Release Notes for RICOH InfoPrint Manager™ for Linux 4.12.2

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This edition applies to InfoPrint Manager for Linux, Version 4 Release 12.2. It is available in the RICOH Software Information Center at https://help.ricohsoftware.com/swinfocenter.

We encourage you to become part of the InfoPrint Manager community by visiting our forum at http://rpp.ricoh-ipm.forums.net, where you can engage in InfoPrint Manager related discussions. Register your account and start participating in the InfoPrint Manager forum threads.

InfoPrint Manager provides an Ideas portal for InfoPrint Manager users to submit feedback to the product management team directly from the product interface. The Ideas portal link is https://ipm-ideas.ricohsoftware.com/.

A new online platform has been rolled out for InfoPrint Manager customers to engage the support team. It is available at https://support.ricohsoftware.com and allows customers to open and manage support tickets across their organization. For more information about registering and working with support tickets using the new online platform, visit https://help.ricohsoftware.com/swinfocenter/ricoh-software-support/support_project.ditamap/$/support_using_support_site.

🔻 Note

- To find out if your country supports opening and managing support tickets directly by customers, contact your local Ricoh representative.

All InfoPrint Manager servers and clients must be upgraded to the same version. Do not forget to upgrade any secondary InfoPrint Manager servers.

If you are upgrading multiple servers, keep all clients at the older (4.9.1 or earlier) level until all servers are upgraded to 4.9.2 or later. Then upgrade the clients.

Starting with Release 4.12, you must agree to the terms of the Software Maintenance Agreement (SWMA) prior to installing the InfoPrint Manager software.

What's new in Release 4.12.2?

- **Users can now access InfoPrint Manger Web Administration Interface (WebGUI) and Web Management Interface (WMI) securely with a single set of login credentials. Federated Authentication allows users to authenticate through an identity provider, such as Common Approach to Identity Assurance (CAIA), Active Directory Federation Services™ (AD FS), or Okta®, and then use that authentication to access InfoPrint Manager online services. With Federated Authentication, users do not need to remember separate login credentials for each service they use, and InfoPrint Manager does not need to keep their data in the internal databases. This can reduce the risk of data breaches and other security issues.**

  For more information, see *RICOH InfoPrint Manager for Linux: Getting Started*, the *Understanding InfoPrint Manager Security* section and *RICOH InfoPrint Manager for Linux: Procedures*, the *Managing Federated Authentication* section.

- **Print rules enhancements:**

- Added *name-text* and *department-text* to the job/document attributes in the conditions list

- Added *Has a value (set)* and *Has no value (not set)* to the condition operators list

- Made the printer names for *Route job* dynamic

- Made the *Set attribute* values dynamic

  For more information, see *RICOH InfoPrint Manager for Linux: Procedures*, the *Using print rules* section, *RICOH InfoPrint Manager: Reference*, the *Attributes for print rules* section, and the *RICOH InfoPrint Manager Web Administration Interface* help system.

- **Web Management Interface (WMI) enhancements:**

  - Enhanced server log with messages filter and dynamic loading

  - Added a destination log view tab

  - Added a server tracing tab

  - Added a filtering function for ACL Groups

  - You can now copy information directly from the server log

  For more information, see the *RICOH InfoPrint Manager Web Management Interface* help system.

- **Added the option to both print and log the job messages for the Actual Destination (the *Record job messages* parameter on the *Customize* tab).**

  For more information, see *RICOH InfoPrint Manager: Reference*, the *dss-job-message* attributes topics.

- **Enhanced *ismu* to support the *all* parameter on Windows.**

  For more information, see *RICOH InfoPrint Manager: Reference*, the *ismu utility* section.

- **Added support for the *-x* and *-y* parameters for pdf2afp and ps2afp when using the *agspdl* processing interpreter.**

  For more information, see *RICOH InfoPrint Manager: Reference*, the *Flags and values* topic in the *pdf2afp and ps2afp commands* section.

