
Accounting for Projects

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Background

Fonterra Research Centre (FRC) is a subsidiary of Fonterra. Fonterra, is a leading multinational dairy company, co-operatively owned by 13,000 New Zealand supplier shareholders. Exporting 95 percent of its shareholders' production, it is the world's largest exporter of dairy products, responsible for a third of international dairy trade across open borders.

FRC an internationally acclaimed research organisation, was established in 1927, and until June 2002 was named New Zealand Dairy Research Institute. It is located in Palmerston North alongside other research and educational organisations including Massey University, with staff numbers are around 300. The role of FRC is to provide scientific and technical support to Fonterra. This includes:

- Strategic research
- Product and process development
- Industry training
- Technical market support
- Development and manufacture of starter cultures
- Recent publications

With the exception of the manufacture of starter cultures, the above activities are undertaken as projects, hence the need for a project accounting and tracking system.

The major components of the system used for accounting for projects at FRC are:

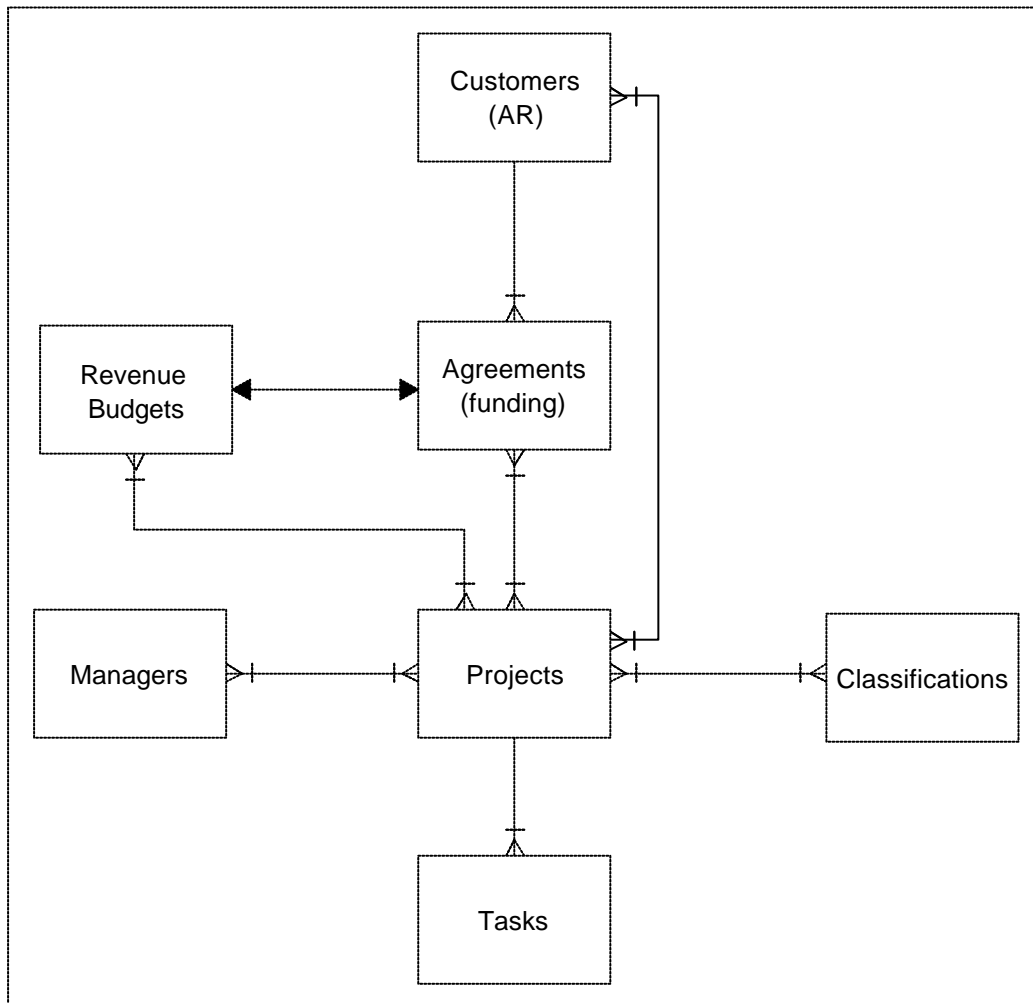
- Oracle 11i Project Accounting. This is used for budgeting, capturing expenditure details, revenue and invoice generation.
- DARTS (Development and Research Tracking System). This is a Lotus Notes application, used for project tracking and a project management aid. It is used for global research and development projects across the entire Fonterra Network.
- Oracle Self-Service Time. Used to capture time charged against projects by FRC staff.
- Oracle 11i Payables for the initial capture of project-related expenditure with external contractors and suppliers.
- Oracle Discoverer for reporting against FRC projects.

