

This tool can give you an accurate picture of your organization's practices so you can decide what to keep doing and what to improve.



PROCESS MAPPING



for SOX and Beyond

BY JOE PARADISO AND JAMES R. CRUICKSHANK

Picture this: A financial analyst completes a divisional month-end report before submitting a reporting package to a divisional controller. The controller reviews the package diagnostics and checks to ensure that the key balance sheet accounts roll forward, composition schedules agree to financial statements, and intercompany schedules agree to the balance sheet. If errors or discrepancies are detected from any of these checkpoints, the package is sent back to the financial analyst for resolution and correction. If everything is acceptable, the controller will review the statements with the divisional general manager, who will eventually sign off on the package and forward it to the corporate office, where it will go through a subsequent consolidation process.

What's so unusual about this divisional month-end financial process? It's described reasonably well! The narration explains who is involved, activity steps performed, decisions made, sequence of workflow, input (month-end report), and output (signed-off package).

Surprisingly, many organizations aren't able to state what their major processes are, much less describe how they operate. How is this possible? As it turns out, processes aren't easy to identify because they are hidden within organization structures, job functions, and information systems.

IDENTIFYING OFFICE PROCESSES

Processes performed within an office environment are especially difficult to identify because they aren't readily visible—unlike in a manufacturing setting, where anyone can see a physical process in action, such as the assembly of electronic components, the pressing of compact discs, or the injection molding of plastic milk jugs.

When you walk through a finance department, sales branch, or call center, to name a few, what do you see? For the most part, you see people sitting at a workstation, typing on a keyboard, reading information from a computer screen, talking on the phone, conversing with fellow employees, reviewing documents, or handling file folders. As you can imagine, seeing the underlying business or operational processes is impossible unless you dig a little deeper.

DEFINING AND DOCUMENTING PROCESSES

A process is defined as a series of value-added tasks that are linked together to turn inputs into a product or service output. It's a way for businesses and other organizations to organize work and their human, technological, and infrastructure resources to accomplish their goals.

Processes are arguably the most important resources for an enterprise since they constitute a significant portion of organizational costs, and an organization is only as effective as its processes.

There are various ways to document processes, but the easiest approach is to use narration. This is acceptable for processes that are simple and have very few activity steps, decision points, and functions, such as sorting and distributing incoming mail. But simple processes are the exception. The processes that matter most within an organization are much more complex, such as processing an insurance claim.

For example, in many organizations financial processes aren't formally documented. At best, there are some basic written procedures or guidelines to follow, but financial professionals and supporting staff essentially rely on their educational knowledge, hands-on training, individual skills, and experience to know how to execute these processes.

PROCESS MAPPING CAN HELP

One effective method of documenting processes is to map them via what's called process mapping. This is an analytical technique businesses use to understand their processes and procedures by visually illustrating how the work flows. Abstracting, using visual charting symbols consistently, and masking unnecessary details are critical

parts of creating a process map that help users get a clear picture of what's going on. Developing a process map involves gathering and organizing facts about the work and displaying them visually so that people can question them with a view toward process improvement.

Process mapping can be a good tool to use to comply with the Sarbanes-Oxley Act (SOX), to establish good internal controls, and to get a handle on how the company operates. As required by SOX Section 302, periodic statutory financial reports need to be certified by the company's principal officers as to the reports' correctness and completeness and the effectiveness of the underlying internal controls. Furthermore, Section 404 requires issuers to publish information in their annual reports concerning the scope and adequacy of their internal control structure and procedures for financial reporting. This statement must also assess the effectiveness of such internal controls and procedures.

SOX compliance need not be a daunting task. It should be addressed methodically, like every other regulatory requirement, via proper analysis and study. Securities & Exchange Commission (SEC) registrants must treat SOX compliance as an important mission. It shouldn't be left until the last few days or the organization will subsequently suffer adverse consequences. Two examples are employee stress due to working under pressure and overtime costs. At the very least, SOX compliance requires solid project management, including process analysis as a core task.

