Zavanti
Technology for Advantage

White Paper

Introduction to Construction Business Systems

Zavanti Australia Pty Ltd

Contents

Introduction to Construction Business Systems

Benefits of a single integrated business system

For any Builder an essential tool is an integrated ERP system to manage all facets of a project from the initial costing through to the final reporting.

- No more updating spreadsheets.
- No more data double handling
- One system for project costing and financials
- Accurate, real-time info when you need it

Project life cycle:

One complete system from Estimating and Job Costing to Financial reporting for Building Contractors:

- Comprehensive Estimating using Components, Bill of Quantity, Supplier price lists.
- Project Budget Maintenance, Cost Commitments and Controls, including Variations
- Sub-Contract Management, and Budget control
- Fully integrated General Ledger, Accounts Payable, Accounts Receivable, Payroll, Fixed Assets

- Project Costs and Revenue Forecasting upwards to 10 years
- Consolidated and project specific reporting

Throughout any project, a common project lifecycle can be applied

This document will take the builder through each of the lifecycle stages and the functionality that exists for each stage

1. Project Planning
2. Project Setup
3. Commitments
4. Project Management
5. Sales and Revenue
6. Job Completion
7. Financials

Project planning

Accurate estimating and quoting are integral to any organisations outcomes, both in terms of profit and quality. With estimates and quotes the builder can provide staff and clients with access to fast, simple, accurate and measurable processes.

Use the Estimating module to:

- Generate an Estimate/Quote easily by specific budgeting methods – Best, Preferred and Average using the supplier price lists associated with each item.
- Assemble a list of the type and quantity of material and labour resources required in the same process, and retain that information in a template for future use.
- To build a list of unit rates and quantities for specific jobs, and simplify the process even further into the future.
- Establish job budgets by copying the estimate to a job in 1 simple process, this process will also allow the builder the generate purchase orders on the fly if required. The Purchase Orders can have a specific supplier attached to them which was set within the estimate or the Builder may opt to assign a generic supplier to any or all purchase orders. A new supplier can be assigned to the Purchase Order prior to issue and commitment.
- Maintain Quantity Takeoff to include Factors which will allow for material waste and handle items with multi dimensions. Builders have the option to print the quantity takeoff on the Purchase Orders if desired, this will give the supplier more detailed information.
- Use “drag and drop” functionality to build accurate estimates by highlighting a single item, group or random items and simply dropping them into the estimate.
- Search facilities allow the builder to locate items, estimates and cost codes quickly whilst maintaining the estimate.
- Bill of Material Items located in an Estimate can be maintained by the builder locally and for the current estimate without having any effect on the Master BOM Item.

Use the Components module to:

- Establish the items, rates and Bill of Materials that will be used in the creation of an estimate. Components can contain a manufactured item, or a Bill of Materials composed of individual items listed in the Components module.
- Create a Bill of Materials component, and use the Unit of Measure feature to get the software to work out how many individual components are necessary to make up our Bill of Materials.

- Maintain supplier prices by specific areas or locations. This enables the builder to allow for accurate costing when estimating project costs for differing locations for example NSW and Qld. Multiple supplier costs within location can be maintained by the builder.
- Create Smart Items which can be used in estimates to calculate additional costs based on a set formula maintained within the Smart Item. An example of this item might be Builder Profit Margin based on a percentage of cost codes excluding “Preliminaries”.
- Smart Items can be applied to Cost Codes, Items or Suppliers. When a Smart Item is used in an Estimate it shows a “Lighted Globe” icon on the left hand side of the estimate .The value of the Smart Item (based on the formula calculation) is returned to the Estimate and shown in the total cost for the estimate

Manage your Preliminaries using the Contract Management module

Issue tender documents to subcontractors for completion of their proposed projected costs, each document can then be tracked by response date within the document registration process. A single document is generated for each Subcontractor and all documents are stored within the contract to allow the Builder to manage the tender stage for each of the Trades.

Generate a contract to the subcontractor when the successful tender has been accepted. Each contract will then allow the Builder to:

- Set retention which is recorded as a percentage of the contract, to a maximum percentage of the contract value.
- Maintain practical completion dates both Projected and Actual.
- Define and manage defects by liability period, this will allow the Builder to issue defect documentation and pass through the various stages of repair and maintenance for sign off by subcontractors and clients.
- Manage the mandatory subcontractor licenses and insurances that are statutory requirements. Expiry dates will be displayed on contracts and purchase orders if they are to expire within a month of issue.
- Now that the estimate is completed and the budgets are set up on the job the builder can allocate the budget to the individual contract and maintain this budget with contract variations throughout the project life cycle.

