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Scan & Print
implementation guide

Trigger automated label printing

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WHY AUTOMATE LABELLING?

4:00 x (5 manual print jobs per hour) = **20:00**

Manual label printing (find & open file, enter data in correct label fields, press print)

5 manual print jobs per hour

Time spent on labelling: 20 minutes/hour

B. Automate with manual trigger
ERP / Scan & Print app / Scanner / Brady printer

1:00 x (5 print jobs per hour) = **05:00**

Automated label printing (scan barcode)

5 print jobs per hour

Time spent on labelling: 5 minutes per hour

80%
efficiency increase
in label printing

Why choose Brady?

REQUIREMENTS	APPS	PRINTERS	INSTALLATION EFFORT

ERP/LIMS

Computer
- 1.5 GHz minimum
- 32 (x86) or 64 (x64) bit processor
- 4 GB RAM Memory (minimum) 8 GB RAM (recommended)
- 750 MB disk space
- Windows 7, 8, 8.1 or 10

Scanner
- USB
- Serial Keyboard Wedge

Brady
Workstation
Scan & Print app

4HR — One time installation & implementation: 4 hours

02:00 — Recurring: label template change reconfiguration: 2 minutes (can be delegated)

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Can I automate label printing with Brady?

The answer is most likely: yes!

1. If you can dump data to CSV-files, a fully automated label printing software option becomes available. If you add barcode scanners, you can also opt for automated label printing with a manual trigger. Flexible label printing location options become available with Wi-Fi coverage.

Most systems provide an option to dump data to CSV-files. Discover how on page 15.

2. If you cannot dump data to CSV-files, and label data is or can be made electronically available, you can import these data directly in a Brady printer with the Brady Workstation Excel Import or Advanced Import apps, and still cancel the need to retype any label data.

Brady offers 3 options to automate label printing:
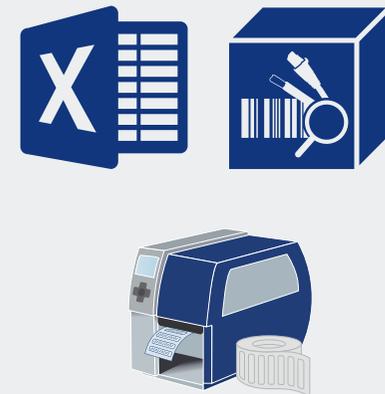
Fully automate label printing	Manually trigger automated label printing	Cancel data retyping
See our Data Automation guide	See this guide	Use the Advanced Import app from Brady Workstation

Download Scan & Print

The Scan & Print app from Brady Workstation is a desktop application that will start printing labels after a barcode is scanned. Worksheets could contain CSV-file barcodes to trigger label printing with Scan & Print. The app will follow a user defined mapping to place data from a CSV-file correctly on a label and start printing on a designated printer.

Go to **http://workstation.bradyid.com/scanandprint** and download Scan & Print. It is possible to activate a 30 day free trial. Purchased licenses can be entered after installation.
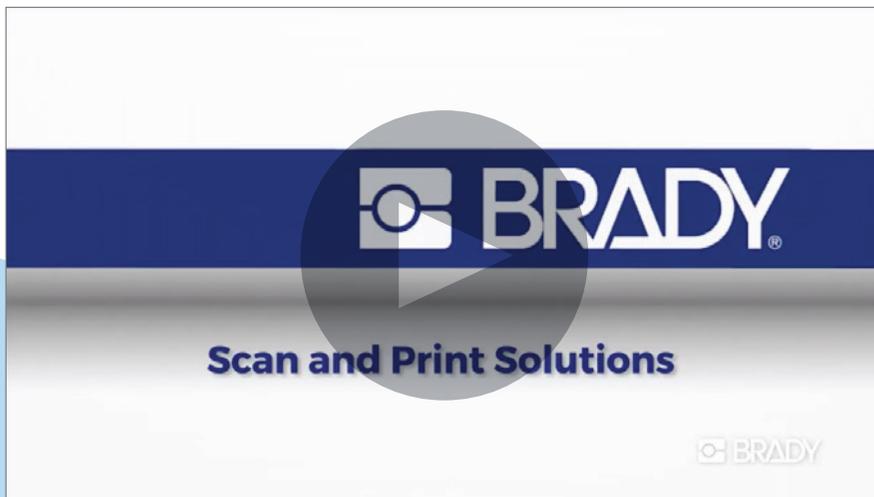
Right click the setup executable and run it as an administrator.

