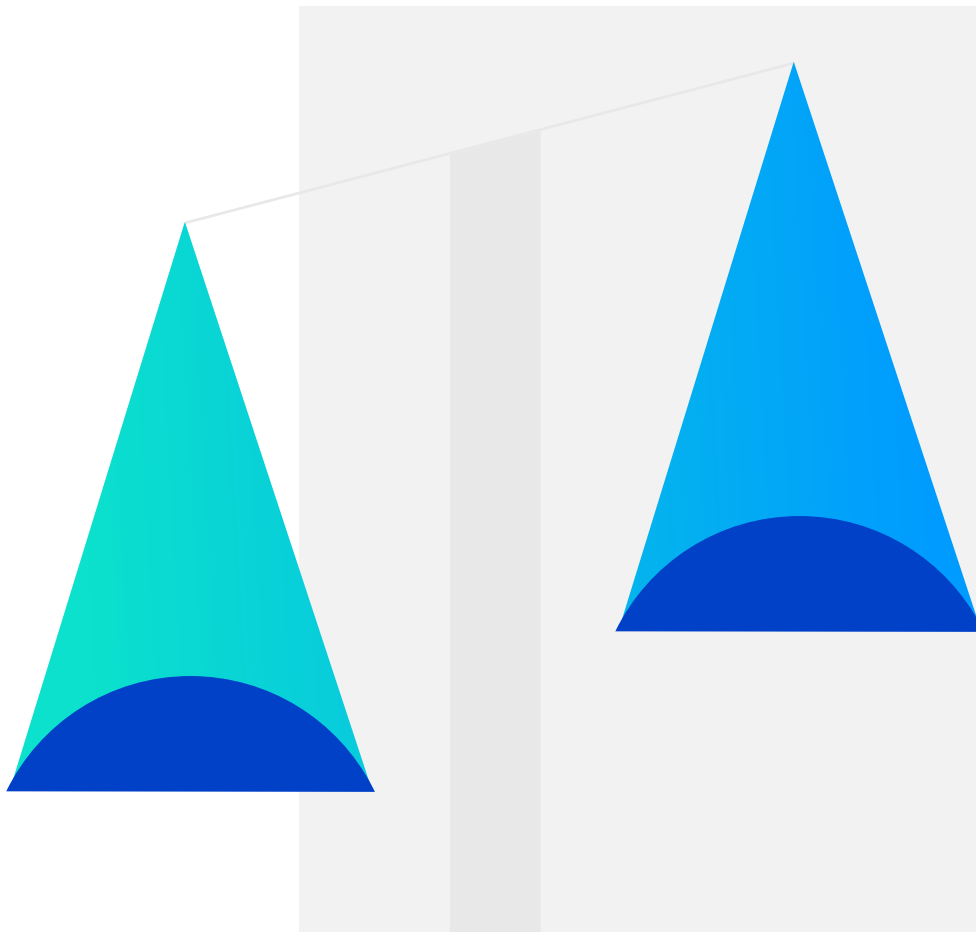


Weighing the Pros and Cons of Budgeting and Forecasting in Oracle Project Management

By: Bruce Doig, Experienced Oracle Professional, and Co-founder at More4apps



Overview

Oracle Projects Module for Fusion ERP Cloud is a comprehensive module that enables you to plan, execute, and manage your projects efficiently and successfully.

Using one system for project management is ideal for data accuracy and allows users to avoid custom integrations and process duplications. The More4apps Projects Module for Oracle Fusion Cloud Applications equips your team with accurate scoping, budgeting, and costing capabilities and is integrated with procurement, contracts, accounts receivable, fixed assets, supply chain management, and human resources.

This article covers a particular area of functionality in the Projects Module, budgeting and forecasting. To understand this article, readers should have basic knowledge about a standard project setup, including the makeup of projects, tasks, and resources.

Several customers have shared that they don't use the Projects Module for budgeting and forecasting because they have implemented another system, or they are stuck with their old system or use EPM, previously called Hyperion.

Questions to Ask When Evaluating Software Applications

Two of the most common questions asked when evaluating any software application are:

■ FUNCTIONALITY

Does it contain all the features needed, or are they at least on the roadmap?

■ USABILITY

Is the UX efficient for end-users to use?

Functionality

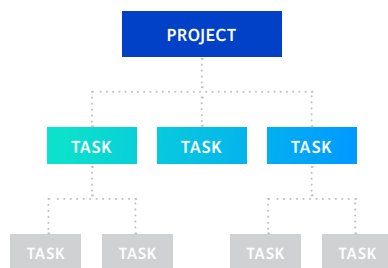
Dimensions

Here are the three dimensions of a budget in the Projects Module.