Forecasting

Spread and maintain forecasted costs over the life cycle of the project. The budget and forecast acts like a gauge of construction operating activities. As a vital financial tool, they should be changed and updated as necessary, as the project conditions change.

Maintain the forecasts using various methods such as S-curve and Interval Spreads.

Drill down onto commitments and actual transactions to view data which is reflected in the Budget, Forecast and Actuals reported.

Project Set up

- Project Commencement
- Tendering and procurement
- Document Management
- Materials ordering
- Subcontract management

Tendering and Procurement

Subcontractors are required to demonstrate that they have the technical and financial capacity to undertake works, as well as having appropriate management systems in place such as quality assurance, occupational health, safety and

rehabilitation, environmental and industrial relations. Insurances, licences and mandatory qualifications are checked for currency and for consistency with the role being applied for.

An important factor in procurement is for the builder to ensure that all potential subcontractors invited to tender have all the necessary documentation. This information is maintained in the Accounts Payable module on the subcontractor tab and includes the following:

- Workers Compensation details
- Superannuation details
- Professional Indemnity details
- Builder License details
- Bank Guarantee details
- Periodic Trade Contract details
- Withholding tax details

Purchase Orders and Contracts issued will check the expiry dates on these and print a message on the document one month prior to the expiry date. If the builder attempts to pay a subcontractor invoice with an expired date the payment will be put on hold until the subcontractor issues the builder with up to date details.

When planning a new project the Builder needs to consider whether procurement will be with a single contractor or multiple contractors. A single contractor will take responsibility for all construction and manage the project. Multiple contractors will allow the builder to manage each facet of construction by allocating tasks to individual subcontractors.

Document Management

The management of documents related to Projects and Contracts allows the builder access to all documentation and electronic files in the one place.

The Contract Management module will allow the builder to create a set of "standard" document templates and store these in a safe location. The Document Registration process will allow the builder to open one of these templates and use data elements from the contract to create documents for each contact attached to the contract.

Each document generated is then displayed in the Document Registration table window and stored in a library nominated by the builder. Response actions and dates may be recorded against each document as required.

Electronic files such as plans, drawings and emails can be directly attached to a contract via the Link tab on each contract.

In essence the builder has access to all files and documentation relevant to the contract from within the properties of the contract.

Materials Ordering

The software allows Job Material Purchase Orders to be created in 2 ways. Firstly, when copying the estimate to the Job the builder is given the option to automatically create the Purchase Orders based on the information coming from the estimate. Secondly the builder is able to create purchase orders manually via the Job PO function.

Job Purchase order functionality allows the builder to modify the item quantity or costs if required prior to invoices being processed against the order. Once a purchase order has been invoiced the builder will need to process a purchase order revision (variation) to allow for changes to the original order which may include increasing or decreasing the purchase order value.

When creating a manual purchase order the materials are selected from the Component (Item) lookup box and the default description and cost is displayed which can be changed by the builder if required. Dependent on the Unit of Measure attached to the item a Qty Takeoff window may pop up when the cursor is placed into the Qty column. This will occur automatically if the builder has set the unit of measure with multiple dimensions for example Lineal Metre. If however, the builder wishes to enter a qty takeoff with multiple lines for an item without multi dimensions then he/she will need to place the cursor into the qty column and right mouse click.

There are times when a supplier is unable to supply the materials required. When this happens the builder can easily assign a new supplier to the purchase order by a single click and select the new supplier from the lookup box.

Subcontract Management

Sub contract management is a vital tool to a builder to enable him/her to manage construction projects from start to completion.

Some of the benefits include:

- Management of tenders to enable selection of subcontractor based on certain criteria.
- The ability to enter contract details including terms, contract items and conditions, defects, extensions of time and retention .
- Variation management to track all adjustments to contract scope and control costs
- Progress payments that automatically calculate retention (if required) before or after tax.
- Real-time integration to job costing and financials.
- Management of compliance with quality via defects maintenance.
- Management of Extension of Time requests.