If you already own Brady Workstation, go to the built-in app store
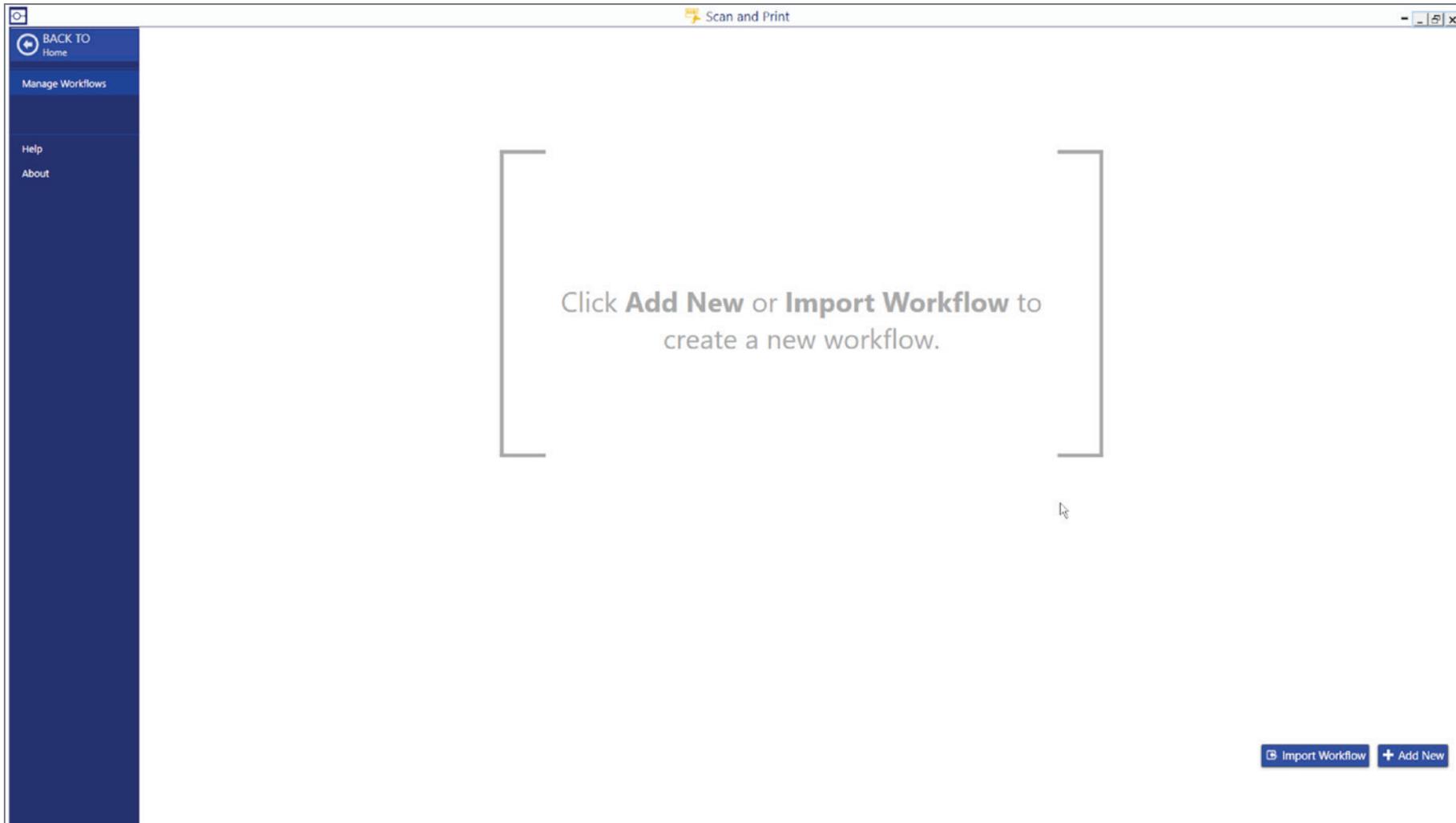
Brady App Store >

See how it works!

Set up Scan & Print:

Open Brady Workstation and select the Scan & Print app. You will see Click Add New or Import Workflow.

Click the + Add New button to set up a new workflow.

1. Name:

Enter a name for your workflow: choose a name that is recognisable to end operators. OPS_WF_123 is not recognisable, rather use "Print final product labels".

2. Mode: Select a scan mode

a. **Scan:** In this mode you will scan a value for every field of the label. Scan & Print will prompt you which value to scan. Each value needs to be available as a barcode.

b. **CSV:** In this mode a barcode of the full name of a CSV file (including its extension "ORD12345.csv") will be scanned to complete all fields of the label template.

c. **Custom script:** Scan & Print enables you to create a custom javascript label.

3. Template

Select a Brady Workstation label template.

Click 'Next'.

Add New Workflow   X

Enter a name and general settings for your workflow.

Name:

Mode:

⦿ Scan
Use for workflows where you scan the data to include on your label.

◯ CSV
Use for workflows where you scan the name of a CSV file that provides the label data.

◯ Custom Script
Use for workflows with custom scripting for advanced process control.

