

ReproRog.NET User's Guide – V 1.2.8

Introduction

Purpose

ReproRog.NET is designed for the batch printing of PDF files in the technical drafting industry. Key benefits of ReproRog.NET include:

- Eliminates the time consuming process of printing PDF drawings one at a time, or creating multi-page PDF files solely for the purpose of printing
- Jobs remain as a single unit that will not be interrupted by other print requests to the printer
- Supports scaling, collation and many device specific functions
- Support for Océ and Xerox wide format devices (colour and monochrome)
- Support for many small format printers and MFDs

Printers and Plotters

The terms printers and plotters are used interchangeably throughout this manual. Sorry.

Definitions

Definition File

ReproRog.NET describes models and plotters using definition files. These definition files contain the attributes of devices, e.g., colour capable. See model and plotter for more information.

Model

A model is a specific printer or plotter. The model definition file defines the capabilities of the model, e.g. paper sizes and types supported, colour capable, minimum and maximum number of paper rolls, etc. The model definition files are plain text files and can be edited to create new models.

Plotter

A plotter is a specific configuration of a model. A plotter inherits the base attributes of its model and adds local information such as name, queue, location, default colour mode, etc. Configuration options such as the installed number of rolls are also defined in the plotter definition file.

Location

A description of where a specific printer is located to assist in its identification.

