

DELTA Newsletter

Industrial Automation Products

Edition 2017-12

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We thank you for your efforts and business in 2017 and we wish you and your family a Merry Christmas and all the best in 2018.

DEN IABG team

1 News

1.1 ftp-site link

Just to let you know (again), you can find the latest info about our products (manuals, pictures, catalogues, application notes, presentations, software, etc.) on our ftp-site.

<ftp://den-eindhoven:BuPd2175@ftp2.delta-europe.com/deltronics-eindhoven/customer-service>

Name and password are included in the link.


Name: den-eindhoven


Password: BuPd2175

1.2 SPS/IPC/Drives in Nürnberg from 28-30 Nov 2017

Delta recently launched its latest integrated solutions and framework for smart manufacturing at the SPS/IPC/Drives/Nuremberg 2017 (SPS 2017) exhibition in Germany. This framework covers new automation technologies and products, including a cloud-based IIoT platform as well as data transmission, industrial control, drive devices and motion systems, and flexible production solutions that create a path toward smart manufacturing. Delta also highlighted its EtherCAT Motion Controller

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AH10EMC for smart machines. This new motion controller facilitates highly efficient motion control system with up to 32 axes of motion drives synchronously, while controlling other devices and transmitting equipment data onto a management platform via EtherNet/IP network for remote monitoring.

"Delta seeks to provide 'new' smart manufacturing models with our strong capabilities in the industrial automation field," said Andy Liu, General Manager of Delta's Industrial Automation Business Group. "With our two decades of experience in this industry, Delta has successfully assisted many customers to build highly automated machines and factories with our complete range of automation products, software, and solutions. Now, we think it's time to take it to a higher level on which flexible, smart, green manufacturing can be implemented to enhance customer competitiveness while solving the issue of worldwide labor shortages. For example, Delta's Smart Manufacturing Model Production Line for power supplies in Wujiang plant, China consists of 6 robot workstations with 30 SCARA robots for a complete operation that enhances quality, flexibility, and production efficiency, achieving up to 60% manpower replacement."

For this year's SPS exhibition, Delta introduced a wide range of its latest automation products and solutions for smart manufacturing. The Smart Factory Monitoring Solution adopts the DIACloud Cloud Platform, monitoring software and highly efficient data transmission devices for cloud data management. A new motion controller supports both EtherCAT communication for motion control and Ethernet/IP network for data transmission and is suitable for high-end, smart machine control when matched with drives and servo systems. For flexible manufacturing, Delta's Multi-Angle Insertion Robot Workstation delivers flexible, multi-tasking insertion operation and achieves fast interchangeable production of small-scale and customized output.

The highlights at Delta's booth included:

- **Delta Smart Factory Monitoring Solution** features the DIACloud platform and data transmission devices (e.g. routers, Ethernet switches) for equipment data collection and analysis to achieve real-time monitoring of the facility and production process. If users add the DIAView SCADA System into the solution, they can acquire detailed machine operation information and analysis to achieve live monitoring and management of all facilities, production lines and factories. They can also obtain remote monitoring access for on-site equipment via mobile app (e.g.iOS, Android) and receive e-mails or SMS alarms on abnormal machine operation to enhance management efficiency. Delta's Industrial 3G Cloud Router DX-2100 Series, Industrial Ethernet Cloud Router DX-2300 Series and Industrial 3G/WAN VPN Router are also applied in this solution for rapid, reliable and secure data transmission, improving communication efficiency among machines and the management platform.
- The **Multi-Angle Insertion Robot Workstation** integrates the Articulated Robot DRV90L Series and Robot Controller DCV Series for multi-angle insertion operation, as well as the Machine Vision System DMV 2000 Series for work piece detection. The DMV2000 Series is equipped with 4 lenses for various inspection tasks (e.g. appearance and color); it can quickly identify the size, color and position of each workpiece, and enable the robot controller to command the robot to execute precise and accurate pick-and-place and insertion operation. This robot workstation is ideal for flexible and interchangeable manufacturing of various products.



