

How2guide: Management Controls

Introduction	When do you use this guide
If appropriate controls are not in place then programmes or projects will lose momentum and focus and stray off course. This may take time to become evident, but it is worth remembering programmes and projects do not go wrong overnight, they go wrong because of small and unnoticed changes or failures that in themselves don't alert the Programme or Project Board, but when aggregated can lead to failure and waste. At the core of control is the concept of Time, Cost and Quality. These are the 3 main project control areas and changes to one normally impact on the other two, so a delay in terms of time can only be recovered by increasing cost or reducing the quality expectations. This is at the foundation of thinking around controls. In a programme the controls are based around the blueprint, benefit and the projects.	The Management Controls will normally be developed during the 'Design' stage as they are focused on managing the delivery. However, for high and medium risk programmes and projects, they should be developed much earlier as the Design work is part of delivery so the basic controls should be established as part of developing the Brief at the end of Define. Before using this Management Controls guide, please ensure that the "Identifying Outputs" guide and "Scheduling" guide have been reviewed and the outputs are in place. This guide covers: • Designing controls • Principles of controls • Managing a baseline schedule • Managing tolerance
Designing Controls There are many areas where controls can be applied; they are also the early warning indicators of potential problems. To establish good controls the programmes or projects must have the following fundamentals in place before moving into delivery: a. A Programme or Project Board with the competencies to manage a programme or project of this size b. Clear roles and responsibilities for all members of the team c. Baselined plans within which there are solid estimates d. Internal and external suppliers have explicitly signed up to their commitments within the plan or the resource plan e. The budget is in place and funds will be made available to meet the expenditure plan f. There is a process in place for handling change requests, however small g. Stage plans, where appropriate, are in place h. Defined levels of tolerance within the plans for time, cost and quality i. Arrangements are in place to undertake assurance reviews of programmes or projects management effectiveness	

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- j. Assurance reviews to the quality of the work is on schedule to meet the quality requirements of Product Descriptions.

When designing the controls, it is important to include formal estimation on how much resources will be required to:

- a. Undertake the reviews
- b. Partake in the reviews
- c. Deal with the actions resulting from the reviews.

Principles of Control

The focus of the programme or project manager must be to establish control of what is going on and avoid the temptation to let things roll and worry about reporting in a month or so. Control is a daily activity not a monthly report. The key principles of control will be based on:

Control of change is essential. Changes of any sort will have an impact on one or more of time, cost, and quality or stakeholder perception. Therefore, change must be carefully controlled. There must be a formal process in place with an impact assessment of each change request, and these should be approved by programme or project board. Small uncontrolled changes in projects are a particular risk to programmes, as the aggregating effect is not visible.

Timely and accurate information which is relevant to the controls in question. A lack of or poor quality information about programmes or projects performance is evidence of lack of control. The information that is collected should be directly valuable to the control process. It is common for programmes and projects to provide prescriptive updates on progress explaining what they have achieved. Wherever possible report statistics against the baseline and focus on the facts.

Progress should be evidence based, which means being able to see tangible proof of progress before accepting it has happened. This can range from seeing a draft report to the foundations of a building.

Embed monitoring as you go as it will save time and pain later when trying to collect the evidence. Owners of project work packages should report to the programmes or projects on a regular basis. If they are on the critical path it should be weekly at a minimum. For programmes, individual projects managers should report on their progress. The focus is on identifying early warning indicators from the work packages, extinguishing small fires now is easier than fighting bush fires later!

Involve the team in the process of control. There is a natural resistance to control and reporting, particularly if people don't understand the relevance, so gaining the teams commitment is essential. When the team understands the bigger picture of the programmes or projects they may well identify issues in their work packages that may be of little interest to them but may be a major threat or opportunity to other parts of the project.

Managing the Baseline Schedule

The baseline schedule for the plan is the measure of success for the project. If the programme or project starts one day late, it will finish one day late. Once time has passed, it cannot be used again, so there is no flexibility on time as such.

Once the outputs have been defined, the schedule can be created and it is possible to identify the activities that have some flexibility and the resources that can be managed around this. The critical path is an important technique in identifying what tasks can slip and what can't.

It starts with establishing a baseline plan that shows how the programmes or projects scope will be accomplished on time and within the budget. Once this baseline plan is agreed the programme or project starts. A regular reporting period should be established for comparing the actual progress with the planned progress.

Reporting may be daily, weekly, or monthly depending on the complexity and the duration of the project. During each reporting period, two kinds of data or information need to be collected:

- Data on actual performance
- Information on any changes to the programmes or projects scope, schedule or budget.

The updated schedule and budget are reported, they are compared with the baseline schedule and budget and analysed for variances to determine whether the programme or project is ahead or behind the time schedule. This is continual throughout the lifecycle.

