OTL with HR and Projects: Implementation and Support Stories

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Introduction

In December, 2006, the Oracle Time and Labor module was implemented at the American Bureau of Shipping, replacing the older, de-supported Self-Service Time module. This paper presents the background for the project, some of the major implementation design decisions and the support issues we faced after going live.

Company Background

Founded in 1862, the American Bureau of Shipping, ABS, is a leading international classification society devoted to promoting the security of life, property and the marine environment through the development and verification of standards for the design, construction and operational maintenance of marine-related facilities. ABS develops Rules for new designs, reviews new construction designs, and surveys marine-related facilities to certify that the Rules are followed.

ABS, Bureau, is a not-for-profit organization. Its income is generated from its fees for services. Income above cost of services performed is used for research to improve the classification services provided. The main services related to the OTL system are hours spent performing Surveys, Vendor qualification, and Engineering Design Review.

ABS also has a subsidiary, the ABS Group of Companies, whose activities are for profit and are not always related to marine facilities. Most of the services performed in the Group that are related to the OTL system are for consulting hours for risk analysis projects.

The operations of both the Bureau and Group companies are world wide. Following is a description of the configuration of the Oracle applications that support these two related but separate companies.

ABS Global Enterprise Management System (GEMS)

ABS implemented the Oracle ERP Applications in 2001. Highlights of our system configuration include:

- 90 + Countries / 120 Operating Units
- 90 primary sets of books and corresponding MRC sets of books
- 4000 + Users – mainly for timecards
- Different methods for recognizing revenue (between our profit / non-profit groups)
- Different billing methods (between our profit / non-profit groups)
- Interfaces with in-house systems for time entry and billing of engineering and survey services.

We are using the 11.5.9.2 version of the following Oracle E-Suite modules:

- General Ledger (GL)
- Accounts Receivable (AR)
- Accounts Payable (AP)
- Fixed Assets (FA)
- Human Resources (HR)
- Oracle Projects (PA)
- Oracle Time and Labor (OTL) – previously (Self-Service Time – SST)

Key choices we made in the project to replace SST are the subject of this presentation along with our ongoing support issues. Note that we do not use Oracle Payroll. We will concentrate in this paper on our setups regarding Human Resources, Oracle Projects and Self-Service Time and how those existing setups and requirements defined our course for the Oracle Time and Labor implementation.

HRMS Setup Background

Our Oracle HRMS configuration handles both employee and contractor information. This includes information for the person's assignment, payroll, benefits, training history and more. HRMS uses element entries attached to a person's assignment to record benefits and payroll information for each person in the system. The definition of each type of element is a key to what data may be recorded for each person. Usually each type of benefit and pay an organization has is defined as an element and then attached to the eligible employees. The elements to keep in mind when implementing a time keeping system are the different types of hours that your company wants to track for HR and payroll purposes. For example, each employee in most US corporations has paid time off (PTO) benefits that are accrued, such as vacation hours, sick hours, and personal hours. In addition, other types of paid time off are often available to employees that the HR department usually wants to keep track of such as jury duty, military leave or funeral leave hours.

At ABS, in our original HRMS setup, HR elements were defined to capture all the different types of paid time off entries used in the US. Since ABS does not use Oracle Payroll, but has payroll processed by a third party in each location, regular hours and overtime hours were not originally in the HRMS system. Labor hours all resided in SST timecards and Project Accounting transactions. In fact, HR was extracting absence information from the Project Accounting transactions and only populating absence records for the employee, not element entries. In

HRMS, accrual plans were defined for the US PTO elements for vacation, sick and personal leave for each company. PTO Balances were loaded yearly for US employees with their entitlement amounts. On a weekly basis hours that were charged in Project Accounting to a task with the same name as the elements, were imported into the absence table and the accrual plan would deduct the hours from the accrual balance. We had no accrual plans setup for the international locations. This very design was problematic to HR as they were dependent on Project Accounting for obtaining absence information.

