

Check out pages 6 and 7 for a historical CIRAS timeline.

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## CIRAS and partners are key players in DOE energy project

By Rudy Pruszko, CIRAS



From left to right: Tom Levad, Jack Skelley, and Rudy Pruszko at the North Star Steel plant.

February 28, 2002, marked the beginning of a landmark venture for North Star Steel Iowa in Wilton. It received a U.S. Department of Energy (DOE) grant to conduct plant-wide assessments of its operations with a view to improve productivity, reduce waste, and enhance global competitiveness.

After an exhaustive, year-long energy audit, North Star Steel presently stands to gain over \$1 million in projected savings and also will serve as a working model in energy assessment procedures for other North Star Steel mills across the country.

The assessment process was put into motion last spring when DOE officials met with representatives from North Star Steel and its energy partners—the Iowa Manufacturing Extension Partnership (IMEP), the Center for Industrial Research and Service (CIRAS), and Enterprise Mid America. IMEP Senior Account Manager Ilene Deckert and Director Willem Bakker, along with Enterprise Mid America personnel, submitted the grant application on behalf of North Star Steel in October 2001. All three organizations contributed support in matching funds or time.

The grant, awarded through a competitive DOE bidding process, provided \$78,900 for this energy savings-related initiative, which started with the creation of a U.S. DOE study team. The team included members from CIRAS, North Star Steel, and steel industry experts. CIRAS Industrial Specialists Rudy Pruszko and Clay Crandall both worked on the project as service providers for IMEP. North Star Steel lead individuals included Regional Environmental Manager Jack Skelley and Engineering Supervisor Tom Levad.

A total assessment audit, or TAA (an integrated energy, waste, and productivity audit developed by the Iowa Energy Center and deployed by IMEP), was performed at North Star Steel Iowa in July 2001 to identify the areas for the study team to address. The TAA identified potential savings opportunities in five specific operational areas: (1) electric arc furnace dust reduction and dust recycling alternatives; (2) electric motor energy efficiency; (3) melt and reheat furnace processes; (4) heat recovery alternatives; and (5) energy management planning. The TAA findings and data were used to support the DOE grant application.

*"The grant enabled North Star Steel to focus on key manufacturing areas where efficiency improvements could be realized," added Czarnik.*

The DOE study team members were requested to assess the probability of helping North Star Steel achieve its efficiency goals of 10 percent energy reduction and 30 percent waste reduction by 2005. Since the launch of this initiative, the team has identified significant potential savings (over \$1 million annually), and the complete estimate will be presented in the final report due by April 15, 2003, to the U.S. DOE.

The report will also provide feedback from the study team and steel industry experts

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### CIRAS Mission Statement

The mission of CIRAS is to enhance the performance of Iowa industry and associated entities through education and technology-based services.

#### CIRAS

##### Ames

**Ronald Cox, Ph.D. - CIRAS Director**  
Plant Ventilation; Product Development;  
Root Cause Analysis  
(515) 294-9592 • [rcox@ciras.iastate.edu](mailto:rcox@ciras.iastate.edu)

**Verlyn Anders, CPIM, CQA, Jonah**  
Feasibility Studies; Financial Management; ISO 9000; Strategic Planning  
(515) 294-1316 • [vanders@ciras.iastate.edu](mailto:vanders@ciras.iastate.edu)

**Andrew Bice**  
Control Systems; Electronic Design; Product Development  
(515) 294-4478 • [abice@ciras.iastate.edu](mailto:abice@ciras.iastate.edu)

**Jim Black, CLM, Jonah**  
Lean Manufacturing; 5-S/Visual, Cellular/Flow Manufacturing,  
Kaizen Implementation, Kanban/Pull, Setup Reduction, TPM,  
Value Stream Mapping; Strategic Planning  
(515) 294-1507 • [jblack@ciras.iastate.edu](mailto:jblack@ciras.iastate.edu)

**Steven Devlin**  
CAE; Manufacturing Engineering;  
Product Development; Rapid Prototyping  
(515) 294-5416 • [sdevlin@ciras.iastate.edu](mailto:sdevlin@ciras.iastate.edu)

**Jeff Mohr, P.E., Jonah**  
Engineering Management; Noise Control; Product Development  
(515) 294-8534 • [jmohr@ciras.iastate.edu](mailto:jmohr@ciras.iastate.edu)

**Sharon Norris**  
Budget Administration  
(515) 294-5240 • [snorris@ciras.iastate.edu](mailto:snorris@ciras.iastate.edu)

**Carey Novak**  
Cooperative Research; Technology Commercialization  
(515) 294-2293 • [novak@ameslab.gov](mailto:novak@ameslab.gov)

**John Roberts, P.E.**  
CAE; Finite Element Analysis (FEA); Manufacturing Engineering;  
Product Development; Product Testing  
(515) 294-0932 • [jroberts@ciras.iastate.edu](mailto:jroberts@ciras.iastate.edu)

**Carol Smith**  
Administrative Assistance  
(515) 294-3420 • [csmith@ciras.iastate.edu](mailto:csmith@ciras.iastate.edu)

