# Stage 200 Tools

Version V3.10.34: 4 April 2012

## Stage 200 tools overview

Stage 2 (Schematic Design) tools in **iProjects** are:

PF21 Resource Plan
PF22 Project Risk Log
PF23 Change Advice & Variation Request
PF24 Design Variation Log
PF25 Client Decision Matrix
PF26 Information Required Schedule
PF27 Consultants Coordination Verification

**iProjects** ProForm tools are listed under the Stage where they are first needed. Typically, tools started in one Stage are used in subsequent Stages, often acquiring more information input as the project moves along. Exceptions are Common tools (see UserGuide 4.4.1) and Management (Stage 900) tools (see UserGuide 4.4.6).

## Features common to most **iProjects** ProForm tools

Typically, ProForm tools have one or more of three types of on-screen help, as indicated below.

- **Control panel:** Upper right, just outside the form printable area, is a graphic that contains three to seven standard commands, appropriate to the ProForm function. For details on how to use this control panel, refer UserGuide ***1.1: Login & Navigation.*** "Dupe" means "duplicate this record".
- **Margin UserGuides:** On many ProForm templates, there are notes – always in green text, providing advice in using the ProForm. An example is shown right.
- **On-form User Notes:** Many templates include notes within the printable area of the template, as shown right.

Email
Preview
Print
Save As PDF
Zoom
New
Dupe

NOTE: This form is designed to be partially completed digitally (first 3 columns), then printed as a blank distribution template for multiple issues of documents.

USER NOTES:

1. You must have completed Task level pricing on PF18 in order to use this form.

2. Entry earned value data at the Task level, not the Stage level.

3. Obtain "Allowance used to date" values from accounting (hours used x charge rate).

4. **All values on this form EXCLUDE GST or other sales taxes.**

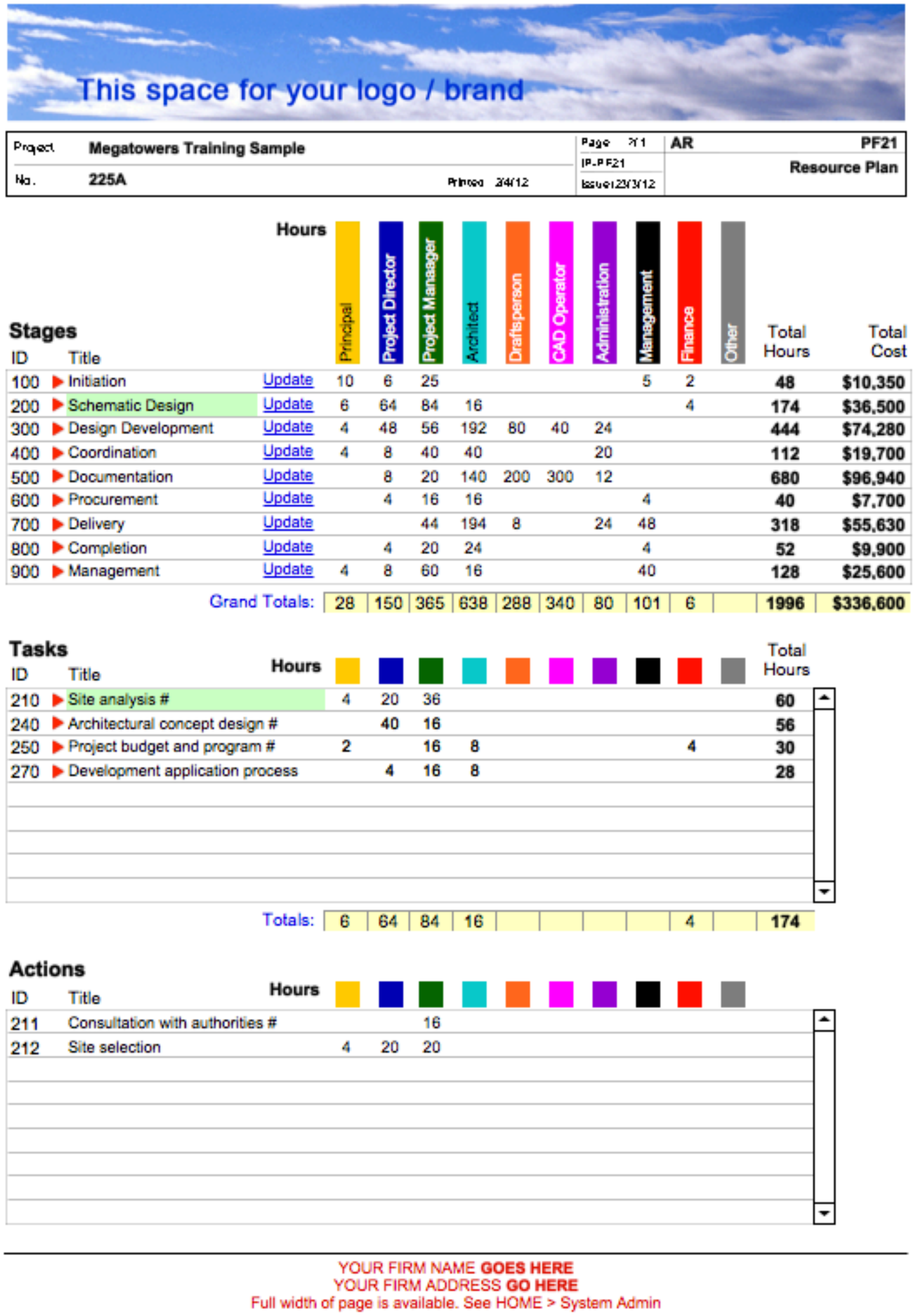
These notes mean that most templates will be self-explanatory, particularly as they are designed to "mirror" the way most practices operate. For inexperienced users, the following details will help explain the use of the Stage templates listed.

