OXFORD SOFTWARE ENGINEERING LIMITED

Tactical Change Management

(An Innovation Manager)

Copy 1 of 1

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1 Introduction

1.1 Purpose of this Document

This document describes and provides guidance on the conduct of OSEL's Tactical Change Management (TCM) method.

1.2 Scope of this Document

This description limits itself to the description of the TCM method. It does not prescribe when the method is used. It offers guidance only on entry and exit criteria for each of the steps.

2 Background and Principles

2.1 Background

The TCM Method has been developed from experiences over a number of years. It is designed to meet the need for a well defined approach to rapid process improvement.

The method has evolved from diverse sources that demonstrated value in producing beneficial change quickly. It is centred on the well known 'Plan, Do, Check, Act' improvement cycle of Deming with steps 3, 4 and 5 corresponding to 'plan', 'do', 'check', and steps 5, 1 and 2 approximately corresponding to 'act'.

2.2 Purpose of the TCM Method

The purpose of the TCM method is to provide a simple and clear structure within which people responsible for making change within an organization can work.

A simple structure is needed to:

- a) provide a clearly understood approach to process improvement that scopes, structures and orders activities¹ to reduce the uncertainty and anxiety frequently encountered in this type of work;
- b) establish clear goals steps one and two establish the problems to be addressed and their solutions;
- c) establish a clear cut process for involving the right people in the process improvement activity;
- d) establish a leadership group for process improvement within the organisation those participating in the process should be, and be seen to be, leaders working together, as
- a team, to make changes;
- e) enable communications to answer questions and resolve issues within the process and to establish a focus for change within the organization.

Such a simple structure works because:

a) it provides methods and tools that can be applied by individuals with a wide range of skills and experience;

¹ like a software development lifecycle

- b) it enables new information to be introduced to the change process stimulating practical insights and solutions that may otherwise not be identified;
- c) it can provide a safe environment where widely held assumptions and beliefs can be questioned;
- d) it provides a unifying focus for shared process improvement efforts.

2.3 Conduct of the TCM Method

The method is not intended to be overly prescriptive - it may then become more important than the issues it is intended to resolve. There is no need to adhere strictly to the method but understand the impact of deviating from the method and try to conduct it in an orderly way. In organizations with poor management, commitment and communication capabilities the conduct of the method may act as a model for best practice.

The method presumes the use of basic tools – well run meetings, production and agreeing of minutes, a planning template and so forth. Where possible the organization's own tools should be used. If these are not available then OSEL approaches should be tailored and introduced.

Before the method is begun all those affected by it should understand and agree the importance, value, and cost of the change work. The method should not be viewed simply as a series of ad hoc meetings. TCM is a clearly defined and structured approach to identify, implement and review the required changes. If the value of the changes, and the usefulness of a structured approach, cannot be established the method is unlikely to succeed and should not be used.

3 Description of the TCM Method

3.1 Overview

When an issue is identified within an organization the method may be started. The method has 5 steps:

- a) Identify Problems;
- b) Propose Solutions;
- c) Plan Implementation;
- d) Do the Work;
- e) Management Review.

Each of the steps has a similar structure based on IBM's ETVX (Entry, Task, Verification eXit) model. Entry criteria should be met prior to beginning a step. These typically require successful completion of the preceding step, adequate preparation by the participants, and adequate planning and resourcing for the conduct of a step. The tasks within each step are supported by appropriate guidelines, templates and procedures. The nature of the step deliverables are defined and communicated. Activities and deliverables are understood and agreed by participants. The conduct of the tasks and the quality of the deliverables are verified typically by a reviewing procedure. A step is exited when exit criteria, used in the verification, are met. Only when the exit criteria are met can progress to the next step be made.

Each step is planned to be completed within about a week, no more than 2 weeks between the completion of one step and the beginning of the next, and with the TCM method completed within, ideally eight, and no more than twelve weeks. These timescales are imposed to keep tasks to a manageable scale and maintain the momentum for the process improvement effort. Should larger scale plans and tasks be identified a process improvement project may need to be approved and initiated. This is not recommended.

Each of the steps is described in detail below.

3.2 Step 1 - Identify Problems

The objective of this step is to allow the organization undertaking improvements to formally recognise and communicate the nature and importance of the problems to be addressed².

