

Budget Control for Governments

OCA Days Online 2021

Ecosoft, @kittiu

October 28th, 2021



What is Budgeting?

- Budgeting is the process of creating a plan to spend your money.
- Plan called **Budget**. And the spending is called **Actuals**
- The **Budget vs Actuals**, let's user see overall performance which can help them take action correctly.



Why another budgeting modules?

- Our 1st government customer
- Was using SAP for budgeting
- Odoo has nothing for real budgeting
- Done in Odoo v8 but too specific



- Repeating our knowledge
- Full support to make it for OCA
- Odoo v14



nxpo

Office of National Higher Education
Science Research
and Innovation Policy Council

Thank you!

What is Budgeting Life Cycle?

Enterprise Level Strategic Planning

- Budgeting proposals and approval
- Enterprise level, budget allocation

Unit / Project Level Detailed Planning (And Revision)

- Budget detail plan by KPI, by time period
- Budget control sheet

Budget Execution

- Budget consumption on documents
- Budget monitoring and locking
- Budget transfer between units / projects

Budget Year End Closing

- Budget commitment carry forward
- Budget balance carry forward

Note: Budgeting cycle, can be very varied by organizations

budget_control in a nutshell

- A new set of OCA modules, target to complete budget life cycle
- Leverage **mis_builder_budget** (Stephane, ACSONE) as its core engine, for budgeting figures
- Add many features, to shield mis_builder, and make it Easier to Use
 - Budget Period
 - Budget Plan / Breakdown
 - Budget Control Sheet
 - Budget Transfer
 - Budget Revision
 - Budget Locking by Documents, i.e., PR, PO, EX, INV
 - Budget Monitoring
 - Budget Year End Closing
 - Commitment carry forward
 - Budget balance carry forward
- And more...

Demo - full budget cycle

- Company-A want to track its budgeting for period 2021
 - Department **Administrative** (budgeted @ 10,000 USD)
 - Project **Asustek** (budgeted @ 20,000 USD)
- Prepare a KPI are based on a mis_builder budget KPI (demo)
 - 600000 Expense
 - 611000 Purchase of Equipment
 - 612000 Rent
- Start with Enterprise level, budget plan allocation
- Consume budget in transaction, i.e., purchase, expense, billing
- Review budget monitoring reports
- Budget Transfer between 2 projects
- Year End Closing, 2021 -> 2022
 - Budget commitment carry forward
 - Budget balance carry forward

Basic Configuration

Settings

General Settings Users & Companies Translations Technical

Search...

Save Discard

- General Settings
- Budgeting
- Purchase
- Inventory
- Invoicing
- Employees
- Expenses

Budget Control Documents

<input checked="" type="checkbox"/> Account Enable budget actuals on Bills / Journal Entries.	<input type="checkbox"/> Purchase Request Enable budget commitment on purchase request.
<input checked="" type="checkbox"/> Purchase Enable budget commitment on purchase order.	<input checked="" type="checkbox"/> Expense Enable budget commitment on expense sheet.

Budget Period

Budget KPI Template
Default Budget KPI used when create new budget period.

Budget KPI (demo) ▼

→ KPI Templates

Budget Plan / Allocation

<input checked="" type="checkbox"/> Budget Plan Use budget plan to allocate amount and create budget control sheet.	<input checked="" type="checkbox"/> Budget Transfer Allow transferring budget between budget control sheet.
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MIS Report Template as Budget KPI

Settings / MIS Report Templates / Budget KPI (demo)

Edit

Create

⚙️ Action

1 / 1 < >

Name Budget KPI (demo)
Description
Style
Move lines source Journal Item

KPI's Queries Sub KPI's Sub Reports

Description	Name	Value type	Comparison Method	Accumulation Method	Expression	Budgetable
Expense	expense	Numeric	Percentage	Sum	balp[600000]	<input checked="" type="checkbox"/>
Purchase of Equipments	purchase_of_equipments	Numeric	Percentage	Sum	balp[611000]	<input checked="" type="checkbox"/>
Rent	rent	Numeric	Percentage	Sum	balp[612000]	<input checked="" type="checkbox"/>

- Each company / budget period, a KPI (mis report template), will be used as the mean to calculate budget figure on each budget year.

