RICOH

RICOH Transforms Suite

TIFF2PDF Plus User's Guide

Version 1.5

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For information not in this manual, refer to the Help System in your product.

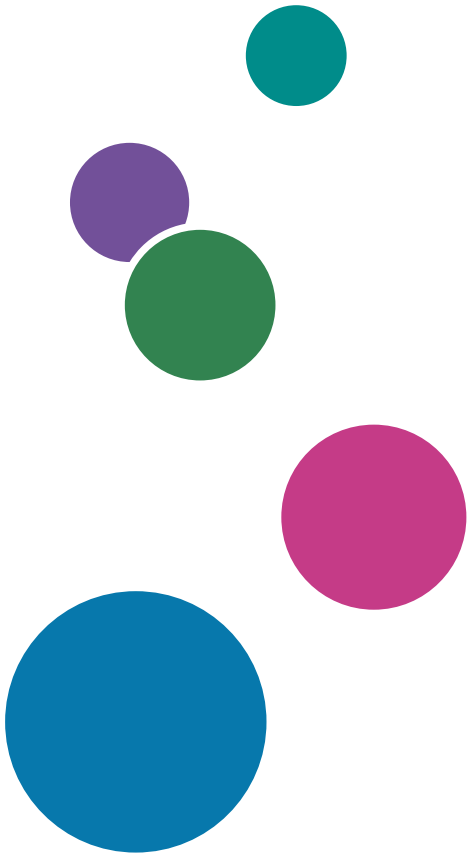


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Introduction

Important

To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this product, losses of documents or data, or the use or non-use of this product and operation manuals provided with it.

Make sure that you always copy or have backups of important documents or data. Documents or data might be erased due to your operational errors or malfunctions of the software. Also, you are responsible for taking protective measures against computer viruses, worms, and other harmful software.

In no event will the manufacturer be responsible for any documents created by you using this product or any results from the data executed by you.

Cautions regarding this guide

- Some illustrations or explanations in this guide could differ from your product due to improvement or change in the product.
- The contents of this document are subject to change without notice.
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Publications for RICOH Transforms Suite

This section provides a list of all the publications for RICOH Transforms Suite.

Instruction manuals

- **AFP2PDF PLUS**
  For information about AFP2PDF PLUS, see these documents:
  - *AFP2PDF Plus User Guide*
  - *AFP2PDF Plus Quick Start Guide*
  - *AFP2PDF Plus Setup Guide*
  - *AFP2PDF Plus Release Notes*
  - *AFP2PDF Plus - Summary of Updates*
  - *AFP2PDF Plus Config UI User Guide*
- **AFP Visual Environment**
  For information about AFP Visual Environment, see these documents:
  - *AFP Visual Environment User Guide*
  - *AFP Visual Environment Release Notes*

- **AFPMerge**
  For information about AFPMerge, see these documents:
  - *AFPMerge User Guide*
  - *AFPMerge Release Notes*
- **Line2PDF Plus**
  For information about Line2PDF Plus, see these documents:
  - *Line2PDF Plus User's Guide*
  - *Line2PDF Plus Release Notes*
- **PCL2PDF**
  For information about PCL2PDF, see these documents:
  - *PCL2PDF User's Guide*
  - *PCL2PDF Release Notes*
- **PS2PDF**
  For information about PS2PDF, see these documents:
  - *PS2PDF User's Guide*
  - *PS2PDF Release Notes*
- **TIFF2PDF Plus**
  For information about TIFF2PDF Plus, see these documents:
  - *TIFF2PDF Plus User Guide*
  - *TIFF2PDF Plus Release Notes*

Symbols

The following symbols are used in this manual to help you to identify content quickly.

Important

- This symbol indicates points to pay attention to when using the product. Be sure to read these explanations.

Note

- This symbol indicates helpful supplementary information that is not essential to completing a task.

Bold	**Bold type** indicates the names of commands and parameters.
Bold underline	**Underlined bold type** indicates the default value.
Italic	*Italic type* indicates variables that you must replace with your own information.
Monospace	Monospace type indicates computer input and output and file names.

[]	Square brackets indicate that a value is optional.
|	A vertical bar indicates a choice between values.
...	An ellipsis indicates that a series can continue.

