

Activity A04_Revenue_Budgeting

In this activity we add a budget into the model. We also create a canvas layout which can later be used as the client for an application. We will also explore the synchronize functionality

Outline steps and screenshots.

1. Open A03_Revenue_Target_Setting.cdd and **Save As** A04_Revenue_Budgeting.cdd
2. Add a new tab rename it **Budget**

Add the List price view and add a budget item.

3. Expand the data pane and drag the List Prices cube onto the workspace.
4. Re-orientate so Months is on the columns, List Price measures on the rows and change to crosstab only.
5. Add a member to the List price measures dimension named **Budget Current Year**

We want to seed this with the target prices

6. Right click on the Total of Months/Budget Current Year intersect ensuring that Total of Products is selected in the context area. Select Spread Data and Relative Proportional.

The screenshot shows the IBM Cognos TM1 workspace with a crosstab view. The Rows pane contains 'List Prices Measures' and 'List Prices Measures'. The Columns pane contains 'Months' and 'Months'. The Context pane contains 'Total of Products' and 'List Price'. The crosstab table is as follows:

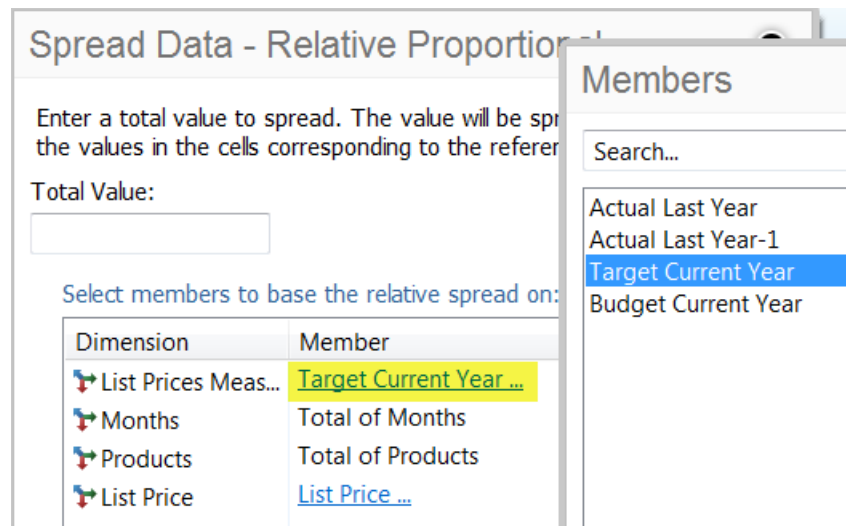
	Total of Months	Jan	Feb	Mar	Apr	May	Jun
Actual Last Year	810	66	67	67	67	67	
Actual Last Year-1	719	59	60	60	60	60	
Target Current Year	870.40	68.00	68.00	68.00	68.00	74.80	74
Budget Current Year							

A context menu is open over the 'Budget Current Year' row and 'Total of Months' column intersection. The menu options are: Cut (Ctrl+X), Copy (Ctrl+C), Paste (Ctrl+V), Drill Down, Clear Values, Format Measure Budget Current Year, Rollup (Budget Current Year), Create Cube Calculation..., Open Cube Calculation, Delete Cube Calculation, Show Value as, and Spread Data (highlighted). The 'Relative Proportional...' option is visible at the bottom right of the menu.

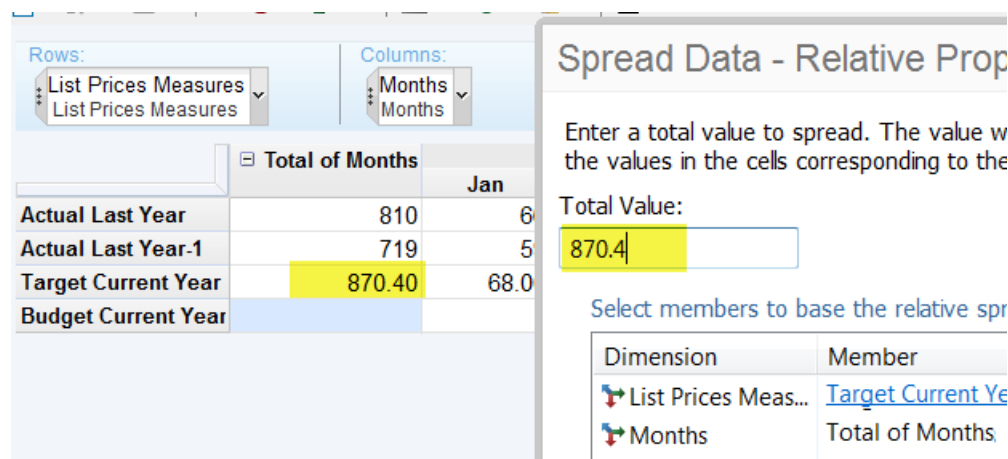
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- From the dialog box select Target Current Year as the List Price Measure and ensure both Months and Products are the totals.



- Enter the value of 870.4 as per the total in the Target Current Year and click OK.



- Check the results are replicated across all products.

Target Current Year	Total of Products	870.40	68.00	68.00	68.00	68.00	68.00	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80
	Artful Artifacts	128.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	Whacky Widgets	153.60	12.00	12.00	12.00	12.00	12.00	13.20	13.20	13.20	13.20	13.20	13.20	13.20	13.20
	Thoughtful Things	192.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	Potty Possessions	192.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	Ominous Objects	204.80	16.00	16.00	16.00	16.00	16.00	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60
Budget Current Year	Total of Products	870.40	68.00	68.00	68.00	68.00	68.00	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80
	Artful Artifacts	128.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	Whacky Widgets	153.60	12.00	12.00	12.00	12.00	12.00	13.20	13.20	13.20	13.20	13.20	13.20	13.20	13.20
	Thoughtful Things	192.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	Potty Possessions	192.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	Ominous Objects	204.80	16.00	16.00	16.00	16.00	16.00	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60

10. Re-orientate the cube again to focus on the Budget item and select **Don't Show Totals** for the Months dimension. Resize the widget and place in the top left of the workspace.

The screenshot shows the IBM Cognos Insight interface with a table titled 'A04-Revenue_Budgeting.cdd'. The table has columns for months (Jan to Dec) and rows for various product categories. The 'Total of Products' row shows values ranging from 68.00 to 74.80. The 'Artful Artifacts' row shows values from 10.00 to 11.00. The 'Whacky Widgets' row shows values from 12.00 to 13.20. The 'Thoughtful Things' row shows values from 15.00 to 16.50. The 'Potty Possessions' row shows values from 15.00 to 16.50. The 'Ominous Objects' row shows values from 16.00 to 17.60.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total of Products	68.00	68.00	68.00	68.00	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80
Artful Artifacts	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Whacky Widgets	12.00	12.00	12.00	12.00	13.20	13.20	13.20	13.20	13.20	13.20	13.20	13.20
Thoughtful Things	15.00	15.00	15.00	15.00	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
Potty Possessions	15.00	15.00	15.00	15.00	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
Ominous Objects	16.00	16.00	16.00	16.00	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60

Add the Net Revenue view and add a Budget item.

11. Drag the Net revenue cube from the data pane onto the workspace.
12. Change to crosstab only and re-orientate as per screen shot below.

