Process Improvement
Project Guide

Process Improvement: Project Guide

Background

In his newest book, management guru, Michael Hammer urges us to "become ETDBW" (easy to do business with) and to "put processes first".[1] In recent years, many organizations have indeed begun this journey. Process improvement programs and techniques abound and have many names; business process reengineering (BPR), lean thinking, and six sigma all leap readily to mind. But no matter what you call them, programs to improve efficiency which were once a source of competitive advantage, are now becoming requirements for mere survival in the marketplace.

Improvement programs of the past concentrated on optimizing individual tasks and activities. A 'task' is a single unit of work often performed by a single person. A 'process' is a grouping of tasks that when performed correctly provide value to the customer. No matter how proficient a company is, performing a single task does not provide value to the customer, only when all of the tasks required to manufacture a product or provide a service are performed correctly is an output of value available to the customer. Almost all processes involve work being performed by resources from a number of functional departments in an enterprise. Unfortunately, it is rare for all workers to know and understand the entire process they are involved in, and how the work they perform fit into it.

Companies need to change their focus from improving the way individual tasks are performed, to improving how the tasks all fit together to provide value to the customer: in other words, many companies are looking to improve their processes. This does not mean that companies stop trying to optimize the performance of individual tasks; however, in many companies there are greater opportunities for benefits to be achieved by looking at the overall process. Indeed, Hammer has stated:

"Streamlining cross-company processes is the next great frontier for reducing costs, enhancing quality, and speeding operations. It's where this decades productivity wars will be fought. The victors will be those companies that are able to take a new approach to business, working closely with partners to design and manage processes that extend across traditional corporate boundaries. They will be the ones that make the leap from efficiency to superefficiency."[2]

Process Improvement and Company Strategy

Process improvement is a tool. It is a tool that workers use to help the company meet its goals and objectives. The changing marketplace has forced companies to change the way they think about what they do and to reevaluate their objectives to acknowledge the fact that they are no longer able to produce any product they want and the customer be forced to accept it. The customer has much greater power in the market than ever before. Companies can no longer judge their performance based solely upon criteria important to the company. Companies must now look at their performance from the customer's viewpoint. This is what James Shaw refers to as 'looking backward through the telescope', and is critical for competitiveness.[3] An example of this change in mindset is the way companies view the time to deliver a product or service:

> Acme Manufacturing builds widgets. When questioned about their performance, management will state Acme can produce a widget in 16 hours. What they are really

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[1] Hammer, Michael <u>The Agenda</u>. New York: Crown Publishing, 2001
[2] Hammer, Michael "The Supereffecent Company" <u>Harvard Business Review</u> September 2001
[3] Shaw, James G. <u>Customer Inspired Quality: Looking Backward Through the Telescope</u>. San Francisco: Jossey-Bass, 1996

saying is that it takes 16 **man-hours** to produce a widget. The important measure is how long the **customer** has to wait to receive the widget. Acme Manufacturing operates 40 hours per week (five eight-hour workdays). If an order is placed with Acme on Thursday afternoon, an employee can only spend four hours that day working on it. Eight hours more of work would be performed on Friday, and the last four hours of work would be completed Monday morning. Even though the company has invested only 16 man-hours in producing the widget, the customer has had to wait **96 hours** to receive his part (Thursday noon to Monday noon). Even if the order was placed at 8:00 AM Monday morning, the customer could not receive their widget until 4:00 PM Tuesday – 32 hours after the order was placed. This disparity only becomes apparent when a company begins to look at their performance from the customer's perspective.

The move to a company that is focused on process improvement and not task improvement requires a change in the mindset of the workers as well. No longer can workers only focus only on the particular task that they perform. Workers must now consider the entire process and what they can do to make it better. In the past, workers may not have known or understood the entire process or the role that they played in it. In the company of the future, everyone needs to be aware of the primary processes performed by the company, understand them, understand where they fit into them, and understand their importance to the company.[4] This results in more responsibility and power being given to the worker.

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[4] Hammer, Michael. <u>Beyond Reengineering: How the Process-Centered Organization is Changing Our Work and Our Lives</u>. New York: HarperCollins, 1996.

Starting a Project

Selecting the Processes to Be Improved

All companies have a finite amount of time, money and resources to allocate to any aspect of their business. Because of these limitations, companies cannot work on improving all of their processes at once. Project selection is one of the most difficult tasks companies can face. In order to determine where the greatest benefits from a process improvement project will be realized the core or primary processes performed by the company need to be identified.