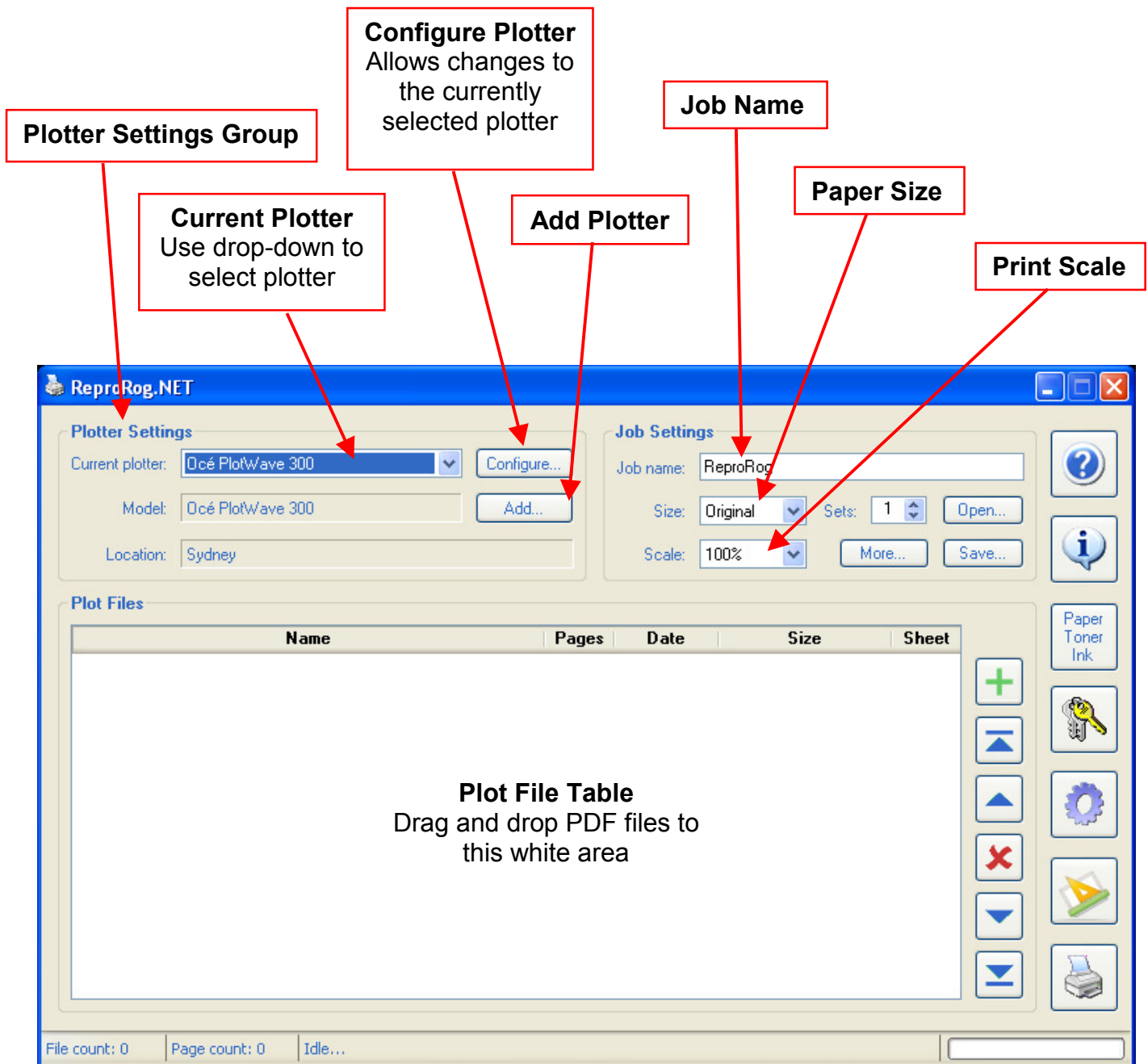
Queue

A Windows printer or printer queue on the local workstation. The Windows printer queue receives print ready data from ReproRog.NET and then transmits it to the target printer, just like in normal Windows printing. The printer driver does no processing; it is just used to get data to the printer.

Basic Operation

Screen Layout

The following diagram shows the layout of the key components of the main window.



Plotter Settings

Add a Plotter

- Click the Add... button
- Choose the plotter/printer model you wish to install
- Configure the options for that printer. You must enter a NAME and LOCATION for the plotter/printer.
- Select the appropriate print queue for this plotter/printer. This print queue only needs to point to the port on which the target printer is connected. ReproRog.NET requires no print processing by this printer queue. The Windows GENERIC TEXT ONLY printer will work fine providing its port is set to that of the target printer.

Basic Models

The following basic models are supplied and are available to be selected when you add a plotter: Printers marked * have had limited testing.

ReproRog.NET Model	Description
Generic Mono MFD	Monochrome MFD/photocopier supporting paper sizes up to A3/B-size.
Generic Colour MFD	Colour MFD/photocopier supporting paper sizes up to A3/B-size. This uses PXL or PCL 5/6 data streams and the file sizes can be quite large.
Generic Colour PDF Printer	Colour MFD/photocopier that accepts a PDF data stream. Most modern devices with PostScript capability fall into this category. The files sizes are much smaller than the equivalent PCL5/6 data.
Océ TDSxxx, PlotWave 300	Océ wide format monochrome LED plotters.
Océ TCSxxx, ColorWave 300	Océ wide format colour inkjet plotters
Océ ColorWave 600	Océ wide format CrystalPoint® printers
Ricoh MP4000/4000B/5000/5000B*	Ricoh monochrome MFD/photocopier using PCL data stream.
Ricoh C4000/C5000*	Ricoh colour MFD/photocopier using PCL data stream for monochrome and PXL/PCL5 for colour.
HP LaserJet5	Monochrome PCL data stream for desktop laser printers up to A3/B-size.
HP DeskJet 5500*	Colour desktop laser printer for up to A3/B-size using PXL/PCL5 data stream
FX ApeosPort-IV C2270*	Fuji Xerox colour MFD/photocopier using PCL data stream for monochrome and PXL/PCL5 for colour.
Xerox 510dp*	Fuji Xerox wide format monochrome plotter using PDF or TIFF data streams.
Xerox 6604/6605/6204*	Fuji Xerox wide format monochrome plotter using PDF or TIFF data streams.
Xerox 6279*	Fuji Xerox wide format monochrome plotter using PDF or TIFF data streams.
Multipage PDF Generator	Generates a single, multipage PDF file from a list individual PDF files.
KM BizHub 600 700*	Konica Minolta monochrome MFD/photocopier using PXL/PCL5 data stream.
KM BizHub C252*	Konica Minolta colour MFD/photocopier using PXL/PCL5 data stream.
Samsung CLP-350	Samsung A4/Letter size colour laser printer.

Choose Plotter

The CURRENT PLOTTER drop down box allows you to select the target plotter/Printer.

