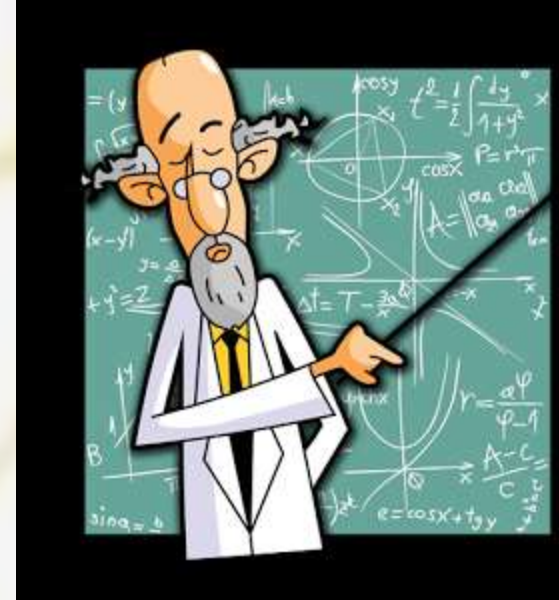# Calculated Accounts and Drivers

Creating consistency with automation

Joanne Brunn

April 18, 2017

XLERANT

Goals

- Understand the benefits, control and flexibility of using calculated accounts or drivers
- Understand the various ways that calculated accounts and drivers can be used with expenses and revenue
- Know how to set up an efficient budget process
  …using calculated accounts and drivers
  …to make the budget numbers more precise
  …and make it easy for your end users

- Drivers versus calculated accounts

- 3 Scenarios:
  - Benefits
  - General Expenses
  - Revenue

- Comparison versions using sets

Difference between Calculated Accounts, Drivers, Prepopulated Accounts, and Models

Calculated Accounts:
- Fixed formulas based on variables that may change year to year (or set to set)

Drivers:
- Global assumptions (monetary or quantity) set up to make sure that all budget managers are using the same numbers

Prepopulated Accounts:
- Account values loaded directly into BudgetPak

Models:
- Created and maintained in Excel, the output of which is tied directly to the BudgetPak database

What is a Calculated Account?

- Account that is automatically calculated for you
- Choose from a list of formulas for ease of setup
- Account Type: Calculation or Internal Calculation

Some Examples:

- 7% of Full Time Salary + 5% of Part-time Salary
- $500 per head
- Graduate Tuition + Undergraduate Tuition
- 10% of Salary for Full-time Employees + 5% of Salary for Part-time Employees
- $45 per room * 50 rooms * 3 Housekeepers
- $2000 * 40 members, or $750 * 1000 members depending upon the department
- Attrition is 5% of the sum of 3 different revenue accounts

```
[A]*[account X] + [B]*[account Y]
$[A] Per Head
[A]*[account X]
[A]*[account X] + [B]
[A]*[account X] + ... + [H]*[account 8]
[A]% of total compensation
$[A]*[Qty Driver]
[A]% of [$ Driver]
$[A] Per Head by employee class
[A]% of total compensation by employee class
[Qty Driver]*[account X]
[$ Driver] Per Head
[$ Driver] * [Qty drivers]
Allocation
[A]%*[subtotal X]
```

What is a Driver?

- Drivers are quantity or monetary
- Types are Monthly or Annual
- Visible or not per unit
- Editable or not per unit

Some Examples:

- Membership Fee (monetary)
- Tuition (monetary)
- Number of Members (quantity)
- # of Cases of Widgets Shipped (quantity)

	Membership Fee	Membership Fee	Money	ABC Organization
Editable?: ☐ Visible to this unit?: ☑ Annual value: 85				

Annual monetary driver

	Number Of Members	Number of Members	Quantity	ABC Organization	ABC Organization	☐
Editable?: ☐ Visible to this unit?: ☑	Period 1: 250	Period 4: 375	Period 7: 450	Period 10: 250		
	Period 2: 300	Period 5: 400	Period 8: 400	Period 11: 250		
	Period 3: 350	Period 6: 450	Period 9: 300	Period 12: 200		

Monthly quantity driver

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- Budget method – Driver x rate
    - Calculation with user-editable driver