The exact number of core processes will be different for each company. There are however some processes every company will perform at least some of:

- ? Customer Acquisition
- ? Order Administration
- ? Order Fulfillment
- ? Customer Service or Support
- ? New Product/Service Development
- ? Invoicing and Collections

All other functions (Human Resources, Budgeting, Facilities, Information Technology, etc.) support these core processes and would not be a part of this first wave of process improvement. The primary or core processes are made up of a number of smaller sub-processes.

With a list of the core processes, the improvement team must now decide which processes will be selected for a project. Because of limited resources, the team must decide which process would have the greatest benefit for customers. In addition to customer needs, the team needs to evaluate which project most closely ties in with the company's goals and objectives, and provides real financial benefit.[5]

Even though a team might like to tackle all of the problems faced by a company, reality forces some hard decisions. The team must decide if the resources are available to tackle a project. A worker with a required skill set might not be available. Some processes are too complex or large in scale to solve in a single project and should be broken into multiple smaller projects. Due to dependencies, another project may have to be fixed before another primary process can be improved. If there is little chance of success or support from key groups in the organization, the team should also reconsider its priorities.[6]

Project Teams

The creation of the project team is where the foundation of a successful project is laid. The makeup of the team is a reflection of the process to be improved. Recall, that just as many processes cross functional boundaries, project teams need to involve workers from all affected areas of the company. The size of the team will be a reflection of the scope of the project, but should be kept a manageable size. Members of the team should be given authority, and the

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[5] Pande, Peter S., Robert P. Neuman, and Roland R. Cavenagh. The Six Sigma Way: How GE, Motorola, and Other Top Companies are Honing Their Performance. New York: McGraw-Hill, 2000.

[6] Ibid.

responsibility that comes along with it, to fully execute the project. From the beginning of a project, all members need to be made aware of what is expected of them.

Because the project team will have members from throughout the company representing a variety of job functions and skill sets, the project manager needs to ensure that all members have the tools that they require to be successful. If an individual has not been a member of an improvement team in the past, the manager will have to assess what additional training needs to be provided to ensure he has the skills and confidence necessary to be a valuable contributor to the process. From the beginning of a project, clear ground rules need to be established about the type of environment that is to be fostered: ALL team members are important, ALL ideas are to be heard, and ALL opinions are to be valued. Brutally honest discussions of activities and processes will be a part of any improvement project, but never negative comments towards another team member. Only if all members of the team are comfortable voicing their opinions and ideas will the team be able to maximize benefits from the program.

Creating and maintaining a team that is productive and successful is not always easy. It takes work by everyone involved; not just the team leader. When a team does come together, the company can receive geometrically increased productivity and the team members experience growth and learning opportunities beyond what they could ever experience on their own. To ensure success, Stephen Covey suggests a number of items that team members need to keep in mind[7]:

- ? Understanding the individual – seek to understand and get to know the other members of the team.
- ? Attending to the little things – small acts of kindness DO mean a lot. Small discourtesies, little unkindnesses, and little forms of disrespect all make a difference. In relationships, the little things are the big things.
- ? Keeping commitments – it is imperative that all team members do everything possible to keep their commitments to the rest of the team.
- ? Clarifying expectations – because process improvement will be new to many members of the team, it is imperative to get all of the expectations out on the table. Many negative situations are created simply by one member of the team assuming expectations are self-evident and that they are clearly understood and shared by other members. Time spent at the beginning of a project to ensure expectations are clear and explicit will be richly rewarded.
- ? Showing personal integrity – personal integrity generates trust. Integrity includes but goes beyond honesty. One of the most important ways to manifest integrity is to be loyal to those who are not present. In doing so, a team member builds the trust of those who are present. When an individual defends those who are absent, he will retain the trust of those present.
- ? Apologizing sincerely when you are wrong – when an individual makes a mistake or does something wrong, he needs to apologize and do it sincerely. On the flip side, the team member that was wronged needs to accept the apology and move on. Constantly bringing up a past harm will only make the team less productive.

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[7] Covey, Stephen R. The Seven Habits of Highly Effective People: Restoring the Character Ethic. New York: Fireside, 1989.