Template: ⓘ

[   ] Browse

Cancel   Next

If you have not used Brady Workstation before, open the Brady Workstation Custom Designer app to create a label template. The Custom Designer app is included in your Scan & Print download. Watch the 4 minute video and see how label templates are easy to create with the Brady Workstation Custom Designer app.

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4.a. Using scan mode

Define a prompt for each item to scan. This prompt will be visible on the screen of the computer the scanner is attached to. The prompt should make clear to the operator which barcode to scan.

Scanned items will appear on label template fields in order of scanning.

Click 'Next'.

Select the printer on which the labels from this workflow will be printed.

Select to scan the amount of label copies, or set a fixed number of copies for this workflow.

When done, **click 'Save'.** Your workflow will appear on the main screen of Scan & Print. To open your workflow, press the run icon.

Add New Workflow   X

Select your default printer and number of copies to print.

Default Printer:

 Brady BBP12

Number of Copies: ℹ

◉ Scan or enter number of copies at run time
◯ Use pre-set number of copies   1

Cancel   Back   Save

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4b.　Using CSV mode

Identify the location where your system will store data dumps in CSV-files. Make sure there is an example file in the location you are about to select.

When a location is selected, CSV-files currently in the located folder will appear in the list below. To use CSV-files with the Scan & Print app, they should include column headers. Select your example file and **click 'Next'.**

Add New Workflow   X

Select where to look for your CSV files and choose a sample file.

Path to CSV file folder:

C:\Data Automation Demo Folder   Browse

CSV Files

Select a sample file to use for mapping data fields to your label template.

data.csv

Cancel   Back   Next

Map label template fields and CSV-file column headers.

Click 'Next'.

Add New Workflow   X

Map the columns from your CSV file to the objects on your template. You can hide individual template objects if you do not want to use them in your workflow.

📄 **Sample file name: data.csv**

Object Name ℹ️	**Column Name** ℹ️	**Show/Hide**
TXT_SCANNED_TEXT	serialnumber ▼	👁️
BC_SCANNED	description ▼	👁️

▶ Hidden Objects

Cancel   Back   Next

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Select the printer on which labels from this workflow will be printed. Define whether operators need to scan or enter the amount of label copies, or centrally define the number of label copies needed.

When done, **click 'Save'.** Your workflow will appear on the main screen of Scan & Print. To open your workflow, press the run icon.

Add New Workflow   X

Select your default printer and number of copies to print.

Default Printer:

Brady BBP12

Number of Copies: ⓘ

● Scan or enter number of copies at run time

○ Use pre-set number of copies   1

Cancel   Back   Save

4.c. Using Custom Script mode

Contact Brady if you want to use a custom JavaScript.

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How to set up CSV data-dumps?

Can your database export data in a CSV-file?

Most systems have an option to dump data to a CSV-file.

A CSV file is a data file that contains information in a human readable instead of a binary format. A CSV file can be opened with notepad in order to read its contents. It is a record on a single file in which lines are divided by punctuation marks, usually e.g. commas or semicolons.

Example:

```
Company, street_number, postal code, city

Brady NV, Lindestraat 20, 9420, Zele
```

How to integrate CSV data-dumps?

Data-dumps to CSV-files can be integrated in existing business processes or databases by creating a hook.

1. Integrate CSV-dumps by creating a hook in an existing business process so that the export to CSV becomes part of that particular business process. Check with your business administrator if this is possible.
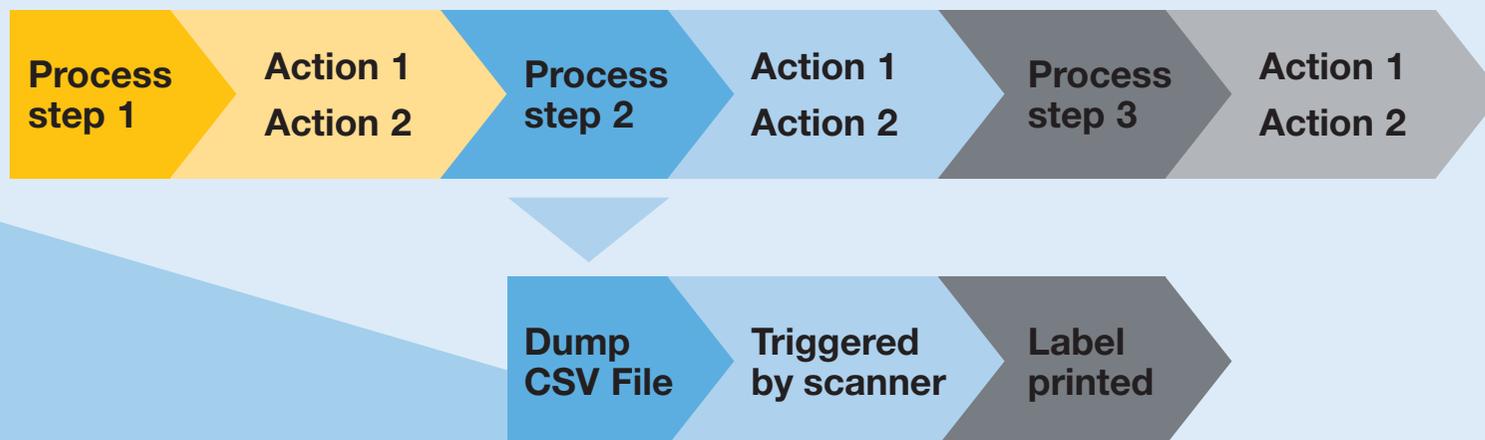
2. Integrate CSV-dumps by creating a stored procedure in the database that can check whether a new record is added or a field is updated in order to trigger a dump of selected data for labelling to a CSV file. Check with your database administrator if this is possible. Additionally, label data could be sent to an inbox and a hook can be created in the mail server to save label data attachments automatically.

