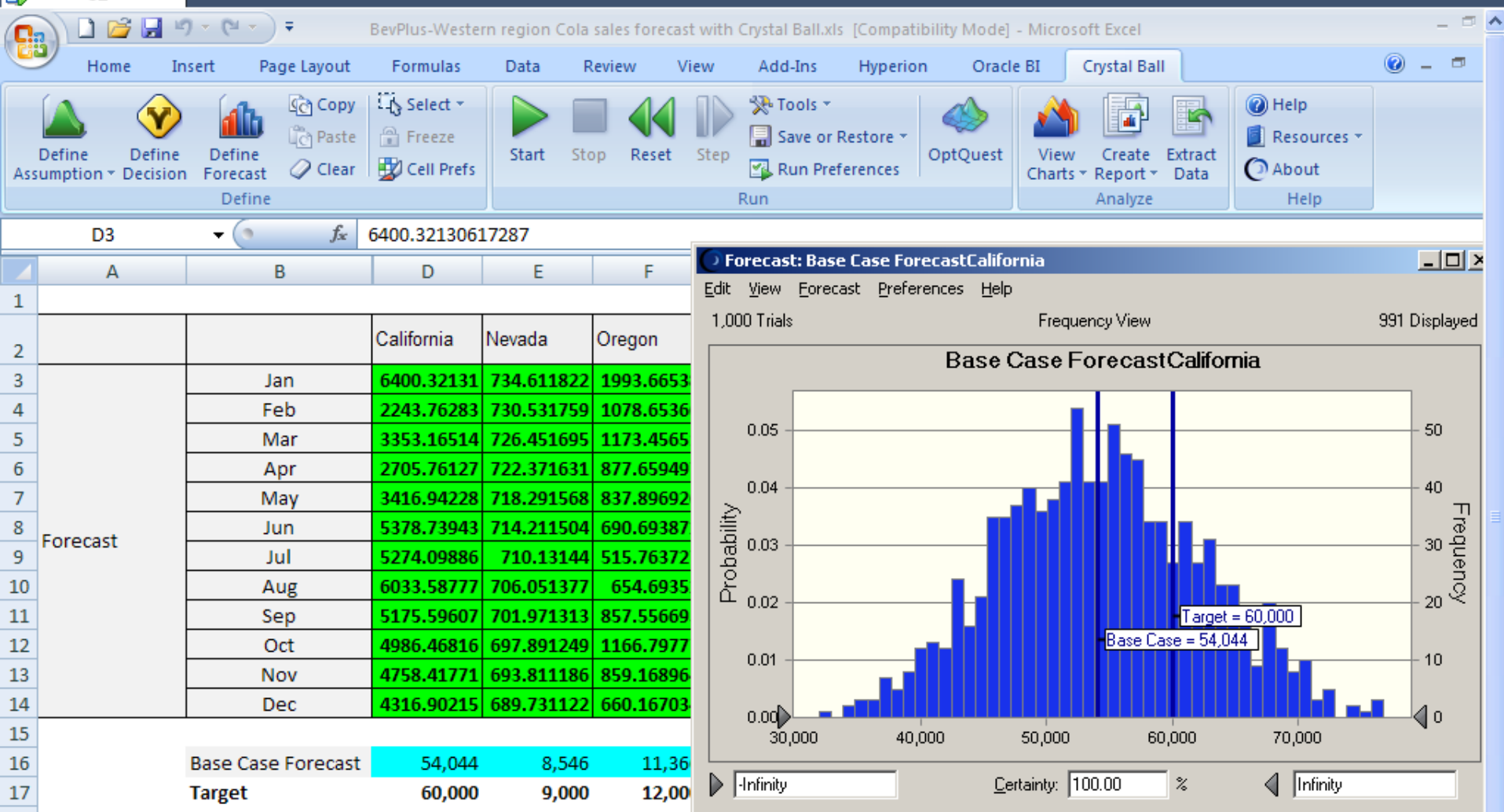
D3 6400.32130617287

	A	B	D	E	F	G	H	I	J	K	L	M	N
1													
2			California	Nevada	Oregon	Utah	Washington						
3		Jan	6400.32131	734.611822	1993.66538	961.322076	1097.35769						
4		Feb	2243.76283	730.531759	1078.65366	896.490682	1097.35769						
5		Mar	3353.16514	726.451695	1173.45651	970.596936	1097.35769						
6		Apr	2705.76127	722.371631									
7		May	3416.94228	718.291568									
8	Forecast	Jun	5378.73943	714.211504									
9		Jul	5274.09886	710.13144									
10		Aug	6033.58777	706.051377									
11		Sep	5175.59607	701.971313									

After running Predictor to get the next 12 month forecasts for each of the 5 Western states for our Cola SKU based on historical data, the results are added to the worksheet.

