Anaplan Hub

Comes to You

#AnaplanHub

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Designing for Performance

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Objective

- Define Anaplan standards and best practices content and evangelise the “The right way to model”
- Work with Product Management to test and define best practice for new product capabilities
- Have better models in the field!

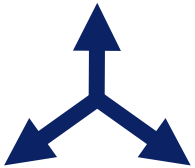
P - Performance

L - Logical

A - Auditable

N - Necessary

S - Sustainable



Performance - How do the structures and formulae impact the performance of the system?
Usability/Auditability - Is the user able to understand how to interact with the functionality?
Sustainability - Can the solution be easily maintained by model builders and support?

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Module Design

P – Performance
L – Logical
A – Auditable
N – Necessary
S – Sustainable

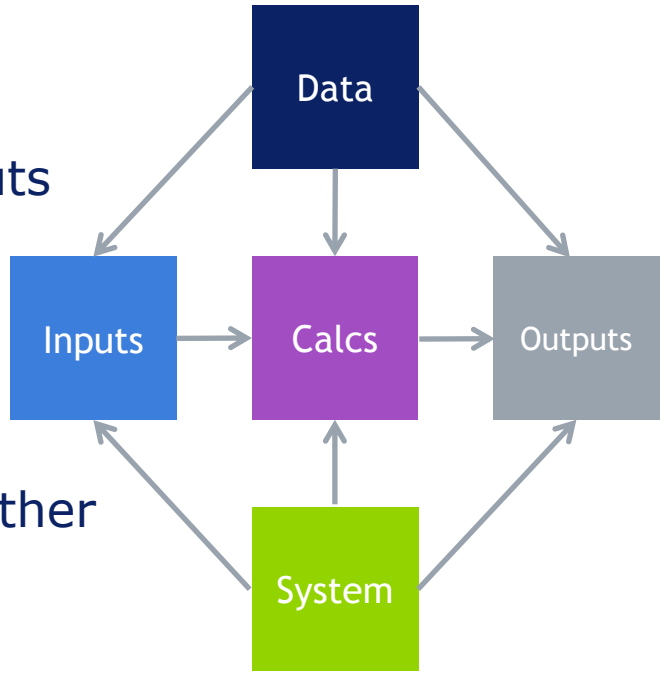
Data
Transaction / Source data
Data Hub

Inputs
Design for user entry
Don’t mix with calculations and outputs

System
Time management
Mappings / technical modules

Calcs
Optimise for performance
Group like calculation structures together

Outputs
Reports
Only data flows in



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Dimension Order

Consistency of ordering of dimensions affects calculation speed

Applies to: Products, Customers

PRICES	Customer 1	Customer 2	Customer 3
Product 1	15	11	8
Product 2	13	12	9
Product 3	10	13	10

Applies to: Customers, Products

VOLUMES	Product 1	Product 2	Product 3
Customer 1	100	200	300
Customer 2	400	500	600
Customer 3	700	800	900

REVENUE = PRICES * VOLUMES

Indexes are created for each “cell”

PRICES	Customer 1	Customer 2	Customer 3
Product 1	1	2	3
Product 2	4	5	6
Product 3	7	8	9

VOLUMES	Product 1	Product 2	Product 3
Customer 1	1	2	3
Customer 2	4	5	6
Customer 3	7	8	9

PRICES

Prod	Cust	Index	Value
1	1	1	15
1	2	2	11
1	3	3	8
2	1	4	13
2	2	5	12
2	3	6	9
3	1	7	10
3	2	8	13
3	3	9	10

VOLUMES

Prod	Cust	Index	Value
1	1	1	100
2	1	2	200
3	1	3	300
1	2	4	400
2	2	5	500
3	2	6	600
1	3	7	700
2	3	8	800
3	3	9	900

REVENUE

Prod	Cust	Value
1	1	1500
2	1	2200
3	1	
1	2	4400
2	2	6000
3	2	
1	3	5600
2	3	7200
3	3	

Align dimension order and Indexes are now also aligned

PRICES	Customer 1	Customer 2	Customer 3
Product 1	1	2	3
Product 2	4	5	6
Product 3	7	8	9