As part of the Project Commencement the builder can enter the contract details, attach all documentation and electronic files and commit budget to the contract in preparation for the commencement of works. The builder can then run analysis reports to view commitments against original budget and will immediately see if there are overruns on the initial estimated costs.

Commitments

- Budget control
- Purchase Order and revisions
- Sub Contracts
- Budget Variation control
- Authority and approval process control

Budget Control

During the execution of a project, procedures for budget control and record keeping become indispensable tools to builders in the construction process. These tools for example integrated software solutions serve the dual purpose of recording the financial transactions that occur as well as giving builders an indication of the progress and problems associated with a project.

The time at which major cost savings can be achieved is during planning and design for the project. During the actual construction, changes are likely to delay the project and lead to unexpected cost increases and this where budget control and management is at its most important.

The final or detailed cost estimate provides an Original budget for the assessment of performance during the project. When the costs are within the detailed cost estimate, then the project is thought to be “running to budget”. Overruns in particular cost codes indicate the possibility of problems and give an indication of exactly what problems are being encountered. This will allow the builder to investigate where the problems may have occurred.

For control and monitoring purposes, the original detailed cost estimate is typically converted to an “Original” budget and the project budget is used subsequently as a guide for budget checking when processing transactions.

Within the software each project/job can have 1 of 4 budget type controls assigned to it.

These are:

- No Checking to Budget
- Warn if Over Budget
- Authority Level Checking
- Never Allow over Budget

No Checking to Budget indicates that costs entered will not be checked against the budget.

Warn if over Budget will advise the builder that the entered costs are over the current budget and option will be displayed to allow or not allow.

Authority Level Checking means that only Staff assigned to the Job will be able to process transactions or view this project. There are rules within the authority level checking which set maximum levels by user for the Variation, Purchase Order and Contract approval values and Overrun Value. When this process is used and a user falls outside of the "rules" then the Commitment is moved to a user higher up in the hierarchy for approval or rejection.

Never allow over Budget simply means "Never". This budget control type is rarely used by the Construction sector.

When budget checking is set against a Job/Project all cost code transactions entered will be checked against the current budget available, these transactions include:

Vouchers – this is a transaction type that can be processed as "accruals" and will be explained later in this introduction document.

Supplier & Subcontractor invoices processed against Purchase Orders, Contracts, Progress Claim Certificates, Vouchers and unlinked invoices (invoices processed manually not linked to a source).

Timesheets entered for internal labour hours allocated to the Job.

Disbursement Entries (these are other costs to be processed for example use of internal equipment to be shown as a cost on the job).

Purchase Orders and Revisions

Budget control is enabled if required during purchase order processing so that the builder can view both the Job and Cost Code budgets on a line by line basis. Dependent upon the budget control settings on the Job initially the builder can then use the variation process within the purchase order to change the budget or transfer the budget between cost codes.

Purchase Orders do not automatically commit to the budget until the builder has authorized the commitment. All Purchase Orders with values and assigned to suppliers will assume the status of "allocated" until the builder commits the purchase order. The builder will need to highlight the order and click on the "commit" button to commit the purchase order to the budget, the software will then check the budget settings on the job and perform any budget checks to ensure that the purchase order falls within the set of rules.

Job and Cost Code budgets will be displayed on the purchase order maintenance screen depending on the settings for the staff member. Each staff member can be set to "allow" or "not allow" viewing of budget information.

When budget information is displayed the following information is shown by Job and Cost Code.

Code	Description
Current Budget	Original budget plus any approved variation budget.
Orders Committed	Value of committed purchase orders.
Contracts Committed	Value of committed sub contracts
Other Budget Used	This represents transactions not processed against an original work order for example Timesheets.
Total Budget Used	Total committed budget
This Order Budget Used	Budget used for this purchase order/contract.
Budget Remaining	Value of budget remaining

Sub Contract Commitments

Budget control is enabled if required during sub contract processing so that the builder can view both the Job and Cost Code budgets on a line by line basis. Dependent upon the budget control settings on the Job initially the builder can then use the variation process within the contract to change the budget or transfer the budget between cost codes.

Contracts do not automatically commit to the budget until the builder has authorized the commitment. This is achieved by allocating the Trade and Cost Code budgets to each contract and entering the value into the "committed" column. The software will then check the budget settings on the job and perform any budget checks to ensure that the contract/trade combination falls within the budget rules.

