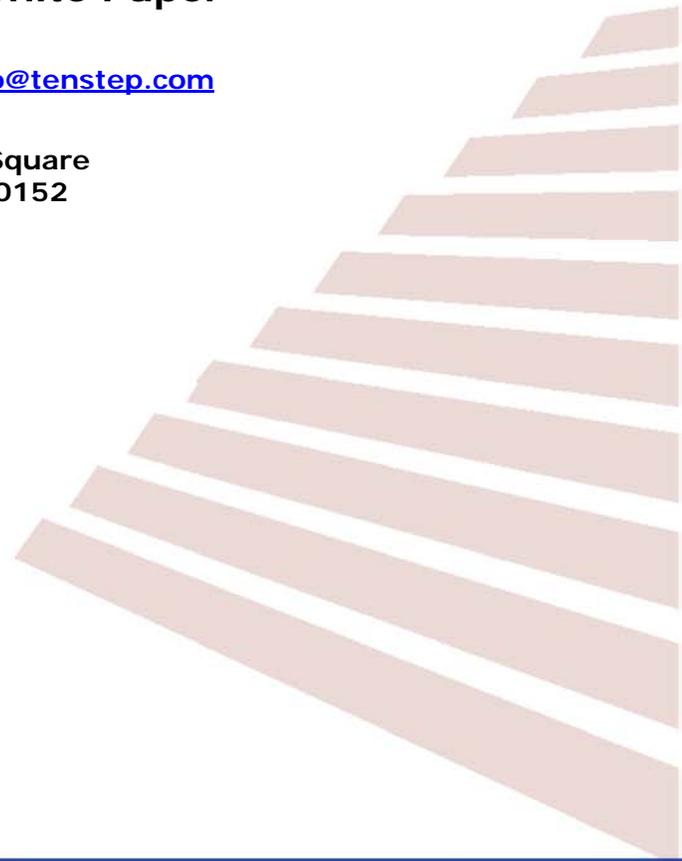# Rescuing Troubled Projects

A TenStep White Paper

Contact us at info@tenstep.com

TenStep, Inc.
2363 St. Davids Square
Kennesaw, GA. 30152

877.536.8434
770.795.9097

Rescuing Troubled Projects

When is the last time you worked on a project that was planned and executed perfectly and where you met expectations in terms of budget, deadline and product quality? You also had a cordial and professional partnership with your clients - no problems at all.

If you are lucky, you might actually be able to think of a project that could be a candidate - maybe even two. It is easy to forget that many projects actually do complete successfully. Although probably no project is absolutely perfect, there are many projects that are completed with a minimal amount of problems and stress.

Although many projects do end successfully, most project managers have also been on projects that were less than successful. Sometimes the project is a 100% outright disaster. However, usually there are shades of gray. It is common to complete a project, but be over your deadline or over your budget. Other times, the client may not get all of the features and functionality he or she was initially expecting. On some projects there is so much friction between the project team and the client that the project leaves a bad taste in everyone's mouth, even when the deliverables are finally produced.

First Things First - Is the Project Really in Trouble?

When you are looking at a "troubled" project, the first thing to validate is whether the project is, in fact, in trouble or not. In many cases there is the perception of a problem when there really is not one at all. In other cases, a project may be in trouble, but the project manager might already have begun a process of damage control and correction. Sometimes the project has problems, but the problems are not significant enough for the project to be considered troubled. For instance, if a nine-month project is scheduled to complete a week late, you would need to decide whether it really is in trouble.

So, first validate that you actually have a problem by seeing whether the project is within acceptable tolerances. For more information on tolerances, see 40.1 Project Tolerances

It is important to understand your tolerances because the project may be trending overbudget or past the deadline, but it still may be in an acceptable ranges and not considered a troubled project.

Can the Project be Turned Around Quickly?

If the project is in trouble, but not yet a disaster, see if you can determine the cause of the problem as well as put in place a quick turnaround plan. The project manager may already have a recovery plan in place or may need some help. However, the implication at this point is that the damage is minor and that the project can get back on track with a little more attention and a proactive plan. Sometimes this is referred to as a "soft" rescue. In many cases a soft rescue can turn the project around without any incremental impact in budget or schedule. That is, the activities associated with the rescue will be related to things like implementing better project management processes or swapping similar resources. If the project is too far gone for these types of relatively minor changes, more radical intervention will be required.

Some common project problems and potential solutions are described below.

- **Problem #1 - Inadequate Project Definition and Planning**

Rescuing Troubled Projects

- **Problem #2 - Poor Scope Management**

- **Problem #3 - Not Managing the Workplan**

- **Problem #4 - Poor Communication**

- **Problem #5 - Poor Quality Management**

Defining a Troubled Project

At this point, you have validated that the project is probably in trouble. You verified that the project is outside of any defined tolerances that have been defined for your organization. You also have done a quick check to determine that there is not a simple cause and remedy that can be put into place quickly. You should be able to put some criteria in place for what a troubled project looks like. The following criteria provide some examples:

- The project is trending 30% or more over its estimated budget

- The project is trending 30% or more over its estimated deadline (although this may not be as important if the budget is not also over by 30% or more).

- The project appears within tolerances, but only by deferring the completion of one or more major deliverables.

- The project appears within tolerances, but only by compromising on quality to the point that the value and integrity of the deliverable are called into question.

- The client is extremely dissatisfied with the performance of the project team. If the client had to do it again, he or she would not use the same project team.

- The client - project team relationship is dysfunctional. This could include

situations such as the client and sponsor losing interest in the success of the project, major animosity between the project team and the client, deliberate sabotage by one party to make the other party look bad, etc.

All projects should be funded based on delivering some business value. However, as the project progresses, the business justification gets weaker. When this happens, the project should be canceled. However, this is not an example of a troubled project, per se. That is, there is not necessarily a problem with the project itself, and there is nothing that needs to be rescued. The project may then be canceled based on a normal business evaluation and not because of its troubled project.

Similarly, the business case for the project may have been unsound to begin with. The project could end successfully, but the business value gained may not live up to expectations. Again, a project in this situation would not be classified as troubled.