**Christopher A. Thach**  
3D Graphics and Animation; E-Business; Web Database Applications  
(515) 294-7731 • [cthach@ciras.iastate.edu](mailto:cthach@ciras.iastate.edu)

**John Van Engelenhoven**  
Engineering Management; Finite Element Analysis (FEA);  
Lean Manufacturing; VSM; Material Handling; Plant Layout/Simulation;  
Process Design Simulation; Process Improvement Simulation;  
Product Development; Product Testing  
(515) 294-4475 • [jve@ciras.iastate.edu](mailto:jve@ciras.iastate.edu)

**Cedar Falls**  
**Michael Willett**  
Plant Layout Simulation; Process Design Simulation;  
Process Improvement Simulation  
(319) 266-3260, ext. 203 • [mwillett@ciras.iastate.edu](mailto:mwillett@ciras.iastate.edu)

**Cedar Rapids**  
**Donald Brown, CQE**  
Baldrige National Quality Award; Failure Mode and Effects Analysis (FMEA);  
ISO 9000; Manufacturing Engineering; QS 9000; Root Cause Analysis  
(319) 398-1272 • [dbrown@ciras.iastate.edu](mailto:dbrown@ciras.iastate.edu)

**Council Bluffs**  
**Clay Crandall**  
Finite Element Analysis (FEA); Hydraulic and Pneumatic Systems;  
Lean Manufacturing; Setup Reduction, TPM; Product Development;  
Product Testing  
(712) 366-7070 • [ccrandall@ciras.iastate.edu](mailto:ccrandall@ciras.iastate.edu)

##### Davenport

**Steven Vanderlinden**  
Feasibility Studies; Financial Management;  
Manufacturing/Accounting Software Selection  
(563) 336-3318 or 800-462-3255 • [svan@ciras.iastate.edu](mailto:svan@ciras.iastate.edu)

**Lewis**  
**Jill Eukens**  
Biobased Products; Bioenergy  
(712) 769-2600 • [jeukens@ciras.iastate.edu](mailto:jeukens@ciras.iastate.edu)

**Marion**  
**Paul A. Gormley**  
E-Business; Electronic Design; Product Development  
(319) 377-9839 • [pgormley@ciras.iastate.edu](mailto:pgormley@ciras.iastate.edu)

**Peosta**  
**Rudy Pruszek**  
Baldrige National Quality Award; Constraint Management/TOC: 101, Critical  
Chain, Drum/Buffer/Rope, Replenishment; E-Business;  
Feasibility Studies; Process Design; Process Improvement  
(563) 556-5110, ext. 251 • [rpruszek@ciras.iastate.edu](mailto:rpruszek@ciras.iastate.edu)

**Sioux City**  
**Merle Pochop**  
Customer Satisfaction; ISO 9000  
(712) 274-0048 • [mpochop@ciras.iastate.edu](mailto:mpochop@ciras.iastate.edu)

**Urbandale**  
**Timothy T. Sullivan, Jonah's Jonah**  
Constraint Management/TOC: 101, 4x4, Critical Chain, Drum/Buffer/Rope,  
Replenishment, Thinking Processes, Unrefusable Offer  
(515) 727-0656 • [sullytt@ciras.iastate.edu](mailto:sullytt@ciras.iastate.edu)

#### Iowa Procurement Outreach Center

**Bruce Coney - IPOC Program Manager**  
Benchmarking (BMP); Bid Preparation Assistance; Contract Administration;  
Government Procurement; J4000 Lean Manufacturing; Market Research;  
Supply-Chain Management (SCOR)  
(515) 294-4461 • [bconey@ciras.iastate.edu](mailto:bconey@ciras.iastate.edu)

**Kathleen D. Bryan**  
Electronic Data Interchange; Government Procurement;  
Standards Assistance  
(515) 294-4473 • [kbryan@ciras.iastate.edu](mailto:kbryan@ciras.iastate.edu)

#### Engineering Distance Education

**Ronald Cox, Ph. D. - EDE Director**  
Credit and Noncredit Engineering Off-Campus Program Development  
(515) 294-9592 • [rcox@ciras.iastate.edu](mailto:rcox@ciras.iastate.edu)

**Hiro Iino**  
Course Production and Distribution; WebCT  
(515) 294-3214 • [hiino@iastate.edu](mailto:hiino@iastate.edu)

**Paul Jewell**  
Learning Technologies Integration; Technical Infrastructure  
(515) 294-1827 • [pjewell@iastate.edu](mailto:pjewell@iastate.edu)

**Joe Monahan**  
Digital Media Tools and Applications

# Office of Biorenewables Programs: A front door to ISU resources

By Sunanda Vittal, Engineering Communications and Marketing

Midwest Grain Processors, which owns and operates an ethanol plant in Lakota, Iowa, wanted to expand its biorefinery capabilities by converting large quantities of low-value distillers' dried grains and solubles into high-value products.