Abbreviations

PDF

Portable Document Format

RMI

Remote Method Invocation

TIFF

Tagged Image File Format

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1. Overview

- **Description**
- **Specifications**

Description

Tiff2PDF Plus converts both single and multi- page TIFF files in Adobe Acrobat Portable Document Format (PDF) files.

Specifications

Important

- Although the TIFF2PDF Plus program runs with Java 21 or later, the installer does not run with Java 21 or later. Use a Java version earlier than Java 21 to install TIFF2PDF Plus.

Supported Platforms

IBM AIX 7.2 or later

IBM z/OS UNIX System Services V1.13 or later

Microsoft® Windows 10 Pro, Enterprise

Microsoft Windows 11 Pro

Microsoft Windows® Server 2016 Standard

Microsoft Windows Server 2019 Standard

Microsoft Windows Server 2022 Standard

Linux® Kernel 2.6.18 or later (x86)

Linux Kernel 2.6.09 or later (IBM System z)

Transform server requirements:

Java 64bit V 1.8 or later

Client Software Requirements

Java 64bit V 1.8 or later

Language Support

Single Byte Character Sets

Double Byte Character Sets: Simplified and Traditional

Chinese, Japanese and Korean

2. Installing the TIFF2PDF Plus Transform

- **Installing TIFF2PDF Plus using the installer**
- **Installing a Permanent License**
- **Revoking the License Key**

Installing TIFF2PDF Plus using the installer

The TIFF2PDF Plus transforms can now be installed using an executable jar.

To run the installer, perform these steps:

- Use the following command: `java -jar RTS--setupTiff2pdfPlus-1.X.X--tiff2pdfplus.jar`, where *1.X.X* is the transform version.

  Note

  – To install the TIFF2PDF Plus transforms, you need 64 bit Java 1.8 or later and Administrative rights.

  – On some Java versions, due to a bug, the above `java -jar` command might not start the installer. Use this additional parameter: `java -Djdk.util.zip.disableZip64ExtraFieldValidation=true -jar RTS--setupTiff2pdfPlus-1.X.X--tiff2pdfplus.jar`.

- On non-Windows operating environments the installer uses the `/tmp` directory to unpack files and run certain scripts. If there are limitations on the `/tmp` folder of the system, such as non-exec flag or limited space, a different temporary file directory can be specified using the `-Dlax.nl.env.iatempdir=` parameter. Example: `java -Dlax.nl.env.iatempdir=/custom_temp_dir/ -jar RTS--setupTiff2pdfPlus-1.X.X--tiff2pdfplus.jar`.
- Depending on the capabilities of your operating system, TIFF2PDF Plus transform installer opens either using a graphical user interface or a command line.
- Follow the installation steps of the installer. During the installation process, you must specify the installation location.

