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Turning Brown into Green:

Achieving Effective Business Process Improvement Using CIBER's Brown Paper Methodology

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Abstract:

Businesses do not launch software and business improvement projects because they have nothing better to do. They undertake them with the objective of creating incremental business value. The objective may be increasing productivity, improving customer service, gaining competitive advantage, reducing costs, or all of the above. Improve and align business processes with the organization's vision, goals, and objectives and the desired results will follow.

Why then do so many projects fail to deliver the process improvements that would drive success? Most often it is the lack of a methodology for process improvement and the skills, knowledge, and ability to carry it out. This white paper presents a proven, practical, and cost effective methodology: *CIBER's Business Process Calibration with Brown Paper Process (BPC with BPP)* that can result in significant process improvement and goal alignment with minimal disruption within the organization. When used properly within the framework of the overall software project or as an independent business improvement project, the methodology drives synergies across the organization, embraces unique enterprise best practices, and allows companies to achieve their desired and required objectives.

Implementing or upgrading a business software package or suite is never a small effort.

It impacts the entire organization: executives, end users, IT, and often customers and suppliers.

So why do it at all?

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Because implicit in going forward with the project is a business case and return on investment arising from improvements in one or more areas of the operation: productivity, customer service, competitive differentiation, and so on.

To realize those benefits means changing business processes with an objective of achieving "best practices." But what are best practices? There are several different choices and definitions of "best practices." These options include:

1. General industry best practices that are relatively common across all like industries. Perpetual inventory management versus min-max inventory control would be one example.

2. Business processes determined by various consulting and analyst groups focused on top performers in a particular market segment. Wal-Mart's use of RFID to reduce out of stock incidents by 16% is viewed as a best practice in that space.

3. Practices "embedded" in the software package that will be implemented. Software designers make assumptions as to how a business should perform processes and build those capabilities into the software.

4. Best practices unique to a specific organization, such as those they employ to create or maintain their competitive position in the marketplace. A wholesale distributor may want to commit to providing "available to ship" within 30 seconds of receiving a customer order to maintain customer loyalty and gain competitive advantage in their market space.

There is a significant challenge in determining which option to use as the basis for the "best practices" for an individual company. Which best practices repository will produce the recommended changes that fit your organization's mission, values, organization, marketing and financial models, and competitive requirements?

In addition to the question of which pool of "best practices" to use as the benchmark, companies must also determine which approach to business process improvement is best. In the past, process change has been approached in a number of ways. These include

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In Greek mythology, Procrustes was a giant who seized travelers and tied them to an iron bed. Then he either stretched or amputated their legs until they fit the bed. Some consider him the patron saint of software developers.

business process re-engineering (BPR), strict adherence to the software vendor's model, adopting the processes of the competitor, or making the software do it "the way we've always done it."

Business Process Re-Engineering

When Michael Hammer and James Champy introduced the business world to BPR in the 1990s, it became *the* way to improve business processes. Fundamentally, the BPR process starts with a blank slate, identifies the core business function being served by a process, and then re-engineers it from the ground up. While this approach can and has resulted in major improvements, it is very costly, time-consuming, and has caused major problems and business disruptions. BPR is a revolutionary approach to process change, and when you rock the boat sometimes you can capsize it.

Software Specific Practice Adoption

As Enterprise Resource Planning (ERP) software grew in complexity, functionality, and markets and industries served, it embodied more and more fundamental business processes. The process designs were rationalized as best practices and users were strongly urged to change their business to match the software. In 1998 as the SAP juggernaut was exploding, Bruce Richardson at AMR's annual conference posed this question, "Once everyone is running their business as dictated by the software, where is the competitive advantage?"

Follow the Leader

Should every retailer model their business processes after Wal-Mart? Definitely not. What works for one organization does not necessarily work for the next, unless their business model, market strategies, and long-term visions align perfectly. Wal-Mart is driven to be the low-cost leader. Nordstrom is driven to lead in customer service, and The Sharper Image is driven by the uniqueness of their offerings. Each of these companies requires business processes that support their unique approach to the market, their customers, and suppliers.

