Tapping into a new workforce
by Bill DeMuth, Iowa Department of Economic Development

Iowa employers need workers and people who are resettling in Iowa need jobs. These are the elements of a win-win situation.

Wayne Johnson of the Iowa Bureau of Refugee Services says most of the resettlers or refugees in Iowa are from the following countries: Poland, Hungary, Bosnia, Russia, Romania, Cameroon, Somalia, Chad, Congo, Iraq, Liberia, Nigeria, Sierra Leone, Sudan, Togo, Zaire, Vietnam, Laos, Cambodia, Kurdistan, Haiti, Cuba. They are considered refugees because they live outside the country of their nationality and are unable or unwilling to return to that country because of persecution or a well-founded fear of persecution due to race, religion, nationality, membership in a particular social group, or political opinion.

Many resettlers come directly to Iowa from their home country; others have relocated here from larger U.S. metropolitan areas. Resettlers are a good match for Iowa employers for several reasons. They have a strong work ethic, seek top-notch educational opportunities, value their families, and seek strong community ties.

The Bureau of Refugee Services has always placed an emphasis on employment for the resettlers. In a one year period from 1997-1998, 243 Iowa employers hired refugees through the bureau.

Chuck Kissick, president of Colorfx, a graphic communications company in Des Moines, employs 4-6 resettlers in his bindery area - a finishing area in the commercial printer's business. "It's increasingly difficult to find good employees. I encourage businesses to hire resettlers. They are excellent workers who are dedicated to their work and, in my experience, they have good mechanical skills and are aggressive learners."

A Des Moines company has found a use for the decorative painting skills of Fehim Krijestorac, a Bosnian refugee.

Initially, Kissick hired two or three resettlers simply because they were the workers who responded to his job advertisement. Those hired since have been referred by existing employees who have told their friends and family about the job opportunities with Colorfx.

Fehim Krijestorac, from Bosnia, was hired as a decorative painter by Sticks, Inc., a furniture manufacturer in Des Moines. They feel that Krijestorac's talents have allowed him to readily adapt to the skill level required by this position. He also has ornamental metalworking experience that Sticks is considering for incorporation into their furniture. The company had not considered this capability prior to Krijestorac's hire.

In Iowa, the Bureau of Refugee Services helps employers become involved with resettlers by directing them to the agency that serves their community. Four Iowa organizations that can help are the Bureau of Refugee Services, Lutheran-Catholic Social Services Refugee Cooperative Ministries, Jewish Family Services, and Family Resources of Davenport. The agencies and services provide valuable resources during resettlers first three or four months in Iowa, with assistance in becoming self-sufficient. Many times, they offer an orientation course that explains cultural differences and state and federal laws in addition to teaching English as a second language for those who qualify. They assist in obtaining social security cards, arranging for required medical exams, and identifying and locating sponsors. They help children enroll in school and may pro-
CIRAS Central Staff

Ames
Richard A. Grieve, PE, CIRAS Director (Interim)
Industrial and mechanical engineering
515-294-9592, x19grieve@exnet.iastate.edu

Veri K. Anders, Operations Manager
CPIM, Financial and cost management, planning, ISO 9000, production control, wood products
515-294-1316, x1vander@exnet.iastate.edu

James R. Black, Strategic planning, Kaizen, constraint management, flow manufacturing, JIT, kanban, Deming, problem solving process
515-294-1507, x1jblack@exnet.iastate.edu

Don W. Eichner, PE, Computer integrated manufacturing, productivity
515-294-4449, x1deichnr@exnet.iastate.edu

Jeffrey L. Mohr, EIT, Industrial engineering, manufacturing systems modeling, product development
515-294-8534, x1jmohr@exnet.iastate.edu

Sharmonn Norris, Administrative Specialist, Budget administration and support staff supervision
515-294-5420, xlnorris@exnet.iastate.edu

Carey Novak, Industrial liaison specialist
515-294-2293, cnovak@iastate.edu

John A. Roberts, EIT, Computer aided drafting, solid modeling, product development
515-294-0093, x1robert@exnet.iastate.edu

Chris Thach, personal computer systems support, network and Internet technologies
515-294-7731, x1cthach@exnet.iastate.edu

Joanne Hansson, Carol Smith, and Sarah Terrones, CPS, Support staff 515-294-3420

CIRAS Field Staff

Cedar Rapids
Donald W. Brown, CQU, Manufacturing and project engineering
319-398-1272, x1dbrown@exnet.iastate.edu

Paul Gormley, Product development and design
319-377-9839, x1pgormle@exnet.iastate.edu

Council Bluffs
Iowa Western Community College
712-366-7070

Davenport
Steven P. Vanderlinden, Cost and financial management, office and business planning, project costing
319-336-3318 or 800-462-3255, x1svande@exnet.iastate.edu