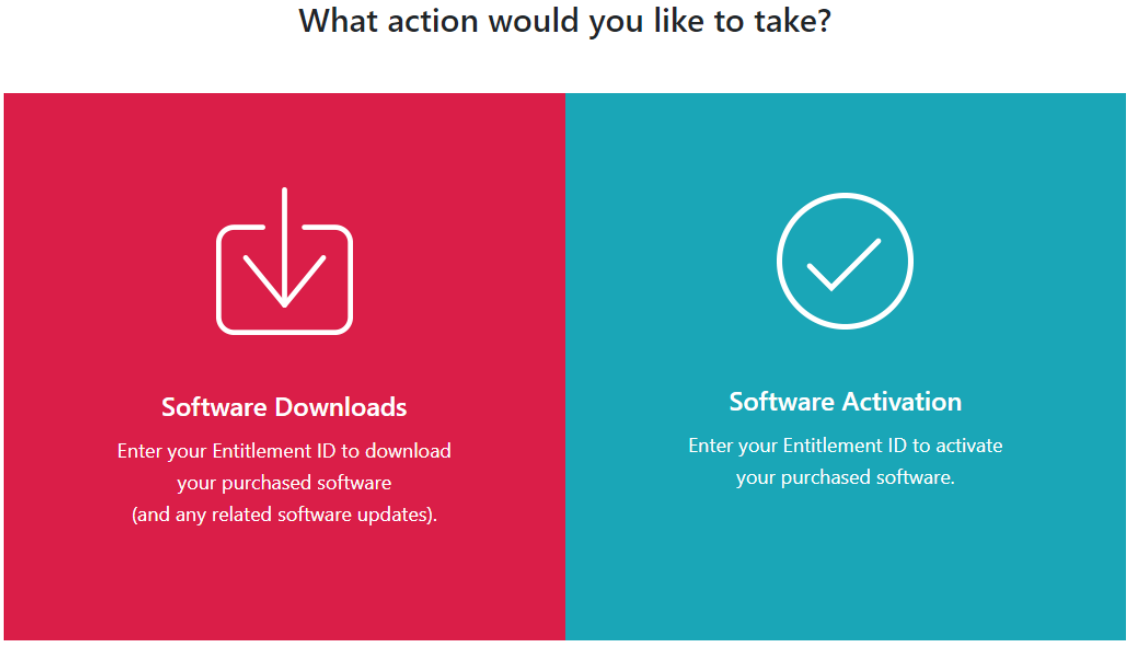
Installing a Permanent License

To continue using TIFF2PDF Plus after the trial license expires, you must install a permanent license on the computer where the product is installed. The permanent license is valid only on this computer.

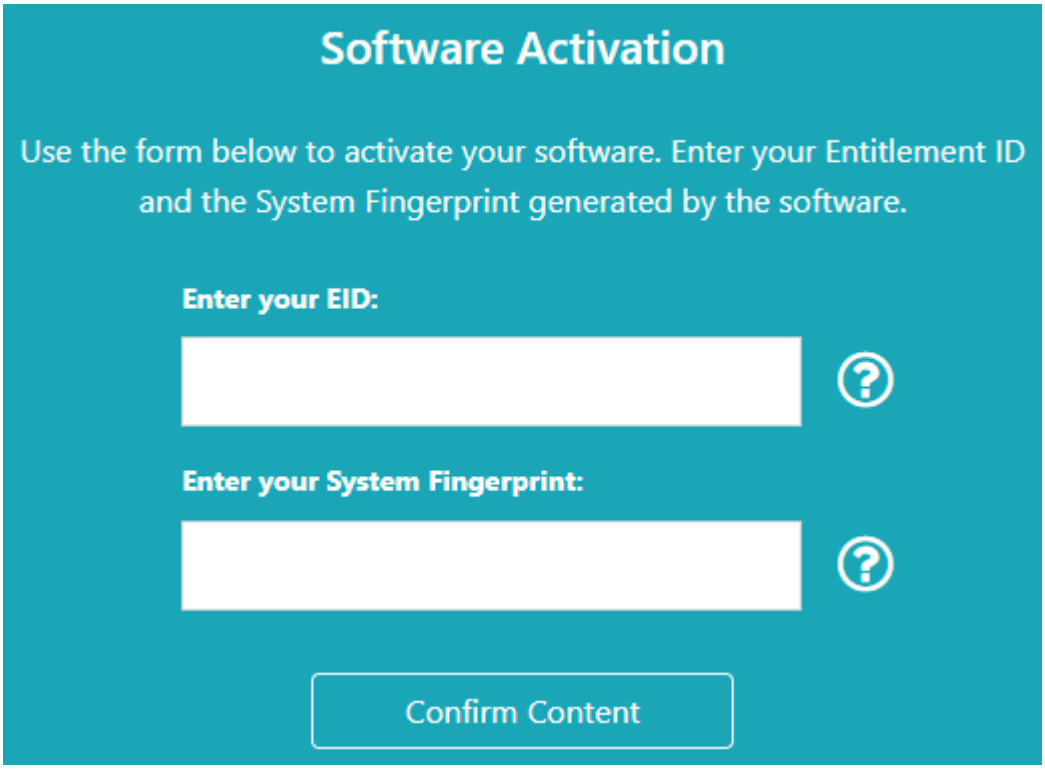
To install a permanent license for TIFF2PDF Plus:

1. Run the license management tool Tiff2PdfPlusLicenseManager.jar located in the `license_installer` folder where TIFF2PDF Plus is installed, and follow the installation steps.
2. When prompted **You can either install a new license or revoke the currently installed one.**, select **Install License - Upload and apply a new license file.**
3. Make sure that you have the e-mail containing the entitlement ID (EID) that you received from Ricoh.
4. If the computer where TIFF2PDF Plus is installed does not have Internet access:
   1. Do not close the license application on the computer where TIFF2PDF Plus is installed.
   2. Log into a computer that has Internet access.
   3. Use the Remote Desktop Connection to connect to the computer where TIFF2PDF Plus is installed.