The screenshot shows the IBM Cognos Insight interface with a crosstab view. The Rows dimension is 'Net revenue Measures' and the Columns dimension is 'Months'. The Context area shows 'Total of Cities' and 'Total of Products'. The table displays data for 'Actual Last Year', 'Target Current Year', 'Actual Last Year-1', and 'Variance' across months from Jan to Jul.

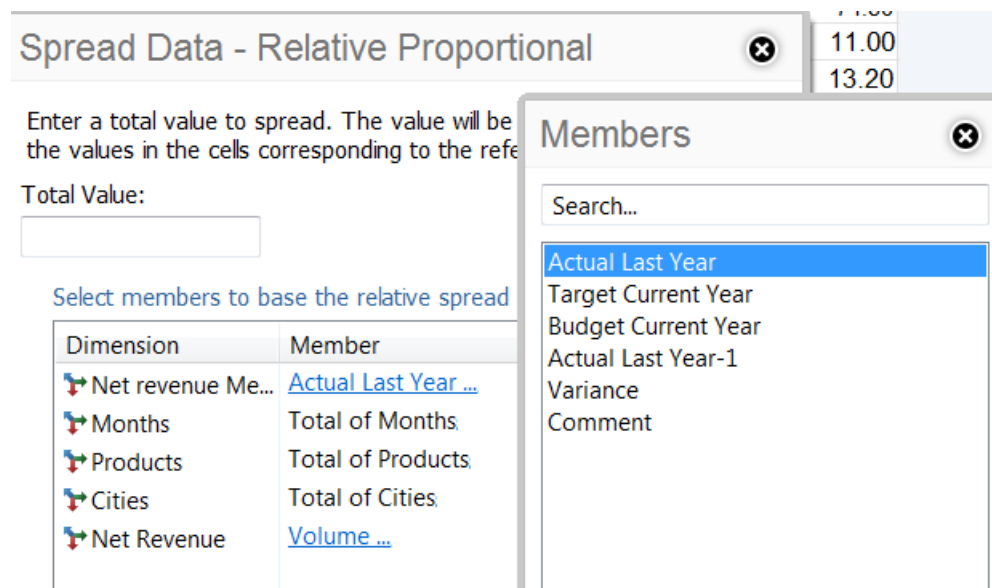
	Jan	Feb	Mar	Apr	May	Jun	Jul
Actual Last Year	6292	6375	6764	7180	7629	8113	8539
Target Current Year	7550	7650	8117	8616	9155	9736	10247
Actual Last Year-1	6805	6596	6593	6619	6672	6759	6866
Variance	-513	-221	171	561	957	1354	1673
Comment							

13. Add a new member just below the Target Current Year (hint – right click the Target Current Year and select Insert). Name the new item **Budget Current Year**.

Now we will populate the new item with the same data as the **Actual Last Year** using the spread data technique (as we did for List Prices)

14. Select the Total of Months/Budget Current Year intersect ensuring that Total of Products is selected in the context area. Select Spread Data and Relative Proportional.

15. From the dialog box select Actual Last Year as the Net Revenue Measures and ensure Months, Products and Cities are the totals and that the Volume is selected for the Net Revenue dimension.



Spread Data - Relative Proportional

Enter a total value to spread. The value will be the values in the cells corresponding to the reference members.

Total Value:

Select members to base the relative spread

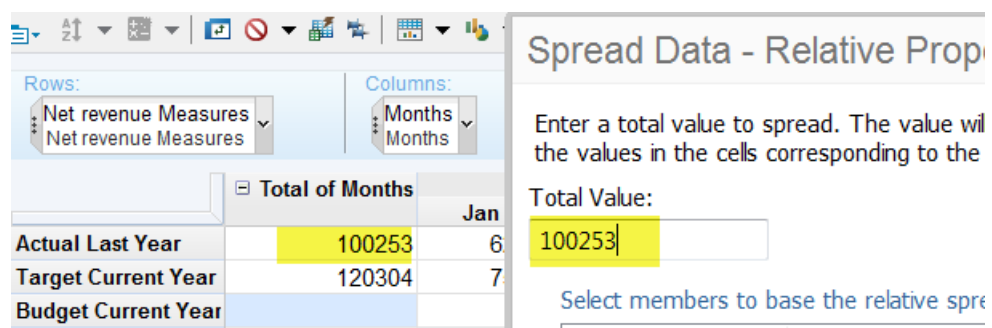
Dimension	Member
Net revenue Me...	Actual Last Year ...
Months	Total of Months
Products	Total of Products
Cities	Total of Cities
Net Revenue	Volume ...

Members

Search...

- Actual Last Year
- Target Current Year
- Budget Current Year
- Actual Last Year-1
- Variance
- Comment

16. Enter the value of 100253 (the total from the Volume for Actual last Year) and select OK.



Spread Data - Relative Proportional

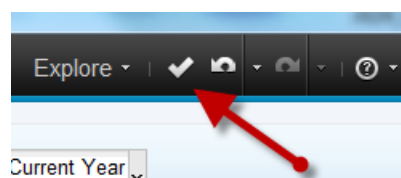
Enter a total value to spread. The value will be the values in the cells corresponding to the reference members.

Total Value:

Select members to base the relative spread

Rows:	Columns:
Net revenue Measures	Months
Net revenue Measures	Months
Total of Months	
Actual Last Year	100253
Target Current Year	120304
Budget Current Year	

17. Occasionally committing the data will ensure that you can undo future steps back to this point if you should need to.



We need to change the scope of the Gross Revenue calculation and update the Import Link for this calculation.

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18. Re-orientate the cube so that the Net Revenue dimension is on the rows.

Amend the calculations as necessary

19. Right click in the grid, select Open Cube Calculation - Net revenue: Gross Revenue

The screenshot shows the IBM Cognos TM1 grid interface. The 'Rows' dimension is set to 'Net Revenue' and 'Net Revenue'. The 'Columns' dimension is set to 'Months' and 'Months'. The 'Context' dimension is set to 'Total of Cities', 'Total of Products', and 'Actual Last Year'. The grid displays data for April, May, and June. A right-click context menu is open over the grid, showing options like 'Cut', 'Copy', 'Paste', 'Drill Down', 'Clear Values', 'Format Measure Actual Last Year', 'Rollup (Actual Last Year)', 'Create Cube Calculation...', 'Open Cube Calculation', 'Delete Cube Calculation', 'Show Value as', and 'Spread Data'. The 'Open Cube Calculation' option is selected, and a sub-menu is visible showing 'Net revenue: Discount', 'Net revenue: Discount%', 'Net revenue: Gross Revenue' (which is highlighted), and 'Net revenue: Target Discount'.

	Apr	May	Jun
4	7180	7629	8113
8	84648	89252	95104
9	88287	93147	100019
1	3639	3895	4915
6	4.12%	4.18%	4.91%

20. Click on the Net Revenue Measures dimension and select **Edit Member Selection**.

The screenshot shows the 'Net revenue: Gross Revenue' dialog box. The 'Define a new expression for:' section shows 'Gross Revenue' and 'Net Revenue'. The 'Actual Last Year-1, Actual Last Year, Target Current Year' is selected. The 'Edit Member Selection...' option is highlighted in yellow. The 'Import terms...' section shows 'Imported', 'Products', 'Cities', and 'Net Revenue'.

21. Ensure that the checkbox next to Budget Current Year is selected and select OK.

Net revenue: Gross Revenue

Define a new expression for:

Gross Revenue Net Revenue Actual Last Year-1, Actual Last Year, Target Current Year Net revenue Measures

Import terms...