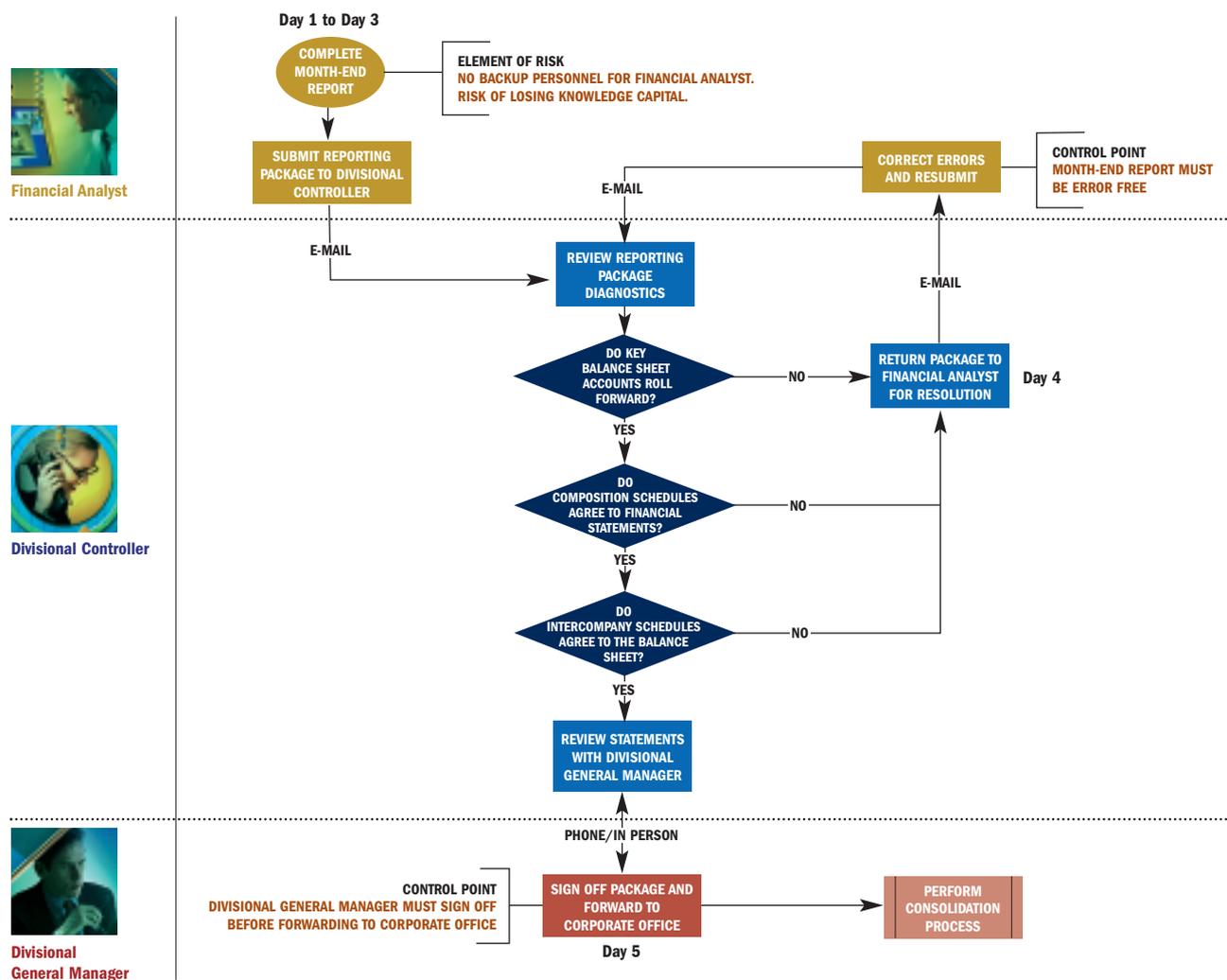
The first step in any initiative involving process analysis is to document the current state, and process mapping is an effective tool for this purpose.

PROCESS MAPPING CHALLENGES

When mapping their current state, organizations need to guard against the risk of mapping the "should be" or "perceived" process. This distinction can be difficult to recognize and is an oversight commonly made by people documenting processes. Yet achieving SOX compliance will be virtually impossible if superficial views of the processes are documented and used for subsequent analysis.

