

Administrator's guide

NPT Label PrintManager[®]

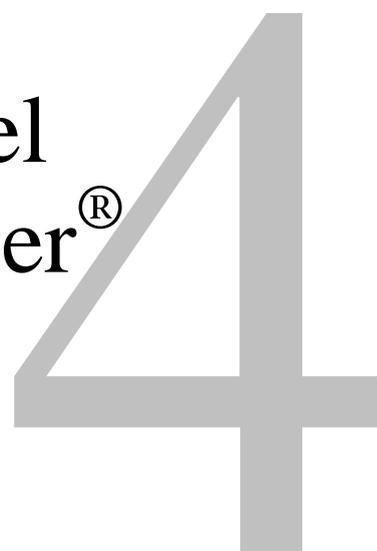


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New features in version 4.1

- New queue handling, choose between FIFO or Round Robin
- All settings now saved in XML format
- Remove invalid printers with a click
- Setup GUI redesigned
- Log is now saved in a SQLite Database
- Settings can now be changed while Print manager is running
- Auto update if printer port is changed in Codesoft
- Direct access to log instead of TCP/IP when running the control panel on the same server as the Print manager service
- New features added to merge rules
- Windows printer port generator from inside PrintManager setup

System overview

The PrintManager system consists of following parts:

- Service
- Control panel
- Setup application
- Codesoft Runtime or Enterprise (this part is not included in the PrintManager software package nor in the installation)

You can choose to monitor the service from a remote machine by using the Control Panel on another machine on the network. There are some limitations by running the control panel from a remote machine. You cannot start/stop the Service and you cannot make changes in Settings.

Installation

Before you install the PrintManager software, you must install either Codesoft Run-Time or Codesoft Enterprise. Version 7.12 or later is supported. When installing the software by running the SETUP.EXE file. Go through the installation procedure and make sure that you install the dongle driver as a part of the installation.

After installing the software, please open the service in Services. At the "Log on as" tab, set the logon privileges to "This account" and enter the credentials for a local administrator user. The local system account ability does not have sufficient privileges to run the PrintManager.

After setting the credentials for the service to start, you must request a softkey code from Setup on the License tabsheet. The PrintManager no longer supports Hardkey dongle mode (formerly used was USB or Parallel dongle).

Once the requested softkey is pasted into the license field, you can start the service.

PrintManager Control Panel

The control panel gives the power to control the service. When running it on a remote machine, it can be used as a remote monitoring tool to the service. In a remote state you **cannot** control the service (start/stop service) but you can control the StopSearch / PauseImport features.

PrintManager Info will give an overview of the latest 20 log entries, the service status, jobs processed and so on. Exiting the control panel will not shut down the service.

The Control pane will give the possibility to pause/resume printing and pause/resume importing. You can also stop/start the service from here. If the service is running on another machine then you can connect the control panel to the service by entering the machine IP and port number for the service. Default port number is 32890.

Extended Log pane reads the log and sorts it according to your settings for viewing.

The Label Monitor pane is for testing and debugging label designs and comparing them to print job data. You can also enable the "Generate Preview" before running a job, then you will get a bitmap picture of the generated label along with the label variables filled with values.

The Setup pane will close the Control Panel and start up the Setup part of the PrintManager. When you enter the setup, the PrintManager will be inactive.

Setup

This button will open the settings part of the PrintManager system. The control panel will close and the configurator will open.

Please notice that nothing will be saved until you press "Save and Exit" - this applies to all the tab-sheets. You can move to next tab-sheet without saving, but remember to press "Save and Exit" once you are finished editing the settings.

You can only open and configure the Setup part if you are accessing / running the PrintManager Control panel on the local machine. If you have copied the Control Panel to a remote machine, you will not be able to open the Setup menu as well as you cannot control the service-state (on/off).

Nothing is saved until you press "Save and Exit" - this applies to all the tab-sheets. You can move to next tab-sheet without saving, but remember to press "Save and Exit" once you are finished editing the settings.

General setup tab

Job import startup state

This will set the state in which the service will start up. In debugging state it is useful to have it set for “No, do not search for job files”

Set job file polling interval

Set the time polling value. Default value is 500ms. Please adjust if needed. If you are searching for print job files at a remote drive (any network drive), please be aware of the network traffic increase if you choose a high-speed polling setting. Lowest setting is 100ms.

