

Adra 1998: New Company and Management, Total Dedication to Cadra

If you're like most Adra customers, you work for a successful company –perhaps even a market leader. You recognize the benefits of using “best of breed” tools for your business – which is why you use Cadra to meet your design, drafting, and NC programming needs. For you and the thousands of other Cadra users worldwide, the news couldn't

be better. Adra has spun off its Matrix product line into a separate company, MatrixOne, Inc., and returned to its roots as a dedicated CAD/CAM company. The Adra management team now

includes President James Stenzel, Vice President of Worldwide Sales Dan Doran, Vice President of Customer Services and Operations Scott Blais, and Vice President of Engineering Vin D'Amico (see related article for more biographical information). The management team has very clear goals in mind: to accelerate the development of Cadra; to strengthen customer relationships and create many new ones; and to establish Adra as the preeminent design/drafting vendor in the industry.

Adra's focus is precisely where it benefits customers the most – on putting significant resources into Cadra and on delivering mechanical design software which enables you to achieve a level of productivity that will consistently exceed expectations.

“Manufacturing companies have a huge need for design and drafting products today,” Adra President James Stenzel told *News & Views*, “and that's not just our opinion. That is the considered opinion of the trade press and analysts as well.” (For editor and analyst perspectives, see related articles on pages 2 and 7.) He continues, “Through our products, service, and support, we intend to fill the need for

Adra's goal is to deliver maximum design productivity to customers.

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European Machine Maker Sews Up the Market

Attributes productivity gains and market leadership position to Cadra software

(Lindau, Germany) – Designing machinery in today's world is no small order. Machines for virtually every industry need to have a small footprint... be extraordinarily reliable... yet be relatively easy to operate and maintain. To accomplish this task, machine makers need to be both agile and innovative.

A case in point is Lindauer DORNIER GmbH of Germany. This company has been on the cutting edge of machine design in a number of industries, most notably textiles, for nearly 50 years. And its efforts have paid off. Today, with 1500 employees and sales of \$290 million U.S.D., Lindauer DORNIER is Germany's leading weaving machinery manufacturer. The company is an innovator and uses Cadra software from Adra Systems, Inc. to stay on the cutting edge of machine design.

Lindauer DORNIER has never been at a loss for ideas. The company introduced the textile industry's first shuttleless rapier style

weaving machine, with positive tip-to-tip transfer of the filling yarn in the middle. This product helped to propel the company to its current leadership position. It followed up that innovation with an air-jet weaving machine

specifically suited to weaving dense fabrics,



DORNIER

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Meet the Management Team

Setting the standard for productivity in mechanical CAD

Adra Systems' is firmly committed to the mechanical design marketplace as illustrated by the appointment of a new senior management team.



JAMES STENZEL
PRESIDENT

Heading up the company is Adra founder James Stenzel, a seasoned software industry executive who

has a track record of recognizing market opportunities and building successful companies to meet customer needs. His mission is to further solidify Adra's position as a world-class CAD/CAM vendor. He has successfully launched and mainstreamed several companies in addition to Adra Systems including Keyfile Corporation.

DANIEL P. DORAN
VICE PRESIDENT
WORLDWIDE SALES

Vice President of Worldwide Sales Dan Doran is an expert at



building high caliber sales organizations. He was a key leader of the sales organizations at IBM, Lotus, Keyfile Corp., and Legent Corp. (now Computer Associates). He built and managed the highly successful sales organization that launched Lotus Notes.

In his new role, Doran is focused on expanding the breadth and scope of the Adra sales organization worldwide and enhancing customer satisfaction.

SCOTT R. BLAIS
VICE PRESIDENT CUSTOMER SERVICES
AND OPERATIONS

Scott Blais is focused on the post-sales experience. Blais has responsibility for Adra's customer service and support organizations and is charged with building customer relationships and maintaining them over the long term. He brings nearly 20 years of expertise in customer communications, customer service, and quality assurance to his position and has served on the staffs of



leading companies including Cimline and Keyfile Corporation.

VINCENT E. D'AMICO
VICE PRESIDENT ENGINEERING

Vice President of Engineering Vin D'Amico is responsible for taking Cadra to an even higher level of maturity and sophistication. The

emphasis will continue to be on producing "best of breed" mechanical design and manufacturing software that delivers tangible business benefits. D'Amico draws on 22 years of experience with high profile companies such as Wang Laboratories and FTP Software.