Process Definition

Means of Documenting

Gathering, collating, and analyzing data is often the most time-consuming portion of a project. The amount and type of data that is required is a function of the type of process being analyzed, and the goals of the project. Creation of a high level ("50,000 foot view") document of a core process will have very different data requirements than a project that will involve the creation of a detailed document of a sub-process.

The types of data associated with a process improvement project include:

? Customers of the process (internal and/or external to the company)
? Suppliers to the process
? Key deliverables (Output) of the process
? Key receivables (Inputs) of the process
? Timing information for the activities that make up the process
? Cost information
? Resource information (personnel and equipment used to perform a process)
? Fallout/reject/rework information

There are a number of different ways to capture, document, and present process information. The original method was in a text document. A document is created detailing each step of the process. This technique is usually very slow and tedious. Unfortunately, process documentation in this format is not "user friendly" – the workers it is created for rarely refer to it. Maintaining process documentation of this type is time intensive.

The use of a spreadsheet to document a process is a slight improvement over a text document. The information can be organized so that people referring to the document can more easily find the information they need such as required personnel, equipment, timing information, etc. Spreadsheets are still not the preferred method of documenting a process. Unfortunately, an organization cannot reengineer its processes using only a spreadsheet; it is the wrong medium.[8]
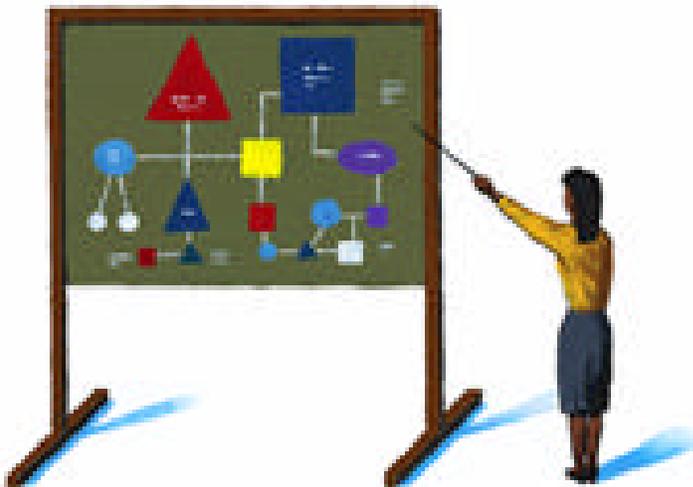
Flow diagrams, also called flow charts or process maps, are the best method for documenting a process. In their book *Reengineering the Corporation*, Michael Hammer and James Champy observed that when companies were performing process improvement projects that the creation of process maps often represented the first time the organization could see how its work processes really flowed. The actual creation of the process maps often provides some of the most useful information for the team. Flow charts allow an individual to see the inputs into a process, see what activities are performed on the inputs to transform them into something of

8 Schrage, Michael. Serious Play: How the World's Best Companies Simulate to Innovate. Boston: Harvard Business School Press, 2000.

greater value to the customer, and to see the outputs of the process. Flow charts are not organizational charts which only show how a company is segregated by function. Instead, flow charts show how work flows through a company. With a small amount of experience, flow charts can be generated very quickly. Flow charts are able to convey vast amounts of data quickly and efficiently. Most importantly, they are easily understood by a wide variety of audiences, and are easier to maintain then other documents.

Creating a flow chart involves determining the inputs and outputs of a process, and determining the activities in a process. If decisions are made during a process, this information is captured. Flow charts allow a worker to see the inputs into a process, see what activities are performed on the inputs to transform it into something of greater value to the customer, and to see the outputs of the process.

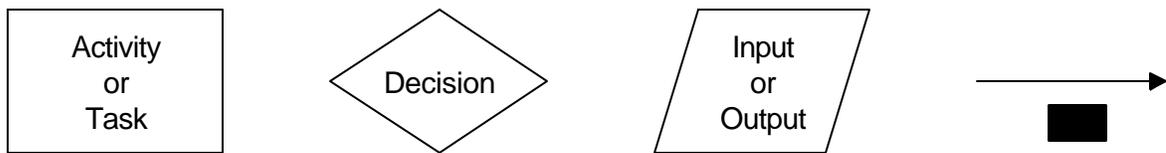There are basic shapes used in all flow charts.