Job and Cost Code budgets will be displayed on the trade budget maintenance screen depending on the settings for the staff member. Each staff member can be set to "allow" or "not allow" viewing of budget information.

Contract commitments are display in "blue" on the Contract Header.

When budget information is displayed it is shown the same as in Purchase Orders above if the user have the rights to view budget information.

Budget Variation Control

One of the objectives of budgeting is to provide a base which measures actual cost against original budgets. For builders it is essential that this monitoring is managed right through the construction project and not left until completion.

There are three key reasons and it is important that the builder recognizes the difference as the action that is required may be completely different in each case.

- Incorrect calculations in the Budget Figures. This error can easily occur in a manual type quoting or estimating environment for example using Spreadsheets.
- Errors in the process of transactions that affect the actual results for example duplicate supplier invoices.
- "Reality" - there are times when builder's face situations outside of their control such as weather conditions and union interruptions. This does not mean there was a problem with the initial estimated budget the reality is outside of the builder's control.

The ability for the builder to process variations to manage these budget conditions is a vital key to the analysis for Job Report profitability and an overall good result at the end of the project. There are 3 types of variation processes within the software to allow the builder better budget control.

These are:

Type	Description
Head Variation	This type of variation allows the builder to process variations to the Head Contract which includes cost code variations and Client Charge Variations.
Subcontract Variation	This type of variation allows the builder to process variations to the Sub Contract affecting cost code and trade budgets.
Budget Transfer	This type of variation will allow the builder to transfer budget between cost codes. This is particularly useful when one cost code is showing an underrun and another cost code is showing an overrun. By using this option the builder is still working within the overall job budget. In some cases a builder may have included a cost code in his budgeting known as "Contingency" or "Profit and Loss". In this scenario the builder then has the option to do budget transfers to move cost savings and cost blowouts in or out of the expected profit.

Builders need to assess these conditions when considering a budget variation:

Revise the budget up or down accordingly to reflect true conditions

Do an analysis of why the variation occurred

Identify the cause of the variation and should it be considered in the future

Take the appropriate action to manage the variation and show it as a variation to budget. When reporting, the Original Budget will still be intact then Budget Variations will be shown separately followed by "Current Budget". Budget checking then is always done against current budget.

Authority and Approval Process

As mentioned earlier each job/project will be able to have Authority and Approval levels attached to each staff member. This function is important when it comes to decisions about budget commitments. Each builder should ensure that his staff can only process budget adjustments and commitments within the rules that have been set on the Job Authority tab.

Within the Authority levels an "Authority Officer" (normally the builder) is assigned to each Job. The builder is then responsible for setting the rules for other staff members who will have access to the job. These rules include:

- Authority to process a variation to budget
- Maximum value of the variation to budget
- Level of budget variation – Job, Trade or Cost Code
- Maximum value allowed to over run on a Job

As staff fall "outside" of their limitations the software will check for the next higher level staff member and send an email advising them that there is a variation waiting for their approval.

There are 4 possible status codes within a variation.

- Approved
- Unapproved
- Discussion
- Rejected

When a staff member attempts to enter a variation outside of their limits the software will allow them to process the variation detail and in will automatically save it as "Unapproved".

When the Staff member with the higher level receives an email they then have the ability to approve the variation as long as it is within their limits set up in the authority process on the job.

Approval Modules

For the larger builders with multiple project managers and jobs there are additional modules, Purchase Order Approval, Contract Approval and Variation Approval.

When these modules are used all Purchase Orders, Contracts and Variations entered by any employee into the software are saved as "Non Committed" and pushed through to the appropriate queue type module.

The "authorized" employee will then open each of the transactions in his or her queue and approve or reject the Purchase Order, Contract or Variation. An email will be sent to the initiator advising if and when the approval has occurred.

Once "approved" the Purchase Order, Contract or Variation will then follow the normal process.

Project management - Construction phase

- Manage and track budgets

- Report on costs
- Value progress/Progress Claim Certification
- Sub Contract Variation management
- Track and authorise claims and invoices
- Timesheets and payroll

Manage and track budgets

We are at the stage that the Project/Job has been set up and commitments have been made by generating Purchase Orders and Contracts and costs will now start to flow and as they do it is important that the builder keeps track of the actual versus budgets and the project progresses.