Deliverables:

There are two deliverables from the Identify Problems step:

- a) A prioritized³ list of problems This list is the key deliverable. It is simply an *agreed*, *prioritized* (i.e. numbered) list of the problems to be addressed. It should contain no more than 5 or 6 problems to be addressed more will become unmanageable. If more problems are identified then either they are closely related or inter dependent, or the problem has been considered at too low a level. The list may be supplemented by additional notes or commentary, but this is not required.
- b) Minutes these are an agreed record of the meeting.

Entry Criteria:

- a) An issue for the organization has been identified and there is a desire to address it. This will usually be stated in general terms, for example 'Our estimating is poor, why is this?', or 'Too many defects are getting through to system test, this is delaying shipment, how can we stop this?'.
- b) Someone is allocated responsibility for managing the TCM method a 'change manager'.
- c) Draft schedule for TCM method agreed by sponsoring parties, i.e. set deadlines.
- d) Potential participants in TCM method selected and have agreed to participate.
- e) Participants informed of issue and prepared for first step (review issue and identify specific problems).
- f) Step 1 meeting scheduled.

Formal selection criteria for choosing participants may be of value.

² It is very tempting to propose solutions before there is a shared understanding of the problem. By attempting to agree on a shared view of the problem misunderstandings are identified and understanding is improved

³ It is important that the list is prioritized. An unprioritized list has limited value. (Compare the passions raised in including items on a list with those raised in agreeing their order.) A prioritized list also indicates where limited resources should be directed.

Task:

A 2 to 3 hour meeting is held at which problems contributing to the issue are discussed and prioritized. The outcome of the meeting is an agreed list of problems to be addressed. To keep the meeting manageable no more than six or seven people should participate in the meeting.

Aids for the conduct of the meeting include:

- a) An agenda;
- b) Guidelines for the conduct of meetings;
- c) Tools to aid problem identification and prioritization. These may include:
 - Ishikawa diagrams
 - Pareto Analysis (where data is available)
 - Brainstorming
 - Why-why analysis
 - List reduction
 - Failure mode analysis guidelines
 - Paired comparison
 - Idea evaluation.

Minutes or a record of the meeting should be produced. It may be of value to allocate the role of scribe to one of the participants in the meeting.

Verification:

The minutes of the meeting are reviewed and agreed by participants. Minutes are distributed to interested parties. They may include potential participants not selected but with an interest in the issue and its resolution, and sponsoring management. The minutes may contain the schedule for step 2.

The prioritized list of problems to be addressed is reviewed and agreed.

A simple review procedure will be of value for verification.

Exit Criteria:

- a) Minutes reviewed, agreed and distributed.
- b) Prioritized list of problems reviewed and agreed.
- c) Step 1 completed in one week (elapsed).

3.3 Step 2 - Propose Solutions

The objective of this step is to propose solutions to the problems identified in step 1.

Deliverables:

There are two deliverables from the Propose Solutions step:

a) A prioritized list of solutions - This list is the key deliverable. It is simply an *agreed*, *prioritized* list of the solutions to be implemented. It should contain no more than 5 or 6 solutions to be implemented - more will become unmanageable;

b) Minutes - these are an agreed record of the meeting.

Entry Criteria:

- a) Step 1 successfully exited. (This means list of problems is available to the participants in step 2.)
- b) No more than two weeks since step 1 was exited.
- c) Potential participants in step 2 selected and have agreed to participate. (Additional or different participants may be involved in each step but it is recommended that at least half, and preferably three quarters of the participants contribute to all 5 steps.)
- d) Participants prepared for step 2 (have reviewed problems and ready to propose draft solutions).
- e) Step 2 meeting scheduled (perhaps recorded in minutes of previous step).

Task:

A 2 to 4 hour meeting is held at which solutions addressing the problems are discussed and prioritized. The outcome of the meeting is an agreed list of solutions to be planned and implemented.

To keep the meeting manageable about six or seven people should participate in the meeting.

Each solution should explicitly address one or more of the problems identified in step 1. Not all problems identified in step 1 may have solutions. (To determine whether a solution really does address a problem it should be possible to state briefly how the solution solves the problem without elaborate chains of cause and effect.)

Inter dependencies between solutions should be minimized.

The statement of the solution should be a simple and concise description of what is to be changed or introduced. The description should focus on activities and actions rather than aids or infrastructure, for example 'develop a shared approach to project planning' is better than 'develop a planning procedure' (although the development of a procedure may well support the development of a shared approach).