Although ABS does not currently use Oracle Payroll, we do define a type of payroll for each employee. This identifies which organization is paying the employee. For example, our employees in the US are paid every two weeks and are assigned to the payroll named Bi-weekly. Most of our international employees are paid monthly, and a payroll is defined for each country that processes a payroll. Each employee is assigned to one of these defined payrolls.
ABS does not use the Contingent worker functionality, since this functionality was not available in the application when we first needed it. Therefore our Contractors are setup as employees and distinguished by a combination of Person Type and Assignment Category. Originally no payroll was associated with their records, since they are contractors and not employees. The payroll setup has an impact on accrual plans and the ability for contractors to use OTL as we will see later.

To summarize, specific items to consider regarding HR setups that affect OTL include:

- US requirements versus International requirements
- Element definitions and mappings and how they affect HR Accruals
- Payroll types and implications such as weekly, monthly, bi-weekly payrolls
- Timecard approval processes
- Criteria for Auto-approval of timecards
- Employee assignment category and person type setups

Project Accounting Setup Background

ABS is a totally project-driven organization. Most of our transactions are a result of entries that are created in or feed Project Accounting. Our revenue is calculated in projects. Our billing originates in projects. Our labor costing is calculated in projects. Therefore, it is critical that information feeding our project system is accurate. Oracle Projects was setup so that all labor hours would be imported from SST, no manual batches are entered in Oracle Projects for labor hours. All labor cost are calculated in Oracle Projects using our customized costing extension. The Oracle Projects configuration for ABS includes:

- Each employee is setup with their own ADMIN project to collect non-billable time.
- When implementing SST, individual tasks were setup to separate out each type of activity instead of using expenditure type. We had a number of ABSENCE tasks which were classified by the different elements that HR needed such as VACATION, PERSONAL, SICK, HOLIDAY, JURY DUTY, etc. When implementing OTL, we determined that ABSENCE hours were important in Projects for costing and utilization, but the specific ABSENCE type needed to be captured only in HR. This is a case where we had one expenditure type to many different HOURS types.
- An expenditure type of REGULAR HOURS was setup to capture hours that would fall into a standard work week.
- A number of expenditure types were setup to classify the different types of OVERTIME HOURS, which was used for costing and exception reporting to calculate pay above an employee's normal weekly salary.

Self-Service Time (SST) or I-Time was Oracle's product for creating timecards. Since self-service time was integrated with Oracle Projects, time entry was driven specifically off the

project's setup – using a project, a task on that project, and an expenditure type. Each employee at ABS is responsible for submitting his or her timesheet on a weekly basis. Prior to OTL, an employee's timecard approval style was determined by the responsibility he was assigned. The basis for determining the responsibility was the employee's job grade. Most employees with a certain level of job grade or higher were given a responsibility that would automatically approve their timecard. All other employees were assigned a responsibility that would cause the timecard approval work flow to require their supervisor's approval.

External System Interfaces

We have 2 custom applications that were specifically built to handle our business – one application handles our surveyors' work (O2K), and one application handles our engineering work (O2E). These applications create projects, tasks, and events to generate billing and revenue. These applications also create timecard entries into the time-keeping system. These systems were modified to use the OTL API's to continue interfacing time information between our external systems and GEMS with OTL.

To summarize, specific items to consider regarding Projects setups that affect OTL include:

- Setups for projects and tasks for organization
- How to classify expenditure types (which does not have to match one-to-one to HOURS types for HR)
- How to handle ABSENCE hours
- How to handle OVERTIME hours
- Approval requirements / auto approval requirements
- Are you going to map to Projects / HR / Payroll?