4. Log in with the same user name and password that you used when you started the license application.
5. On the computer that has Internet access, go to this Web site: https://dl.ricohsoftware.com.



6. Click **Software Activation** on the right side of the screen.
7. In the **Software Activation** dialog, insert the EID and the system fingerprint.

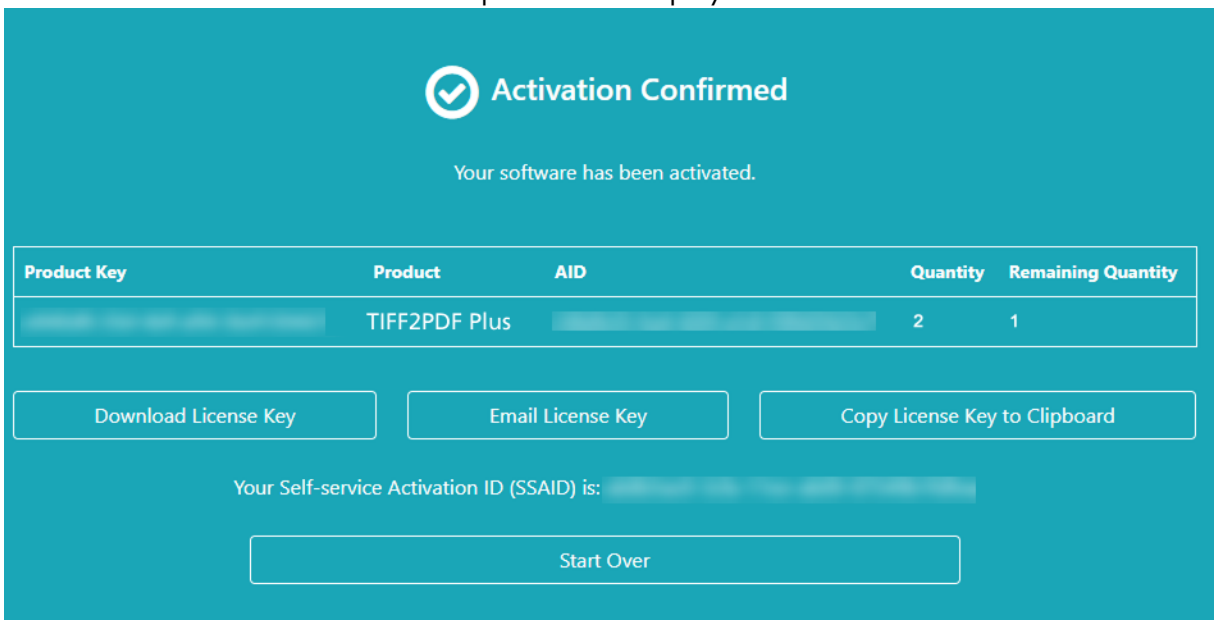


1. Copy and paste the EID from the e-mail you received from Ricoh.

2. Return to the license management application on the computer where TIFF2PDF Plus is installed. Copy your machine fingerprint field. This action copies the 16-character system fingerprint that uniquely identifies the computer where TIFF2PDF Plus is installed to the clipboard.
3. Return to the Software Activation webpage. Paste the system fingerprint in the **Enter your System Fingerprint** field.
4. Click **Confirm Content**.

8. In the **Activation Content Confirmation** dialog:
   1. Review the confirmation information.
   2. Click **Activate**.