VOLUMES	Customer 1	Customer 2	Customer 3
Product 1	1	2	3
Product 2	4	5	6
Product 3	7	8	9

PRICES

Prod	Cust	Index	Value
1	1	1	15
1	2	2	11
1	3	3	8
2	1	4	13
2	2	5	12
2	3	6	9
3	1	7	10
3	2	8	13
3	3	9	10

VOLUMES

Prod	Cust	Index	Value
1	1	1	100
1	2	2	400
1	3	3	700
2	1	4	200
2	2	5	500
2	3	6	800
3	1	7	300
3	2	8	600
3	3	9	900

REVENUE

Prod	Cust	Value
1	1	1500
1	2	4400
1	3	5600
2	1	2600
2	2	6000
2	3	7200
3	1	3000
3	2	7800
3	3	9000

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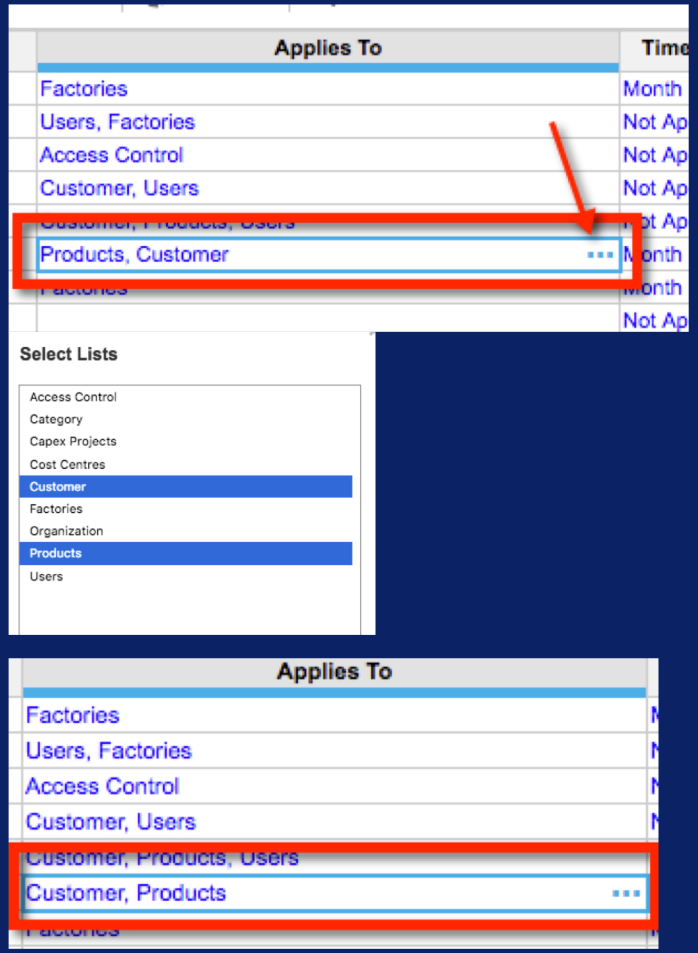
How to remedy?

1 – Click on “applies” to

2 – Click OK, and confirm

3 – Dimensions reordered



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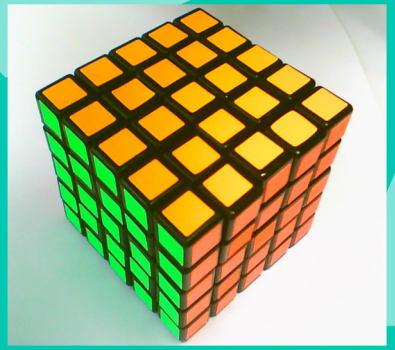
Formula Structure