OTL Implementation Design

Knowing the constraints and requirements mentioned above, we worked with the OTL features to design our setup. Of the many components required to set up Oracle Time and Labor, we spent most of our time on:
- Alternate Name mapping of Hour Types
- Recording Absences
- Time Entry Rules
- Review Timecard Layout
- Preferences
- Eligibility Criteria
- Templates
- Interfaces to and from our internal work order systems

From the beginning, we maintained a document with all the Oracle setup steps and what our setup values were. We started putting version numbers on the document after a year and got up to version 14! Though the implementation was not completed for two years after the project was begun, this does not mean we worked on the project continuously for that amount of time. There were large periods of time where the project was inactive. The delays were mostly related to lack of availability of key resources for testing. Before we went live, thorough end to end testing was performed as timecards are the primary source transactions for costs and billing at ABS. During the delay, several patches became available that made the application more workable for ABS.

Hour Types and Alternate Names

Hour Types took considerable effort to define and map. In OTL the hour type is mapped to element entries in HR and to expenditure types in PA. We had to accommodate differences between the Bureau and Group organizations which use different overtime elements and expenditure types. We also addressed differences in the project expenditure types and element entries used for Contractors versus Employees. Another scenario we handled was that international Contractors may be allowed to charge for certain absences, while the US Contractors are not. It took several iterations with input from HR and PA super users to validate that we had the complete matrix of hour types defined to the correct element entries for HR and expenditure types for PA.

Most timecards at ABS are entered by the employee's themselves. The Timekeeper responsibility is intended for one user to create timecards for a group of people, so the timekeeper setup was almost an after thought at ABS. We found that a timekeeper has to have a separate set of Alternate Names from the rest of the employees to include the hour type mapping for both employees and contractors since they could be entering timecards for both sets of people.

We ended up with six sets of Alternate Name Definitions: ABS Default Elements (Bureau), ABS Group Elements, ABS Contractor Elements, ABS US Contractor Elements, ABS Bureau Timekeeper Elements and ABS Group Timekeeper Elements.

Recording Absences

Before OTL all absences were recorded to an expenditure type of regular hours on a task for that specific type of absence. HR captured the type of absence by running reports from Projects. Using OTL, HR now receives the information directly and less detail information is recorded in Projects where someone other than the employee might view the information. HR gets the details of the type of absences, but those details no longer go to Projects. Many options were considered in several meetings to get this result.

To achieve this, we changed the structure of the Employee Administrative Projects to include only one task for absences, instead of a task for each type of absence. The expenditure type for absences remained 'Regular Hours' so no changes were made to our customized labor costing routine. The detail absence types are no longer visible in Projects because only one generic task for absences is now used to record the absence hours.

In HR different element entries for each type of absence were already created. Generally, the hour type was made to match the HR element entry, even though it mapped to the Regular Hour expenditure type in Projects. For example the hour type of 'Jury Duty' goes to the HR element 'Jury Duty' but to the Projects expenditure type 'Regular Hours.'

It was required that absence hours be recorded to an ABSENCE task so that those costs could be distinguished from all other work in Projects. Oracle did not have a way for us to validate that an absence hour type was being charged to an ABSENCE task on the timecard. Our solution was to create a time entry rule that uses a custom fast formula. The fast formula calls a function that returns an error when an absence hour type is used for a project task that is not named ABSENCE.

Paid Time-Off Accruals

One of the OTL features ABS was particularly interested in was the ability for the employees to see their own Vacation and Sick Time PTO accrual balances. The preference was set to view PTO Accruals and the elements linked from HR to OTL. At ABS the US employees are setup with a balance at the beginning of the year. When the employee takes time off their balance is reduced, and they are not allowed to take more time off than they are eligible for. The international employees, however, do not have their eligible balances loaded in the system, but we still wanted to provide the ability to see how much Vacation or Sick time had been taken for the year. New accrual plans were setup for international employees that would show the amount taken as a negative balance since the beginning balance is 0.

Below are examples of the accrual balances an employee will see if they are in the US versus another country.