When there are changes, there may be a need for corrective actions. If the planned corrective actions do not result in an acceptable schedule, these steps are repeated and the schedule is recalculated. It is necessary to analyse the newly calculated schedule to determine whether it needs further attention.

If the programme or project begins to run late, then it is essential that the board is alerted at the earliest opportunity to advise them of the likely impact. If the programmes or projects have had tolerance set by the Change Governance Board, then the impact assessment will take into account whether the delay will threaten the ability to remain inside that tolerance.

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The Technique – Managing Tolerance

Technique Overview

The technique for managing progress against schedule and calculating and analysis of the gap, is identified through the 4 steps below. Analysis should be based on the expected delivery timescale and the consumption of any tolerance that may be allocated to the project.

- Analysing the schedule against the baseline, identifying any gaps and determining which areas may be need corrective action
- Deciding what specific corrective actions should be taken
- Revising the plan to incorporate the chosen corrective actions
- Recalculating the schedule to evaluate the efforts of the planned corrective actions.

Once a milestone has been missed it is guaranteed that the remainder will also be missed, so a total recasting of the plan is required to establish a creditable revised plan. There should an impact assessment on the change, at the highest level, and the following variation report could be used to illustrate the impact assessment.

When undertaking an assessment resulting from a delay, it should be assessed against the following impact on:

- Milestones
- Resources plans
- Dependent outputs
- Programme plan if appropriate
- Expenditure plan
- Transition and go live plans
- Operational business plans
- Benefits plans

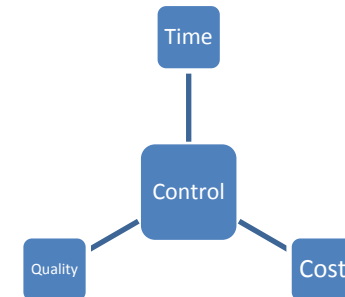
Concept

Tolerance is a key concept which enables flexibility. It can be set against either:

Time – what is the acceptable time window for delivery? Being early can be as difficult as being late, so the tolerance would be based on earliest and latest delivery.

Budget – this is often set as a proportion of the budget, for example, 10% over or underspend would be within the management limits set; anything outside of this would need corporate approval.

Quality – there may be compromises that are acceptable in terms of functionality. The key to finding tolerance on quality is calculating the time and cost of the minimum functionality, the tolerance can then be set on how important the additional functionality is. This is often called minimum requirements or acceptance criteria.



The basis of control is about managing the balance between time, cost and quality. If you change one corner of the triangle the others will be affected.

Programmes and projects invariably run late as a result of a combination of minor delays, this is more common than a single major delay. The key to maintaining a realistic and achievable timetable is to learn from the delays and understand why the estimates were incorrect.

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	Activity	Tolerance	Planned days	Planned days inc Tolerance	Actual days	Slippage	WP Slippage	Forecast Slippage to Service Live
I	Specify performance	8 days for WP I -3 / +2 days	8	5 → 10	8	0	8 days	0 days
II	Enquiry process specified	60 days for WP II -5 / +10	20	55 → 70	25	5	15 days	5 days
II	Application process specified		10		5	-5		
II	Information requirements specified		30		45	15		
III	Skills specified	45 days for WP III -10 / +5	5	35→50	40			
III	IT requirements		20		60			
IV	Supplier Appointed	5 days for WP IV -0 / +5	5	5 → 10	78			
V	Accommodation Ready	40 days for WP V -10 / +5	5	30→45	90			
	Staff in post		40		40			
V	IT ready		10		35			
	Service Live							

This is an example of how project tolerances are used in a simple project to implement a small service.

In this example there is a Programmes or projects Tolerance of 17 days (95 days max). We examine performance progress on duration for early work packages. Initially all appears on track but Work Package II, shows a slippage of 15 days (5 above that given). The PM then forecasts a 20 day slippage for the project, and this takes us beyond tolerance, so it must be escalated and may result in either more tolerance being awarded or a direct notice to produce an Exception Plan and this would mean a revised Business Case.

Each of the workpackages has a number and title. The tolerance is being set in the 3rd column. In the first package it is defining that the package could be delivered up to 3 days early and no more than 2 days late.

The expected time is the planned days, which is 8 days.

The Planned days inc Tolerance is stating that it must be delivered between the 5th and the 10th day of the project.

The actual time it took is 8 days as there is no slippage at this point and the projected delivery date remains the same.

The second package has 3 parts. 60 days have been allowed and the tolerance set so that it can be delivered 5 days early or up to 10 days late without affecting the end date. It should complete at the earliest on day 65 and on the latest at day 70.

Two of the elements run late and one runs early, giving a combined overrun of 15 days.

There is a tolerance of up to 10 days, but this delay means that the final delivery date will now be 5 days later.