The future forecasts are automatically defined as input assumptions, ready to be used in a simulation, an automated what-if analysis.





We add up the monthly forecasts for each of the States to get an estimate of the next year's total sales, given historical data. Now just that quickly, we're ready to answer our first question:

"How likely are we to meet or exceed our target for the next year?"

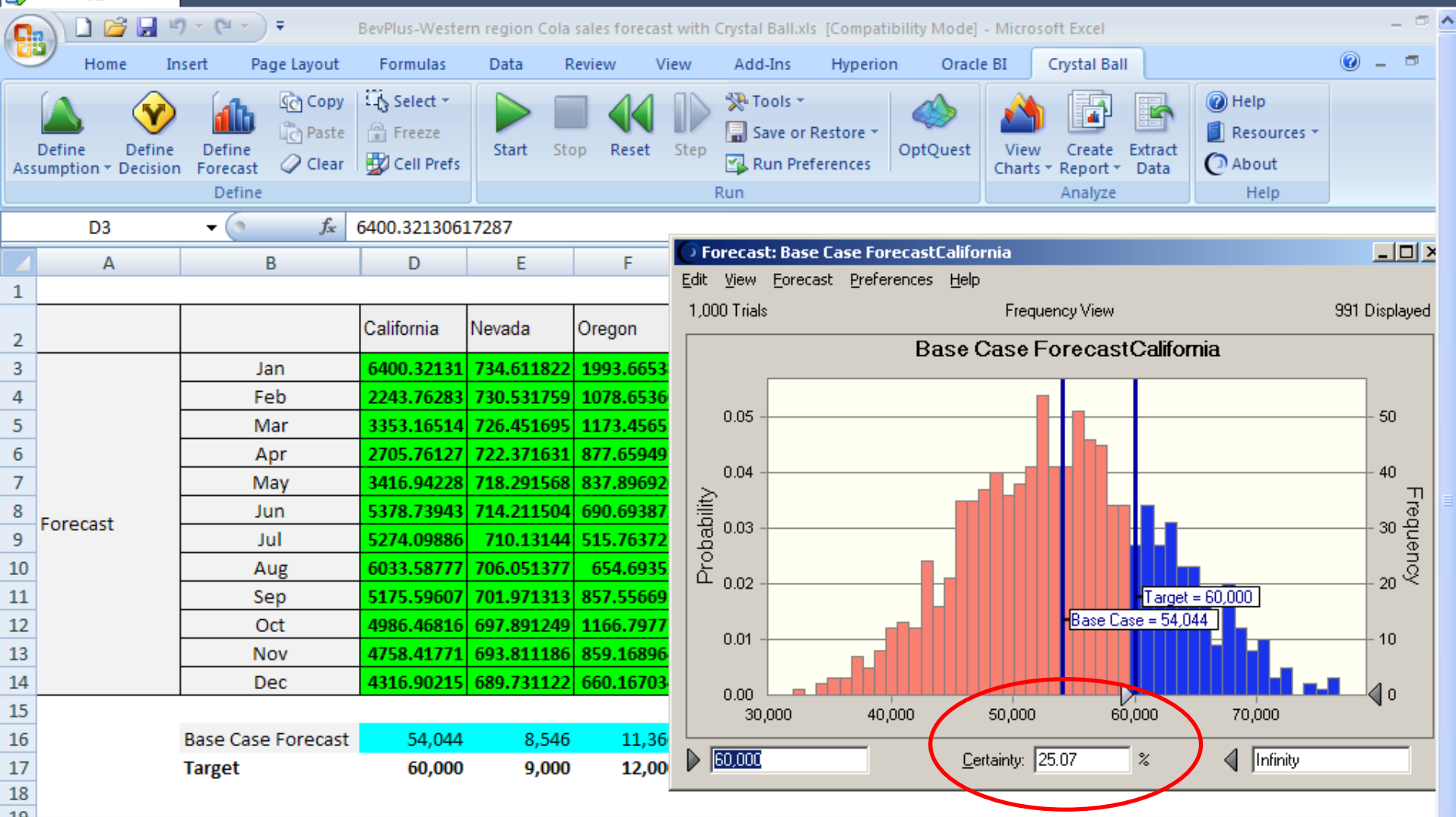
What is Risk Measurement with Monte Carlo Simulation?