Configure Plotter

The plotter configuration can be changed at any time. Only settings relevant to the particular model are displayed or available for setting.

Printing Plot Files

Add Files



Drag and drop PDF files onto the main white rectangle (PLOT FILE TABLE) or use *Add Files* button to browse your computer. The files will not automatically be analysed to determine their size.

Deleting Files



Files can be deleted from the job using the DELETE button.

Reordering Files

There are buttons on the right-hand side of the PLOT FILE TABLE that allow you to reorder or delete files. Multiple files can be selected at one time by holding down the shift key when selecting. Reordering options include:



Move to top



Move up one



Move down one



Move to bottom

Print Job



Click the button to print the job to the selected printer with the current settings. If you need to print another set to a different printer simply choose another printer, set the options and click PRINT again.

Size the Files



This will check the physical size of the drawings. This will take some time but allows the user to check for odd-sized drawings in the batch before printing.

Job Settings

Job Name

The default job name is set to ReproRog. This job name is used to identify your print job in the printer's queue or control panel. When using the mutli-page PDF Generator the job name is the default name for the resulting PDF file.

Size

You can specify a target paper size for your prints. This setting is related to the SCALE setting.

Scale

You can specify a scale for the printing. If you set paper size to something other than ORIGINAL then the option of TO FIT becomes available.

Sets

You can request multiple sets of drawings. This is related to the `COLLATE` setting of the job. The default setting of the job collate is the same as that of the plotter. You can change this via the `MORE...` button.

More

The `MORE...` button allows you to temporarily change default plotter settings such as collation, reverse order, output destination, folding, etc.

Save

This saves links to the files associated with the job for easy recall at a later date.

Load

Allows for easy recall of a previously submitted job.

Configuration

Default Plotter

ReproRog.NET will select this plotter at start-up.

Units

Choose from plot file sizes in mm or inches.

Delete Intermediate

Intermediate files are stored in the user's temporary files folder and it is preferable for these to be deleted when no longer required. This option may be disabled for trouble shooting purposes.

Use Stochastic Dithering

Utilises stochastic dithering to give a better rendering of greyscales.

Paper Series Check Boxes

This allows the user to choose which paper series will be considered when PDF files are analysed.

Paper Size Tolerance

The `TOLERANCE` setting is used to assist in calculating the sheet size of a particular PDF file. If the sheet size is within the tolerance for both height and width then it is deemed to be that sheet size. The units are in points (72 point = 1 inch) and the default is 30 points.

Installation

ReproRog.NET

Download the ZIP archive and extract. Run the `SETUP` program to install ReproRog.NET. Choose the default settings at all times.

GhostScript

ReproRog.NET uses GhostScript to provide PDF processing. We have tested with GhostScript V9.00 but any version greater than 8.00 should work. Install GhostScript using the default settings.

First-time Run

Initial Run

If the ReproRog.NET initialisation file is not present the user will be given the choice to import model and plotter settings from a different source. Typically the default definition files should be used.

Choose a model

If there are no plotter definitions (typical on the first run) then the user will be asked to create one. Choose the model of plotter/printer, give it a name and a location so that the user can identify it, and choose which Windows printer queue sends data to this printer

Advanced

File Structure

ReproRog.NET stores configuration information in text files that can be edited. The location of these files is typically:

C:\Documents and Settings\Username\Application Data\ReproRog®\ReproRog.NET

Within this folder there are 3 sub-folders:

- MODELS – contains the MODEL definition files
- PLOTTERS – contains the PLOTTER definition files
- SUPPORT – contains support files as follows:

Overview of Definition Files

Definition files are text based. A line starting with ' (apostrophe) is a comment and is ignored.

Support Files

PAPERS.RRZ

This file contains information about paper sizes by ReproRog.NET. Note that some models only support a subset of these paper sizes, e.g., an A3 laser printer will not support A1 paper size. The paper sizes supported by a specific model are contained in the MODEL definition file.

ROLLS.RRZ

This file contains information about roll sizes supported by the system. Note that rolls are only supported by inkjet systems such as HP and Epson. These devices are not yet supported.