Print queue type

Choose how PrintManager handles printer queues. In first-in-first-out PrintManager will send jobs to queues in the order they are received. In Round-Robin PrintManager will send the jobs to the next print queue in line and keep going to the next queue, continuing until the end of the printer queues and then start from the beginning again.

Sort job files by file name

You can ensure the order of the import within the search interval by choosing this option. Any printjobs found in the polling directory will be sorted before import. This is useful when many printjobs are written to the folder at the same time / with same timestamp.

Optimization schedule

This is a re-index ability for the Codesoft printengine. It will automatically restart and re-index the print process and the queues. Default re-index schedule is after 1500 printjobs. Change and adapt if necessary. If new settings are distributed to the PrintManager through file push of the XML-file, the new XML file will be automatically loaded at this given time.

Close Label Print

Selecting this option will force Codesoft to close the label after each print job is done. In some situations this ensures the data consistency of variables fields and also enables a live replacement of label design files. We recommend enabling this option.

Codesoft design paths

Choose where the PrintManager can find for the label design files (Codesoft LAB files).

You can add more paths if you have your label design files in more places, but be aware that if the same label design file is situated in more than one of the chosen directories, the one that is found first will be the one chosen for the print job. Multiple label design paths should be chosen with caution. The search priority will be from top to bottom of the list.

Label image generator

Enable image creation

This will set the creation of preview image files permanently to “ON”. There will always be generated an image file of the labeloutput.

The filename of the image will be generated with following syntax:

ddmmyyyyhhnnsszz_jobname_labelname.bmp

dd:Day mm:Month yyyy:Year hh:Hour nn:Minute ss:Seconds zz:Milliseconds

Label image directory

If a path is defined, for example: "Label image directory=C:\Labels\Preview", an image file will always be generated in this folder. These files are **not** deleted automatically; note that they are approximately 4-5mb per file.

Only generate label image when quantity is minus one (-1)

If you set "Quantity=-1" in the print job file AND have defined the **Label monitor directory** with a path, you will get an image generated without any real print jobs are going through to the printer / print spooler. This enables you to create image files without actually printing anything on the printer.

If you only need to store images when you set "Quantity=-1", you must check this option. Then the label monitor directory will only have images added to it when a negative quantity is set the print job file.

Use job file name as image file name

Enable to save images generated as the same filename as the job file. It is also possible to choose file format and scaling.

Job import tab

All print jobs are processed through rule sets.

At the bottom of the screen a list of saved rule sets is displayed.

To create a job rule, choose your settings for the jobs and save them in the list, by clicking “add job definition”.

File name/path

Define a file name or an extension only here.

. is a valid definition as well as fully defined file names.

Print job path

Write the search path or choose it by clicking the Path button. If you press the INFO button, you will get a hint for defining wild-card paths / sub-paths paths

Label name definition

Define where in the print job file the label file name is located.

- A field number (in an ASCII file), typically field 1
- XML tag (refer to **Fejl! Henvisningskilde ikke fundet.** for more detailed info)
- Always use standard label file (so no label name definition is needed) for this job

If you choose XML tag, file formatting and processing settings are not optional, and they are greyed out.

If you choose a field number or a standard label file, the following options are useful to have a look at:

ASCII file formatting settings

When using ASCII file print jobs, please define which field separator you are using in your print job file. Press the Change field separator button to choose a valid field separator.

If you are receiving the ASCII file print jobs from system with a different codepage setting, you may choose to change the auto-codepage-detect to a specific setting.

ASCII file processing settings (Codepage)

These settings apply to ASCII file jobs only.

- Allow multiple jobs in same print-job file. This will make the print manager search beyond the first line in the job file.

- Skip first line in job file. This will start searching for print jobs in line 2 in the ASCII file. Useful if you have database field names in line 1.

- Apply merge rules to print job before processing. This will enable a job handling ability (cut, move, merge) to a print job before it is processed by the PrintManager. Choose one of the available merge rules, which are defined on the Job Handling tab sheet (More: see **Fejl! Henvisningskilde ikke fundet.**).

Saving / editing rule sets

When a job rule is done, press the down-arrow to put it into the list of valid job rules.

If you want to alter an existing rule, highlight the rule in the list and press the up-arrow. The job rule will then be available for editing in the upper part of the screen.

Remember to put it back into the list to save it.

Nothing is saved until you press "Save and Exit" - this applies to all the tab-sheets. You can move to next tab-sheet without saving, but remember to press "Save and Exit" once you are finished editing the settings.

