

Project Management Fact Sheet:

Developing a Milestone History Monitor

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What is a Milestone History Monitor?

Milestones are significant scheduled events that act as a progress marker in the life of a project. Often the planned achievement dates of milestones change over time. The *Milestone History Monitor* is a table or chart used to show the way in which milestones have been rescheduled in the course of the project.

It usually includes:

- the milestone name
- planned milestone achievement dates for each milestone
- review dates

At regular review dates the Project Manager assesses the project's progress and reviews the planned achievement date for each milestone. The new planned achievement date for each milestone is recorded against the review date.

Why would you develop a Milestone History Monitor?

A *Milestone History Monitor* is developed to:

- monitor project performance on a time basis
- present a clear picture of any milestone slippage
- assess the significance of milestone slippage
- provide the Project Sponsor, Steering Committee/senior management with a record of milestone slippage

A Milestone History Monitor shows the performance of the project with respect to the timeline only. It does not show changes to cost, quality and resources or the realisation of project risks that may be associated with the reasons for milestone rescheduling.

When would you develop a Milestone History Monitor?

A Milestone History Monitor may be developed to be included in project reporting, in which case it would be created at the start of the project. Otherwise it may be developed at any point from when milestone dates are first set, to when any rescheduling has occurred.

What you need before you start

- An agreed Project Business Plan or Project Proposal
- Knowledge and understanding of the project
- Milestone baseline dates and any rescheduled dates

Other References you may need

- Corporate/Business Plan for the Department/Business Unit
- *Tasmanian Government Project Management Guidelines*
- Departmental Project Management Guidelines
- The project Gantt Chart (refer to the *Project Management Fact Sheet: Developing a Gantt Chart*)

What you will have when you are finished

A complete *Milestone History Monitor* for use in project monitoring. It may be used by the project team, included in status reporting or for presentation to the Senior Manager, Project Sponsor or the Steering Committee, depending on the size of the project.

How do you develop a Milestone History Monitor?

Below are two chart styles. The first is a simple chart showing the milestone baseline date, or first scheduled achievement date, and planned/actual achievement date. The second is a more complex presentation showing movement of the milestone dates over time.

Identifying project milestones

To use either chart the first step is to identify the project milestones. Milestones are significant events that act as progress markers for a project. Their achievement is monitored and reported. Choosing appropriate milestones for a project is more of an art than a science.

Milestones are usually linked to the completion of a key project activity or key task, for example the completion of a project output is always a milestone. They can also be linked to funding or payments. A milestone is like a toggle switch – it is either completed or not, it cannot be partially completed. The choices must be meaningful progress markers; the start of an activity or task is never a milestone.

The number of milestones for a project depends on the reporting requirements. As a guide, for a project with monthly steering committee meetings there would usually be about one milestone scheduled per week.

Note milestones are described in the past tense, for example 'team assembled', 'model developed' and 'lease signed'.

Chart 1

The first chart shows only two dates for each milestone: the original or baseline date and the most recent planned achievement date.

1. List the milestones in the Milestones columns.

2. Use the column headers to show the time period. In the example each column represents a month.
3. In each milestone row place a marker showing what the baseline achievement date in the appropriate column. This is usually the date used in the first project schedule.
4. From each baseline marker draw an arrow showing where the current planned achievement date is for the milestone.

Chart 2

The second chart shows the scheduled milestone dates over a number of review dates. It shows how the planned achievement dates have changed over time.

Completing the Table

1. List the milestones in the Milestones columns.
2. List each date that the milestones have been reviewed as a column header, under Review Dates. These may be dates of team meetings, meetings with the sponsor, or steering committee meetings.
3. Along each row fill in the planned milestone achievement date at each review date. The planned milestone achievement date is the date you thought you would achieve the milestone, on the date of the review. In the example the 'Tender completed' milestone was reviewed on 1-Jan-08 and it was thought that the milestone would be achieved on 8-Apr-08.
4. When the milestone is achieved note the date against the next review date. For example the 'Tender completed' milestone was completed on 14-Apr-08. This date is shown in the 1-May-08 Review Date column.