The company approached institutional partner Iowa State University, which referred it to the Office of Biorenewables Programs (OBP), located on campus. OBP is an integral part of ISU's Bioeconomy Initiative (one of five academic initiatives funded by ISU President Gregory Geoffroy last year), whose primary focus is to promote greater and more efficient use of biorenewables in an effort to make ISU and the state of Iowa leaders in a new bioeconomy. Among its many important functions, OBP scans funding and other opportunities and communicates them to partner organizations, such as, in this instance, the CIRAS-managed Iowa Industries of the Future (IIOF).

Through the joint efforts of CIRAS staff at IIOF as well as resources furnished by OBP, Midwest Grain Processors was able to act on its ideas. It submitted a proposal to the Department of Energy's Small Business Technology Transfer Program and requested assistance for incorporating a technology called syngas fermentation into its biorefineries, a process that would convert fermentation byproducts into biopolymers or high-value plastics.

Midwest Grain Processors is a classic example that illustrates how a collaboration between the OBP and partner organizations can result in constructive means to achieve a common goal, i.e., encourage and promote the development of biobased products and a bioenergy industry in Iowa through a private/public partnership in research, industry growth and expansion, and outreach activities.

"This was very much a team effort," stresses Jill Euken, CIRAS industrial specialist for biobased products and bioenergy. "The OBP assisted in proposal writing and budget preparation and also facilitated the paperwork at ISU for Midwest Grain Processors. CIRAS coordinated meetings between the company's management and the ISU Foundation."

According to ISU Professor Robert Brown, chair of the Science and Engineering Committee for OBP, the office grew as a result of companies looking for direction on biorenewable resources. "Often companies complained that they didn't know who they should be talking to at ISU. This office can help them find the right people," explains Brown.

The OBP mission is to help affiliated units on campus develop multidisciplinary research projects in biorenewable resources and serve as a 'front door' to inquiries about education, research, and outreach in biorenewable resources at ISU. The OBP generates publications and materials to

promote the Bioeconomy Initiative, seeks out funding opportunities, notifies affiliated departments/units, and assists with proposal preparation. It also serves as a point of information exchange among its five ISU partners:

- Center for Sustainable Environmental Technologies
- Ames Laboratory Biorenewable Resources Consortium
- Center for Designer Crops
- Center for Crops Utilization Research
- Iowa Industries Of the Future

In addition to the OBP, the Bioeconomy Initiative is composed of three other organizational units: the Biorenewables Executive Council, the Science and Engineering Committee, and a group of affiliated departments, centers, institutes, and external partners. The OBP provides staff support for these units and works to build strong communication systems with its internal and external partners.

*For more information on how the Office of Biorenewables Programs at Iowa State can assist manufacturers with their biobased industry needs, contact Tonia McCarley, OBP Program Coordinator, at 515-294-6555, [tmcarly@iastate.edu](mailto:tmcarly@iastate.edu); or Jill Euken, CIRAS, 712-769-2600, [jeuken@iastate.edu](mailto:jeuken@iastate.edu).*

## Web-based delivery is students' top choice

By Rebecca Kellogg, EDE

Web-based delivery of lecture content and course materials is a trend in the United States, and Engineering Distance Education is on the leading edge. Ever since the Fall 2001 semester when EDE made a large-scale transition to Web-based delivery, all engineering courses offered to the off-campus community have been available using streaming video over the Internet.

During the Fall 2002 semester, 65% of off-campus students selected the Web as their primary delivery mode. By semester's end, over 80% were receiving course lectures using the Internet. Spring 2003 began with similar numbers. Two-thirds of the spring enrollments selected the Internet as their primary delivery mode.

Although bandwidth is still a practical issue for some students, most have access to high-speed Internet. Students are able to view live class lectures being conducted on campus and also have the option of viewing lectures asynchronously. Once a lecture is completed, students can review the content as many times as they like during the course of the semester. Having the content available in such a timely fashion is a feature both faculty and students are finding advantageous.

Web delivery allows all students to stay on virtually the same schedule. Off-campus students previously were a week or two behind their on-campus counterparts, which made course logistics difficult and interaction between the two groups next to impossible. Also, the Internet opens up more opportunities to promote interaction between on-campus and off-campus students. Faculty members can now design homework and projects that team together a mix of students. This interaction enriches the learning environment for students and faculty as multiple perspectives and experiences are brought to bear on a problem.

Finally, faculty members have discovered that off-campus students, who are largely employed in industry or government, provide feedback and experiences that are relevant and enhance the course material. In past years, such input was rare when off-campus students were maintained on a different schedule.

Students use WebCT to access the streaming video lectures for their courses. WebCT provides a password-protected environment for student and faculty interaction and includes communication tools such as chat, message boards, and e-mail. Instructors also use WebCT to post course materials and assignments. Students use the Internet to receive, submit, and view graded homework.

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## Upcoming Summer 2003 session

EDE will offer a few graduate courses for the summer session. Courses that are tentatively scheduled include:

- Project Management
- Manufacturing Systems Engineering
- Requirements Engineering
- Comprehensive Modern Manufacturing Systems

Other courses may also be added. Complete summer course schedules will be posted at [www.ede.iastate.edu](http://www.ede.iastate.edu).