- Imported values
- Products
- Cities
- Net Revenue

Terms Aggregation Simple Functions

Expression:

Leaf-level exp
=LINK('List Pri

Select scope for {0}

<input checked="" type="checkbox"/>	Actual Last Year
<input checked="" type="checkbox"/>	Target Current Year
<input checked="" type="checkbox"/>	Budget Current Year
<input checked="" type="checkbox"/>	Actual Last Year-1
<input type="checkbox"/>	Variance
<input type="checkbox"/>	Comment

22. Click on the + next to the **Imported values** to expand, double click the **List Prices** import term to amend the link.
23. Add a mapping for **Budget Current Year** as per screen shot below and click OK.

Define a Link for Importing Terms

Name:

List Prices

Dimensions:

- Products
- Months
- List Prices Measures
- List Price

Members:

Name	Links
Actual Last Year	1
Actual Last Year-1	1
Target Current Year	1
Budget Current Year	1

Net revenue

Dimensions:

- Products
- Months
- Net revenue Measures
- Cities
- Net Revenue

Members:

Name	Links
Actual Last Year	1
Target Current Year	1
Budget Current Year	1
Actual Last Year-1	1
Variance	
Comment	

Mappings

Mapped Source	Mapped Target
Actual Last Year	Actual Last Year
Actual Last Year-1	Actual Last Year-1
Target Current Year	Target Current Year
Budget Current Year	Budget Current Year

24. Click OK to save the amended cube calculation and check that the results are as expected.

Rows		Columns		Context											
Products Products		Months Months		Total of Cities Cities		Budget Current Year Net Revenue Measures		Gross Revenue Net Revenue							
				Total of Months											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total of Products		1302303		79483	80772	85122	89760	104190	110021	114670	118230	122351	126966	132341	138398
Artful Artifacts		630655		29930	29950	32980	36250	43857	48246	53075	58355	64185	70653	77704	85470
Whacky Widgets		31550		3252	3036	2916	2784	2917	2759	2614	2495	2402	2218	2125	2033
Thoughtful Things		273885		17670	19155	20595	22095	25922	27522	25922	25922	24305	22655	21071	19454
Potty Possessions		186048		14535	14535	14535	14535	15989	15989	15989	15989	15989	15989	15989	15989
Ominous Objects		180165		14096	14096	14096	14096	15506	15506	15470	15470	15470	15453	15453	15453

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To populate the Discount we will simply copy and paste the data from the Target Current Year. We do not want to use a calculation as we want to keep this item as writable - the idea being that once this model is deployed as an application the budget managers would input Volumes and Discount % for this year's budgets.

25. The easiest way to do this is to re-orientate and nest the view as below (hiding the items not required to help focus the view and all totals to ensure that only the leaf level values are copied) and copy/paste the data from the Target Current Year to Budget Current Year.

Rows:			Columns:			Context:											
Net revenue Measures Net revenue Measures			Cities Cities			Products Products			Months Months			Discount% Net Revenue					
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Target Current Year	Swansea	Ominous Objects	2.13%	2.13%	2.13%	2.13%	2.13%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
Budget Current Year	London	Artful Artifacts	4.19%	5.00%	5.00%	4.96%	4.98%	5.00%	4.99%	5.00%	4.95%	4.97%	4.98%	4.98%			
		Whacky Widgets	3.74%	4.61%	3.22%	3.57%	3.96%	3.95%	3.70%	2.94%	5.00%	4.03%	2.59%	4.17%			
		Thoughtful Things	5.00%	4.96%	4.84%	5.00%	4.91%	5.00%	5.00%	4.92%	2.05%	1.82%	1.98%	2.14%			
		Potty Possessions	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%			
		Ominous Objects	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
	Liverpool	Artful Artifacts	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
		Whacky Widgets	3.85%	1.39%	5.00%	3.03%	5.00%	3.33%	5.00%	3.70%	5.00%	2.08%	5.00%	5.00%			
		Thoughtful Things	3.57%	4.05%	4.46%	4.82%	5.00%	5.00%	5.00%	5.00%	1.71%	1.50%	1.08%	0.59%			
		Potty Possessions	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%	2.12%			
		Ominous Objects	2.13%	2.13%	2.13%	2.13%	2.13%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
	Bristol	Artful Artifacts	3.84%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
		Whacky Widgets	5.00%	0.00%	5.00%	5.00%	5.00%	5.00%	1.19%	5.00%	5.00%	1.39%	5.00%	5.00%			
		Thoughtful Things	5.00%	5.00%	5.00%	4.58%	4.68%	4.79%	4.79%	4.73%	1.55%	2.47%	2.37%	2.25%			
		Potty Possessions	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%			
		Ominous Objects	2.08%	2.08%	2.08%	2.08%	2.08%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
	Newcastle	Artful Artifacts	4.65%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
		Whacky Widgets	3.16%	1.23%	2.56%	3.67%	4.86%	1.52%	1.98%	2.08%	2.19%	1.85%	1.47%	0.52%			
		Thoughtful Things	4.96%	4.85%	4.81%	4.78%	4.75%	5.00%	5.00%	4.72%	1.77%	1.80%	1.88%	1.93%			
		Potty Possessions	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%			
		Ominous Objects	0.13%	0.13%	0.13%	0.13%	0.13%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
	Birmingham	Artful Artifacts	3.66%	3.90%	3.95%	3.99%	3.93%	3.92%	4.08%	3.97%	4.03%	4.02%	4.00%	4.04%			
		Whacky Widgets	5.00%	2.67%	3.82%	4.71%	5.00%	5.00%	5.00%	5.00%	5.00%	4.90%	4.17%	2.78%			
		Thoughtful Things	5.00%	5.00%	4.84%	5.00%	5.00%	4.94%	4.94%	5.00%	2.33%	1.85%	2.04%	2.32%			
		Potty Possessions	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%			
		Ominous Objects	0.76%	0.76%	0.76%	0.76%	0.76%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
	Manchester	Artful Artifacts	2.31%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
		Whacky Widgets	5.00%	5.00%	5.00%	4.80%	3.76%	5.00%	3.87%	5.00%	5.00%	3.82%	4.71%	5.00%			

Note – In Performance Modeler you could do this using a link manifest as a TI process but that is not available in Cognos Insight at this release.

26. Re-orientate back so that Net revenue is on the rows and check the data on a leaf level item. We see that the Discount and Net Revenue calculations are not yet working for the Budget Current Year.

Rows:		Columns:		Context:									
Net Revenue Net Revenue		Months Months		Budget Current Year Net Revenue Measures		Total of Cities Cities		Total of Products Products					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volume		6292	6375	6764	7180	7629	8113	8539	8913	9338	9811	10349	10950
Net Revenue													
Gross Revenue		79483	80772	85122	89760	104190	110021	114670	118230	122351	126966	132341	138398
Discount													
Discount%		198.41%	180.03%	197.66%	200.99%	201.64%	226.99%	218.95%	226.40%	199.59%	182.90%	199.22%	194.87%

27. We need to update the cube calculation for Target Discount so that it covers the Budget Current Year item. Open the Cube Calculation **Net revenue: Target Discount**

Rows:		Columns:		Context:					
*** Net Revenue Net Revenue		*** Months Months		*** Budget Current Year Net revenue Measures		*** London Cities		*** Artful Artifacts Products	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Volume		575	569	626	688	757	833	916	1008
Net Revenue									
Gross Revenue		5750	5690	6260	6880	8327	9163	10076	11088
Discount									
Discount%						98%	5.00%	4.99%	5.00%

Cut

Ctrl+X

Copy

Ctrl+C

Paste

Ctrl+V

Drill Down

Clear Values

Format Measure Budget Current Year

Create Cube Calculation...

