

Thought Leadership Articles

Summary

Over the last 10 years eTrack has discussed business processes and practice management software requirements with about 10,000 architects and other building professionals. These Thought Leadership articles share trends, business practices and ideas we have gathered from our discussions.

#1 Estimating Fees: Basic rules for avoiding costly oversights

This first article below is a simple step by step guide on how many architects estimate fees. This article is a 'how to' guide which presents a few simple calculations you can use to help ensure your fee estimate is both profitable and competitive.

#2 Calculating Charge and Cost Rates

How much is your time worth? Or the time of your staff? These are two of the most essential metrics in any architectural practice and can often spell the difference between profitability and loss. This 'how-to' guide, based on years of talking to architects, will help you establish your hourly rates based on actual costs.

#3 Time Management Tips

Five top time management tips that can really make a difference.

#4 Combining % Based and Time Based Invoicing for a win-win solution

Many Architects invoice Stages based on a % of adjusted contract fee. However clients can be surprised and upset when invoiced for past stages. This Thought Leadership article explores the practice of quoting as a % but billing the time done. This achieves the benefits of both low risk and client happiness.

#1 Estimating Fees: Basic rules for avoiding costly oversights

This article is a simple step by step guide on how many architects **estimate fees**. This article is a 'how to' guide which presents a few simple calculations you can use to help ensure your fee estimate is both profitable and competitive.

There are many ways to estimate fees. You could use a 'gut feel' method that works if your projects are similar, or you could base your estimates on past project performance. However, in most cases you should also follow a fee estimation process. Here are some steps to follow.

First you need some metrics

1. **Building Fee (BF)** – this is the building contract estimate (if known)
2. **Contract Fee (CF)** – You can calculate the **Contract Fee** by multiplying the **Building Fee** by the **Contract Percentage (C%)** you plan to charge for your services.

$$CF = BF * C\%$$

Our experience is that **Contract Percentage** for Australian architects ranges between 6% and 11% with a mean of about 8%.

- Now you need to calculate the individual **Stage Fees**, for instance for Development Application. To calculate the **Stage Fee (SF)**, multiply the **Contract Fee** by a **Stage Percentage (S%)**.

$$SF = CF * S\%$$

Some stages may be "lump sum" and be excluded from the percentage breakdown. The total of the percentages need not always add up to 100%.

- Now that you have calculated the **Stage Fee**, you have to decide whether the fee basis is **Fixed Fee**, **Percentage-based** or a **Time and Materials**.

For **Fixed Fee**, be clear what disbursements are included and excluded (eg travel / flights / number of prints) and it is a good idea to cap all variable disbursements. You can be generous, but this will limit your risk. Make clear the cost of additional disbursements. Try to exclude disbursements that you know are risky or that can be a good source of additional income.

For **Percentage-based Fees**, clearly set expectations that the client may be charged more (or get a credit note!) for completed stages if the Building Fee changes.

For **Time and Materials**, you may still need to provide an indicative amount and disclose hourly rates (often by role) and disbursements fees by type.

- Now you need to estimate the number of hours for each stage. You can do this by looking at various factors:
 - Compare with recent similar projects;
 - Hours for each resource, by role or named person;
 - Hours for each deliverable such as drawing or CAD view;
 - Hours for each activity such as QA task;
 - Hours to reach each milestone.

For larger projects or high level estimates, days or weeks could be used instead of hours.

- Next estimate **Disbursements** fees by type.
- Now recalculate the **Stage Fee** by using the **Hourly Charge Rate** and **Margin** and compare the two estimates. You have probably already defined **Charge Rates** either by person or role but if unsure this will be the subject of the next article: "[Deriving Staff Charge and Cost Rates](#)".

$$\text{Stage Fee 2} = (\text{Hours} * \text{Charge Rate}) + \text{Disbursements} + \text{Margin}$$

For **Time Based** stages, the **Stage Fee** calculated in step 3 is a verification guide and typically changed to equal **Stage Fee 2** which may be communicated with the client as an indicative amount. If profit is built into the Charge Rate then **Margin** can be \$0 (since the risk is low compared with Fixed Fees).