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This worked well, but as we did testing for the end of the year periods for US employees, we found that incorrect amounts were being displayed in the new year. Oracle was deducting vacation hours taken in the prior year (for example in 2007) from this year's (2008) accrual balances because the timecard end date was in 2008 even though the hours were recorded for days in 2007. This was due to the bi-weekly payroll period end date which determines the accrual year from which element entries that affect accruals are deducted. When you are paid bi-weekly, the year's last pay period will usually fall into two years comprised of days in the last week of December and the first week in January.

We solved this problem by adding a new element for End of the Year Adjustments. The accrual definition was changed to add the value in this element to the accrual balance. Then we loaded

any hours taken in the prior year that were improperly deducted from this year's balance into this element using a BEE transfer process. This corrected the balances for the new year. The load was done again successfully this year a few weeks after all the timecards have been submitted.

Below is a screen shot for the Vacation Accrual Formula:

Element Name	Input Value Name	Total Entitlements	Units	Effect On Net
Vacation Plan US	Accrual Plan	0	Hours	Add
Vacation Plan US Carried Ove	Plan Hours	0	Hours	Add
Vacation EOY Adjustment	Hours	8	Hours	Add
Vacation Leave Balance Load	Hours	160	Hours	Add
Vacation Leave Hours	Hours	8	Hours	Subtract

Name: **Vacation Plan US** Accrual Category: **Vacation**

Dates — Entitlement Calculation **24-DEC-2007** - **05-FEB-2008** Net Entitlement **160**

Last Accrual **03-FEB-2008**

The Vacation EOY Adjustment of 8 hours indicates that this person took 8 hours in 2007 that were treated as belonging to 2008 because the bi-weekly pay period ends in 2008. The vacation accrual is on a calendar year not payroll period basis.

Time Entry Rules

Time entry rules are rules that are checked before a timecard may be submitted for approval. At ABS we created rules for the following scenarios:

1. Warn the user when they have insufficient regular hours on their timecard.
2. Prevent the user from submitting more than their standard work week of regular hours on a timecard.
3. Prevent the user from taking more Vacation, Sick or Personal time than their accrual balance would allow if they were US employees.
4. Require the user to use an ABSENCE task for recording absence hours.

In most cases we had to create different rules for each company since the HR elements for the paid time off are different for each company.

Time entry rules are linked to Fast Formulas. If the Oracle seeded formulas do not do what you need, you may create a new formula and link it to the Time Entry Rules. We created two Fast Formulas. One to enforce the rule that absences must be recorded to a task named ABSENCE. The second fast formula we created was a modified version of the seeded Standard Hours Comparison formula. The modification was made to allow employees that work reduced hours, as indicated by a standard work hour of 1, to charge more than one hour on their time card, but all

other employees are not allowed to charge more regular hours than their standard work hours indicates.

Timecard Review Layout

We setup this preference to use a customized timecard review layout that displays the project name as well as the project number and task number. This required compiling the new java code and updating a table to make this form layout available in the list of values to choose from. The Oracle seeded layout does not display the project name only the project number which is not sufficient information for manager to approve timecards.

We also modified the select statement associated with the task field so that it is dependent on the value of the project field. This makes the validation of the task selection during data entry much faster and reduces the list of values the user has to search through.

Preferences by User Group

This paper is not intended to replace Oracle's implementation guide, so we will not list every preference. However, we did specifically decide how to setup each preference so we would not end up with Oracle's default values without knowing their impact. Here we will discuss what were significant decisions made regarding preferences. A large part of the effort was to define which preferences applied to everybody and which preferences applied to only certain groups of people. In hindsight, it would have been helpful to create a matrix of the setup preferences and who was eligible for them before we actually set them up.

The preferences that do not have the same value for everybody in the organization at ABS are:

- Timecard Approval Style
- Timecard Alternate Name
- Time Entry Rules
- Timecard Status that Allows User Edits
- Timecard Delete Allowed

Timecard Approval Style – At ABS the employee's grade level determines whether the timecard is to be approved by the employee's manager or whether the timecard will be auto-approved. To set up the preference folders for the Timecard Approval Style preference, we created a hierarchy of folders. The first folder is the default if all other folders do not apply to the user. We created this folder so that we would not end up with Oracle's defaults for certain preferences. Timecard Approval Style was set to Supervisor Approval required at this level.

