Should we Forecast by *'Anticipated to Complete'* or *'Estimated Final Cost'*?

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Introduction

Cheops provides a choice of two forecasting methods. These are:-
'Anticipated to Complete', where users forecast the value still to be spent (committed), and the forecast cost is the total of the current committed cost plus the anticipated to complete.
'Estimated Final Cost', where users forecast the total value to be spent overall.

At some point, every construction company will have a discussion about the most appropriate forecasting method for their company. This paper attempts to describe the advantages and disadvantages of each method, to allow management to make a properly considered decision as to the most appropriate method for their business.

It is worth noting at this point that I believe that there is no 'right' method. Both methods have pros and cons and the choice will come down to one or two small factors. Once the choice is made, the chosen method applies to all projects within the *Cheops* company. Each *Cheops* company may use a different method. The method may be easily changed in the future if required.

In my experience, approx. 50% of construction companies use 'Estimated Final Cost', and 50% use 'Anticipated to Complete', so opinion is quite evenly divided!

The Components of Forecasts

The words 'forecast final cost' and 'estimated final cost' may be used interchangeably. *'Estimated'* and *'Forecast'* mean the same thing in this context. We will use 'estimated final cost,' as that is what is used in *Cheops.*
The estimated final cost comprises (1) the amount spent (committed) to date, plus (2) the amount still to be spent (anticipated to complete). So the estimated final cost is the sum of these two components. If we know any two of the three values, then of course we can derive the third value.

The 'Estimated Final Cost' method

The **Estimated Final Cost** method, is where the user is asked to enter a full forecast for every cost that will be encountered on each cost reference, regardless of what has been currently committed (orders and contracts, etc.). The forecast is the full value of anticipated spending on that trade. Therefore, at project completion, the actual cost should be equal to the last forecast, for each cost reference.

In some companies, this may be a simpler method, as it does not rely on the committed cost being up to date. If contracts and purchase orders have not yet been entered, this has no impact on the forecast.

Also, if a forecast has been entered in one month, there may be no need to change the forecast in the following months if nothing has changed – the contract sum has not changed, no variations have been issued, etc. and so the forecast for the trade will not change.

The 'Anticipated to Complete' method

The **Anticipated to Complete** method, is where the user is asked to enter a forecast for any items not yet committed (ie. the *'anticipated to complete'*). The system shows the current committed cost for each cost reference (and this is already included in the forecast), and the user considers what else needs to be spent on each cost reference. The estimated final cost is thus equal to the current committed cost plus the anticipated to complete value entered.

In some companies, this may be the preferred method. If the committed cost is diligently kept up to date, with all purchase orders, contracts, variations, etc., entered immediately they are known, then forecasting the 'what is left to spend' should be quite simple. However, as I have said, if the current commitment is not accurate, then the forecast is not accurate.
Also, if a forecast has been entered in one month, and the commitment has since changed, then the forecast (anticipated to complete) must be changed.
For example, on a new project, forecasts for 'anticipated to complete' are entered for each trade. The budget for the painting trade is $1 million, so a $1 million forecast is entered. The current commitment (nil) plus the anticipated to complete ($1 million) is a forecast of $1 million, and all is well. Sometime later, the painting trade is let for $900k so we now have an estimated final cost equal to the current commitment ($900k) plus our anticipated to complete ($1 million) equals $1,900,000 - which is clearly incorrect, and has to be changed.

With both methods, project staff need to be diligent and on top of their game, as it is easy to '*under*' forecast and therefore receive some nasty surprises in the latter stages of a project. This may be marginally more important with the estimated final cost method.

As mentioned above, there are only three simple factors in the forecasting process.
- The amount currently spent, or current committed cost,
- The amount still to be spent, or committed – the 'anticipated to complete', and
- The estimated final cost.

The Similarities in Both Methods

At project commencement, both methods are basically the same. At the beginning, there will be little or no committed cost on most cost references, so our 'anticipated to complete' is the 'estimated final cost'.

Both methods arrive at the same answer, and that is - we wish to forecast the final cost of the project and hence the final margin.
If we enter Estimated Final Cost, then the system deducts the current commitment, and shows us the anticipated to complete.
If we enter Anticipated to Complete, then the system adds the current commitment, and shows us the estimated final cost.

Advantages and Disadvantages of the two methods

Estimated Final Cost method (EFC)	Anticipated to Complete method (ATC)
The user enters notes reflecting the **total** to be spent on each cost reference, regardless of what is spent to date.	The user enters notes reflecting the **balance** still to be spent (the 'anticipated to complete'), based on what has been spent (committed) to date.
The forecast final cost **IS** the value entered by the user.	The forecast final cost is the current committed cost, plus the anticipated to complete value entered by the user.
Committed cost is irrelevant to the forecast.	Committed cost forms part of the forecast and should be managed diligently. It is critical that purchase orders are fully priced, and subcontracts are setup with full and correct values, including full pricing of rates subcontracts.
If the previously entered forecast for a cost reference still holds (even though the commitment may have changed) there is no need to adjust the forecast.	As the committed cost changes over time, users need to consider adjusting the forecast each month for each cost reference.
Potential may exist to under forecast.	There may be less potential to 'under' forecast, as the forecast final cost is always equal to or greater than the current committed cost.
It is likely that the EFC method may suit high value, highly complex projects of long duration, where the procurement process occurs progressively throughout the entire project.	It is likely that the ATC method may suit lower value, less complex projects of shorter duration, where the procurement process occurs relatively quickly at the start of a project.

Summary

You will see from the above, that the method chosen is less important than the need to be diligent with the actual forecast. It is likely not worth having a huge debate about the method.

The actual **forecast value** is the key to achieving a successful outcome for the project, and also the key to the ongoing success of the entire business. A single project which, throughout most of the construction period, appears to be profitable and then suffers a catastrophic loss, can have an equally catastrophic effect on the overall business.

The key is - train the project staff extensively in the **how and what** to forecast.
Ensure that they all understand the importance of covering all contingencies.
Ensure that they have an allowance for all costs that may be required to complete each trade package.
Ensure that any real contingency allowance is reported separately (using the *Cheops* contingency/trade allowance flags) so that any 'padding' is transparent and identifiable by management.

Having chosen your preferred method for forecasting, now please also refer to the **Forecasting Strategies** paper for the next steps.