



Doing More with Less—How to Apply Skills Inventory Management to Maximize Vital Resources

According to a recent Meta report cited in *eWeek Magazine*, (Nov. 18, 2002) **45% of 600 surveyed companies report a lower IT head count this year as compared to 2001.**

A recent column in *Information Week* (Nov. 11, 2002) cites a Department of Labor report of a **4.1% increase in business output between Q2 and Q3, 2002.** Economists are crediting continued application of new technology as the primary source of these productivity gains.

What do recent statistics reveal about the challenges facing business decision makers, particularly those involved in today's IT organizations? The most important revelation is probably the most obvious—to compete in a challenging economy, companies are learning to do more with less. That means maximizing returns on all of a company's current assets, including one of the most important items in a company's inventory—employee skills. Cutbacks and reorganizations are adding to the pressure on managers and executives to find new ways to turn skills improvement into enhanced productivity and innovation.

Skills inventory management is just one part of that push for innovation. Armed with advanced systems for capturing objective skills data, companies are creating inventories of their skills assets. What makes a skills inventory? In an October report on the subject "Four Components for Skills Inventory Management," Brainbench outlined the basic inventory tools needed to capture and manage skills throughout the enterprise. Components include a well-defined classification system, a consistent unit of measure, an efficient measurement process, and a practical tracking and reporting system. To access the report, "4 Essential Components for Skills Inventory Management" go to www.brainbench.com/pdf/skillsinventory.pdf

As decision makers begin to realize the feasibility of creating a skills inventory, they are also recognizing that simply creating an inventory is not enough. The true value of skills inventory comes from its ability to facilitate performance improvement for the enterprise. Employee skills and the demand for them are constantly changing. Effective skills inventory management tactics give companies the focus and the knowledge to meet those changing needs quickly and effectively.

Participant Name	Test Name	Track	Score	Date Taken	Org ID	Geographical Location	Job Code	Department	Percentile vs Brainbench Data
Lee, Charles lee@test.com	Oracle 8i	Change Int	3.79	2002-3-17	Engineering	West	ENG01	Blue Team	94
Lee, Charles lee@test.com	Oracle 8i	Change Int	2.35	2002-1-20	Engineering	West	ENG01	Blue Team	45
Manville, Anthony manville@test.com	Oracle 8i	Change Int	2.64	2002-3-10	Engineering	West	ENG01	Yellow Team	48
Ohlers, Cathy ohlers@test.com	Oracle 8i	Change Int	4.67	2002-2-15	Engineering	East	MGR01	Red Team	98
Goldsmith, Arthur goldsmith@test.com	Oracle 8i	Change Int	2.58	2002-1-10	Technology	East	ADM01	Yellow Team	54
Hauer, Chris hauer@test.com	Oracle 8i	Change Int	4.65	2002-3-21	Engineering	East	PGR01	Yellow Team	99
Smith, John smith@test.com	Oracle 8i	Change Int	4.65	2002-1-27	Engineering	West	ENG01	Blue Team	99
Wu, Brett wu@test.com	Oracle 8i	Change Int	4.65	2002-3-21	Engineering	West	PGR01	Red Team	99

With an online skills measurement system, managers can track skills down to the individual level. In this report, a company measured the skills of employees who would be working with the company's new Oracle 8i software when it was installed. The baseline skill level was established as a score of 2.75. Individuals with scores below the baseline can be easily identified (circled scores), enabling managers to pinpoint training or skills development needs.



Define Critical Skills

A variety of business challenges are driving companies to put skills inventory management strategies into action. Executives may be searching for ways to tighten up operations, streamline hiring, or quickly deploy more effective teams for client engagements. Leading companies are creating skills inventories based on objective metrics. They are using that skills inventory data to facilitate faster, more informed hiring, training and deployment decisions.

