Overview

Reports

The Reports feature lets you capture printer status changes, user actions, order status changes, and job and document property values in a PostgreSQL database. You can extract and analyze the data from the database using a business intelligence tool such as Tableau. You can also transmit selected tables from the database to an application of your choice using a REST web service.

The feature adds one step template and two objects called **Data Collectors** and **Data Transmitters**. The Reports feature does not include business intelligence software. You can use your preferred tool with the information stored in the Reports database.

Step template

- WritePropsToReportsDatabase
  Lets you choose which job and document properties to store in the Reports database when the step runs and the database table to store the data in. You can insert multiple **WritePropsToReportsDatabase** steps in a workflow wherever you want to store properties at different times during job processing.

Objects

The **Reports** feature adds the **Data collector** and **Data transmitter** objects.

Data collector
Data collectors let you configure what RICOH ProcessDirector information to store in the PostgreSQL database. You can capture job property values, order property values, document property values, printer data, and user activity data using the supplied **Data collectors**.

Data transmitter
Data transmitters let you configure what information to extract from one or more PostgreSQL databases to send to another application. Data transmitters use the REST protocol to send the data to another application. You can specify when and how often the data is sent.

Reports database

The Reports feature stores data in a PostgreSQL database regardless of the database configuration that RICOH ProcessDirector uses. To create the Reports database, you have two options:

- Use the instance of PostgreSQL provided with RICOH ProcessDirector.
  Even if you use IBM DB2 as your primary database, PostgreSQL is available with your installation. If you choose this option, PostgreSQL runs on your primary computer, but the Reports database is in a separate database system from the primary database. The configuration process is simplified, because the database is created automatically when you enable data collection.

  Note:
  - The provided version of PostgreSQL is provided as a container image. If your primary database is DB2, you must install either Docker Engine or Podman on your primary server to use this option.

- Use your own installation of PostgreSQL.
  If you prefer to use your own installation, RICOH ProcessDirector can connect to a PostgreSQL database on any system in your network. Before you enable data collection, you must create a database system, database, and database user ID.

Configuration

You use the **Administration** page to configure basic information about the Reports database, such as:

- The database name
- The user and password that RICOH ProcessDirector uses to access the database
- The host name and port of the computer that the database tables are stored on

To collect job, order, printer, or user activity data, configure the appropriate data collector to specify the data to capture. To use the **WritePropsToReportsDatabase** step, add the step to your workflows as needed. When the step runs, it stores the property values in the specified database tables. If the table does not exist when the step runs, RICOH ProcessDirector creates it.

After the database is created and contains data, you can use SQL statements to query data and to export data to external storage for long-term use or use a data transmitter to send the data to another application that accepts data exchange over the REST protocol.

To send data on a specific schedule, or when the **Enabled status** changes, you configure the appropriate data transmitter to specify the interval and frequency.

You can use the One-time transmission function to send a specific set of data outside the scheduled time, such as when testing the transmitter or to resend data that was previously sent.

Data visualization

To analyze data stored in the Reports database, you can use a business intelligence tool, such as Tableau. The Reports feature includes a Tableau workbook with sample worksheets that let you visualize the data for pages printed and jobs by customer. After examining the supplied data visualizations, you can create your own data visualizations and publish them to a server or make them available to management.

In this section:

Usage scenario for Reports

In this scenario, a printing company wants to generate daily reports that show the pages printed on each printer and the jobs printed by each customer. They want to create a reporting dashboard with the two reports and publish the dashboard to a server that company management can access.

Parent topic: No-charge product enhancement features