Typically, with many applications, we would now look at a handful of scenarios – what if January is lower, or March higher. This gives us a limited range of possibilities, but does not give us insight into everything that could happen, or any probabilities. And it's only those probabilities that can answer our question. We need to do a different kind of simulation. What's called a Monte Carlo simulation.

A Monte Carlo simulation is a series of automated what if trials. Each trial is a different scenario. But instead of manually choosing the variables and again manually changing them, we predefine complete ranges of inputs and let the software quickly and automatically calculate all the corresponding outcomes.

Predictor has already defined each month's forecast as a variable range. A distribution with an expected value and a certain standard deviation. This is one of the key points that differentiates this tool from all other time-series forecasting tools: the automatic definition of variable inputs (or assumptions) ready to be used in a simulation.

Running a what if analysis (Monte Carlo simulation) results in a forecast chart that shows the full range of possible outcomes and their associated probabilities.

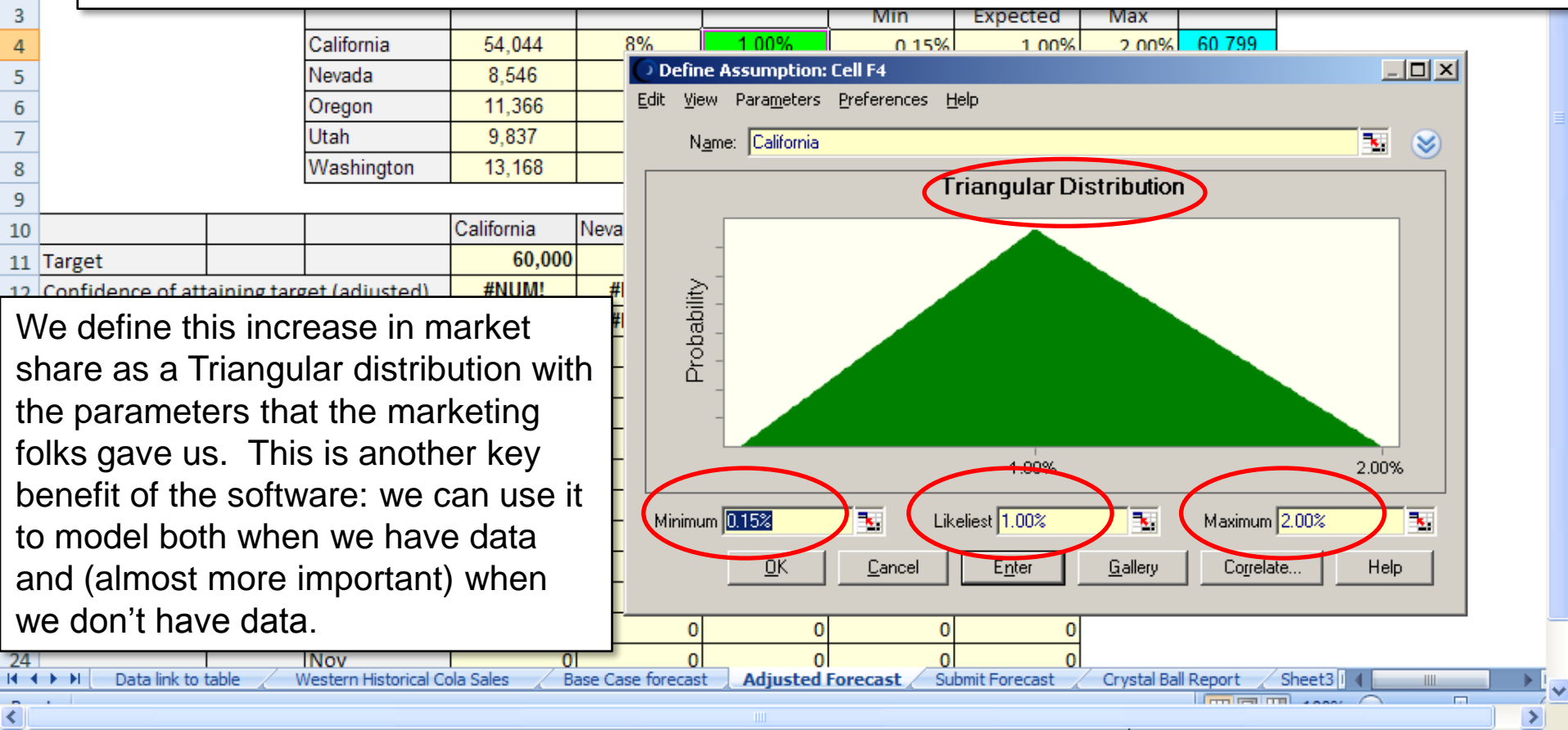


Let's answer our question:
How likely are we to achieve our target for California Cola sales?

The answer: we're only about 25% certain of achieving our goal. Not great... What can we do about it? We'd like to be more confident in meeting our goals. That was our second question: how can we increase the likelihood of meeting our target?

In our example, let's assume that the marketing folks have told us about some new programs that "might" increase our market share. So we'd like to improve our model with these assumptions around an increase in market share and how that might improve our likelihood of meeting our target.