Project Recovery Process

Turning around a troubled project is never easy, but there are approaches that can be used that will give you a good chance at success. (Remember that success does not mean reaching the original expectations and commitments. It is probably too late for that.) The assumption now is that we have a substantial project that is in trouble. It is out of acceptable tolerances and a remedy cannot be implemented easily and simply. For these troubled projects, the remedy is more than just "fix it." The following project turnaround model can be used:

- **Define and Plan Recovery Project**

- **Assess the Troubled Project**

Rescuing Troubled Projects

- **Develop a Recovery Plan**
- **Activate the Recovery Plan**
- **Measure and Monitor the Recovery Plan**

Project Tolerances

You have all read the stories about the large number of projects that fail. Depending on the report you read, half or more of all projects fail - perhaps as many as 80%! According to the reports, the larger the project, the greater the chance is that it will be a failure. However, as you look at the projects in your company, would you really say that 80% of them are failures? Would even 50% be considered failures? There is no doubt that some projects are absolute failures. They either crash and burn, and are canceled, or they finish dramatically overbudget, over deadline, and under expectations. However, are there really 50%-80% that meet this definition?

Tolerances

To answer the question of how many failed projects there are, you first need to understand the definition of a failed project. The concept that plays a key role is the idea of tolerances. If you estimate that a project will cost $230,000, is your project a failure if the actual cost is $230,500? You missed your budget, right? Yes, but this gets into the concept of tolerances. If you delivered within $500 on a $230,000 budget, you should be lifted on the group's shoulders and paraded around the company as a hero.

Your company needs to establish the tolerance level that it considers to be reasonable for projects. At some companies, for instance, the tolerance level is set at -10% to +5%. That is, if you delivered the project for 5% over budget, it was still considered a success. For our $230,000 project, this means we could have gone overbudget by $11,500 and still been considered successful.

On the other side, if the final cost was under budget by more than 10%, that would also have been a problem. In this case, the problem is that the company wants to deliver projects within expectations. If the sponsor had known that the project actually costs a lot less than estimated, they may have been able to make other decisions with the unused budget. The cost estimate should also include any formally approved scope changes. If your original budget was $200,000, and the client approved an additional $30,000 in scope changes, then the final $230,000 is the number that you get held accountable for, plus your tolerances.

Normally there is room for tolerances with your deadline as well. If you estimate a project at six months, and it is completed in six months and one week, that is normally acceptable. Your original deadline must also be extended if scope changes have been approved. Of course, not all projects have that flexibility. The YR2K software projects, for instance, typically had to be completed by December 31, 1999. A week late was not going to work.

Declaring Success from a Project Perspective

Once you understand what your tolerances are (if any), you can start to evaluate the success of the project. Generally, the project team members can declare success if:

1. The project is delivered within the estimated cost, plus or minus the tolerance.

2. The project was delivered within its deadline, plus or minus the tolerance.

Rescuing Troubled Projects

3. All of the major deliverables were completed. (Some minor ones, or minor functionalities, might not be delivered.)

4. The overall quality is acceptable. (It does not have to be perfect.)

Some companies also look at whether the project team was easy to do business with. That is, did the client and the project team work well together? For instance, was there good communication? If the client had another project (and a choice), would they ask you to work on it again?

Declaring Success from a Company Perspective

Declaring success from a project perspective is normally what the project team is asked to be accountable for. However, from a company perspective, success is also based on whether the company received the value that was promised from the initial ROI calculations. If the project was a failure from a "project" perspective, it is normally a failure from a company perspective as well. (Although this is not always the case; some projects are delivered way over their budget and deadline, yet the solution is still considered an overall business success.) However, there are also many examples of projects that were successfully delivered, yet are not delivering the value promised. If the project team delivered successfully within tolerances, there is usually nothing else that can be done from their perspective. However, it is possible that the return on investment (ROI) calculations were faulty, or the marketplace was misjudged by the client and the sponsor. It is also possible that this project was part of a larger initiative. Although your project may be successful, the overall, larger initiative may be a failure.

Every organization should have some general rules about how to declare the overall project a success or failure. Your project isn't a failure if you miss the budget by a dollar and deliver a day late. Normally, a project will still be considered successful if it delivers within cost and deadline tolerances, and delivers all major deliverables with an acceptable quality. However, from an overall business perspective, another set of questions should also be answered as to whether the business value was achieved as promised.

Project Problem #1
Inadequate Project Definition and Planning

Have you ever attended an end-of-project meeting on a project that had major problems? If you have, chances are that one of the major themes you will hear is that "we should have spent more time planning." Many project managers think that they need to jump right into the project by gathering business requirements. They think that if they do a good job gathering the business requirements, they are ready to run on the project. That is not true. In fact there is a definition and planning process that needs to happen before you ever start gathering the business requirements.

Before the project work begins, the project manager must make sure that the work is properly understood and agreed to by the project sponsor and key stakeholders. The project manager works with the sponsor and stakeholders to ensure that there is a common perception of what the project will deliver, when it will be completed, what it will cost, who will do the work, how the work will be done, and what the benefits will be. The larger the project, the more important it is that this information be mapped out formally and explicitly. All projects should start with this type of upfront

Rescuing Troubled Projects

planning to prevent future problems caused by differing viewpoints on the basic terms of the project.

Common Planning Problems

If you have poor up-front definition and planning, it will cause problems in many areas later in the project. These problems include:

- **Lack of business support.** If you do not define the major characteristics of a project up-front, it is very common to have differences in expectations among the major stakeholders. This is true even if you take all of your initial direction from the sponsor. As a project gets larger, even the sponsor may not have a totally complete picture of what needs to happen for the project to be successful. Other times, the sponsor has a vision, but there are other visions that may be better or more viable. These competing ideas end up surfacing later in the project and causing confusion and rework.

- **Poor estimates**. Usually a project needs to have a budget and deadline before the business requirements are completed. In many cases, if the definition and planning is not done ahead of time, the project team starts off with inadequate resources and time, and you don't realize it until the project is already in progress. Many projects that could be successful are viewed as failures because they overshot their budget and deadline. This situation is often caused by the project manager committing to numbers that are too low, the result of a lack of up-front planning.

- **Poor scope control**. One of the major aspects of defining a project is defining the high-level scope. If you do not define and gain

agreement on scope, you will find it very difficult to manage scope effectively throughout the project.

