

INFOIMAGING@Kodak

COMMERCIAL IMAGING POSITION PAPER AUTUMN 2002



Right now, the imaging industry is undergoing dramatic and seismic shifts as a result of advancements in technology. Specifically, the convergence of image science and information technology has created a new industry in which Kodak competes—an industry called infoimaging.

This extraordinary technological development subsequently has opened a world of possibility and opportunity for Kodak and its Commercial Imaging Group. The convergence of image science and information technology has greatly expanded the opportunities for us to connect with and serve our commercial customers.

But what will truly separate companies that succeed in this new industry from those that fail will be their willingness to view their business through an infoimaging lens vs. seeing their business as they always have.

For Kodak and its Commercial Imaging Group, infoimaging represents an enormous opportunity to strengthen our relationships with commercial customers—a chance to reinforce old bonds, initiate new ones and forge future linkages.

We see the possibilities—and are seizing the opportunities.

BEFORE INFOIMAGING...

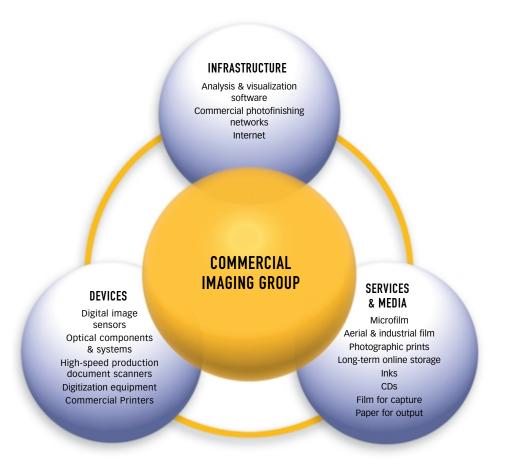
Until recently, the ways we served our commercial customers was primarily through image capture and process technologies. In other words, Kodak provided value to customers by offering the industry's best capture and process technologies, but customers often turned to other vendors for other services, such as the extraction of specific information from images to gain a greater understanding of them.

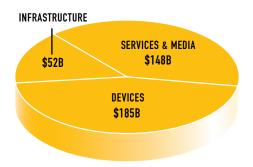
But infoimaging—along with Kodak's commitment to expand into a broader base of commercial markets—is changing all that.

In the infoimaging industry, our relationships with customers now go way beyond simply image capture and processing. In fact, Kodak provides many products and services that push beyond the borders of the traditional imaging industry, enabling Kodak to become the premier end-to-end image information solutions provider. Not only can customers



In addition to Kodak Commercial's government business, we are also providing infoimaging solutions to companies in the agriculture, mining, environmental and education industries, just to name a few.





The \$385 billion infoimaging pie slices into three big pieces. This trio of interrelated sectors—devices, infrastructure and services/media—connects to form the infoimaging market.

now rely on Kodak to acquire the images they need, but they also can rely on Kodak's technology to analyze, digitize, print, organize and distribute the information in those images—as well as combine that image information with other data.

Kodak's new commercial offerings have enabled us to significantly expand our customer base. In addition to our government business, Kodak is providing infoimaging solutions to companies in the agriculture, mining, environmental and education industries, just to name a few.

Kodak's Commercial Imaging Group participates in all three market categories that make up the \$385 billion infoimaging industry: devices, infrastructure and services and media. This breadth of knowledge and products—combined with our partnerships with firms such as integrators and software providers—enables us to truly offer an end-to-end solution.

- Devices are products that capture, view and digitize images. That's digital image sensors, optical components and systems, high-speed production document scanners, digitization equipment and commercial printers, to name just a few.
- Infrastructure enables images to be processed, stored, edited, transformed and transported. That's analysis and visualization software, commercial photofinishing networks, as well as the Internet.
- Services and media allow images to be shared and preserved. That's microfilm, aerial and industrial film, photographic prints, long-term online storage, inks, CDs and, of course, film for capture and paper for output.



The Commercial Imaging Group boasts some of the most exciting and global developments in the infoimaging industry, ranging from census counts to environmental protection to crop management.

INFOIMAGING IN ACTION

The Commercial Imaging Group boasts some of the most exciting and global developments in the infoimaging industry, ranging from census counts to environmental protection to crop management.



OIL SPILL MONITORING

The European Space Agency has deployed an infoimaging application using Kodak's IDL (Interactive Data Language) analysis and visualization software to help track and monitor oil spills. IDL software was developed by Research Systems Inc., a Colorado company acquired by Kodak's Commercial and Governmental Systems business in 2000. To detect an oil spill, a remote sensing device attached to a satellite gathers data on a specific body of water. The data is downloaded onto a computer, and Kodak's IDL software performs an analysis and creates a calibrated image of the area of water in question. Because clean water has different properties than an oil slick, researchers can visually interpret the image and discern if oil is present. An "oil spill alarm" fax, which contains all operative information to locate the polluter, is sent to local authorities, who can then verify the offense by boat or plane and produce an oil spill report identifying the polluter.