Furthermore, by documenting their current state, organizations will automatically realize an added benefit. They will be able to protect themselves against the risk of losing knowledge capital should key personnel leave. Too many organizations don't know this threat exists, so the best way to guard against it is by clearly documenting their current-state processes. This benefit will reduce training costs and justify any expenses associated with mapping processes. Besides, how can you improve your processes if you don't

Figure 1: MONTHLY DIVISIONAL REPORTING PROCESS



know what's going on with them now?

Trying to depict a process properly can be tricky. It isn't as straightforward as it appears because you will encounter many situations that aren't obvious to depict. For example, how do you show:

- ◆ Steps that don't occur in any specific order but must all be completed before a following step can begin?
- ◆ Steps that interact continuously?
- ◆ Steps that are the exception and not the norm?

RIGHT LEVEL OF DETAIL

The devil, as they say, is in the details, and this applies to any process. In order to create a useful process map, you need to capture the right level of detail.

Deciding which steps to include on a process map can be confusing. People tend to tell you about many activities, but most probably don't belong in the process being studied. The primary steps you need to show are the ones that add value, move the work item, or introduce a delay.

The narration we used to describe the divisional month-end financial process at the beginning of the article doesn't provide enough information necessary for SOX compliance or for a real understanding of the financial operation. So what's missing? The details describing internal controls and elements of risk. Figure 1 is a map that illustrates this process.

Besides capturing the key activity steps and decisions, the map uses annotations to indicate risk and control points. Furthermore, the map illustrates cycle times; methods of distribution, such as e-mail, phone, or in person; a process name; and direction of workflow between each of the functions. Capturing this information is much easier once a process is mapped rather than relying on narration only.

IMPROVING PROCESSES

After identifying and documenting risks and internal controls, it's necessary to focus on the effectiveness of the

controls and finding ways to address any issues and gaps. A good way to do this is through the fundamentals of process improvement, and process mapping is a significant tool used in this field.

The methodology involved in process mapping allows you to systematically ask many probing questions about the process that lead to developing a view on process improvement opportunities. Process maps illustrate the important characteristics of a process and allow you to ask questions such as:

- ◆ Is the process or procedure undocumented, leading to each person doing it his or her own way?
- ◆ How many redundant handoffs, verifications, and approvals are there?
- ◆ What are the bottlenecks and inefficiencies along the critical paths?

Answers to these probing questions and many more can be found once a process is mapped.

PROCESS ENABLERS

But there's more to understanding a process than just mapping it. You need to delve deep into its heart and soul if you really want to improve it. To get to this level, you need to be aware of and understand the process's enablers.

An enabler is a factor that helps a process achieve its intended results and meet performance targets within the applicable constraints. Common enablers include:

- ◆ Workflow design,
- ◆ Technology,
- ◆ Human resources,
- ◆ Policies and rules,
- ◆ Facilities design, and
- ◆ Motivation and measurement.

For example, information technology is a common enabler. An information system enables a process by automating or supporting a step or managing workflow. Internal controls are often supported automatically by information systems, so organizations need to be cautious not to forget them when documenting their processes. Collectively, enablers are the factors that make the process work, and no process will work optimally until all the enablers are acting in harmony.

PROCESS MAPPING BENEFITS

Process mapping is ideally suited to helping organizations achieve SOX compliance and more because the technique is:

Efficient. Process maps visually illustrate the essential details of a process in a way that written procedures can't.

In other words, one good process map can replace many pages of words, which can save project teams a lot of time when reviewing and validating processes. The old adage "A picture is worth a thousand words" is absolutely true for process mapping.

Effective. Frontline employees can get involved in constructing process maps, which gives them an opportunity to experience a shared view. In fact, some of the best solutions come from within the organization. Process mapping is the catalyst to make this happen and gives organizations access to more diversity, innovation, and creativity. When employees are involved in process mapping, buy-in will be more likely, and changes to meet SOX compliance or any other initiative will be easier to implement.