How to Avoid the Mistake

Spending time on a good definition and planning ends up taking much less time and effort than having to correct problems while the project is underway. It should not be surprising, then, that the best way to avoid this problem is to do a good job of defining and planning the project up-front. This includes:

- **Defining.** Before the actual work of the project begins, make sure you have spent the time to define the project objectives, scope, assumptions, risks, budget, timeline, organization and overall approach. The project manager may think that they know all of this already. However, the purpose of this work is to ensure that there is a consensus between the project manager, project sponsor and all other stakeholders. Even if the project manager and the sponsor are in agreement, there may be other major stakeholders that have other ideas. Differences of opinion need between the major stakeholders needs to be resolved before the project starts – not while you are in the middle.

- **Planning.** The project manager should create an overall project workplan before the project starts. This will help you estimate the total project effort and duration. The project manager also needs to ensure that he or she has the detailed work mapped out over the next few months to ensure that the project resources are assigned the right work once the project actually begins.

In addition, it is very helpful to have an agreed upon set of Project

Rescuing Troubled Projects

Management Procedures that are used to manage the project. These will include how the project manager will manage scope, issues, risks, communication, the workplan, etc. Again, the key is to define these all up-front to better manage expectations. For instance, if you define and get agreement on the procedure for approving scope change requests, you should have a much easier time managing change once the project begins.

What if You Are Already Into the Project?

Of course, the best way to solve a problem is to prevent it to begin with. However, what if you do not have that option? Let's say you are into a project, and you start to see some of the problem areas described above. For instance, you start to see stakeholders coming forward with different ideas for what the project should accomplish, but you are already well down the path to the prior vision.

If you are having trouble with one or two aspects of the definition process, you may be able to resolve it with a mini-definition process. For instance, if you find that you cannot control scope because you did not define it to begin with, you can take the time to formally define and gain agreement on the scope. This involves going back to the sponsor and major stakeholders to gain the consensus and approval that you did not get earlier.

If you start to see differing visions as to what the project should achieve, you may need to actually complete the entire definition process while the project is in progress. This is very difficult and painful, but it can be done. You need to take a step back and define objectives, scope, roles, risks, etc. You might need to actually stop work on the project until this definition process is completed, although in many cases this is not practical.

As painful as it is to define the project while it is in progress, it is still preferable to ignoring the problem. The first option may end up causing rework, resulting in additional cost and a later delivery date. However, ignoring the problem may end up making the entire solution irrelevant or obsolete as soon as it is delivered.

Project Problem #2
Poor Scope Management

Defining scope is perhaps the most important part of the upfront process of defining a project. In fact, if you don't know for sure what you are delivering and what the boundaries of the project are, you have no chance of success. Managing scope is one of the most critical aspects of managing a project. However, if you have not done a good job of defining scope, managing scope will be almost impossible.

The purpose of defining scope is to clearly describe and gain agreement on the logical boundaries of your project. Scope statements are used to define what is within the boundaries of the project and what is outside those boundaries. The more aspects of scope you can identify, the better off your project will be. The following types of information can be helpful:

- The types of deliverables that are in scope and out of scope. (Business Requirements, Current State Assessment)

- The major life-cycle processes that are in scope and out of scope. (analysis, design, testing)

- The types of data that are in scope and out of scope. (financial, sales, employee)

Rescuing Troubled Projects

- The data sources (or databases) that are in scope and out of scope. (Billing, General Ledger, Payroll)

- The organizations that are in scope and out of scope. (Human Resources, Manufacturing, vendors)

- The major functionality that is in scope and out of scope. (decision support, data entry, management reporting)

Have a Viable Scope Change Process in Place

The project manager and project team must realize that there is nothing wrong with scope change. That is, changing scope while a project is underway is not an evil proposition. In fact, in many cases it is a good thing. First, the client typically cannot identify every requirement and feature that will be required for the final solution. Second, even if they did, the business changes over time, and therefore the requirements of the project may change as well.

If you cannot accommodate change, the final solution may be less valuable than it should be, or it may, in fact, be unusable. Therefore, you want the client to have the ability to make changes during the project when needed. The problem comes when the project manager does not proactively manage change on the project. Every project should have a process in place to manage change effectively. The process should include identifying the change, determining the business value of the change, determining the impact on the project and then taking the resulting information to the project sponsor for his/her evaluation. The sponsor can determine if the change should be included. If it is included, the sponsor should also understand the impact on the project and allocate the additional budget and time needed to include the change.

Common Problems with Scope Change Management

There are a number of common problems that project teams encounter with scope change management.

- **Scope creep**. Many project managers recognize large scope changes, but are not as diligent about smaller changes. There is a tendency to just go ahead and add the additional work without too much thought. Scope creep refers to what happens when a project accepts a large number of small changes. When all of these small changes are combined, the team realizes that they have taken on too much extra work and can no longer meet their budget and deadline commitments.

- **No sponsor approval**. Many times a project manager will receive requests for changes from end users, stakeholders or client managers. Since these are all people in the client organization, there is a tendency to think that they should be accepted. Again, this is a mistake. The end users usually surface scope change requests, but they cannot approve them. Even a client manager cannot approve scope change requests. The only person that can is the sponsor (unless the sponsor has delegated this authority to others). Many projects get in trouble because the team thinks they are getting approval to proceed with scope changes, but discover later that the person that really counts, the sponsor, has not agreed.

- **Project team accountability**. Since the project team members can have a lot of interaction with the client, they are the ones that field scope change requests the

Rescuing Troubled Projects

most often. Therefore, the entire project team must understand the importance of scope change management. All of them must detect scope changes when they occur and funnel them back to the project manager. If they take on the extra work themselves, there is a good likelihood their activities will be completed late and jeopardize the entire project.

It's Never Too Late to Start

If you find that your project is starting to trend over its budget and schedule, try to find the cause. In many cases, you will find that you are simply taking on more work than you originally agreed to. The best time to define a scope change management process is before the project begins (as a part of the Project Management Procedures). However, if you do not have a good process in place, it is never too late to start. The project manager must call a quick time-out and work with the client on a process for detecting and approving scope change requests. Then, everyone must be educated in the new process. If there is a good side of this effort, it is that the team and the client can see first hand the impact of not controlling scope because the project is already in trouble. They should be better able to understand the purpose of scope change management and be more willing to follow the more rigorous process in the future.