The preferences that we intended to use for all employees were defined for the next level. In this folder we setup all the preferences the way ABS wanted them for most people. Timecard Approval Style was set to Supervisor Approval here as well. Then the folder for Auto Approve Employees was setup for only the preference of Timecard Approval Style which is set to Auto-approval.

There are a few exceptions where the business requires supervisor approval even though the job grade would normally allow automated approval. This last exception was not discovered until after we were live on the application for several months, but it was fairly easy to address. After implementation, we created the folder for No Auto Approve which overrides the eligibility criteria for the employees who are exceptions to the rule of Auto-Approval based on Job Grade.

The folders we created are numbered so that they are similar to the level that they are used for in the Eligibility Criteria setup.

Time Entry Rules and Alternate Names
As mentioned previously, we have different time entry rules for Bureau employees, Group employees and Contractors. Six preference folders were created to distinguish the alternate name preferences for each group of users of OTL.

Allow user edits and Timecard Delete Allowed
For different business reasons, users have historically been allowed to modify timecards several months after they have been approved. One group allowed this more than others. We setup Group to allow edits of timecards for 6 months and Bureau for 3 months. Several months after going live we found that this value needs to be coordinated with an OTL profile option that designates the number of days back to look for updates to process. If this option is not set greater to the preference, some transactions may not get processed into Projects.

We previously did not allow deleting timecards, but have run into a scenario during retroactive transfers, that may necessitate deleting the timecard as will be discussed later.

To summarize on preferences, determine your business requirements for each preference. Pay particular attention to the requirements that are different for each group of users. ABS' preference matrix looks like this:

Preference Folders	Timecard Approval Style	Timecard Alternate Name	Time Entry Rules	Allow User Edits	Timecard Delete Allowed
ABS Defaults	Supervisor Approval	ABS Default Elements			No
Bureau (All employees)	Supervisor Approval	ABS Default Elements	ABS Bureau	RETRO.90	No
Group employees		ABS Group Elements	ABS Group	RETRO.180	
Contractors		ABS Contractor Elements	ABS Contractors		
Contractors US		ABS US Contractor Elements	ABS Contractors		
Timekeeper Bureau		ABS Bureau Timekeeper Elements			
Timekeeper Group		ABS Group Timekeeper Elements			
Auto Approve Employees	Auto Approval				
No Auto Approve	Supervisor Approval				
Delete Allowed					Yes

Eligibility Criteria

Once we knew the overall groups affected by each preference, we were able to create the specific eligibility rules. At first we thought we needed a different eligibility record for each responsibility and that there should be a different responsibility for supervisors than for the rest of the employees. This would have meant having about 240 different OTL responsibilities and at least 240 different eligibility records. But after studying the possible ways of linking criteria and by creating a custom menu for OTL that included all the manager functions with the standard functions we were able to create only one responsibility per operating unit instead of one for managers and one for employees.

As mentioned previously, ABS does not use the Contingent worker functionality and there is a combination of fields that was previously used to identify contractors in the system. However, we found that since contractors are setup as employees in the HR system, they had to be assigned to a Payroll to be able to use OTL. Two dummy payrolls solved this problem, one for US contractors, and another for all other contractors. We made them separate due to different rules for contractors in the US versus other countries. Different hour types are available for international contractors than for US contractors.

In reviewing the linking available we found that we could use a combination of links. The organization hierarchy distinguishes Group employees from the rest of the company. The Payroll distinguishes Contractors from employees. The responsibility distinguishes Group and Bureau Timekeepers. The job grade number distinguishes who gets Auto-Approved timecards. We also created special responsibilities for the Auto-Approval exceptions and added them to the Eligibility Criteria at the highest level.