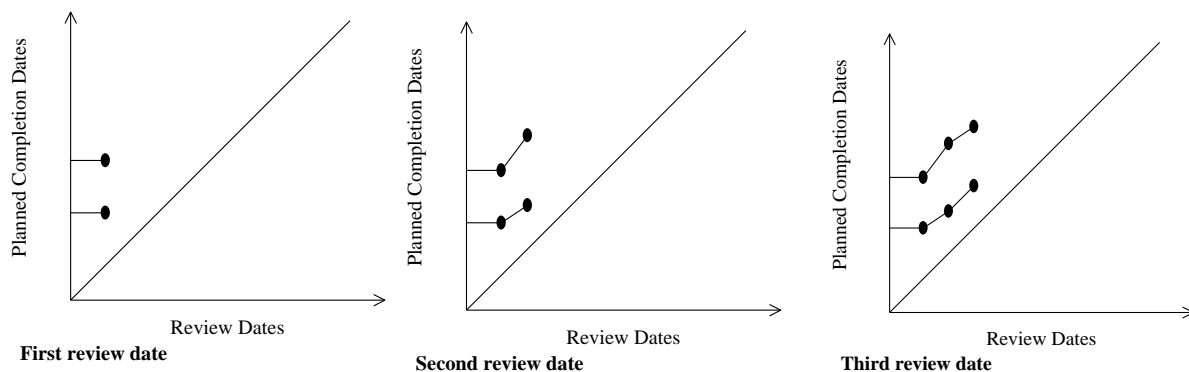
Example of a chart

Milestones	Review Dates						
	1-Jan-08	1-Feb-08	1-Mar-08	1-Apr-08	1-May-08	1-Jun-08	1-Jul-08
Tender completed	8-Apr-08	10-Apr-08	22-Apr-08	18-Apr-08	Achieved 14-Apr-08		
Communication Strategy Developed	12-May-08	12-May-08	22-May-08	22-May-08	14-May-08	Achieved 18-May-08	
<Milestone Name>	1-Jun-08	1-Jun-08	1-Jun-08	5-Jun-08	5-Jun-08	3-Jun-08	Achieved 4-Jun-08

Completing the Graph

1. Use the data to create a graph of Review Date against Planned Achievement Date for all milestones. On the horizontal axis will be all the Review Dates, the dates that are the column headings in the table. The vertical axis shows the planned achievement dates, these are the dates inside the table.
2. Draw a straight line through the chart where Review Date is equal to Planned Achievement Date. The line will show the 'past' and 'future' at each Review Date. All points on the graph will be in the left-hand triangle.
3. For each review date plot a point on the graph for each milestone. Use a different symbol or colour for each milestone. The example uses a square, triangle and cross.
4. Connect all the points that correspond to a single milestone. Stop when the line connecting the milestone points crosses the line dividing the graph. This will keep all the data in the left-hand triangle of the graph. This way you avoid showing 'planned achievement dates' that happen in the past.

Example showing a MHM at three successive review dates.



How do you interpret the Milestone History Monitor?

By reviewing the pattern of rescheduling, the Steering Committee can make judgements about whether replanning is occurring appropriately. In the first chart style looking at the direction and length of the arrows can do this. The second chart is more complicated to interpret. The six figures below show some typical examples. *(The examples are adapted from John Smyrk's course relating to Project Tracking Tools on 8 September 1996 at Hobart. The information quoted in the course notes indicates that the original source was Philips Electronics' PRODOSTA manual (unknown source).*