Project Problem #3
Not Managing the Workplan

During the first part of the project, the project manager must spend the time required to define and plan the project. The result of defining a project is the completion of a Project Definition (also called a Project Charter and / or Project Scope Statement). The result of planning the project is the project

workplan. The workplan is a vital tool to ensure that the project manager and project team know what they need to do to complete the project. Different approaches should be taken in this step according to the size of the project. The workplan for small projects can be built without a lot of formality. Larger projects usually require a workplan built by using a previous workplan from a similar project or by building a workplan from scratch using the Work Breakdown Structure (WBS) technique. The WBS is a technique for looking at the project at a high level, and then subsequently breaking the work into smaller and smaller pieces until you can get the full picture of the totality of work that needs to be performed.

The Warning Signs

Many project managers think that the creation of the original project workplan is the end of the effort. There are a couple signs that the workplan is not being updated.

- The project manager cannot tell you exactly what work is remaining to complete the project.

- The project manager is unsure whether the project will be complete on-time and within budget.

- The project manager does not know the critical path of activities.

- Team members are not sure of what work they need to start next (or even what they should be working on now).

The general sign that a project is in trouble is that the project manager has a workplan, but does not really understand the progress made to date and how much work is remaining. When this happens, the project team is not utilized efficiently on the most critical activities. Ultimately, the

Rescuing Troubled Projects

project team gets toward the end of the project and realizes that they have much more work on their plate that anticipated, since earlier scheduled work is not yet completed. The team may also discover that they have rework to do, since earlier required steps were not completed.

Other Common Mistakes When Managing the Workplan

The biggest mistake project managers make is that they do not update the workplan at all once the project completes. However, there are a number of other common problems that occur.

- **Infrequent updates.** Sometimes the project manager updates the workplan, but at lengthy intervals - for instance, every two months on a six month project. The problem is that by the time you make a formal update, you may have already missed some activities. In addition, if you are behind schedule or overbudget, it takes too long to notice, and you may be too far behind to make up the difference.

- **Managing by percent complete.** All activities should have a due date. If the activity is completed on time, everything is great. If the activity is not completed, a common question to ask is what percentage of the work is completed. The percent complete is very subjective. The better question to ask is simply "when will the work be done?' This is really the most important information to let you know if your project is in any jeopardy.

- **Assigning activities that are too large.** If you assign a team member an activity that is due by the end of the week, you know if the work is on-track when the week is over. However, if you assign

someone an activity that does not need to be completed in four weeks, you have a long time to go before you know if the work is really on schedule. Sure, the person assigned can tell you it is 25% complete or 50% complete, but this is a highly subjective response. The only time you know for sure if you are on schedule is if the work is actually completed in four weeks. That is too much time for uncertainty. In general, if you have a large project, try to keep the work activities to two weeks or less. If the project is smaller, this threshold might be better if set at one week. That way, you can find out quickly if anything is running behind schedule.

How Do You Get Back on Track?

Hopefully you will never be in a situation where the workplan is out of date and you are not exactly sure where the project stands. If you are, the first thing to do is take a step back and get the workplan back up to date. This includes:

- Accounting for all of the work done to date.

- Determining the work that is in-progress and understanding when each of the activities will be completed.

- Working with the team to re-identify all of the work remaining on the project, as well as the estimated effort. In essence, you can use the current workplan as a starting point, but revalidate that all the remaining work is identified to complete the project.

- Reschedule the project to determine whether you can still meet your commitments for budget and deadline. If you cannot, you need to work with your clients on

Rescuing Troubled Projects

ways to get the work done within expectations. If that cannot be done, you will need to reset expectations based on the newly revised workplan.

There is never a good way to catch up a workplan once the project is underway. Typically, by the time you realize you need to update the workplan, your project is already in trouble. Updating the workplan at that point only shows how much trouble you are in. The much better approach is to update the workplan on a regular basis. Weekly updates are best, but can perhaps be stretched to every two weeks on a large project.

Project Problem #4
Poor Project Communication

Many years ago, a good project manager might have gotten away with being a poor communicator. The business clients typically didn't like it, but as long as the project manager could deliver the goods, the client may have been inclined to let him or her do his/her own thing. In today's world, however, projects need to be undertaken in partnership with the business, and this partnership absolutely requires solid communication. In fact, many of the problems that surface on a project are actually the result of poor communication. Poor communication can lead to the following trouble areas.

- **Differences in expectations.** Project managers need to strive to ensure that everyone associated with the project has a common set of expectations in terms of what is being delivered, when and at what cost. The place to initially set these expectations is with the Project Definition document. However, many project managers do not keep key stakeholders up-to-date as expectations get changed.

Perhaps it is as simple as some stakeholders thinking that the project is going to be completed on December 31, when it has been extended until March 31. People make decisions based on the best information they have at the time, and if the project manager does not keep everyone under a common set of expectations, things can start to get out-of-sync fast.

- **People are surprised.** If people are not kept informed about what is going on, they will be surprised when changes occur. For instance, if you are not going to be able to make your deadline date, you want to make sure people don't read it suddenly in a status report. Proactive communication means that you raise the potential of missing your deadline as soon as it becomes a risk. Then you continue to keep people up-to-date on the status. If you have to declare that you cannot meet your date, people are prepared. People get angry and frustrated when they find out bad news at the last minute.

- **No one knows what the state of the project is**. On some projects, people are not really sure what the status is. The communication on these projects is short and does not give the reader a real sense of what is going on. Again, people cannot make the best decisions if they do not have good information. If they are not sure about what is going on, they have to spend extra time following up for further information. In fact, if you send updates to stakeholders and they continually follow up with you for more information, it can be a sign that your communications are not targeted correctly.

- **People are impacted by the project at the last minute**. This

Rescuing Troubled Projects

is a prime cause of problems. In this situation, the project manager does not communicate proactively with other people about things that will impact them. When the communication does occur, it is at the last minute and everything is rush-rush. For example, this happens when the project manager does not tell resource managers that team members are becoming available until the day they are released. Or it could include the project manager that knows for three months that a specialist is needed, but only asks for the person the week before. In each case, the other party is surprised by the last minute request and does not have time to adequately prepare.

- **Team members don't know what is expected of them.** In the prior problem situations, communication problems surfaced between the team and outside parties. However, poor communication also occurs within a project team. Some project managers do a poor job of talking with their own team to explain what they are expected to do. Sometimes, the project manager is not clear on when assignments are due. Sometimes the project manager has a vision of what a deliverable looks like, but does not communicate that to the person assigned until the first attempt comes back wrong. Sometimes the project manager does not communicate clearly and team members spend time on work that is not necessary. Again, all of this causes extra work and extra frustration on the part of the project manager and team members alike.

What's the Solution?