SCALES.RRS

This file contains the scale values that can be chosen.

Models

The model files define the capabilities and options of specific printers. They are named `model.rrm`.

Plotters

The plotter definition files are created whenever you add a plotter. A plotter's definition is based on a specific configuration of a particular model.

For example consider the Océ TDS 600. This plotter can from 2 – 6 rolls, 0 to 3 cut sheet trays, a direct PDF processing option, a folder and a rear delivery tray. Not every TDS 600 in the field will be configured the same though. The MODEL definition file defines what capabilities (e.g. PDF) are possible but the PLOTTER definition file be files define the capabilities and options of specific printers.

They are named `plotter.rrp`.

Creating and Modifying Model Definition Files

The best starting point is to use notepad or any plain text editor to look at some of the basic model definition files. Most of the parameters use a `key=value` type definition system.

Model Definitions

The keys used are shown in the table below. PJI tags used to create PJI headers and trailers for specific small format devices are also shown below. These tags allow for slight differences between different machines and the PJI codes used.

ReproRog.NET Model Definition File

Parameter	Members	Description	Valid Values	OCEOJT	PDF	PDFPRINT	XESPJL
Name	-	Identifying name of model	string	x	x	x	x
Processor	-	Processor method to use	OCEOJT PXL PCL XESPJL PDF PDFPRINT	x	x	x	x
MinRolls	-	Minimum number of rolls for this model		x	x	x	x
MaxRolls	-	Maximum number of rolls for this model		x	x	x	x
MinTrays	-	Minimum number of trays for this model		x	x	x	x
MaxTrays	-	Maximum number of trays for this model		x	x	x	x
ColourCapable	-	Is device capable of printing colour	TRUE FALSE	x	x	x	x
PS3PDFCapable	-	Is device capable of receiving a PDF data stream	TRUE FALSE	x	x	x	x
HasInBox	-	Does device have a mailbox/inbox	TRUE FALSE	x	x	x	x
GS MonoFormat	-	PDL for monochrome printing		x	x	x	x
GS MonoResolution	-	Resolution for monochrome PDL		x	x	x	x
GS ColourFormat	-	PDL for colour printing		x	x	x	x
GS ColourResolution	-	Resolution for colour PDL		x	x	x	x
MaxWidth	-	Maximum print width in points		x	x	x	x
PCLXOffset	-						
PCLYOffset	-						
MarginLLX	-	Lower left X margin of printer in points (left margin)			x	x	
MarginLLY	-	Lower left Y margin of printer in points (bottom margin)			x	x	
MarginURX	-	Upper right X margin of printer in points (right margin)			x	x	
MarginURY	-	Upper right Y margin of printer in points (top margin)			x	x	
[Output]		Signifies OUTPUT definition - must at least one defined		x	x	x	x
	Name	Description of output option	string				
	Command	Command used to select this output option	string				
	Reverse	Default print order for this output option	TRUE FALSE				
	Installed	Is this output option installed with base system ?	TRUE FALSE				
	Fold	Does this output option provide folding ?	TRUE FALSE				
[Paper]		Signifies start of supported media sizes supported by this model		x	x	x	x
	Paper sizes	A list of one or more paper sizes as defined in PAPERS.RRZ					
[End Paper]		Signifies end of supported media sizes supported by this model					
[Rotate]		Signifies ROTATION definition - must have at least omne defined		x	x	x	x
	Name	Description of this rotation option	string				
	Command	Command used to select this rotation option	string				
[CutMode]		Signifies CUTMODE definition - must have at least one defined					
	Name	Description of this cut mode option	string				
	Command	Command used to select this cut mode option	string				