Des Moines
Timothy T. Sullivan, Customer service, constraint management, human resource management
515-965-9355, x1sully@exnet.iastate.edu

Fort Dodge
Jon M. Clancy, Manufacturing and engineering
515-576-0099 or 800-362-2793, both ext. 2730, x1jclanc@exnet.iastate.edu

Community College/IMTC Field Staff

Locations of manufacturing specialists of partner groups:

Ankeny
Brian Espeland, DMACC, 515-964-6344

Bill Schwinke, Northeast Iowa Community College, 319-562-3263 or 800-728-2256

Cedar Rapids
Richard Manning, Kirkwood Community College, 319-398-5435

Calmar
Allan Higgins, Southwestern Community College, 515-782-7081, Ext. 287

Davenport
Irene Deckert, Eastern Iowa Community College, 319-336-3318 or 800-462-3255

Des Moines
Jim Hendrian, DMACC, 515-965-7069

El Paso Community College, 515-965-7131

Sheldon
Tom Noteboom, Northwest Iowa Community College, 712-324-5061

Spencer
Willie Brocka, Hawkeye Community College-Evansdale, 319-232-9922

Waterloo
Roger Farquhar, Southeastern Community College, 319-752-2731

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Tracking trends in employment, productivity

by Merle Pochop, CIRAS

This article is based on information gathered by Dan Luria of the Michigan Manufacturing Technology Center (MMTC) with input from a book by Peter Drucker, “Managing in a Time of Great Change.” Several trends have emerged over the past 30 years.

Chart 1 shows the relative change in the number of people employed by large and small companies. The dividing line is set arbitrarily at 500 employees. Since 1977, smaller firms have grown in total number employed so that by 1994, 65.8% of all manufacturing sector employment was in plants with 500 or fewer workers. This includes small plants that are divisions of large firms. The significance of this is that smaller plants continue to be a major player in the manufacturing sector.

Chart 2 traces both payroll and value added on a per employee basis, and compares the data from large and small plants. Value added in large plants has grown to about 150% compared to small plants. Similarly, payroll per person in a large plant is about 140% compared to a small plant. These numbers are probably more disparate than shown because productivity in a small plant owned by a large firm would probably track closely with the larger division.

Chart 3 provides numbers from 1992 for comparison. Here we see that in every category, smaller plants lag behind larger units. Owners’ compensation differences relate to the ability to gather resources for modernization. This presents a challenge for smaller firms. Along with differences in productivity, pay and owners’ reward is another shift that affects small companies, particularly those in rural areas. This is discussed in one of a series of articles prepared by Peter Drucker in “Managing in a Time of Great Change.” Drucker relates that while total manufacturing employment in the U.S. is holding its own, there is a shift in the type of people employed. The number of traditional machine operators decreased from a high of 40% of the manufacturing workforce in 1950 to about 20% in 1990. If trends continue, by 2010, this number may be as low as 10%. The traditional operator is typically replaced by a knowledge worker.

Knowledge workers are people who have a greater investment in their skills than they have in the company that employs them. Knowledge workers must continually upgrade and adapt their skills to meet the needs of the workplace. Examples of such people include computer software and hardware specialists, machine controls experts, and soft technology people such as quality and marketing experts.

The challenge for rural companies is that these people can and do, to a large degree, choose where they want to live. Thus, a small firm in a rural community seeking to hire a bar coding expert will find itself competing in terms of pay and quality of life with larger firms in major metropolitan areas. Many times the smaller firm, or the community, loses.

Smaller firms find themselves with at least two problems. Output per worker lags, which limits resources that can be used to acquire the resources to help ease the problem. At the same time, skills that are also needed are difficult to attract and retain due to interests and loyalties that are beyond the direct control of the employer.

The answer to this dual problem may lie in companies engaging in two types of efforts. In the first case, companies need to focus on the issue of comparative productivity by working with available resources to increase the productivity of the people they now have on staff. Support resources available to assist with this include CIRAS and Iowa Community Colleges. While firms face the challenge of attracting and retaining skilled people, communities must become more attractive places to live.
The SoftSelect Process: How it works
by Steve Vanderlinden, CIRAS

Bill Barrett, general manager, and Bill Wunder, controller, of Grimm Brothers Plastics Corporation knew they needed to upgrade their current software to meet the needs of their growing company. Barrett read an article in the spring 1998 issue of the CIRAS News about SoftSelect Systems Services, a company that provides the very latest in dependable, unbiased information on software. SoftSelect has analyzed the functional capabilities of hundreds of software packages and stored the information in a database. Barrett called CIRAS and said his company needed the type of service provided by SoftSelect.