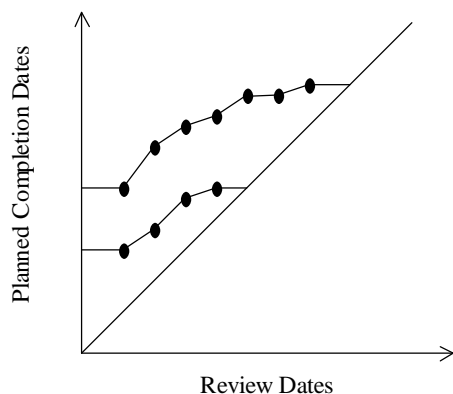


Figure 1

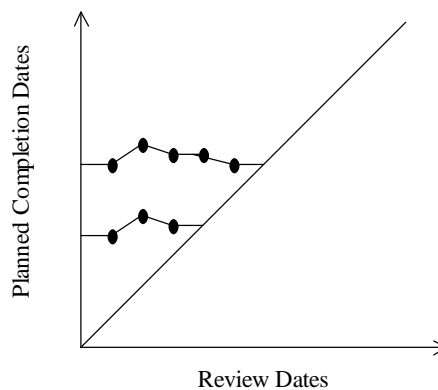


Figure 2

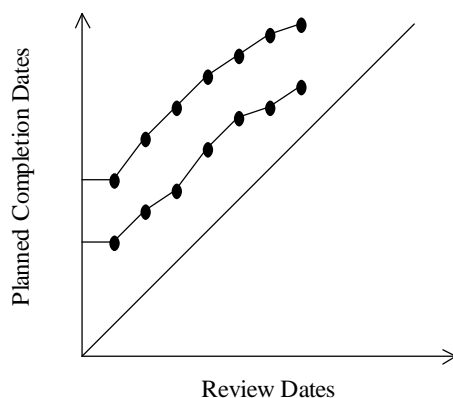


Figure 3

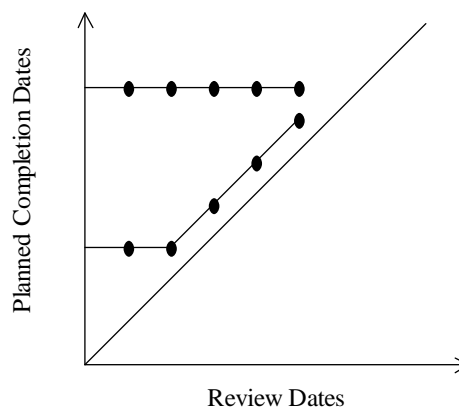


Figure 4

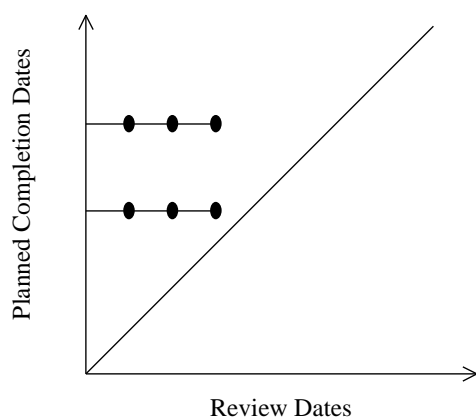


Figure 5

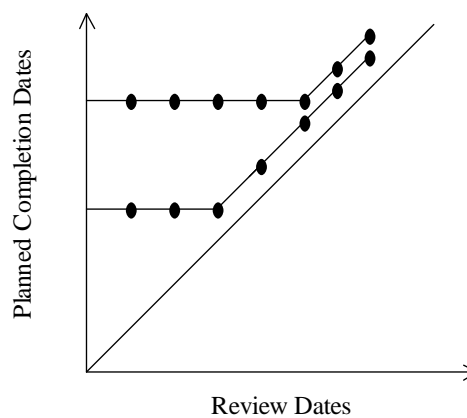


Figure 6

Figure 1 shows the typical progress for very innovative projects. They often start with over optimistic planning, but stabilise after some time.

The second example, shown in *Figure 2*, is typical of a project that tries hard to remain on schedule, and wins.

Figure 3 shows a project for which insufficient planning was done, or in which a lot of disturbances occur.

Figure 4 shows delay at the first milestone, while the planning for the second remains unchanged. Since milestones usually depend on one another, this would normally indicate that an investigation is necessary.

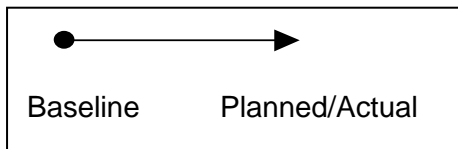
Projects that report as in *Figure 5* often end as shown in *Figure 6*. The example shown in *Figure 5* most often indicates that no replanning is done.

Example: Chart 1

<PROJECT TITLE>

Simple Milestone History Monitor as at <Date>

Milestones	Jan	Feb	March	April	May	June
Milestone 1	● →					
Milestone 2		● →				
Milestone 3			← ●			
Milestone 4				● →		



