

FlashPix™ format **and Architecture**

White Paper



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June 17, 1996

Bradium Exhibit 2051

The *FlashPix*[™] format will be defined in a specification and a test suite, developed and published by Eastman Kodak Company in collaboration with Hewlett-Packard Company, Live Picture Inc. and Microsoft Corporation. Only products that meet the specification and pass the test suite may use the *FlashPix* file format name.

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Introduction

Starting Christmas 1996, people will find it easier and more fun to use and share pictures on their current home computers. They'll discover ways to take pictures further, using "smart" applications and peripherals that make digital imaging irresistible for everyday computer users and more productive for experienced image users. The new capabilities are the result of a completely new philosophy of digital imaging introduced on June 3, 1996.

The purpose of this White Paper is to provide an overview of the FlashPix™ architecture for software developers, analysts, business managers, product marketing managers and other people who track important developments in imaging technology. It is organized into two parts:

- *An **executive summary** (pp. 4-15) describes the initiative, the needs it addresses, how it developed and the marketing opportunities it creates.*
- *A **ten-minute technical tour** (pp. 16-27) provides a technology overview of the FlashPix imaging model and the features of the format.*

The Philosophy of *FlashPix* technology

–Executive Summary

FlashPix technology is based on a new philosophy of what digital imaging should be. For everyday computer users, it will make using digital pictures practical and fun, easy and straightforward, without requiring expensive computer hardware upgrades for hard drives or processors, or increases in RAM. For existing digital imaging users, it will mean higher productivity and new capabilities for collaborating with colleagues and customers on-line. In fact, the *FlashPix* architecture represents the first unified approach to serving a full spectrum of digital imaging applications.

This new approach will drive the development of “smart” products and services that take the frustration and guesswork out of digital imaging. Images in *FlashPix*-optimized applications will burst on-screen, transform instantly when edited, move rapidly over phone lines and look great coming off the printer. Users won’t need high-powered computers, or esoteric software applications that require a degree in graphics and computer science, or lots of time to wait as their images slowly paint on screen.

Eastman Kodak Company collaborated with **Hewlett-Packard Company**, **Live Picture, Inc.** and **Microsoft Corporation** to develop the *FlashPix* architecture and the new image format that serves as its centerpiece. All four companies contributed key technologies. In addition, companies such as **Apple**, **Canon**, **IBM** and **Intel** provided valuable technical feedback. Kodak owns the *FlashPix* format specification, reference implementation and interoperability test suite. Only products that meet the specification and pass the test suite to be published by Kodak may use the *FlashPix* file format name. The *FlashPix* format specification will be open and available to all developers, with tools to help them incorporate its features to meet the needs of their customers.

The *FlashPix* architecture doesn’t change the fact that representing high-quality color images electronically generates large data files compared to text. But it recognizes that most users don’t need most of that data most of the time. Just as smart travelers don’t load a moving van for a weekend at the beach, *FlashPix*-optimized applications will automatically process only the data each activity needs. *FlashPix* images offer multiple resolution levels, and edits are applied only to the specific areas of an image being changed.

The *FlashPix* architecture also lets people use the same image any number of ways, without processing or storing large files each time. Multiple views of an image can be stored without copying the image data. The new file stores the data that defines the unique view and is then linked to the file containing the original image data — so the image data file need not be duplicated, and the full-resolution image file is only processed when it's needed, usually for high-quality output. This capability takes the *FlashPix* architecture beyond software and hardware products, and opens up new possibilities for on-line image sharing, network image services and “while-you-wait” imaging kiosks.

FlashPix technology creates a new kind of digital imaging.



- ***It's easy.*** The *FlashPix* experience is intuitive, so users don't need to learn complex imaging technology and terms.
- ***It's fast.*** Users can work with large image files easily — opening, displaying and editing them rapidly, and seeing results immediately.
- ***No upgrades required.*** The CPU power and memory of a standard multimedia PC is all users need to get the full benefit of *FlashPix*-optimized applications.
- ***It plays well.*** The *FlashPix* format provides exceptional interoperability, functioning as a universal link between computers, software and peripherals.
- ***It prints accurately.*** People get the results they expect when printing, with no surprises in image quality or color.
- ***It's more fun.*** Developers will use *FlashPix* technology to create products that combine the fun of pictures with the convenience of today's word-processing and e-mail applications.

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