SoftSelect's capabilities were presented at an initial meeting between Barrett, Wunder and Steve Vanderlinden. Sample questions and some of the reports produced by the program were reviewed. The most important question - Are you ready to change your software? - had already been answered. By the end of the presentation, company representatives were sold on SoftSelect. A meeting with the department heads was scheduled for two weeks later. Participants were given copies of the SoftSelect Interface Questions to review before the meeting. Additionally, they were encouraged to consider present and future software needs, i.e., what functions were presently computerized and what functions (like inventory control) needed to be computerized.

At the second meeting, responses to the Interface Questions were entered into the SoftSelect program. Department heads responded "yes" to feature that interested them and "no" to features they didn't want or need. Additionally, each feature was given a "weight" based on its perceived priority. A weighting factor of "high" was given to essential features; "medium" to features that were considered nice to have but not necessary; and "low" to features that did not impact the company's needs.

This process generated a set of "User Requirement Questions and Responses." Interface Questions with their Responses and the User Requirement Questions and Responses were printed and were given to Barrett. The User Requirement Questions were divided into 24 functional areas, such as Accounts Receivable, Accounts Payable, Inventory Management, Master Scheduling, etc. This format made it easier for department heads to review the questions over the next several days. This meeting lasted about three hours.

Several weeks later, the third meeting was held. At that meeting, the department heads changed some of the responses and the weighting factors for questions in their area to better align them with what they wanted in their future software to do. Only a couple of Interface Questions were changed; most of the changes were to the User Requirement Questions. Also at this meeting, the Software Cost Threshold was set and the number of User License Count was established. The Cost Threshold is the maximum amount the company is willing to spend on new software. The License Count range establishes the maximum number of computers using the software at any one time. This meeting took just over one hour.

The next step was to transmit the file to SoftSelect for processing. The file was attached to an e-mail. SoftSelect takes about a week to process the file against a database of over 200 manufacturing and accounting software products. Two copies of the SoftSelect results were sent to the CIRAS agent.

Vanderlinden met with Barrett and Wunder to review the details of the reports. The first report was the Executive Summary, which included the Product Ranking Report, a list of the top 10 software products that best matched the company's needs. Next was the Product Matrix Summary which showed all 10 software products and how each rated in the 24 functional areas. The next section was Interpretation & Use Instructions of the SoftSelect Evaluation Report. It explained how to interpret and use the report.

The next sections examined different Evaluation Scenarios. The first considered only the "high" and "medium" weighted requirements and the second looked at all weighting factors. These sections also included the Vendor Product Matrix, which looked at the User's Requirements in the 24 functional areas and indicated if the top 10 software products included that feature. The Software Vendor Information section followed. It listed all the important information about each of the 10 software products, i.e., vendor name, address, type of hardware required, number of installations, operating system, etc.

The last two sections listed the Interface Questions and their responses and the User Requirement Questions and their responses. This provided a quick reference about how the questions were answered.

At the conclusion of the meeting, Barrett said "This is a valuable resource for small and mid-sized companies that generally do not have the staff to do the necessary research to find a fit between their needs and available software." Grimm Brothers Plastics has contacted all of the vendors listed on the report. One was eliminated because it required a specialized hardware. Others were eliminated because they did not have a high enough rating in some critical areas. Several other vendors were interviewed. A product was eventually selected and will be installed in the near future.

For more information, contact Steve Vanderlinden at 319-336-3318; FAX, 319-336-3350; or e-mail xlsvande@exnet.iastate.edu.
CIRAS marks 35 years of service to industry
by Richard Grieve, CIRAS Interim Director

This has been another landmark year for CIRAS in many ways.

A major factor is that CIRAS now celebrates its 35th year of operation. Although reworded upon occasion, the CIRAS goal remains relatively the same: putting the research, information and technological advancements of Iowa State University and other resources into the hands of Iowa manufacturers in ways they can use.

Thirty-five years...this is, indeed, a very long stretch of service. We have seen many changes at CIRAS, primarily in staffing, the organizations with who we partner and services we offer to manufacturers. Manufacturers to an even higher degree have seen changes in those 35 years. Technologies are now advanced in ways many of us never dreamt possible. Production levels are high; but competition levels are even higher, stretching beyond local into national and international realms. There are more ways to improve in terms of business methods, manufacturing processes, employment practices, system enhancements, among other areas.

Iowa manufacturers have asked to move with the times into cutting edge technologies and better practices, which requires CIRAS to upgrade staff technical knowledge and equipment. Throughout all of the changes, CIRAS still strives to be the primary source for assistance and learning for Iowa manufacturers, of all sizes.

In 1997-98, it was our intent to increase the content delivery-or educational-facet of our outreach programs. We have done this by taking formal educational offerings to our clients around the state. Our agents also have developed “network” groups, meeting regularly and for a variety of supportive reasons, all across Iowa.

