DJ45plus

▶ *Hp TIJ2.5 Inkjet Coder*

The DJ45plus has the features that expand the capability of coding and marking, remote control from an external device. It performs versatile functions to apply a great deal of industrial coding and marking applications. Its built-in communication interfaces, to connect to an external device, makes itself ideal for serialization and track-and-trace applications, and be integrated into an automatic system in the industrial 4.0 era.

Inkjet Technology by **hp** ®

A turning point that you need an advanced inkjet printer, the DJ45plus, to proceed massive print jobs and external data printing efficiently.

Coding and marking is simple for manufactures if only the manufacturing date and batch code are required on their products. However, as their business is growing, a plenty of printing files with various templates are created to follow the regulations for different customers. It is time-consuming for prework of production lines such as to find and open the right print file from numerous files and change content correctly.

Obviously, it is vital to build an organized system to manage all the required data and printing message files. DJ45plus, a versatile printer with external connectivity ability, offers a solution for industrial coding and marking. It plays a role to quickly execute database printing, print out variable content, and be integrated into an automatic system, being a part of industrial 4.0 era.

• Select right print job from massive files quickly

• Database printing from a computer or cloud server

• Print variable content from an external device

• Remotely control and monitor print jobs

Integration through industry standard communication protocols

Operate Software

User's network/ cloud server

Communications to:

Factory Equipment:
Dotjet DJ45plus coder
Barcode scanner
Sealer machine

• The DJ45plus has multiple communication interfaces.

Communication Interface TCP/IP, USB, RS232

With different connection interfaces, DJ45plus can be integrated with your production line and implement external data printing.

RS232　　　**Ethernet**　　　**USB**

Directly print out the external data that is delivered in ASCII text string
Data is sent to printer via external connectivity and printed out.

- Weighing Scale Application

- Barcode Reader Application

<Take External Source as File Name> by a barcode reader

- The DJ45plus opens the file (.prn) which is named as the scanned barcode.
  Every message file can be built for a specific template as print need.

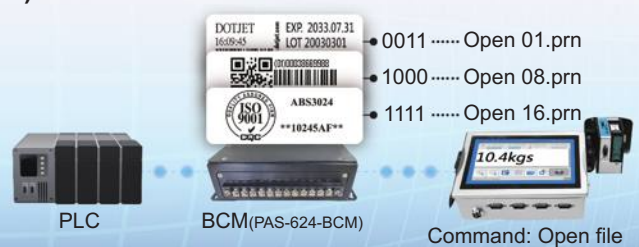**<Data via Index> with database by a barcode reader**

Item Number	Product Name	Quantity	Unit price
F22351	Mango	60	$0.35
F22352	Apple	100	$0.22
F22353	Grape	40	$0.26
F22354	Orange	120	$0.15

- The first column <Item Number> of the database is defined as the index column.
- After receiving the scanned data (F22354, for an instance), DJ45plus searches for the matched data from the index column and picks up the required data in the same row to print out.

Connection to PLC through a BCM Box (Binary Code Module)

- BCM Box: 4 ports to connect to PLC. Data is input via binary code, 0000-1111
- Remote control to open files via the PLC. 16 print message files can be appointed in the DJ45plus controller in advance.
- BCM Box is a customized product, please contact Dotjet for further details.

0011 ······ Open 01.prn
1000 ······ Open 08.prn
1111 ······ Open 16.prn

PLC　　BCM(PAS-624-BCM)　　Command: Open file

Database Printing

Communication through:
Excel (*.csv), MySQL, SQLite(*.db3, *.sqlite), Database, RS-232, MQTT, TCP/IP, Dotjet Protocols

ABS3024

10245AF

2010200
FG-1004
2420-31
(01)108251451
556216546

Methods to send database to DJ45plus

1 Transfer a database file into DJ45plus via a USB stick or by Ethernet.

2 Distribute individual string of database one by one to printer by Ethernet.

3 Fetch database from MySQL by Ethernet

High-speed list prints up to 10 prints per second. Image file name can be included in a database. Please contact Dotjet for further details.

• Database file example: Excel (*.csv)

Network Printing

DJ45plus contains a network interface and protocol that allows a host system to connect to it. Multiple communication methods allow users to design print jobs as their needs. Ideal for serialization and track-and-trace applications.

• Users can send commands to a DJ45plus and receive feedback by protocol.

• <DJ-Link> PC software is developed for protocol communication.