Figure 1. Basic flow chart shapes

In addition to merely showing the process flow, additional items can be placed in the flow chart to help convey other useful information. The different types of input and output associated with a process (documents, faxes, phone calls, boxes of finished goods, etc.), as well as the personnel and equipment required to perform a process can also be shown on the flow chart.
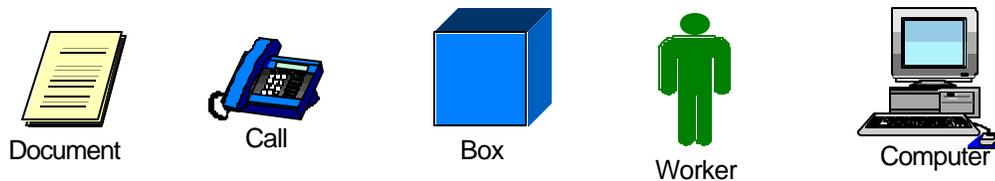

Figure 2. Additional shapes that can be used

To create a flow chart, place the inputs to the process on the chart. In the order that they are performed, place an activity/task shape (a rectangle) on the flow chart with arrows showing the order that they are performed. Because individuals are used to thinking left to right, top to bottom, the process should be drawn following this orientation. Decisions will have more than one arrow (flow path) exiting them to show the different possible outcomes. To help the audience understand what personnel or equipment is required to perform a task, shapes representing them can be placed on the flow chart near the activities they are involved in. A shape representing the final output(s) of the process can also be placed on the flow chart for informational purposes.
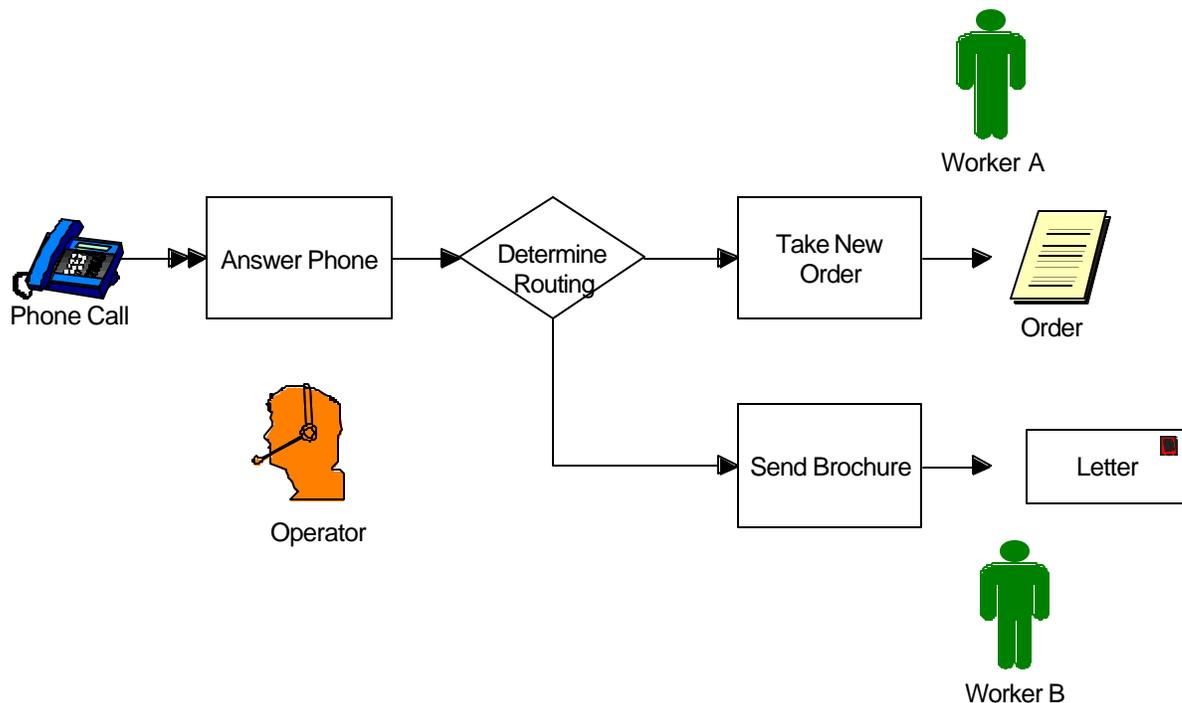
Figure 3. Process Flowchart example

Flow charts of primary processes will contain shapes representing activities that involve a number of individual steps or processes. Detailed flow charts of these sub-processes may have to be created by the team when they begin analyzing a process to find ways it can be improved. In the above example, the activity "Take New Order" would involve a number of steps: entering the customer's name, address, telephone number, and credit card information into the customer data base, the items the customer would like to order have to be recorded and their availability checked, if the customer's payment method is approved then the actual order would have to be released for filling. All of these steps could be captured in a detailed sub-process flow chart.