At the same time, we have maintained focus on working with individual manufacturers in product development and testing and in application of new methods, processes and technology. Because of our partnership with the Iowa MTC, which has started to transfer “calling duties to community colleges, we have begun the transition to becoming primarily a content service provider.

Of particular note this past year:

• Readers will note that the total number of projects by CIRAS was down (388) compared with previous years. This have been a planned change. It is due, primarily, to our shift to spending more time and effort in educational endeavors and fee-based project work, usually of longer duration, and less in client “calling.”

• Even with our shift away from client calling, CIRAS staff greatly increased (4,718 compared to 2,054) the total company contacts. These numbers indicate the impact of the shift toward content delivery and education. The end result has been that more, not fewer, manufacturers are benefiting from the expertise and education CIRAS agents take to them. It is happening also because we have enlarged our means of delivery. Supportive and learning network groups across the state has been a welcomed addition to our programming. More exchange of information is taking place on the Internet as well as through course offerings.

Client Contacts

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• Ten networks of regularly meeting manufacturers are in full swing, brought together by seven CIRAS agents for various special issues or to bring a variety pack of information and support to clients.

• ISO 9000, QS 9000, Theory of Constraints (TOC), product development, strategic planning and computer modeling and simulation have surfaced as high demand educational topics. They are topics for which an increased number of CIRAS agents are extending their own training.

• We have increased efforts to partner with groups in and outside of the university, including the Center for Advanced Technology Development (CATD); Extension’s Value Added Ag Program; faculty in the ISU College of Engineering; and the Community Colleges; among others.

• CIRAS maintained contact with all clients through its quarterly newsletter, CIRAS News.

CIRAS has spent these last 35 years not only reaching out to manufacturers to bring them the latest in technique, technology and business know-how, but also building relationships with the people and businesses that are so much a part of the Iowa scene. We believe these relationships are important to our clients and have helped them survive and build anew. They also have benefited CIRAS and the university.
General

The overarching purpose of CIRAS is to connect Iowa manufacturers with the resources they need to find solutions and to improve.

CIRAS has for 35 years assisted Iowa industry in improving processes, researching products and materials and learning better ways to improve businesses and achieve potentials. CIRAS was established by the Legislature in 1963 as the industrial outreach arm of Iowa State University. It is administratively housed under the College of Engineering, working through ISU Extension and a variety of colleges, departments and labs within the university.

Currently 12 industrial specialists are strategically placed across Iowa, connecting with manufacturers in various ways and crisscrossing the state to bring areas of specialized education to manufacturers.

Six additional specialists and several support staff work out of the central ISU office to connect with various university departments to get the latest in information and technology out to firms.

Manufacturing assistance takes on several basic forms: on site project and technical assistance; research and testing through various labs at ISU; and seminars, workshops and courses offered across the state on a variety of the latest manufacturing topics.

In addition to its multiple university connections, CIRAS is a partner in the Iowa Manufacturing Technology Center (IMTC), which is funded by the National Institute for Science and Technology (NIST) and serves to increase federal and other state resource support for manufacturers.

Small- and mid-sized manufacturers, the largest segment of the industrial community in the state, are the primary targets of CIRAS outreach. Expertise within CIRAS also is utilized by larger firms, in particular those which had smaller beginnings and with which CIRAS has maintained on-going, working relationships.

Specific

Currently, ten Networks are conducted by CIRAS staff at various locations. These networks meet regularly and vary in purpose from general management support for manufacturers to those that gather manufacturers in special areas of interest, such as ISO 9000, Theory of Constraints (TOC), and the like.

Between March 1, 1997, and February 28, 1998, contacts were made with 2,000 manufacturers, including 3,762 individuals, and worked with 136 new industry clients.

CIRAS’ multiple educational and on-site offerings and assistance fall under four broad categories: Product Development and Testing; Practices; Simulation and Modeling; and Quality.

Seminars of 1/2-day to full-day length presented by staff increased by 57 percent between March, 1997, and February, 1998.

The number of CIRAS projects of longer duration (more than eight hours) increased by 42 percent between March, 1997, and February, 1998. These in-depth projects were primarily in product design and research, ISO 9000, constraints management (TOC), Kaizen and strategic planning.

The CIRAS Web site (http://www.ciras.iastate.edu) received a record 190,668 raw hits and 18,829 visitors between July 1997, and June, 1998. These figures do not include internal use.

The CIRAS Web site was noted in PC Novice Guide to the Web (Volume 6, 1998) as one of the top 2,500 Web sites.

Satisfaction ratings among clients for CIRAS services run high. (From follow-up surveys run by NIST in following year for projects from July, 1996, through May, 1997.) A full 94 percent gave CIRAS ratings of varying degrees of satisfaction with the largest group, 46 percent, saying they were “very satisfied.”