But the marketing folks don't want to guarantee a percentage increase – these are new programs, they don't know for sure. They can, however, give us a range about which they're pretty confident. They say that for California, they expect the programs to give us a 1% increase in market share. But, they say, it could be as little as 0% or as much as 2%. Let's translate this human definition of a variable input into one the software can immediately apply to improve our model.



BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

Define Assumption Define Decision Define Forecast Define Copy Paste Clear Select Freeze Cell Prefs Start Stop Reset Step Tools Save or Restore Run Preferences OptQuest View Charts Create Report Extract Data Help Resources About Help

F4 1%

Running another simulation with these new assumptions, we see that, in our adjusted forecast, we're now well over 50% certain of meeting our target. A much more comfortable percentage.

We decide that, as long as marketing also commits to executing these new marketing programs, we can commit to our sales forecast.

Plan

Apr	3,004	7
May	3,794	7
Jun	5,972	7
Jul	5,855	7
Aug	6,699	7
Sep	5,746	739
Oct	5,536	735
Nov	5,283	731

Expected increase in market share

Adjusted

Forecast: Adjusted ForecastCalifornia

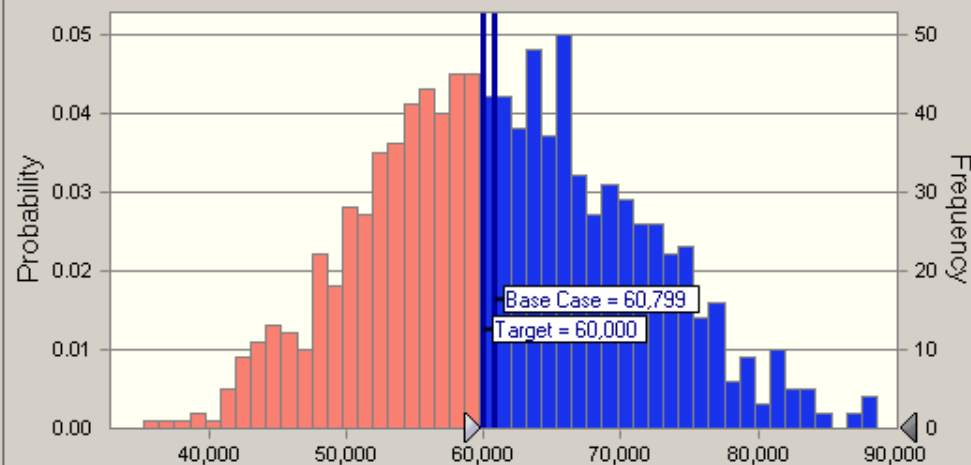
Edit View Forecast Preferences Help

1,000 Trials

Frequency View

995 Displayed

Adjusted ForecastCalifornia



60,000

Certainty: 54.31 %

Infinity

Data link to table

Western Historical Cola Sales

Base Case forecast

Adjusted Forecast

Submit Forecast

Crystal Ball Report

Sheet3

BevPlus-Western region Cola sales forecast with Crystal Ball.xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins Hyperion Oracle BI Crystal Ball

Connections Ad Hoc Analysis Forms Review Task

Zoom In Zoom Out Pivot Keep Only Remove Only Select Form Refresh Offline Expand Instructions Sync Back To Server Collapse Take Offline Lock Refresh All Submit Data Refresh Undo Paste Data POV Manager Redo R&A Import Member Selection Copy Data R&A Edit Function Builder