An important complement to the statement of the solution and a significant aid to understanding of the solution and assessing its benefit, when implemented, are *simple* measures that characterize the performance and achievement of the solution. In formulating measures it is useful to visualize the situation when the problem is resolved, compare that situation with the present situation and then decide how the difference could be characterized quantitatively. For example, a simple measure might be the proportion of projects using a shared approach to planning before and after the proposed change. Difficulty deriving good measures may indicate poor understanding of the problem.

Aids for the conduct of the meeting include:

- a) An agenda;
- b) Guidelines for the conduct of meetings;
- c) Problem solving techniques. These may include:
 - Brainstorming

- List reduction
- How-how analysis
- Paired comparison
- Idea evaluation
- GQM.

Minutes of the meeting should be produced. It may be of value to allocate the role of scribe to one of the participants in the meeting.

Verification:

The minutes of the meeting are reviewed and agreed by participants. Minutes are distributed to interested parties. Interested parties may include potential participants not selected but with an interest in the issue, and sponsoring management.

The prioritized list of solutions to be implemented (together with supporting measures of performance where appropriate) is reviewed and agreed.

A review procedure will be of value for verification of the deliverables.

Exit Criteria:

- a) Minutes reviewed, agreed and distributed.
- b) Prioritized list of solutions reviewed and agreed.
- c) Step 2 completed in one week.

3.4 Step 3 - Plan Implementation

The objective of this step is to produce plans, sponsored by the organization's management, for process improvements, i.e. implementation of the solutions identified in step 2.

Deliverables:

There are three deliverables from the Plan Implementation step:

- a) A set of plans (no more than 5) to be sponsored by the organization's management;
- b) Management sponsors for each of the plans;
- c) Minutes these are a formal, agreed record of the meeting.

Entry Criteria:

- a) Step 2 successfully exited. (This means list of solutions is available to the participants in step 3).
- b) No more than two weeks since step 2 was exited.
- c) Potential participants in step 3 selected, and have agreed to participate, and have been allocated solutions to prepare plans for.
- d) Participants prepared for step 3 (have reviewed solutions and drafted plans using planning template/checklist).
- e) Step 3 meeting scheduled (recorded in minutes of previous step).

Task:

A 3 to 4 hour meeting is held at which draft plans to implement solutions are presented and discussed. The outcome of the meeting is a set of plans broadly agreed to by participants, together with a list of potential management sponsors - one for each of the plans. It is to be expected that some rework to the plans will be required. This rework should be verified in the verification stage of this step. Unacceptable (e.g. too much rework required) plans should be discarded – delay to extensively rework plans and reschedule the step 3 meeting is not recommended.

Aids for the conduct of step 3 are:

- a) A template for plans;
- b) An agenda for the meeting;
- c) Guidelines for the conduct of meetings;
- d) Guidelines for presenting technical information (walkthrough guidelines).

Minutes of the meeting should be produced. It may be of value to allocate the role of scribe to one of the participants in the meeting.

At the conclusion of the meeting actions are assigned to gain, or confirm, a management sponsor for each of the accepted plans.

Verification:

The plans are reviewed to ensure agreed rework to plans is completed.

A formal review procedure will be of value for verification of the deliverables.

The minutes of the meeting are reviewed and agreed by participants. Minutes should explicitly identify management sponsors for each of the plans. Minutes are distributed to interested parties. They may include potential participants not selected but with an interest in the issue, and sponsoring management.

Exit Criteria:

- a) Minutes reviewed, agreed and distributed.
- b) Plans reviewed and agreed.
- c) Management sponsors for each of the plans identified.
- d) Step 3 completed in one week.

3.5 Step 4 - Do the Work

The objective of this step is to resolve a problem, identified in step one, by implementing a solution proposed in step two, directed by a plan developed and sponsored in step 3.

N.B. A number of plans developed in step 3 may be implemented concurrently. This section describes the *Deliverables*, *Task* and *Verification* for a single solution and the *Entry* and *Exit* criteria for all solutions (i.e. the step as a whole). If difficulties are encountered it is the

responsibility of the change manager, together with the sponsoring manager, to decide whether or not to close down the task.