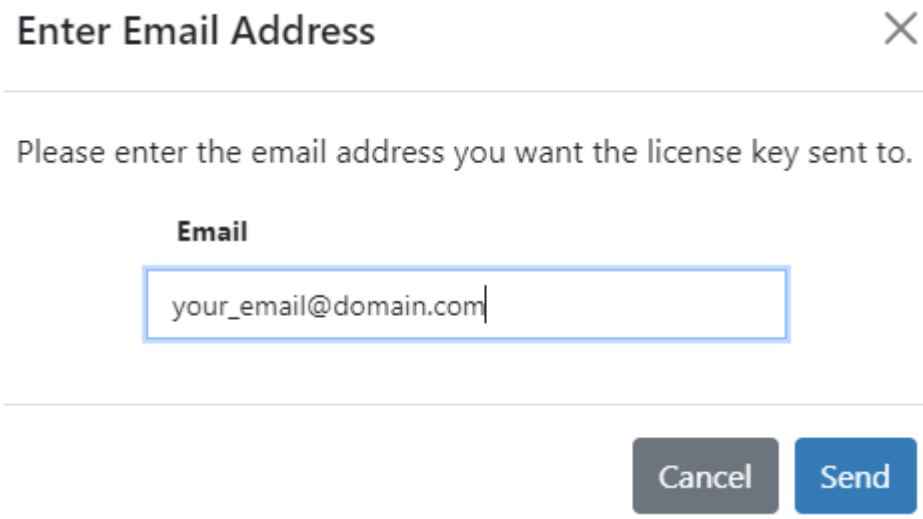
   You will receive a confirmation that your software has been activated. A license key is generated with an Activation ID for the client computer and is displayed on the screen.



Note

The number of activations of the license is displayed under **Quantity**. The remaining number of activations available for this license is displayed under **Remaining Quantity**.

9. To download the license key, click **Download License Key**. The saving procedure and file type are different for each browser. Record the folder where you saved the license key.
10. To e-mail the license key file to someone else, click **Email License Key**.



1. Type the e-mail address.
2. Click **Send**.

11. If you are finished, close the browser tab. To restart the process, click **Start Over**.
12. If you accessed the Internet from a different computer than the one where TIFF2PDF Plus is installed, copy the license file to the computer where TIFF2PDF Plus is installed.
13. Run the license management tool on the system where TIFF2PDF Plus is installed, follow the installation steps and select **Install License - Upload and apply a new license file.** → **Install**
14. After the license management tool displays your machine fingerprint, click **Next**.
15. Locate the license file and click **Open**.
16. Select **Next**.
17. Review the installation summary and click **Install**.
    You see a message that the license was installed successfully.
18. You can start using the TIFF2PDF Plus transform.

Revoking the License Key

The Self-service License Key Revoke System (SSR) is designed to permit Ricoh customers a method to move license keys between systems and recover from system failures. If you must revoke more than 2 keys from the same EID, contact your local Ricoh Support team for assistance.

To revoke the license key:

1. Run the license management tool Tiff2PdfPlusLicenseManager.jar located in the `license_installer` folder where TIFF2PDF Plus is installed, and follow the installation steps.
2. Select the path where your transform is installed.
3. Then, select **Revoke License - Remove the current license file from the system.** and click **Install**.
4. Select the location that you want to use for your current license, then click **Next**.
5. You are instructed to visit https://dl.ricohsoftware.com/?revoke to revoke your license.
6. Click the **Self-Service Revoke** button.

7. Select one of the 3 available revoke methods from the **Revoke By** list:

   Entitlement ID (EID)

   The EID that you must revoke for the software reporting a license violation condition.

   Activation ID (AID)

   The AID is necessary when you only must revoke a single set of keys for 1 EID. For example, if you accidentally activated using the wrong system fingerprint and have the AID string available.

   License Key File Upload (license.key file)

   Best general-purpose option for resetting all EIDs installed for a specific product on a given server. You can select a **license.key** file.

8. Depending on your selection from the **Revoke By** list, enter the EID, AID, or upload the key file in the **Enter your EID**, **Enter your AID**, or **Upload Your License File (Max file size, 150 KB)** fields.
9. Enter your company name in the **Company Name** field. Make sure to use the same the company name used in the original EID email.
10. To receive the revoke details, enter your valid business email address in the **Business Email Address** field.
11. Click **Submit**.
    After 30 seconds, you receive a notification on the website. If your request could not be approved automatically and requires review, you receive an email from the reviewer within the next few business days.