Printer setup

In order to sort the incoming print jobs to different printers you need to address the print job to a printer name. This is easily managed in the Printer setup. Prior to doing this setup, you must define your printers in Codesoft. You can use the shortcut button here to open the “Add printer” dialog in Codesoft directly. If you have already defined and addressed your printers in Codesoft, you can import them all at the same time with the button “Import All Codesoft printers”. This will fetch all you printers added in Codesoft and import them to this Alias list. They will automatically be given the same name that you called them in Codesoft. This should make it much easier to define and redefine your printers. You can import all, and afterwards edit some of them manually here so they fit your needs for naming them.

If a printer is highlighted in red colour, it means that this entry does no longer exist in Codesoft. You can delete the entry or import it manually again by clicking the drop down list at the top right corner of this tab sheet and choosing the printer again. If you change a port or something else concerning this entry inside Codesoft you will have to re-enter it in this list or auto-import it again.

Refresh / reload printers will reload all printers in the list. If a port has been changed for a printer it will be updated in the list as well.

Remove all invalid printers will delete all printer aliases that are associated to printers no longer available.

For larger / multiple installations, you can import and export the printer alias list to be distributed on multiple print manager installations within in your corporation.

Add Codesoft printer will open Codesoft printer management and allow adding new Codesoft printers.

Nothing is saved until you press "Save and Exit". You can move to next tab-sheet without saving, but remember to press "Save and Exit" once you are finished editing the settings.

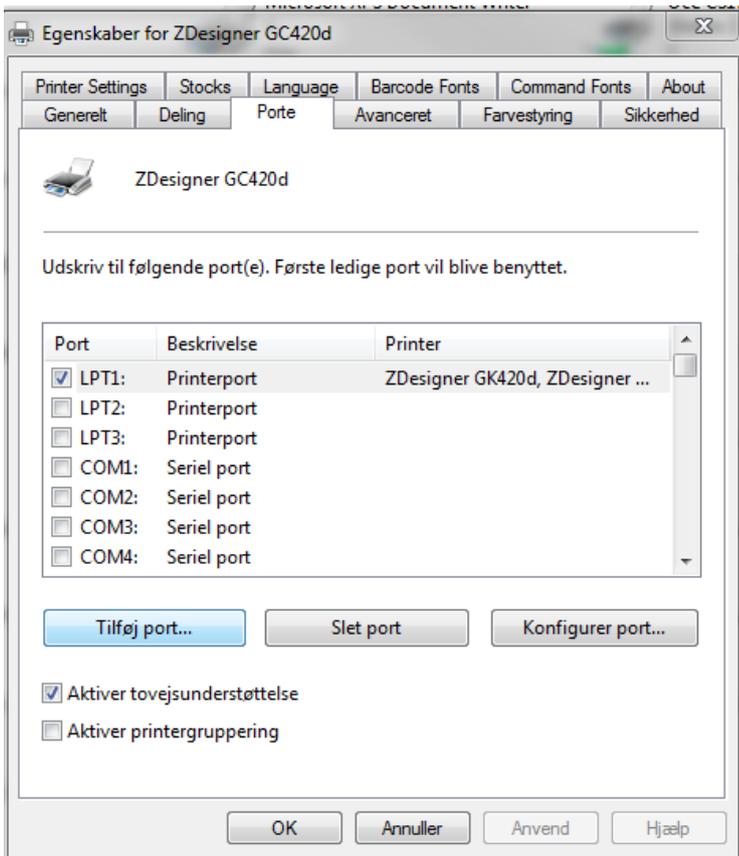
Adding new printers:

Before version 4.2.7.0

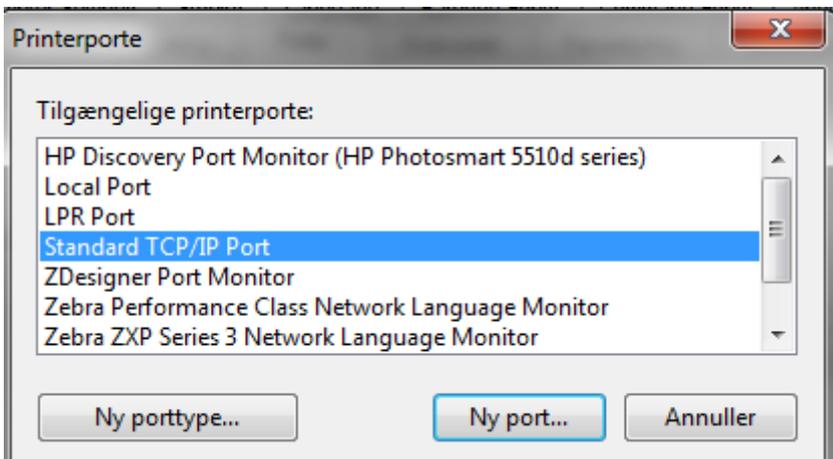
To add new printers to PrintManager first create a new printer port.