- Calculation – fixed
    - Prepopulated accounts

Guided approach

Fully controlled

Decisions

Scenario #1: using calculated accounts and drivers to compute benefit expenses

Benefits:
- 401K match
- Retirement
- Short Term Disability
- Dental Insurance
- Tuition Remission
- Life Insurance Expense

Employee Classes:
- Full Time
- Part Time

Benefits (in English):

- **401K match** = 4% of salary

- **Retirement** = 5% of total compensation (salary plus bonuses)

- **Short Term Disability** = .75% of total compensation depending upon the type of employee

- **Dental Insurance** - $500 or $300 per person depending upon the type of employee

- **Tuition Remission** = -.008 of Tuition Revenue (contra income)
  - where Tuition Revenue is the sum of 3 tuition accounts

- **Life Insurance Expense** - $45 or $75 times the number of employees in a department, depending upon the department

- Benefit: **401K match**
- Description: 4% of salary

- BudgetPak Formula: [A] * [Account X]
- Realized Formula: .04 * [1002:Salaries]

Step 1

401K   1200 ℹ️

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

$20,851

Calculation for 401K: .04 * [1002:Salaries]

- Fully controlled calculation

- The user can't change anything
- The user can only add notes
- The user must review the section

- Benefit: **Retirement**
- Description: 5% of total compensation

- BudgetPak Formula: [A]% of total compensation
- Realized Formula: .5% of total compensation

Step 1

Retirement   1300 ℹ️

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

$95,241

Calculation for Retirement: 5.0000% of total compensation

- Fully controlled calculation

- The user can't change anything
- The user can only add notes
- The user must review the section

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- Benefit: **Short Term Disability**
- Description: .75% or .50% of total compensation depending upon the type of employee

- BudgetPak Formula: [A]% of total compensation by employee class
- Realized Formula: .75% of total compensation for class 'Full-time'; .50% of total compensation for class 'Part-time'

Step 1

Short Term Disability

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

1400

$55,345

Calculation for Short Term Disability: .7500% of total compensation for class 'Full-time' .5000% of total compensation for class 'Part-time'

- Fully controlled calculation

- The user can't change anything
- The user can only add notes
- The user must review the section

- Benefit: **Dental Insurance**
- Description: $500 or $300 per person depending upon the type of employee

- BudgetPak Formula: $[A] Per Head by employee class
- Realized Formula: $500 Per Head for class 'Full-time'; $300 Per Head for class 'Part-time'

Step 1

Dental Insurance

The annual budget for this line item has been automatically calculated.
This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

1500

$15,480

Calculation for Dental Insurance: $500 per Head for class 'Full-time'
$300 Per Head for class 'Part-time'

- Fully controlled calculation

- The user can't change anything
- The user can only add notes
- The user must review the section

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- Benefit: **Tuition Remission**
- Description: .008. of Tuition Revenue (contra income account) where Tuition Revenue = Graduate Tuition + Undergraduate Tuition + Continuing Ed Tuition

- BudgetPak Formula: *Level 1:* [A] * Account X + [A] * Account Y + [A] * Account Z
  Level 2: Level 1 + [A] * Account X
- Realized Formula: *Level 1:* Tuition Revenue = 1*[2401:Graduate Tuition] + 1*[2402:Undergraduate Tuition + 1*[2403:Continuing Ed Tuition
  Level 2: Tuition Remission = -.008*[2400:Tuition Revenue]

Step 1

Tuition Remission   2001 ⓘ

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

$9,500

Calculation for Tuition Remission: 0.0080*[2400: Tuition Revenue]

- Fully controlled calculation
- Based on the calculation values of Tuition Revenue (Level 1 calculation)

- The user can't change anything
- The user can only add notes
- The user must review the section

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- Benefit: **Life Insurance Expense**
- Description: $45 or $75 times the number of employees in a department, depending upon the department

- BudgetPak Formula: $Driver per head
- Realized Formula: [Life Insurance Expense] Per Head

Step 1

Life Insurance Expense   3001 ℹ️

The annual budget for this line item has been automatically calculated.
This cost has been calculated by a formula supplied by your organization. You
may review it here, but not change it.