DO

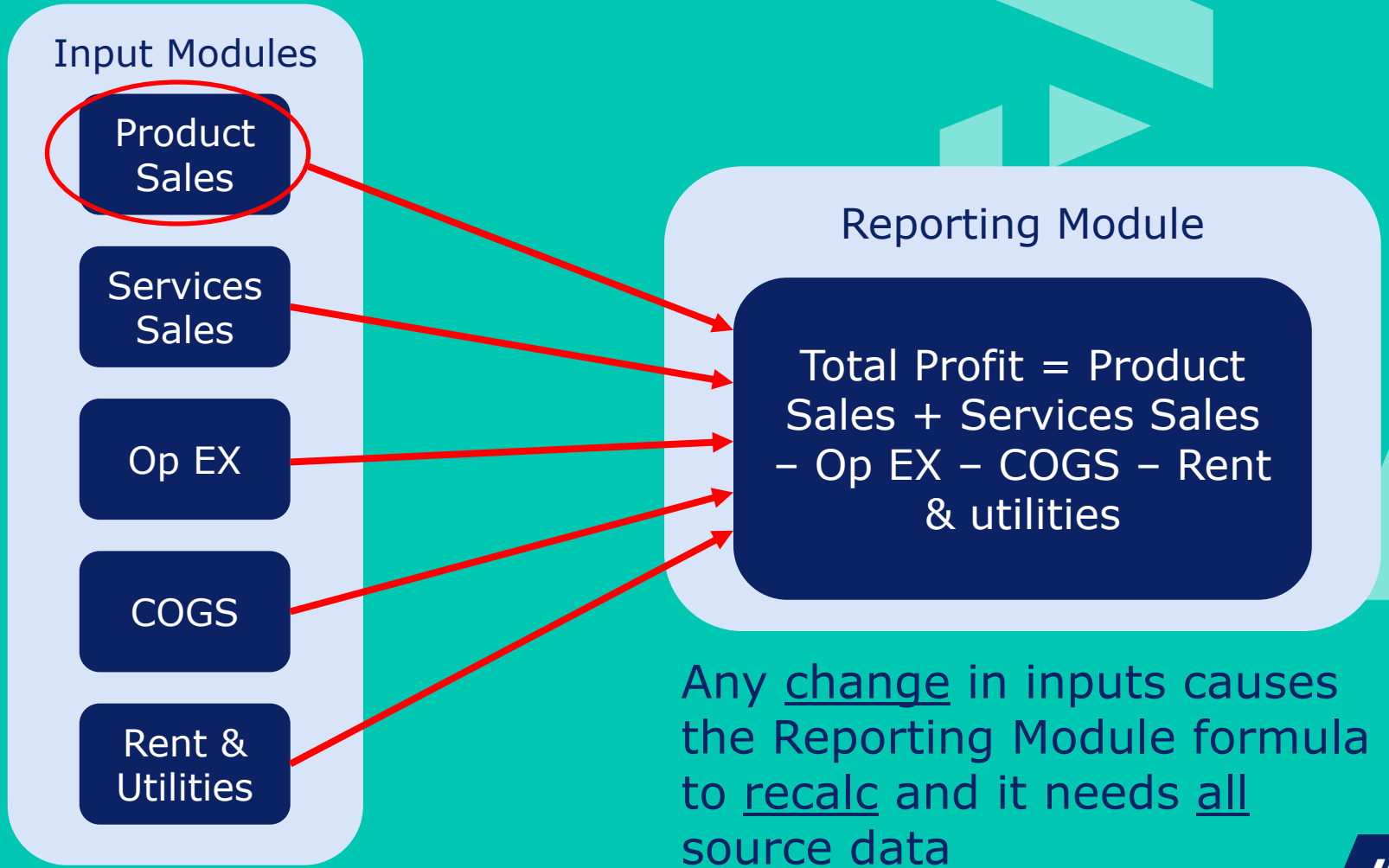
Break it up!