Go to start → Settings → Printers

Create a new printer or select an existing and right click → properties → ports:

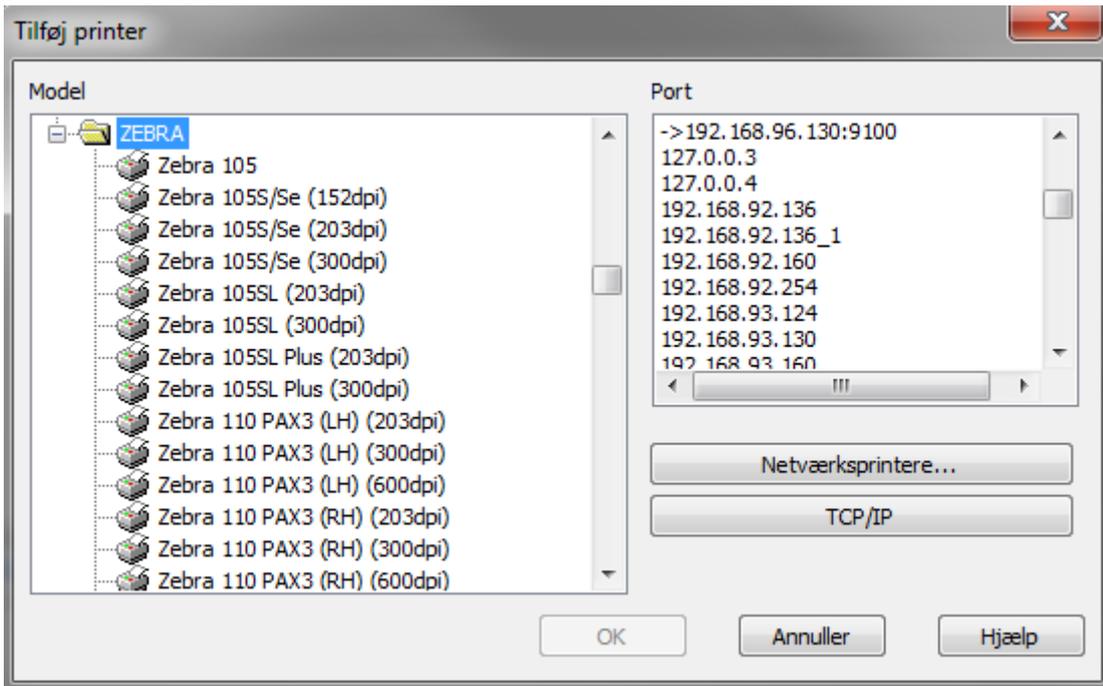


Click on "Add port...", Choose standard TCP/IP port and click "New port...":