- **Enhanced Artifex transforms (PS, PDF, PCL) color processing speed.**

- **Added support for RICOH Pro C7500 and RICOH Pro C9500.**

- **The following printer models are deprecated and will be removed in the next release. They will still be supported as generic printers:**

  - InfoPrint 75

  - InfoPrint 100

  - InfoPrint Color 130 Plus

  - InfoPrint EMP156

  - InfoPrint PRO C900AFP

  - InfoPrint PRO C901

  - InfoPrint PRO C901S

  - InfoPrint Pro 907

  - InfoPrint Pro 907EX

  - InfoPrint Pro 1107

- InfoPrint Pro 1107EX
- InfoPrint Pro 1357
- InfoPrint Pro 1357EX
- InfoPrint 1145 (no MFP support)
- InfoPrint 1422
- InfoPrint 1532
- InfoPrint 1540 MFP
- InfoPrint 1552
- InfoPrint 1560 MFP
- InfoPrint Color 1567
- InfoPrint 1570 MFP
- InfoPrint 1572
- InfoPrint 1572 MFP
- InfoPrint 1580 MFP
- InfoPrint 1585
- InfoPrint Color 1654
- InfoPrint Color 1664
- InfoPrint Color 1754 Express
- InfoPrint Color 1759 MFP
- InfoPrint Color 1764
- InfoPrint Color 1764 MFP
- InfoPrint Color 1767
- InfoPrint Color 1769 MFP
- InfoPrint 1823
- InfoPrint 1832
- InfoPrint 1834
- InfoPrint 1846 MFP
- InfoPrint 1850 MFP
- InfoPrint 1852
- InfoPrint 1854
- InfoPrint 1856 MFP
- InfoPrint 1860 MFP
- InfoPrint 1866 MFP
- InfoPrint 1870 MFP
- InfoPrint 1872
- InfoPrint 1880 MFP

- InfoPrint 1892
- InfoPrint 1930 MFP
- InfoPrint 1940 MFP
- InfoPrint 1948 MFP
- InfoPrint 1968 MFP
- InfoPrint 1985 MFP
- InfoPrint 1988 MFP
- InfoPrint Color 2047
- InfoPrint Color 2057 MFP
- InfoPrint 2060ES
- InfoPrint Color 2065
- InfoPrint 2075ES
- InfoPrint Color 2075 MFP
- InfoPrint 2085
- InfoPrint 2090ES
- InfoPrint 2105
- InfoPrint 2105ES
- InfoPrint 2190
- InfoPrint 2210
- InfoPrint 2235
- InfoPrint 3000
- 3160 Advanced Function Printer with Feature 4120, 4161, 4162, or 4163
- 3900 Advanced Function Printer Models 001, D01, D02, 0W1, 0W3, DW1, and DW2 (including support for the MICR Post-Processing Interface Feature, the Set Media Modifications command to drive post-processing devices, such as Beste Bunch spot color printers, and the Interface Feature 4720)
- 3930 Page Printer Models 03D and 03S
- 3935 Advanced Function Printer with Feature 4020, 4121, or 4161
- 4312 Network Printer 12. OS Code Release Level 2.23 or later is required. For IPDS printing, the IPDS feature with IPDS Code Level 1.25 or later is required.
- 4317 Network Printer 17. OS Code Release Level 2.23 or later is required. For IPDS printing, the IPDS feature with IPDS Code Level 1.25 or later is required.
- 4324 Network Printer 24. OS Code Release Level 2.35 or later is required. For IPDS printing, the IPDS feature with IPDS Code Level 1.25 or later is required.
- InfoPrint SP 8200 DN1

- **Revised publications:**

  - *RICOH InfoPrint Manager for Linux: Planning Guide*, G550-20262

– *RICOH InfoPrint Manager for Linux: Getting Started*, G550-20263

– *RICOH InfoPrint Manager for Linux: Procedures*, G550-20264

– *RICOH InfoPrint Manager for AIX and Linux: Configuring and Tuning Guide*, S550-1062

– *RICOH InfoPrint Manager: High Availability Guidelines*, G550-20261

– *RICOH InfoPrint Manager: Reference*, S550-1052

– *RICOH InfoPrint Manager: PSF, Server, and Transform Messages*, G550-1053

– *RICOH InfoPrint Manager: Secure Print: Installing and Configuring*, G550-20129

– *RICOH InfoPrint Manager: SAP R/3 Planning and Configuring Guide*, S550-1051

– *AFP Conversion and Indexing Facility: User's Guide*, G550-1342

– *RICOH InfoPrint Manager: Dictionary of Keywords*, S550-1188

– *RICOH InfoPrint Manager AFP2PDF Transform Feature: Installing and Using*, G550-1057

– *Page Printer Formatting Aid for Windows: User's Guide and Reference*, S550-0801

– *RICOH InfoPrint Manager: Installing InfoPrint Manager Transform Feature*, G550-20160

Function not supported on InfoPrint Manager for Linux

- IPP DSS (available on Windows only)

- Passthrough DSS (available on Windows only)

- DPF (available on Windows only)

Limitations

InfoPrint Manager for Linux and RICOH ProcessDirector™ for Linux limitation

InfoPrint Manager for Linux and RICOH ProcessDirector for Linux cannot coexist on the same Linux machine.