$2,375

Calculation for Life Insurance Expense: [Life Insurance Expense] Per Head

- Fully controlled calculation
- Based on the driver value which is hidden from the users
- Driver values vary by unit
- Headcount values vary by unit

- The user can't change anything
- The user can only add notes
- The user must review the section

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Monthly spreading section for calculated accounts:
- Values for each period are automatically calculated and cannot be changed
- Convenience feature for user
- Full control and accuracy for finance

Line items

Monthly spreading for Benefits line items:

Line item	Type of automatic spreading	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Medical Benefits - Exec	None	$30,020	$27,276	$30,220	$30,646	$31,717	$30,694	$31,717	$31,717	$30,694	$31,717	$30,694	$31,717	$368,829
Medical Benefits - Non Exec FT	None	$27,972	$25,265	$27,972	$29,702	$29,509	$28,558	$29,509	$29,509	$28,558	$29,509	$28,558	$29,509	$344,130
Dental	None	$323	$323	$323	$330	$323	$323	$323	$323	$323	$323	$323	$323	$3,878
401K	None	$3,401	$3,079	$3,410	$4,148	$3,588	$3,472	$3,588	$3,588	$3,472	$3,588	$3,472	$3,588	$42,392
Total		**$61,715**	**$55,943**	**$61,924**	**$64,825**	**$65,137**	**$63,046**	**$65,137**	**$65,137**	**$63,046**	**$65,137**	**$63,046**	**$65,137**	**$759,229**
		8.13 %	7.37 %	8.16 %	8.54 %	8.58 %	8.3 %	8.58 %	8.58 %	8.3 %	8.58 %	8.3 %	8.58 %	100 %

Scenario #2: using calculated accounts and drivers to compute general expenses

Expenses:
- Office Supplies
- Transportation Costs
- Software Licenses

Expenses (in English):

- **Office Supplies** = $350 per person

- **Transportation Costs** = .56 mileage rate * number of miles
  - where user enters number of miles

- **Software Licenses** = allocated from IT department to all other departments based on a %

- Expense: **Office Supplies**
- Description: $350 per person

- BudgetPak Formula: $[A] Per Head
- Realized Formula: $350 Per Head

Step 1

Office Supplies

3600

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

$3,500

Calculation for Office Supplies: $350 per Head

- Fully controlled calculation

- The user can't change anything
- The user can only add notes
- The user must review the section

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- Expense: **Transportation Costs**
- Description: .56 mileage rate * number of miles where user enters number of miles

- BudgetPak Formula: Annual Monetary Driver [Mileage Rate]
- Realized Formula: Annual Monetary Driver [Mileage Rate]

- Partially controlled calculation
- Finance controls the mileage rate driver
- Limited user input

- The user can enter quantity - the number of miles
- The user cannot change the mileage rate driver
- The user can add notes

- Expense: **Software Licenses**
- Description: allocated from IT department to all other departments based on a %

- BudgetPak Formula: Allocation
- Realized Formula: Allocation

Step 1

Software Licenses

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

9300 ⓘ

$17,250

Calculation for Software Licenses: Allocation

- Fully controlled calculation

- The user can't change anything
- The user can only add notes
- The user must review the section

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Monthly spreading section for calculated accounts and budget method driver*rate:
- Non-discretionary values for each period are automatically calculated and cannot be changed
  - Convenience feature for user
  - Full control and accuracy for finance
- Discretionary total for rental car cannot be changed because it is controlled by the mileage rate driver

Line items

Line item	Type of automatic spreading	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Office Supplies	None	$125	$125	$125	$125	$125	$125	$125	$125	$125	$125	$125	$125	$1,503
Allocated in Expenses	None	$354	$354	$354	$354	$354	$354	$354	$354	$354	$354	$354	$354	$4,250
Non-discretionary total		**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$479**	**$5,753**
Rental car	As last year	$313	$939	$626	$605	$235	$626	$282	$939	$1,252	$1,265	$692	$626	$8,400
Discretionary total		**$313**	**$939**	**$626**	**$605**	**$235**	**$626**	**$282**	**$939**	**$1,252**	**$1,265**	**$692**	**$626**	**$8,400**
Total		**$792**	**$1,418**	**$1,105**	**$1,085**	**$714**	**$1,105**	**$761**	**$1,418**	**$1,732**	**$1,744**	**$1,171**	**$1,105**	**$14,153**
		5.6 %	10.02 %	7.81 %	7.66 %	5.05 %	7.81 %	5.38 %	10.02 %	12.23 %	12.33 %	8.28 %	7.81 %	100 %