Nest

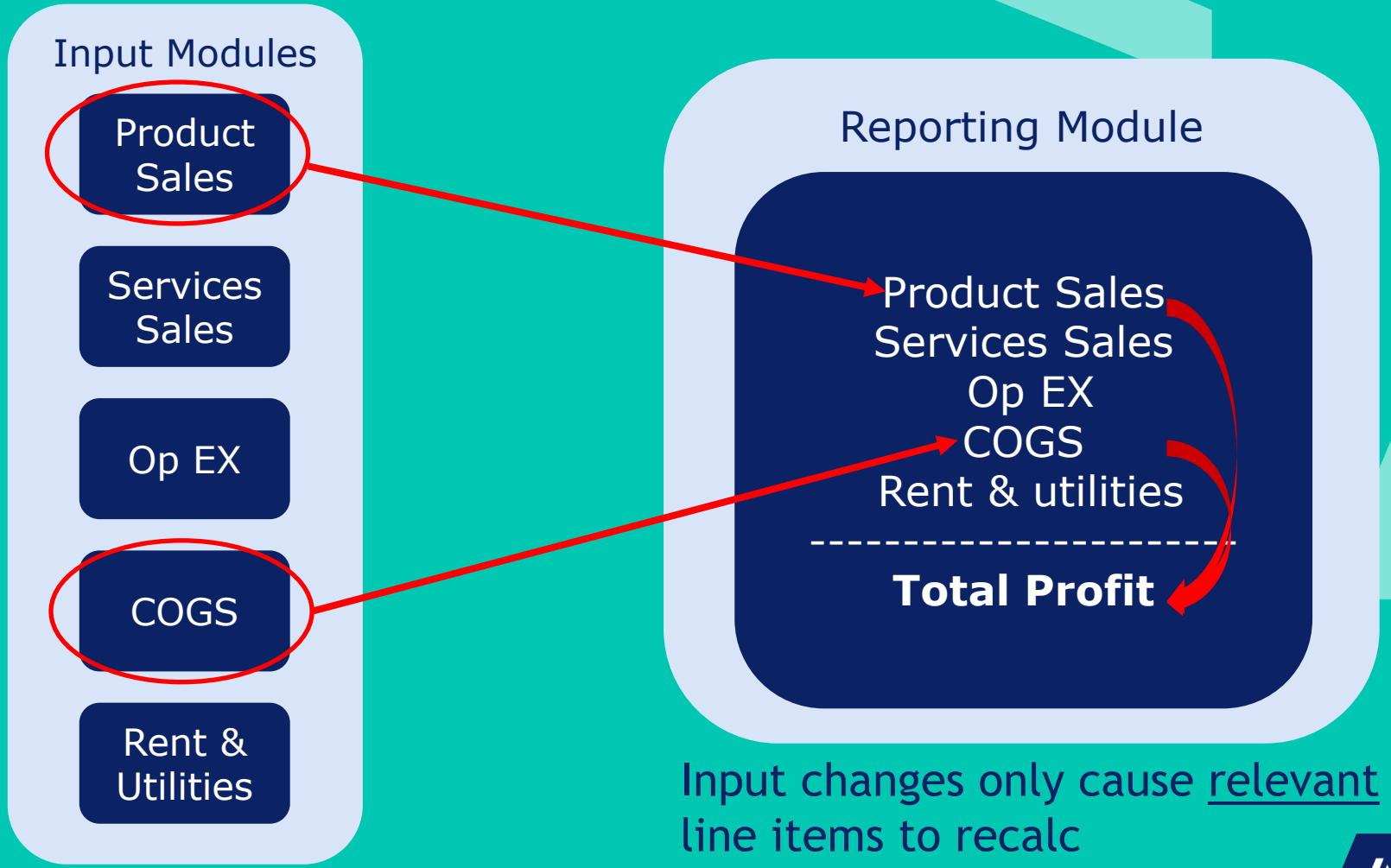
DON'T



Use Combinations



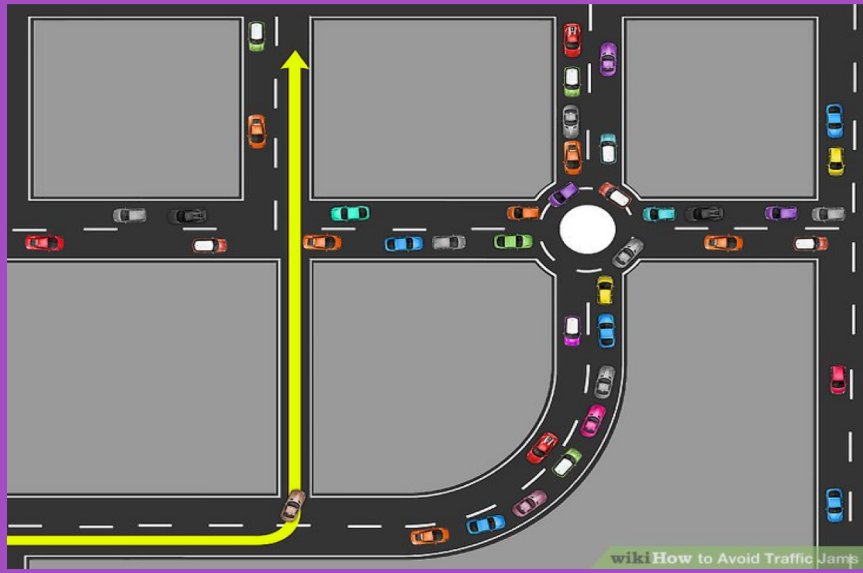
Any change in inputs causes the Reporting Module formula to recalc and it needs all source data



Input changes only cause relevant line items to recalc

Conditionals

Early Exit



Avoid Traffic

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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Summer Promo						✓	✓	✓				
Winter Promo	✓											✓

```
IF Winter Promo THEN
        TIMESUM(xxxx)
ELSE IF Summer Promo THEN
        TIMESUM(yyyy)
ELSE 0
```

Calc Time: 10 sec

OR

```
IF NOT Summer Promo AND
NOT Winter Promo THEN 0
ELSE IF Winter Promo THEN
        TIMESUM(xxxx)
ELSE TIMESUM(yyyy)
```

Calc Time: ~ 5 sec

Or even more optimal?

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Summer Promo						✓	✓	✓				
Winter Promo	✓											✓
No Promo		✓	✓	✓	✓				✓	✓	✓	

Put most common expression first

```
IF No Promo THEN 0
ELSE IF Summer Promo THEN
TIMESUM(yyyy)
ELSE TIMESUM(xxxx)
```

Break it up!!

Calc Time: ~ 4 sec

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Other Examples

```
IF ISNOTBLANK(TEXT)
THEN
FINDITEM(LIST,TEXT)
ELSE BLANK
```

OR

```
IF BLANK(TEXT)
THEN BLANK
ELSE
FINDITEM(LIST,TEXT)
```

(if there are more blanks than text items)

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Other Examples

LAG(X, Y, 0)

Becomes

IF Y=0
THEN X
ELSE
LAG(X, Y, 0)

(If Y is often 0)