I17 fx

	A	B	C	D	E	F	G	H	I	J	K
1				California	Nevada	Oregon	Utah	Washington			
2				Cola	Cola	Cola	Cola	Cola			
3	2001	Forecast	January	7,106	774	2,105	977	1,167			
4	2001	Forecast	February	2,491	769	1,139	911	1,167			
5	2001	Forecast	March	3,723	765	1,239	987	1,167			
6	2001	Forecast	April	3,004	761	927	660	1,167			
7	2001	Forecast	May	3,794	756	885	1,122	1,167			
8	2001	Forecast	June	5,972	752	729	872	1,167			
9	2001	Forecast	July	5,855	748	545	634	1,167			
10	2001	Forecast	August	6,699	744	691	523	1,167			
11	2001	Forecast	September	5,746	739	905	634	1,167			
12	2001	Forecast	October	5,536	735	1,232	802	1,167			
13	2001	Forecast	November	5,283	731	907	1,146	1,167			
14	2001	Forecast	December	4,793	726	697	731	1,167			
15											
16											
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POV [BevPlus] x

Sales

Refresh

Smart View Data Source Manager

Provider URL: http://demodrive:13080/aps/SmartView

- DEMOCRIVE
 - ASO_10M
 - ASO_B2m
 - ASOsamp
 - AT
 - BBB
 - BBranch
 - BevPlus
 - BevPlus - DEMOCRIVE_BevPlus_E
 - BikesC
 - BikesR
 - BookA2
 - Channels
 - Classic
 - Demo

EdenGL
EdenSale
EpmPln
Finsrvcs
FSIASO
FSIWM
Healthca

Western Historical Cola Sales Base Case forecast Adjusted Forecast Submit Forecast

We submit the revised data back to our application

Beverage Analysis

Welcome, Administrator!