    Note

    - Depending on the network speed or processing time, it may last up to 90 seconds until you receive the notification.

12. Return to the license management application and click **Next**.
13. Review the summary and click **Install**.
    You will see a message that the license was successfully revoked.
14. Click **Done**.

3. Running Java version of TIFF2PDF Plus

- **Java Command Line**
- **Java Tiff2PDF Plus Command Options**
- **Running Java TIFF2PDF Plus Server**
- **Running Java Agent on Client Machine**

Jar file `tiff2pdf.jar` is the only jar file required to run the TIFF2PDF Plus application. The main class name to start TIFF2PDF Plus is `tiff2pdf.class`.

To run Java TIFF2PDF Plus you can use one of these options:

- Java command line.
- Client/Server model.

Java Command Line

To transform a Tiff file into PDF, run this command:

- For Windows:

```
tiff2pdf.bat [options] input-file output-file
```

- For other operating systems:

```
tiff2pdf.sh [options] input-file output-file
```

Java Tiff2PDF Plus Command Options

Command line syntax

```
tiff2pdf.bat [Options] < input tiff file name> <output pdf file name>
```

```
tiff2pdf.sh [Options] < input tiff file name> <output pdf file name>
```

Options:

—w image fit width *(Optional)*

Specifies the image width to fit.

Default value: **612**.

—h image fit height *(Optional)*

Specifies the page height to fit.

Default value: **792**.

—c creator *(Optional)*

Specifies the creator of the document.

—a author *(Optional)*

Specifies the author of the document.

—t title *(Optional)*

Specifies the title of document.

—s subject *(Optional)*

Specifies the subject of the document.

—k keywords *(Optional)*

Species the keywords included in the document

For example: java tiff2pdf —c "Mark Johnson" `test.tiff test.pdf`

Running Java TIFF2PDF Plus Server

Set `CLASSPATH` to include:

- `tiff2pdf.jar`

Command line syntax

```
java Tiff2PdfServer [-start] | [-stop] [-p socket_port] [-r rmi_port] [-t temp_dir]
```

Values:

—start

Start the server.

—stop

Stop the server.

—p socket_port

Socket port number for local client.

Default value: **8800**.

This flag is optional.

—r rmi_port

RMI port number for remote TIFF2PDF Plus Server.

Default value: **8801**.

This flag is optional.

—t temp_dir

Temporary directory name.

Default: **<currentDir>/temp**.

This flag is optional.

Examples for running Server

Example 1

1. To start TIFF2PDF Plus Server set these values:

   Client port:

   Default **8800**.

   RMI port:

   Default **8801**.

2. Enter the command line: `java Tiff2PdfServer –start`.
3. To stop the TIFF2PDF Plus Server enter: `java Tiff2PdfServer –stop`.

Example 2

1. To start the TIFF2PDF Plus Server set these values:

   Client port: 7200.

   RMI port: 7201.

   Tempdir: /mydir/tmp.
2. Enter the command line: `java Tiff2PdfServer –start –p 7200 –r 7201 –t /mydir/tmp`.
3. To stop the TIFF2PDF Plus Server enter: `java Tiff2PdfServer –stop –p 7200`.

Running Java Agent on Client Machine

Set `CLASSPATH` to include:

- `tiff2pdf.jar`

Command line syntax

```
java Tiff2PdfAgent [-p client_port] [-s server_host_name] [-sp server_rmi_port]
[-stop]
```

Values:

–p client_port ***(optional)***

The port number C/C++ tiff2pdf is connected to.

Default value: **8800**.

–s server_host_name

The server host name where Tiff2PdfServer is running.

–sp server_rmi_port ***(optional)***

The server port number Tiff2PdfAgent is connected to.

Default value: **8801**.

–stop

Stop the Tiff2PdfAgent.

Examples for running Agent on client machine

Example 1

1. To start Tiff2Pdf Agent set these values:

   Client port:

   Default **8800** for C/C++ client.

   Remote host where Tiff2PdfServer is running: server1.