ReproRog.NET Model Definition File

Parameter	Members	Description	Valid Values	OCEOJT	PDF	PDFPRINT	XESPJL
[Quality]		Signifies QUALITY definition - must have at least one defined					
	Description	Description of this quality option	string				
	Command	Command used to select this quality option	string				
[OceMediaFeed]		Signifies Océ Media Feed definition (exact fit, next largest, etc.)		x			
	Description	Description of this Océ media feed option	string				
	Command	Command used to select this Océ media feed option	string				
[OceContentType]		Signifies Océ Content Type definition (lines & text, poster, etc.)		x			
	Description	Description of this Océ content type option	string				
	Command	Command used to select this Océ content type option	string				
[ModelForm]		Name of form to use for device configuration	TCS3500 PCL PXL XESPJL	x	x	x	x
[PJLDirectHeader]		Signifies start of PJL header for direct print jobs				x	x
	PJL commands	A list of one or more PJL commands for direct printing					
[EndPJLDirectHeader]		Signifies end of PJL header for direct print jobs					
[PJLMailboxHeader]		Signifies start of PJL header for mailbox print jobs				x	x
	PJL commands	A list of one or more PJL commands for mailbox printing					
[EndPJLMailboxHeader]		Signifies end of PJL header for direct mailbox jobs					
[PJLTrailer]		Signifies start of PJL trailer for direct and mailbox jobs				x	x
	PJL commands	A list of one or more PJL commands					
[EndPJLTrailer]		Signifies end of PJL trailer					

ReproRog®.NET Tag Definitions for PCL/PXL Model File

Tag	Typical Usage	Description	Valid Values	Comments
%LF%	Line feed character (0x0a)	Line feed character	0x0a	PJL command line terminator
%CR%	Carriage return character (0x0d)	Carriage return character	0x0d	PJL command line terminator
%LFCR%	Line feed/carraige return	CR/LF characters	0x0a0d	PJL command line terminator
%CRLF%	Carriage return/line feed	LF/CR characters	0x0d0a	PJL command line terminator
%ESC%	Escape character (0x1b)	Escape character	0x1b	Escape character for UEL
%USERNAME%	@PJL SET USERNAME="%USERNAME%"	Owner of the print job/mailbox	Any text string	Current system user name
%JOBNAME%	@PJL SET JOBNAME="%JOBNAME%"	Job name to identify job	Any text string	Entered by user in main form Default is "ReproRog"
%MAILBOXNUMBER%	@PJL SET BOXNUM=%MAILBOXNUMBER%	For KM systems that use mailbox numbers	Numeric, 8 digits	
%COPIES%	@PJL SET COPIES=%COPIES%	Number of copies of each page	Numeric > 0	Inconsistent behaviour Often only one copy produced
%SETS%	@PJL SET QTY=%SETS%	Number of sets of job	Numeric > 0	Inconsistent behaviour Often only one copy produced
%COLLATEYESNO%			YES NO	
%COLLATEBOOLEAN%			TRUE FALSE	
%COLLATEONOFF%			ON OFF	
%COLORMODE%	@PJL SET RENDERMODE=%COLORMODE%		COLOR GRAYSCALE	Print in colour Print in monochrome
%COLOURMODE%	@PJL SET RENDERMODE=%COLOURMODE%		COLOR GRAYSCALE	Print in colour Print in monochrome
%MONOYESNO%	@PJL SET GRAYSCALE=%MONOYESNO%		NO YES	Print in colour Print in monochrome
%RESOLUTION%	@PJL SET RESOLUTION=%RESOLUTION%		Numeric > 0	Resolution of PCL job

Plotter Definitions

Typically the plotter definition file should not be edited manually. There is no harm in doing so but any changes made to a plotter configuration will overwrite the previous file

Paper Sizes

The paper sizes used by the system are defined in the PAPERS.RRZ definition file. The file is a number of PAPER OBJECTS, each of which has the following structure:

[Paper]	Header
Name=Original	Name displayed when selecting this paper size
OJT=Original	Océ OJT command to select this paper size
GS=Original	GhostScript name for the page size
XESPJL=BESTFIT	Xerox XESPJL command to select this paper size
Series=Original	Paper series this size belongs to (ISO, ANSI, ARCH, JIS)
WidthPoints=0.0000	Width of paper in points - always landscape, width > height
HeightPoints=0.0000	Height of paper in points - always landscape, height > width
Widthmm=0.0000	Width of paper in mm - always landscape, width > height
Heightmm=0.0000	Height of paper in mm - always landscape, height > width
WidthInch=0.0000	Width of paper in inches - always landscape, width > height
HeightInch=0.0000	Height of paper in inches - always landscape, height > width