Delta also revealed many new automation products to assist customers in building manufacturing equipment with higher efficiency and precision:

- The **EtherCAT Motion Controller AH10EMC** is Delta's new motion controller that supports both the EtherCAT protocol for motion control and Ethernet/IP network for data transmission. With the AH10EMC, it is possible to control on-site machines with remote I/O, induction and spindle motors and up to 32 axes of motion drives synchronously. The motion controller also

expands its connectivity to transmit equipment data onto the management platform via EtherNet/IP network for remote monitoring. The AH10EMC serves as a host controller with integrated motion and control features to facilitate a highly efficient motion control system for smart machines.

- The new **Widescreen Ethernet HMI DOP-100 Series** features advanced Ethernet communication capabilities to fulfill the requirement of integration with smart machines, production lines, factories and clouds. The DOP-100 Series is equipped with the latest Cortex-A8 high-speed processor and HD display resolution, and supports remote monitoring via various internet options including FTP, E-mail, and VNC. The DOP-100 also provides a user-friendly interface and satisfies global customers with up to 16 languages for input selection. It is the perfect choice to achieve information connectivity in various industries.
- **AC Servo Drive ASDA-A3 Series** features advanced servo drive functions, including 3.1 kHz bandwidth, 24-bit absolute type encoder with high resolution, and a low frequency vibration suppression function for enhanced motion control performance. In addition, the ASDA-A3 servo drive and motor are in a compact design that requires less installation space, and is more flexible for industrial applications.
- **Laser Displacement LD Series & Photoelectric Sensor PS-R Series** are perfect for object and distance sensing. The new LD Series with aluminum case matches the IP67 protection standard and is certified with the CE safety standard, and its compact and slim design makes it easy to assemble. The LD Series precisely measures the changes in distance of target objects and finds applications in dimension, thickness, position and shape measurements. The Photoelectric Sensor PS-R Series offers two models for different range adjustments: Trimmer and TEACH. The model with TEACH range adjustment incorporates a brand new exterior TEACH button for a more user-friendly operation. The 4-wire design of the PS-R Series allows easy installation and application under all kinds of industrial environments.

2 Product update

2.1 **NEW** – DOP100 functions in DOPSoft 4.00

Finally DOP-100 manual in English is ready, you can download it via the link below, and soon from the Download Center of the Delta website.

[DOP-100 Manual EN](#)

DOP-100 New Functions

This chapter provides detailed descriptions for the new functions of the DOPSoft 4.00.

1. Window taskbar	2
2. Address Conversion	8
3. Lock element (pin)	8
4. Find	9
5. Screen Map	12
6. Monitor IO	15
7. Multiple actions	20
8. Meter (1) / Meter (2) / Meter (3) / Meter (4)	40
9. Unit Conversion Settings	58
10. Animated Graphic	69
11. Operation Log Table	71
12. Alarm Settings	88
12.1 Alarm History Table	119
12.2 Active Alarm List	136
12.3 Alarm Frequency Table	151
12.4 Alarm Moving Sign	166
13. Keypad	177
14. PDF View	179
15. Enhanced Recipe	193
16. Macro	211
17. Multi-language Input	214
18. Animated Boot Screen	218
19. NTP	219
20. Network application	220
21. SMTP	223
22. FTP	227
23. Multi-Lang input character count calculation	232

2.2 UPDATE – Firmware of AS00SCM-A is updated from V1.02 to V2.00

Modified functions:

- 1-1. When using a new AS00SCM-A for the very first time, if you have selected the RTU mode for Function Card 2 but the baud rate set on Format 2 Knob on SCM modules is not #4: 125Kbps, a communication cannot be achieved.
- 1-2. When switching to COM mode on SCM modules and using UD Link Protocol in ISPSOft for data mapping, the results are not refreshed immediately.
- 1-3. When switching to COM mode on SCM modules and you have used SCMSOft to set the settings to return to defaults; if you use UD Link Protocol in ISPSOft to trigger the group ID that was no longer existed, the module should ignore this action and show no response, instead of having the PLC to send out the error code 16#1604: communication timeout on the right-side modules.