Single Cell Halftone

Single Cell Halftone support has a limitation with the provided transparency support. The small (one bit monochrome) images that are transformed with transparency enabled are not transformed with the Single Cell algorithms. The native PostScript data streams that use the imagemask operator are transformed using the original halftone algorithms. The PDF data streams that process small (one bit monochrome) images with transparency enabled also use the original algorithms.

Indexed Multiple Data Sets

MVS Download Receiver cannot be used with multiple data sets that have already been indexed (contain AFP TLEs).

Interchanging set version attribute

The sap2afp transform command does not create IS/3 compliant AFP output when converting an ABAP file by specifying 3 as a value for the **-is** flag. The sap2afp transform command creates IS/3 compliant AFP output only when the input file is an OTF file.

InfoPrint Transform Manager feature limitations

- InfoPrint Manager for Linux and InfoPrint Transform Manager feature for Linux cannot coexist on the same Linux machine.

- On the Linux platform, the PDF to AFP transform is only supported on SLES12 and later versions or RedHat 7.1 and later versions.

- SAP2AFP transformer does not support SAP ABAP document format.

Job Viewer limitations

- When viewing an AFP Job that uses a form-definition with an n-up value set, the n-up value will be ignored.

- Embedded PDF files can be viewed only when the job is viewed page by page. When viewing the full document, the embedded PDF files are not supported.

Known problems and workarounds

Longer processing for color text that uses embedded fonts

When transforming PDF with color text that uses embedded font subsets to black and white or color AFP output, the rip processing can take longer. If you use **savevm=false**, this performance will improve. However, we recommend using the current default of **savevm=true** because, in some cases, PDF input files with many embedded font subsets might fail to transform. The **savevm** option appears on the **ps2afp/pdf2afp** command line as: `-pragma pdf2psoptions=savevm=true`.

InfoPrint Manager setup installation

Using the InfoPrint Manager setup graphical installer can cause issues when installing the product. This occurs when the register path is selected and you use the **Back** button after the installer asks for the license key. To avoid this, either have the product license key prepared before the installation process is started or install the product in trial mode and register it after the installation is complete using the License Key Management Application. For more information, see *RICOH InfoPrint Manager for Linux: Getting Started*, G550-20263.

Upgrading SAP Clients on Linux

If you are upgrading your SAP clients, update the LOMS definitions for all your InfoPrint Manager printers to point to the updated **ipm_submit**, **ipm_dev_query**, **ipm_job_query**, and **ipm_job_cancel** commands by removing all trailing **.linux** options from the OMS commands. For more information on modifying the OMS commands, see *RICOH InfoPrint Manager: SAP R/3 Planning and Configuring Guide*.

License clock tampering problem

If the InfoPrint Manager is installed on a machine with the system date and time older than the current date, the InfoPrint Manager server starts issuing the error: "5010-901 InfoPrint Manager detected a time tampering problem".

Contact your support personnel and ask them to make sure that the system time is synchronized with the Internet time server. Remove the license that caused the problem and reinstall it.

Job status and accounting for nested PJL jobs

Accounting information reports 0 (zero) pages completed when InfoPrint Manager prints nested PJL jobs to RICOH controller devices and InfoPrint Manager is configured to wait for the job to print completely (wait-for-job-completion is enabled).

To avoid this situation, use the InfoPrint Manager provided **pioinfo** backend and enable the PJL JOB counting function using the **enable-ustat-count** option with the printer command, for example: `pioinfo://ricohdevice.yourcompany.com enable-ustat-count`.

Job status and device timeout setting

The device timeout setting can cause the jobs to be reported as failed and the actual destination state to be changed to **needs key operator** when InfoPrint Manager is configured to provide accurate job status (by enabling the **wait-for-job-completion** attribute), which requires the backend program to wait for the jobs to print completely.

If your physical printer has a timeout setting, make sure it is disabled or the timeout value is higher than the necessary time to print your largest possible job when you enable the **wait-for-job-completion** attribute. For Ricoh printers, you can use Remote Maintenance by telnet to make the necessary changes to the direct printing port settings (`diprint` command).

The Submit Express client must be set up at the same level as the InfoPrint Manager server

To upgrade the Submit Express client to version 4.12 on macOS, you must first remove any older versions installed on the system.

AFP files with inline resources might not print correctly when submitted as a multi-document job via pdpr command or Web GUI

Specific AFP documents containing inline resources might be misprinted if the AFP files are send as multiple documents of the same job. To avoid this situation, submit each file separately.

