



# **Embedded Software Architecture**

J2ME-compliant application development platform

**Java™ embedded MFP Devices and Laser Printers**

## **“What if it was possible to...?” Ricoh technology - moving ideas forward.**

### **Customized Java-based solutions hosted on Ricoh MFP Devices and Laser Printers**

In the modern office environment, traditional standalone single-function output devices like copiers and printers have evolved into networked multifunction input/output devices. Office equipment is now an essential component within the communication framework of computer networks, and Ricoh wants to take them even further.

To improve efficiency around enterprise workflows, Ricoh has created “Embedded Software Architecture”, a J2ME-compliant application development platform, to meet customer’s unique business requirements.

### **Embed applications on multiple Ricoh Devices**

Ricoh’s “Embedded Software Architecture” open platform offers optimum versatility. For example, an embedded Java application might scan a document to a MFP Device, identify the title, and automatically send it to the appropriate location. It is also possible to reduce network traffic by having a Printer share part of the print data process that the server has been performing.

**Embe  
Softw  
Archit**

## Organizations get full benefit from Java Application development when used to integrate MFP devices and Laser Printers with existing workflows.

Ricoh MFP devices and Laser Printers can now be built into an organization's IT infrastructure with powerful results.

Ricoh's "Embedded Software Architecture" provides the platform necessary for Systems Integrators, Independent Software Vendors, and In-House Developers to build tightly integrated solutions streamlining customer processes and document handling.

Embedded  
Software  
Architecture

## Application development is dramatically enhanced with "Embedded Software Architecture"

Ricoh's "Embedded Software Architecture" is an open, scalable platform with multiple benefits: It is Java-based, an object-oriented development language with rich network interfaces; allows for tighter integration with MFP devices and Laser Printers; and developed applications can be easily and cost effectively migrated across multiple platforms. As a result, various customer needs can be met quickly and efficiently.

## ■ Feature Summary

### 【Print feature】

Printer print functionality and MFP Devices can be controlled.  
For example, image or print data received from the network host can be specified to use a certain feeder tray, or a particular post process.

### 【Scan feature】

Scanner functionality of MFP devices can be controlled.  
For example, scanned image data can be saved, or delivered via the network.

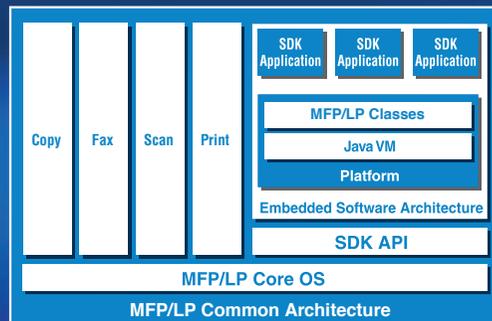
### 【User interface】

Operation buttons and display panels of a MFP Device can be controlled.

- Drawing text and graphics on display panel
- Handling operation buttons
- Controlling LED display

## ■ Architecture

Ricoh's "Embedded Software Architecture" is designed to maintain application compatibility across multiple MFP Devices and Laser Printers now and in the future.



## ■ Development environment

### 【Install CD】

- MFP/LP class
- Emulator
- Sample program
- Documents (Tutorial, API manual)

### 【SD card】

- Java VM
- Application Loader

"Embedded Software Architecture" is a trademark of Ricoh Company, Ltd. Java is a registered trademark of Sun Microsystems, Inc. in the United States and other countries. Other company names and product names used herein are trademarks of their respective companies.

<http://www.ricoh.com/esa/>