Audience:

Constructor Support Staff

Users of Constructor's Accounting and Project Costing features

Introduction

Constructor's Work In Progress reporting caters for the calculation of Work In Progress and Revenue In Advance values, per project, using either Original Budget or Forecast Costs amounts for calculating percentage complete per project and Historic Cost or Earned Value valuation methods for the final reported figures.

Reporting can occur on selected projects if necessary and be back dated to any point in time.

Overview

The purpose of Work In Progress Reporting is to match all revenue, for work completed, with the costs incurred with earning that revenue - in the same reporting period.

Therefore if you have recorded costs at a given point in time and have not yet earned or collected revenue in relation to those costs, you are not expected to report those costs yet.

At a given date, such costs represent an asset, something you have paid for and will realise value for your business in the future - an Asset: **Work In Progress** (W.I.P). Likewise, if you have collected revenue that relates to costs you have not incurred yet, you should not be reporting that revenue yet - you have a liability: **Revenue In Advance** (R.I.A.).

While the tax effect of a large value for Work In Progress does reduce the costs you are able to report and is therefore undesirable in the short term, it is important to remember that Work In Progress Reporting is all about timing. All costs will be reported eventually. What you record as W.I.P. in one accounting period quickly returns to your Cost of Sales the following period and hence the tax benefit returns. The reverse is of course true to Revenue In Advance.

The most important facet of Work In Progress Reporting is **consistency**.

Details

What is Work In Progress?

The official definition of Work In Progress, according to section 25-95(3)(a) of the Income Tax Assessment Act, (see Appendix 1) refers to Work In Progress as an amount *"*in respect *of work that has been partially performed [for a third party]*".

Basic accounting valuation principles such as the "lower of cost or net realisable value" and "conservatism" would dictate that this *amount* should be calculated as the actual cost of the work in progress, rather than the market value of that work.

In our discussions with Constructor users and their accountants however, a desire has been expressed by some parties to have some of the market value, or indeed "profit" contained within that work in progress" taken into account within the figures reported.

As "consistency" in reporting seems to be the overriding factor regarding work in progress, it has been decided to offer both methods of reporting, and as mentioned, make it easy to report consistently from period to period, using the same options.

In summary it is possible to value your Work In Progress in one of two ways:

1. **Work In Progress: Earned Value**...the market value (the revenue that has been earned) that is yet to be claimed based on costs incurred.
2. **Work In Progress: Historical Cost Value**...the cost value of work performed (expenses in) that are yet to have been claimed (customer invoiced).

Percentage Completion Calculations

Various calculations are performed in order to determine what percentage of a job can be deemed complete. These calculations can be made from the point of view of both revenue and costs.

Revenue Based Percentage Complete: is the extent to which a project can be deemed complete according to how much of the total revenue to be claimed, has in fact been claimed.
This will be equal to "Total Claims" / (Total Contract Price including accepted variations). If no contract price has been recorded, then this will be deemed to be 100%. In this case, any actual revenue received (like a deposit, will in turn be deemed to be Revenue In Advance). This will be expressed as a percentage.

Cost Based Percentage Complete: is the extent to which a project can be deemed complete according to how much of the total budgeted or forecast costs have been incurred.
NB: Using forecasts instead of total budgeted costs will give a more accurate indication of percentage complete in instances where costs have exceeded budget especially early in the project.

In either case the accrual method of accounting will be used which means whether or not the claims have been receipted or the supplier invoices been paid, is irrelevant. Baring these methods for determining percentage complete, let's look at the two methods for valuing Work In Progress.

Valuation Methods

Earned Value

This method of valuing Work In Progress will value that work that has been completed but not yet claimed (invoice to customer) at its "retail value", That is, it will measure the revenue that work currently not claimed for, represents.

This will be achieved by determining how complete a project is, in terms of costs incurred then projecting how much revenue ought to have been claimed as a result. To determine this, the system will calculate the percentage of actual costs incurred (expenses) of either "Total Budgeted Costs" or "Total Forecast Costs" (depending on which preference has been specified).

The system will then determine how much revenue ought to have been claimed based on this percentage. It will multiply the total Contract Price, including accepted variations by this percentage complete figure arriving at a "projected revenue figure".

If this "projected revenue figure" is higher than actual revenue, then there is work which has been done, revenue for which has not yet been claimed, i.e. there is work in progress. The amount of this work in progress is deemed to be the revenue that is represented by that work: Projected Revenue – Actual Revenue.

If on the other hand, the "projected revenue" is lower than actual revenue, more revenue has been claimed than there ought to have been therefore we have revenue in advance to the value of the difference.

Actual Costs	Total of all supplier invoices to date
Actual Revenue	Total of all claims to customers to date
Budgeted Costs	Total budget for the job – derived from the "Estimating Model"
Total Contract Amount	Total contract amount of project plus retail value of any accepted variations
Percentage Complete Cost	**Actual Costs / Budgeted Costs**
	or;
	Actual Costs / Forecast Total Costs
Expected Revenue	**Total Contract Amount * Percentage Complete Cost**
Work In Progress	**Projected Revenue – Actual Revenue**
(Revenue in Advance)	

Historical Cost

This method of valuing Work In Progress will value work performed but not yet claimed, at its cost price. To do this however, the costs incurred on the project so far which **have** had claims raised to cover them must be identified.