Prepare Date Range: 2021, 2022

Settings General Settings Users & Companies Translations Technical Mitchell Admin (devel)

Date Range Types / Date Ranges / Date Ranges

Start date: Year x Search... Filters Group By Favorites 1-2 / 2

<input type="checkbox"/>	Name	Type	Start date	End date	Active
▼ 2021 (4)					
<input type="checkbox"/>	2021/Q1	Quarter	01/01/2021	03/31/2021	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2021/Q2	Quarter	04/01/2021	06/30/2021	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2021/Q3	Quarter	07/01/2021	09/30/2021	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2021/Q4	Quarter	10/01/2021	12/31/2021	<input checked="" type="checkbox"/>
Add a line					
▼ 2022 (4)					
<input type="checkbox"/>	2022/Q1	Quarter	01/01/2022	03/31/2022	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2022/Q2	Quarter	04/01/2022	06/30/2022	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2022/Q3	Quarter	07/01/2022	09/30/2022	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2022/Q4	Quarter	10/01/2022	12/31/2022	<input checked="" type="checkbox"/>
Add a line					

- Later on, a Budget Period will be set.
- And Date Ranges are required as to how budget period will be distribute, i.e., monthly, quarterly.

Prepare Budget Period: 2021, 2022

Budgeting Budgeting Reports Configurations 2 5 Mitchell Admin (devel)

Budget Period / New

Name Preview Print Export Budget Control Sheets

Budget 2021

KPI Template

Budget Control

Control Budget On Invoice / Journal Entry On Purchase On Expense

Control All Analytics

- Budget Period is center point of control, enable / disable budget lock
- Set which Analytic Account will be controlled
- Set level of control, by 1) Analytic 2) Analytic / KPI

Budget Plan 2021, allocate budget

Budgeting Budgeting Reports Configurations Mitchell Admin (devel)

Budget Plan / New

Save Discard

Confirm Cancel

Draft Confirmed Done

Budget Plan

Plan 2021

Budget Period Budget 2021

Date From 01/01/2021

Date To 12/31/2021

Total Amount \$ 30,000.00

Plan Allocation

Generate Plan Update Consumed

Analytic Account	Allocated	Released	New Amou...	Consumed	Active ...	
Administrative	0.00	0.00	10,000.00	0.00	<input checked="" type="checkbox"/>	
Asustek - Wood Corner	0.00	0.00	20,000.00	0.00	<input checked="" type="checkbox"/>	
Add a line						

- After planning / discussion and came up with budget figure.
- Budget Plan is the 1st place to allocate amount to all projects/departments.

Create Budget Control Sheets

Budgeting Budgeting Reports Configurations Mitchell Admin (devel)

Budget Plan / Plan 2021

Edit Create

Create/Update Budget Control Reset to Draft Cancel

Budget Plan
Plan 2021

Budget Period Budget 2021
Date From 01/01/2021
Date To 12/31/2021
Total Amount \$ 30,000.00

Plan Allocation

Update Consumed

Analytic Account	Allocated	Released	New Amount	Consumed	Active Status
Administrative	10,000.00	10,000.00	10,000.00	0.00	<input checked="" type="checkbox"/>
Asustek - Wood Corner	20,000.00	20,000.00	20,000.00	0.00	<input checked="" type="checkbox"/>

Odoo

New budget control sheets

Name	Analytic Ac...	Analytic Gr...	Assigned T...	Allocated	Released	Budget	Commit	Consumed	Available S
Budget 2021...	Administrative	Departments		10,000.00	10,000.00	0.00	0.00	0.00	0.00
Budget 2021...	Asustek - W...	Projects		20,000.00	20,000.00	0.00	0.00	0.00	0.00

Already exists, not created

Name	Referenc...	Budget P...	Budget C...	Initial Avalla...	Initial Commi...	Customer...	Debit	Credit	Balance
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View Newly Created Control Sheets Close

- Create new Budget Control Sheet for each project/department for 2021
- Or update budget released amount if already exists.

Detailed Plan on Budget Control Sheet

Monitoring

Name

Budget 2021 :: Administrative

Preview Print Export Budget items

Analytic Account

Administrative

Budget Period

Budget 2021

Assigned To

Date Range

01/01/2021 - 12/31/2021

Initial Balance

\$ 0.00

Allocated

\$ 10,000.00

Released

\$ 10,000.00

Diff Amount

\$ 10,000.00

Plan

Reset Options

Use All KPIs



Initial Budget By
Commitment



KPIs

Expense (expense) x

Purchase of Equipments (purchase... x

Rent (rent) x

- For each Budget Control Sheet, select required KPI

Detailed Plan on Budget Control Sheet

Plan Reset Options

Hard Reset Soft Reset

	2021/Q1	2021/Q2	2021/Q3	2021/Q4	
Expense (expense)	1,000.00	2,000.00	5,000.00	2,000.00	10,000.00
Purchase of Equipments (purchase_of Equipments)	0.00	0.00	0.00	0.00	0.00
Rent (rent)	0.00	0.00	0.00	0.00	0.00
	1,000.00	2,000.00	5,000.00	2,000.00	10,000.00