Scenario #3: using calculated accounts and drivers to compute revenue

Revenue:
- Dorm Rate Revenue
- Activities Fee Revenue
- Membership Fee Revenue
- Continuing Education Tuition

Revenue (in English):

- **Dorm Rate Revenue** = $4840 cost per dorm * 3500 dorm students * 91% retention rate

- **Activities Fee Revenue** = $75 fee * number of participants
  - where number of participants is editable by the user

- **Membership Fee Revenue** = membership rate * number of members
  - where rate and number of each member type is different depending upon the unit
  - E.g. $100 * 2000 members in Unit A + $250 * 700 members in Unit B

- **Continuing Education Tuition**= $100 credit hours rate * Class fill % * 30 max # of participants * #credit hours
  - where class fill % and #credit hours offered is editable by the user
  - where credit hours rate and maximum number of participants are controlled by finance

- Revenue: **Dorm Rate**
- Description: $4840 cost per dorm * 3500 dorm students * 91% retention rate

- BudgetPak Formula: [$ Driver] * [Qty Drivers]
- Realized Formula: Annual Monetary Driver [Cost per dorm] * Annual Quantity Driver [#Dorm students] * Annual Quantity Driver [Retention rate]

Step 1

Dorm Rate

8700

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

1,250,000

Calculation for Dorm Rate: [Cost per dorm] * [#Dorm Students] * [Retention rate]

- Fully controlled calculation
- Finance controls the values in all drivers

- The user can't change anything
- The user can only add notes
- The user must review the section

- Revenue: **Activities Fee Revenue**
- Description: $75 fee * number of participants where number of participants is editable by the user

- BudgetPak Formula: [$A] * [Qty Driver]
- Realized Formula: $75 * Annual Quantity Driver [Number of participants]

Step 1

Activities Fee Revenue

8800 ⓘ

The annual budget for this line item has been automatically calculated.

This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

320,250

Calculation for Activities Fee Revenue: $75 * [Number of participants]

- Partially controlled calculation
- Finance controls the $75 activities fee
- Limited user input

- The user can enter quantity driver - number of participants
- The user cannot change the $75 fee
- The user can add notes

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- Revenue: **Membership Fee Revenue**
- Description: membership rate * number of members
  - where rate and number of each member type is different depending upon the unit
  - E.g. $100 * 2000 members in Unit A + $250 * 700 members in Unit B

- BudgetPak Formula: [$A] * [Qty Driver]
- Realized Formula: [$A] * Annual Quantity Driver [Number of members]

Step 1

Membership Fee Revenue

8500 ⓘ

The annual budget for this line item has been automatically calculated.
This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

200,000

Calculation for Membership Revenue: [$100] * [Number of members]

- Fully controlled calculation
- Unit A would display $100 and use the driver value of 2000 for number of members
- Unit B would display $250 and use the value of 700 for number of members

- The user can't change anything
- The user can only add notes
- The user must review the section

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- Revenue: **Continuing Education Tuition**
- Description: $100 credit hours * Class fill % * 30 maximum # of participants * #Credit hours
  - where class fill % and #credit hours offered is editable by the user
  - where credit hours rate and maximum number of participants are controlled by finance

- BudgetPak Formula: [$ Driver] * [Qty Drivers]
- Realized Formula: Annual Monetary Driver [Credit hours rate] * Annual Quantity Driver [Class Fill %] * Annual Quantity Driver [Maximum # of participants] * Annual Quantity Driver [#Credit Hours]

Step 1

Continuing Education Tuition   8900 ⓘ

The annual budget for this line item has been automatically calculated.
This cost has been calculated by a formula supplied by your organization. You may review it here, but not change it.

1,250,000

Calculation for Continuing Education Tuition: [Credit hours rate] * [Class fill %] * [Maximum # of participants] * [#Credit hours]

- Partially controlled calculation
- Finance controls the credit hours rate and maximum # of participants drivers
- Limited user input

- The user can enter quantity drivers – class fill % and $credit hours
- The user cannot change the $100 credit hours rate or the 30 maximum # of participants drivers
- The user can add notes

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Monthly spreading section for calculated accounts:

- Values for each period are automatically calculated and cannot be changed
- Convenience feature for user
- Full control and accuracy for finance

Line items

Monthly spreading for Revenue line items:

Line item	Type of automatic spreading	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Dorm Rate	None	$30,020	$27,276	$30,220	$30,646	$31,717	$30,694	$31,717	$31,717	$30,694	$31,717	$30,694	$31,717	$368,829
Activities Fee Revenue	None	$27,972	$25,265	$27,972	$29,702	$29,509	$28,558	$29,509	$29,509	$28,558	$29,509	$28,558	$29,509	$344,130
Membership Fee Revenue	None	$323	$323	$323	$330	$323	$323	$323	$323	$323	$323	$323	$323	$3,878
Continuing Education Tuitio	None	$3,401	$3,079	$3,410	$4,148	$3,588	$3,472	$3,588	$3,588	$3,472	$3,588	$3,472	$3,588	$42,392
Total		**$61,715**	**$55,943**	**$61,924**	**$64,825**	**$65,137**	**$63,046**	**$65,137**	**$65,137**	**$63,046**	**$65,137**	**$63,046**	**$65,137**	**$759,229**
		8.13 %	7.37 %	8.16 %	8.54 %	8.58 %	8.3 %	8.58 %	8.58 %	8.3 %	8.58 %	8.3 %	8.58 %	100 %

Better together!

You can construct different calculation and driver assumptions and compare their impact

- In this scenario, we have a conservative set of calculation and driver values, and a growth set
- They are assigned to different versions earmarked for comparison purposes
  - For example – higher revenue numbers were included in the growth calculation and driver sets

Description	Calc. defaults set	Drivers defaults set
2017 Final Budget	CD2017	DD2017
2017 Budget - Growth Plan	CD2017-1	DD2017-Growth
2017 Budget - Conservative Plan	CD2017-2	DD2017-Conserve

Version comparison reports will show you the impact of the different sets

- In this scenario, the two versions are identical except for the driver and calculation sets
- The report shows the impact on the budget of the growth versus conservative assumptions

P&L ANNUAL REPORT

Company:	ABC Organization
Version:	2017 Budget - Growth Plan
Comparison version:	2017 Budget - Conservative Plan
Unit:	ABC Organization: ABC Organization
Local currency:	USD ($)
Report currency:	USD ($)
Budget holder:	Smith, Jennifer (JSmith)

Account	Description	2017 Budget - Growth Plan	2017 Budget - Conservative Plan	Variance Amount	Variance Percent
10001	Membership Fees	$543,000	$301,000	$242,000	80.4 %
10002	Sales Revenue	$9,690,000	$9,465,000	$225,000	2.4 %
10003	Merchandise Revenue	$750,000	$600,000	$150,000	25.0 %
10004	Other Revenue	$755,000	$700,000	$55,000	7.9 %
6001 >>	Allocated in Revenue	$0	$0	-	-
Income		**$11,738,000**	**$11,066,000**	**$672,000**	**6.1 %**
TOTAL INCOME		**$11,738,000**	**$11,066,000**	**$672,000**	**6.1 %**

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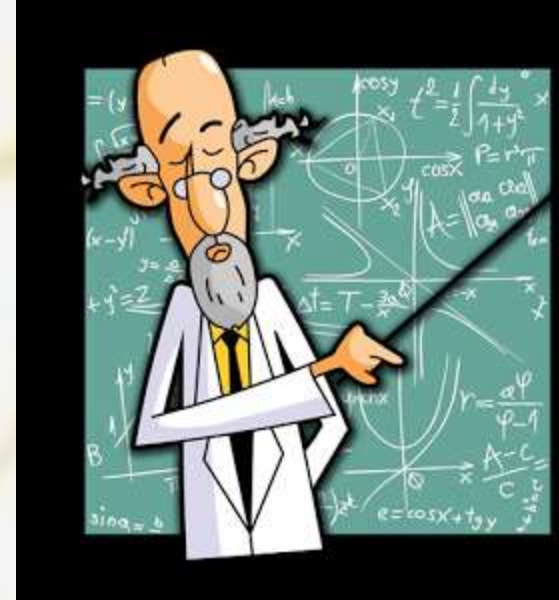
Goals

- ✓ To understand the benefits, control and flexibility of using calculated accounts or drivers
- ✓ To understand the various ways that calculated accounts and drivers can be used with expenses and revenue
- ✓ To know how to set up an efficient budget process

  …using calculated accounts and drivers

  …to make the budget numbers more precise

  …and make it easy for your end users