Some project managers are just poor communicators to begin with. If you think you are in this group, you should look for training or mentoring opportunities to become better skilled. However, in most cases, the problem with communication is not a lack of skills, but a lack of focus. Many project managers see communicating proactively on the bottom of their priority list. When they do communicate, it tends to be short and cryptic, as if they are trying to get by with the minimum effort possible.

The key to communicating is to keep the receiver the focal point – not the sender. Try to think about what the receiver of the communication needs and the information that will be most helpful to him or her. If you are creating a status report, put in all the information necessary for the reader to understand the true status of the project, including accomplishments, issues, risks, scope changes, etc. If you are going to need a resource in the future, communicate proactively with the resource manager as early as possible. Then, keep reminding him or her of the need as the time gets closer. For the most part, if you ever surprise someone, it is a sign that you are not communicating effectively. (The only exception is when the project manager is also surprised.) The project manager should also communicate clearly with their team. If you find people are confused about their end-dates or if they are doing work they don't need to do, think about whether you communicated with them effectively.

Many projects have problems. Poor communication can cause many problems and aggravate others. On the other hand, proactive communication can help overcome many other mistakes. Don't consider communication to be a necessary evil. Instead, use it to your advantage to

Rescuing Troubled Projects

help your project go smoothly with less frustration, less uncertainty and no surprises.

Project Problem #5
Poor Quality Management

The first thing to understand about quality is that it is not defined by the project manager or project team. Quality is determined by the project sponsor and your client. Sometimes there is a tendency to think that 'quality' means the best material, the best equipment and absolutely zero defects. However, in most cases, the client does not expect, and cannot afford, a perfect solution. On the other hand, a flawlessly designed, defect-free solution that does not meet the client's needs is not considered high quality. The purpose of quality management is to first understand the expectations of the client in terms of quality, and then put a proactive plan and process in place to meet or exceed those expectations.

Like the other common project management mistakes, problems with quality show up in a number of areas. For instance:

- **Rework.** This is the primary problem caused by poor quality work during a project. Rework means that you have to do the same work twice because the original effort was not satisfactory. Let's look at a software component in a large application. Component walkthroughs or peer reviews are not considered rework, since they are part of building the component the first time. When you say the component is complete, the hope is that no more work is needed. However, if there are subsequent errors when your component is tied into the larger application, rework is required. This is work that is required because the original

construction and testing process was not thorough enough and errors still exist in the deliverable.

- **Higher maintenance and support costs.** If errors are caught within the development process, there is a cost associated with rework. However, many times quality problems surface after the project deliverables are completed and in production. This situation just hands the problem off to the support organization. High support costs from a poor quality solution are a sign that the team willingly delivered a less than acceptable solution, or else they did not realize the poor quality because their testing process was also inadequate.

- **Client dissatisfaction.** If a solution is of poor quality, the client will not be happy. Again, some of this unhappiness may be transferred to the support organization. However, if the client has a choice, they may not buy from you again at a later date.

- **Missed deadlines and budget.** In many cases, projects that do not manage quality well end up with a lot of rework, which in turn leads them to miss their deadlines and exceed their budget. This can cause the business value to be delayed, or it may change the value proposition for the entire project.

- **Poor morale.** No one likes to work for an organization that has poor processes or produces poor quality solutions. No one likes to work on projects that are missing their deadlines because of rework. People tend to find excitement and challenge in building a solution. However, their motivation level goes down when they have to continually repair and rework

Rescuing Troubled Projects

deliverables that don't work correctly. In addition to poor morale in general, specific costs can include increased absenteeism, higher turnover and less productivity from the staff.

What Can be Done?

Quality management is not an event that you consider once in a while. Quality management is an ongoing process that the team needs to focus on throughout the project. When the project begins, the project manager should prepare an overall Quality Plan containing three major components.

1. **Completeness and correctness criteria**. Remember that quality is determined by the client – not the project manager. That might make the project manager uneasy, since he or she may not be sure of the client's expectations. That is where completeness and correctness criteria come in. The project team and client then have a common expectation of what is required for each deliverable to be accepted.

2. **Quality control process.** Quality control refers to the ongoing activities that the project team will perform to ensure that the **deliverables** are of high-quality. This can include deliverable walkthroughs, testing of subcomponents, completeness checklists, etc.

3. **Quality assurance process.** These are the activities designed to ensure that the overall **processes** used to create the deliverables are of high quality. These types of activities include third party audits, checklists to ensure that all parts of a process were completed, deliverable approvals, etc.

Everyone on the team needs to have a quality mindset to ensure that work is completed with a minimum amount of errors – the first time. The project manager and team need to understand that the first goal of quality management is to produce deliverables with no errors. The second goal is to catch any remaining errors as early as possible.

From a practical standpoint, if you can build the deliverables with as few errors as possible, and then find those remaining errors as early as possible, your overall project will have much fewer problems. Quality problems tend to show up late in the project – usually during the testing process. However, if you have a good quality process in place, testing should only confirm that everything is working correctly. Then you can work quickly toward final approvals, implementation and a smooth production cycle.

Define and Plan the Recovery Project

When a project is troubled, usually an outside party is brought in to help with the recovery. This does not have to be a person from an outside company, just someone that is outside of the project already. An outsider is brought in because the problems on the project are usually bigger than the current project manager realizes, or they are bigger than the current project manager can handle. After all, if the project manager could solve the problem or had ideas to turn the project around, he or she should have done so already.

Potential Results of the Recovery

By definition, troubled projects have major problems. In fact, the problems may be too severe to overcome. There are a number of potential scenarios that will result from trying to remedy a troubled project.

Rescuing Troubled Projects

- **The project is turned around and completes successfully (within tolerances)**. This is the best case, but it is normally not possible. If you take over a troubled project that is trending 50% over budget, for instance, you are not normally going to be able to turn it around to a point where you finish in budget (within your tolerances).

- **New expectations are set and met.** This is a common result of taking over a troubled project. New estimates and expectations are set, and then the team strives to meet the new expectations.

- **New expectations are set and missed.** This is also a common outcome if the root causes of the original problems are not identified and resolved. This is actually the worst-case scenario, since the company is no better off after the intervention than they were beforehand. It could be that the money spent since the original intervention will be wasted.

- **The project will be cancelled.** Many troubled projects are just cancelled and the money already spent is basically written off. This can occur at the point the project is validated to be in trouble or after the new expectations are set. The business value obtained by the original project estimate may not be there at a higher cost.