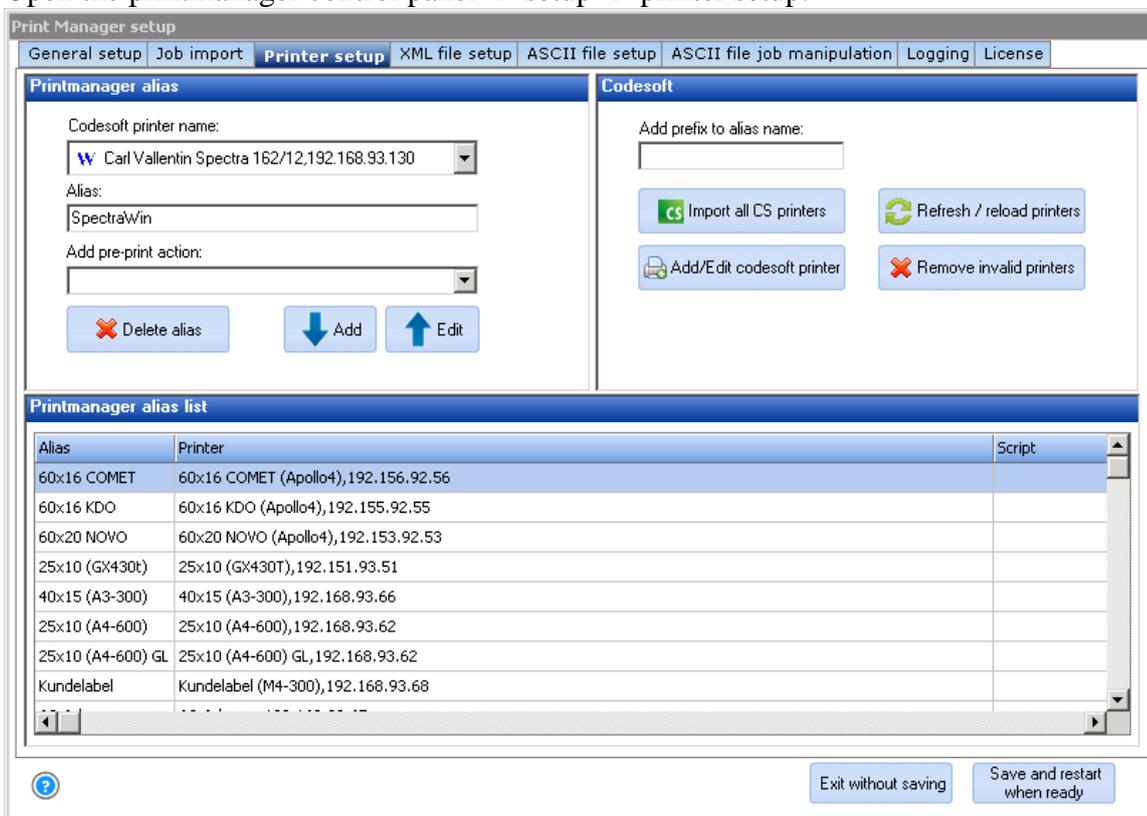
When asked enter the IP address of the printer and let the computer autofill the portname. Creating a new port can take several minutes depending on the system. When the port creation is complete click finish. If you are adding the port on an existing printer make sure to change the port back to the original once when you are done.

Open Codesoft and press F5 on the keyboard. Click on "add..."



On the left select the printer model you are adding and on the right select the port just created. Make sure to choose the port without a -> in front of it to use the new queue created for the printer. Click ok.

Open the printmanager control panel → setup → printer setup.



Click on "Import all CS printers", the printer will now be added to the list of printers. If the printer alias needs to be edited, select the printer and click on "Edit", type a new alias and click "Add."

When done click on “Save and restart when ready”. The printer is now added to Prinmanager.

After version 4.2.7.0

Click on Add TCP/IP printer port and type in the IP address of the printer, click Add TCP/IP port. Now open Codesoft and follow the same procedure as described in the “Before version 2.7.0” paragraph.

XML file setup

Using XML as print job file will enable the power of multiple variables *without* defining them inside the PrintManager first. You will need to make sure that the variable names inside your Codesoft label file have the exact same names as your label variable tags here.

XML is basically just a number of defined tags inside a XML file. There are 4 system variable tags, which can be modified from their default, but please only do this if the tag names are reserved otherwise inside your host ERP system. The support of the system will be much harder when the default tag names are changed.

You can view a print job example at the tab sheet to get an overview. It looks like this:

XML file example

```
<PrintFiles>
  <PrintFile>
    <PrintSpecification>
      <LabelName>palletlabel</LabelName>
      <PrinterName>Gate56boxlabel</PrinterName>
      <PrintQuantity>2</PrintQuantity>
      <PrintCopies>1</PrintCopies>
    </PrintSpecification>
    <PrintData>
      <ProdNo>12345</ProdNo>
      <ProdName>UP4711</ProdName>
      <Weight>2.3</Weight>
      <WeightUnit>KG</WeightUnit>
    </PrintData>
  </PrintFile>
</PrintFiles>
```

Once you have made a test output from your ERP system, you can validate it by clicking the “Validate XML Print Job” button. You will then have to choose your XML file to verify and the system reports back to you if it’s OK or if it has errors.

Everything inside the tag <PrintFile> will be read by the PrintManager. Everything outside the end-tag </PrintFile> will be ignored.