New team focused on delivering customer productivity

The new officers bring to Adra years of experience in driving software companies to market leadership positions. "We want to help customers gain the maximum business benefit from Cadra," says Adra President James Stenzel.

CIMdata: Bullish on Adra

CIMdata of Wellesley, Massachusetts is one of the world's leading analyst organizations specializing in CAD/CAM, PDM, and allied technologies. Julius Dorfman, Chairman



Julius Dorfman

of CIMdata, Inc., recently gave us his assessment of the new Adra Systems, and of the position Cadra software in the marketplace: "As an independent company, Adra Sys-

tems has the advantage of restarting with a strong customer base and an international presence," says Dorfman.

"With an organization fully devoted to Cadra development and sales, the company has the potential of gaining significant market position."

"Cadra could prove to be a leading competitor in the 2D design/drafting and NC market."

—Julius Dorfman, *Chairman, CIMdata, Inc., Wellesley, MA*

"Cadra Design Drafting is a very complete and reliable product used by thousands of designers and drafters for many years in many countries. The product has demonstrated its speed and ease of use as well as its capability in providing the drafting application for a number of high-end CAD/CAM systems with cost and time savings.

"With strong new marketing support, Cadra could prove to be a leading competitor in the 2D design/drafting and NC market," Dorfman said.

Cadra: A Closer Look

Fast, easy-to-use, and extraordinarily productive

Have you looked at Cadra software lately? It delivers high levels of productivity, product quality, and efficiency to the world's leading manufacturing companies. Cadra lets you:

- Create and manipulate 2D designs
- Produce industry-standard engineering drawings
- Design electrical control systems

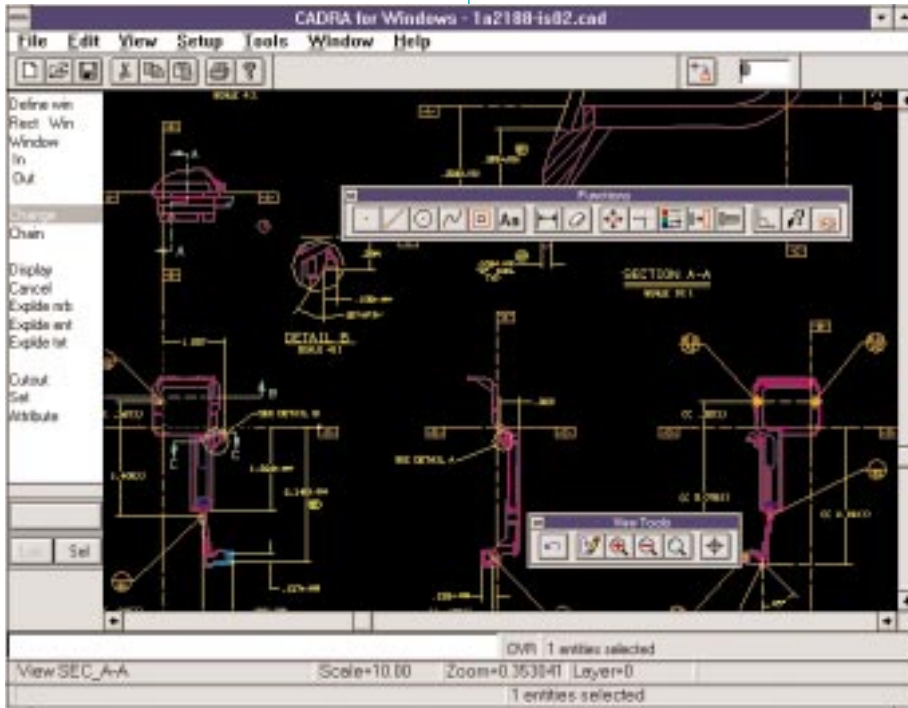
to design products plus the specialized machines to produce them, at much less cost and with greater ease than competitive products.