Of course, there are other permutations. For instance, the project expectations may get reset and missed, and then reset again. The project may be mandatory and need to be completed regardless of the number of missed expectations.

Plan, Then Act

The normal tendency for a person arriving on a troubled project is to jump in with both feet to determine causes and plans for a turnaround. If the project is small, you may be able to do just that. However, if a project is small, you are not typically going to go through the effort of a project turnaround.

Let's assume that the project is big enough to require a formal project turnaround. Rather than just jumping in, the first thing that needs to happen is to recognize that the work to recover the troubled project is itself a project. The recovery project has a start and an end, resources, deliverables, etc. It fits all of the classic definitions of a project. Since it is a project, the first thing that needs to happen is a definition and planning process, just as described in the TenStep Project Management Process in steps 1 and 2. Just as with a normal project, you need to look at the characteristics of the recovery project to determine the level of effort required. If the recovery project is a medium-sized project, an Abbreviated Project Definition and a short workplan may be perfectly fine. However, if the project is tens of millions of dollars, the recovery project itself may be substantial and a full Project Definition and workplan should be developed and approved. Just as with a regular project, the definition and planning process gives you a chance to validate:

- The purpose of the recovery project (overview and objectives)

- The deliverables to be produced (scope)

- The other aspects of scope including validating the organizations, the portions of the project to recover, etc.

- The sponsor, project manager and other key stakeholders of the

Rescuing Troubled Projects

recovery project (project organization)

- The estimated duration and cost of the recovery project

- The assumptions and risks associated with the recovery project, and how the risks will be managed

- Who will be involved in the recovery project (project organization)

- How the current project will proceed (or will it?) while the recovery project is underway (approach)

Once the recovery project has been defined and planned, the sponsor and appropriate stakeholders should approve the Project Definition. The project manager then needs to manage the recovery project tightly using steps 3 - 10 of the TenStep Project Management Process. The project manager must focus on the agreed upon work and ensure that the expectations are met. The entire situation will be exacerbated if the recovery project itself is not completed successfully.

Assess the Troubled Project

Once the recovery project has been defined and planned (and approved) the first step is an assessment of the troubled project. This would be equivalent to the Analysis Phase that is typically done at the start of a project.

Verify the Background and Facts

The person performing the assessment may or may not have any background on the project. In many cases, he or she is an outside party that has good assessment and recovery skills, but he or she may not have any specific background on the project itself. When you are performing the assessment, no initial assumption is safe from scrutiny.

Everything about the project should first be validated.

As a part of the initial briefing, you are likely to talk with the sponsor or other senior managers. They will certainly brief you on the background and the problems. However, they are just one voice that you will need to listen to. Even information that comes from the sponsor should be validated and confirmed by others before the assessors make any decisions.

Consult with All Relevant Stakeholders

Some recoveries focus on the project team to determine where the problems lie. However, that is too narrow of a group for the assessment. The project team typically does not see the entire picture, and they may be biased in their understanding of the causes of the trouble. To be effective, the assessment must include:

- Project team

- Sponsor

- Client managers

- Users

- Vendors, suppliers and other third parties that have a high degree of involvement

Assessing all the major stakeholders will not only allow you to see a more balanced view of the project, but will also help you in implementing the recovery plan. People tend to respond better to adversity and change if they think they have been consulted and had input into the recovery process.

Perform the Assessment

You should have a plan of attack for conducting the assessment. The overall approach for the assessment should have been laid out in the Project Definition for the project rescue, and an initial workplan should be in place.

Rescuing Troubled Projects

However, the assessment is going to utilize communication skills and problem solving skills. You can review more information about the communication skills required in the LifecycleStep Project Lifecycle Process at www.lifecyclestep.com/411.1RequirementsElicitation.htm.

The recovery plan will also take good problem solving skills. It is important to identify the root causes of problems. If there are multiple problems (and there usually are), you need to determine which problems are the most urgent to resolve. You can review more about problem solving techniques at:

- **Manage Issues / Cause and Effect Analysis**
- **Manage Issues / Root Cause Analysis**
- **Manage Issues / Pareto Analysis**

Common Causes

It is true that every project is unique, with a set of unique circumstances that cause problems. However, it is also true that there are some generalities that can be used to guide the assessment in the search for root causes. They are as follows:

- Up-front Project Definition
  - Unclear and differing expectations for the objectives of the project
  - Unclear or differing expectations of the scope and deliverables of the project
  - Major risks were missed or were thought to be initial assumptions
  - Lack of strong and clear ownership and sponsorship of the project
  - Not including all of the major stakeholders in the project
  - Making the project too large or too complex through its definition instead of breaking it into smaller pieces
  - Poor upfront estimates for cost and duration
- Project workplan
  - Project activities are not broken down into a finite enough level
  - The critical path is not identified and managed
  - The project team doesn't always know what to work on
  - Work is assigned to team members that do not have the proper level of experience and skills
- Ongoing project management
  - Generally not following good project management and lifecycle processes
  - The workplan is not being managed
  - Scope is not being managed effectively
  - Issues are not being resolved in a timely manner and the delay is adversely impacting the project
  - Communication between the client and project team has broken down or is inadequate
  - Project risks are not being managed
  - Project risks are not being re-evaluated
  - The project is not following organizational standards, guidelines and policies

Rescuing Troubled Projects

- o The team is not held accountable for missed deadlines

- o The resources to complete the project successfully as defined in the Project Definition are not available as needed

- o There is not a common understanding of the acceptance criteria of the major deliverables

- People and skills

  - o The team or client-team relationships are dysfunctional

  - o Interpersonal and diversity problems among a multi-cultural project team

  - o The team or the client experiences turnover of key resources

  - o The project manager does not have the skills required to manage the project (He or she may have good general skills, but not for a project with these characteristics.)

  - o The team does not have the right skills to complete work within expectations (technical, professional or business skills)

- Analysis and business requirements

  - o Failure to define the requirements is resulting in building the wrong features and functions

  - o Failure to define requirements clearly and completely leaves major gaps in meeting client expectations.