Setting up the eligibility rules for auto-approval for five eligible job grades, two organizations, two payrolls and the timekeeper responsibilities was much easier than creating manager responsibilities for 120 operating units and their associated eligibility criteria records. We now have about 70 eligibility criteria records instead of at least 250.

Templates
It was important to make the change from SST to OTL as seamless as possible for our users. In SST we had aliases which allowed users to setup pre-defined "lines" that could be used on their timecard. They had "aliases" for timecard lines for most administrative entries and absences. To provide similar functionality in the OTL implementation, we developed programs to create templates for each user. These programs call APIs for creating templates with coding to distinguish what templates are needed for each different grouping of employees. The program created the following templates: Vacation, holidays, illness, personal time, training, quality tasks, and department administration time depending on whether the user belonged to a group that qualified for those tasks. The groups were US employees, US Contractors, Non-US Employees or Non-US Contractors.

We made these programs into concurrent requests that we now use when we get a new employee or contractor or an employee or contractor changes organizations that assigns them to a new operating unit and a new administrative project.

Implementation Data Loads
Most implementations require preliminary data to be setup before going live and this is true with OTL. We chose to create some of this data using Data Loader and in some cases used a custom program. This enabled us to setup test environments many times as well as reduce the actual production setup time. Data we automated loads for included:
- Creation of new responsibilities for OTL
- Assignment of new responsibility to the user
- Calendars for each operating unit
- Creation of earnings policies
- Assigning earning policies to each user

We needed to setup each user with a new OTL responsibility that allowed them to enter their time in OTL. Since we implemented OTL with approximately 4000 users, we created a program using Oracle's application program interface (API), fnd_user_resp_groups_api, to load the correct responsibility for each user. We have about 120 different OTL responsibilities. Each one is associated with a different operating unit.

We refreshed our test instances a few times before implementation. Since we had 90+ countries and 90+ calendars, we developed several programs to extract and load the Calendar and Earnings Policy for each country. We extracted the data from one of our first test instances and used this file with the load program each time we setup a new test instance and ultimately in the production instance. Since each person needed to have an Earnings Policy associated to their assignment, a routine was developed to insert an Earning Policy for each individual by determining the country of the person's assignment.

Ongoing Issues

Going live with Oracle Time and Labor was fairly smooth. We had communicated and trained prior to going live and the users were already accustomed to entering timecards. OTL was a slightly different look and different navigation with new features. Considering the volume of entries, about 4000 employees with as many as 60 lines on a timecard, we had relatively few difficulties going live. Keep in mind that our implementation project was started two years before we actually went live. This gave a lot of time for discussion on options and exposure to the application for our key testers and super users.

We had and still have problems to work on, though, and some have grown as the data has accumulated over the last year. We have found that issues that require Oracle Support intervention may take several months to resolve. However, we have not logged any severity one requests.

General Design Issues

Workflow for OTL
The Workflow associated with OTL is different from the previous Self-Service Time application. We are using the seeded OTL approval workflow with no modifications. Workflows do not timeout, as the system is setup now, so when a supervisor is terminated, his notifications are never automatically handled. In the past super users could go into the Workflow Manager Status Monitor screen and reassign the timecard notification. However, the HXCEMP workflows do not include the timecard date in the status monitor screen, so it is very difficult to choose the correct notification to rewind or re-assign the workflow. We find that it is easier to just tell the employee to re-submit the timecard to get the workflow started again. Eventually we may assign a resource to modify the workflow itself.

Corrections for Time Entry Rule Violations
We have Time Entry Rules that prevent the user from entering too many Regular Hours on a Timecard. However when this error is displayed, it is difficult for the user to identify how to correct the problem if he also has overtime entries in the timecard, since there is no subtotal of regular hours and premium hours displayed. Without this subtotal the employee has to manually figure out how many hours are overtime hours so he can adjust the number of regular hours recorded.