Open Cube Calculation

Delete Cube Calculation

Show Value as

Spread Data

Net revenue: Discount

Net revenue: Discount%

Net revenue: Gross Revenue

Net revenue: Target Discount

IBM Cognos TM1 Enablement Program – Activity A04

Rows:		Columns:		Context:								
Net Revenue Net Revenue		Months Months		Budget Current Year Net Revenue Measures		Total of Cities Cities		Total of Products Products				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volume	6292	6375	6764	7180	7629	8113	8539	8913	9338	9811	10349	10950
Net Revenue												
Gross Revenue	79483	80772	85122	89760	104190	110021	114670	118230	122351	126966	132341	138398
Discount	2545	2597	2800	3012	3538	4277	4371	4509	4033	4228	4513	4772
Discount%	198.41%	180.03%	197.66%	200.99%	201.64%	226.99%	218.95%	226.40%	199.59%	182.90%	199.22%	194.87%

29. Repeat for the Target Net Revenue calculation.

Net revenue: Target Net Revenue

Define a new expression for:

Net Revenue
Net Revenue

Target Current Year
Net revenue Measures

Import terms...

- Imported values
- Products
- Cities
- Net Revenue

Terms | Aggregation | Simple | Functions

Expression:

Leaf-level expression C

=netrevenue:[Gross Rev

Select scope for {0}

<input type="checkbox"/>	Actual Last Year
<input checked="" type="checkbox"/>	Target Current Year
<input checked="" type="checkbox"/>	Budget Current Year
<input type="checkbox"/>	Actual Last Year-1
<input type="checkbox"/>	Variance
<input type="checkbox"/>	Comment

OK Cancel

30. The result will look as below:

Rows:		Columns:		Context:								
Net Revenue Net Revenue		Months Months		Budget Current Year Net revenue Measures		London Cities		Artful Artifacts Products				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volume	575	569	626	688	757	833	916	1008	1108	1219	1341	1475
Net Revenue	5509	5406	5947	6539	7912	8705	9573	10534	11585	12743	14016	15417
Gross Revenue	5750	5690	6260	6880	8327	9163	10076	11088	12188	13409	14751	16225
Discount	241	285	313	341	415	458	503	554	603	666	735	808
Discount%	4.19%	5.00%	5.00%	4.96%	4.98%	5.00%	4.99%	5.00%	4.95%	4.97%	4.98%	4.98%

31. Repeat for the Discount% Agg calculation

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Net revenue: Discount% Agg

Define a new expression for:

Total of Months Months Discount% Net Revenue Net revenue Measures

Import terms...

- Imported values
- Products
- Cities
- Net Revenue
- Months
- Net revenue Measures

Expression:

Leaf-level expression (C)

=netrevenue:Discount /

Select scope for {0}

<input type="checkbox"/>	Actual Last Year
<input checked="" type="checkbox"/>	Target Current Year
<input checked="" type="checkbox"/>	Budget Current Year
<input type="checkbox"/>	Actual Last Year-1
<input type="checkbox"/>	Variance
<input type="checkbox"/>	Comment

32. The result will look as below:

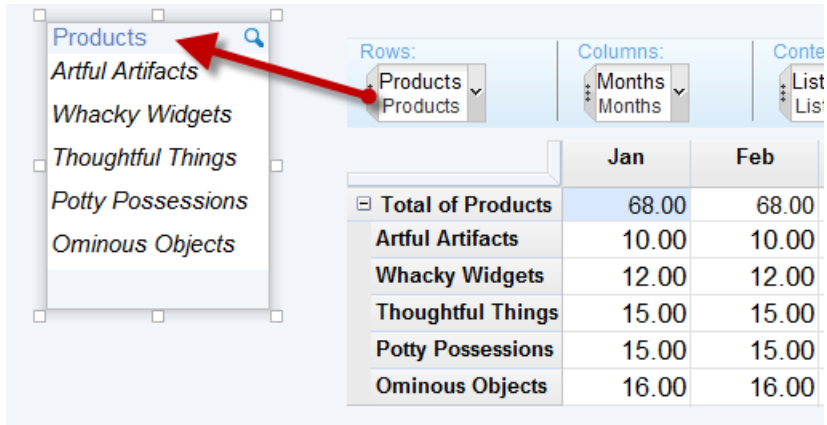
Rows:		Columns:		Context:											
Cities Cities		Months Months		Budget Current Year Net revenue Measures				Discount% Net Revenue		Artful Artifacts Products					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Total of Cities		3.97%	3.96%	4.02%	3.97%	3.95%	3.96%	3.98%	3.95%	3.94%	3.99%	3.99%	3.97%		
London		4.19%	5.00%	5.00%	4.96%	4.98%	5.00%	4.99%	5.00%	4.95%	4.97%	4.98%	4.98%		
Liverpool		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		
Bristol		3.84%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		
Newcastle		4.65%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		
Birmingham		3.66%	3.90%	3.95%	3.99%	3.93%	3.92%	4.08%	3.97%	4.03%	4.02%	4.00%	4.04%		
Manchester		2.31%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		
Edinburgh		5.00%	3.12%	2.84%	3.07%	2.87%	2.98%	2.91%	2.95%	2.98%	2.94%	2.97%	3.01%		
Glasgow		5.00%	2.05%	1.91%	2.03%	2.10%	2.02%	1.95%	1.93%	2.02%	2.00%	2.03%	2.03%		
Inverness		5.00%	0.54%	1.22%	1.11%	0.00%	0.19%	1.33%	1.21%	0.42%	1.38%	1.48%	0.63%		
Dundee		5.00%	0.00%	1.09%	0.07%	0.07%	0.18%	0.25%	0.00%	-0.12%	0.44%	0.25%	0.12%		
Cardiff		1.82%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		
Swansea		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%		

Start to set up the synchronization between the widgets and add explore points for easier navigation.

33. Tear the Products dimension from the List Price cube to create an explore point.(drag the Products dimension from the view onto the Workspace)

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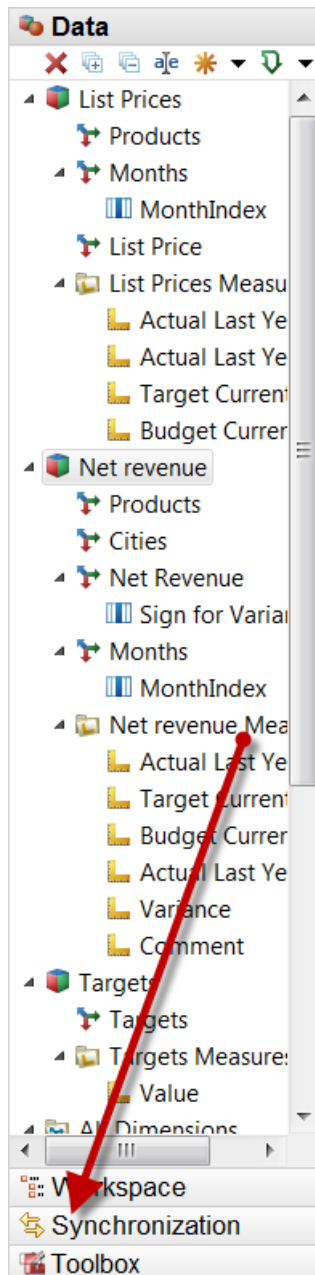
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The screenshot displays the IBM Cognos TM1 interface. On the left, a list of products is shown: **Products**, *Artful Artifacts*, *Whacky Widgets*, *Thoughtful Things*, *Potty Possessions*, and *Ominous Objects*. A red arrow points from the **Products** header in this list to the **Products** dropdown menu in the **Rows** section of the pivot table. The pivot table has **Rows** set to **Products**, **Columns** set to **Months**, and **Content** set to **List**. The table data is as follows:

