

## Introduction

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On October 31, 2001, Kodak announced the KODAK Image Access Standard for Retail Digital Systems. This standard will provide solution developers with an easy means to create products that are fully compatible across Kodak's retail digital equipment and software portfolio.

The KODAK Image Access Standard is a single network interface specification for all Kodak's Retail Digital Systems. This includes current and future kiosks from Kodak, digital workstations and digital mini-lab systems using KODAK DLS Software.

Two KODAK Image Access Software Development Kits will be available – a Client SDK and a Server SDK. The SDKs will provide developers the ability to utilize Kodak's Retail Digital Systems as on-ramps and off-ramps to remote image archives, Internet photo systems, and specialized in-store applications

The KODAK Image Access Standard is a broad-based framework providing the business-to-business interface that enables developers to create consumer-to-business applications for exchanging photofinishing, image archive, and fulfillment instruction data. It uses widely accepted standards for data formatting (such as SOAP, XML) and connectivity (such as TCP/IP and HTTP).

## Applicability

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This standard applies whenever a digital photographic fulfillment product and/or system from Kodak is part of a networked environment. This standard provides the connectivity layering required for image transmission across Kodak offerings:

- Between a Kodak offering and a third party digital product and/or system offering.
- Between a Kodak offering and an Internet Web Service.



## Description

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This standard for systems from Kodak is based upon the following industry standards to establish this image transmission connectivity interface standard from Kodak in the client/server environment:

- Communications Protocol: TCP/IP
- Content Transfer Protocol: SOAP, XML, HTTP
- API Platform Operating Systems:
  - Client Side: WINDOWS 95/98/NT/2000
  - Server Side: WINDOWS NT
- Customer Order Content: Customer Order Specification (COS).
- Image Input Formats: EXIF-JPEG, Standard JFIF-JPEG Tiff, PHOTO CD, BMP, FLASHPIX
- Image Output Format: JPEG
- Web Server Environment: Apache Tomcat 3.2

## Operations

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The design of the interface utilizes a client-server system. An end user uses a client application to communicate with a Web server at a fulfillment or archive system. The form of communication is requests from the client to the server and responses from the Web server back to the client. The request/reply pairs are formatted in SOAP and transmitted in HTTP.

## Approach

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In the client/server environment, this systems standard from Kodak is implemented through connectivity for transmission of images bundled as a customer order for image archival storage or for order fulfillment.

Kodak provides a client-side and server side SDK and full documentation for software application development to utilize the KODAK Image Access Standard.



## **KODAK Image Access Standard Client SDK Software Development Environments**

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- JAVA™ 2 Developer's Kit (JDK) Version 1.3.1
- MICROSOFT Visual C++ 6.0

## **KODAK Image Access Standard Client SDK Components**

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- KODAK Image Access Client SDK CD
- KODAK Image Access Client SDK Release Notes
- KODAK Image Access Client SDK Developer's Guide
- KODAK Image Access Client SDK Getting Started Guide
- KODAK Image Access Standard End User License Agreement
- KODAK Image Access Standard Overview
- KODAK Image Access Client SDK Document Map
- KODAK COS SDK Version 2.6
- KODAK DLS System Management Software 2.0 LA
- KODAK DLS System Management Software 2.0 LA PC Configuration Instructions
- Sample COS file
- 20 - KODAK Image Access Enabling Software / for DLS (to update software at DLS installation sites)

## **KODAK Image Access Standard Client SDK Minimum System Requirements for Development**

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- WINDOWS NT 4 with service pack 5
- 128 MB RAM
- 16 MB available disk space for JRE
- 2 MB of available disk space for KODAK Image Access Standard library installation
- Sufficient disk space available to store retrieved images of various sizes and quantities
- JRE 1.3.1 or higher
- COS SDK Version 2.6
- CD-ROM drive

Internet/LAN access to a KODAK Image Access Standard server and KODAK DLS Software 2.0 LA with KODAK Image Access Enabling Software / for DLS Software 2.0 LA installed on a separate PC as specified on the configuration document.



## **KODAK Image Access Standard Client – Minimum System Requirements for Deployment**

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- Microsoft Windows NT 4 Service Pack 5 or higher, WINDOWS 95, WINDOWS 98, WINDOWS 2000
- 64 MB RAM
- Sufficient disk space available to store retrieved images of various sizes and quantities
- JRE 1.3.1 or higher
- Internet/LAN access to a KODAK Image Access Standard server and KODAK DLS Software 2.0 LA with KODAK Image Access Enabling Software / for DLS Software 2.0 LA installed

## **KODAK Image Access Standard Server SDK Software Development Environments**

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- JAVA™ 2 Developer's Kit (JDK) Version 1.3.1
- MICROSOFT Visual C++ 6.0

## **KODAK Image Access Standard Server SDK Components**

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- Getting Started Guide
- Reference Implementation
- Servlet files
- Installation instructions
- Image Access Server API
- KODAK Image Access Standard License Agreement
- COS SDK Version 2.6
- Sample COS file
- COS Usage Guidelines



## **KODAK Image Access Standard Server SDK Minimum System Requirements for Development and Deployment**

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- WINDOWS NT 4 with service pack 5 only
- Apache SOAP 2.0
- Apache Tomcat 3.2
- Apache Xerces
- 128 MB RAM
- 16 MB available disk space for JRE
- 2 MB of available disk space for KODAK Image Access Standard library installation
- Sufficient disk space available to store retrieved images of various sizes and quantities
- JRE 1.3.1 or higher
- COS SDK Version 2.6
- CD ROM drive
- Internet/LAN access with KODAK Image Access Standard Clients

## **KODAK Image Access Standard Networking Requirements**

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Any KODAK Image Access Standard Client (e.g. - a KODAK Picture Maker) or server (e.g. - a digital mini-lab using KODAK DLS Software) device requires a standard TCP/IP network connection. End-users or retailers are required to provide their own network configuration and Internet access as needed.

It is a good practice to use a firewall in connecting the retailer's LAN to the outside world. If one is to be used, the retailer must provide the firewall (or equivalent network security device). This firewall will need to be configured to allow access between the KODAK Image Access Standard devices or servers, as well as to protect the KODAK Image Access Standard devices or servers from intrusion or attacks from the Internet.