Costs are processed in a number of ways. We mentioned the various transaction types earlier and now we will look into these transaction types in more detail.

The builder is able to view Job and Cost Code budget status on all Job Transaction types whilst he/she is processing the transactions.

Job Cost Transactions

The Accounts Payable invoice is the most common transaction type, it can be created from a Voucher, Purchase Order, Contract or Progress Claim Certificate or as an "Unlinked" invoice. Voucher will be explained further on is this document.

In all these cases the detail for the invoice is populated from the initiating commitment document. The builder will then enter invoice number, date etc and check if the value of the invoice is the same as the commitment document. If not then the builder will edit the values and click on Ok to confirm.

An unlinked invoice uses the same process as other invoices but because there is no initiating document the builder will need to enter the appropriate cost code for that invoice.

Disbursements are used to process costs to a job where no external document is received. An example of this type of transaction is where a builder might want to cost his administration costs proportionately to jobs or where existing equipment such as excavators owned by the builder are to be allocated as costs to a job.

Timesheets can be posted to jobs as costs for both employee and equipment time that is allocated to the job.

Budget checking is then performed on each line within any of the transaction types and the builder is advised if the transaction is over the budget rules that have been set. If the transaction falls within the budget then the cost is processed against the job and will show as an actual on all enquiry screens and reports.

Report on Costs

Now that the job costs have started to flow it is essential to have the ability to report on the current status of any job to manage the budget and look at job profitability.

There are many standard reports that are extremely useful to the builder.

Here are a few examples:

Report	Description
Job Performance Analysis	The Job performance report will show in detail or summary the Original Budget, Variation Budget, Current Budget, Commitments to Budget, Actual Costs, Cost to Complete, Forecast and Underrun/Overrun

Report	Description
Job Status	The Job status report will show in detail or summary Client Contract value and Variations, Cash Flow Summary, Project Cost Summary and Claim Summary
Job Profit Budget	The Job Profit Budget report will show by job Adjusted Contract Value, Budget, Forecast, Commitments, Actual Costs, Cost to Complete, Overrun/Underrun, Budget Profit $ and %, Forecast profit $ and %.
Job Summary	The Job Summary will show Budget Remaining (displays original budget, variations and commitments), Variations – Approved and Pending, Budgeted Profit Summary, Cost to Complete Summary, Actual Result to Date Summary, Sales and Claims Summary, Issued Orders& Contracts Summary and Cashflow Summary. From the Job summary enquiry window the builder can drill down and report onto commitments and transactions at Trade and Cost Code level.

Progress Claim Certification

It is a common contractual provision that a contractor's entitlement to payment of a progress claim will be subject to **certification by an authorised Project Manager or Builder**.

The Contract Management module will allow the builder to enter subcontractor invoices as a progress claim certificate and apply the percentage complete against each trade within the contract. This % would normally be applied after it has been certified and approved. The subcontractor would then be issued a copy of the progress claim certificate that would show what is being paid and if there was payment withheld and for what reason.

The progress claim certificate is a 2 page document.

- Page 1 will show a full summary of the contract including approved variations, adjusted contract value, value of works complete, retention, payments and any notes relevant to retention, liquidated damages and any other withheld values.
- Page 2 will show a line by line trade breakdown and Approved Variations with Total Value, % complete, Claim Value and Value of Work Remaining as well as a Progress Summary including Variations.

For each successive progress claim the retention calculated is based on previous claims and the total outstanding retention at that time. The builder has full control over the retention release process.

To process the actual cost the Job AP invoice will be generated from the Progress Claim Certificate.

Sub Contract Variation Management

An important part of the builder's budget and performance management during the construction process is an easy to use variation process. Each Sub contractor variation can be entered directly from the contact maintenance or the progress claim certificate entry screen. A subcontract variation can have a status of: Approved, Unapproved, Discussion or Rejected.

The builder has the ability to view the Job and Cost Code budget status whilst entering the sub contract variation this allows the builder to decide if he can use any available budget still remaining on the job or if other measures need to be taken such as a budget transfer to allow for the additional cost.

Once the variation is approved it will be included in the adjusted contract sum. In some cases the builder may prefer to show Unapproved, Rejected and Discussion variations on the Progress Claim Certificate summary for information purposes, this can be set in the Contract Management default setting if required.