## EDE welcomes new staff member



Patti Martens joined the EDE staff in November 2002 as a part-time secretary. Martens previously worked at the University of Iowa Heart Care where she was in charge of scheduling and maintenance of physicians' templates. She was employed there for almost three years following her graduation from The University of Iowa in May of 1999.

At EDE, Patti's main responsibilities include supporting the systems engineering and dual degree programs, contributing to the EDE office daily business, and helping off-campus students enrolled in ISU engineering courses.

Outside of work, Patti keeps busy with her small jewelry sales business. She enjoys spending time with her family and also having more free time to do whatever she wants!



## Contracting with the federal government: Commercial items

*Getting Started (Part I)* By Rodney Grandon, Patton Boggs LLP

There has never been a better time for doing business with the federal government. As the commercial sector heads into recession, federal spending on goods and services is poised to surge. Unfortunately, many businesses are missing out on potentially profitable opportunities because of the perception that contracting with the federal government is a burdensome and unpleasant experience. While there remain certain unique aspects to doing business with the federal government, it has in recent years become remarkably similar to what businesses should expect to experience in a typical commercial transaction. This is particularly true in procurements for commercial items. The following discussion is the first of a three-part series that will present general guidance on contracting with the federal government.

### **The Federal Acquisition Regulation**

The Federal Acquisition Regulation (FAR), 48 Code of Federal Regulations, is the source of most of the rules and procedures governing federal contracting. The FAR is available in print form and can be easily accessed on the Internet ([www.arnet.gov/far/](http://www.arnet.gov/far/)). While issues arise from time to time involving practically every aspect of the FAR, most issues, especially those involving the procurement of commercial supplies and services, concern Part 12 (Acquisition of Commercial Items), Part 14 (Sealed Bidding), Part 15 (Contracting by Negotiation), and Part

33 (Protests, Disputes and Appeals). Part 52 of the FAR includes most of the standard clauses used in federal contracts.

### **Commercial Items**

FAR Part 12 includes streamlined rules now applicable to the acquisition of commercial items. These streamlined rules are intended to establish policies and procedures that more closely resemble those encountered in the commercial marketplace. The FAR broadly defines a “commercial item” as any item that is typically used for non-governmental purposes that (1) has been sold, leased, or licensed to the general public, or (2) has been offered for sale, lease, or license to the general public.

Modifications or advances made to commercial items that will be available in the commercial marketplace also may satisfy the definition. The definition of a “commercial item” includes installation services, maintenance services, repair services, training services, and other services procured in support of commercial products. The definition also extends to other services generally offered and sold competitively in substantial quantities in the commercial marketplace, based on catalog or market prices.

Legislation passed by Congress in the mid-1990s brought about significant changes in the way the federal government purchases commercial items. Congress intended that those changes would permit the government to conduct its procurements in a manner more consistent with commercial practices. Some of the more notable changes include

- limiting the application of many clauses formerly treated as mandatory for all acquisitions
- prohibiting the government from demanding detailed cost and pricing information from the contractor during contract negotiations, except under very limited circumstances
- permitting the contractor to propose terms and conditions where appropriate for the acquisition of the particular item, instead of requiring rigid adherence to federal contract clauses
- limiting the former government practice of requiring the contractor to produce and provide specialized technical data
- requiring the government to acquire commercial computer software under licenses customarily provided to the public, as opposed to requiring specific government licenses

### **Business, Breakfast, and More**

Network with small business owners, corporate buyers, and potential clients. Connect with federal and state area representatives. And visit with local business service programs that can aid your business growth at the upcoming breakfast events:

- May 1
- July 10 (Annual Business Showcase)
- September 4
- November 6

The breakfasts begin at 7:30 at the Des Moines Downtown Holiday Inn, 1050 Sixth Avenue.

**Facilitator:** Ted Williams, CEO, Williams Group, Inc., Des Moines, Iowa

**Sponsors:** Channell Construction Iowa & Nebraska, Principal Financial Group, and the Minority & Women Business Conference & Expo

**In cooperation with:** IPOC/CIRAS and Drake Small Business Development Center

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## CIRAS: A constant amidst change

*While the '60s established CIRAS as a vital educational resource for Iowa industry, the decade beginning in 1973 saw manufacturers and business owners seeking CIRAS' assistance with increased urgency.*

*Three major issues—energy conservation, environmental regulations, and computer usage—confronted Iowa industry, forcing it to adapt to new standards and rapid technological changes.*

CIRAS continued its primary function as a technical resource, but expanded its scope into the management counseling and business planning arenas. In two business and industry TV programs aired statewide, CIRAS Industrial Specialist John Wessman discussed risk management, ways to recognize a problem, and improving overall business operations. A second program encouraged Iowans to examine the strategies of prominent industrial, business, and educational leaders in the state.

As computers emerged as the face of the future, CIRAS assumed the task of periodically updating manufacturers on the latest in computer technology and their value as effective management tools. In March of 1976, CIRAS Director Lloyd Anderson conducted six statewide mini-computer clinics on computer purchasing, managing, and installation.