For **Percentage-based**, the **Stage Fee 2** is the verification guide and the two should roughly match. A **Margin** can be applied for risks associated with items not related to the **Building Fee** increasing or it can be \$0 if completely built into the **Charge Rate**.

For **Fixed Fees**, the **Stage Fee 2** is again a verification guide. Since by fixing the fee you are taking the risk, a margin is typically added on for risk, contingency and profit in addition to that built into the **Charge Rate**. Margins seem to vary widely in Australia between 0% during the GFC to 200%, with 25% being typical in early 2011.

There are other ways to verify the estimates but never forget the "gut feel" check. Sit back and think about the project compared with all your past experience and current competition and ideally don't send before checking you can sleep on it!

#2 Calculating Charge and Cost Rates

How much is your time worth? Or the time of your staff? These are two of the most essential metrics in any architectural practice and can often spell the difference between profitability and loss. This 'how-to' guide will help you establish your hourly rates based on actual costs.

To estimate and track project budgets you need to decide what hourly or daily rates to use. These are used not just for time-based quotes but are important as a verification guide for Percentage Based or Fixed Fee estimates as discussed in our earlier article '*How to Estimate Fees*'.

Most architects plan and track projects using two rates:

- **Cost Rate** derived from salary plus overheads;
- **Charge Rate** or **Billing Rate** used for invoicing.

Cost Rate is best defined for each staff member since the rate can change at any time during the project due to pay rises (and cuts) and promotions, either temporary (such as when in a higher role) or permanent.

Charge Rate can be defined for each staff member or for each Role and can vary from project to project depending on building location, staff location, building type (commercial/retail etc), the client or from year to year. It may contractually stay the same for the life of the project or go up each year for example by CPI (consumer price index).

Cost Rate Calculation

First a few definitions:

- **Annual staff salary** is the staff member's gross salary or equivalent plus any annual bonus plus superannuation;
- **Staff overhead pa** is the total Overheads per annum divided by the total number of FTE (average full time equivalent) staff in that year, where **Overheads** include rent or equivalent, other building costs, insurances, computers, software, furniture, office materials, petty cash, parties, cleaners and maintenance costs etc. and are assumed to be averaged equally across all Staff;
- **Productive Hours pa** refers to the number of actual hours worked per annum. For example there are 52 weeks a year minus 8 weeks of annual leave, statutory and sick days = 44 weeks. Then for example multiply by 37.5 hours per week and you get 1650 productive hours. (You may like to choose slightly different values such as 35 productive hours a week.)

A rough calculation for the Cost Rate per hour for each staff member could then be as follows:

Cost Rate ph = (Annual staff salary + Staff overhead pa) / Productive Hours pa

Charge Rate Calculation

The Charge Rate of each staff member doing billable work **needs to also cover for all non billing staff.**

Consider these some definitions:

- **Staff Cost** is Annual salary + Staff overhead (see above);
- **Support Staff Cost** is the sum of Staff Costs for all non-billable staff;
- **Billable Staff Cost** is the sum of Staff Costs for all staff doing billable work ^{Note 1};
- **Contribution** is an adjustment to cover support staff, calculated as:

$$\text{Support Staff Cost} * (\text{ratio of}) \text{ Staff Cost} / \text{Billable Staff Cost}$$
 ^{Note 2};
- **Staff Margin %** includes risk, contingency and profit ^{Note 3}, for example 150%.

A rough calculation for the Charge Rate per hour for each staff member could then be as follows:

$$\text{Charge Rate ph} = (\text{Cost Rate ph} + \text{Contribution}) * \text{Staff Margin \%}$$

Now, providing that all your fixed price, percentage based and time based estimates use these charge rates when doing hourly resource based estimates and verifications, you should be covering all your costs and making a profit included in the Staff Margin % above.

Note 1. You could take this further in a spreadsheet and derive %billable for each staff member.

Note 2. The denominator is only the Billable Staff Cost and not the Total Staff Cost since Charge Rate is effectively zero for the

Support staff if not billing their time.