Sources of Information
When performing a process improvement project, the team will require large amounts of information. The information can come from a variety of sources. Team members pulled from throughout the company will bring with them large amounts of process knowledge and experience. When this is not enough, team members can interview individuals more knowledgeable on specific functions and activities. The IT department of companies can also be used to help collect and organize large amount of data into reports that are useful to the team. In some cases, reports are already being generated that contain the information the team needs. If the root cause of a poorly performing process is narrowed down to a specific activity, time and motion studies can be performed for an in-depth analysis of just that activity.

What Information Needs to be Collected?
Team members need to keep in mind that collecting and analyzing data is the most time consuming portion of any project. Teams need to ensure they collect enough information to make good decisions, but not gather so much data that it overwhelms them, or collect information that they will never use. If the project is designed to look at decreasing rejects from a process, then the team would not only have to track the number of rejects, but also the reason for the rejection. Without this information, the team will never discover the root problem of the errors. All

improvement teams need to spend time planning how they will gather and analyze data for a project. This is not a simple task and is too often not performed, resulting in lost time and 'project rework' later. Once the team has gathered their data, they need to keep it organized. When improvement teams are large, it can quickly become difficult for different team members to find specific pieces of data, or to ensure that the information they a re looking at is the most current. Project managers need to take the lead in ensuring the integrity and access to project data.

Improvement teams should not let the fact that they are missing one or two pieces of data stop their progress. Educated guesses should be used, and plans developed for how the missing data will be gathered.

When members of the improvement team are not experts in a process, extra care needs to be taken to ensure that a complete data gathering job is performed. When looking at the activities that are performed, teams need to be sure to capture all of the suppliers to an activity, what items are actually received by the activity, details of what is actually performed, how long it takes to perform the activity, what are the resources (personnel and equipment) required to perform the activity, the output of the activity, and the customers of the activity. In summary, what comes into the activity, what is done to the items, and what is the result of completing the activity.

Process Analysis and Improvement

Measuring Process Performance

When a company creates a process improvement project, it needs a means of knowing not only its current performance levels, but also a way to measure its improvement. The tool used to measure process performance is process performance metrics. The metrics that a team selects to judge process performance must be measurable, unambiguous, and understood by everyone involved. It is important to note, that the change in a company's mindset to that of a customer-oriented operation requires that the metrics that are chosen reflect this change.

There are two major categories of metrics: customer driven, and company driven.
Typical customer driven measures include:
- ? Accuracy
- ? Customer satisfaction
- ? Timeliness
- ? Product performance
- ? Product cost
- ? Service level
- ? Value or ROI

Typical Company driven measures include:
- ? Error rates for specific processes
- ? Resource utilization
- ? Unit cost
- ? Profit

Companies will have measures of the entire process (total number of widgets shipped today) as well as measures of sub-processes (number of widgets painted red in color today). The measures of sub-processes help an individual worker understand the impact he has on an entire process (they cannot ship any more widgets in a day then can be placed in a box and the shipping label applied to, even if all of the other processes doubled their output).

Measuring process performance is not a one-time activity. Companies need to constantly be listening to customers to detect when their needs change, and to benchmark their performance against competitors to ensure that they do not fall behind. The channel of communication with workers must also be maintained so that companies can immediately learn of problems or issues in a process and take advantage of workers' ideas. The change to a customer-oriented company requires emphasizing measures that are customer driven and focused.

Process Improvement Tools

There are a number of techniques and tools that can be used to help analyze and improve a process. When looking for opportunities for improvement, value mapping can help to show the team where time and resources are not being used efficiently. Value mapping entails going through all of the activities in a process and determining if they are value added or non-value added. One of the best ways to value map a process is to gather the team and as a group determine if an activity is value added or non-value added. Value added activities are those activities that change the items in a way that the customers are willing to pay for, and they are done correctly the first time. Performing rework or inspecting parts because a piece of equipment is getting old and occasionally makes bad product are **not** a value added activities. Few people want to classify the work they do as non-value added, so it helps to have individuals not directly associated with the activity help classify the activity. Although value mapping can be a very beneficial in helping you discover problems in your process, it is still limited. Information

concerning interaction between different activities, timing issues, and feedback on the use of resources cannot be determined by value mapping, more advanced tools are required.