Track and authorise claims and invoices

A voucher is an invoice "tracking" process.

For those builders who have concerns that supplier invoices will go missing during the process of a Project Manager waiting to approve them, this transaction will record the Voucher as an "accrual" against the job whilst waiting for the approved invoices to be returned.

Once the voucher is returned approved the invoice is created from the voucher and budget checking is done.

Timesheets and Payroll

Builders would generally have employees who work solely on job sites rather than in the office in an administrative roll.

Timesheets can be posted to jobs as costs for employee time that is allocated to the job. Timesheets can also be used by the builder for equipment to be charged to the job on an hourly basis.

Each Employee and or Equipment has a number of charge-out rates as well as a cost associated to them. When the builder is entering the timesheet the process allows for the selection of any charge rate, this is particularly useful for do and charge type jobs.

Job Costing timesheet entry can be integrated to the Payroll. This eliminates the need for duplicate entry for processing of employee hours to the Payroll.

The Payroll module is used to generate timesheets from the Job Costing module for the hours worked by the employee. All other payroll information such as contributions, deductions, and allowances are then applied to the timesheets for the periodic payroll process.

Claims and Revenue

- Number of methods for claiming revenue
- Head Contract Variations
- Percentage of project compete
- Open book approach
- Do and Charge method
- Task Based Claims

We have now come to what is arguably the most important function of an Integrated ERP system.

Depending upon contractual conditions with a Client, the builder may require different methods of invoicing. We are now going to discuss 4 different types of client invoicing which will allow the builder full control of what is invoiced and when.

If there is any retention to be held by the client on this project the rules for retention will be set up of the rules tab of the Job properties. The builder will need to maintain these rules and ensure that the original contract value (exclusive of tax) has been entered on to the Job basic tab. The software will need these to be able to correctly calculate certain types of claims and retention values.

Head Contract Variations

- A Head Contract is the contract between the "Client" and the "Construction Company"
- A Head Contract Variation is a change to the Head Contract which is normally requested by or agreed to by the client

Strict management of a client's variations and subcontractor variations are vital in achieving effective control and accurate financial reporting throughout the job life cycle.

Head Contracts can be categorized as "Approved, Unapproved, Discussion or Rejected"

- Discussion – raised once a change in scope of works is known

- Unapproved Variation – a firm $ amount is submitted to the client for approval when the scope of works is fully costed.
- Approved Variation – upon client approval
- Rejected – Variation is rejected by the Client

When a Head Variation has been approved the budget adjustments can be made to all subcontractor variations that are related via the Contract tab within the Head Variation. This function is a huge timesaver to the Builder so that he/she does not have to move from module to module.

A Head Contract variation can not only be processed in the Job Costing module but also in the Contract Management module at the Job/project level.

Many larger construction companies prefer to keep Project Managers out of the Job Costing module, for this reason all functionality that is required by a Project Manager is accessible in the Contract Management module.

Percentage of Project Complete Claim

There are essential processes that the builder will need to complete before % complete progress claims can be generated.

Firstly the Job must have a Contract Value and secondly it must have a budget on the job. The builder will need to go to the "Allocate Margin" tab on the job and "Spread" the margin. This process can be done automatically and manually if preferred.

Each job can be broken down into a number of Trades. The total of these trade budgets plus profit margin will equal the Contract Value. For each of the trades claim budget the system will reconcile the original budget (plus margin) plus previous claims, value completed to date and balance to complete. This information is bought into any new progress claim to allow the builder to generate a new claim based on percentage complete to date.

When the builder is generating a new claim he/she can enter a % complete to date against any trade or variation until 100% completed. The calculated values are returned to the invoice summary screen and the invoice is generated.

Open Book Approach Progress Claim

This type of claim will allow the builder to enter a manual claim value. These types of invoices are often used for small or ongoing maintenance type jobs that have no contractual terms. The builder can enter a value into the exclusive or inclusive of tax field and the balance of the invoice is automatically calculated. A manual retention value can be entered by the builder if required.

Any "uninvoiced" costs associated with this job populate the entry screen, the purpose of this function is to move the costs from work in progress to cost of sales. The builder is given an indication of what costs have been expensed to the job since the last invoice.

When entering a claim a summary of previously posted and unposted claims for the job are displayed on the invoice entry screen.