  - o The needs of all stakeholders were not considered in the requirements, including users, management and the sponsor

  - o New requirements are not being managed (scope management problems)

- Design and technology

  - o New or state of the art technology causing unanticipated problems

  - o Poor solution design causing missed requirements and rework

  - o Not having the right skills on the project

- Construction and testing

  - o Requirements and other aspects of scope are not frozen to allow the project to drive toward completion

  - o Technology components do not fit together as designed

  - o Poor initial testing techniques cause repeated errors and rework in later tests

- Implementation

  - o Inadequate training of the solution users

  - o Implementation fails and a recovery plan is not in place

  - o Poor overall testing causes major errors that keeps the project team in place longer than expected

Of course, there are other causes as well - some major and some minor. The assessment may point our one major root cause of the project being troubled, but it is more likely that a troubled project will have a number of major and minor root causes identified.

Develop a Recovery Plan

It is hard to describe a generic process for developing a recovery plan because the recovery plan itself is based on the specific root causes that you come up

Rescuing Troubled Projects

with during the assessment. If the cause has to do with poor initial estimates, the recovery plan will include re-estimating the remaining work. If the problem is associated with having the wrong skills on the team, the recovery plan will be different.

Identify Alternatives and a Recommendation

After the assessment is complete, a list of alternatives should be developed along with a recommendation. The alternatives will vary greatly, depending on the causes that were uncovered during the assessment. However, a couple of alternatives will normally always be considered:

- **Stop the project.** If a project is in bad enough shape that a rescue is required, the team should always leave open the possibility that the project should just be cancelled. There are many reasons that cancellation may be the best approach. The product being produced may have missed its window of opportunity in the market, the team may not have the right skills and the organization may not have the right people available to replace them, or the sponsoring organization may have more important priorities now. Of course, a big reason for cancellation is that the business proposition may not be valid any more. A project that made sense at a certain cost may no longer make sense if the revised cost estimate is 50% higher or more.

  Sometimes there is a hesitancy to cancel a project because of the implication that all of the money spent so far will have been wasted. However, you should look instead at the money already spent as being a "sunk" cost. Sunk costs refer to money already spent on the project. For the most part, sunk costs represent money that you will never get back. The question in a troubled project is not so much the sunk costs as it is the remaining costs and whether the project makes business sense if you spend the estimated cost to complete the project. If the estimated cost to complete the project, plus the sunk costs, means that the project no longer makes business sense, the project should be canceled. This is generally true even if you have already spent 50% or more of the revised cost. If the project no longer makes business sense, you don't want to be in a position of spending more money on it. It would be better to take the remaining project costs, even if they are 50% or less, and apply that money to an effort that does have business value to the company.

- **Let the project continue as is**. In some cases, the sponsor may determine that the cost of a project rescue is not worth pursuing. For example, a project may be projected to complete at a budget 50% higher than estimated. However, the assessment may determine that a cause is that the project cost was underestimated. In this case, there is not much that can "rescue" the project. The sponsor is forced to accept the higher cost of the project, cancel the project or scope back the deliverables. In another example, a project may take 50% longer than originally estimated. However, the project may have had some delays in getting resources on board, meaning the project costs are trending within tolerances. The client may decide to live with the later deadline and decline any radical intervention at this time.

Rescuing Troubled Projects

- **Other alternatives.** There are many other common alternatives for rescuing a troubled project. Remember that you may not be trying to get the project to complete within its original deadline and budget. At this point, you may have to settle for a more expensive final cost and a later delivery date.

  o **Adding resources to apply extra effort**. Adding resources may be required to complete the project within a reasonable timeframe. This may well increase the project budget. Remember that there is a diminishing return from adding resources. If you have a team of five people and then add one more, you will not get a 20% increase in work. There is start-up time and cross-training involved that will not only take the time of the new resource, but existing team resources as well. You will also find an increase in communication, an increase in team misunderstandings, rework, confusion, etc. Obviously you will get some productive work done as well, but not to the extent you might think. Therefore, you may only get a 15% increase in total work produced. If you added a second resource to the team, the incremental gain may be only 12%. A third resource might gain 8%, etc. You will quickly come to a point where adding more resources actually ends up with the activity taking up more time than it would have if fewer resources were used.

  o **Adding resources to apply extra skills**. You may need to add resources with a necessary

level of expertise or skill. These people could be experienced consultants that are added for the short term to complete some activities that the current project team does not have the right level of expertise to complete.

  o **Paying overtime**. You may recommend that the current team work paid and unpaid overtime to meet a new deadline. If you are paying for the overtime, this alternative may cost the project more money.

  o **Offering incentive bonuses**. You can offer incentives for team members, contractors and suppliers to get their work completed in a more aggressive timeframe.

  o **Purchasing tools**. You may need new tools to accelerate the schedule. These will usually cost money, and you may have to invest in a learning curve, but you think there will be a payback over the remaining length of the project.

  o **Improving processes**. Many of the root causes of project problems need to be resolved through process improvements. If you are working on a small project, there may not be enough time to make process improvements before the project ends. However, larger projects (the kind like this one that need to be rescued) usually have enough time remaining to make process improvements to help turn the project around.

  o **Building team dynamics.** If you have root causes that point to team cohesion, you may need to invest in team building

Rescuing Troubled Projects

activities to get the team working together (again). This team building can also extend to the client and the sponsor. On many troubled projects, there is friction between the client and the project team, and this situation needs to be resolved before the project can get fully on track.

If the project is not cancelled or allowed to continue as is, there are a myriad of options to follow depending on the root causes of the problem. Although the actual recovery alternatives will be different for each project, there are a couple things to keep in mind.

- Make sure you understand the tradeoffs of cost, duration and scope (quality). In many cases, a troubled project will have problems in more than one of these triple constraints. A project that is trending way over budget, for instance, is also probably trending way over schedule as well. The alternatives for recovery should address both sides. That is, you may have an alternative that attempts to bring both budget and schedule back within expectations. However, you may also have alternatives that cost even more money and deliver more quickly, alternatives that deliver the project sooner and cheaper with less functionality and alternatives that deliver the project less expensively but over a longer timeframe. If you have multiple options like this, the sponsor will have more of an understanding of the tradeoffs associated with turning the project around.

- Look for intervention actions that result in a net savings to the project. A troubled project is already off course in one or more

areas of cost, duration, quality, client satisfaction, etc. If you recommend rescue activities, you want to try to make sure that the actions result in a net savings to the project. For instance, if you estimate that the effort to rescue the project is 200 hours, you should make sure that the result of the activities will be a net savings to the project of 200 hours or more from the current trend. Keep in mind the triple constraint tradeoffs as well. You may have to spend extra effort and cost to accelerate the schedule, and that tradeoff may be fine. However, you don't want to be in a position where the cost of intervention results in a net increase from the revised project estimate without intervention. You also don't want the timeframe associated with intervention to result in the project delivering later than without intervention, or the quality to be poorer than where it would be if no intervention takes place. In these instances, the best alternative may be to just let the project complete as is.