- 1-4. When switching to COM mode on SCM modules and you use UD Link Protocol in ISPSOft for data mapping for Card 1 and Card 2; if having Card 1 and Card 2 to perform data mapping simultaneously, the module should perform the operation, instead of having the PLC to send out the error code 16#1604: communication timeout on the right-side modules.

Solution: Contact the company or the technicians from the agents for a firmware upgrade.

New functions

- 2-1. A new function card type, AS-FCOPM, is added for Card 2 in ISPSOft, available when switching to COM mode on SCM modules, and when AS-FCOPM is selected, it supports CANopen DS301 communication protocol (only for the slave mode). New functions are available for ISPSOft V3.03 or later.
- 2-2. A new working mode, Delta Special Driver & AS Remote Mode, is added for RTU mode (available when switching to RTU mode and set the Format 1 Knob to #8 on SCM modules). When selecting Delta Special Driver & AS Remote Mode in ISPSOft, the AS Series PLC controls up to eight Delta servo motor drives and Delta AC motor drives each and seven AS00SCM-A (in RTU mode) modules. New functions are available for ISPSOft V3.03 or later.
- 2-3. AS00SCM-A now can upgrade firmware through the USB port of AS Series PLC when AS00SCM-A is linked on the right side of AS Series PLC, but only one at a time.

Release: W1746

2.3 UPDATE – Firmware updates for DVP04DA-E2, DVP02DA-E2, DVP06XA-E2, DVP04DA-H3, and DVP06XA-H3.

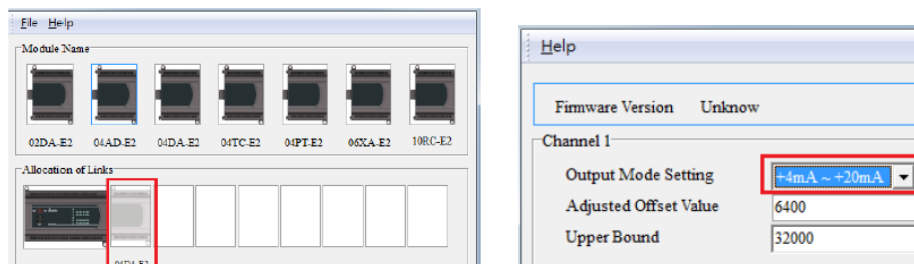
Series	Product Name	Firmware Version
ES2	DVP04DA-E2	V1.10→ V1.12
	DVP02DA-E2	V1.10→ V1.12
	DVP06XA-E2	V1.12→ V1.14
EH3	DVP04DA-H3	V1.24→ V1.26
	DVP06XA-H3	V1.26→ V1.28

Modified functions

1. **Issue:** The default for Digital to Analog output mode is voltage. If you wire the connection in current mode, it may output a small amount of current in the duration between PLC is powered and PLC starts to run.

Solution 1: Recommended for ES2 Series!

If you want to wire the connection in current mode, use AIO Wizard to change the output mode to current and then download the parameters to the module.



Solution 2: For both series, contact the company or the technicians from the agents for a firmware upgrade.