CENSUS DIGITIZATION

Infoimaging solutions from Kodak's Document Imaging business have helped more than 30 countries worldwide—including the United States and the United Kingdom—significantly reduce the error rate, time and complexity associated with census counts. Kodak's high-speed production document scanners have been

deployed by a number of countries to digitize the census forms filled out by residents. Then, pattern-recognition software produced by a third party analyzes the digital data and counts the information electronically—reducing the amount of time it would take to count the paper forms by hand. Additionally, countries such as the United States, Australia and the United Kingdom have embarked on processes by which completed census forms are preserved for future generations by converting the forms to Kodak archival microfilm using Kodak Digital Science Document Archive Writers.



CROP MONITORING & MANAGEMENT

Kodak's Commercial and Governmental Systems business is helping Timbercorp, Australia's leading agribusiness investment manager, keep an eye on valuable bluegum trees with the use of advanced aerial cameras and color infrared film. Highquality aerial photographs of Timbercorp's plantations, captured by a Leica Systems aerial camera on Kodak Aerochrome III Color Infrared Film 1443, can show where tree stocking is below expectations and identify areas that need to be sprayed due to excessive weed growth. Additionally, when analyzed with specialized software, the aerial images allow Timbercorp to automatically inventory its entire bluegum crop. The aerial photographs provide greater detail than traditional blackand-white images and allow Timbercorp to reduce the cost and time associated with manual inspections and spot testing.





MORE EFFICIENT DOCUMENT MANAGEMENT

Similar to the census count application, the San Diego County Assessor/Recorder/ County Clerk (ARCC) is using infoimaging technologies from Kodak's Document Imaging business to transform its paperbased filing and archiving system to a digital system with microfilm archiving. ARCC is required by law to keep a permanent copy of county property records and official documents—parcel maps, deeds, judgments and other official property records. Approximately 800,000 property documents are routed through the department annually, and in a paper-based system, this information was difficult to manage and public accessibility was limited. To solve these problems, ARCC deployed a Kodak highspeed production document scanner to scan, index and rescan nearly 26,000 images per day. These digital images are then stored in an optical disk library and are imported to ARCC's local area network for network-wide access. During the night, the images are burned onto compact disks. For official archival records, ARCC uses the Kodak Digital Science Document Archive Writer 4800 to convert the digital images to microfilm.

INFOIMAGING'S IMPACT

These examples are but a few of the many infoimaging success stories from the Kodak Commercial Imaging Group. Each of these examples illustrates how Kodak can strengthen its bonds with customers and create new opportunities for growth for itself and for customers. The proof is in the results:

> Thanks to Kodak's IDL software, oil spills can be electronically monitored 24 hours a day, whereas in the past, authorities could only monitor areas via visual inspection and usually only during the day. In fact, data processed by Kodak's IDL software was instrumental in the prosecution of a polluter in France.

- In Australia, Kodak Aerochrome III
 Color Infrared Film 1443 is helping
 Timbercorp to assess field conditions
 more accurately than ever before
 due to the ability to quickly identify
 vegetation and water saturation. Better
 information about the crop allows
 Timbercorp to make better and more
 informed crop-management decisions.
- > The digitization of census forms has significantly reduced the amount of time needed to count populations. For its 1997 census, Turkey deployed infoimaging technologies and was able to complete its population count within 85 days—compared with three years for its 1990 census. Additionally, digitizing census forms increases the accuracy of a population count. In fact, the error rate for most digital systems is less than 1 percent.

Infoimaging technology has significantly improved the efficiency, usability and organization of files at ARCC in San Diego. The infoimaging-based archiving and filing system enables information to be available to the public within 24 hours of scanning vs. the typical two-week delay for documents to be available in the paper-based system. And county residents can now access information at five local offices because the images are on the ARCC's local area network, rather than having to drive as far as 40 miles to a single central location. In addition, the ARCC can sell packages of recorded documents saved on the Internet or CD to companies on a daily basis, which generates new revenue for the department.



THE PATH TO GROWTH

Without a doubt, our company, our industry and our jobs are changing. Infoimaging is forcing us to look at how we serve customers in new ways. Technology is opening the doors to new products and services that we never before thought possible. In other words, what was once thought to be impossible and impractical is now very probable and necessary.

So how do we communicate these exciting opportunities to each other within Kodak and to our customers? It's very simple, really, and it goes like this:

OUR INDUSTRY

Infoimaging is the industry in which Kodak competes. It is a \$385 billion industry created by the convergence of image science and information technology.

Imagelini Liquid Crystal Displays Imaging Services Kodak Remote Sensing **OBJECTIVES** Expand Benefits **Develop New Businesses** of Film in New Markets WE COMPETE -INFOIMAGING Facilitate Ease of Use in Digital Drive Image Output in All Forms Ink & Media Wide-format i200 Series Scanner Inkjet Printing UNIT STRATEGY

OUR STRATEGY FOR GROWTH

In order to grow in this new industry, Kodak has identified four growth strategies that we call "The Critical Few." They are:

- 1. Expand the benefits of film
- 2. Drive output across all of our businesses
- 3. Make digital easier to use for both commercial customers and consumers
- 4. Develop new businesses in new markets

OUR CUSTOMER VALUE PROPOSITION

We communicate the benefits of our products and services to our customers through our taglines—"Take Pictures.

Further." and "Innovation You Can Count On."

For us, we can no longer view the Commercial Imaging Group as limited to capture and process but instead as the premier provider of end-to-end image information solutions.

We see the possibilities and are seizing the opportunities.

For more information about infoimaging, go to: www.kodak.com/go/infoimaging