Get Sponsor Approval

Ultimately, the sponsor needs to decide on a recovery plan, taking the alternatives and recommendations into account. It is possible that the sponsor may have other ideas, but this will not happen if the sponsor was also consulted as a part of the assessment. If a broad audience was consulted to create the alternatives (including the sponsor), the sponsor will more than likely accept the recommendation.

Reset Expectations With a Revised Project Definition and Workplan

Once you have sponsor approval on the overall recovery approach, you need to go back and update the original Project Definition and

Rescuing Troubled Projects

workplan. The Project Definition is the place to reset expectations for the project objectives, deliverables, risks, estimated cost and effort, etc. Given the state of the project and the original expectations, there will probably be major revisions to the Project Definition. Just as the first time through, the revised Project Definition should be circulated and approved by the project sponsor and the major stakeholders.

The project workplan also needs to be revised based on the changes that were approved. There may be two sets of activities that need to be worked on in parallel - one set to address the root causes of the problems on the project and another set of activities focused on the original project activities. In other words, it may not be possible to stop the previous project activities while the corrective actions are put into place. For some period of time, you may need to do both.

Activate the Recovery Plan

At this point, you have developed alternatives for rescuing the project, and your sponsor has approved a recovery plan. You have also revised the previous Project Definition and had it approved by the sponsor and other appropriate stakeholders. You have created a revised workplan that includes the activities necessary to complete the project within the revised Project Definition.

Now you and the team must execute the workplan. This is going to require much more focus than the team had before. The project manager, project team and client need to understand where the project was and recognize the critical nature of the project recovery plan. There can be no more delays. Everyone associated with the team needs to work under a heightened sense of awareness by:

- Proactively communicating status and managing expectations.

- Resolving issues quickly and cleanly.

- Focusing on the minimum requirements necessary to meet business needs and keeping scope change requests to an absolute minimum. At the same time, the project team needs to be especially aware of raising all scope change requests through the formal scope change process.

- Ensuring that the right resources are available at the right times.

You do not want to have a recovery plan that is separate from the actual work of the project. So, after the recovery plan is developed, you should determine the specific activities required to activate the recovery plan. These activities should be placed in the project workplan to ensure they get worked on while the rest of the project work is progressing.

Measure and Monitor Recovery Plan

It is critical that proactive monitoring and measurement take place to validate the status of the recovery plan and the project in general. The worst result of a project rescue is that the recovery itself fails. If this happens, not only is the entire project likely to be cancelled, but there may be repercussions for those involved including a loss of credibility, less opportunity in the future, a demotion or even a chance of being fired.

The following elements will be a part of measuring and monitoring the project.

- **Proactive communication**, including Status Reports, status meetings and managing expectations, is necessary. If the project has a Communication Plan,

Rescuing Troubled Projects

it should also be revised. Some communication activities that do not provide measurable value may need to be stopped. Other communication activities may need to be included to overcome the credibility damage to the project already.

- **Meticulous updating of the project workplan** to ensure it is up-to-date and that it always shows a clear path to completion.

- **Track costs, effort hours, rework and project errors**.

- **Measure client satisfaction with the recovery**. This includes sending out short client satisfaction surveys, as well as talking first-hand with the major stakeholders to ensure that their expectations are being met.

If the project does not already have these in place, they need to be added as a part of the recovery plan. If they are already in place, the effectiveness of the processes needs to be validated, and other proactive activities may need to be added as well. Remember that the old processes for monitoring and measuring the work may not have been effective and may have contributed to the project getting into trouble. Stronger monitoring and measuring may be needed as a part of the recovery.

Depending on the duration remaining on the project, this may also be a time when the project manager needs to use techniques for micromanagement. Normally, you might not want to be involved in the team work activities on a detailed basis. However, when you are in a recovery, you may need to keep a close watch and close follow-up on all outstanding work.

Rescuing troubled projects does not have to be a daunting task.

We have done it before.

Contact us for more information.

info@tenstep.com
877.536.8434 / 770.795.9097

About TenStep

TenStep, Inc. (www.TenStep.com) is headquartered in Atlanta, Georgia (USA), and specializes in developing, consulting and training in business methodologies. The company's flagship product is the TenStep Project Management Process®, which has been licensed to thousands of companies and individuals around the world. In addition, TenStep has training, consulting and business methodology products covering Project Management Offices, portfolio management, software development and application support.

The TenStep process is translated into 14 languages, allowing it to be utilized by organizations in most parts of the world.

TenStep meets the needs of local businesses with a network of offices in the USA and around the world.

Our training classes include:

- **Project Management (advanced and basic)**

- Preparing for the PMP Exam

- Earned Value Management

Rescuing Troubled Projects

- Setting up and Running Project Management Offices

- Setting up and Running Portfolios

- Gathering Business Requirements

- Many, many more

Our consulting services include:

- Project management deployment and customization

- Project Quickstarts

- Setting up PMOs

- Project management coaching, auditing documentation review

- Managing your projects

- Many more

About the Author:

Tom Mochal, PMP is the president of TenStep, Inc. (www.TenStep.com), a methodology development, consulting and training company. He is also the head of The TenStep Group, a network of TenStep offices supporting the TenStep process in numerous languages and countries around the world.

Mochal is author of a book on managing people called "Lessons in People Management" and a companion book on project management called "Lesson in Project Management". Mochal also authored all of the TenStep methodology products.

Mochal recently won the **Distinguished Contribution Award** from the Project Management Institute for his work spreading knowledge of project management around the world.

Mochal is a speaker, lecturer, instructor and consultant to companies and organizations around the world. He is a member of the Atlanta, Georgia (USA) chapter of the Project Management Institute (PMI), the

American Management Association (AMA), the American Society for the Advancement of Project Management (asapm®), and is a partner in The Management Mentors, a group dedicated to building knowledge in project management, IT management and leadership/personal development.

Contact us at info@tenstep.com

TenStep, Inc.
2363 St. Davids Square
Kennesaw, GA. 30152

877.536.8434
770.795.9097