Next to computers, environmental safeguards and energy conservation were pivotal industry concerns. In 1976, CIRAS established the Iowa Industrial Waste Information Exchange Program, which served as a working model for states nationwide to set up similar networks that promoted the exchange and creation of a byproducts market industry. CIRAS kept manufacturers informed on OSHA guidelines and new regulations in shipping hazardous material.

CIRAS also facilitated the setup of other organizations that served as national models at the time and have since become a vital part of Iowa's economic framework.

They include the Economic Development Administration University Centers established in 1980, the Cedar Valley Manufacturers' Association, and the Small Business Development Centers.

The energy crisis of the late '70s forced Iowa industry to adopt stringent conservation measures. CIRAS was at the forefront, providing advice, workshops, consultations, and educational material on insulation techniques, heat transfer systems, installing new control instrumentation, and monitoring energy consumption levels.

In addition to helping clients cope with change, CIRAS ventured into new areas in product liability, profit planning management, cash flow simulation, and assisting companies to acquire business loans. Increasingly, CIRAS began collaborating with the ISU engineering faculty in presenting joint clinics and consultations.

The CIRAS leadership gained national recognition in Waldo Wegner's National University Extension Award and David Swanson's (who became CIRAS director after Wegner's retirement in 1978) appointment as director of the Iowa Economic Development Commission in 1982.

The period between 1973 and 1982 witnessed the growth of CIRAS into a multifaceted service unit. It was a support system for Iowa industry through tough times, but also functioned as a proactive partner during an era of change.

**1973–1982**  
**CIRAS**  
Through the years

### 1973

- produces two business and industry TV programs aired statewide

### 1974

- jointly produces with WOI-TV a segment on Iowa industries

### 1975

- recognizes the growing use of computers and offers buying guidelines for manufacturers

### 1976

- establishes the Iowa Industrial Waste Information Exchange program, a clearinghouse to help Iowa manufacturers identify potential users and sellers

### 1976

- holds a one-day computer clinic in six Iowa cities to help manufacturers make decisions on computer needs
- serves as a sounding board to Iowa industry on three concerns of the times: energy uncertainty, unemployment compensation, and impact of computers

# Weathering changing times — with a little help from CIRAS

By Sunanda Vittal, Engineering Communications and Marketing

For a husband-wife team in Edgewood, Iowa, staying focused during uncertain economic times proved critical, especially when it came to seeing their logging and saw-milling operation survive and grow through two decades of industry changes.

Tim and Rhonda Kendrick are owners of Kendrick Forest Products (KFP), a family business that began almost 45 years ago but was bought by the Kendricks in 1983 from a partnership that Tim had with his brother.

The company's main business is selective harvesting of mature trees, sawing, and kiln drying lumber, using on-site equipment. It also recycles wood waste by burning for fuel or selling it for landscaping and animal bedding. KFP holds a unique stature in Iowa's lumber industry because its logging crew is involved in the dual tasks of both cutting the timber and lumber production.

Currently, KFP sells timber nationwide, including exports to Japan, Korea, Canada, and Belgium. With sales exceeding \$8 million, the company is poised for expansion and in the process of upgrading its machinery. In 2001, it purchased a small cabinet manufacturing outfit and now sells its own line of cabinet products. Most recently, it added computerized log-scanning equipment and plans to install a computerized edger in April of this year.

KFP's current success, however, belies the many challenges it faced in the past getting started. For one thing, when Tim and Rhonda took charge in 1983, KFP was running on negative net worth due to sagging production and sales. More significantly, KFP lacked the advanced machinery that could help speed up production and build a strong market share.

It was during these difficult times that CIRAS emerged as an oasis of information and assistance. CIRAS Industrial Specialist Verl Anders advised KFP on cash flow, quality control, budgeting, strategic planning, and product exporting. "Working with Verl helped save our company," states Rhonda Kendrick. "As we grew, we attempted to



Kendrick employees stack lumber at the green chain.

run as lean as possible, reducing our debt and constantly updating equipment whenever possible," she adds.

With Anders' assistance, the company also applied for and received a crucial federal loan in 1988, which helped KFP hire more employees and add two more dry kilns to their operation. Production surged from less than a million to close to 4 million board feet in a little over five years. Again in the early '90s, under Anders' guidance and assistance, KFP adopted a company mission statement that would guide future decision-making efforts.

Rhonda Kendrick marvels at the rapid changes that have taken place in the lumber industry over the last two decades. "It's a physically challenging industry," she stresses, underscoring the importance of KFP's decision to modernize from the outset. Currently, advanced equipment has eliminated much of the physical labor of past years, states Kendrick.

The Kendricks are proud of their employee retention record, which is consistently above the national average for this type of industry. "Rhonda and Tim have a natural ability to manage people and processes," says Anders.

They also offer sound advice to industry and business owners looking to improve their operational strategies: "There is a wealth of information if you're open to assistance, and CIRAS can be a big help. They were for us."