Other Examples

```
IF SALES>0
THEN TRUE
ELSE FALSE
```

Becomes

```
SALES>0
```

Reduce the number of calculations

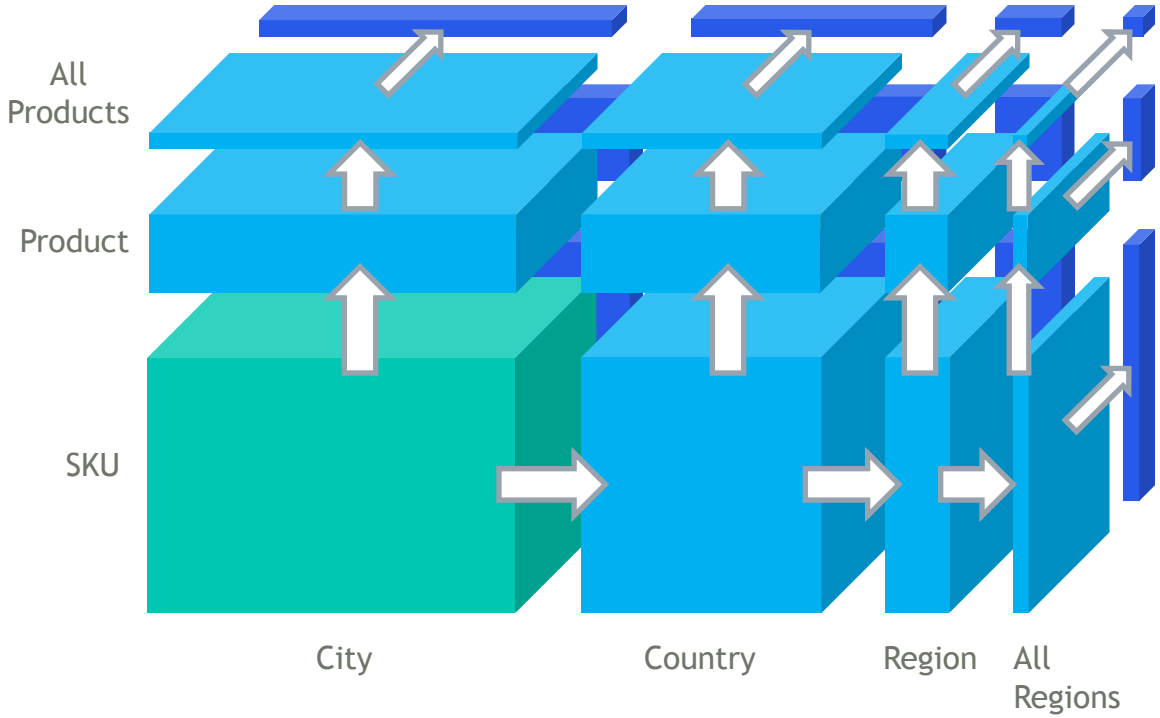
Sales Volume: Dimension Hierarchies

Sales Volume has 3 dimension hierarchies: Region by Product by Channel
Region has 4 levels, Product has 3 levels, Channel has 2 levels

Region Hierarchy	Product Hierarchy	Channel Hierarchy
City	SKU	Channel
Country	Product	All Channels
Region	All Products	
All Regions		

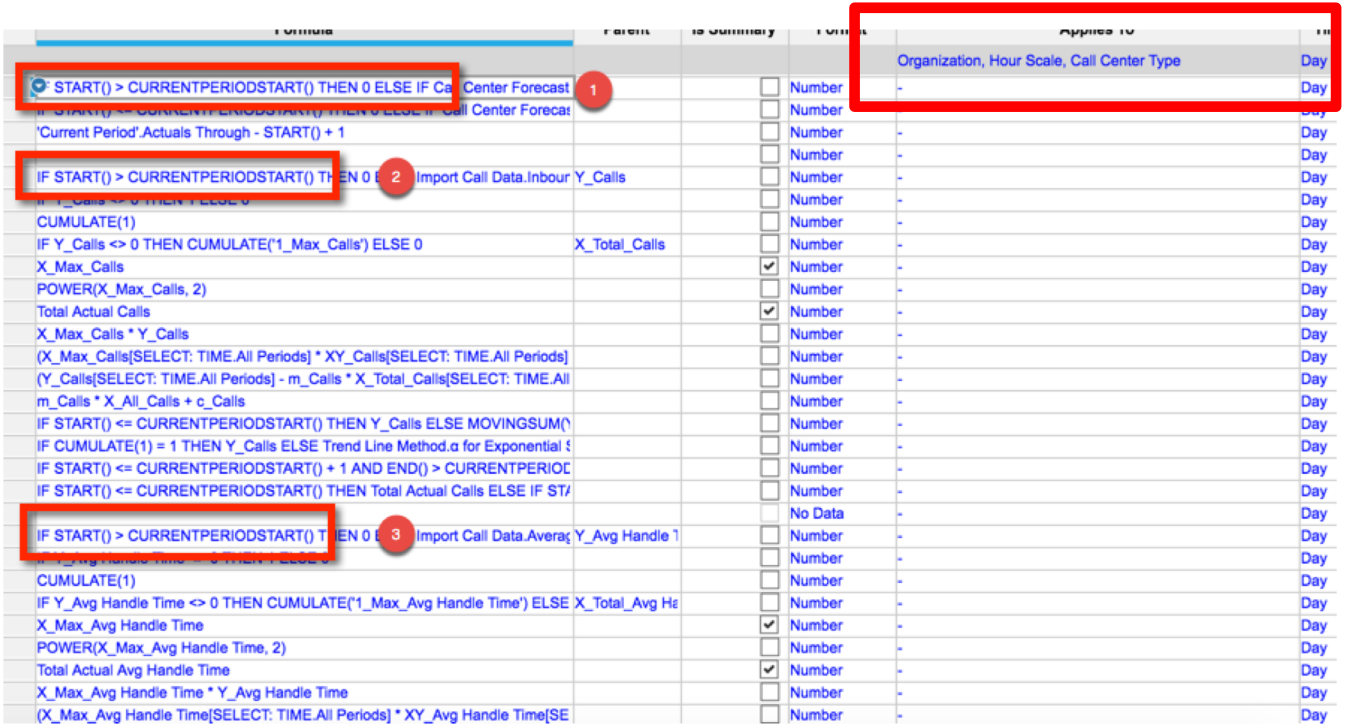
Engine partitions on every combination of levels
Total # blocks for Sales Volume = 4 * 3 * 2 = 24 blocks