	Jan	Feb
Total of Products	68.00	68.00
Artful Artifacts	10.00	10.00
Whacky Widgets	12.00	12.00
Thoughtful Things	15.00	15.00
Potty Possessions	15.00	15.00
Ominous Objects	16.00	16.00

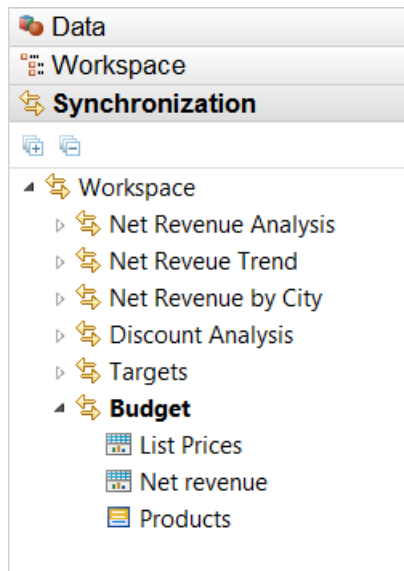
34. Open the Synchronize pane (at the bottom of the Data Pane)



We see that a group has been automatically created by default for each of the tabs. Under each tab are the widgets on the tab. For the Budget tab we see 3 widgets – 2 views (List Price and Net revenue) and one explore point (Products)

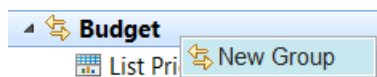
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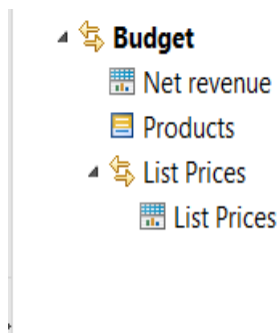


As the widgets we want to synchronize are within the Budget tab we will create a group to hold the synchronized widgets.

35. Right click on Budget and select New Group



36. Rename the group List Prices and drag the List Prices widget reference into this new group.



37. Orientate the List Price Cube as below to make the data clearer. Use **Don't Show Totals** on Months.

Rows:

Products

Products

Columns:

Months

Months

Context:

Budget Current Year

List Prices Measures

List Price

List Price

	Jan	Feb	Mar	Apr	May	Jun	Jul
Total of Products	68.00	68.00	68.00	68.00	74.80	74.80	74.80
Artful Artifacts	10.00	10.00	10.00	10.00	11.00	11.00	11.00
Whacky Widgets	12.00	12.00	12.00	12.00	13.20	13.20	13.20
Thoughtful Things	15.00	15.00	15.00	15.00	16.50	16.50	16.50
Potty Possessions	15.00	15.00	15.00	15.00	16.50	16.50	16.50
Ominous Objects	16.00	16.00	16.00	16.00	17.60	17.60	17.60

38. Now test this by selecting Artful Artifacts from the explore point and see that the List Price view will also change so that only this product is showing.

Products

Artful Artifacts

Thoughtful Things

Ominous Objects

Whacky Widgets

Potty Possessions

Rows:

Columns:

Context:

Artful Artifacts	Months	Budget Current Year	List Price
Products	Months	List Prices Measures	List Price

	Jan	Feb	Mar	Apr	May	Jun	Jul
Artful Artifacts	10.00	10.00	10.00	10.00	11.00	11.00	11.00

39. We now add a second group to the Synchronization section for the Budget tab. Right click on Budget and select New Group Rename the group **Net Revenue by Month** and drag the net revenue widget reference into this new group

Budget
Products
List Prices
Net revenue by Month
Net revenue

40. Re-orientate and select the Net Revenue view as shown below:

Rows:		Columns:		Context									
Net Revenue Net Revenue		Months Months		Total of Cities Cities		Total of Products Products		Budget Current Year Net revenue Measures					
		Total of Months		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Volume		100253	6292	6375	6764	7180	7629	8113	8539	8913	9338	9811	
Net Revenue		1257107	76938	78175	82322	86748	100652	105744	110299	113721	118318	122738	
Gross Revenue		1302303	79483	80772	85122	89760	104190	110021	114670	118230	122351	126966	
Discount		45196	2545	2597	2800	3012	3538	4277	4371	4509	4033	4228	
Discount%		3.47%	3.20%	3.22%	3.29%	3.36%	3.40%	3.89%	3.81%	3.81%	3.30%	3.33%	

41. Test the workspace by selecting Thoughtful Things on the explore point and see that both views change to reflect this choice.

Products

Thoughtful Things

Ominous Objects

Artful Artifacts

Whacky Widgets

Potty Possessions

Rows:

Columns:

Context:

Thoughtful Things Products

Months Months

Budget Current Year List Prices Measures

List Price List Price

Jan

Feb

Mar

Apr

May

Jun

Thoughtful Things

15.00

15.00

15.00

15.00

16.50

17.00

Rows:

Columns:

Context:

Net Revenue Net Revenue

Months Months

Total of Cities Cities

Thoughtful Things Products

Budget Current Year Net revenue Measures

Total of Months

Jan

Feb

Mar

Apr

May

Jun

Jul

Volume

17081

1178

1277

1373

1473

1571

1668

1668

Net Revenue

262987

16811

18213

19603

21007

24646

26179

26179

Gross Revenue

273885

17670

19155

20595

22095

25922

27522

27522

Discount

10898

859

942

992

1088

1275

1343

1343

Discount%

3.98%

4.86%

4.92%

4.82%

4.92%

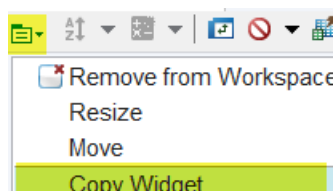
4.92%

4.88%

4.88%

Add the final widgets onto the workspace.

42. Click the widget menu for the Net Revenue widget and select **Copy Widget**.

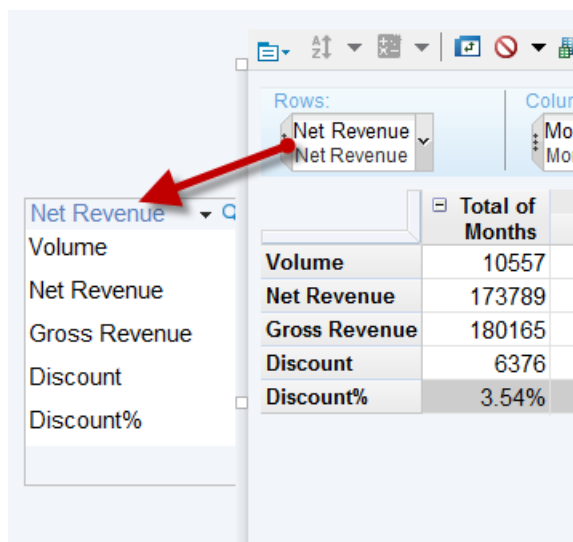


43. Right click on an open piece of the workspace and right click and select **Paste.Widget**.

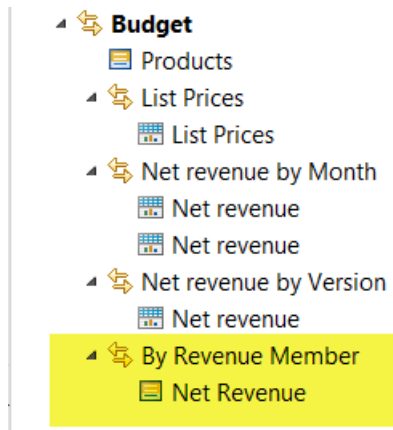
44. Go back to the Synchronization pane and add a new group under Budget. Rename it **Net Revenue by Version**.
45. Drag the bottom Net revenue widget from the Net revenue by Month group into this group.
46. On the workspace re-orientate the view and hide the Actual Last Year-1, Variance and Comment items. Check that the explore point is affecting all 3 views by switching to Ominous Objects. The view will appear as below:

	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volume	10557	881	881	881	881	881	881	879	879	878	878	878	878
Net Revenue	173789	13858	13858	13858	13858	15243	14730	14791	14784	14713	14699	14699	14699
Gross Revenue	180165	14096	14096	14096	14096	15506	15506	15470	15470	15453	15453	15453	15453
Discount	6376	238	238	238	238	262	775	679	687	757	754	754	754
Discount%	3.54%	1.69%	1.69%	1.69%	1.69%	1.69%	5.00%	4.39%	4.44%	4.89%	4.88%	4.88%	4.88%

47. Go back to the Synchronization pane and add a new group under Budget. Rename it **By Revenue Member**
48. Again click the widget menu for the first Net Revenue widget and select **Copy Widget**. Right click on an open piece of the workspace and right click and select **Paste.Widget**.
49. Tear out the Net Revenue dimension to be an explore point.

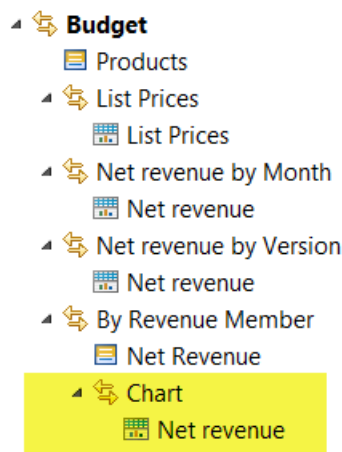


50. Go back to the Synchronization pane and drag the Net Revenue explore point widget into the By Revenue Member group.(Note the different icon used for explore points as compared to views)



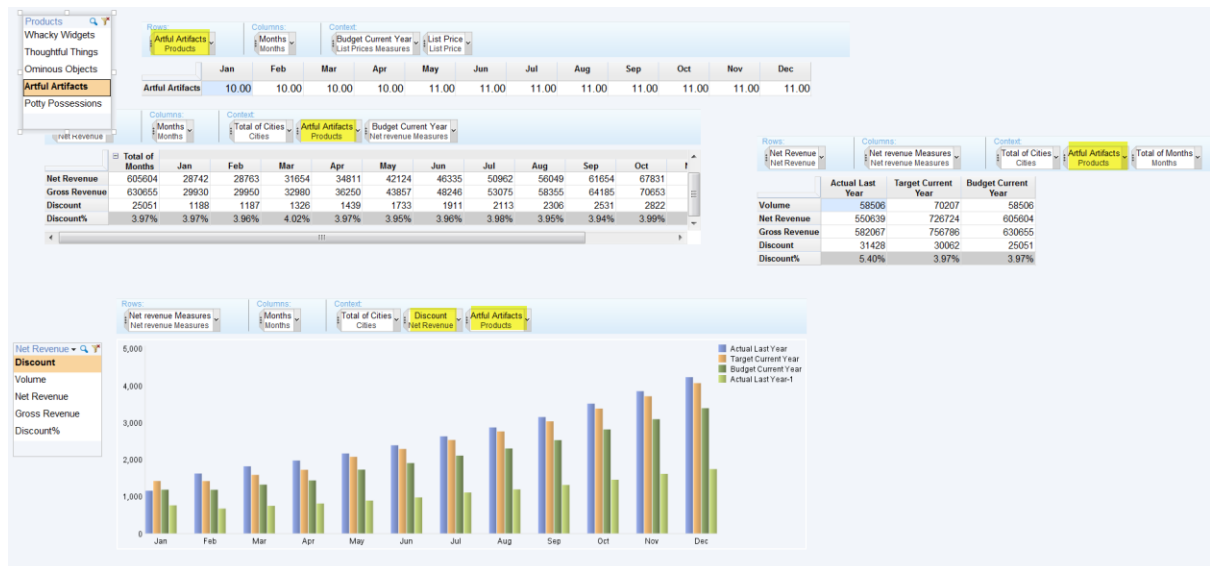
51. Add a new group under By Revenue Member. Rename it **Chart**

52. Drag the latest Net revenue widget from the Net revenue by Month group into the Chart group



53. On the last Net Revenue widget that you copied, items, put months on the columns, Net Revenue Measures on the rows, hide Variance and Comment and change it to a chart.

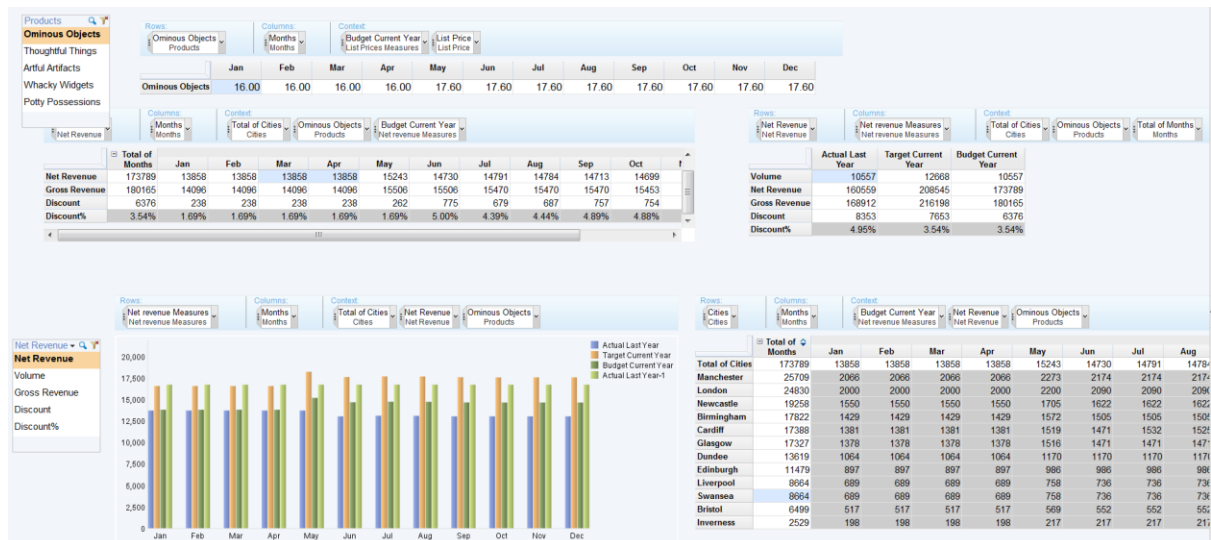
54. Check that both the products and the Net Revenue explore points will change this chart.