A standard business process

| Process step 1 | Action 1 Action 2 | Process step 2 | Action 1 Action 2 | Process step 3 | Action 1 Action 2 |

A standard business process with a hook to dump data in a CSV-file

| Process step 1 | Action 1 Action 2 | Process step 2 | Action 1 Action 2 | Process step 3 | Action 1 Action 2 |

| Dump CSV File | Triggered by scanner | Label printed |

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Top tips for purchasing label printers

These tips can be practical to select/purchase the best label printer for your setup.

1. Decide first if you want to print labels on a fixed or flexible location. If your label printing location needs to be flexible, select Brady portable label printers with Wi-Fi capabilities. If you will be printing labels on fixed locations, select from a wide range of Brady desktop label printers.

2. Determine how many labels you will need to print per day, and decide on the print quality in terms of DPI.

3. Decide how printers will be connected. Will you use the wired or wireless network? Or will you connect printers directly to the computer running the software with a USB-connection?

4. Determine which label size and label material your label printers should be able to print. Label reliability and legibility is heavily dependent on label material. Discuss ideal options for your environment with Brady to avoid label failures or relabelling operations.

# Case example: Automated label printing with a manual trigger in Hot Tub manufacturing

Challenge

A hot tub manufacturer produces custom bathtubs for large wellness sites. Each of the tubs start from an existing core product that can be customised. For each order, specific ERP database fields are defined and completed with data.

As each tub has a different completion date, labels are not printed immediately when the data becomes available. This is done at a later time during production. The information for the labels however, is available when the order is entered in the ERP-system.

The hot tub manufacturer was looking for a way to avoid having to reprint all these data when labels needed to be added to the final product.

Label template
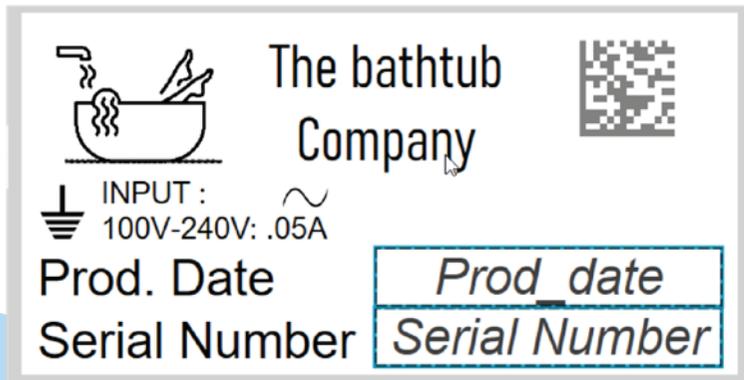
CSV-data dump set up

The manufacturer's ERP system does not allow direct data exports to CSV-files. It can send an email however. A hook was created in the company's email server and perl was used to extract the required data from an email in order to save it in a CSV-file.

The email's subject line each time equaled the order number which was used to name the CSV-file. The email itself contained the data for the CSV-file. An email with subject line "ORD12432 and message "Serialnumber, "date", "BT102394", "2019-10-15" resulted in a CSV-file containing those data. This file was then stored by the mail server in a shared drive on the Windows server with relevant permissions for the operator using the Scan & Print app.

Scan & Print set up

- The name of the workflow is "order complete".

- Scan & Print CSV mode is used, the operator will scan 1 barcode that contains the order number + the .csv extension (example : "ORD12432.CSV")

- Folder: The mail server has a plugin that saved the CSV file on c:\attachments

- Mapping: the first column of the csv-file, containing the serial number, was mapped to the text field for 'serial number' along with the barcode. The production date is added to the label field 'date'

When production is finished, the operator goes to the computer to run the "order complete" workflow. He scans the barcode and the label is printed.

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