In that same follow-up year with clients, NIST reports show that based on 144 project evaluations, the total sales impact was more than $5 million; labor impact was $192,500; jobs impact was 128, with, additionally, 149 jobs retained.

How to connect with CIRAS

It takes a simple phone call to put you in touch with the resources of CIRAS.

You may contact the CIRAS specialist located in your area as noted on page 2 of this newsletter. Or you may contact your Iowa State University Extension county office to find out the name and phone number of your area CIRAS agent. You also may call the central office at Ames at (515)294-3420. If you are connected to the Internet, visit our Web site at http://www.ciras.iastate.edu or contact us by e-mail at ciras@exnet.iastate.edu.
While CIRAS has been the educational outreach arm of Iowa State to industry for 35 years, that role at times has taken different forms, depending on needs within the manufacturing community and resources at the university.

Yet CIRAS continues to recognize smaller manufacturers face challenges in staying updated on government regulations and new manufacturing practices. In 1997-98, renewing emphasis on taking continuing education to clients across the state, CIRAS staff developed new ways of delivering information and, at the same time, resurrected some tried-and-true methods from its past.

Networks

Networks-pockets of manufacturers who meet regularly to discuss issues of current importance, gain knowledge on topics via speakers or share experiences in a specific area of interest-became one of the most popular efforts of CIRAS agents. These networks provide manufacturers a channel to discuss the economic, socio-cultural, political, technical and legal issues affecting them. CIRAS currently facilitates ten such networks across the state, including interest groups on specific topics, such as ISO networks.

Despite different names and topics, networks provide similar experiences and benefits to participants. They bring together people from a wide range of Iowa companies to share experiences, frustrations and challenges; learn new methods and technologies; and pose questions to their peers. Tours of plants stimulate ideas. Members share the costs of programming, if any.

John Marshall of Yellow Jacket Manufacturing in Griswold is active in the Management Network of Southwest Iowa. Regular meetings provide him with knowledge he then has incorporated at his plant. At a session in the spring, Marshall learned that OSHA has an educational branch. Yellow Jacket explored this service and, according to Marshall, “We discovered we're not as far out of compliance as we initially thought. OSHA found minor violations, and we are working on fixing the situations brought forward.”

The strength of these groups comes from the participants themselves. A member of an ISO interest group said he was able to talk with people about the challenges faced in adopting and implementing ISO 9000. He could see how other businesses put the principles of ISO 9000 to use.
Best Practices
• Activity Based Costing
• Financial Management Assistance
• Human Resources: Hire Right; Performance Appraisals
• Strategic Planning
• Benchmark Surveys
• Feasibility Study
• Internet Services
• Management & Technical Seminars
• Kaizen
• Theory of Constraints (TOC)

Product
• Product Design
• Product Testing

Simulation
• Project Management
• Computer Simulation
• Manufacturing Resource Planning (MRPII)
  Software Selection

Quality
• OSHA Compliance
• ISO / QS 9000

A Look Ahead
As CIRAS moves into the future, several goals and directions come to the forefront.

• Continue emphasis on reaching the largest number of manufacturing clients possible with educational offerings, including public classes, seminars and workshops as well as on-site learning assistance.

• Continue emphasis on four primary arenas: product development and testing; simulation and modeling; quality; and best practices.

• Bring CIRAS back to full staffing with new hires for both central office and in the field.

• Expand representation in professional organizations/competitions to better evaluate quality of our programs.

• Renew and expand efforts to become better known by manufacturers of all sizes as a vital resource for them as they seek to become more competitive and reach their potentials.

CIRAS Mission Statement
CIRAS’ mission is to assist Iowa manufacturing to improve its operational performance. CIRAS will collaborate with the Iowa Manufacturing Technology Center program and its partners in fulfilling its mission. CIRAS will employ delivery methods consistent with Iowa State University’s outreach efforts. It will engage in education and training programs for its clients to assure that managers and staff of clients are aware of current technological and managerial practices. It wishes to be recognized as the preferred source of unbiased information for the industry.

Paul Gormley is new CIRAS field specialist

Paul Gormley has joined CIRAS as a field specialist for the Cedar Rapids area. Paul received his BS in electrical engineering from Iowa State University in 1992 and an MBA in 1994. Since graduation, he has worked with Lake Equipment Company of Minneapolis designing power correction and energy management systems. Recently, Paul worked with Winnebago Industries of Forest City. His responsibilities included product planning for large motor coaches, chassis manufacturer control systems integration, and development of 3-D and 2-D documentation standards.

While studying at ISU, he worked six years as a resident assistant; while working on his MBA, he was a teaching assistant in the College of Engineering.