## Special features of particular ProForm templates

### PF21 Resource Plan

The **iProjects** Resource Planning tool provides users with a method of predicting staffing needs with as much detail as a project requires. This helps Principals, Project Directors and Project Managers to realistically assign tasks, and to know that the project budget is structured to allow adequate resourcing.

The Resource Plan is shown on the next page.


This space for your logo / brand

| | | | | |
|---|---|---|---|---|
| Project | Megatowers Training Sample | Page 1/1 | AR | PF21 |
| No. | 225A Printed 3/4/12 | IP-PF21 Issue 23/3/12 | | Resource Plan |

**Stages**

| ID | Title | | Principal | Project Director | Project Manager | Architect | Draftsperson | CAD Operator | Administration | Management | Finance | Other | Total Hours | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | Initiation | Update | 10 | 6 | 25 | | | | | 5 | 2 | | 48 | $10,350 |
| 200 | Schematic Design | Update | 6 | 64 | 84 | 16 | | | | | 4 | | 174 | $36,500 |
| 300 | Design Development | Update | 4 | 48 | 56 | 192 | 80 | 40 | 24 | | | | 444 | $74,280 |
| 400 | Coordination | Update | 4 | 8 | 40 | 40 | | | 20 | | | | 112 | $19,700 |
| 500 | Documentation | Update | | 8 | 20 | 140 | 200 | 300 | 12 | | | | 680 | $96,940 |
| 600 | Procurement | Update | | 4 | 16 | 16 | | | | 4 | | | 40 | $7,700 |
| 700 | Delivery | Update | | | 44 | 194 | 8 | | 24 | 48 | | | 318 | $55,630 |
| 800 | Completion | Update | | 4 | 20 | 24 | | | | 4 | | | 52 | $9,900 |
| 900 | Management | Update | 4 | 8 | 60 | 16 | | | | 40 | | | 128 | $25,600 |
| | | Grand Totals: | 28 | 150 | 365 | 638 | 288 | 340 | 80 | 101 | 6 | | 1996 | $336,600 |

**Tasks**

| ID | Title | Principal | Project Director | Project Manager | Architect | Draftsperson | CAD Operator | Administration | Management | Finance | Other | Total Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 210 | Site analysis # | 4 | 20 | 36 | | | | | | | | 60 |
| 240 | Architectural concept design # | | 40 | 16 | | | | | | | | 56 |
| 250 | Project budget and program # | 2 | | 16 | 8 | | | | | 4 | | 30 |
| 270 | Development application process | | 4 | 16 | 8 | | | | | | | 28 |
| | Totals: | 6 | 64 | 84 | 16 | | | | | 4 | | 174 |

**Actions**

| ID | Title | Principal | Project Director | Project Manager | Architect | Draftsperson | CAD Operator | Administration | Management | Finance | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 211 | Consultation with authorities # | | | 16 | | | | | | | |
| 212 | Site selection | 4 | 20 | 20 | | | | | | | |

YOUR FIRM NAME **GOES HERE**
YOUR FIRM ADDRESS **GO HERE**
Full width of page is available. See HOME > System Admin

The Resource Plan begins with the set of Stages, Tasks and Actions as set up in DDNA – the selected project profile is copied into this Resource Plan. As you can see from the headings, there is provision for up to ten "groups" (in some firms called "bands") or firm role titles, with corresponding charge-out rates.