Do Not Change Anything

Lacking understanding, methodology, and experience, too many organizations default to maintaining the status quo when implementing business systems. This is especially attractive to the large body of end users that

is wary of and resistant to change. As a result, a large investment goes into making the software conform to current practices; in effect negating the business rationale for the project. Lots of money and time are spent in order to make the new software support "the way we've always done it."

The Intelligent Approach

"Follow the leader" does not work, "don't change anything" does not make sense, and BPR is too big and disruptive to be a part of a software implementation. The best approach by far is two-pronged: conduct an intelligent mapping of strategic business processes with embedded software processes, and then redesign the process and/or software as needed to support the business strategy. This approach is supported by a recent Gartner research paper entitled, "Are ERP Best Practices Best for Your Company?"[1] In the report Gartner states, "Users need to do a proper evaluation of the fit between a vendor's best practices and their business requirements. In most cases, users will discover a gap, and must make modification to the best practices for a better fit."

"User-defined practices" are the "best practices" for a company. These are the practices that a fully-informed team of client key users crafts and implements with the guidance of business specialists who supply the effective and efficient approach to the initiative, as well as the knowledge of the various choices in process.

At CIBER, we have used this approach with great success for our clients. Business Process Calibration with Brown Paper Process was developed to provide a structured approach to the analysis. (The story behind the name "Brown Paper Process" is described later in this paper.) Business Process Calibration (BPC) recognizes that most organizations do not need BPR or even substantive change to achieve their business objectives. Successful companies become successful through the processes they put in place and use. However, more often they do require "calibration": the fine tuning and adjustment that moves the organization's business processes from being adequate to being exceptional.

[1] "Are ERP Best Practices Best for Your Company?" by Billy Maynard, Gartner, Inc., 28-Feb-06, #G00126752

Business Process Calibration

Business Process Calibration (BPC) is fully integrated with a complete software implementation and upgrade methodology. Its purpose is to develop a set of business processes that support and enhance the organization's vision, goals, and objectives while taking maximum advantage of the available software capabilities. The BPC positioning within that methodology ensures that process improvement is a natural outcome of the implementation, and occurs at the most appropriate time in the project. Figure 1 is a high-level view of the BPC with BPP approach. The major components of the BPC with BPP process are:

- **Articulate the Strategic Vision:** Establish the organization's strategic positioning and business goals. This provides the framework within which business processes can be evaluated for their relative strategic importance. It's amazing how few project teams have any common understanding of the goals and objectives of the organization. How can they be expected to implement a strategically focused and enabling solution without that awareness?

- **Brown Paper Process:** Identify the current (as-is) business processes. For this purpose we define process as "a structured, measured set of activities with a specific driver and specific outputs that meet a business objective." There are hundreds of processes within an organization, and most likely even more in the software being implemented or upgraded. It is not unusual to find that no single individual understands the complete end-to-end process, particularly when that process crosses functional and departmental boundaries. Reliance on written procedures (the formal system that may be in place) is risky at best. Even if the documentation exists, it often does not represent the actual way in which work flows and is accomplished. It is important therefore to get started on this task early.

Within the total population of active processes are those that are critical in supporting the strategic business model, that are the most costly, or that cause the most angst. These are candidates for a more rigorous analysis using the Brown Paper Process. To facilitate this determination, CIBER business specialists, working with the project team, use the CIBER Brown Paper Workbook (BPW). This workbook contains a list of all the business processes supported by the software. While each is a candidate to include in the Brown Paper Process, the workbook identifies those processes that are, in our experience, common opportunities for major improvement. Upon completion, the Brown Paper Workbook contains a complete inventory of processes to be analyzed, the reason the process needs to be analyzed, and the business benefit expected from the process improvement.

- **Brown Paper Process To-Be Workshop:** Map the identified processes to those in the software, and develop the proposed future (to-be) processes. This activity will drive a set of requirements for change either in the process or in the software. It is important to limit software changes to only those processes that are strategically important to carry out in their "as-is" configuration. For all others the physical process and workflow should be changed to utilize the as-delivered software capabilities.