We support UNICODE (special characters) only if the XML files are saved as UTF-8 formatted files. If you need characters as Æ, Ø, Å, Ü, Ä, Ö, or whole character sets as cyrillic, greek, Arabic, chinese and so on, it is important that you ensure that the files is encoded in UTF-8.

If you ignore this encoding specification, the lines where the special characters are within will be empty on the label.

Tag Explanation

<PrintSpecification> holds the basic info for the print job:

<PrinterName> is the alias for the printer. This is needed to identify it in the system. The setup of printer IP etc. must be defined inside Codesoft anyway.

<LabelName> is the name of the Codesoft label design file that is to be used for the print job.

<PrintQuantity> is the number of labels to be printed (normally this one is used).

<PrintCopies> in number of copies to be printed of this label. Often used when you need copies of labels with matching serial numbers or labels with counters on that generates a new number for each label printed. This tag should have the value "1" when not used, or else you will not get anything sent to the printer. If more copies are needed, just edit the value to fit your needs.

<PrintData> holds all the variables needed at the defined Codesoft label design. It up to the host system to ensure that the data consistency is kept high, so tag names must be exactly the same as the variables inside the Codesoft label design. When creating the variables inside Codesoft, do not use special characters like /, #, %, æøå and so on, and please also avoid spaces in the tag- and variable names.

You may present as many PrintData variables as you feel like in your XML print job file. The PrintManager will only use the ones that are present in the format specified in the <LabelName> tag. The surplus variables will be ignored for the current label. In this way you may present all your variables / variable tags within all of your print jobs no matter if they are needed or not.

ASCII file setup

This chapter applies to ASCII print job files only. If you are using XML files for print jobs this part is not used. When using ASCII file print jobs, you need to define and pair the label designs and print job files so the order of the variables are matched to each label file.

Sorting the variables

Open a label design file. The variables from the label design file are fetched and displayed in the grid. The order of the freshly imported variables is random, and you need to sort the variables to fit the order of the variables in the ASCII print job file belonging to this label. Click and drag on the variable number next to the variable. Move the variable to the correct position in order to match the order in the print job file.

Following variables are system variables, and are automatically generated by the PrintManager (they are not a part of the Codesoft label design):

- *Label Name*
- *Print Quantity*
- *Print Copy*
- *Printer Name*

If you have variables in the list that does not have a match in the print job file, please un-tick the “include tick-box” to exclude them from the setup. These un-ticked variables will be ignored when pairing the variables.

You can at any time validate the current setup by clicking the Verify button.

Setup list

The setup is automatically saved in the Setup list – you do not need to manually save the modifications you make. You can always call forth a saved setup by double clicking the setup, or you can delete a setup by marking it in the list and pressing the delete button.

At the top right of this tab sheet, you can change the location of where the label-setups are stored. We recommend you keep the default value to ease support at a later time.

Global setup

If all label designs are built with the same variables in them (build over a template with included variables), you can copy your template into a new label design file (no need to have anything but the variables in the label design) and rename the label design file to “global.lab” and place it in the label design directory. This means that you will only have to sort the variables for one label file and all jobs received will then be processed after this template.

The setups for each label will be automatically saved in the list. But still remember to press "Save and Exit" once you are finished editing the settings, you may have other settings that needs to be saved before leaving the setup.

ASCII file job manipulation

This chapter only applies when using ASCII files as print job files

Merge rules

Cut and modify print jobs before they are imported into the PrintManager.

Command examples for making merge rules

Var1 = [fixed text]

Var2 = [fixed text] & var1

Var1 = Trim[var1;1-3]

Var1 = Trim[var1;1-3] & var6

Var4 = Trim[var1;@]

Var6 = Trim[printjobfile;3-9] & var1 & [fixed text]

Any combination of the merge commands is valid.

Why use merge rules

You have a print-job file containing
labelname;quantity;Text1;Text2;barcodedata

But in order to direct the print job to a printer, you need a variable that specifies the printer name. If you are not able to modify the data stream from its origin, you have the possibility to cut and merge in the existing variables before they are read by the PrintManager. In that way you have the opportunity to alter your original print job to contain e.g. a printer name.

How to make merge rules

When you see "var1" or "var2" in the text examples here below, the names refer to the location of the variables in the print job, not the content of the variable. Otherwise the names in the variables are meant to represent a value of the variable.