The categories and rates are shown on the sidebar.

Groups are described and rates set in System Admin > Office Settings, and require administrator-level permission access.

The colors are there only to identify the groups down through the Stages, Tasks and Actions.

**Groups**

| Sort | Group | Colour | Rate |
|---|---|---|---|
| 1 | Principal | Yellow | $250 |
| 2 | Project Director | Blue | $225 |
| 3 | Project Manaager | Green | $200 |
| 4 | Architect | Turquoise | $175 |
| 5 | Draftsperson | Orange | $125 |
| 6 | CAD Operator | Pink | $135 |
| 7 | Administration | Purple | $95 |
| 8 | Management | Black | $200 |
| 9 | Finance | Red | $250 |
| 10 | Other | Grey | $100 |

**How to Use the Resource Plan**

This form has two purposes:

**First**, it is used to determine the detail resource plan for the project - by assigning, down to the Action level if desired, the different categories of staff needed to complete the project. This provides a tally of hours of time needed for the project, broken down by skill level.

By selecting the red arrow next to any Stage, you can open the corresponding Task, and by selecting the red arrow opposite any of those Tasks, you can access any Actions assigned in the DDNA setup for the project.

**Second**, as the charge rates are provided for each of these categories, the form can either be used to confirm the cost of completing each of the Tasks and Stages shown on the Project Budget, or can be used to create the Project Budget.

The "Update" button after each Stage title can be used to update the correspondingly value entered in both PF18 and PF91. The user has the option of updating the budget, or not – for example, the firm might choose to offer a higher or lower lump-sum cost for any component of the project, but still retain the calculations used to determine the amount of effort needed to do the Action, Task and/or Stage.

If you compare the figures in the screen shot on the previous page with the below screenshot from PF18, you will see that the values are slightly different. It is your option whether or not to price each component strictly to anticipated costs.

**FEE CALCULATOR**

| Stages | | Title | | Pricing options | Lump sum | Allowance | Hourly rate |
|---|---|---|---|---|---|---|---|
| 100 | ▶ | Initiation | Excl | Lump sum | $10,000.00 | | |
| 200 | ▶ | Schematic Design | Excl | | $37,500.00 | $15,000.00 | $150.00 |
| 300 | ▶ | Design Development | Excl | Lump sum | $68,000.00 | | |
| 400 | ▶ | Coordination | Excl | Lump sum | $20,000.00 | | |
| 500 | ▶ | Documentation | Excl | Lump sum | $95,000.00 | | |
| 600 | ▶ | Procurement | Excl | Lump sum | $7,500.00 | | |
| 700 | ▶ | Delivery | Excl | | $46,000.00 | $25,000.00 | $125.00 |
| 800 | ▶ | Completion | Excl | Lump sum | $10,000.00 | | |
| 900 | ▶ | Management | Excl | Lump sum | $25,000.00 | | |
| E00 | ▶ | Expenses | Excl | Allowance | | | |
| S00 | ▶ | Subconsultants | Excl | | $100.00 | | |
| V00 | ▶ | Variations | Excl | | $500.00 | | |
| | | Internal fees & allowances: | $359,600.00 | Totals: | $319,600.00 | $40,000.00 | |

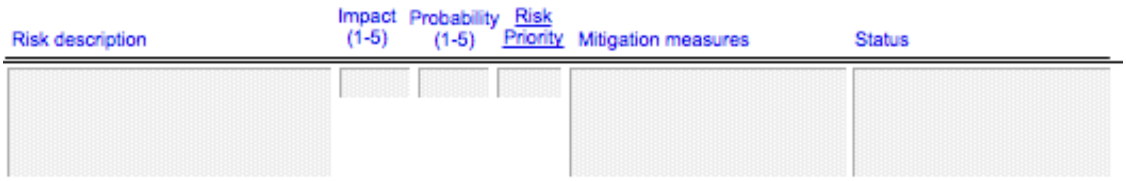
### Cautionary Notes

***Allowances***: This form is used only for Lump Sum amounts, and does not provide for Allowances in either the Task or Stage level of the Project Budget. Therefore it will not account for the time required for scope items carried under Allowances, or for Variations.