RMI port:

Default **8801**.

2. Enter the command line: `java Tiff2PdfAgent –s server1`.
3. To stop Tiff2PdfAgent enter: `java Tiff2PdfAgent –s server1 –stop`.

Example 2

1. To start Tiff2PdfAgent set these values:

   Client port: 9500.

   For C/C++ client.

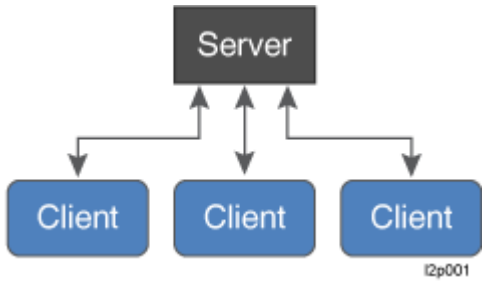
   Remote host where Tiff2PdfServer is running: server1.

   RMI port: 7201.

2. Enter the command line: `java Tiff2PdfAgent –p 9500 –s server1–sp 7201`.
3. To stop Tiff2PdfAgent enter: `java Tiff2PdfAgent –s server1 –p 9500 –stop`.

4. Client/Server Model

- **Client Native C/C++ Program**
- **Client and Server on the Same Machine**
- **Client and Server on Different Machines**
- **Enabling Debug Mode for Server and Agent**



Client is C++ native code, while Server is Java code.

Client supports:

- Windows
- Linux
- AIX
- Sun
- zOS/USS
- zLinux

Client/Server Model topology has 2 options:

- Client and Server on the same machine.
- Client and Server on different machines.

Typical Client/Server Model using default ports

Client Machine

Tiff2PdfAgent uses:

- Socket port for local C/C++ tiff2pdf: **8800**.
- RMI port to connect to Tiff2PdfServer on Server Machine: **8801**.

To start Tiff2PdfAgent on Client Machine, enter `java Tiff2PdfAgent –s <Server Machine name>`.

To submit the job, run client C/C++tiff2pdf on Client Machine and enter `tiff2pdf <input tiff file> <output pdf file>`.

Server Machine

Tiff2PdfServer uses:

- Socket port for local C/C++ tiff2pdf: **8800**.
- RMI port to connect to Tiff2PdfAgent on Agent Machine: **8801**.

To start server on Server Machine, enter `java Tiff2PdfServer –start`.

Run client C/C++ tiff2pdf on Server Machine and enter `tiff2pdf <input tiff file> <output pdf file>`.

Client Native C/C++ Program

Executable Programs

Windows: `tiff2pdf.exe`.

Other operating systems: `tiff2pdf`.

Syntax

```
tiff2pdf [port number] < java tiff2pdf arguments>
```

Options:

port number (optional)

Socket port number. Default value: **8800**.

<java tiff2pdf argument options>

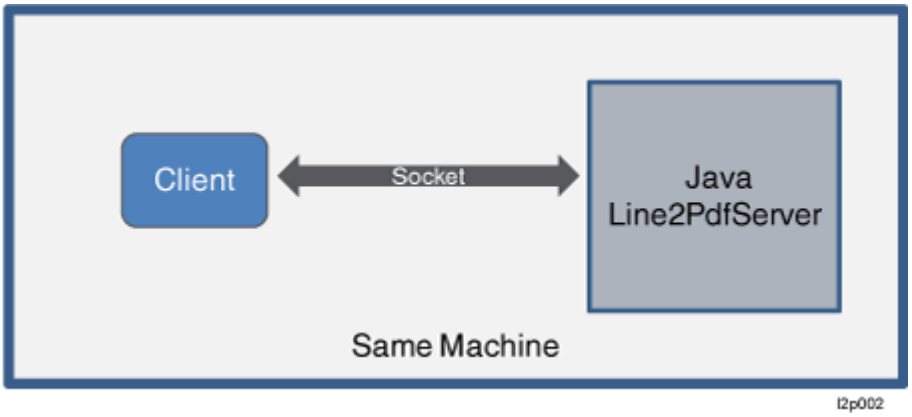
Same as Java command line.

Return code

0: if no error.

Other numbers: if error occurs.