A growing number of companies are recognizing the need for a skills inventory system, but like any corporate initiative, a successful skills inventory effort must begin with executive sponsorship. The good news is that, in today's economy, the pressure to do more with less is helping managers gain buy-in. And once underway, a successful skills inventory management program enables organizations to define critical skills with more actionable detail than ever before.

The difference in an objective skills measurement system comes from the level of detail it provides. Traditionally, companies have been forced to quantify their critical skills through "blunt" metrics such as skills lists, headcounts and subjective self assessments. That is, managers may arrive at an idea of who needs certain skills in a given department or project team, but they have little data to establish the level of each skill needed, and no objective tool for verifying who has what skill.

In the example below, a department in a major IT services company defined a list of critical skills below:

Critical Skills List (without pre-determined skills level benchmarks)

Information Technology Terminology	Software Testing
Managing People	Visual Basic 6.0
Project Management	XML

Without an objective measurement system, companies can identify critical skills, but they have difficulty tracking skills improvement.

Without the backing of a skills measurement system, managers could only assess an employee's skill level through traditional means such as reviews and peer or manager recommendations. While these are important, reviews and recommendations cannot be relied upon to track improvement or to provide an accurate measure of available skills. Using the Brainbench skills measurement system, the same company arrived at a detailed picture of its critical needs, listing critical skills and providing the metrics to rank employee skill levels against the industry average for the skills being measured.



Measure Your Existing Skills Inventory

Companies have traditionally relied on subjective measures alone to assess the skills of their employees. Indicators may include management recommendations or performance reviews, and they may refer to employee experience (years of service), education, or project background. While such information is certainly a relevant part of an employee skills profile, it usually has limited, if any, measurability. If a company seeks to maximize its use of available skills in order to “do more with less,” an initial measurement of skills inventory must provide a detailed review of current skill levels in relation to a pre-established benchmark.

Critical Skills

(with skills levels defined by industry average)

Skill	IT Services Industry Avg. (Brainbench Score on a Scale of 1.00–5.00)
Information Technology Terminology	2.81
Managing People (U.S.)	3.03
Project Management	2.69
Software Testing	3.04
Visual Basic 6.0	2.56
XML	2.64

With a knowledge of critical skills and the levels of skills needed to achieve a certain benchmark (in this case, industry average for those skills), decision makers have the data they need to identify skills gaps and to prescribe actions to close those gaps.



Using an online skills assessment system, employees can take a required “track” of assessments in skills that are critical to their roles and functions. Assessments then track skill levels for the individual, group/department, or the enterprise as a whole. The result, for managers, is an ability to arrive at a clear snapshot of skills across the group being tracked. When that snapshot is compared to an established benchmark, the result is a clear picture of a company’s skills gaps—areas where improvement is needed.

Skills Inventory Detail Reveal Critical Gaps

Skill	IT Services Industry Avg.	Company Avg.	Score Gap
Information Technology Terminology	2.81	3.01	0.20
Managing People (U.S.)	3.03	3.12	0.09
Project Management	2.69	2.84	0.15
Software Testing	3.04	2.75	-0.29
Visual Basic 6.0	2.56	2.69	0.13
XML	2.64	2.32	-0.32

In the figure above, average scores across the company are compared to industry averages to reveal gaps in key areas. This data provides managers with actionable information for focusing their skills development efforts.



How Companies are Addressing Skills Needs and Improving Performance

Does an organization have the skills to meet performance needs today and in the future? If the answer is uncertain, a skills measurement program provides the basis for taking action to improve. What can companies do to address skills gaps within their organizations? They have a variety of choices:

Hiring

In 2001, the U.S. CIO Council and the U.S. Office of Personnel Management (OPM) examined the condition of IT skills within government agencies. The need for IT skills in the government sector was so pressing that decision makers stepped back and developed a “big picture” strategic assessment of their needs. Their findings: agencies needed a better way to define job roles, provide compensation, and match skills to agency needs in a way that could compete with the private sector for IT talent. As a result, the organization is using skills measurement as a critical objective component in its hiring and job classification decisions.