***Timing***: This form can be used to update PF18 / PF91 up until project work starts. Once the first Earned Value calculation is done using PF91, updating the project budget thereafter will cause a lot of confusion and error in your cost plan – so: **DON'T DO IT!**

## PF22 Project Risk Log

PF22 is a middle-of-the-range risk assessment and management tool that will be perfectly adequate for the great majority of projects for which you will ever be responsible. The next level up from this risk logic involves so-called Monte Carlo Simulation, which might be appropriate for certain high-risk projects, but would be overkill for most.



| Risk description | Impact (1-5) | Probability (1-5) | Risk Priority | Mitigation measures | Status |
|---|---|---|---|---|---|
| | | | | | |

The main feature of this tool is the weighted Risk Priority assessment represented by the three small fields (Impact, Probability and Risk Priority).

The latter is the result of multiplying the first two values. The Risk Priority field sorts by value, so high risk priority assessments are at the top of the list, and low assessments at the bottom.

When the risk period has passed for a particular item – for example when all "latent conditions" items have been resolved by excavation or uncovering, simply changing the Probability factor to zero will move it to the bottom of the list.

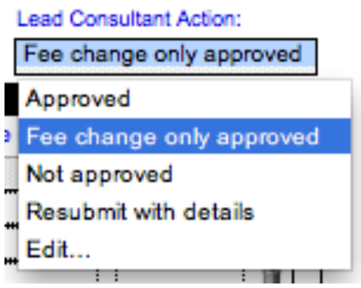
## PF23 Change Advice & Variation Request

This template, together with **PF 24 Design Variation Log**, captures change from PF11 and creates the Fee Variation record. A special feature of this template is that it combines the variation components from ***all*** consultants and integrates them for single action by the Client, ending uncertainty about the overall consequences of a requested change. Once approved, the variation is then "pushed" to PF17 to update the cost plan and schedule. No variation is actioned until approved by the client.

Key features of this ProForm tool:

- Changes logged in PF11 can be "pushed" to PF23 with a mouse click.
- Multiple changes can be aggregated into a single Variation Request (VR), and changes can be added to an existing VR, unless the Variation has been approved.
- The VR is sent to other consultants to determine whether their work would be affected by the proposed variation, and if so, whether or not they could absorb the change without a variation of their own.

- If the change would require other consultants to submit variations, this information would be returned to the sender, who would aggregate the comprehensive variation outcome on the template.
- If the originator of the template was a lead consultant or project manager, the template provides for a review of the consultant requests, for action as indicated in the editable drop-down pane shown right. For example, the lead consultant might approve the fee change, but not a requested extension of time.



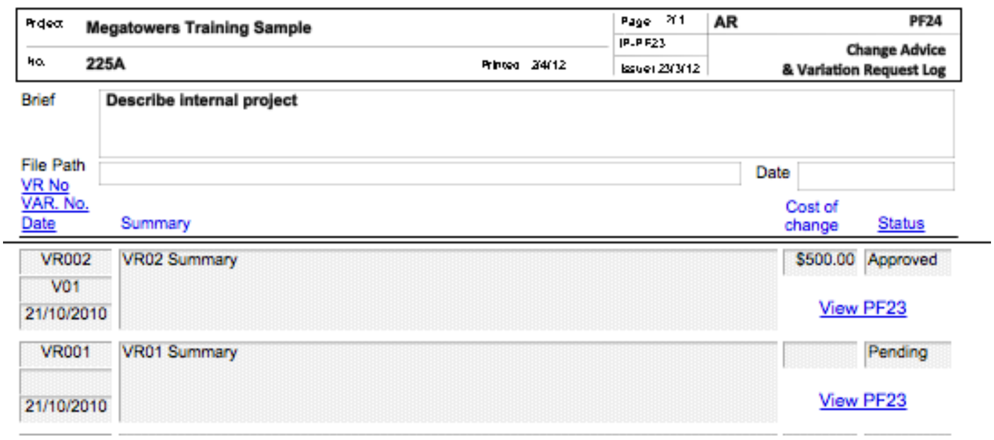

- If the lead consultant disallowed some part of the requests, a negotiation would ensue to resolve the matter.
- Once resolved, the combined variation "picture" would go to the client for review and approval (or rejection). If the client approves the variation request for the firm initiating it, their contract is then adjusted. Other prime consultants will submit their own variation requests, but the amounts and time extensions if any will have already been settled and agreed by the client.
- Creation of VR auto-enters the VR on the Design Variation Log, PF24.
- An "X" in the Client's Approval box automatically pushes the variation entry to both the PF17 Project Schedule (which includes the integral cost plan), and changes the Status in the PF24 record to "Approved".
- The template includes hotlinks to related ProForm documents, as shown right. The active template is always in black text.