- **CRP Sessions:** Script, test, and validate each process. The initial validation of the processes is done during Conference Room Pilot (CRP) sessions using the to-be processes as the basis for the creation of the scripts. As a result of the CRP, the to-be processes may be modified to reflect the total process and system design.

A significant step in the overall process, which is not pictured in Figure 1, is to develop training materials and train the user community in the improved processes. The documented results of the CRP form the basis for the end-user training materials. By being able to provide visual representation of the processes that are included in the training, knowledge transfer is swifter and more comprehensive.

The Brown Paper Process

The secret to executing a successful, efficient, and non-disruptive Business Process Calibration initiative is in the techniques used in the approach. The Brown Paper Process is a rigorous, structured group exercise designed to fully identify and document a business process from start to finish and across all functions and departments. It is fast, cost-effective, and delivers solid process improvement results when done correctly. The name, Brown Paper Process, comes from using brown (Kraft) paper as the medium for recording all the inputs, outputs, current process steps, manual interventions, and department crossovers. It is a low-tech, highly visible, and easy-to-use and follow technique. The visual impact of seeing a process documented on a large wall with
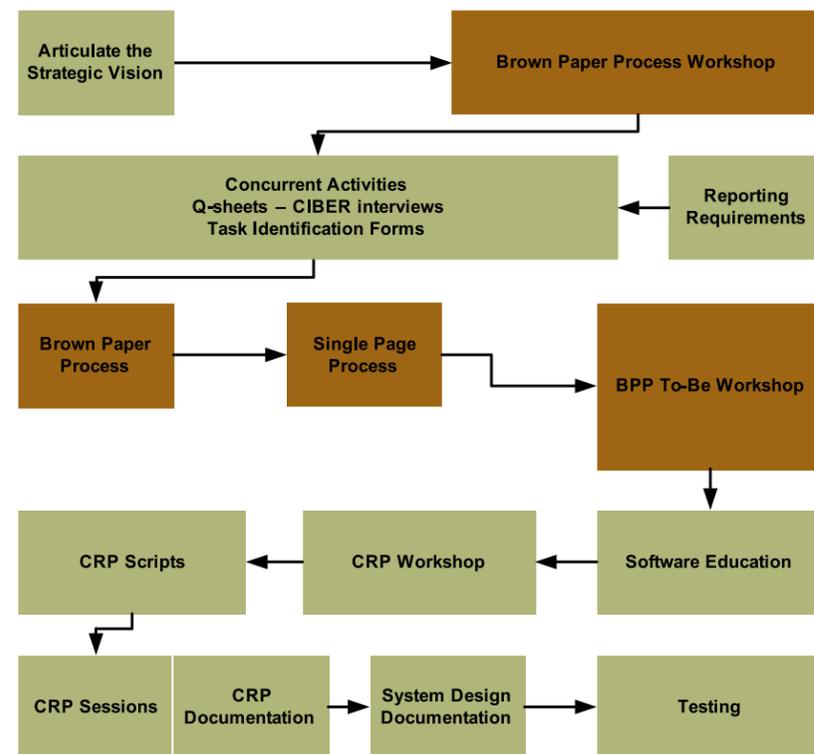