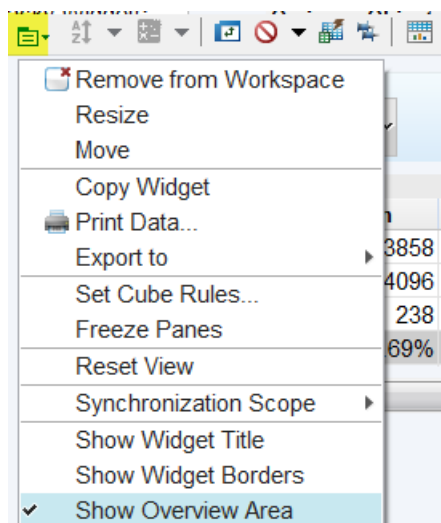
55. Return to the Synchronization pane and add a new group under **Chart** and rename it **Detail**.
56. Paste a widget onto the workspace (the system will use the last one that you copied) Drag this latest Net revenue widget into the Detail group.
57. Orientate Cities on the rows and Months on the columns.
58. Click the Total of Months column and right click to select Sort - Sort by Value – Descending

Months		Actual Last Year		Discount		Artful Artifacts							
Months		Net revenue Measures		Net Revenue		Products							
Total of Months		Drill Down - Total of Months		Apr		May		Jun		Jul			
31428		Insert		Insert		1979		2171		2391		2	
5476		Insert Child				341		377		418			
2450		Insert Parent				154		171		188			
1268		Delete		Delete		82		85		96			
1953		Rename				120		138		154			
2388		Format Total of Months Data				149		161		177			
5063		Create Cube Calculation...				328		361		393			
112		Open Cube Calculation				69		71		81			
1619		Delete Cube Calculation				95		108		114			
119		Top or Bottom				5		0		1			
208		Sort				Sort by Value				Ascending			
555		Calculate				Sort by Label				Descending			

59. Close the Data pane and arrange the widgets as per screen shot.



60. Check the synchronization is working as designed. Changing the product should affect ALL widgets whilst changing Net Revenue should only change the bottom 2 widgets.
61. To make the workspace look clearer hide the overview area on each of the crosstab/chart widgets.



62. Save the cdd file

Examine the different ways to enter budget data

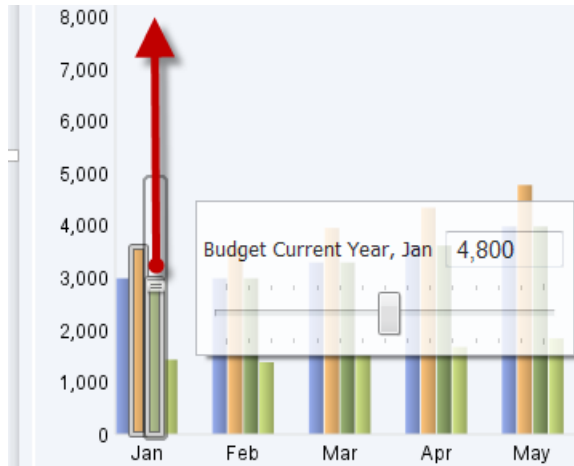
In this section we will use the bar on the chart to set the Budget Current Year Volume for Artful Artifacts to 8K and then use the crosstab to put in a compound 2% growth per month.

63. Click on Artful Artifacts on the Products Explore point

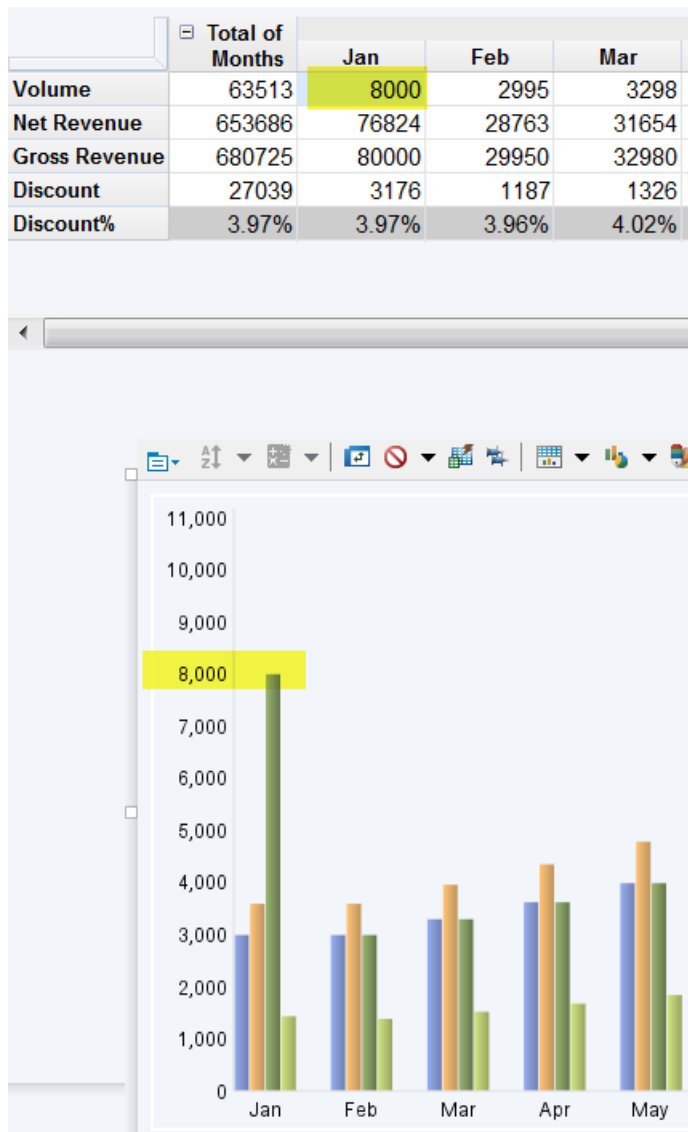
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64. Ensure that Volume is selected on the Net Revenue explore point
65. Click on the bar of the chart for Jan/Budget Current Year and drag the value up until it reaches 8K



66. Check the result in the crosstab



67. Type on top of the 8000 in the crosstab **grow2** (which represents “grow 2% compound”) and enter.

	Total of Months	Jan	Feb	Mar	Apr
Volume	107297	grow2	8160	8323	
Net Revenue	1101720	76824	78367	79886	
Gross Revenue	1147291	80000	81600	83232	
Discount	45571	3176	3233	3346	
Discount%	3.97%	3.97%	3.96%	4.02%	

68. This will grow the data across the months and the result will look as follows:

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	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Volume	107297	8000	8160	8323	8490	8659	8833	9009	9189	9373	9561
Net Revenue	1101720	76824	78367	79886	81526	83190	84830	86469	88109	89749	91389
Gross Revenue	1147291	80000	81600	83232	84897	86554	88219	89884	91549	93214	94879
Discount	45571	3176	3233	3346	3371	3464	3549	3645	3745	3846	3940
Discount%	3.97%	3.97%	3.96%	4.02%	3.97%	3.95%	3.96%	3.98%	3.95%	3.94%	3.99%

69. Commit the data and move to the next example.

For Whacky Widgets we will keep London as last year but assume 10% decrease in total and last year's seasonality.