DARTS is accessible Fonterra wide, whereas the other components are only accessed and utilised by FRC staff.

Oracle 11i Project Accounting

The Oracle Project Accounting (PA) module is central to accounting for projects at FRC. It is used for revenue budgeting, capturing expenditure details, revenue generation and invoice generation. This module is managed and maintained by a Project Accountant only. Project Managers do not have access to this module as their reporting requirements are met using Discoverer.

The model below summarises how Project Accounting has been set up for each project.



- Project details include the project number and name, start date, finishing date and status.
- A billing customer, approved revenue budget and an agreement (funding details) are mandatory for the billing and revenue generation processes.
- Some projects are funded by more than one customer. This is handled by providing a percentage for the bill split and assigning multiple agreements to the project.
- The function of an agreement is much like a purchase order. It authorises revenue and invoices to be generated against it up to a fixed dollar value. Each agreement is for only one customer. Projects are assigned to each agreement, and are validated against the customer entered against the project.

- Most FRC customers are within the Fonterra Group and are internally billed. Multiple agreements are used to segment funding across Fonterra for management reporting purposes.
- Project budgeting is carried out in PA only (budgeting in the General Ledger does not go down to project level). Two revenue budgets are recorded against each project – an Approved Revenue Budget and a Forecast Revenue Budget.
- Sub-Project and Portfolio Managers are recorded against each project as key members. This information is used for reporting purposes only.
- Some projects are broken down into multiple tasks to track expenditure in more detail.
- Classifications are used extensively by FRC to slice and dice information against projects, in particular for matrix reporting - for example project revenue may be reported by FRC business units and by portfolio. Any number of classifications may be used for this purpose.

Project upload from external system

DARTS, the Fonterra project tracking system, is regarded by FRC as the authoritative source for project details. Whilst Oracle 11i is only accessed at FRC, DARTS is available for managers of research projects across the entire Fonterra network.

FRC Project Managers enter project details into DARTS, where they are authorised. Information is downloaded from DARTS into Excel, then uploaded into PA using project and budget wizards (Excel tools) supplied by an Oracle Partner, More4Apps. This has enabled mass uploading of projects into Oracle and has greatly reduced the time required for project set up. These tools utilise the Project Accounting Activity Management Gateway, which ensures all project details are validated within the Oracle Apps, using standard Oracle processes.

Data uploaded using the Project Wizard includes:

- Project Header details (Project number, name, customer details, status, descriptive flexfields).
- Project classifications (Portfolio, Programme).
- Key Members (Sub-Project and Portfolio Managers).
- Tasks
- Billing Details

Data uploaded using the Budget Wizard includes:

- Budget header (budget type, entry method, resource list, version, change name)
- Budget lines (project number, resource, amount type, amount, date range)
- Agreement (required for Approved Revenue Budgets)

Self-Service Time

All 300 plus FRC staff enter timesheets using Self-Service Time (also known as Oracle Internet Time). This is used to capture time charged against projects, including administration and non-productive time.