1. Work Breakdown Structure (WBS)

This describes the hierarchical structure of the project and its activities (tasks), with the project at the top. A WBS helps you plan, manage, and monitor your project by breaking it down into smaller, more manageable units. For example, a WBS can have multiple levels of tasks, each with a number and a name.

If you budget at the project level, you don't budget at the lower levels. Bottom-level tasks are at the other end. You may also budget at levels in between, called summary tasks. Your task hierarchy could be as simple as a few tasks on the same level or a multi-level design with many summary task levels. There are no limits (other than practical ones) to your design.



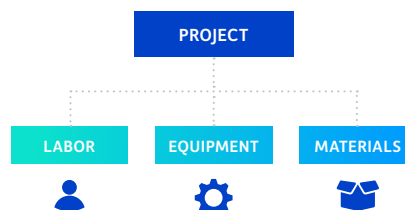
2. Resource Breakdown Structure (RBS)

Resources are the people and equipment or facility line items involved in your project. Oracle has provided a few categories, called resource classes. These resource classes are as follows:

- Labor
- Equipment
- Materials
- Other (such as financial costs)

All revenue and expenditures fall into the above resource classes, but these are at the highest level. You can opt to budget at much lower levels, down to each individual, item of machinery, or type of expenditure.

Oracle provides 14 seeded resource formats you can select from to determine your desired level of detail in your budgeting, including the resource classes shown above, which would be the simplest, and give you only four values to budget against. Multiple resource breakdown structures can be assigned to your project, including a primary and others for reporting purposes.



3. Time-phasing

If you are not interested in analyzing your costs or revenue over time, a single number can be entered. The system will presume it is spread over the project's life, although you can control this with the spread curve used.

If you want better granularity, you can enter your own dates or budget by periods, which can be from your GL period calendar or separate calendars set up in the module. Your periods don't have to be months; they could be quarters or years.

There are no limits to the number of entries in your list of tasks and resources.

Some budgets contain a single number for the entire project over its lifespan, and multi-thousand lines and multi-dimensional budgets spanning years.



Types of Budgets

You may use multiple plan types on a project, so it's possible to have budgets for different purposes, i.e., originally approved, 2023 control, plus forecasts.

Types of Amounts

Oracle has four amount types that allow you to have all these values on a single line.

1. Quantity
2. Raw cost
3. Burdened cost
4. Revenue

You can choose to budget for costs and revenue separately with different plan types, using the same plan type, but different versions, or even together in the same version.

Calculation of Amounts using Rates

If you budget in quantities, Oracle will calculate the raw cost and/or revenue from rate schedules, which can be overridden for cost and revenue on the project/contract. Multipliers can be used to add burden components automatically unless you have already budgeted burdened cost amounts.

History

You can have unlimited draft and historical (baseline) versions of your budgets and forecasts.

Sources

Oracle has multiple places you can get your data from for your new budget version.

- Manual
 - Start with a blank page, choose default settings, or override them to establish your levels in whatever dimensions you want
- Copy from another version of the same plan type or a different plan type
- Generate from the resource assignments on your WBS
 - Oracle allows you to put planning amounts directly into the task/resource combinations in your WBS, and even time-phase by period

Forecasting

A forecast is just like a budget but contains actual spending.

To generate a new forecast version, imagine creating a new budget version using any of the sources above, but this time Oracle retrieves your actual spend and puts it into past periods, comparing it with whatever budget source you've selected, collecting any over or under-budgeted amounts, and adding it to the remainder of the source budget left for future periods.

Control

As well as providing mechanisms to control the charging of transactions to the project, Oracle also provides an almost comprehensive set of options for limiting expenditure to budgeted amounts, whether the transactions originate from requisitions, purchase orders, invoices, inventory issues, or directly into the Projects Module. The reason I say almost is because the control is for the total budget line only. Currently, control cannot be enabled for periods or years; however, an idea for this has been logged.

Resource Management

Oracle Project Resource Management Cloud integrates with the Projects Module and HCM optionally, so those organizations needing some automation in this area can benefit from being able to reserve resources for projects.

Conclusion - Functionality

Fusion Cloud ERP is a top-tier ERP system. There is only one version, so it's designed to accommodate the simplest and most detailed requirements in every element. The Projects Module contains mature, robust, and extensive budgeting and forecasting capabilities. This is hardly surprising since it started in the E-Business Suite, so it has a long history of development and refinement.