How do employees actually create a process map? Usually an expert process mapping consultant or someone with plenty of experience would facilitate a session with the subject matter experts inside the organization to map the process. Frontline employees with many years of service in executing the process are the best people to use as subject matter experts, and they can come from any level within the organization. They would meet in a group to map the process, but the department manager or department head would usually sign off on the map before it would be used for other applications (process improvement, writing procedures, etc.) When an expert facilitates a process mapping session, employees don't need any training because the facilitator will guide them through the process. The employees just need to explain the process in their own words and express any issues, gaps, and/or ideas to improve.

Economical. Processes can be mapped quickly by a skilled individual. Process details can be captured swiftly by using charting symbols consistently along with concise text description. For example, a rectangular shape represents an activity step, and a diamond shape represents a decision point. Writing the process in a narrative format takes much longer.

Multidimensional. Process maps illustrate the relevant details of a process, including:

- A. Who is doing it.
- B. What is happening.
- C. Where it is happening.
- D. When it is happening.
- E. How inputs and outputs are handled and distributed.

Multifunctional. Once a process is mapped, it can be used in a number of business and operational applications beyond SOX. Process mapping also can be used to

HOW TO CREATE A PROCESS MAP

Process mapping involves a three-stage and 12-step approach.

Stage 1: Pre-Construction

1. Understand the purpose and scope of the process that needs to be mapped, and determine your requirements. For example, you may want a great deal of detail or minimal detail, you may want to map your current state, etc.
2. Obtain the process details at a high level to get a basic understanding. (Process mapping consultants or facilitators often don't know in advance the process they are mapping, so the objective here is to get a basic understanding of the steps without all the details. The main details will be captured in Step 6.)
3. Establish a name for the process (such as invoice payment process, accounts receivable process).
4. List the functions in the process. A function could be internal or external to the organization (such as manager, clerk, vendor, government agency).
5. Establish the boundaries of the process to be mapped (i.e., where does the process start, and where does it end?).

Stage 2: Construction

6. Map the activity steps and decision points, and connect them with connector lines to show the direction of the workflow.
7. Describe the methods of distribution (e.g., a report is sent by e-mail, a request for service arrives by phone).
8. Apply annotations on the map where appropriate to capture important details (e.g., all requests must be handled within 24 hours upon receipt).
9. Describe the technology used in the process (e.g., Excel, Word, information system).
10. Described what documents are used in the process (e.g., monthly report, a spreadsheet).

Stage 3: Post-Construction

11. Obtain feedback from the subject matter experts to verify and validate the process map.
12. Obtain sign-off from management or the process owner.

analyze and improve a wide spectrum of processes. Here are some common applications.

Designing Future-State Processes: Organizations can visualize future-state processes before making changes to the current-state processes or investing major capital. Furthermore, future-state process maps can be used to guide implementation when an organization converts from the current state to the future state. This, in effect, involves implementing changes to the process and can be an invaluable tool when testing the effectiveness of internal controls.

Information Technology: Process maps can readily prepare organizations to make the transition into system requirements analysis because they describe how the functions would interact with a system to complete an activity step.

Integration of Processes for Mergers, Acquisitions, and New Services: Process mapping can ensure effective integration of business processes, establish common procedures, and identify best practices.

Quality: Process mapping is a major tool used in ISO and Six Sigma quality programs and is a valuable tool for establishing performance objectives.

Training: Process maps can be used to develop training and reference manuals.

POWERFUL ANALYTICAL TOOL

Process mapping is a powerful analytical tool that can be applied in any sector and business or organizational environment. Its simple graphical properties allow for easy understanding of any business process and therefore become an excellent catalyst for change and improvement. But like all analytical tools, process maps have their challenges. You can manage these challenges by being aware of them and by building the necessary skills and experience to understand process mapping procedures and to create valuable process maps for your organization. ■

Joe Paradiso is the founder of Process Mapping Associates Inc., a consulting company that specializes in assisting organizations to articulate, map, document, analyze, and design their business and operational processes with a view toward process improvement. You can reach Joe at (905) 507-6368 or joe.paradiso@processmaps.com.

James R. Cruickshank, CA, is a sole practitioner specializing in corporate governance, controllership, and general management issues. You can reach James at (905) 502-6702 or jimcruickshank@rogers.com.