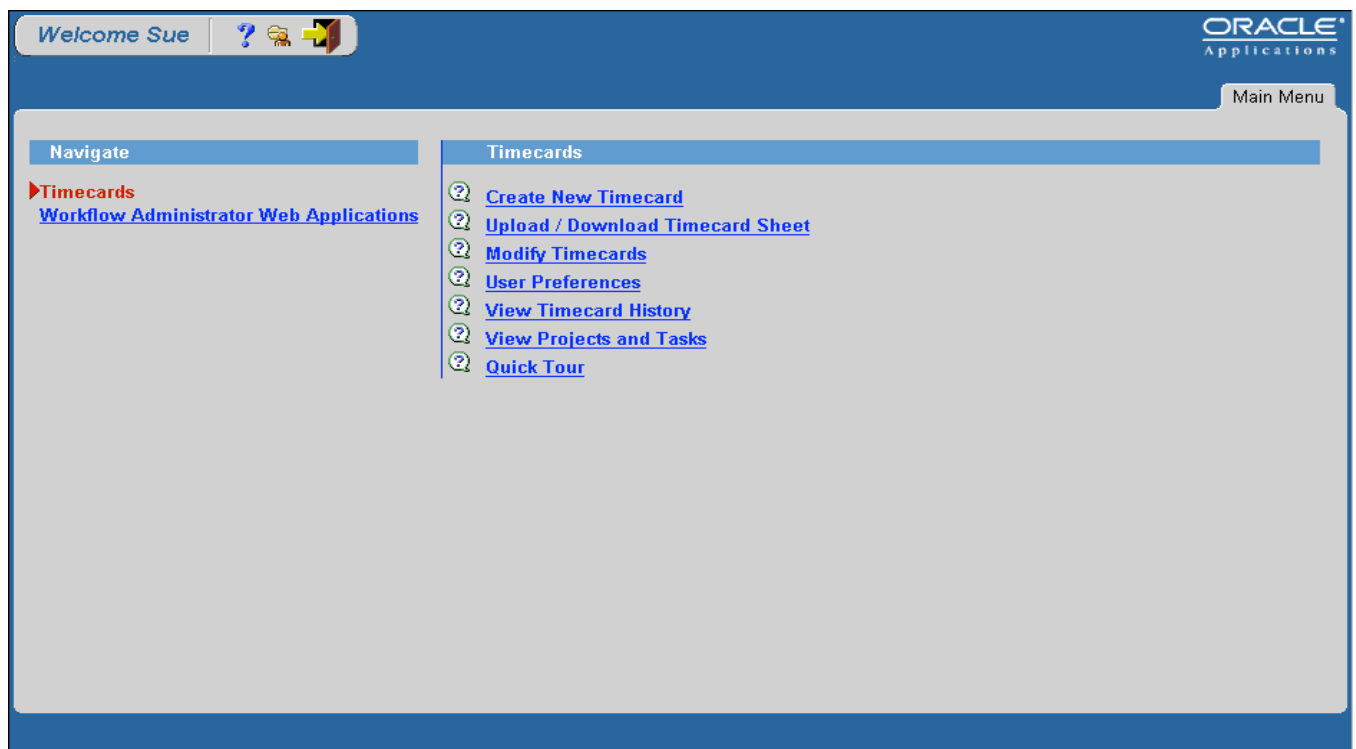
Electronic time entry into Oracle was implemented in 1998, using Oracle Personal Timesheet Entry (PTE). Prior to this, the Project Accounting Administrator entered time directly into PA from paper timesheets. The move to online time entry was a culture shock for many scientists, who resisted the change as they felt that their job was “research” and entering timesheets was the responsibility of Administration Staff. Over time there has been a gradual acceptance of it, as a necessary but disliked task that needs to be performed. Acceptance was assisted by the introduction of meaningful project reporting using Discoverer. Prior to Discoverer reporting, project data disappeared into a “black hole”, as reporting from the PA module itself is poor.

PTE was replaced by the Online Time Entry provided in the 10.7 Project Accounting module. Although the PA screen was not as user friendly, it was necessary as PTE proved to be unreliable.

Self-Service Time (SST) was implemented as part of the 11i upgrade. This product has a web look and feel, and is user-friendlier than the previous online time entry applications used. Screen displays of the Main Menu and the Timesheet Entry Screen appear on the following page. Some FRC staff who work on many different projects in the same week use the Excel spreadsheet available for Self-Service Time, as this is more suited for entry of a large number of lines.

In contrast to earlier on-line time versions, there is little support required for SST.

Self-Service Time Main Menu



Self-Service Time, Time Entry Screen

Timecard Information
Enter general information about the timecard. Required fields are indicated by *

* Name: Pond, Susan (0983) * Week Ending: 02-Mar-2003
General Comments: []

Enter Hours
Enter how many hours each day you worked on the project. [Line Details]

Project	Task	Type	Mon 24-Feb	Tue 25-Feb	Wed 26-Feb	Thu 27-Feb	Fri 28-Feb	Sat 01-Mar	Sun 02-Mar	Total
1 A1013.1	1	Labour	7.50	7.50	7.50	7.50				30.00
2 AL										
3										
4										
Total			7.50	7.50	7.50	7.50				30.00

Buttons: Clear Line, Copy Line, Apply Alias, Leave, Save to Submit Later, Return to Main Menu, Hours > Review, Next

Total Lines Entered: 1 Total: 30.00 Hours

Discoverer Reporting

Discoverer reporting is used extensively for project reporting at FRC and has significantly enhanced the reputation of the Finance Team. Prior to its implementation project data disappeared into a “black hole” as reporting from the PA module is very poor. Managers and staff were frustrated with the Finance Team (responsible for Project Accounting) as they were not able to provide any meaningful reports.