## 1977

- helps form the Cedar Valley Manufacturers' Association, an area manufacturers' group providing assistance to small employers

## 1978

- co-sponsors Product Liability Conference
- expands services to provide increased assistance to Iowa industrial firms in handling their energy, fuel, and conservation problems

## 1979

- presents a series of profit-management clinics to help businesses increase return on investments

- partners with ISU's College of Engineering in "engineering clinics"

## 1980

- is awarded a University Center grant from the Economic Development Administration to aid the growth of Iowa industry

## 1981

- receives funds to launch Small Business Development Centers

## 1982

- informs manufacturers about the availability of 2D computer-aided design programs

# Universal design kitchens to help the elderly

By Andrew Bice, CIRAS

If current trends continue, 20 percent of Americans will be age 65 and older by the year 2030. As people grow older, they experience a progressive loss of physiological capabilities. By modifying their kitchen work environment, they may be able to continue preparing their own meals at home, thus postponing the need for costly institutionalization in a care facility.

A CIRAS project with the Department of Health and Human Services will focus on developing a prototype of a universal design kitchen system of appliances and cabinets that will meet the needs of older people. The project will examine the problems and limitations that older people experience in preparing meals. It will identify possible kitchen design solutions and develop a prototype kitchen with universal design features.

Maytag Corporation and Progress Industries as well as three separate groups at Iowa State University—CIRAS, the Department of Industrial and Manufacturing Systems Engineering, and the College of Family and Consumer Sciences—will play critical roles in this public-private project.

The term "universal design" was coined by Ron Mace, founder of the Center for Universal Design at North Carolina State University. It is defined as "... the design of products and environments to be usable by all people, to

the greatest extent possible without the need for adaptation or specialized design."

According to the National Association of Home Builders, universal design is inclusive design that incorporates the older "concepts of barrier-free and accessible design, but eliminates the stigma and special appearance to ensure marketability" (NAHB Research Center, Inc., and Barrier Free Environments, Inc., 1996). Although the universal design movement has made great strides in the past two decades, basic awareness, design, and marketing challenges keep it from becoming more widely adopted.

The expected outcome of the project is increased knowledge that will lead to kitchens with

- universal usability by customers with a wide range of abilities
- market appeal for a broad range of users
- mass production capabilities at affordable prices by home appliance manufacturers.

Universal design kitchens will ultimately benefit society where people can grow older in their own homes, thereby reducing the personal and societal costs of institutionalization in a care facility.

*For more information on this project, contact Andrew Bice at 515-294-4478 or abice@ciras.iastate.edu.*

## CIRAS project serves up solutions and student experience



*Mike Larson works on design modifications using CAD and FEA software programs.*

The primary goal of CIRAS projects is to help clients find solutions, but they also open up valuable industry-interaction opportunities for Iowa State University students. In a project with WAYNE Engineering, for example, CIRAS Industrial Specialist John Roberts and mechanical engineering senior Michael Larson helped the company with its plans for product modification leading to subsequent development and production.

WAYNE Engineering designs, manufactures, and markets refuse collection equipment in Cedar Falls, Iowa. Their products include small refuse bodies, automated side loaders, automatic rear-load container lock-and-dump systems, and in-trailer crane systems.

The company requested CIRAS assistance in evaluating design modifications to the pack assemblies. Engineers at WAYNE had developed design alternatives to improve load distribution, but they needed CIRAS assistance to determine whether these modifications were indeed an improvement.

Supervised by Roberts, Larson modeled the original and new pack assemblies using a three-dimensional computer-aided design (CAD) program. The CAD models were then loaded into the COSMOS DesignStar finite element analysis (FEA) software program, and boundary conditions and loads were applied to the pack assembly model.

Using the analytical powers of the FEA program, Roberts and Larson demonstrated that the changes made by WAYNE would improve the strength of the product by

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## IPOC

Continued from page 5

The federal government also has moved away from describing its requirements using obscure detailed specifications (e.g., military specifications—the source of oddities such as a multi-page cookie specification). Instead, to the maximum extent practicable, current rules require the government to state its requirements in terms of functions to be performed, performance required, or essential physical characteristics. Moreover, current rules specifically direct federal agencies to define and describe their requirements in terms that enable and encourage offerors to supply commercial items.

The starting point for contracting with the federal government—whether for commercial items or government specific products such as planes, tanks, or other weapons systems—is in the acquisition process. Current business opportunities can be identified using links included at most federal agency Web sites (e.g., [www.defenselink.mil](http://www.defenselink.mil) and [www.gsa.gov](http://www.gsa.gov)).

### **Competition Requirements**

The federal government, unlike commercial concerns, cannot contract with any entity it so desires. Rather, the federal government, acting under notions of fairness, and in an effort to secure fair and reasonable prices for the supplies and services it purchases, conducts its contracting activities in the open under the scrutiny of Congress and, ultimately, the taxpaying public. With limited exceptions,

it is the policy of the federal government to “promote and provide for full and open competition in soliciting offers and awarding Government contracts.” FAR 6.101(a). Full and open competition is viewed as the best way to ensure that prices paid will be fair and reasonable, while at the same time ensuring that any business capable of providing the required supplies and services is given the opportunity to compete for government business.