Dashboards - Answers - More Products - Settings - Log Out

Executive Summary

Product Analysis

Drill To Detail

Essbase Analysis

Alocations

Crystal Ball

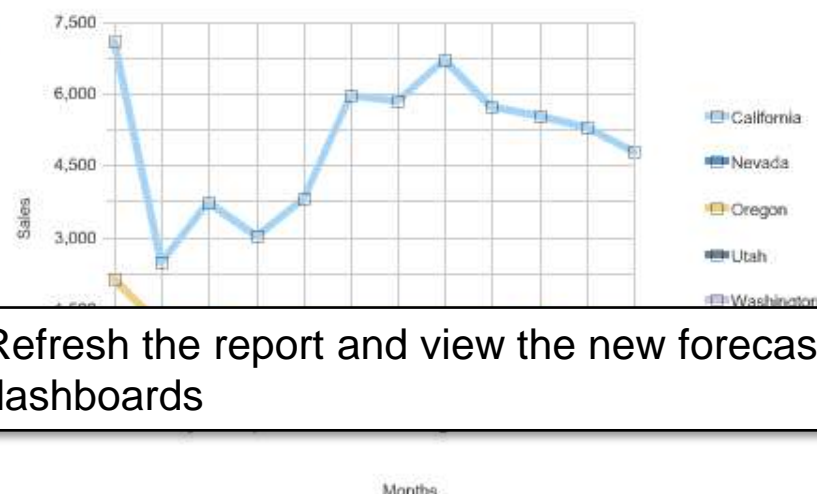
Page Options

Cola Forecast Western Region

Years 2001

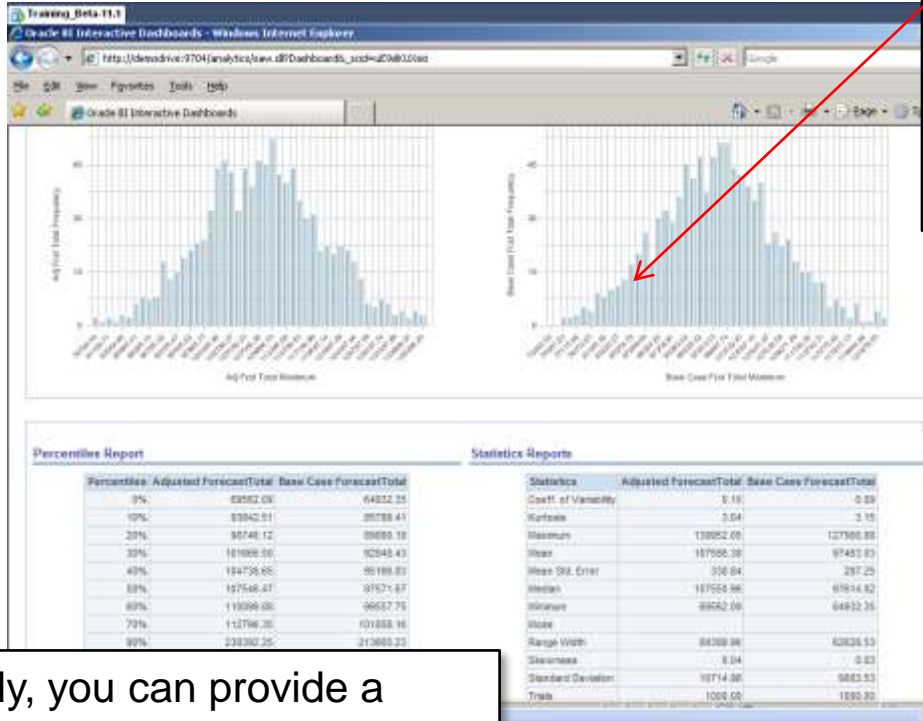
Forecast Cola

Months	Sales				
	California	Nevada	Oregon	Utah	Washington
January	7,106	774	2,105	977	1,167
February	2,491	769	1,139	911	1,167
March	3,723	765	1,239	987	1,167
April	3,004	761	927	660	1,167
May	3,794	756	885	1,122	1,167
June	5,972	752	729	872	1,167
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September	5,746	739	905	634	1,167
October	5,536	735	1,232	802	1,167
November	5,283	731	907	1,146	1,167
December	4,793	726	697	731	1,167
Grand Total	60,000	9,000	12,000	10,000	14,000

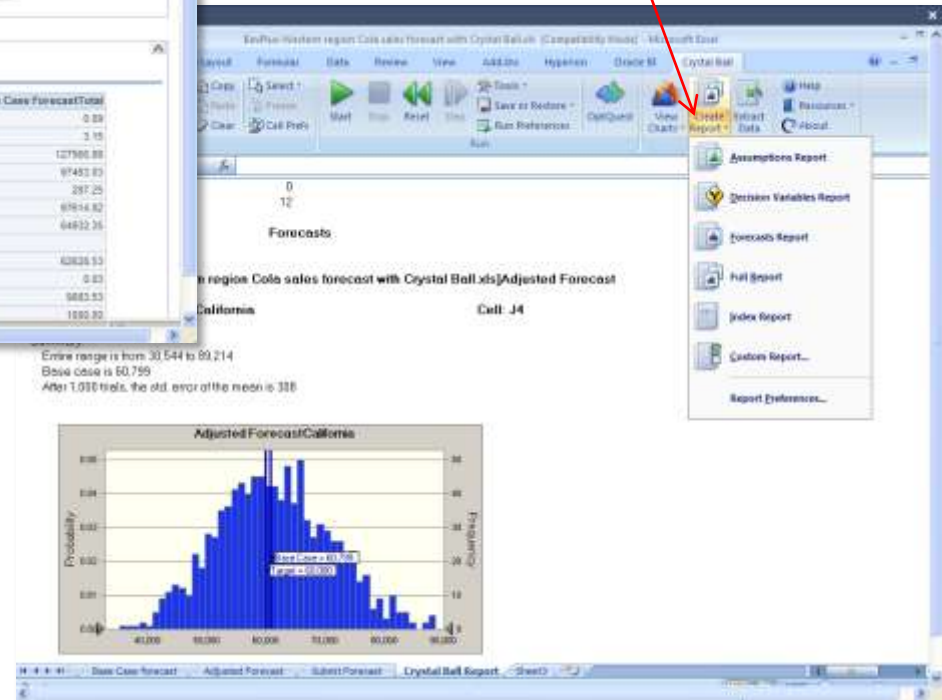
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Report on Crystal Ball analysis results from the dashboard

Or use any of the multiple Crystal Ball reports already available in the software.



Finally, you can provide a wealth of reports and statistics to back up your analysis and better communicate results. As well, you can store your Crystal Ball models on Workspace for secure login and access to models.





FOR MORE INFORMATION...

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- × 514-278-2221 (Local)
- × 514-278-5060 (Fax)

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