Paul and his wife Trudy are Iowa natives and have family in Amana and Kirkman as well as Nebraska, Missouri, and Texas. He enjoys traveling and discussing interesting destinations with others. Other interests include playing golf, basketball, and attending ISU athletic events.
TOC WORKSHOPS

Production Workshop May 25 & 26, 1999: This two-day Production the TOC Way Workshop is for those individuals and organizations that have recognized the need to improve their production operations and are contemplating changes similar to those illustrated in The Goal. These changes focus on improving the performance of the total organization instead of focusing on improving each separate part of the organization. This total system focus provides high leverage for an organization's improvement efforts.

In this course, the TOC production application is explored through the use of the TOC Thinking Processes, open discussion, interactive computer simulations and exercises. Participants obtain an in-depth understanding of the innovative generic production solution and what is required to tailor it to their unique environment.

Key Topics/Objectives:
• Identifying the real factors that inhibit production in satisfying market demand
• The common causes for these real factors
• A simple, logical, generic solution (Drum-Buffer-Roper and Buffer Management) to increasing production and shortening lead times
• How the TOC Thinking Processes can be used to customize the generic solution to specific environments

Distribution Workshop June 22 & 23, 1999: This two-day workshop is for individuals and organizations that have recognized the need to improve their distribution operations by changing from “building to forecast” to “building for replenishment.” As long as the overall lead time to produce and distribute a product is longer than the Customer Tolerance Time (CTT), then the distribution network will have to hold inventory in order to satisfy the end users’ demands for “immediate” availability. Since reducing the overall lead time to be less than the CTT is often very difficult, it means that the distribution network will often have to hold just enough inventory to protect sales.

In this course, the TOC Distribution Application is explored through the use of the TOC Thinking Processes, open discussions, interactive computer simulations and interactive exercises. Participants obtain an in-depth understanding of the innovative generic distribution solution that “satisfies the uncertain demands of the end user within their CTT” while dramatically reducing both the finished goods required in their system and the overall production and distribution lead time.

Key Topics/Objectives:
• Identifying and overcoming the core problems of distribution
• Creating a “Replenishment” distribution network that accommodates the inaccuracy inherent in forecasts
• Implementation issues including next steps, and getting the active collaboration of other functions

Project Management Workshop July 13 & 14, 1999: This two-day workshop is for individuals and organizations that have recognized the need for improving their performance in managing projects. In many environments, the three most important things in delivering a project are schedule, schedule, and schedule. When the schedule is in danger of being compromised, the budget and the promised functionality are often sacrificed. Why is it so difficult to keep our promises? There is a widespread understanding that “critical path scheduling” does not tell the whole story. In this workshop, the Theory of Constraints is used to create and identify the key constraint of a project schedule which is called the “critical chain.” With proper “buffering” of this “critical chain,” one can schedule a project to have a short lead time while simultaneously allowing project managers to meet their schedules by focusing their attention on only a few key things.

In this course, the Project Management Application is explored using a project simulation game and interactive exercises. Participants obtain an in-depth understanding of the innovative generic “critical chain” project management solution described in Eli Goldratt’s Critical Chain book for both single and multi-project environments.

Key Topics/Objectives:
• Identifying and managing the “critical chain” of tasks that form the constraint of each project schedule.
• Identifying and managing the “strategic (drum) resource” that limits the rate at which new projects can be accepted by the organization.
• Creating project schedules that are short, feasible, and immune to resource contentions and statistical variations in task execution times.
• Creating a schedule that requires you to focus on only a few things even though the overall projects are huge.

TOC Workshop Registration

|--------------------------------------|-----------------------------------------------|

Name ___________________________________________
Title ___________________________________________
Organization ______________________________________
Address _________________________________________
Phone __________________________________________
Fax ____________________________________________

To register: Contact Sarah Terrones, 515-294-5008, Fax 515-294-4925, or e-mail smterron@iastate.edu. Make checks payable to “TOC Solutions.” Mail to CIRAS, 2501 N. Loop Dr., Ste. 500, Ames, IA 50010-8286

Location: CIRAS Conference Room, 2501 N. Loop Dr., Ste. 500, Iowa State University, Ames, IA 50010-8286

Time: 8:00 a.m. to 5:00 p.m.
Cost: $1200 per workshop
Instructors: David Bergland and Suzan Shanley

For questions regarding the seminars, contact David Bergland at 515-963-8698.
On March 10, 1998, former Governor Terry Branstad announced the creation of the Iowa Award for Competitive Excellence (IACE) to recognize Iowa’s best performing manufacturing and service companies. Modeled after the Malcolm Baldrige National Quality Award and using comparable judging criteria, the award will be established by a partnership of the state’s universities, Iowa Department of Economic Development, and the Iowa Association of Business and Industry. By patternining this program after the national program, Iowa will be able to leverage its program with the financial and intellectual investments made in the national program.