This is not to say that there are not exceptions to the general rule of “full and open competition.” In fact, the FAR recognizes several situations where the government is not obligated to secure full and open competition: (1) where there is only one source that can satisfy the government’s needs; (2) where an unusual and compelling urgency exists that will result in serious injury to the government; (3) where it is necessary to ensure a sufficient manufacturing base in the event of a national emergency; (4) where required by international agreement; (5) where authorized or required by law; (6) where full and open competition would compromise national security; and (7) where full and open competition is not in the public interest. These, however, are the exception; the *rule* is full and open competition.

*Rodney Grandon is a partner with the law firm Patton Boggs LLP, 2550 M Street, N.W., Washington, D.C. 20037, 202-457-6061, [rgrandon@pattonboggs.com](mailto:rgrandon@pattonboggs.com). This article is the first of a series that appeared in the Waterloo Chamber of Commerce Business Perspectives in 2002.*

## DOE Energy Project

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who participated in the project. “We are pleased to be recognized by the U.S. government for our continuing efforts to manufacture quality steel products in a manner that is more efficient, cost-effective, and environmentally sound,” expressed Carl Czarnik, general manager of North Star Steel Iowa Division. “The grant enabled North Star Steel to focus on key manufacturing areas where efficiency improvements could be realized,” added Czarnik, “and helped develop best practices that other industries nationwide could adopt.”

North Star Steel is a subsidiary of Cargill, an international processor, marketer, and distributor of agricultural, food, financial, and industrial products and services with 90,000 employees in 57 countries.

*For more information on productivity improvement and energy-related assessments contact Tom Noteboom, IMEP, 515-289-0600, [tboom@imep.org](mailto:tboom@imep.org); or Rudy Pruszek, CIRAS, 563-556-5110, ext. 251, [rpruszek@ciras.iastate.edu](mailto:rpruszek@ciras.iastate.edu).*

## CIRAS Project

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a factor of 38%. The CIRAS engineering team suggested additional design modifications that provided a 69% improvement on the original design.

The CIRAS project helped WAYNE witness a complete elimination of warranty claims on their pack assemblies. “This was a tremendous advance in the development of this product,” said Product Engineering Manager Jim Marks. “With CIRAS help and guidance, WAYNE Engineering was able to foresee how the structure would react.”

Larson, who graduates in May 2003, was pleased with the opportunity to apply his engineering skills. “Not only did I get a chance to learn the FEA software, but I also got to see design modifications that I had helped analyze and develop be put into production, which ultimately benefited the company.”

*For more information on student-assisted projects, contact John Roberts at 515-294-0932 or [jroberts@ciras.iastate.edu](mailto:jroberts@ciras.iastate.edu).*

## New CIRAS Advisory Council members



Scott Heemstra is corporate director of manufacturing at Diamond Vogel Paints in Orange City. Diamond Vogel manufactures paints and coatings.



Dan Nikkel is plant manager at Vermeer Manufacturing in Pella. Vermeer specializes in agricultural and underground machinery serving the irrigation, tree care, and utilities industries, to name a few.



Andy Hubbard is manager of Wood Door Manufacturing, specializing in the manufacturing, sales, and distribution of premium and custom grade wood doors. The company is located in Mason City.



Bruce Olson is materials manager at Midwest Industries in Ida Grove. Midwest manufactures utility trailers and hoist and dock products, in addition to its own line of implement attachments for tractors.



Carla Laughlin is the executive vice-president and controller at Hirsh Industries, located in Des Moines. Hirsh manufactures commercial file cabinets and steel shelving.



Mike Verdon is president of Trinity Fabricators. Located in New Albin, the company provides fabricated steel products and services, specializing in close tolerance high-definition plasma cutting and high-performance painting and powder coating.

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## Van Engelenhoven moves to Ames office



John Van Engelenhoven, CIRAS staff member, previously based in Newton, has relocated to the main CIRAS office in Ames. Van Engelenhoven's expertise is in engineering management; finite element analysis; Lean: VSM; material handling; plant layout/simulation; process design and improvement simulation and product development and testing.

Van Engelenhoven received his B.S. degree in structural engineering and an M.S. in civil engineering, both from Iowa State University. Prior to joining CIRAS in 1999, he was a chief engineer at TC/America in Hamel, Minnesota for five years, and then worked in a similar capacity at Shepard Niles in Montour Falls, New York for four years.

Van Engelenhoven also has experience as a product engineer, gained when he was employed by ACCO Babcock Inc. in Fairfield, Iowa.

## EDE

*Continued from page 4*

The EDE professional staff is working with faculty, corporate sites, and off-campus students to explore new ways to interact using the Internet. In 2002, a select number of courses were offered with an interactive real-time chat to allow distance students to ask instructors questions during the actual class time. Although there are software and firewall issues surrounding live interaction that need to be sorted out, EDE staff continues to look for innovative solutions.