Simulation

The power and accessibility of simulation tools have grown dramatically over the past few years. Beyond providing what is often the first complete "picture" of a process, simulation allows a user to effectively address problems that were beyond the scope of the tools available to them in the past. Complexity, interdependencies, and variability can be more effectively analyzed using simulation than with other tools. The conflicting views of how processes are currently being performed or should be performed, parallel processes occurring simultaneously, and the sheer volume of processes and activities involved all add complexity to a process improvement project.

The cost of simulating various alternative processes is often insignificant compared to trail and error in the real world. In the past, alternative processes could only be tested by retraining the workers and actually making the proposed changes. If the new process was not superior, the time and money spent training the workers would be wasted and there would be a very real possibility of exposing customers to "bad" products and services. Because of the power of the new simulation tools, tomorrow's innovators will invest more in playing with prototypes, modeling marketplaces, and simulating scenarios because that will become the best way to create new value and profitably deliver it to customers. Simulation can create new interactions between people that in turn create new value.[9]

An example of this new generation of simulation tool is ProcessModel. Using ProcessModel, improvement teams can create flow charts of the processes they are responsible for improving. Instead of being limited with static flow charts that only provide a graphical representation of the process, users of the tool can animate the process, allowing users to actually watch the items being processed travel through the process. By including some basic data on activity times, costs and resources, improvement teams can accurately determine where in the process the company has the greatest problems (slow processing times, backlogs of work, excessive rework cycles and costs, poor resource utilization, etc.) Another benefit of using ProcessModel is that once the problems have been identified, improvement teams can test proposed solutions (do "what if" analysis) on the computer simulation. Now, decisions take on new levels of confidence and predictability. You're fully aware of the effects of changing processes long before you begin implementation. Confident in your plan, you'll implement just one set of changes in the real world—*the right one.*

Analyzing and Improving a Process

Once the process to be improved has been selected, documented, and measured, the team can actually begin to analyze its performance and make improvements. In some cases, managers and/or workers are aware of the problem and what is required to fix it. Other problems are complex and the root cause is not readily known. There are a number of things that improvement teams can look for in a process to help them improve it.[10]

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[9] Ibid.

[10] Hammer, Michael, and James Champy. Reengineering the Corporation: a Manifesto for Business Revolution. New York: HarperCollins, 1993.

- **Large amount of information exchanged be tween workers, data duplication, and redundant data entry.** These characteristics are typical of processes whose natural flow has been interrupted by the need to keep artificial boundaries intact at a company. The goal should be for workers to pass completed work from one area to the next, not just information. There is usually no reason for the same information to be entered and stored on more than one system. The data entry process should be optimized so all information about a customer is captured one time and is easily accessible to all workers that may need to refer to it.
- **Excess inventory, work-in-progress, and buffers.** When a company does not have a handle on customer requirements, good work load scheduling, or an effective supply system, buffers of excess inventory will often be created and staged at different points in the process. This is not only a poor use of resources, but it is also very expensive for the company. To stop this practice, the company has to improve the way it works with customers to better understand their demands, and improve its relationships with suppliers so that work can more efficiently flow through a process. Ideally, the demands of the customers will immediately pass on to suppliers so that everyone is working together.
- **Large amounts of checking and inspection.** Some level of quality control will always be warranted in a process. It is one of the ways companies ensure that the customers' needs are being met. Some industries such as medical products also require that specific quality control and verification functions be performed. The issue the team is looking for is whether or not workers have to perform excessive quality control checks because work is being performed incorrectly at one or more upstream processes. The team must be careful here not to concentrate on making the inspection process more efficient, but instead concentrate on eliminating the actual cause of the problems.
- **Rework and multiple iterations of work.** Any time a company has to perform work again because it was not performed correctly costs it money. The project team needs to determine how incorrect processing can be caught as it happens, not at a downstream process. Like with inspection, the team must be careful here not to concentrate on making the rework process more efficient, but instead concentrate on eliminating the errors that cause rework being required in the first place.
- **Excess complexity and special procedures in a process**. All too often what should be a simple process is turned into a complex mess because of excessive numbers of exceptions and special cases to the way an item is processed. If processing of a small number of items is so different than the majority, then teams should look at keeping the process followed by the vast majority of items clean and simple, and create a special process for the exceptions.