Discoverer components are:

- Oracle relational database
- End User Layer (EUL). The EUL is a view of data in the database that is simple and easy for users to understand. It is created, customised and maintained for users to easily access data in the User Edition, shielding them from the database complexity.
- Discoverer Administration Edition. Used by Administrators to build business areas containing specific data users need.
- Discoverer User Edition. End users access the data using views provided in the EUL.

The End User Layer (EUL) used for project reporting was developed by FRC, pulling together project data from Project Accounting, Self-Service Time, Accounts Receivable and the General Ledger. The following approach and activities were used to develop the EUL:

- Only provide users folders (equivalent to a view) and columns for the information they need. See screen display below – “Example of folders visible to end users”.
- Provide folders that multiple reports can be generated from, rather than providing a folder for each report. 80 percent of project reports are based on three Discoverer folders. Advantages of this are:
 - Standard reports can easily be modified to provide additional information.
 - Reduced maintenance when tables are changed in Oracle upgrades.
- Used a combination of simple (based on single table), complex (combine several database tables) and custom (SQL used to define the folder contents) folders.
- Develop drill downs and hierarchies. These connect items/columns in a specified order and permit the user to drill down from summary information to successive levels of detail.
- Develop Classes (List of Values) to be used in report conditions and report parameters - see “Parameter Wizard screen display below”.
- Define Summary Tables based on major folders. Summary data is extracted based on folders within the EUL each night. Some reports are designed to run against the summary tables, rather than directly against the database tables, providing a response in seconds rather than 20 minutes plus.

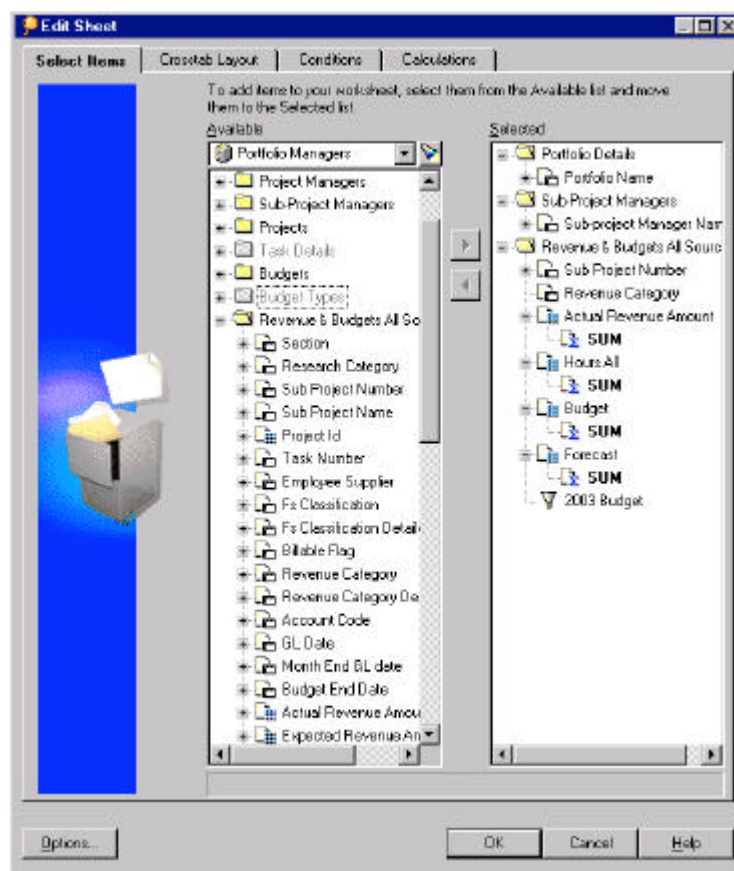
Standard Discoverer reports were developed and were rolled out to Section Managers, Portfolio Managers, the Project Accountant, and the Management Accountant early 1999. Users modify and manipulate these reports rather than developing their own custom reports from scratch. Parameter screens prompt users for values that are passed to conditions defined in the report – see Parameter Wizard screen display below.