EDE has also introduced other on-line services this year. Students are now able to enroll in courses using the secure on-line registration form located on the EDE Web site. Additionally, instructor and course evaluation forms are now posted online. EDE hopes that the convenience of the new evaluation process will enable more student feedback. Input from students is a key factor in helping the program improve and grow.

*For more information on EDE course offerings and to register, log on to [www.ede.iastate.edu](http://www.ede.iastate.edu); 800-854-1675.*

## Anderson Award to Berge



*Vice Provost Stanley Johnson (left), ISU Extension, presents the Lloyd Anderson plaque to Paul Berge.*

**P**aul E. Berge, industrial specialist at the Iowa Companies Assistance Program, won the Lloyd E. Anderson Superior Service to Industry Award this year. The presentation was made at the ISU Extension Services awards ceremony in October.

Berge's academic specialty and background is in steels and ferrous metallurgy, highly sought after by ISU service providers who work with Iowa companies. Berge interacts with 80 to 90 Iowa manufacturers yearly, conducting or coordinating more than 100 projects.

Lloyd E. Anderson, a well-known friend of Iowa industry, worked at CIRAS for 30 years. During his career, Anderson took on several responsibilities, from serving as the first director of the SBDC to interim CIRAS director from 1989 to 1992. Anderson retired from CIRAS in 1995.

## Kellogg leaves for NTU

Rebecca Kellogg resigned as director for Engineering Distance Education (EDE) in March to take up the position of academic director of the National Technological University, with academic offices in Minneapolis, Minnesota. Iowa State is affiliated with NTU, which is a consortium of 52 universities nationwide that delivers courses using various distance education technologies to industry engineers.

Kellogg joined EDE as director in fall 2000. During her tenure, she contributed to a broad range of initiatives that significantly increased enrollment in distance education courses. Kellogg also partnered with industry and university units to create innovative courses and new degree programs. CIRAS Director Ron Cox will serve as interim EDE director and Paul Jewell will manage day-to-day operations.

## ISU Extension awards

Three CIRAS staff members were honored by Iowa State University Extension Services at its recent awards ceremony held October 30, 2002 at Iowa State's Scheman Continuing Education Building.

- Don Brown was presented the meritorious service award, recognizing his leadership, dedication, and contributions to the ISU Extension mission.
- Tim Sullivan and Jill Euken were recognized for their contributions to the Industries of the Future Agriculture Core Team, which received the ISU Extension Achievement Educational Team Award.

Congratulations to all!

## Euken joins CIRAS



Jill Nichols Euken recently joined CIRAS as an industrial specialist for biobased products and bioenergy. She holds both B.S. and M.S. degrees from ISU and is a twenty-year veteran of ISU Extension. For the past five years, Jill has served ISU Extension as a value-added agriculture specialist in southwest Iowa, working closely with a regional rural development group called the Wallace Foundation for Rural Research and Development.

In 2002, Euken coordinated the Industries of the Future/Agriculture project for CIRAS and worked with Tim Sullivan, also of CIRAS, on a visioning and roadmapping process to develop a bioeconomy in Iowa.

In her new position at CIRAS, Euken will work closely with the Industries of the Future Advisory Committee, the ISU Office of Biorenewables Programs, Ames Lab, and the ISU College of Agriculture to implement the vision and roadmap. Her focus will be on promoting strong public/industry relationships and encouraging the growth of appropriate public policies, research and technical assistance services, and investment opportunities in biobased industries for Iowans.

*Euken is housed in the ISU Outreach Center in Lewis, Iowa. She can be reached at 712-769-2600 or [jeuken@iastate.edu](mailto:jeuken@iastate.edu).*

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Check out pages 6 and 7 for a historical CIRAS timeline.

## WebWatch: Quality is key

[www.ciras.iastate.edu](http://www.ciras.iastate.edu)

- How can Baldrige Quality Awards help your company compete more rigorously in the market? What can CIRAS do to help achieve the necessary criteria to qualify for this certification?
- Is your company planning to become ISO certified? What will it need to begin developing these capabilities?
- What is FMEA? How can it help your company identify and prevent product, service, and process failure before they occur?
- How can a root cause analysis prevent a problem from recurring?

For resources on these quality issues in manufacturing, log on to [www.ciras.iastate.edu](http://www.ciras.iastate.edu). Click on "Quality Management" to find information and a quick and easy way to contact CIRAS specialists who can help find solutions to your specific problem.

The screenshot shows the CIRAS website interface. At the top, the address bar displays "http://www.ciras.iastate.edu/quality/default-nev.asp". The website header includes the CIRAS logo and "IOWA STATE UNIVERSITY University Extension". A navigation menu contains links for Home, Excnls, History, Mfg in IA, Publications, Staff, and Contact Us. The main content area is titled "Quality Management" and features a photograph of three people in a meeting. Text on the page describes quality management as a method for managing resources to improve productivity and profitability. A sidebar on the left lists various business solutions and national initiatives. At the bottom, there is a footer with contact information and a copyright notice for 2002.

## Focus: Quality Management

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