70. Select Whacky Widgets in the explore point for Products and ensure that Volume is selected on the Net Revenue explore point

71. Click on London/Total of Months in the view by City.

72. Right click and select Hold

Total of Cities	Total of Months	
London	4	Hold
Manchester	3	
Newcastle	2	
Birmingham	2	
Glasgow	2	
Cardiff	2	
Dundee	1	
Edinburgh	1	
Liverpool	1	
Swansea	1	
Bristol		
Inverness		

73. Type dec10 in the Total of Cities/Total of Months to decrease the amount by 10% (except for London)

	Total of Months	Jan
Total of Cities	dec10	271
London	451	49
Manchester	355	39
Newcastle	264	29
Birmingham	247	27
Glasgow	236	26
Cardiff	236	26
Dundee	179	19

74. The result will look as follows with London unchanged:

	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total of Cities	2233	244	228	219	209	199	188	178	170	164	151	145	139
London	451	49	47	44	42	40	38	36	34	33	31	29	28
Manchester	312	34	32	31	29	27	26	25	24	23	21	20	19
Newcastle	232	25	24	23	22	21	19	18	18	17	16	15	14
Birmingham	217	24	22	21	20	19	18	18	17	16	15	14	13
Glasgow	207	23	21	20	19	18	18	17	16	15	14	13	13
Cardiff	207	23	21	20	19	18	18	17	16	15	14	13	13
Dundee	157	17	16	16	15	14	13	12	12	11	11	11	10
Edinburgh	129	14	13	12	12	11	11	11	10	10	9	9	8
Liverpool	106	11	11	11	10	10	9	9	8	8	7	7	7
Swansea	104	11	11	11	10	9	9	8	8	8	7	7	6
Bristol	82	9	8	8	8	8	7	6	6	6	5	5	5
Inverness	30	4	3	3	3	3	3	3	3	3	2	2	2

75. Commit the data and move to the next example

Thoughtful Things – we will use last year's seasonality but have a total of 20K

76. Select Thoughtful Things in the explore point for Products and ensure that Volume is selected on the Net Revenue explore point

77. Type in 20K or 20000 and check the result. This will use the data already in the cube to spread the new total

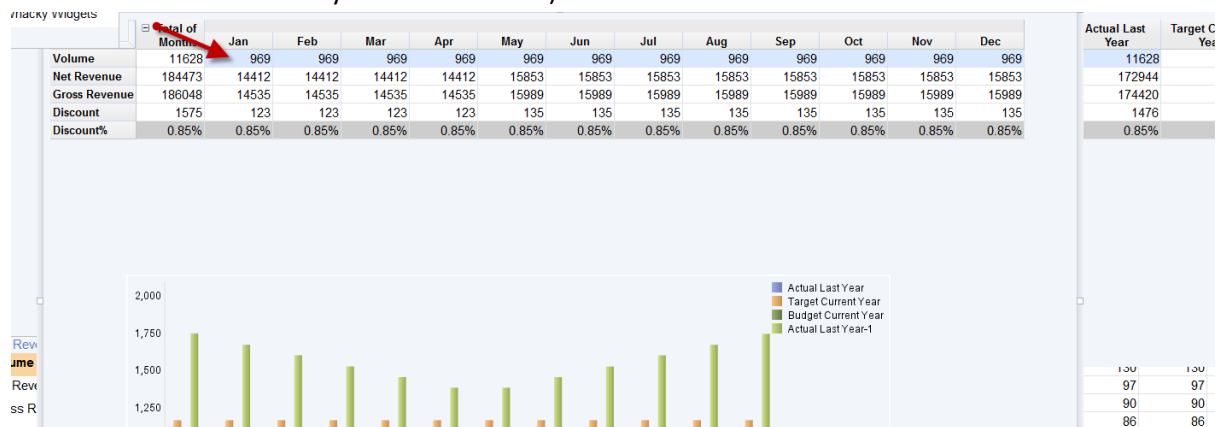
	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Volume	20000	1379	1495	1608	1725	1839	1953	1953	1839	1725
Net Revenue	307929	19684	21326	22953	24597	28858	30653	30653	28857	27875
Gross Revenue	320690	20690	22428	24115	25871	30351	32225	32225	30351	28458
Discount	12760	1005	1103	1161	1274	1493	1572	1572	1494	583
Discount%	3.98%	4.86%	4.92%	4.82%	4.92%	4.92%	4.88%	4.88%	4.92%	2.05%

78. Commit the data and move to the next example.

Potty Possessions – use linear growth from 969 in Jan to 1000 in Dec

79. Select Potty Possessions in the explore point for Products and ensure that Volume is selected on the Net Revenue explore point

80. Highlight the Volume for Jan – Dec in the view (the Totals of Cities is in the context (select the Show Overview area if you want to check)).



81. Right click and select Spread Data – Straight Line

82. In the dialog box type 1000 into the End Value and select OK

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
969	969	969	969	969	969	969	969	969	969
14412	14412	14412	14412	15853	15853	15853	15853	15853	15853
14535	14535	14535	14535	15989	15989	15989	15989	15989	15989
123	123	123	123						
0.85%	0.85%	0.85%	0.85%						

Spread Data - Straight Line

Select the cell or range of cells from which you want to initiate the data spreading.

Start Value: 969

End Value: 1000

Extend: ☐ Left ☐ Right ☐ Up ☐ Down

Update Action: ☒ Replace ☐ Add ☐ Subtract

OK Cancel

83. The result will look as follows:

	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volume	11814	969	972	975	977	980	983	986	989	992	994	997	1000
Net Revenue	187490	14412	14454	14496	14538	16038	16084	16130	16176	16222	16268	16314	16360
Gross Revenue	189092	14535	14577	14620	14662	16175	16221	16268	16314	16361	16407	16454	16500
Discount	1601	123	123	124	124	137	137	138	138	139	139	139	140
Discount%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%

Note: Remember if the results are not as expected you can use the undo button and then try the action again.

84. Check that the city view is also showing that this value has been spread across the individual cities as well.
85. Commit the data and move to the next example.

Ominous Objects – hold the 1st Quarter but add 900 to last year's Volume.

86. Select Ominous Objects in the explore point for Products and ensure that Volume is selected on the Net Revenue explore point
87. For Volume highlight Jan – Mar and right click – Hold
88. Type add1000 on top of the total of Months for Volume. This will be spread over the months that are not held.
89. The result will look as follows:

	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volume	11557	881	881	881	992	992	992	990	990	990	989	989	989
Net Revenue	190495	13858	13858	13858	15609	17169	16592	16660	16652	16572	16556	16556	16556
Gross Revenue	197587	14096	14096	14096	15877	17465	17465	17425	17425	17425	17405	17405	17405
Discount	7091	238	238	238	269	295	873	765	774	853	849	849	849
Discount%	3.59%	1.69%	1.69%	1.69%	1.69%	1.69%	5.00%	4.39%	4.44%	4.89%	4.88%	4.88%	4.88%

90. Commit the data and move to the next example

For Discount% Ominous Objects – 5% discount for all Cities and Months.

91. Ensure that Ominous Objects is still selected in the explore point for Products and select Discount% from the Net Revenue explore point.
92. Use the quick commands for copy across (>) and copy down(| - the pipe) to enter 5% for all cities and all months for Ominous Objects.
93. The result will look as follows:

Rows:

Cities

Columns:

Months

Context:

Budget Current Year

Discount%

Ominous Objects

Net revenue Measures

Net Revenue

Products

	Total of Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Liverpool	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Glasgow	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cardiff	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Swansea	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Birmingham	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Edinburgh	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bristol	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Dundee	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
London	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Inverness	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Newcastle	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Manchester	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%

94. Commit the data and save the cdd.

This completes activity A04_Revenue_Budgeting