The Not So Good - Usability

The system's usability does not match up to the functionality.

Our anecdotal evidence is that many organizations think budgeting in the Projects Module is difficult because of the requirement to use a complex data entry form or an expertise-intensive FBDI template for mass uploading.

As mentioned earlier, Fusion Cloud ERP is a top-tier ERP system; therefore, it has features that make the user forms large and complex. No matter how much effort goes into optimizing them, some forms are just labor-intensive to use, with many clicks required to navigate to the desired sections - one-size-fits-all has its downsides.

It's slightly off-topic, but in every demo, More4apps performed for billing from contract projects the question, "Do you have anything for contracts?" has come up.

Can you imagine how long it would take using the budget entry form to create a new cost budget against 50 tasks, with 5 resources per task across 12 months ($50 \times 5 \times 12 = 3,000$)?

At a rate of 400 entries per hour, including navigating between all the dimensions, that's a long day's work without breaks. How many errors would wind up in the numbers? Most organizations create their budgets in Excel anyway so it would be a shame to have to re-key all this.

Although you could technically use RPA where there are complexities around the user form layout, making it a highly complex bot to build, with a low chance of providing an ROI; you would be moving the workload from the user to IT.

You would expect users to use the form for small jobs and be able to switch to mass-upload tools when the volume of manual keying gets out of hand. More4apps believes users should be able to do their work in forms or high-quality mass upload tools, whichever is most efficient for the task at hand.



Let's look at the mass-upload options Oracle has provided for budgets and forecasts.

ADFDi - Application Development Framework - Desktop Integration

With ADFdi, you need to have already created your new budget or forecast version manually in the form, and click the "Edit Version in Excel" button. The spreadsheet can be used to create new and update existing lines in the new budget version, but there isn't a delete function.

Periods are not listed across the sheet; they must all have a row; this doesn't align with how people visualize and work with their budgets and forecasts.

The ADFdi integrator is not robust, and you often see application errors while uploading, and copying data from one row to another is problematic. The tool does not appear to be a popular choice for mass-uploading budgets.

VBAFE - Visual Builder Add-in for Excel

VBAFE is a semi-development platform Excel add-in provided by Oracle. Like FBDI, it is better suited to less complex objects. Unlike FBDI, it allows organizations to use far superior REST web services that enable real-time data loading, validation, and feedback. However, because it is a platform, you must custom-build your applications. Oracle supports the platform and the web services, not the build of the Excel data integration spreadsheet.

People aren't using VBAFE for budgets and forecasts for the following reasons:

1. It's custom development
2. Multiple sheets required for parent/child relationships make for a difficult UX
3. Periods would have to be all in one column

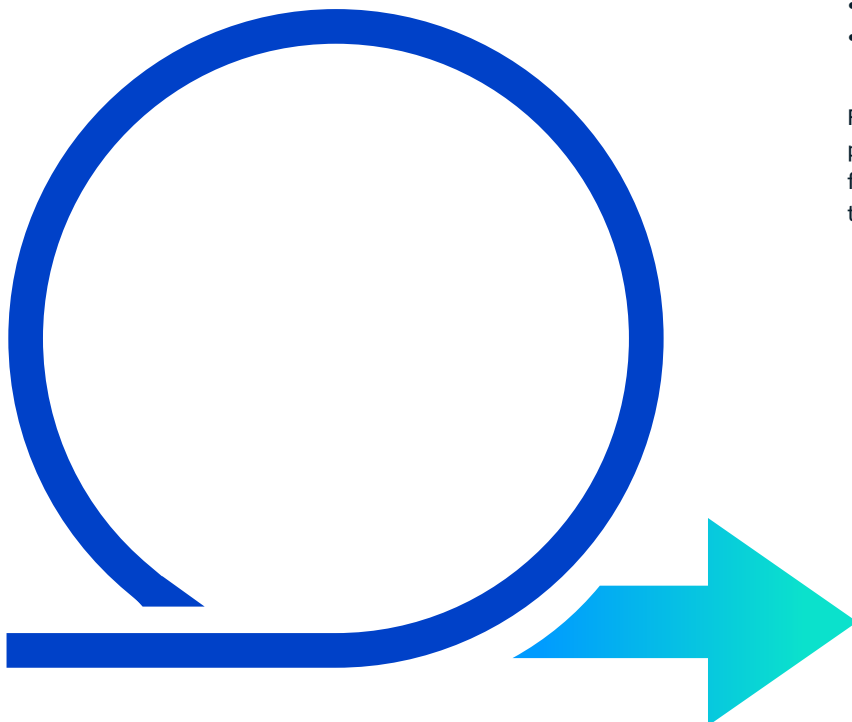
FBDI - File-Based Desktop Import

FBDI is far more stable than ADFdi but is an offline workbook. FBDI was intended to be a broadly available, basic tool for migration purposes, and does a great job when used for this purpose. The problem is that we see numerous discussions in the forums from people using it in BAU scenarios.