A print job could look like this:

Boxlabel;1;Wallpaper with blue stripes;For indoor use only;123456

The variables in the print job file are:

labelname;quantity;Text1;Text2;barcodedata

Merge rules: Variable assignment options

Direct assignment

Var6=[ZebraPrinter1]

This will work for any variable in the print job, and overwrite the initial value of the variable with the fixed value in the [brackets]

Append and merge assignments

the command "&" will append data to a variable

Ex: Var1 = [Boxlabel] & [Version1]

this will change var1 to contain: "BoxlabelVersion1"

Ex: var1 = [Boxlabel] & var5

this will change var1 to contain: "Boxlabel123456"

Trim and append

The command "Trim" will make it possible to take parts of a variable and put it together in another way.

Trim[var1;position from - position to]

Trim[var1;copy all until certain character, from left to right]

Ex: Var1 contains info@npt.dk

Var1 = Trim[var1;6-8]

Result would be: npt

Var1 = Trim[var1;@]

Result would be: info

Example of an IF/Then scenario:

IF (value;operator;string;[True];[False])

Valid Operators: > < <> =

Ex.: AddLabelQty -> IF(var1;=;[];[1];var1)

If Var1 has no value then give Var1 value "1" else keep value.

Trim and other functions can not be used in IF functions

Print job filename

If the value of the filename of the print job is needed to merge into the print job, this is now possible. Ex: the filename is "palletlabel.txt" and you need that value (or part of it) as your label name in the print job:

var1 = Trim [printjobfile;1-11]

then var1 will get the value "palletlabel"

We have implemented a simple test-import tool, so you are able to verify your handling merge rules before activating them.

Print job manipulation

In some scenarios there might be a need to chain print jobs with other files. This feature will give you the possibility to add a job- or command file to be sent to the printer along with the label printed.

These certain situations could be when a printer needs a clearing command or some other control features before or after a print job, and it is not possible to set this inside the label design in Codesoft. This is very useful for some printer brands which fit into automatic printing systems without interaction. Enabling this feature means it will be active for all print jobs processed. If you have this need, you must be prepared to dedicate the PrintManager to this task. Purchase another

license if you need to run with these types of print jobs and also want to use the PrintManager for standard label print jobs.

Nothing is saved until you press "Save and Exit" - this applies to all the tab-sheets. You can move to next tab-sheet without saving, but remember to press "Save and Exit" once you are finished editing the settings.

Logging

The enhanced log will help you debug the labels being processed with errors and the setup state if something is wrong.

Log file

Define where the log file is exported to.

Heartbeat

This sets the socket number for communicating with the PrintManager service. This can be used to monitor the service state from a central, remote location. It will respond with the current state that the service is in, e.g. "Printing", "Ready", "Pause Import and Printing"

Print job log

You can move a print job after being processed by the PrintManager. You can choose to copy the printjob instead of just deleting it. You can choose from successful and unsuccessful processing and define a folder for each kind of outcome. If you have more than 1 printjob inside each printjob file, this feature will *not* work correctly - it will only log the first printjob in the file.

This is useful for systems needing an acknowledgement for the print job being processed or for systems which needs the data to be stored or processed after a label has been printed.

It is also possible to change the location of the log file to a specific destination other than the default location.

SMTP reporting

Enable to have PrintManager send errors as email to a specified address.

License

Please enter your credentials and press "Request license key". An email will be sent to us with your specific machine information and credentials, and we will return your request with a valid registration key. You must copy the string from the email you receive and insert it into this field, and press "Activate license key". You can only do this once, and the software is now locked to this machine. If you need to move the software at some point of time to a new machine, you must unlock the license on the old machine and on the new machine you must repeat the activation process.

The activation code is distributed back to you manually by us, so your license will be validated manually before we return the activation key to you.

About

NPT Label PrintManager was first released for industrial use in 2001. The need for automated label printing through a user friendly design- and management platform and the demands for an easy and strong configurable setup were requested by many of our customers.

Version 4.1 was released in 2013 and holds many advanced features for optimizing your label printing and management needs. Our reference list count the largest companies in Denmark and many of them having their production facilities located at the other end of the World, but all label management is still centralized at the company headquarters.

If you need support for the software, please refer to this help file. If you have discovered something about the functionality that we need to know about or if you want to suggest something / contribute to improvements, please send an email to support@npt.dk with PrintManager support in the subject field.

If you have signed up for a remote support contract, please call us on the phone and visit our website, press the support button and start the Team viewer remote support software tool.