The purposes of the program include:

1. Educate organizations in Iowa about the value of quality systems, such as the Malcolm Baldrige National Quality Award, in improving competitiveness
2. Establish a network for information transfer
3. Provide a recognition system for outstanding companies – the IACE

Like the Baldrige award, top-level IACE company winners will share information on their successful performance and quality strategies with other companies.

Unlike the Baldrige award, there is no limit to the number of companies attaining the IACE; so companies will compete against an absolute scale rather than competing against other companies. Another difference is that the IACE will be a multi-level award with three levels of recognition as defined in the IACE planning documents:

- **Commitment** – self-assessment and an improvement plan. “A systematic approach to the primary purposes of most Items, but deployment in some key Areas to Address is still too early to demonstrate results. Early improvement trends in some areas of importance to key requirements.”
- **Progress** – “Effective approaches to many Areas to Address, but deployment in some areas is still in early stages. Further deployment, measures, and results are needed to demonstrate integration, continuity, and maturity.”
- **Leadership** – “A sound, systematic approach responsive to many of the Areas to Address with a fact-based improvement process in place in key Areas. No major gaps in deployment, and a commitment to organizational analysis and learning. Improvement trends and/or good performance reported for most areas of importance.”

### Baldrige Award & company performance

For the fourth year in a row, the fictitious “Baldrige Index” has outperformed Standard & Poor’s (S&P) 500 by almost three to one, says the Commerce Department’s National Institute of Standards and Technology (NIST).

The Baldrige Index is made up of publicly-traded U.S. companies that have received the Malcolm Baldrige National Quality Award during the years 1988 to 1996. NIST invested a hypothetical $1,000 in each of the six whole company winners of the Baldrige Award – ADAC Laboratories, Eastman Chemical Co., Federal Express Corp., Motorola Inc., Solectron Corp., and Zytec Corp. The investments were tracked from the first business day of the month following the announcement of the award recipients (or the date they began public trading) to December 1, 1997. Adjustments were made for stock splits. Another $1,000 was hypothetically invested in the S&P 500 at the same time.

NIST found that the group of six outperformed the S&P 500 by more than 2.7 to one, achieving a 394.5 percent return on investment compared to 146.9 percent return for the S&P 500.

NIST also tracked a similar hypothetical investment in a group made up of the six whole company Baldrige Award winners and the parent companies of 12 subsidiary winners. This group outperformed the S&P 500 by 2.4 to one, a 362.3 percent return on investment compared to 146.9 percent return for the S&P 500.

NIST also tracked a “investment” in Baldrige Award winning companies for the period starting January 2, 1997 through December 1, 1997. In this study as well, the six whole company winners outperformed the S&P 500 by 1.14 to one.

CIRAS is nation’s top Goldratt site

CIRAS and the Iowa State University College of Engineering are co-sponsors of the downlink of the Goldratt Satellite Program to 18 Iowa Communications Network (ICN) sites. Jeff Mohr, CIRAS coordinator of the program, said that nearly 300 people are participating in the series, which runs from March 3 to May 5.

According to Lisa Bagley, Goldratt Satellite Program, CIRAS had the highest number of attendees for an open host site. The second-largest audience had 50 viewers.

CIRAS partnered with ISU faculty members David Bergland, Stanley Professor of Interdisciplinary Engineering, and Howard Meeks, associate professor of Industrial and Manufacturing Systems Engineering, in developing and marketing the Goldratt Satellite Program.

CIRAS has four certified Theory of Constraints resources: Tim Sullivan (Jonah’s Jonah), Verl Anders (Jonah), Jim Black (Jonah), and Jeff Mohr (Jonah). CIRAS is partnering with three other Jonah’s Jonahs including Drs. Bergland and Meeks, and Suzan Shanley, a partner in TOC Solutions, to provide training, implementation, and follow-up assistance for Iowa companies. Dr. Bergland and Ms. Shanley are associates of the Avraham Y. Goldratt Institute.

CIRAS is committed to assisting Iowa manufacturers in the implementation of Goldratt’s Theory of Constraints. As a follow-up to the Goldratt Satellite Program, CIRAS is partnering with Dr. Bergland and M.s. Shanley to offer three TOC workshops (see page 9 for descriptions and registrations).

Baldrige Award winners

1998 Boeing Airlift and Tanker Programs, Solar Turbines Inc., and Texas Nameplate Company Inc.
1997 3M Dental Products Division, Solectron Corp., Merrill Lynch Credit Corp., and Xerox Business Services
1996 ADAC Laboratories, Dana Commercial Credit Corporation, Custom Research Inc., and Trident Precision Manufacturing Inc.
1995 Armstrong World Industries Building Products Operation and Corning Telecommunications Products Division
1994 AT&T Consumer Communications Services, GTE Directories Corp., and Webco Industries Inc.
1993 Eastman Chemical Co. and Ames Rubber Corp.
1991 Solectron Corp., Zytec Corp., and Marlow Industries
1990 Cadillac Motor Car Division, IBM Rochester, Federal Express Corp., and Wallace Co. Inc.
1989 Milliken & Company and Xerox Corp. Business Products and Systems