Here are its drawbacks:

- Can only create new versions - no update capability
- Pre-upload validation doesn't exist, as the spreadsheet is not connected to the instance
- The layout is not flexible so all columns must be included in their current position
- No form support for data entry
- No download
- Multi-step upload and import process
- Error correction is done in a separate application
- Multiple linked sheets are required for complex objects
- Single column for periods
- Too complex for BAU users, requires specialist or IT support

FBDI does a great job for its intended purpose as a one-off migration tool, but for BAU purposes, it is the integration tool that rarely gets rolled out to end-users.



How about budgeting in another application?

EPM - Enterprise Performance Management

EPM, formally known as Hyperion, has some great functionality within SmartView. However, it is limited in its ability to integrate with Project Management. For example, [support for contract projects](#) is missing, budget integration from EPM to PPM is resource class level only, and [task level is not supported](#).

The main reasons to use EPM are as follows:

- EPM is an Oracle product, and there is no need to deal with another vendor
- It has a great UX for creating budgets
- Integration is supplied and supported by Oracle

The downsides are:

- There is no support for contract projects
- There is no support for task level budgeting so forget budgetary control at the task level
- Resources are top-level only so you can't use resource management
- It's expensive!

Microsoft Projects

Microsoft Projects integrates with the financial plan of a project, from which you can generate budgets and forecasts. Although Oracle supports its integration with MS Project, there are plenty of issues syncing the data. Two-way syncing is very problematic. Therefore, this isn't a popular tool for use with the Projects Module.

Conclusion - Usability

The data entry form can handle all your requirements but is laborious to use because of the size of the application. Big organizations have large volumes of data, so forms are not appropriate for high-volume requirements and must be supplemented by good-quality mass-upload facilities.

Alternative budgeting and forecasting applications exist, but then you have the issue of compatibility between them and all the hassles of integrating separate applications.

Oracle-seeded spreadsheets are unstable, inappropriate for BAU, or require custom development. The complex form and lack of decent Oracle desktop integration cause customers to make the following decisions:

- Avoid detailed budgeting and forecasting to minimize the use of the form
- Use external applications and suffer incompatibility and integration issues
- Employ expensive IT staff to perform mass uploads with difficult tools on behalf of end-users

The Ideal Scenario

Ideally all your project budgeting and forecasting should be completed in the Projects Module to eliminate the raft of external application issues; however, your organization needs access to high-quality desktop integration tools to handle mass uploads.

This would free you to employ all the advanced features you are paying for in the Projects Module. Users can do their work in forms or high-quality mass upload tools, whichever is most efficient for the task at hand.

The basis for high-quality desktop integration is the Oracle **REST** web services.

Oracle's stated direction for integration with their Cloud applications is REST web services. Accordingly, it has published the web services so any software applications can use them to read and write data to and from their Fusion Cloud ERP instance.

For budgeting and forecasting, there are three web services available:

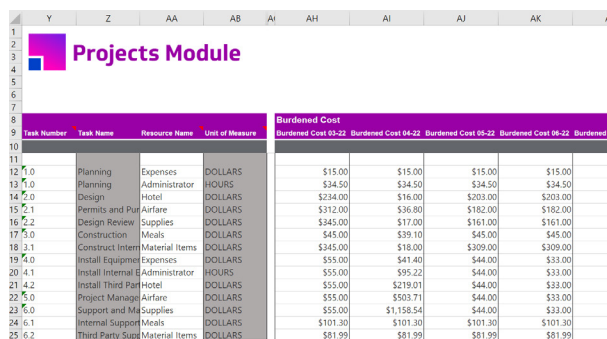
- Award budgets
- Budgets
- Forecasts

For planning in the financial plan, there is an additional web service. All include the facility to retrieve existing data as well as make, create, update, and delete cells.