- Click “Hard Reset” to create budget plan line.
- Here, allocate amount to each KPI / Quarter equal to allocated amount in order to start controlling budget

Budget:	\$ 10,000.00
Purchase:	\$ 0.00
Expense:	\$ 0.00
Commit:	\$ 0.00
Actual:	\$ 0.00
Consumed:	\$ 0.00
Available:	\$ 10,000.00

Budget Control Sheet / MIS Report

Budgeting Budgeting Reports Configurations Mitchell Admin (devel)

Budget Control Sheet / Budget 2021 :: Administrative

Edit Action 1 / 2 < >

Set to Draft Draft Submitted Controlled

Monitoring

Budget 2021 :: Administrative

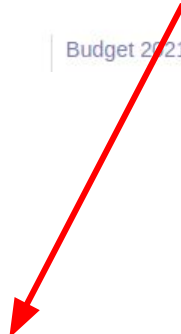
Analytic Account Administrative Budget Period Budget 2021

Preview Print Export Budget items

Refresh Print Export Settings

	Budgeted	Purchase	Expense	Actuals	Available
Expense	10,000				10,000
Purchase of Equipments	0				0
Rent	0				0

- A standard MIS Bilder Report
- Based on KPI and budget moves



Check budget on every move!

The screenshot shows the Odoo Purchase interface. A "User Error" dialog box is displayed in the center, with the message: "Budget not sufficient, Administrative, will result in \$ -1.00". Below the dialog is an "Ok" button. In the background, the "Request for Quotation" form for P00008 is visible, showing the vendor "Azure Interior" and the product "[DESK0004] Customizable Desk (CONFIG) (Aluminium, Black)". A "Budget Figure" popup is also visible, showing the following data:

Budget Figure	
Administrative	
Planned	10,000.00
Used	-0.00
Available	= 10,000.00

A red circle highlights the budget icon in the table, with a red arrow pointing to the "Budget Figure" popup.

- Every document transaction support budget check.
- PR / PO / EX / BILL

Consume budget on Purchase > Bill

Purchase Order

☆ P00008

Vendor Azure Interior

Confirmation Date 10/26/2021 14:19:55

Vendor Reference

Receipt Date 10/26/2021 17:00:00

Ask confirmation 1 day(s) before ⓘ

Products Other Information Budget Commitment

Recompute Close Budget

Purchase Line	Journal Entry...	Date	Analytic Group	Analytic Account...	Last Updated by	Last Updated on	Note	Debit	Credit
[DESK0004] Cust...		10/26/2021	Departments	Administrative	Mitchell Admin	10/26/2021 14:19:55		500.00	0.00

- Every document confirm can trigger a budget commitment.
- Budget commit on purchase order moved to budget actuals on vendor bill.

Products Other Information Budget Commitment

Recompute Close Budget

Purchase Line	Journal Entry	Date	Analytic Group	Analytic Account...	Last Updated by	Last Updated on	Not...	Debit	Credit
[DESK0004] Cust...		10/26/2021	Departments	Administrative	Mitchell Admin	10/26/2021 14:37:02		500.00	0.00
[DESK0004] Cust...	BILL/2021/10/0002	10/26/2021	Departments	Administrative	Mitchell Admin	10/26/2021 14:37:02		0.00	500.00



Making Odoo mightier, together.



Consume budget on Expense > Bill

Expenses

Employee Mitchell Admin
Manager Mitchell Admin
Paid By Employee (to reimburse)
Company My Company (San Francisco)

Expense Other Info Budget Commitment

Recompute Close Budget

Expense	Date	Analytic Group	Analytic Account	Last Updated by	Last Updated on	Note	Debit	Credit
Expenses	10/26/2021	Projects	Asustek - Wood Corner	Mitchell Admin	10/26/2021 15:16:21		1,000.00	0.00

- Budget commit on expense moved to budget actuals on post journal entry.