CORE APPLICATIONS

- Cadra Design Drafting enables users to construct and manipulate designs and generate industry stan-

SOFTWARE OPTIONS

- Adra Direct Translator (ADT) is a bi-directional translator used with CADAM. ADT enables you to migrate data from CADAM to Cadra while preserving legacy data.
- Adra Open Access is a developer's toolkit which enables programmers to build new capabilities into Cadra and to create links between Cadra and in-house or third-party software applications.
- Catia Direct Translator lets you bring Catia engineering data into the Cadra environment.
- Cadra E delivers electrical control system design capabilities. Created for the electro-mechanical design market, this software also facilitates process control system design.
- Cadra Raster is a raster-to-vector editing tool which enables you to convert conventional paper drawings into Cadra files.



Floating tool palettes are one of the many features that make Cadra a fast design drafting tool.

- Detail and document 3D solid models (using Cadra's translators and interfaces to third-party solid modeling programs)
 - Program NC machine tools
- Cadra is available for Windows 95, Windows NT, and UNIX. It enables you



Cadra supports a number of international drafting standards including ANSI, ISO, and JIS.

to design products quickly and easily. Customers rave about the speed with which Cadra is able to manipulate machine designs containing hundreds or thousands of individual parts. The Cadra integration with SolidWorks provides tight integration with one of the leading solid modelers on the market.

- Cadra NC provides a smooth transition from design to manufacturing, enabling programming of a variety of 2-axis through 5-axis NC machine tools.



Many Adra customers use Cadra to detail solid models created with other programs such as SolidWorks.

- Cadra View enables users to share Cadra engineering drawings without having Cadra software installed on their computers – not only in the engineering organization, but also throughout the company. Annotation capabilities help enhance design quality.
- Computervision Direct Translator (CDT) lets you bring Computervision engineering data into the Cadra environment.

European Textile Machine Maker Sews Up the Market

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fabrics for terry and jacquard weaving. In parallel, the company has also branched out into other industries, designing dryers for paper and building materials (paperboard and gypsum board), and film stretching machines used to produce photographic film, audio- and videotapes. The machines produced by Lindauer DORNIER are quite sophisticated. Each one typically has 20,000 components, and 120,000 drawings are required to document it. Lindauer DORNIER's 80 engineers and drafters are kept busy on a continual basis upgrading existing products and exploring ideas for new machines.

"High-end" CAD systems did not live up to Lindauer's expectations.

The company's first steps into CAD/CAM came more than ten years ago, when it purchased a 3D CAD system. While the system did deliver some powerful modeling capabilities, it was not well suited to drawing production. Then Lindauer DORNIER discovered Cadra software from Adra Systems, Inc.— and it has never looked back.

"Not long after installation, we discovered that our drafters and engineers were spending more and more time with Cadra and less time with our 3D CAD system," says Gerd Koehler, assistant director of technical data systems for Lindauer DORNIER. "High quality, dimensioned manufacturing drawings are what we need to build our products, and our people found they could create them from scratch in Cadra much more quickly than by using section cuts from the 3D system as source. Over the years, we purchased more and more Cadra seats. Today, we have reached the point where we have 75 Cadra seats and only four 3D CAD seats."

Cadra productivity gains as high as 20 to 1!

"Using Cadra Design Drafting, Lindauer DORNIER produces manufacturing drawings three times faster than manual methods and twice as fast as its 3D CAD system. But the benefits of Cadra extend far beyond those improvements alone. Using the Cadra Autogeometry macro programming language, Lindauer DORNIER has been able to automate many repetitive drawing tasks and realize productivity gains as high as 20 to 1.

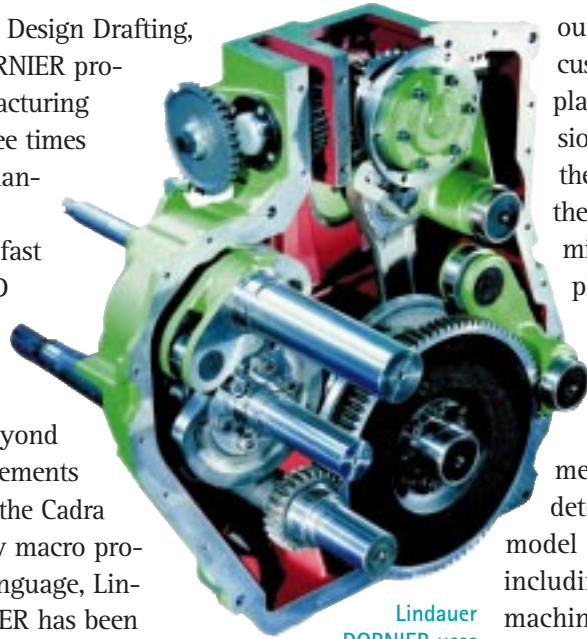
It is these kinds of bottom-line business metrics which are enabling the company to retain its market leadership position.