Deliverables:

There are three deliverables from the Do the Work step:

- a) An implemented solution clearly defined in a plan. This could be any activity or asset. Examples of solutions include:
 - practices modified
 - revised responsibilities or authorities
 - a policy change
 - technology acquired
 - a procedure developed and published
 - a seminar presented
 - an investigation completed
 - a clarification of activity or need
 - recruitment/promotion criteria revised
 - etc

Implemented solutions should demonstrably meet real needs. They should focus on actions or behaviour *supported by* required infrastructure, rather than focusing on the infrastructure itself. (Undue focus on infrastructure can become self serving.)

- b) A brief (single side of A4) report on the conduct of the work to provide the solution this may include periodic progress reports or other useful information. (This type of report can be of great value to others performing similar work.)
- c) A report on the benefit or value of the solution -i.e. did it work? The achievement, or partial achievement, of the solution should be reported as objectively as possible and preferably measurably.

Entry Criteria:

- a) Step 3 successfully exited:
 - plans complete and approved
 - resources allocated:
- b) Management sponsors are identified and have given authorisation to proceed;
- c) No more than two weeks since step 3 was exited.

Task:

On reaching this step the people doing the work should:

- a) Understand the problem;
- b) Understand the proposed solution to the problem;
- c) Have a clear and agreed plan to implement the solution;

⁴ This needs to be treated with care. In some organizations it is not wise to be associated with failure so objective reporting can be unhelpful. In such organizations there will be limited real learning or process improvement.

d) Have management support for the work to be done.

The task is to perform work to deliver a considered solution to a recognized problem according to an agreed plan. Those performing the task can proceed with confidence and speed not possible if the preceding steps have been omitted.

Verification:

On completion of the work the quality of the solution and the conduct of the work to implement the solution are reviewed.

Exit Criteria:

- a) For each planned and completed task:
 - Quality of the solution (i.e. level of achievement in solving the problem) is assessed and recorded
 - Conduct of work is acceptable
 - Work completed within planned timescale;
- b) All tasks completed (or closed down).

NB The exit criterion is really more in the nature of requiring careful scrutiny of the work and learning from it rather than requiring particular exit criteria to be achieved.

If tasks 'hang' due to dependencies or uncontrolled delays the work may need to be stopped or closed down.. It should not be left unfinished.

3.6 Step 5 - Management Review

The objective of the Management Review step is to enable the organization's management to assess the performance and results of the process improvement work and to identify and action any issues.

Deliverables:

There is one deliverable from the Management Review step:

a) Minutes - these are an agreed record of the meeting. They may identify issues to be addressed by another iteration of the method.

Entry Criteria:

- a) Step 4 successfully exited.
- b) No more than 2 weeks since step 4 exited.

Task:

The management review is a presentation to the organization's management of the conduct of the work completed in step 4, together with reports of the value of the solution and any supporting information and reports. (If desired this may be preceded by a brief overview of the TCM method and the conduct of the first three steps.)

Management representative(s) are invited to discuss the work and the value of the results. Issues should be raised and further opportunities for improvement sought and lessons learned recorded.

Aids for the conduct of the meeting may include:

- a) An agenda;
- b) A procedure for the conduct of presentations;
- c) Tools to aid presentation of results. These may include:
 - Presentation templates
 - Checklist of items to discuss for each task completed.

It may be useful to allocate a scribe to record the meeting and produce minutes since this meeting will be expected to identify further issues, and assign management actions.

Preparation for the presentation should be undertaken or managed by the change manager. Individuals responsible for doing the work in step 4 should be encouraged to participate in the presentation by delivering their own reports.

The presentation should take no more that 1 to 2 hours but be prepared for discussion to continue after the formal conclusion of the meeting.

The approach of management to the management review may indicate the value placed on process improvement. Careful evaluation of the work performed, its results and lessons learned is expected from management representatives.

Verification:

Minutes of meeting are reviewed and agreed by those participating in the meeting, and distributed to interested parties.

Exit Criteria:

- a) Minutes reviewed, agreed and distributed.
- b) Step 5 completed in one week.

4 Guidance

4.1 Preparation

The focus of several of the steps is a meeting. Each of these meetings is intended as a forum for the presentation of information and agreement of future actions. The effectiveness of these meetings is dependent on the preparation undertaken before the meeting. Participants are expected to have spent time considering the issues, collecting and analysing necessary data, identifying ways forward and in preparing any presentation materials.