Example: Chart 2

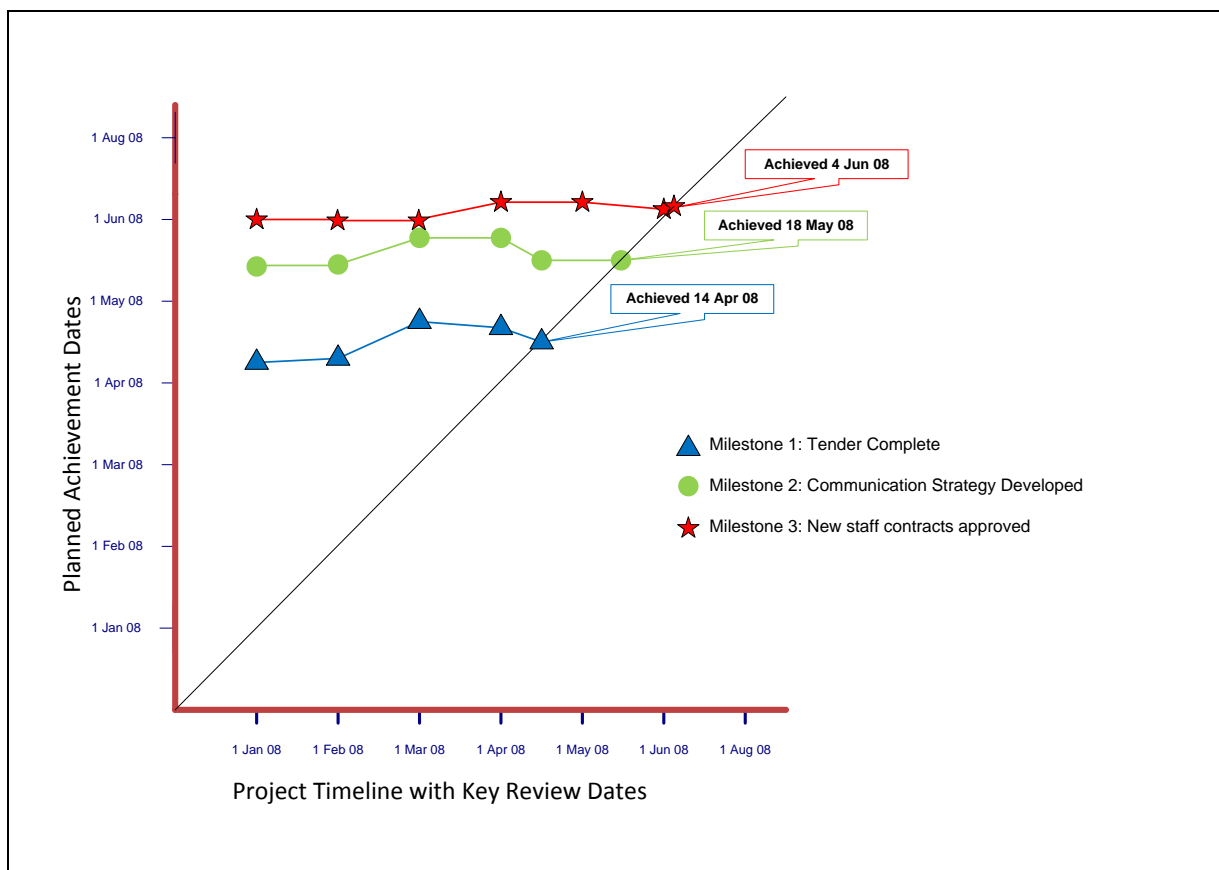
<PROJECT TITLE>

Complex Milestone History Monitor as at <Date>

Reviews of Scheduled Milestone Dates

Milestones	Review Dates						
	1-Jan-08	1-Feb-08	1-Mar-08	1-Apr-08	1-May-08	1-Jun-08	1-Jul-08
Tender completed	8-Apr-08	10-Apr-08	22-Apr-08	18-Apr-08	Achieved 14-Apr-08		
Communication Strategy Developed	12-May-08	12-May-08	22-May-08	22-May-08	14-May-08	Achieved 18-May-08	
<Milestone Name>	1-Jun-08	1-Jun-08	1-Jun-08	5-Jun-08	5-Jun-08	3-Jun-08	Achieved 4-Jun-08

(i.e. At the Review on 1-Jan-08 'Tender completed' was scheduled to be completed on 8 April. At the Review on 1 April, it was scheduled to be completed on 18 April, showing a slippage of 10 days from the original date given in January.)



Where to get additional help

- Refer to the *Tasmanian Government Project Management Guidelines*.
- The Inter Agency Policy and Projects Unit offers further advice and assistance, including a formal Advisory and Review Service.
- Contact Project Services at project.management@dpac.tas.gov.au
- Further information and resources are available from www.egovernment.tas.gov.au

Acknowledgements

This Fact Sheet contains elements of the *Tasmanian Government Project Management Guidelines* prepared by the Department of Premier and Cabinet.