RICOH Cloud Connector and RedHat Enterprise Linux Server version 7.1

Running InfoPrint Manager for Linux on RedHat Enterprise Linux Server version 7.1 will cause the RICOH Cloud Connector not to start due to a known bug in Linux systemd (https://github.com/systemd/systemd/issues/2132). Thus you might encounter problems running the product when using a subscription license. To avoid this situation, in the `/usr/lib/systemd/system/rcc.service` file, replace the line

```
ExecStart="/opt/RICOH/RCC/ricoh-cloud-connector-linux" -s
```

with the line

```
ExecStart=/usr/bin/env "/opt/RICOH/RCC/ricoh-cloud-connector-linux" -s
```

Security fixes included in Release 4.12

Release 4.12.0 includes fixes for these CVEs:

Apache Tomcat 10.0.27	Apache Tomcat request smuggling
	CVE-2022-42252
IBM Semeru Runtime Open Edition for Java - OpenJ9 0.35.0	CVE-2022-3676
IBM Semeru Runtime Open Edition for Java - OpenJDK 11.0.17	CVE-2022-21618
	CVE-2022-21619
	CVE-2022-21624
	CVE-2022-21626
	CVE-2022-21628
	CVE-2022-39399
OpenSSL 3.0.7	X.509 Policy Constraints Double Locking
	CVE-2022-3996
	X.509 Email Address Variable Length Buffer Overflow
	CVE-2022-3786
	X.509 Email Address 4-byte Buffer Overflow
	CVE-2022-3602

Release 4.12.1 includes fixes for these CVEs:

Apache Tomcat 10.1.7	Apache Tomcat JsonErrorReportValve injection
	CVE-2022-45143
	Apache Tomcat denial of service
	CVE-2023-24998
	Apache Tomcat information disclosure
	CVE-2023-28708
Artifex GhostPDL 10	Buffer overflow in base/sbcp.c leading to potential data corruption
	CVE-2023-28879
IBM Semeru Runtime Open Edition for Java - OpenJDK 11.0.18	CVE-2023-21835
	CVE-2023-21843
OpenSSL 3.0.8	NULL dereference during PKCS7 data verification

	CVE-2023-0401
	X.400 address type confusion in X.509 GeneralName
	CVE-2023-0286
	NULL dereference validating DSA public key
	CVE-2023-0217
	Invalid pointer dereference in d2i_PKCS7 functions
	CVE-2023-0216
	Use-after-free following BIO_new_NDEF
	CVE-2023-0215
	Double free after calling PEM_read_bio_ex
	CVE-2022-4450
	Timing Oracle in RSA Decryption
	CVE-2022-4304
	X.509 Name Constraints Read Buffer Overflow
	CVE-2022-4203

Release 4.12.2 includes fixes for these CVEs:

Apache Tomcat 10.1.11	Apache Tomcat denial of service
	CVE-2023-28709
	Information disclosure
	CVE-2023-34981
IBM Semeru Runtime Open Edition for Java - OpenJDK 11.0.19.0	CVE-2023-21930
	CVE-2023-21937
	CVE-2023-21938
	CVE-2023-21939
	CVE-2023-21954
	CVE-2023-21967
	CVE-2023-21968
OpenSSL 3.0.10	Excessive time spent checking DH q parameter value
	CVE-2023-3817

	Excessive time spent checking DH keys and parameters
	CVE-2023-3446
	AES-SIV implementation ignores empty associated data entries
	CVE-2023-2975
	Possible DoS translating ASN.1 object identifiers
	CVE-2023-2650
	Invalid certificate policies in leaf certificates are silently ignored
	CVE-2023-0465
	Input buffer over-read in AES-XTS implementation on 64 bit ARM
	CVE-2023-1255
	Certificate policy check not enabled
	CVE-2023-0466
	Excessive Resource Usage Verifying X.509 Policy Constraints
	CVE-2023-0464

CCRs included in Release 4.12.2

Release 4.12.2 includes resolution for these CCRs:

IPM3-1187	Upgrading from an InfoPrint Manager version prior to the IPv6 support (4.7.2) might cause the server not to start due to incompatibility of namespace files containing only IPv4 addresses.
IPM3-1194	InfoPrint Manager Command Line Client for Windows does not install if Ricoh ProcessDirector is already installed on the system. InfoPrint Manager server and Ricoh ProcessDirector cannot coexist on the same system, but the Command Line Client should install.
IPM3-1200	segsize ignored when coming from js (job script) file via submission command resulting in psfin creating very small segments.

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