• Being connected with Dotjet CMD system provides solutions to operation errors when an operator selects a print job. Please refer to the CMD brochure or contact Dotjet for the details.
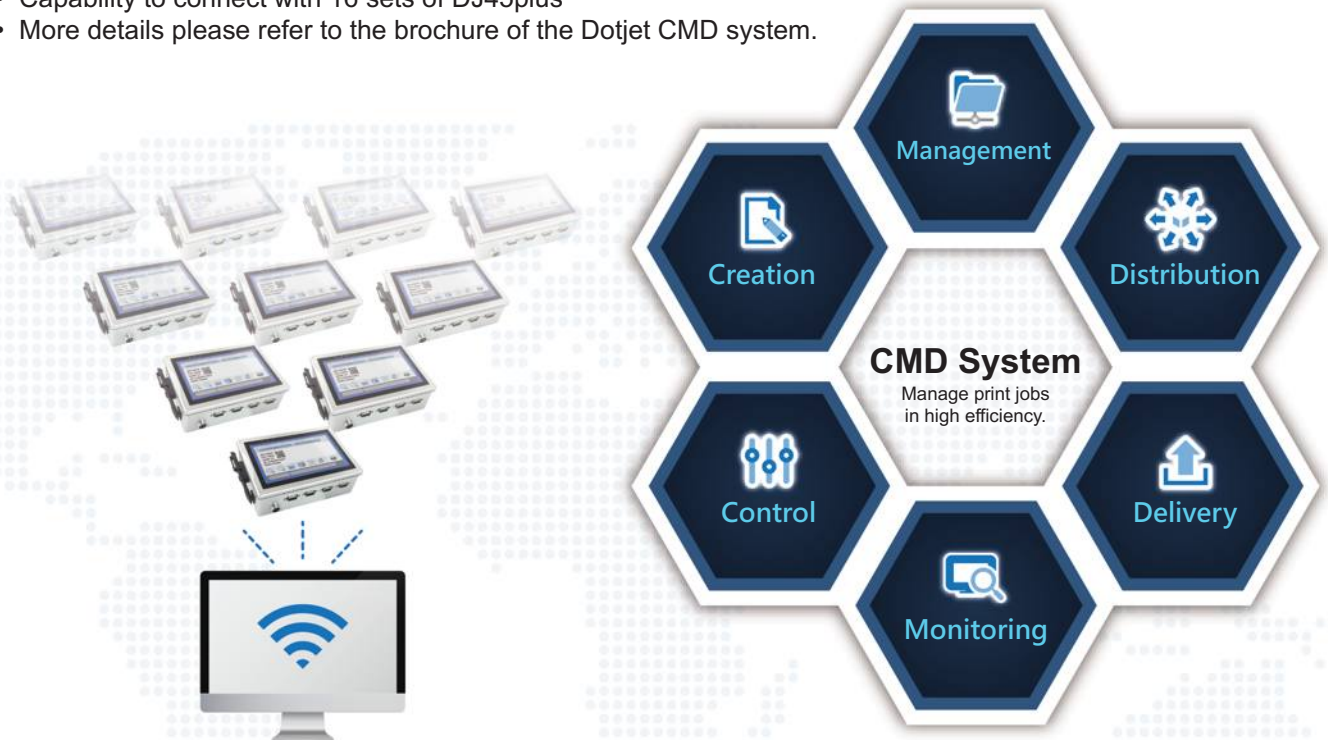
Communication Protocol
Start Print
Stop Print
Query Ink
Ink Status
Counter Reset

Start / Stop

Integrated into a network to work with a third-party system

1 ERP exports data sheet to the server.
Example: a delivery report.

2 Data is given to a DJ45plus by acceptable communications such as excel (*.csv).

3 The DJ45plus collects the data/file of the delivery report from the server.

6 Printing data is transferred from the sever to track & trace system.

5 Data is delivered to the server.

4 DJ45plus exports all printing history for Track & Trace.

ERP

Track & Trace

Remote control & monitor: Dotjet Inkjet CMD System

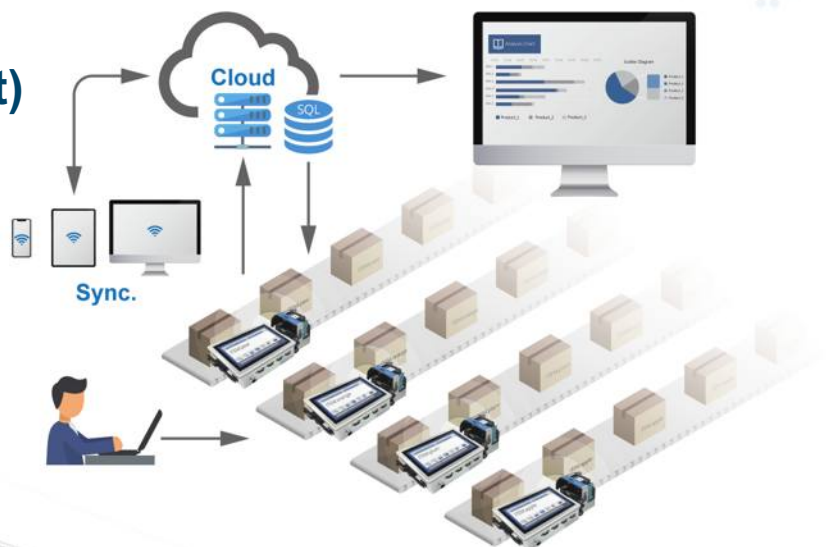<Dotjet Inkjet CMD System> includes software and hardware parts:
- Centralize the management of the connected inkjet printers and print jobs:
  create and distribute files, control print jobs and monitor printing status
- Backup printing message files in the CMD server
- Capability to connect with 16 sets of DJ45plus
- More details please refer to the brochure of the Dotjet CMD system.