macro language," Koehler says. "For example, with each proposal we provide

our prospects and customers with a plan view dimensioned drawing of the machine that they can use to determine where they will place it in their factory. We wrote a macro that provides our people with a series of menu choices that determine the precise model of machine, including whether the machine is rapier or air-jet style, type of electronic control, number of yarn colors handled by the machine, etc. After

they have selected the menu choices that define the machine type, the macro program automatically produces the drawing in a matter of minutes. This saves several hours that were previously required to produce these drawings."

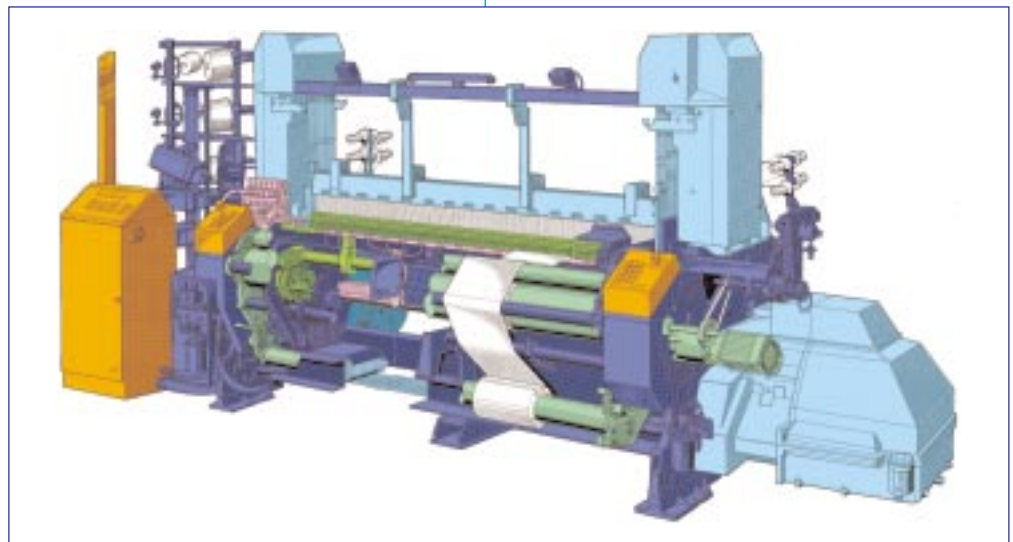
Another Cadra macro used by Lindauer automatically produces routing instructions. Koehler says that in the



Lindauer DORNIER uses Cadra to design weaving machinery for a number of industries including textiles.

"Cadra has played a significant role in our advance to the very top of this industry."

"Our most dramatic improvements have come from macros that we have written using Cadra's Autogeometry



past, it took a person four hours every day to call up and print the 200 drawings that were typically needed for the next day's production. "Our engineers wrote a macro for our enterprise resources system [ERP]," he explains, "that produces a file containing the part numbers scheduled to be produced the next day. The macro reads this file and prints out all of the drawings needed to build these parts during the night when the server and printers would not otherwise be used. So what used to take us four hours every day now takes us no time at all."

Time savings also come from a Cadra macro that automatically designs the cams in each weaving machine that control basic machine movements. "We often need to design cams for new machine models or custom machines," Koehler says. "It used to take one of our engineers a full day to design each one. Then, we wrote a FORTRAN program which accepts as input the basic design parameters for the cam and outputs a Cadra Host File containing a set of points that describes its profile. The FORTRAN program then calls a Cadra macro that reads these points, generates a b-spline around them, and produces a complete drawing of the cam. The entire process can be completed in 15 to 20 minutes for a 95% time savings."

Lindauer DORNIER engineers have also developed macros that automate many simpler day-to-day CAD operations. Most of these macros are mapped to function keys, Koehler says. "That means that if a user wants to place a screw in a drawing, he hits a function key and brings up our complete screw library. Then he

clicks on the appropriate screw to bring it into the drawing." Koehler continues, "Other, similar macros can be accessed by a single keystroke to automate common tasks such as deleting the duplicate lines in a drawing. Our people save a few minutes every time they use one of these macros and they use them thousands of times every day. They are one of the main reasons why our overall drawing production has doubled since we fully implemented Cadra."