A sampling of benefits obtained by Malcolm Baldrige National Quality Award winners includes the following:

- Wainwright (1994) – cycle time down more than 90% driving 10,000 process improvements
- Motorola (1988) – employee productivity up 208% over nine years
- Zytec (1991) – revenues up 309% and net income up 878% over seven years
- Solectron (1991 and 1997) – revenues up 2,800%, market share has doubled, and stock price up 60 fold
- Ames Rubber (1993) – achieved 99.9% quality and on time delivery status through sharing quality techniques with suppliers
- IBM Rochester (1990) – decreased make to market cycle time by 23%

ISU Engineering College Dean James Melsa is actively involved in the university’s efforts to establish this award. To provide input on the new award, contact Melsa at 515-294-5935 or send e-mail to melsa@iastate.edu.

Another resource on quality is the Baldrige web site: www.quality.nist.gov. Watch future issues of CIRAS News for further developments on this award.

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1993 Eastman Chemical Co. and Ames Rubber Corp.
1991 Solectron Corp., Zytec Corp., and Marlow Industries
1990 Cadillac Motor Car Division, IBM Rochester, Federal Express Corp., and Wallace Co. Inc.
1989 Milliken & Company and Xerox Corp. Business Products and Systems
American Society for Quality (ASQ), Siouxland Subsection, will meet the first Thursday of each month from 6:30 p.m. to 8:30 p.m. Activities may vary, but consist of plant visitations and/or programs dealing with issues of quality and productivity suitable for industry. Contact Merle Pochop at 712-274-0048 or Tom Noteboom at 1-800-352-4907.

Every Tuesday Evening: Smart Start Workshop from 6 p.m. to 8 p.m. for anyone interested in starting a business. Course Cost $10 per person. To RSVP, call the ISU Business Development Center, 515-296-7828.

May 14, 1999: Entrepreneur Forum, 12:00 - 1:00 p.m., Gallery, Memorial Union. Bring your own lunch. Faculty, entrepreneurs, and business people are invited to discuss entrepreneurial issues. To RSVP, call 515-296-6532.

May 27, 1999: TOC Workshop, 8:30 a.m.- 4:30 p.m., ISU Outreach Center, Bldg 20, Ankeny. “What is the Goal?” An introduction to the Theory of Constraints by Tim Sullivan, CIRAS. $99 per person. Group rates available. Questions? Contact Tim by phone, 515-965-9355; fax, 515-965-9388; or e-mail <x1sully@exnet.iastate.edu>. Register with Sarah Terrones by phone, 515-294-5008; fax 515-294-4925; e-mail <x1terron@exnet.iastate.edu>.

June 21-July 2, 1999: Young Iowa Entrepreneurs Summer Camp for high school students, Iowa State University. For information contact Judi Eyles 515-296-6532 or <eyles@iastate.edu>.

Seven new members join CIRAS Advisory Council

The CIRAS Advisory Council has seven new members. Shown here are: Kevin Alft, Product Director, Vemeer Manufacturing Co., Pella; John Feeley, Executive Vice President and General Manager, Schaeff Incorporated, Sioux City; Richard Finney, Manager, Supply Chain Development, John Deere Des Moines Works, Des Moines; Jon Salmon, Manager, Iowa Mold Tool, Garner; and Deb Wellman, Manager, ITW/ Paslode Corp., Oskaloosa. Two other new members, not pictured above, are: Stephen Anderson, President, Merrill Manufacturing Co., Storm Lake, and Todd Plumb, President, Jacobs Corporation, Harlan.

Clyde Church of Metalcraft, Mason City is the new chair of the council. Margaret Wilson of Paragon International/GMI Industries, Union is vice chair. The Advisory Council serves to guide and counsel CIRAS while providing continuing liaison between CIRAS’ clients and resources.

A new workforce continued from page 1

vide interpreters in certain circumstances. Their assistance is intended to make each resettlers’ adjustment as easy as possible. In addition, individual sponsors are encouraged to help resettlers adapt and feel more secure in their new environment. The Iowa Bureau of Refugee Services provides employment and employer support services for all resettlers who are beyond their initial several months in the U.S.

For details on developing or getting involved in a resettler assistance program, contact the Iowa Bureau of Refugee Services at 515-283-7904.

Recruitment Tips:

• Contact the Iowa Bureau of Refugee Services at 515-283-7904.
• Seek out resettlers who possess the skills necessary for your business.
• Stress your company’s willingness to provide additional job and communication skills training by contacting the Iowa Bureau of Refugee Services.
• Be prepared to provide resettler-employees and their families the support they need to adapt in your community and in your business.