CMD System
Manage print jobs in high efficiency.

- Management
- Creation
- Distribution
- Control
- Monitoring
- Delivery

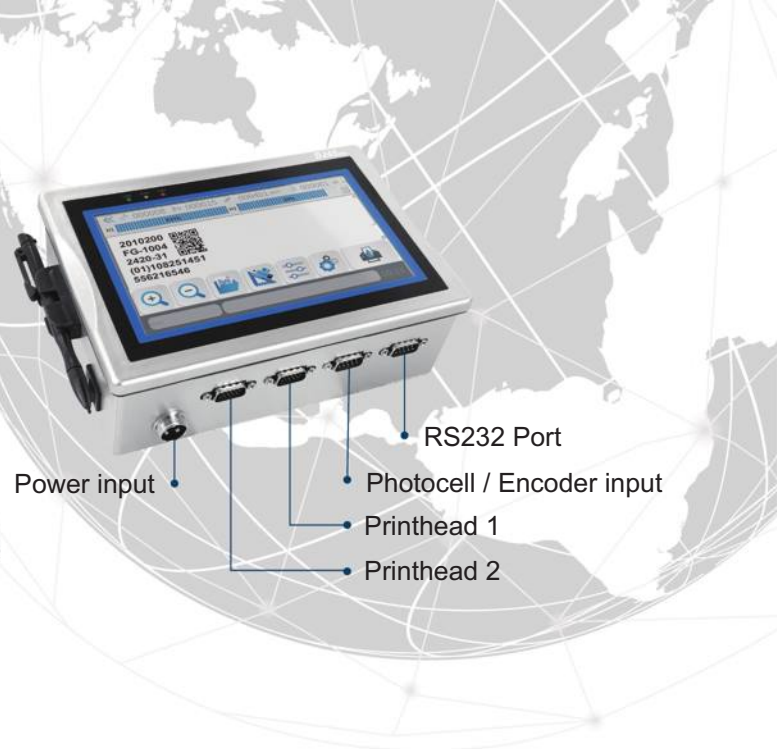# Data analytics software: DotW_AN (in development)

<DotW_AN> is a data analytics software that is in development.

All kinds of printing data from Dotjet's inkjet printers can be exported to a private server. With a data analytics software, users can benefit from enhanced production line management and implement traceability of coding and marking.

Cloud

SQL

Sync.

Cloud

Controller Operation

1. 7" full-color touch screen to operate the controller.
2. Printing messages can be created by the DJ45plus controller and PC software.
3. Multiple languages for the operation interface.
4. Multiple-language input method to select.

Power input
RS232 Port
Photocell / Encoder input
Printhead 1
Printhead 2

USB
RJ45

Main Operation Sections

The easy-to learn software design lets a beginner operate Dotjet printers without barriers.

Printing status display: printing direction, number of prints, etc.

Open File

Print Setup

Edit/ Create Print Message

System Options

Ink Cartridge

HP TIJ 2.5 technology

- Hot-swapping cartridge: Effortless to replace an ink cartridge without downtime.
- Smartcard technology to store ink cartridge information. The printer controller reads and downloads the parameters automatically to save user's time to set up printing parameters manually.
- Low-ink LED indicator.
- External low ink alarm.
- Bulk ink supply system is optional.

- **Ink types:**
  - ✔ Aqueous ink
  - ✔ Solvent ink
  - ✔ UV-curable ink

SPECIFICATIONS

Model	DJ45plus
Technology	hp TIJ2.5
Power requirement	AC110-220V, 50/60HZ
Display	7" Color LCD with LED back light
Operation temperature	5℃-45℃ (41℉-112℉)
Controller operating system	Linux
Message Storage	Up to 1,000 messages
Printhead controlled ability	Two hp TIJ2.5 printheads
Print line	Multiple depending on character size
Print height	Up to 12.7 mm
Print speed	Aqueous ink: max 60m/ min Solvent ink: max 90m/ min
Max print length	1 meter
Printing resolution	300 x 300 dpi
Ink throw distance	6mm is recommended
LED indicators	Ink low, print on/ off
Print capability	Alphanumeric, logos, date/time, shift code, serial number, lot/box number, GS1 barcodes/2D code, table, database, multiple languages characters print, and external data.
User interface	WYSIWYG. Multiple languages available (some may need translation support)
External data interface	RS232, USB, TCP/IP
Features	MySQL database, print data collection, protocol control, image in database, remotely control multiple printers by Dotjet CMD software
Printhead data line	Standard 75cm and 200cm. Longer cable is optioal
Weight	Controller: 820g (excluding bracket) Printhead: 380g (excluding cartridge and bracket)
Dimension(L/W/H)	Controller: 205x140x68(mm), 8.1x5.5x2.7(inches) Printhead: 130x115x94(mm), 5.1x4.5x3.7(inches)
Optional	Encoder, bulk ink supply, external low ink alarm