Analyzing a process to determine where the real problems are located is not a simple task. In many cases, teams will detect a problem in one area of a process and concentrate on solving it, when what they are really detecting is actually just a symptom of the real problem located in another area of the process. The data gathered can be useful in helping highlight the fact that there is a problem, but it does not necessarily indicate which area in the process is not working well. That is the role of the improvement team.

Process Improvement Phases in Detail

Phase I – Familiarization and Project Planning

The amount of work involved and the resulting time required to perform a specific phase of a project will vary with each project and be dependent upon the project scope.

In this first phase:

1) The project team evaluates the operation of interest and reviews process flows. Constraints and limitations are noted.
2) The team reviews base data and the sources of data that are available, and lists any assumptions that are made.
3) Any required information found to be missing is identified.
4) A schedule and work plan (detailing resource activities) for the next phases of the project are generated.

If a simulation tool is used:

5) The project team establishes the modeling parameters and determines what aspects of the system need to be modeled to make valid decisions about what changes are required to improve the operation.
6) The specific functionality requirements for the completed model (model inputs and outputs) are determined.

Phase II – Data Collection, Measuring and Documenting the Current (the "As Is") Process

In the second phase of a project:

1) Final decisions about the scope of the project are made.
2) Missing information identified in Phase I is collected, collated and analyzed. Progress of the team is not allowed to stop because data is not immediately available; best estimates are used until any missing data is gathered.
3) The key deliverable of this phase is a document (such as a flowchart) of the current process.

If a simulation tool is being used:

4) Final decisions about the scope of the models are made.
5) The key deliverable of this phase is a functional model of the "as is" process. The development of this model is the start of every improvement project.

Phase III – Validate Documentation of the Current ("As Is") Process

In this third phase:

1) A test and validation plan is created and executed to verify the documentation accurately represents the current process.
2) The validity and accuracy of input data is verified.

Note: The validation of the documentation is critical to the success of the project. If the managers and staff involved with a process are not confident that the documentation of the present system accurately reflects what is currently happening, they will not support the proposed changes resulting from the project.

If a simulation tool is being used:

3) The output of models is compared to the performance of the current process to ensure they are in agreement.

Note: The validation of a model is critical to the success of the project. If the managers and staff involved with a process are not confident that the model of the present system ("as is" model) accurately reflects what is currently happening, they will not support the proposed changes ("to be" model) resulting from the project.

Phase IV – Analyze Current Process ("As Is"), and Develop Alternatives ("To Be")

In this fourth phase:

1) With a validated model of the current process created, work then begins on analyzing the process to begin finding the most critical problem areas. The goal is to determine what changes can be made in the process to result in the greatest benefit.

2) Models are generated of proposed alternatives ("to be") to the current process. These models will be used to test the ability of the new process to correct the problems found in the current process. Criteria such as throughput levels, resource utilization, and costs are considered in a manner agreed to in Phase I.

If a simulation tool is being used:

3) Simulation tool is used to analyze the current process to determine both what is working, and what needs to be improved.

4) Models of proposed alternatives are created and simulated to test the ability of the new process to correct the problems found in the current process. Criteria such as throughput levels, resource utilization, and costs are considered in a manner agreed to in Phase I.

Phase V – Documentation and Presentation of Results

Key deliverables for a project will include:

1) Delivery of the documentation created for the project ("as is" and "to be").

2) Presentation of the results of the project. The presentation will show the current process and the proposed processes. The presentation will not only inform the workers and managers directly affected by this project of its success, but show other groups how this new technique can be used to analyze their own processes to improve them.

3) Documentation will include, but not be limited to, complete flowcharts, data and resource files used in the project, and all assumptions used in creating the documentation.

If a simulation tool is being used:

4) Delivery of the actual simulation models created for the project ("as is" and "to be") with complete documentation.

5) Presentation of the results of using a simulation tool. The presentation will show the successful use of simulation software to accurately model the current process and the proposed processes.

6) Documentation related to the use of a simulation tool will include, but not be limited to, complete simulation model files (flowcharts, data and resource files) for all models created, listings of all model data (input and output) in a standard format (Microsoft Excel, Word) including all assumptions used in creating the models, and complete output reports of simulation results. Potential areas of improvement will be highlighted. Documentation will also include information on how other groups can use these models to help with their own processes.