If you desire to take advantage of this modern, supported, real-time, highly validated integration functionality on the desktop, you have these choices;

- Use the VBAFE platform
 - It's not practical in this case
- Build your own
 - This would be a significant project you could even use REST with the likes of APEX
- Go to the market and look for a supported third-party solution

This is where I suggest looking at More4apps. More4apps has been in the business of spreadsheet integration for end-users in the Oracle projects area since 2000.



Task Number	Task Name	Resource Name	Unit of Measure	Burdened Cost 03-22	Burdened Cost 04-22	Burdened Cost 05-22	Burdened Cost 06-22	Burdened Cost 07-22
11	Planning	Expenses	DOLLARS	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
12	Planning	Administrator	HOURS	\$34.50	\$34.50	\$34.50	\$34.50	\$34.50
14	Design	Hotel	DOLLARS	\$234.00	\$16.00	\$203.00	\$203.00	\$203.00
15	Permits and Plan	Airfare	DOLLARS	\$312.00	\$36.80	\$182.00	\$182.00	\$182.00
16	Design Review	Supplies	DOLLARS	\$345.00	\$17.00	\$161.00	\$161.00	\$161.00
17	Construction	Meals	DOLLARS	\$45.00	\$39.10	\$45.00	\$45.00	\$45.00
18	Construct Intern	Material Items	DOLLARS	\$345.00	\$18.00	\$309.00	\$309.00	\$309.00
19	Install Equipment	Expenses	DOLLARS	\$55.00	\$41.40	\$44.00	\$33.00	\$33.00
20	Install Internal	Administrator	HOURS	\$55.00	\$95.22	\$44.00	\$33.00	\$33.00
21	Install Third Part	Hotel	DOLLARS	\$55.00	\$219.01	\$44.00	\$33.00	\$33.00
22	Project Manage	Airfare	DOLLARS	\$55.00	\$503.71	\$44.00	\$33.00	\$33.00
23	Support and Ma	Supplies	DOLLARS	\$55.00	\$1,158.54	\$44.00	\$33.00	\$33.00
24	Internal Support	Meals	DOLLARS	\$101.30	\$101.30	\$101.30	\$101.30	\$101.30
25	Third Party Supp	Material Items	DOLLARS	\$81.99	\$81.99	\$81.99	\$81.99	\$81.99

Going back to the original two questions, More4apps gets a yes for both.

FUNCTIONALITY

Does it contain all the features needed, or are they at least on the roadmap?
– Yes.

The More4apps Projects Module supports all the functional areas in this article as well as financial projects, resources & assignments, costs, cost adjustments, assets & assignments, project templates, and contracts, with more to come.

USABILITY

Is the UX efficient to use for end-users?
– Yes.

From real-time validation and flexible sheet layouts to having all your data for the task at hand within one worksheet and, of course, period-based budgeting and forecasting in a user-friendly layout.

Conclusion

Oracle's project budgeting and forecasting functionality in Fusion ERP Cloud is advanced, comprehensive, and has the maturity of decades of development and refinement from its prior life in E-Business Suite.

Furthermore, it can handle requirements from simple to highly complex, and it's integrated with many other modules across the ERP system. Functionality-wise, it is a fine choice for your budgeting and forecasting needs.

The UX of the forms lets it down simply because it has to accommodate the most complex requirements in every area, and this is the case for every high-tier ERP system. Unfortunately, in Fusion ERP Cloud, period-phased planning is only supported using a unfriendly vertical layout in both forms and spreadsheets.

Oracle has never been strong in desktop integration, preferring to provide development platforms rather than end-user applications. In this modern era, organizations are expected to focus on their core business and don't want to have to employ IT specialists to support users by building custom integrations or using basic migration tools on users' behalf.

As in E-Business Suite, the provision of extensive suites of supported, high-quality desktop integration tools has been left to Oracle partner ISVs like More4apps.

In conclusion, Fusion ERP Cloud features an extensive suite of modern integration points based on REST web services. This allows ISVs, like More4apps, to fill the UX gap left by Oracle and lift the standard of desktop integration in this ERP system to where it belongs.

Bruce Doig, Experienced Oracle Professional, and Co-founder at More4apps



About the Author:

Bruce Doig was an Oracle E-Business Suite consultant during the 1990s before he co-founded More4apps in 2000. Doig wanted to help end-users who were spending too much time entering and maintaining data. Currently, he's involved with supporting and improving both our EBS and Fusion Cloud ERP products, specifically in the Projects area.