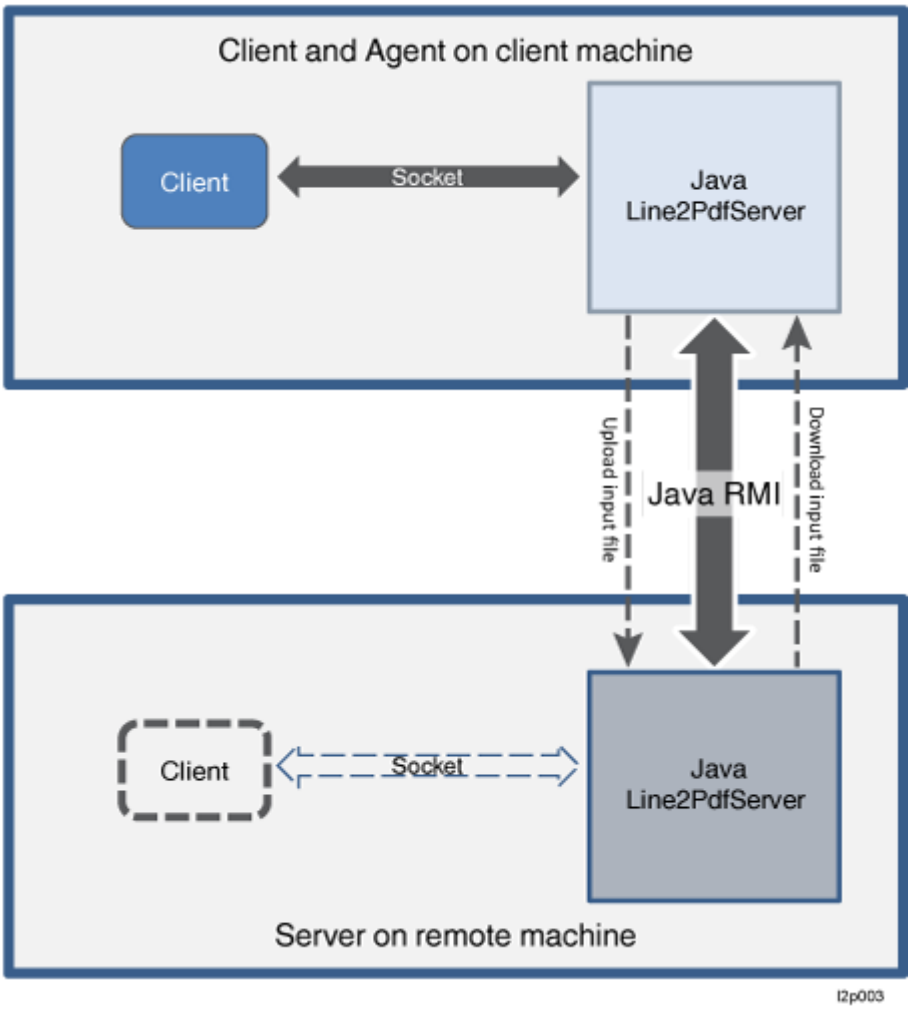
Client and Server on the Same Machine



1. Client sends the command line arguments to server through socket communication.
2. Server sends a thread to transform tiff data to pdf and then sends the messages back to client to indicate if completed or failed.

Client and Server on Different Machines

The Client/Server Model with Client and Server on different machines requires that the agent Tiff2PdfAgent is based on the client machine.



The Client and Agent use the socket for communication, while Agent and Server use Java RMI.

The Agent redirects the client requests to remote server. The Tiff2PdfAgent receives the messages from remote server and then redirects the received messages to the client.

The Agent uploads the input tiff file to the server and downloads the output PDF file from the server, if transform is completed.

Enabling Debug Mode for Server and Agent

To turn on the debug mode on Tiff2PdfServer and Tiff2PdfAgent use a hidden flag.

Flag **—debug** must be on the first argument. When debug mode is **On** debug information is printed on the console.

Example of Tiff2PdfServer on debug mode:

```
java Tiff2PdfServer —debug —start —p 7200 —r 7201
```

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RICOH Transforms Suite TIFF2PDF Plus User's Guide

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