Phase VI – Implementation of Process Change

Implementing the recommendations of the project will include:

1) Creating the process documentation of the new process. This work performed in Phase V, Documentation and Presentation of Results, will provide an excellent starting point.
2) Training programs for affected personnel need to be created.
3) Actual training of the affected personnel will be carried out. Extra support should be provided at the beginning to ensure as smooth a transition as possible.

Phase VII – Review Results of Process Change

Reviewing a project involves:
1) Ensuring that workers are performing the process in the correct manner. Workers cannot be allowed to revert back to the old process.
2) Key metrics need to be continually monitored to determine if the predicted results are being achieved.
3) Feedback from workers should be solicited to see if there are problems, issues, or additional benefits that team may have missed.

Ensuring a Successful Project

Ensuring Success

The leader of a project can help to ensure success by keeping the team organized and keeping everyone aware of what is expected of them and when. At the end of this paper is attached a template for a Meeting and Conference Call Minutes form. This form is updated after each team meeting. The form is designed to make team members more efficient: all contact information is available, they can see the action items that they are responsible for and when, they can see what items have been completed since the last meeting, and they can see the key items that were discussed in the last meeting. The time of the next meeting is also noted. One of the best features about the form is that it makes the items that an individual is responsible for visible to the entire team. Because no one wants to be the cause of the team failing, it provides a very effective "peer pressure" when members of the team slip in meeting their obligations.

Tracy Thurkow, of CLG, Inc., points out the need to consider the people side, or human factor, when undertaking process improvement in her article, "Manage Behavioral Changes" in ASQ's Six Sigma Forum Magazine[11]. Thurkow asserts that successfully improving work processes has as much to do with people changes as it does with process changes. Companies invest in process improvement to gain efficiencies, to better to align to customer requirements, and for many other reasons. A critical success factor is what people do - or don't do - to modify their day-to-day behavior to be consistent with redesigned process flows. In other words, processes can't change unless people change what they do. One way to think about the role of behavior in an organization is to consider three interlocked factors for an enterprise's success: strategy, process and behavior. Strategy sets the direction for the enterprise-where it's going and why. Work processes organize the work toward strategic objectives. The third piece, behavior, is the enabler of both strategy and process. It is people's behavior - what they say and do-that is either aligned or misaligned with strategy and process.

Thurkow notes that a successful project requires the team leader to provide three key items[12]:
1. Direction: Do people understand what they need to do to succeed and help the business succeed? Direction comes from understanding the goals and how to achieve them.
2. Opportunity: Do people have the necessary resources, and have barriers to their success been removed? Opportunity is high when people have the time, money and authority enabling them to meet performance expectations.
3. Motivation: Do individuals have sufficient reason to want to do the right thing? Does the balance of the positive and negative consequences people experience for their behavior promote doing the right thing? Motivation is a function of the payoffs and drawbacks of performance.-in

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[11] Thurkow, Tracy. "Manage Behavioral Changes," Six Sigma Forum Magazine. February, 2002
[12] Ibid.

other words, the positive and negative consequences. Positive behavior tends to continue when it is followed by positive consequences.   Only by ensuring that the needs of the affected workers and the various team members are met will a process improvement project reach all of its goals.

A few last words
Undertaking a process improvement project can be a grand adventure for the individuals involved, and a great source of competitive advantage for the company. These projects can have their own set of problems and pitfalls, but if they are approached with a structured plan, enthusiasm, and management support, will often reap great benefits.

The appropriate training, tools, and coaching will be of great value, and it is our hope that this paper has provided some tips, hints and structure that might prove useful. Whether it's a single project or a quest to win the coveted Malcolm Baldridge Quality Award that lies ahead, we wish you the best of success.

Appendix 1:
Meeting and Conference Call Minutes Tracker

Meeting Date and Time:
Location (or conference call):

Participants

✍	Means in attendance

	Name	Telephone	E-Mail
	List all team members along with contact information		

Action Items

Item Number	Description	Assigned To (Name)	Date Assigned	Date Due
1	Keep a record of all action items assigned to team members. Notes concerning the status of the items can also be placed here.			
2				
3				
4				
5				
6				
7				
8				

Completed Action Items

Item Number	Description	Assigned To	Date Assigned	Date Completed
	Keep track of action items completed since the last meeting			

Discussion

✍ Enter notes from the meeting/conference call here

Next Meeting

Date:
Time: (Be sure to specify time zone if team members are located in multiple time zones!)
Location (or conference call):