Note 3. And more overheads if you wish but note overheads have already been included in the calculation of the Cost Rate.

Role-based Charge Rates

Many architect firms estimate projects using Roles and define **Role-based Charge Rates** rather than rates for specific staff members, in which case you can adjust the above calculations by replacing Staff with Role throughout ^{Note 4}. The advantages of using **Role-based Charge Rates** are:

- You can appear bigger than you are (a sole practitioner can wear many hats!);
- You can change just one rate to affect all staff with that role;
- Invoices can show charge per role without having to mention staff names;
- Staff turnover and positions are hidden from the client.

Note 4. Remember to include all salaries of staff with each Role, and dividing the Overheads by number of Roles.

Some firms use **Role-based Charge Rates** for costs but this is not as accurate and not advised unless for convenience or security reasons.

#3 Time Management Tips

Here are five top time management tips that can really make a difference.

1. Stay focused without the stress.

It is almost impossible to be 100% focused and not have distractions jump into your mind. Fighting these thoughts is stressful so let them in and quickly write them down on a sheet of paper.

If you avoid the urge to 'do it now' or to change screens to record electronically, you will find it easier to remain focused on the current task. Then later you can group like items together so you can action or log more effectively.

2. Save draft emails to your Inbox.

Have you ever neglected to send half-written emails due to interruptions? To avoid this happening change Outlook to Autosave Draft Emails to your Inbox and not to Draft.

(Outlook 2010 Select File/Options, select Mail on left, scroll down to Save Messages section, 2nd item. Outlook 2003 Select Tools/Options, Preferences tab, Click Email Options, Click Advanced Email Options, top item).

3. Exercise as you make phone calls.

When needing a progress update from your staff, or a similar call, why not combine it with some exercise and fresh air? Take a walk out of the office to make the call.

Ask the person to summarise the conversation in an email as you talk and send it to you. This takes no more of their time, helps you to be clear and not ramble, keeps a record and will let you know if they have understood! This is valuable even with staff who sit next to you!

4. End the day with tomorrows To-Do List.

Last thing in the day make a very simple list on a post-it note of what you want to achieve the next day. Add a 'phantom task' for the unexpected. Check it is realistic and that you will be content if just this is done. You will sleep better, your subconscious can mull over it, and you won't get that false feeling you have done something if you write it in the morning!

5. Hide Away during your most productive time.

Work out when your most productive time is and every day during this time 'hide away' for a couple of hours. Turn the phone off, stop new email notifications and ask people not to interrupt you. If you are consistent and don't make it too long, people will respect and soon know they can't contact you.

#4 Combining % Based and Time Based Invoicing for a win-win solution

These days more Architects are using % based invoicing where the fee for some phases is increased if the building cost increases. This is fair for the architect and may well be in the contract but can be disconcerting to the forgetful client who gets invoiced for completed phases already paid.

You could avoid upsetting the client by quoting using % Based fees but invoice the actual time worked.

If the building cost increases, a 'credit' is indicated on the invoice for the completed phases.

On the invoice, this credit is offset against the actual work (time * rate) done.

The benefit to the client is that they see exactly what they are being invoiced for since based on actual work done in the current phase.

The benefit to the architect is that you cover your risk of the building cost increasing and working more hours since you have more 'credit' you can invoice in later phases.

The balance of the (Total % Based Fees - Total time*rates) is clear on the invoice and can be carefully tracked by both the client and the architect.

If the balance (credit) is positive at the end of the project:

- the client feels great at being 'under budget' (a likely case for referral or repeat business); and
- the architect has been paid for all their work and has managed the risk of increased costs throughout the project.

If the balance (credit) goes negative at any point, depending on the agreement either the architect can invoice for the extra hours (with full justification since the whole project has been invoiced hourly), or not, in which case the architect is no worse off than if % Based Invoicing was used....(and if remaining staff hours are tracked for each phase this can be anticipated long before it happens and thus prevented).

This win-win model is more work to track and to prepare invoices but becomes easy if automated.