Examples of project tracking and management reports are:

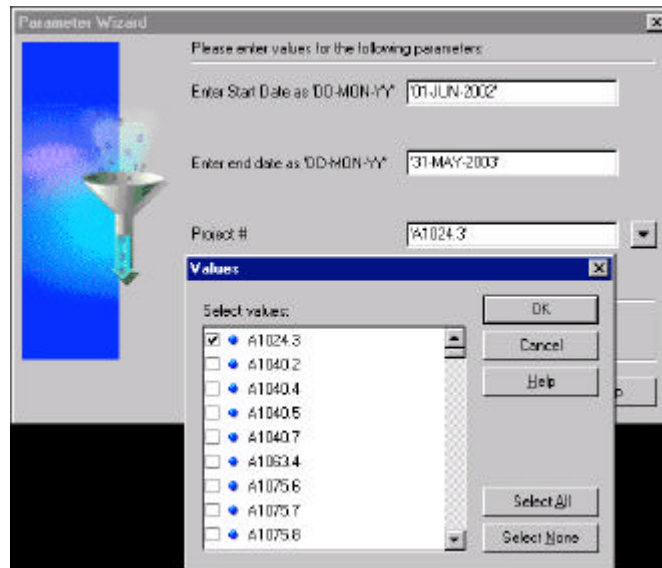
- Actual revenue vs. budget by portfolio/project
- Actual revenue vs. budget by Sub-Project Manager/Project
- Details of time charged, outside contractors and other expenditure charged against a project for each Sub-Project Manager.
- Billable hours by Section (Business Unit)
- Hours by Section/Portfolio
- Hours entered by Section/ Employee – to monitor timecard entry.

As well as providing project tracking and management reports, Discoverer reports are used for:

- Month end PA processes, such as checking and diagnosing problems with the revenue generation process.
- Reconciliation purposes, such as reconciling PA revenue and invoices for the debtors' reconciliation.
- Problem resolution
- Invoice generation where an invoice is required in Excel format.
- Intranet reports exported in HTML format from Discoverer.
- Extracting summarised financial information to interface to DARTS.



Example of folders visible to End Users



Parameter Wizard screen display

Whilst project reports are available in DARTS, these reports do not provide the level of detail available from the Oracle 11i modules.

Summary

FRC uses a combination of Oracle Project Accounting, Self-Service Time, Discoverer and an external project tracking system (DARTS) to support project tracking and project management.

The Oracle Project Accounting module is central to this process. It is used for budgeting, capturing expenditure details, revenue generation and invoice generation. Project classifications are used to slice and dice project information. This module is only accessible to the Project Accountant, as Managers obtain reporting information via Discoverer.

Project details are extracted from DARTS and are uploaded into Project Accounting using Project and Budget Wizards (Excel tools) supplied by an Oracle Partner, More4Apps. These tools have enabled mass uploading of projects into Oracle, greatly reducing the time required for project set up.

Self-Service Time is used to capture all time charged against projects including administration and non-productive time. Although many staff resisted on-line time entry when it was implemented in 1998, it is now generally accepted and requires little effort to support it.

Discoverer is used extensively for project reporting at FRC and has significantly enhanced the reputation of the Finance Team, who are now able to provide quality project reporting information. Prior to its implementation project data disappeared into a “black hole” as reporting from the PA module is very poor. The Discoverer End User Layer pulls together information from PA, Accounts Receivable, Self-Service Time and the General Ledger. Section Managers, Portfolio Managers, the Project Accountant and the Management Accountant all have direct access to standard project reports that they manipulate and customise.

About the Author

Sue Pond, Business Analyst, Fonterra Research Centre

- A large component of the current position is the management and ongoing development of Oracle Financials at Fonterra Research Centre (FRC). FRC have a very small Oracle team – Sue is it! The modules/products she supports are: General Ledger, Accounts Payable, Accounts Receivable, Fixed Assets, Purchasing, Inventory, Order Management, Cash Management, Project Accounting, Self-Service Time, Discoverer.

- Work history
 - Accounting background
 - Left the workforce to study 1994 – 1996, completing a BBS in Accountancy and a Chartered Accounting qualification. Almost completed a post graduate diploma in Information Systems.
 - Post-qualification worked at FRC as a Systems Accountant, Special Projects and Business Analyst.

- Oracle experience/achievements
 - Developed course materials at Massey University for the Systems Analysis and Design papers using Oracle CASE tools. Tutored in the Oracle labs for these papers.
 - FRC
 - Post-upgrade support for the upgrade to 10.7(GUI).
 - Implemented Oracle Personal Timesheet Entry (PTE) and subsequently Self-Service Time.
 - Implemented Oracle Order Management.
 - Implemented Discoverer, including developing the End User Layer and reports.
 - Managed and provided functional expertise for the upgrade to 11i.