Sales Volume: Aggregations



Summary Options On 1 vs 24

Repeated formula within line items



Formula	Parent	Is Summary	Format	Applies To	Time
				Organization, Hour Scale, Call Center Type	Day
START() > CURRENTPERIODSTART() THEN 0 ELSE IF Ca Center Forecast	1	☐	Number	-	Day
Call Center Forecas		☐	Number		
'Current Period'.Actuals Through - START() + 1		☐	Number	-	Day
		☐	Number	-	Day
IF START() > CURRENTPERIODSTART() TH EN 0 E 2 Import Call Data.Inbour	Y_Calls	☐	Number	-	Day
		☐	Number	-	Day
CUMULATE(1)		☐	Number	-	Day
IF Y_Calls <> 0 THEN CUMULATE('1_Max_Calls') ELSE 0	X_Total_Calls	☐	Number	-	Day
X_Max_Calls		☑	Number	-	Day
POWER(X_Max_Calls, 2)		☐	Number	-	Day
Total Actual Calls		☑	Number	-	Day
X_Max_Calls * Y_Calls		☐	Number	-	Day
(X_Max_Calls[SELECT: TIME.All Periods] * XY_Calls[SELECT: TIME.All Periods]		☐	Number	-	Day
(Y_Calls[SELECT: TIME.All Periods] - m_Calls * X_Total_Calls[SELECT: TIME.All		☐	Number	-	Day
m_Calls * X_All_Calls + c_Calls		☐	Number	-	Day
IF START() <= CURRENTPERIODSTART() THEN Y_Calls ELSE MOVINGSUM('		☐	Number	-	Day
IF CUMULATE(1) = 1 THEN Y_Calls ELSE Trend Line Method.α for Exponential S		☐	Number	-	Day
IF START() <= CURRENTPERIODSTART() + 1 AND END() > CURRENTPERIOD		☐	Number	-	Day
IF START() <= CURRENTPERIODSTART() THEN Total Actual Calls ELSE IF STA		☐	Number	-	Day
			No Data	-	Day
IF START() > CURRENTPERIODSTART() T EN 0 E 3 Import Call Data.Averag	Y_Avg Handle T	☐	Number	-	Day
		☐	Number	-	Day
CUMULATE(1)		☐	Number	-	Day
IF Y_Avg Handle Time <> 0 THEN CUMULATE('1_Max_Avg Handle Time') ELSE	X_Total_Avg Ha	☐	Number	-	Day
X_Max_Avg Handle Time		☑	Number	-	Day
POWER(X_Max_Avg Handle Time, 2)		☐	Number	-	Day
Total Actual Avg Handle Time		☑	Number	-	Day
X_Max_Avg Handle Time * Y_Avg Handle Time		☐	Number	-	Day
(X_Max_Avg Handle Time[SELECT: TIME.All Periods] * XY_Avg Handle Time[SE		☐	Number	-	Day