Release: W1745

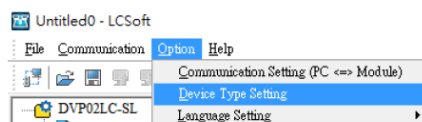
2.4 UPDATE – Software version 1.12 for LC-SL series is released

Applicable models

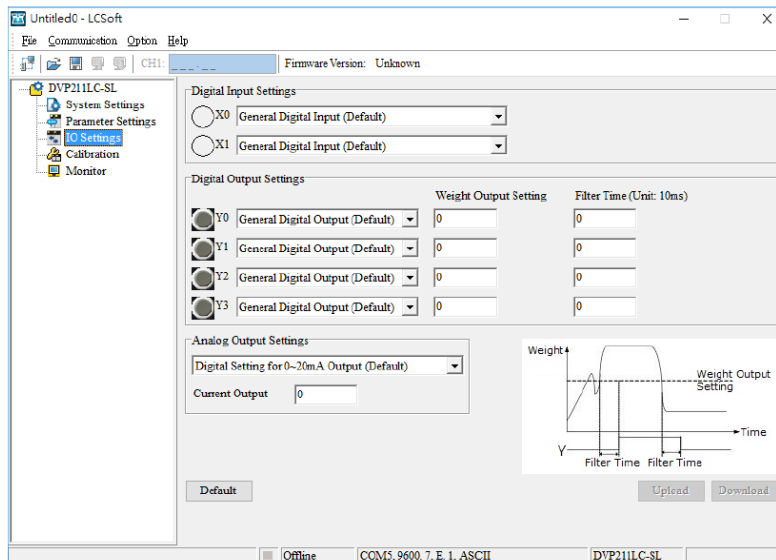
- DVP01LC-SL
- DVP02LC-SL
- DVP201LC-SL
- DVP202LC-SL
- DVP211LC-SL

Changed and new functions

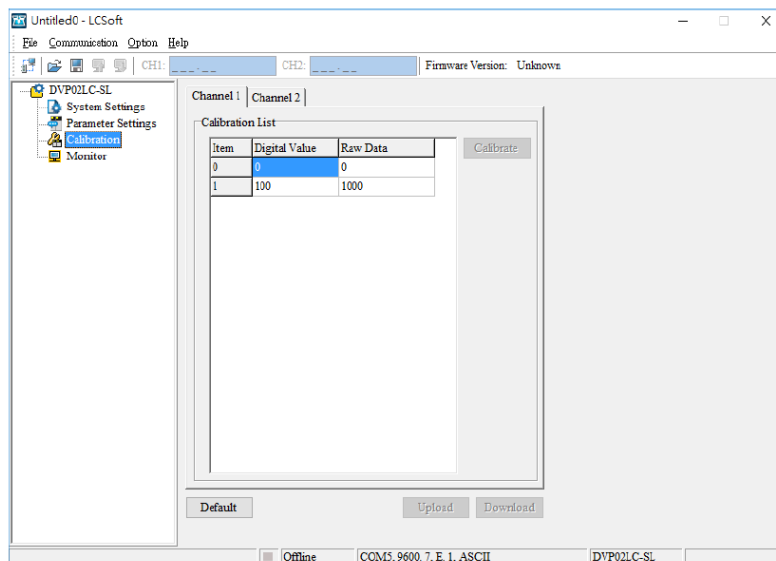
1. "Device Type Setting" can be found in the context menu of "Option".



2. "IO settings" is added for DVP211LC-SL.



3. New functions "Upload" and "Download" are added in "Calibration".



2.5 **NEW** – New Delta Power Supplies Catalogue and Leaflets (October 2017 Edition) are now available



The latest edition of Delta Standard Power Supplies catalog and leaflets includes more than 15 new models as well as two completely new product series. The new CliQ III DIN Rail power series fulfill the requirements of high power density while maintaining competitive prices. The new PJU Open Frame power supply series provides an integrated battery charging function with an optional chassis and cover enclosure. As with previous edition, the unique Augmented Reality (AR) feature is available for selected models. You can view the products in 3D using the DeltaPSU AR app. You can zoom in or out and even rotate all angles to explore our products in greater detail. Go to the [Apple App Store](#) or [Android Play Store](#) to download.

Delta Electronics promotes sustainability by minimizing waste in printing, packaging and transporting printed materials. We encourage you to download the PDF version of the catalog from our website under [Marketing Resources](#) section. Should you like a printed copy, please contact your local Delta Electronics distributor.