In accounting terms, this is known as the matching principle.

The solution to determining which costs against a project **have** been matched to a project and which haven't as yet (and are therefore work in progress) lies once again in determining Percentage Complete. Unlike the Earned Value method above however, the Historical Cost method will need to determine percentage complete figures based on both revenue **and** costs.

The percentage complete figure based on costs will be calculated as above – by determining the percentage of actual costs incurred (expenses) of either "Total Budgeted Costs" or "Total Forecast Costs" (depending on which preference has been specified). An important rule at this point is that this percentage complete figure will **never be allowed to exceed 100%.** If actual costs exceed total budgeted costs (or forecasts) the percentage complete based on costs will be deemed to be 100%.

The percentage complete figure based on revenue will be calculated by determining what percentage of the Total Contract Amount (including accepted variation) has been claimed. An important rule at this point too, is that this percentage complete figure will **never be allowed to exceed 100%.** If actual revenue somehow exceeds total contract price the percentage complete based on revenue will be deemed to be 100%.

At this point, the system will determine what the value of costs (expenses) **ought to be** (projected costs) based on the "revenue based" percentage complete.

Conversely the system will also determine what the value of revenue **ought to be** (projected revenue) based on the "cost based" percentage complete.

At this point, if "actual costs" exceed "projected costs" we have "Work In Progress". The difference between the two figures is the cost value of "Work In Progress".

If on the other hand "actual revenue" exceeds "projected revenue" we have "Revenue in Advance". The difference between the two figures is the value of "Revenue in Advance".

Actual Costs	Total of all supplier invoices to date
Actual Revenue	Total of all claims to customers to date
Budgeted Costs	Total budget for the job – derived from the “Estimating Model”
Total Contract Amount	Total contract amount of project plus retail value of any accepted variations
Cost Based Percentage Complete	**Actual Costs / Budgeted Costs** *or*; **Actual Costs / Forecast Total Costs**
Revenue Based Percentage Complete	**Actual Revenue / Total Contract Amount** (no contract price = 100%)
Projected Revenue	**Total Contract Amount * Cost Based Percentage Complete**
Projected Costs	**Total Budgeted Costs * Revenue Based Percentage Complete**

<u>Where Actual Costs exceeds Projected Costs</u>:

Work In Progress	**Actual Costs – Projected Costs**

<u>Where Actual Revenue exceeds Projected Revenue</u>:

Revenue In Advance	**Actual Revenue – Projected Revenue**

When studying these formulas in detail there would appear to be a risk that both the final conditions could be met. If Actual Costs exceeded Projected Costs, and Actual Revenue exceeded Projected Revenue, we could have a scenario whereby a project had both revenue in advance and work in progress.

Having both Work In Progress and Revenue in Advance does not make sense. The scenario will in fact be impossible on account of the rule that prevents the Percentage Complete figure for either Cost based or Revenue based methods exceeding 100%. This prevents the “projected” figures going higher than the total budgeted, forecast or contract amounts.

Where both percentage complete figures are at 100%, the project is effectively complete and there is no work in progress or revenue in advance.

In the scenario where no contract price has been recorded, and no budget exists, any actual values (costs and / or revenue) will also cause calculations to arrive at both RIA and WIP. (This is because expected revenue would be $0 and expected costs would be $0.)

In this case;

1) Any revenue received, will be deemed to be Revenue in Advance, as it is "reasonable to expect" revenue is to be earned in the future (section 25-95 1(b) of Tax Act – see Appendix 1) but there is currently no recorded value as to the extent of that future revenue, and,
2) No Work In Progress will be recorded as with no contract price or budget, it is impossible to determine what costs you would expect at the time of reporting and therefore no recoverable debt has been established.

   To avoid this scenario, an "estimated" contract price could be included in order to arrive at a Work In Progress value, where costs have been incurred early in a project life cycle.

Appendix 1: Definition of Work In Progress

From the Income Tax Assessment Act, 1997:

SECTION 25-95 Deduction for work in progress amounts

25-95(1)

You can deduct a *work in progress amount that you pay for the income year in which you pay it to the extent that, as at the end of that income year:

(a) a recoverable debt has arisen in respect of the completion or partial completion of the work to which the amount related; or

(b) you reasonably expect a recoverable debt to arise in respect of the completion or partial completion of that work within the period of 12 months after the amount was paid.

25-95(2)

You can deduct the remainder (if any) of the *work in progress amount for the following income year.

25-95(3)

An amount is a ***work in progress amount*** to the extent that:

(a) an entity agrees to pay the amount to another entity (the ***recipient***); and

(b) the amount can be identified as being in respect of work (but not goods) that has been partially performed by the recipient for a third entity but not yet completed to the stage where a recoverable debt has arisen in respect of the completion or partial completion of the work.

25-95(4)

An amount does not stop being a ***work in progress amount*** merely because it is paid after a recoverable debt has arisen in respect of the completion or partial completion of the work to which the amount related.