Fleming McCullagh
be helpful, get engagement

Create a Project Schedule People Can Trust

Plan, update, & make informed decisions

| **Better Project Management** | Practical Change Management | Effective Team Management | Exceptional Leadership

Be Helpful, Get Engagement

The Schedule's Objective

Simple to create and update. Good enough to make informed decisions with.

- Be easy to understand.
- Inspire confidence the project can be completed on time.
- Be light enough to adjust quickly and easily.
- Not so cumbersome and detail laden it is impossible for the team, sponsor, and others to understand.
- More polished than a back-of-the-napkin timeline, but simpler than a detailed sprint backlog.

7 Steps to a Credible Schedule

1. Calculate the team's availability and capacity.
2. Prioritize the work.
3. Create trustable estimates.
4. Build the first pass schedule.
5. Cut and polish.
6. Adjust the schedule.
7. Calculate Best Case and Worst Case scenarios.

#1: Calculate Capacity

Not all our working time is available for working on assigned tasks.

How many hours does the team spend actually working on assigned tasks, compared with overall work time which includes emails, admin activities, or unexpected requests?

This is our Utilization Rate and we will use this number later when creating our schedule.

#1: Calculate Capacity

Utilization Rate: Calculate team's average capacity as a percentage.

Here is a good rule of thumb to calculate a Utilization Rate:

- Best Case or working on a single project: 30 hours a week over 4 weeks.
- 120 (30 hours a week X 4 weeks) / 160 (40 hours a week X 4 weeks) X 100% = 75%.

- Worst case or working on multiple projects: 20 hours a week for 3 weeks over a 4 week period.
- 60 (20 hours a week X 3 weeks) / 160 (40 hours a week X 4 weeks) X 100% = 37.5%.

#1: Calculate Capacity

Capacity based on points and sprints.

Depending on how much existing data you have, the team's capacity in Agile's points or sprints could be an easy number to find.

If you have plenty of prior sprint data, take an average of completed points across at least four sprints to allow for fluctuations.

#2: Prioritize the Work

Things to consider when prioritizing the work:

- Do we have a good understanding of what needs to be done?
- Which parts are Critical, Important, or Nice-to-Haves?
- What dependencies do we have?
- Which pieces can be done concurrently and which consecutively?
- Are any time sensitive?
- Which are high risk, medium or low?

#3: Create Trustable Estimates

The estimates need to be realistic, achievable, and trustable.

If you have worked on projects similar to the one you need to estimate, use your existing data as a starting point.

No need to reinvent the wheel.

If the work is new to the team and there is uncertainty around how long it will take, use the rough guide on the next page.

#3: Create Trustable Estimates

Quantify the effort needed for each of the individual project tasks.

Think of the work in terms of effort. Does it require a small, medium, or large amount of effort?

Here's how to score the effort using hours:

- Small = 3 hours.
- Medium = 6 hours.
- Large = 12 hours.

If using Agile, assign the points to Small, Medium, and Large that make sense for your organization and team's scoring philosophy.

#3: Create Trustable Estimates

Total up the numbers.

There are a variety of units you can use for the score. Hours, days, Agile points. What is important is you are consistent throughout.

Don’t worry about adding a buffer to your estimate. We will calculate that at the end.

Add up the total. If it appears daunting, don’t panic!

#4: Create the 1st Pass Schedule

Simple calculation to convert our total into a date range for the calendar.

Example with hours.

Project Total 400 hours.

Team Utilization 75%.

Calendar conversion (how many weeks will it take to perform 400 hours of actual work when only 75% of our 40 hour week is task work):

- 400 / .75 = 533.3 hours.
- 533.3 hours / 40 hours a week = 13.3 weeks.
- Round up to 14 as we will be finishing in the 14th week of the project.
- Week 1 starts Monday Jan 6th.
- Week 14 ends Friday April 10th.

#4: Create the 1st Pass Schedule

Simple calculation to convert our total into a date range for the calendar.

Example with points.

Project Total 300 points.

Team's Sprint Capacity 40 points.

Calendar conversion (how many weeks will it take to do 300 points when capacity is 40 points per sprint):

- 300 / 40 = 7.5 sprints.
- Round up to 8 as we will be finishing in the 8th sprint.
- 8 sprints X 2 (2 weeks per sprint) = 16 weeks.
- Week 1 starts Monday Jan 6th.
- Week 16 ends Friday April 24th.

#4: Create the 1st Pass Schedule

Don’t forget to account for holidays and other times we’re not working.

Between your start and end dates look for national holidays, especially longer ones, or other major events such as school holidays or mandatory shutdowns.

These will potentially extend your timeline.

#5: Cut and Polish

If we're not comfortable with the schedule, here are five things we can do:

1. Can we drop any Nice-to-Have features?
2. Can we simplify the scope of the Important and Critical functionality?
3. Can we add more experienced team members?
4. Can we move the project to another time of year when there are less lengthy holidays?
5. Can we adjust other projects in the portfolio to free up resources, or utilize work done on other similar projects?

#6: Adjust the Schedule

Take your new project total and run it back through the calendar conversion.

Were you able to reduce the amount of work or increase the resources to shorten your timeline, or move the project to a different time of year?

After you've made your changes, rerun the calendar conversion calculation.

#7: Best Case and Worst Case

Calculate Best Case and Worst Case (Plan B) to go along with your Realistic schedule (Plan A).

The schedule you've just created is your *Realistic* schedule. The one most likely to happen.

Now let's calculate our *Best Case* (our optimistic view) and *Worst Case* (our pessimistic view or buffer).

- Best Case: The project is done in 80% of the time.
- Worst Case: Add 33% of the overall timeline to the length.

#7: Best Case and Worst Case

Examples

Current estimated timeline: 14 weeks

- Best Case: 14 weeks X .80 = 11.2 weeks
- Round up to 12 as we will be finishing in the 12th week.
- Worst Case: 14 weeks X 1.33 = 18.6 weeks.
- Round up to 19 as we will be finishing in the 19th week.

Start Date: Monday Jan 6th

Best Case End Date: Friday March 27th

Realistic End Date: Friday April 10th

Worst Case End Date: Friday May 15th

#7: Best Case and Worst Case

Why should best case never be less than 80%?

Suggesting we can complete the project faster than 80% of our realistic time raises the red flag that we'll miss a significant task.

Or, we're pulling numbers out of the air in an effort to please the sponsor.

#7: Best Case and Worst Case

Why should worst case never be more than 133%?

Increasing the length of the project by anything more than a third shows a lack of confidence in the estimates and low understanding of the workload.

We've clearly missed something, or expect the team to hit problems.

If we expect problems, we need to fix them before they happen.

Summary

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2. Prioritize the work.
3. Create trustable estimates.
4. Build the first pass schedule.
5. Cut and polish.
6. Adjust the schedule.
7. Calculate Best Case and Worst Case scenarios.

The goal is to create a schedule that's easy to maintain, make informed decisions from, and importantly, is easy to understand.

That's how we build confidence in the project and the team's abilities to meet the deadlines.

And confidence, backed with realism, is what we want.