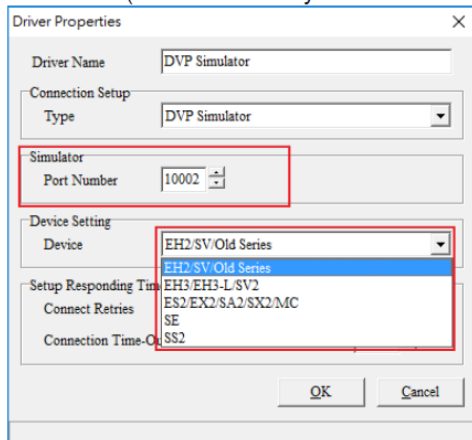
[Download Power Supplies Catalog & Leaflets](#)

2.6 **UPDATE** – COMMGR version 1.08 released

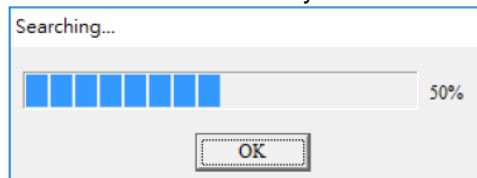
Modified and changed functions

1. Fixed the issue that when the device power is off during Ethernet communication, a communicational error occurs after Ethernet communication is resumed.
2. When the USB connection is not working, the system simulates to plug and unplug the USB automatically. You do not need to plug/unplug the USB manually.
3. The simulator are upgraded, V1.06 for AH5X0, V2.00 for AH5X1 and V1.04 for AS300.

- You can now select the product series for DVP Simulator and select its port number for simulation. (This function only works for ISPSOFT V3.04 or later.)



- You can now click a newly added button "OK" to stop the Ethernet Search



You can find the file [DELTA_IA-PLC_COMMGR-V1-08_SW_20171114.zip](#) on our ftp-site.

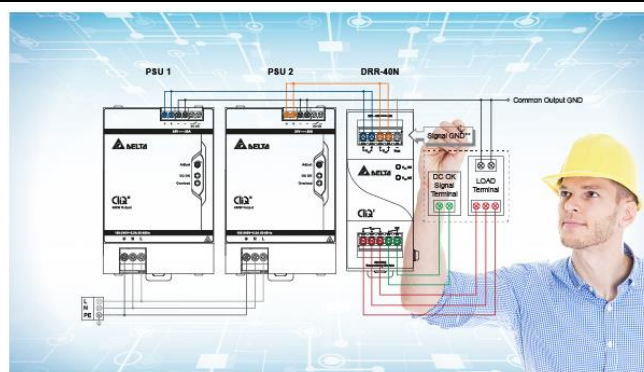
3 Application

3.1 NEW – Application Notes

New application notes have been published recently on our ftp-site:

- Packaging industry notification-Delta application on linear labeling machine.pdf
- Print machine industry notification - Delta application on print cutting machines for plastic woven cloth_EN_REV.pdf
- Application note - Remaining the parameter configuration on communication mode_V1.pdf
- Electronics industry notification - Automatic glue spraying machine.pdf
- Machine Tool Industry Notification - Valve Processing Solution.pdf

3.2 Power supplies in parallel and in series



We have initiated a technical article for the series connection and parallel connection of power supplies. Please see the link below:

<http://www.deltapsu.com/technical-articles/how-to-operate-parallel-and-series-connection>

4 FAQ

4.1 VFD-series AC Motor drives

C200

Q Which PLC registers in C200 are latched?

A The register D0~D99.

The manual says D0~399, this will be corrected.

CP2000

Q What fan option kit to use for VFD075CP43B-21 or VFD075CP4EB-21?

A The manual says MKC-AFKM2 but this number is wrong.

It should be MKCB-AFKM2 (it is the same fan as used on VFD075CB43A-20/-21/-21M)