And, calculated for more dimensions than needed

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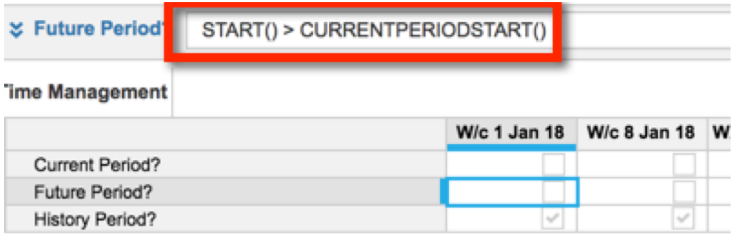
Use a Time Management Module

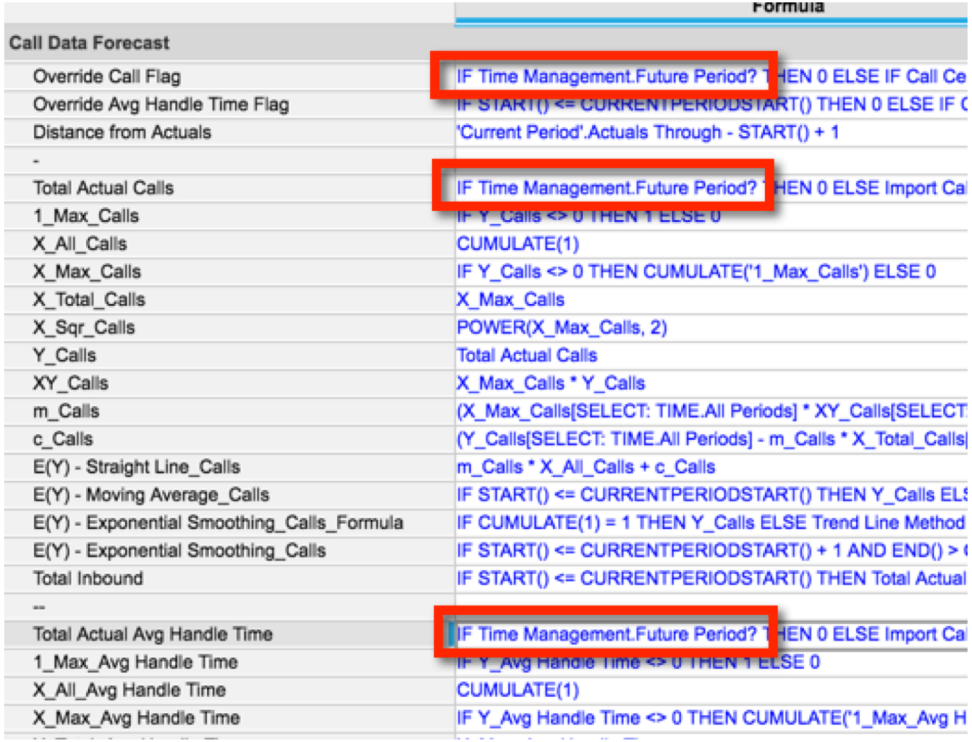


Cell Count = **105**

vs

3x 280,908

= **842,724**



to calculate once and reference many times

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Call to action

- Module Design
  - DISCO
- Dimension Ordering
  - Check and correct
- Formula Structure
  - Break them up
- Conditional Expressions
  - Early Exit
- Calculations
  - Summary Options
  - Calculate once, reference many times

P - Performance

L - Logical

A - Auditable

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S - Sustainable

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Enriching our Services offerings with Customer Success

Success Accelerators

Data Integration

Data Hub Workshop

Center of Excellence

Application Lifecycle Management (ALM)

Model Audit

Model Analysis

Design Workshop

Process Workshop

Connected Planning roadmap

Reach out to your Anaplan Business Partner for more information

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Anaplan Modelling Standard

Community – Shared Best Practices

PLANS

david.smith@anaplan.com

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Join our interactive workshop to learn exactly what connected planning is and how it can transform the way you collaborate around your plans.

Bring your laptop and get hands on.
In just a few hours, you will learn how to:

- **Build** a business model from scratch in Anaplan
- **Reduce** your planning processes from weeks and months down to days and hours
- **Improve** transparency by involving more staff and business stakeholders in the planning process

In addition to the time at the workshop you'll have another four weeks of free access to Anaplan.

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