Expense Other Info Budget Commitment

Recompute Close Budget

Expense	Date	Analytic Group	Analytic Account	Last Updated by	Last Updated on	Note	Debit	Credit
Expenses	10/26/2021	Projects	Asustek - Wood Corner	Mitchell Admin	10/26/2021 15:09:26		1,000.00	0.00
Expenses	10/26/2021	Projects	Asustek - Wood Corner	Mitchell Admin	10/26/2021 15:09:26		0.00	1,000.00

Budget Monitoring

☰ Budgeting Budgeting Reports Configurations

Budget Monitoring

Measures ▾ = + ↓

	- Total				
	+ Budget	+ PO Commit	+ EX Commit	+ Actual	
	Amount	Amount	Amount	Amount	Amount
- Total	30,000.00	-300.00	-1,100.00	-1,689.00	26,911.00
+ Administrative	10,000.00	0.00	-1,100.00	-1,689.00	7,211.00
+ Asustek - Wood Corner	20,000.00	-300.00			19,700.00

- The main idea is about tracking every budgeting details.
- So, user can benefit from the extended budget monitor reports.

Budget Monitoring

Budget Monitoring

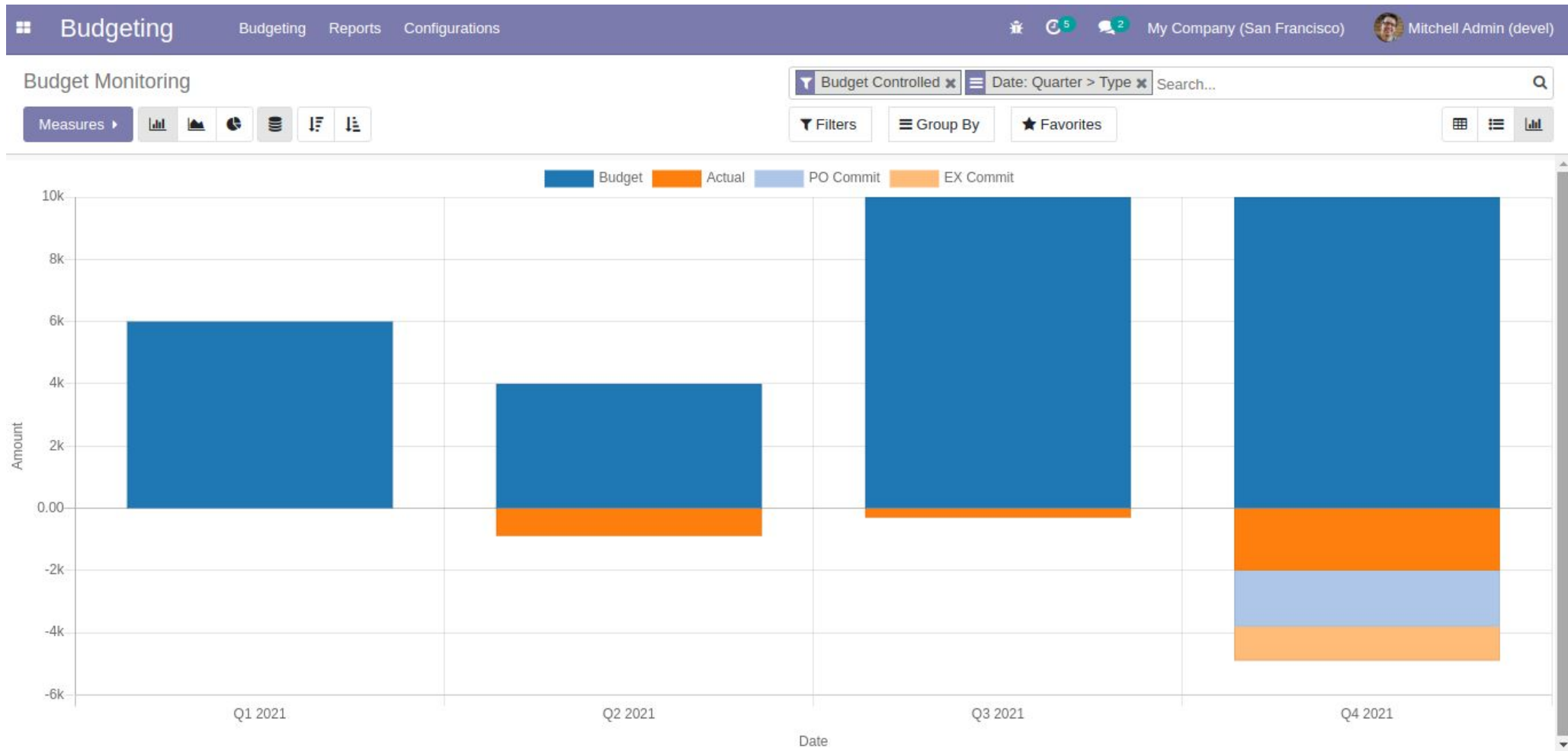
Budget Controlled Search...