PF11 PF18 PF23 PF24 PF91

## PF24 Design Variation Log

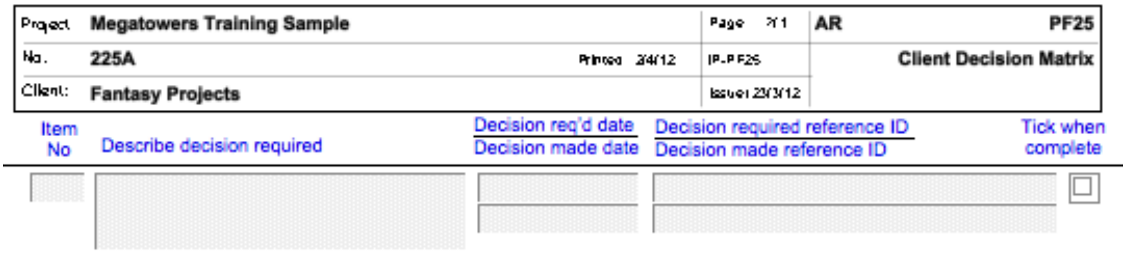
Some of the features of this ProForm template have been discussed above. Others are:

- Identification of the Initial Client Brief (as the first of many instructions) and the hotlink filepath to that document, if needed for review regarding a potential VR (this data is auto-entered, and is the same as entered in PF11 when the project is first set up). Refer PF11 in UserGuide 3.4.2.
- Item-by-item links back to individual VRs.
- Hotlinks to related documents (PF11, PF18, PF23 and PF91)



## **PF25: Client Decision Matrix** and **PF26: Information Required Schedule**

These excellent templates are the invention of Perth-based Christou Design Group, which we've automated and included (with permission). They do what the titles suggest, and are powerful tools to keep clients (and others) current with their project inputs. As with many other templates, these include fields for filepaths so referenced documents can be retrieved in a mouse click.


Project Megatowers Training Sample
Page ?/1
AR
PF25
No. 225A
Printed 3/4/12
IP-PF25
Client Decision Matrix
Client: Fantasy Projects
Issue 23/3/12

| Item No | Describe decision required | Decision req'd date / Decision made date | Decision required reference ID / Decision made reference ID | Tick when complete |
|---|---|---|---|---|
| | | | | ☐ |

## PF27 Consultants Coordination Verification

This template simplifies and facilitates the coordination of the work of all members of the design team, and is a key component of the **iProjects** *Coordination and Integration* logic.

For more detail on this logic, see our website, http://iprojects.net.au/index.php/control_and_integration.

Using this template provides a structured and efficient platform for lead consultants to offer clients this confidence as part of their value-adding services.

The form is currently partly paper-based, as once it is set up, it is sent to all other consultants and subconsultants as a pdf file, for them to print, fill in and return. The technology is now available to use this form for online completion by consultants, but **iProjects** has not yet implemented it. We will be doing so in the near future, in a future edition of the software.

Key features of this template are:

- Lead consultant sends partially completed template to all other consultants and subconsultants, at project start.
- Recipients identify other consultants/subconsultants with whom they will need to coordinate; return to lead consultant.
- On or near completion of Schematic Design, Design Development and Contract Documents, the lead consultant sends back the form to each party stating the need for coordination, asking them to verify that they have indeed coordinated their work with the other parties.
- The Consultant sidebar provides for creating and tracking multiple copies of the form, one for each consultant/subconsultant.

Perhaps it is flamingly obvious – but if not – the bottom line of using this ProFrom tool is that it moves coordination back to where it needs to be – in the office of each consultant/subconsultant – thus freeing the lead consultant from doing everybody else's work for them.

Granted, the lead consultant still has to spot-check to see that coordination has indeed occurred – but this is a far cry from doing all of it yourself.

From a risk management perspective, requiring consultants to sign off on their verification actions is a strong incentive to actually do it.

One last point on the use of this ProForm template: Payment to subconsultants, and approval of payment requests to client by other consultants, should be contractually conditional on their verification of coordination role.