Terminated Employees
If an employee is terminated in his HR record before his timecard is approved, the manager will see the notification, but will not be able to get to the timecard to approve it. We have had to remove the termination date on more than one occasion so that the last timecard could be approved and processed.

Viewing Absences

The Manager Time Entry feature allows a manager to view and update the timecards of his subordinates and himself. This is a useful feature, especially when the employee is not able to get his timecard entered due to an absence or he is working on a project away from on-line access. To enable the feature you must add the correct function to the menu.

When Manager Time Entry is enabled, the manager can view Employee HR information. When we first implemented, the manager could also see his own Employee HR Information. We were particularly interested in the Absence tab of the Employee Information Details so users could see their own Absences easily without having to run a report. We replaced Oracle's seeded menu with a custom menu that included the Manager Time Entry function for all users, rather than having separate responsibilities for managers and non-managers. The list of employees a person can view is limited to who they manage, so if they are not a manager, they would only see their own information. This was working wonderfully until we applied an HR patch that changed the way the My Information and My Employee Information functions work. It took about six months for Oracle to come back with the explanation or why it would not work anymore. We are now working on putting a modified version of My Information on the menu, just so employees can easily find all their absences. We have also developed our own Timecard Detail report that has parameters that enable the user to print only their absence entries.

Copy Line

One feature that is missed in OTL is a *copy line*. In SST you could copy a previous line on your timecard and make needed changes. In OTL, this feature is missing. Since many of our timecards have 20, 40 or even possibly 60 lines in a given week, the copy line is sorely missed. This is one of the largest complaints we hear at ABS. Because many of our projects are very small in scope, the template feature is not good a solution. Users would like to just duplicate the line above and change the hour type or the actual hours.

Retroactive Employee Transfers

When an employee transfers from one operating unit to another operating unit, there are times when HR does not know this information until it has already happened. This change is then recorded by HR with a retroactive effective date. In Oracle Time and Labor, the operating unit of the timecard is assigned when it is created, so if an employee has existing timecards for dates on or after the transfer effective date, the transactions will be incorrect. We did not worry about these incorrect transactions, if they were fully processed, since the costs were relatively minor. However, if the timecard is not fully processed we have run into problems where code combinations that are in the incorrect operating unit are generated because the timecard was created before the employee record was changed but it was processed in Project Accounting after the employee record was changed. The code combination generated is based on ABS' Project auto-accounting rules that look at the employee organization to determine the cost accounts. In this scenario, a code combination that is correct is generated, but it is not in the correct operating unit. If it is not caught, these transactions are then imported into GL, but not visible in GL because security rules for that set of books prevent viewing transactions from other legal entities. The errors were only being found when transactions were consolidated outside of Oracle.

Though the amounts are not material, the hours of work spent to uncover and correct the problems caused by retroactive transfers are significant. At this time it appears that the best thing to do is delete any timecards that exist with dates on or after the effective date of the transfer. Then re-create the timecards using the correct operating unit responsibility after the transfer. This will cause any fully processed timecard entries to be reversed and then associate the new entries with the correct operating unit. Just deleting the lines does not work, because the operating unit is

assigned at the timecard header level, transactions will still go to the wrong operating unit if the original timecard header still exists.

Days to allow for Updates
As mentioned earlier, at ABS we have set the preference to allow users to go back for a year to update their timecards, since we have requests to do this periodically. This has been a nice feature for some, but it caused problems we were not aware of until almost a year later. What we did not fully realize is that the number of days that a user is allowed to update a timecard, which is setup as a preference needs to be coordinated with the profile option:
> *OTL: Number of past days for which retrieval considers changes (days).*

If you allow users to update timecards that are up to 90 days old, but have the option set to 30 days, then the updates of timecards that are over 30 days old will not be processed into Project Accounting and HR. The profile option should be set to about 30 days greater than the preference. When we corrected this and set this profile to go retrieve everything that had been missed over the last year, a few employees had deductions on their pay checks from corrections that had occurred over six months ago! This was not a welcome surprise.