Figure 1: Business Process Calibration with Brown Paper Process

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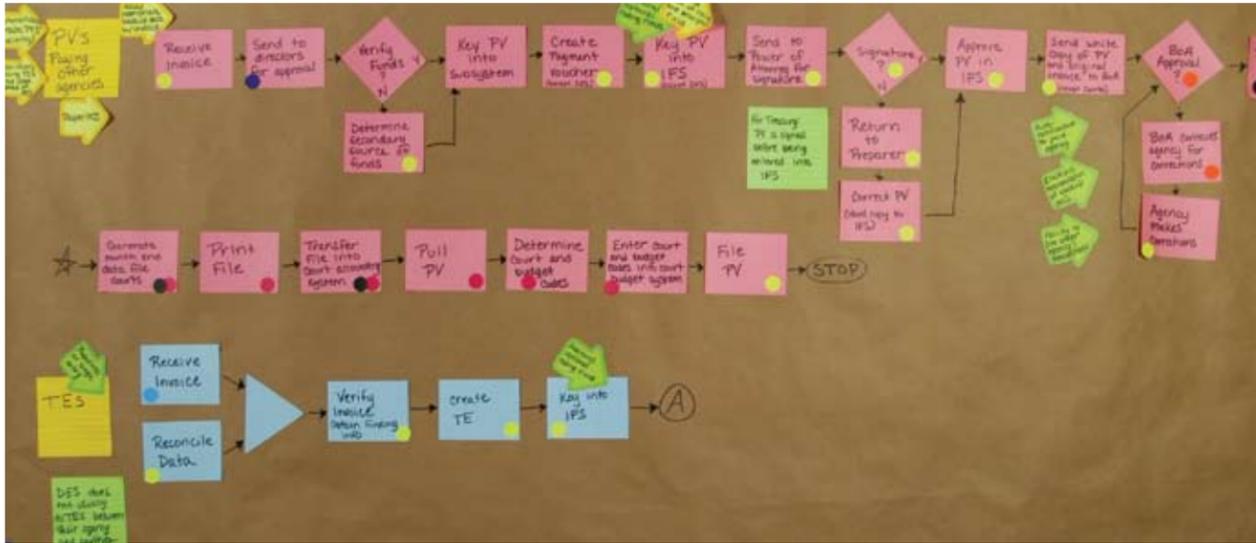
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Figure 2: The Brown Paper Workshop

standardized icons that illustrate the steps and highlight the areas for improvement is a strong catalyst to drive the integrated participation of the company's key users.

Brown Paper Process is not a new concept. It has been used by several consulting organizations for the past 10+ years with varying degrees of success. The difference in the ability to use and benefit from the process is in the subtleties of the approach: the tools and techniques employed to ensure that the company's key users are fully-informed and able to engage in the process in a meaningful way.

Initiating the Brown Paper Process

As with other wide-reaching initiatives, the way a company plans and begins the projects dictates the way they will end! Well-planned efforts and fully-prepared participants will ensure that the objectives are achieved efficiently and comprehensively.

Not all processes used in an organization need to be examined with a Brown Paper Process. Business processes that are critical in terms of supporting the strategic model of the organizations, and those that are costly, difficult, or cause significant business problems need to have more in-depth analysis. This is why it is

important to complete the Brown Paper Workbook before planning the Brown Paper Process exercises. Reducing the number of processes that must be compared to the list of critical processes substantially reduces the time and effort required, and allows the greatest return for the investment in the BPC initiative.

The Brown Paper Process is carried out in a consultant and documenter facilitated session, requiring one-half day (four hours) of examination at a time. The usual schedule (planned and communicated before the BPP exercises begin) allows for three to four processes that can be identified and documented in each of the half-day sessions. Company participants (four to six people per session) must represent key contributors from each functional or departmental area that is an active participant in the process including key crossover departments. For example, when examining purchasing processes, it is important to include representation from accounts payable.

Preparation for the analysis session is critical and includes two key components:

• The Brown Paper Process Workshop
• Completion of Real-time Task Identification Forms (RTIF)

Brown Paper Process Workshop

The Brown Paper Process Workshop is a two- to four-hour workshop to explain and demonstrate the methodology, icons and logistics, establish the framework for open and constructive participation, and provide training on use of the Real-time Task Identification Forms. Participants include the Project Team and any additional key users who will be participants in the Brown Paper Process. In addition to the mechanics of the analysis process, we work on the interpersonal and team dynamics that need to come into play. During the workshop, we address the natural resistance to change, and encourage open communication and contribution. Participants are exposed to the concept of givens, negotiables, and controllables that can be applied in making decisions about business processes. A "practice session" is conducted with the users to increase their comfort level with the process before the actual sessions begin.