Measures

Filters Group By Favorites

	- Total									
	- Q1 2021		- Q2 2021		- Q3 2021		- Q4 2021			
	+ Budget	+ Budget	+ Actual	+ Budget	+ Actual	+ Budget	+ PO Commit	+ EX Commit	+ Actual	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
- Total	6,000.00	4,000.00	-889.00	10,000.00	-300.00	10,000.00	-300.00	-1,100.00	-500.00	
- Administrative	1,000.00	2,000.00	-889.00	5,000.00	-300.00	2,000.00	0.00	-1,100.00	-500.00	7,211.00
+ Air Flight								-700.00		-700.00
+ BILL/2021/04/0001 (Air Flight)			-889.00							-889.00
+ BILL/2021/07/0001					-300.00					-300.00
+ BILL/2021/10/0002									-500.00	-500.00
+ Budget 2021 :: Administrative	1,000.00	2,000.00		5,000.00		2,000.00				10,000.00
+ Car Travel Expenses								-400.00		-400.00
+ P00008							0.00			0.00
+ P00010							0.00			0.00
- Asustek - Wood Corner	5,000.00	2,000.00		5,000.00		8,000.00	-300.00			19,700.00
+ Budget 2021 :: Asustek	5,000.00	2,000.00		5,000.00		8,000.00				20,000.00
+ P00011							-300.00			-300.00

Budget Monitoring



- Budget Planning VS Budget Consumption BY Quarter

MIS Builder Report

MIS Reports

Create

Search...

Filters Group By Favorites

1-2 / 2 < >

<input type="checkbox"/>		Name	Template	Company	Multiple companies	Target Moves	Pivot date
<input type="checkbox"/>	Preview Print Export	Budget 2021	Budget KPI (demo)	My Company (San Francisco)	<input type="checkbox"/>	All Posted Entries	10/26/2021
<input type="checkbox"/>	Preview Print Export	Budget 2022	Budget KPI (demo)	My Company (San Francisco)	<input type="checkbox"/>	All Posted Entries	10/26/2021

MIS Reports / Budget 2021

1 / 1 < >

Refresh Print Export Settings

	Budgeted	Purchase	Expense	Actuals	Available
Expense	13,000	1,800	1,500	6,189	3,511
Purchase of Equipments	10,000				10,000
Rent	7,000				7,000



Making Odoo mightier, together.



Transfer Budget between Projects

Budgeting Budgeting Reports Configurations 5 2 My Company (San Francisco) Mitchell Admin (devel)

Budget Transfer / BT/2021/00008

Save Discard 2 / 2 < >

Submit Cancel Draft Submitted Transferred

BT/2021/00008

Budget Year Budget 2021

Source	Available	Target	Available	Transfer Amount	
Budget 2021 :: Asustek	14,100.00	Budget 2021 :: Administrative	6,411.00	4,000.00	

Add a line

- Transfer of budget allowed between budget sheet
- Both budget control sheet must be set to “Draft” prior to the transfer
- After transfer, new released amount is set to budget sheet

Year End Closing

Measures ▾ ⇌ + ↓

2021	- Total				
	+ Budget	+ PO Commit	+ EX Commit	+ Actual	
	Amount	Amount	Amount	Amount	Amount
- Total	30,000.00	-1,800.00	-1,500.00	-6,189.00	20,511.00
+ 2021	30,000.00	-1,800.00	-1,500.00	-6,189.00	20,511.00

(1) (2)

Year End Closing is all about,

1. Moving budget commitment to new year
2. Moving current balance as initial amount to new year

Measures ▾ ⇌ + ↓

2022	- Total				
	+ Budget	+ PO Commit	+ EX Commit	+ Actual	
	Amount	Amount	Amount	Amount	Amount
- Total	30,000.00	-1,800.00	-1,500.00	-6,189.00	20,511.00
+ 2021	30,000.00	0.00	0.00	-6,189.00	23,811.00
+ 2022		-1,800.00	-1,500.00		-3,300.00

(2) (1)

1) Forward Budget Commitment

Budgeting | Budgeting | Reports | Configurations | My Company (San Francisco) | Mitchell Admin (devel)