A short learning curve is another one of the ways Lindauer has been increasing its productivity over the

"Our overall drawing production has more than doubled since we fully implemented Cadra."

years. "We find that it takes young people joining our firm from high school just two days to become productive with Cadra," reports Koehler. "Older people who are less familiar with computers take just a little longer."

"Another nice thing about Cadra is that it is so intuitive. We have some engineers who use the program on only an occasional basis, and they are able to quickly pick it up again when they come back to it after a few weeks away."

"Clear and accurate drawings" key to Lindauer's success

"One of the most important competitive factors in



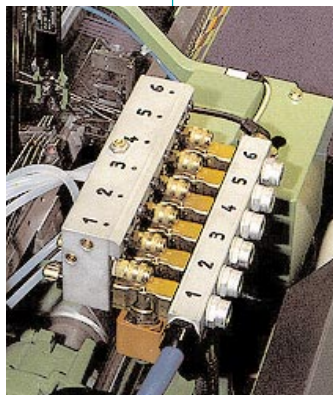
Finished textiles emerge from a weaving machine produced by Lindauer DORNIER.

the textile industry is the ability to produce clear and accurate drawings both for custom designs and new products,"

Koehler says. "By enabling us to produce high-quality drawings at a considerably faster speed than our competitors, Cadra has played a significant role in our

advance to the very top of this industry. Rather than resting on our laurels, we will soon be building on our gains by entering the last of our 120,000 current drawings in Cadra and installing a wide area network that will provide access to this digital library to all of our locations."

A note from Adra President James Stenzel:
Lindauer DORNIER is posting major gains in design and manufacturing productivity. Their experience, like that of many Adra customers worldwide, underscores Cadra's great effectiveness as a productivity tool. At Adra, we are firmly committed to helping companies like Lindauer DORNIER compete and win in a global economy.



Machines designed by Lindauer Dornier often contain up to 20,000 components.

Adra 1998: New Company and Management, Total Dedication to CADRA

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mechanical design software better than any other company in the industry.”

“Our relationship with our customers is one of partnership,” adds Dan Doran, vice president of worldwide sales. “We are increasing the size of our sales force, including indirect channels such as VARs and distributors, so that we can better meet our customers’ needs. We want to know all of our customers on a first-name basis and work with them to maximize their experience with Cadra. We will deliver a level of performance above their expectations.”

“Something else to bear in mind,” adds Adra Vice President of Customer Services and Operations Scott Blais, “is that the customer experience doesn’t end after a sale has

been made. We have a track record of going above and beyond what would normally be expected of a CAD vendor – and you can look for that to continue. To get maximum productivity from our Cadra products, customers need top-notch support and training, often customized to their needs. A significant part of my role is developing support and training products to ensure that our customers get the most out of Cadra.”

Adra is working to further increase the productivity of Cadra – and to make every product the most useful for our customers. On page 3, you’ll find details about our Cadra offerings. There may be some products and services that are new to you, so check our new Web site (www.adra.com) or call us for more information.

German User Group Gathers in Munich

Elects Klaus Wocken of Braun AG as President

An informal gathering of several dozen Cadra users which took place in Munich, Germany recently has resulted in the creation of a new Cadra Users Group. The meeting started out as a feedback session arranged by Jochen Heintze, Adra’s Manager of European Strategic Programs and Professional Services. But the gathering was so productive that by the time it was over users had formally launched a Cadra users group and elected Klaus Wocken of Braun AG as their first president.

During the meeting, users met several members of the new Adra man-

agement team including President Jim Stenzel and Vice President of Worldwide Sales Dan Doran... learned about the company’s future direction... and heard presentations from a number of third parties who offer products or services which complement Cadra. “The top objective was getting customer feedback and customer input,” Heintze noted. Based on that first meeting, officers were elected – and a lot was learned. “The interaction which occurs when Cadra users get together is immensely valuable to users and to us as well,” adds VP Sales Doran. “User meetings give us a consensus of

what users are thinking. These kinds of get togethers generate a lot of new ideas.”

For more information on Cadra user groups, visit Adra on the Web at www.adra.com. If you are fluent in German, you can also visit the Web site for the Cadra Users Group of Germany at www.cadra.com.