Real-Time Task Identification Form (RTIF)

All process users face the same challenge—how to remember what they really do! Just hearing the request to "document what you do today" often causes instant weariness that has stopped many well-intentioned business improvement initiatives. It is very difficult to remember and then document everything a person does during their work day "in a vacuum"—when they are not actually doing the work. Our experience has shown that merely asking someone about a process and how and

why it is performed does not work. Particularly when a process crosses functional or departmental lines, contributors to the process lose sight of the end-to-end process, and in fact often do not know the business purpose for which the process exists or how their contribution supports that purpose.

The RTIF is the simple but powerful tool for collecting the initial information about and documenting the existing business processes. The completed RTIF determines the order of the processes that will be examined and provides the first look for the CIBER consultants at the integration requirements and the potential for improvement. The information forms the basis for well-planned and executed BPP exercises.

The RTIF provides the mechanism to capture process information from the user, as the process occurs. By providing structure and prompting, the worksheet becomes an easy-to-use tool for collecting comprehensive current process information.

The secret to the success of CIBER's Business Process Calibration with Brown Paper Process is due to two factors. First, the proven, structured methodology is followed rigorously to deliver results. Second is the high level of user involvement, support, and buy-in it engenders for the project and resulting process improvement.

Combining these two factors has resulted in substantial improvements for multiple CIBER clients by supporting their development of "user-defined practices," which for each organization are the real "best practices."

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A large educational company discovered that by bringing together people from different departments, the BPP exercises allowed their employees to better understand their respective roles in the big picture, and demonstrated how their actions affect the entire organization. This was a substantial benefit to the collaborative efforts between the departments, continuing compliance to the process, and subsequently to the overall integrity of the data.

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Conference Room Pilot Business Scenario
Please use one form for each task

Name	Department	Application	Requirement #

Document What You Do Now

Describe the action:	
When is it performed (daily, weekly, monthly)?	
What initiates your action?	
Identify your input document(s)	

What are the steps you follow to perform the task?

What document(s) result(s) from the task?	
Where does the information you generated go (department, file)?	

Document the Task Flow as a Drawing

Attach hard copies of the input, output and process documents you use as desired to support understanding of the Task that is being documented.

Figure 3: The Conference Room Pilot Business Scenario

About the Authors

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Jeanne Gulbranson, a Strategist for CIBER Enterprise Solutions, has over sixteen years experience in the ERP industry, providing direct client support as Project Director, Project Manager, Quality Assurance, and Change Management Specialist. Ms. Gulbranson's expertise in planning and execution has supported companies from 300 employees to 13,000 employees with locations in 13 different countries. Ms. Gulbranson has authored numerous articles and studies on strategic visioning, change management, and other related project activities such as positive conflict resolutions, business process calibration, implementation success factors and spanning the boundaries between business and IT.

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Bob Dickey is the Strategist for CIBER's Supply Chain consulting practice. He began his career as an industrial engineer, working for companies in the aerospace and industrial instrumentation markets, with a focus on business process analysis and operations improvement. In 1986 he moved into the commercial software field, holding senior consulting and marketing management positions with major ERP vendors, including Pansophic, Oracle, and BaaN. As a Strategist for CIBER, he is focused on organizational and market development in the areas of supply chain execution and RFID-based business solutions.

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This white paper has focused on the process and techniques for planning and initiating a business improvement process which includes the identification of required "as-is" processes. Subsequent white papers will address the techniques and methodology for translating the current requirements into the recommended "to-be" processes.

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Founded in 1974 and headquartered in Greenwood Village, Colo., the company now serves client businesses from over 60 U.S. offices, 22 European offices and five offices in Asia. Operating in 18 countries, with over 8,000 employees and annual revenue of nearly $1 billion, CIBER and its IT specialists continuously build and upgrade clients' systems to "competitive advantage status." CIBER is included in the Russell 2000 Index and the S&P Small Cap 600 Index.

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