Ease of Data Entry and Off-line Entry of Timecards
For all the flexibility Oracle offers in setting up its applications, ease of user data entry is often lacking and this is true in OTL as well. Considering that some employees do have timecards with 40 lines on a regular basis, moving from one line to the next, reviewing totals, and distinguishing between overtime and regular hours is awkward. Comments are also difficult to enter as it requires opening another screen and scrolling to the correct date to do so.

The project field is particularly cumbersome as the view behind returns all the projects for the operating unit. We have tens of thousands of active projects in each operating unit and different rules regarding projects in each company. In one company only key members are allowed to charge to a project. In another company, charging to a project is not restricted to key members.

We are starting to pursue the option of allowing users to enter timecards offline and then upload them. We have not been able to use this functionality yet though, because the view, pa_online_projects_v, which is used to determine what projects the user may enter, returns too many rows. We are currently working to change this view depending on the type of user, the area of the user, and the responsibility of the user. For example, many of our users must be a key member on a project before he can charge against the project. Why bring back thousands of projects when he only has authority or the need to charge to 10?

Issues Requiring Oracle Support

Back Arrow
The first issue was that the OTL self-service screens do not allow use of the browser's BACK button. OTL screens have functionality built into tabs/buttons to move you forward or take you back a screen or to take you to the HOME screen. Before implementation, we clearly addressed this with our user community. However, we still had calls about the error page. In addition, the error page stating that using the back arrow caused a problem seems to pop up whenever OTL runs into a situation it cannot handle, even when the user does not use the back button. Fortunately, this isn't too often, but the message is misleading.

Run-away queries
The second issue we had was a problem with run-away queries. The run-away queries occurred when a user entered a project (typing in the project) and then used the mouse to click in the task list of values. Because the user had not tabbed to the next field, OTL did not recognize the project entry. This created a run-away query that would degrade performance significantly until we bounced the Apache server. We had to schedule bouncing the Apache server several times a day until a "patch" was provided by Oracle that would not let users look up tasks until OTL recognized the project. We still bounce the Apache server twice a day to clear up intermittent problems.

Timecard Header and Detail Totals not matching
We also encountered a problem with detail OTL records not matching summary OTL records. This problem was caused when changes were made to a timecard. When the user would submit the timecard for approval, the summary hours would not match the detail on the screen. Often time entry rules were violated, but the user could not see how to correct the problem. The problem was due to the translation display key field that OTL uses to order items that have been put on a timecard. Duplicate translation display keys were being created when the user modified the timecard, so data was being overwritten in the screen. The exact scenario was very difficult to reproduce. Oracle was aware of the problem from several customers, but had difficulty identifying all the scenarios as well. Oracle finally supplied a trigger that would not allow duplicate translation display keys to be created on a timecard as a temporary fix until development returned improved code.

Processing Performance
Currently, we are working performance issues with two processes. The first process, PRC: Transaction Import (with a source of Oracle Time and Labor), imports OTL records into Projects. When compared to other PRC: Transaction Imports, this process is very slow. One reason is that the program is not actually importing from the pa_transaction_interface_all table. It is really retrieving records directly from OTL tables. The second process, Transfer Time from OTL to BEE, imports OTL records into HR. This process appears to use a lot of our system resources, which has become more noticeable as the data grows. We have been working these performance issues with Oracle since last November. At this point, we still do not have a resolution.

Conclusion

A thorough understanding and analysis of Project Accounting and Human Resources expectations and requirements with a lot of dialogue is needed to successfully implement Oracle Time and Labor. The application has a lot of features that make the system configurable for many different needs. Studying these features before you make your final design choices will reduce re-work and future maintenance efforts. Especially consider the Preferences, Alternate Name Mappings, Eligibility Criteria, Element Entries and Expenditure Type needs. Make sure all the affected processes are tested from end to end. Communicate with your users. Document your choices as you go.