While still in its infancy, OPM’s IT skills program reveals how skills inventory management techniques enable companies to focus their hiring efforts. An objective skills measurement system enables companies to outline job roles based on pre-defined skills. They can then identify skills needs based on those roles, and gain executive buy-in for addressing those skills needs through focused improvement efforts. In addition, the measurement system can dramatically accelerate the hiring cycle when used as a screening tool. Ideally, candidates can measure their skills online and results can be quickly compared to pre-defined skills requirements. (See Skills Measurement Report: Vol.1, Issue 4 October 16, 2002)

Skills Development

One of the most effective features of a skills inventory management program backed by an objective skills measurement system is that it can dramatically focus employee development initiatives. A skills measurement system provides specific detail. At an individual level, assessment results provide highly granular data showing where the employee falls short of the minimum requirement and reveals strengths and weaknesses within each skill area measured.

Managers can now use the detailed information provided by an objective skills measurement system to identify ideal training candidates (those closest to meeting the required level of proficiency) and then tailor training to their specific needs. By using specific skills data to identify training opportunities, knowledge leadership companies such as IBM are eliminating unnecessary training and realizing significant cost benefits in the process. (See Skills Measurement Report: Vol.1, Issue 1 July, 2002)

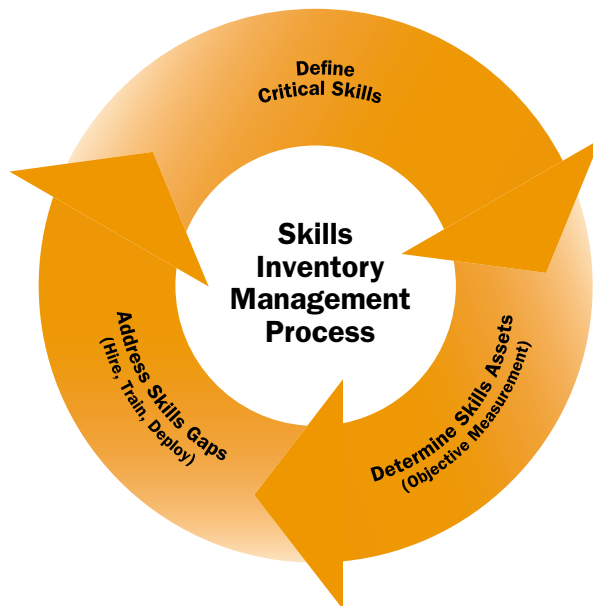
Assembling and Deploying Project Teams

With objective and current skills data at their fingertips, decision makers can make informed deployment decisions. As companies struggle to muster the resources to take on changing client engagements or internal initiatives, the benefits of skills inventory management extend well beyond the areas of hiring and training by giving managers the ability to instantly locate who has the needed skills within the enterprise.

What’s to be gained by assembling teams based on objective skills data? In a nutshell, the answer is more productivity and increased customer satisfaction. Validated skills among team members means that there is a greater likelihood of project success. In addition, managers can make deployment decisions based on objective skills data, eliminating or mitigating many of the personnel issues associated with subjective recommendations (or lack thereof) that can hurt employee morale. The end result: project teams have required skills at the level needed to make the project a success.

A Continuous Skills Inventory Management Process Enables Constant Performance Improvement

With the resources now available to help them quantify employee skills, companies are taking advantage of skills inventory management techniques to enhance hiring success, employee performance, and team-building efficiency. Three principle skills inventory management techniques described in this report form the basis of a repeatable business process. Simply put, a company can establish skills needs, take a skills snapshot, use skills data to take action, and reestablish skills needs to start the process again.



Skills inventory management tactics provide the foundation for a continuous enterprise skills improvement process.

As champions of skills inventory management prove the value of the program, they are gaining the internal support to expand their efforts to form a continuous process. While skills inventory management cannot eliminate the seemingly complex and often unpredictable process of technology innovation, it can help companies take control of the chaos of skills development across the enterprise.