Forward Budget Commitment / 2021->2022

Edit Create

Forward Budget Commitment Set to Draft Cancel

2021->2022

To Budget Period: Budget 2022

Forward Budget Commitment: Purchase Expense

Purchase Order Expense Help

Preview Budget Commitment

Forward to Analytic	Initial Available	Initial Commitment	Available
Administrative	\$ 0.00	\$ 1,900.00	\$ -1,900.00
Asustek - Wood Corner	\$ 0.00	\$ 1,400.00	\$ -1,400.00
	0.00	3,300.00	-3,300.00

Forward Budget Commitment Cancel

Analytic Account	Method	Forward to Analytic	Document	Date	Commitment
Asustek - Wood Corner		Asustek - Wood Corner	P00013	10/26/2021	\$ 700.00
Administrative		Administrative	P00012	10/26/2021	\$ 300.00
Asustek - Wood Corner		Asustek - Wood Corner	P00011	10/26/2021	\$ 300.00
Administrative		Administrative	P00008	10/26/2021	\$ 500.00
					1,800.00

- Retrieve all docs with budget commitment
- Set commitment date to new budget year

2) Forward Budget Balance

The screenshot shows the Odoo Budgeting interface. The main window is titled 'Forward Budget Balance / 2021->2022'. It has a navigation bar with 'Budgeting', 'Reports', and 'Configurations'. The user is logged in as 'Mitchell Admin (devel)' for 'My Company (San Francisco)'. There are buttons for 'Edit', 'Create', 'Forward Budget Balance', 'Set to Draft', and 'Cancel'. A modal window titled 'Preview Budget Balance' is open, showing a table with columns: 'Forward to Analytic', 'Initial Available', 'Initial Commitment', and 'Balance'. The table contains data for 'Asustek - Wood Corner' and 'Administrative' accounts, with a total row at the bottom. Below the modal, there are buttons for 'Forward Budget Balance' and 'Cancel'. The main window also shows '2021->2022' and 'From Budget Period' set to 'Budget 2021'. There are tabs for 'Analytic Accounts' and 'Help'. At the bottom, there is another table with columns: 'Analytic Account', 'Balance', 'Method', 'Carry Forward Analytic', 'Forward', 'Accumulate Analytic', and 'Accumulate'.

Forward to Analytic	Initial Available	Initial Commitment	Balance
Asustek - Wood Corner	\$ 10,100.00	\$ 1,400.00	\$ 8,700.00
Administrative	\$ 10,411.00	\$ 1,900.00	\$ 8,511.00
	20,511.00	3,300.00	17,211.00

Analytic Account	Balance	Method	Carry Forward Analytic	Forward	Accumulate Analytic	Accumulate
Administrative	\$ 10,411.00		Administrative	\$ 10,411.00		\$ 0.00
Asustek - Wood Corner	\$ 10,100.00		Asustek - Wood Corner	\$ 10,100.00		\$ 0.00

- Get current budget balance and set it as initial budget for next year

2) Forward Budget Balance

Budget Plan / Plan 2022 / Budget Control Sheet / Budget 2022 :: Administrative

Edit

Action

1 / 2



Control

Set to Draft

Cancel

Draft

Submitted

Controlled

Monitoring

\$ 0.00 Transferred

Budget 2022 :: Administrative

Preview

Print

Export

Budget items

Analytic Account

Administrative

Assigned To

Budget Period

Budget 2022

Date Range

01/01/2022 - 12/31/2022

Company

My Company (San Francisco)

Initial Balance

\$ 10,411.00

Allocated

\$ 2,000.00

Released

\$ 2,000.00

Diff Amount

\$ 2,000.00

Plan

Reset Options

Hard Reset

Soft Reset

2022/Q1

2022/Q2

2022/Q3

2022/Q4

Current status of this project

As of 28 Oct 2021

- PR for base modules to

<https://github.com/OCA/account-budgeting/pull/51>

- budget_control
- budget_control_expense
- budget_control_purchase
- budget_control_purchase_request
- budget_plan
- budget_transfer

- Extended modules, in <https://github.com/ecosoft-odoo/budgeting>

- I.e., Budget Activity, Revisions, Operating Units, Funding Rule, Rolling Amount, etc.

Thank you!

Let's make Odoo mightier, together

One app at a time

:)

Thank you to the OCA Sponsors



open source
integrators



Cardolite

>>>Hunki
Enterprises

camp
tocamp

Arche TI
Better ERP,
Better Business

CreuBlanca+

DynApps
Business Solutions

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Equitania
SOFTWARE GMBH

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Making Odoo mightier, together.

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