Most of the work undertaken during a step is done prior to the meeting. The meeting can be seen, in the extreme case, as a miniature milestone meeting where work is reviewed.

Participants in the method should understand the need for preparation and be willing to do it. The chairman of the meeting may wish to exclude individuals who have not undertaken sufficient preparation.

4.2 Timescales

The procedure provides guidance on the timing of the method. The intention is to establish short deadlines to ensure that tasks remain manageable and to maintain momentum for process improvement activities. (However speed must not be the sole consideration - quality of solutions should not be compromised to achieve inflexible deadlines. If adequate quality cannot be achieved close down the work rather than deliver bad work or delay it. The short timescales and rapid iterations of the TCM method make this an affordable option.)

When conducting any of the steps in the method if undue delay or dependencies are encountered it is best to stop the delayed work and concentrate on those tasks that can be completed. To reduce delays plans and work should be kept clear and straightforward and dependencies minimized.

Tasks that have been stopped should not be forgotten. The minutes or reports should record these difficulties and they can be addressed at the management review.

Repeated use of TCM provides a continuing stream of process improvements with rapid feedback and opportunities to build on past successes.

4.3 Participants

Care should be taken to ensure that the method is seen as an activity valued by the organization. It is not a time filling activity to be undertaken when there is nothing more urgent to be done.

Participants in the method should be selected to provide the right balance of skills experience and motivation. The selection process should make it clear that the best people available are required. The act of selection (i.e. exclusion of some) should reinforce this impression. This can be difficult - resourcing for process improvement is notorious. It is not unusual for any resource, however unsuitable, to be co-opted if available. This should be resisted; the probability of success is improved if the work is performed by well-regarded individuals. The small scale of work commitments in TCM should make contributions from the best people feasible.

The ideal size of a team to undertake the TCM method is about 6 or 7. More can become unmanageable; less can lead to a limited or unrepresentative viewpoint.

Ensure that the majority of the team are able to work all the way through the method. Losses of more than 2 or 3 people can demotivated and stall the process improvement effort. If more than half of the team cannot see an iteration of the method through to the end do not try to replace them, cancel the iteration until a team can be assembled that can work through to the end.

Each of the steps requires different skills. Individuals with recognised analytical or synthesising skills or good domain knowledge may be invited to contribute at particular stages.

4.4 Attrition

Over the course of the method numbers of problems, solutions, plans and implementations will be proposed. It is to be expected that at each stage some of the proposals will need to be discarded. It is necessary to be ruthless in the early stage in discarding identified problems and solutions that are of high cost or of limited value to the organization. In the early stages expect to discard most (up to 80%) of the identified problems as either low value, poorly understood, restatements of other problems, or beyond the scope of the issue being addressed. Similarly solutions should be rigorously screened. Expect to discard up to 50% of proposed solutions.

When plans are presented the problem and solution should be well understood and the plan should reflect this. Most plans should pass the review. If more that 30% of the plans are not acceptable then question the value of planning templates or the understanding of the problem and solution proposed in earlier steps. Plans discarded at this stage will have incurred costs in the problem identification and solution proposal steps.

Failure to complete the planned work may arise due to unexpected circumstances but the failure rate should, at this stage, be low. If difficulties are encountered in step 4 do not delay unduly attempting to resolve difficulties. Abandon the work with due note taken of reasons why. These can be investigated in the management review.

The method is critically dependent on the people undertaking it. The team assembled at the beginning should remain fairly stable for the duration of the TCM method. If the team is subject to unavoidable attrition then postpone the method rather than continue with a depleted or demotivated team. If the team is subject to attrition due to avoidable drop out (failing interest of team members) then the method should again be stopped and the selection process and expectations set at the beginning should be examined. The success of the method is, like all process improvement activity, dependent on the enthusiasm and motivation of those undertaking it.

4.5 Real Solutions

Step 2 requires solutions to be identified. It is tempting to focus on doing something - anything - that is achievable to give the illusion of progress, rather than identifying and addressing the real problem if this is difficult to identify or understand. A conscious effort should be made to focus on the real problem. During step 2 from time to time refer back to the problem and consider how solutions under discussion really solve the problem. Effective solutions will be:

- a) simple;
- b) self evidently address the problem;
- c) easy to assess (i.e. measurable).

It is important that solutions do not become self serving.

Annex A

Examples and Templates