Klaus Wocken of Braun AG was recently elected President of the new Cadra Users Group of Germany. The group has already launched a home page on the Web to make it easier to communicate and share information with members.

In addition to this newsletter, a good source of information about Adra is our new Web site.

Bookmark

www.adra.com.

Here, you’ll find detailed information about the company, our products, and our worldwide customer base.

Press and Analysts: 2D Is Here To Stay

Despite the publicity surrounding today's solid modeling systems, the consensus among industry analysts and leading editors is that 2D design and drafting remains vitally important to today's manufacturing companies. Here is what the experts are saying:



ROBERT MILLS
EDITOR
COMPUTER-AIDED
ENGINEERING
CLEVELAND, OH

"Drafting and the need for 2D drawings will not disappear in the coming

years. Drawings are too much of a standard way of communicating engineering information for them to be replaced anytime soon.

"But computer-aided drafting will undergo vast changes in the near future. We'll move . . . to software that greatly automates much of the task. Tomorrow's standard drafting software will allow users to work with intelligent objects rather than

traditional drawing entities such as lines, arcs, and circles. This advance will increase user productivity and will help users make changes and updates faster than ever.

"Another critical area will be the ability to create finished drawings from 3D models. This task has proved to be much more complex than first imagined, but tomorrow's drafting programs will be experts at interpreting 3D models to greatly automate



the creation of professional drawings."

PAUL DVORAK
SENIOR EDITOR
MACHINE DESIGN
CLEVELAND, OH

"Solid modeling has its place, but

in many instances, such as simple sheet metal parts, solids can be excessive. Eventually somebody has to produce a drawing showing critical dimensions and tolerances so manufacturers know what to build and those in QA know what to check."

When analyzing a prospective design/drafting package Dvorak suggests looking for software that will:

- Allow customizing so users can access the most-used commands first, thus speeding production
- Automate frequently repeated steps
- Connect to the Internet for collaborative review and approvals, and to gather information. And,
- Interface with other software for easy transfer of information.

BRUCE JENKINS
VICE PRESIDENT
DARATECH
CAMBRIDGE, MA

"In the rush by vendors and users to solid modeling, sometimes the importance of production-level 2D drafting has been forgotten. This remains an essential output of the product development process and is likely to remain so, and it is difficult to predict how the situation could be otherwise in the foreseeable future."



VISIT ADRA ON THE WEB: www.adra.com

Our Web site offers:

- Product descriptions, uses, and technical specifications
- Real world examples of Cadra productivity
- Software updates
- Training schedules

You'll also learn about Cadra customers such as Braun, Goodyear, Allied Signal, Polaroid, Shimano, Westinghouse, and many more — all of whom have chosen Cadra for mechanical design.



Pure PRODUCTIVITY

Adra Systems, Inc. is a leading world-wide provider of mechanical CAD/CAM solutions and services. Since 1983 we have successfully helped thousands of mechanical manufacturing companies in North America, Europe, Asia, and the Pacific Rim to achieve significant improvements in design productivity and product quality.

The product family which delivers these business benefits is called Cadra. The Cadra family of CAD/CAM products includes Cadra Design Drafting, an extraordinarily fast and highly productive mechanical design documentation tool; Cadra MC, a comprehensive 2 through 5 axis MC programming application; CadraWorks, an integrated drafting production system and 3D solid modeler; and Cadra II, an electrical control system design application. The Cadra family is created out of an extensive collection of translators and software options which make it a seamless fit into today's multi-platform and multi-application organizations.

Companies all around the world rely on Cadra to help them design and manufacture a wide range of mechanical parts, products, and machinery. Cadra has played a role in the development of a number of high profile projects including the Canadian oil pipeline... the Sea Wolf, the U.S. Navy's next-generation attack submarine... and the sophisticated baggage handling systems used at some of the world's busiest air terminals including London's Heathrow.

We invite you to spend a few minutes here on our Web site to learn more about our company, our products, and the world-class customers who use them. Afterwards, take a few moments to consider what Cadra can do for you and your company. If you're looking for "best of breed" tools for 2D mechanical design and manufacturing, you've come to the right place!

HOW TO CONTACT US

News & Views is an informational newsletter published quarterly for Adra customers. To get on the mailing list or to submit information or artwork for publication, contact us via phone, fax, E-mail, or the World Wide Web.



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