Do and Charge Invoicing

Do and Charge invoicing allows the builder to invoice the client based on actual work done and recorded as a cost against the job. When the job is selected he lines of the invoice are populated with any costs that are flagged as "uninvoiced" and each line will have a cost and a charge value associated with it.

This type of invoicing will generally include materials and labour hours. The builder is able to accept the invoice lines or change them if required. It is not common practice to hold retention for Do and Charge work but the builder is able to manually enter a retention value if required.

Task Based Claims

Task Based Claims are used to make claims based on completion of scheduled tasks or milestones typically by those builders involved in residential project home construction.

The builder will set and maintain his own tasks via the Job Task Maintenance and any or all of the standard tasks can be pulled into any job. As the builder generates the set of tasks he/she can nominate Scheduled and Actual Start and Completions dates as well as the % of contract for each task or milestone. When a task is completed the builder marks the checkbox and generates a claim for the value nominated against that task.

Work Scheduling is also able to be used with task management to enable builders to allocate resources and track the progress of each task or milestone, it is also possible to output this information to MS Project.

Reporting

Project Completion

Create and produce sophisticated and well formatted reports

As well as standard project reports there is also a powerful report writer which will allow the builder to extract the required data from the database and format professional looking reports directly in Excel.

Compare actual results to original estimates

Standard Job reports within the system will allow the builder to compare actual results to the original estimate. The builder needs to use his reports to determine where and why his costs were over or under run and did he make his projected profit.

Analyse losses and trends

Look for reasons why you did or did not make a profit. What was the cause of cost blowouts during the construction phase, is there pattern to material cost increases.

Have your labour costs increased?

A simple way to check this is to report on the Labour Timesheet hours used on the job (Employee Job Analysis report) and compare it to your total Wages for the same period. If there is a serious difference then the builder has a Job Cost rate that is understated in the Employee Job Cost Rates. The builder needs to ensure that the rate is a "true cost" for the employee – in reality Hourly Pay Rate plus all oncosts such as superannuation and leave entitlements.

It is often a good practice for a builder to compare costs on similar projects in order to determine where costs have dramatically increased.

Builders will often make the mistake of using a job estimate template from a previous project and make minor changes to save time. He will often forget to "recalculate" costs on the new job estimate. The estimating software will allow the builder to "recalculate" the new estimate based on current costs held against the items within the estimate.

Build a knowledgebase to avoid future mistakes

Take stock of all the lessons learned and incorporate them into your knowledgebase.

Go back to the original estimates and templates and allow for changes in conditions or market trends so that the next time "the same mistakes will not be made".

Project financials

Management Accounting will allow the Builder to

- Respond quickly to trends in the construction sector
- Reduce costs by closely monitoring material and labour costs
- Improve and control of Cashflow.

A fully integrated ERP software system will help the builder's management accounting by including:

- General ledger, Cash and bank reconciliations
- Complete budget control & authority
- Cost commitment & invoicing

- Forecast to complete
- Payroll

Key Benefits Summary

- Better resource allocation
    - Lower operational costs
    - Reduce administrative workload
    - Streamline financial operations
- Proactive decision making
    - Improved planning and forecasting
    - Less room for error
    - Tight budget controls
    - Improved visibility
- Improved insight & visibility
    - Resolve problems early
    - Greater control over projects
    - Produce detailed reports
- Meet your deadlines & budget
    - Better time management
    - Improved employee productivity
    - Manage multiple projects
    - Effective subcontractor management
    - Reduce time-consuming errors

Revision Questions

1. Suggest a scenario where a Smart Item might be used
2. What function will a builder use to maintain budgets on Sub Contracts?
3. Which module will allow the Builder to drill down to commitments and actuals from the same window?
4. Where are subcontractor mandatory licence details maintained?
5. Which module and function will allow the attachment of electronic files for example Drawings?
6. Give a brief explanation of retention and where it is maintained at job level.
7. What type of Budget warning options are available on a Job and how do each of them effect budget control?
8. Describe the “Current Budget” on a Job Report.
9. What is a Budget Transfer?
10. What are the Status codes that can apply to any variation?
11. What is a Voucher?
12. Give an explanation of a Head Contract.
13. Give a definition of WIP (Work in Progress) when processing a claim to the client.

14. Define a % Complete Progress Claim to the Client.

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