

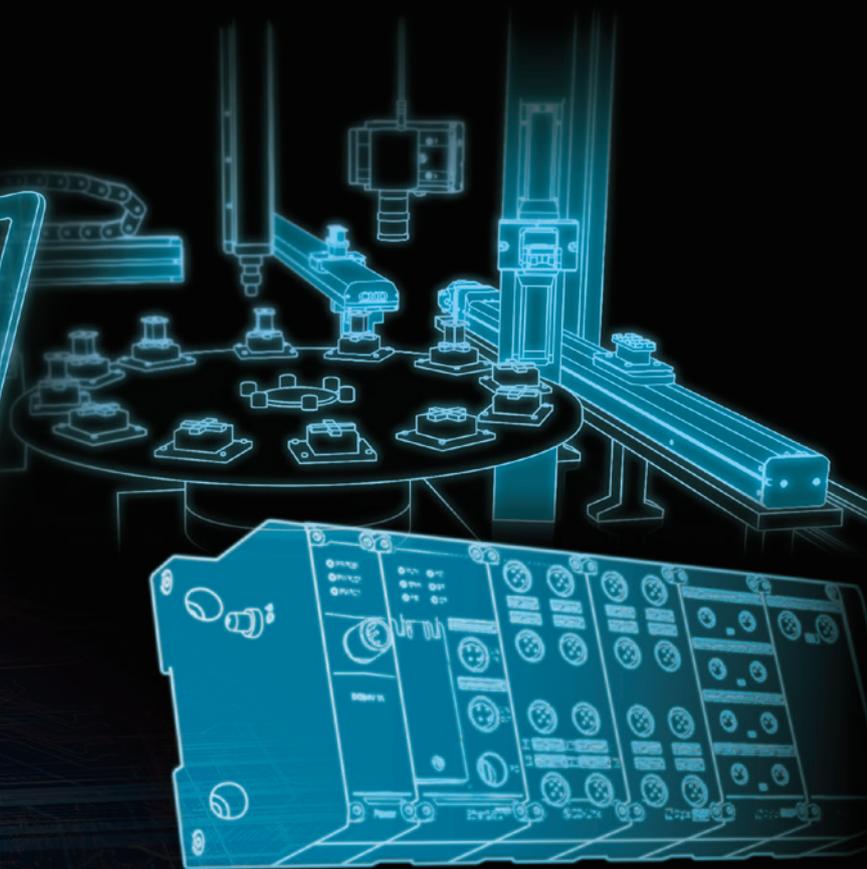
# CKD

Device Visual Programming Tool

# ExiaStudio

Visual programming tool for device control

Intuitive Programming of  
Components Control and Data Collection



# ExiaStudio

CKD Corporation

CC-1579AA<sup>2</sup>

# Proposing software solutions that can be done only by components and equipment manufacturers who are well

CKD Softwares was developed from the standpoint of the component users by making full use of the know-how cultivated over many years as a components and equipment manufacturer. We propose the best solutions for image processing, components control, and data gathering, which are tailored to the worksite.

# be done only by components and versed in the field

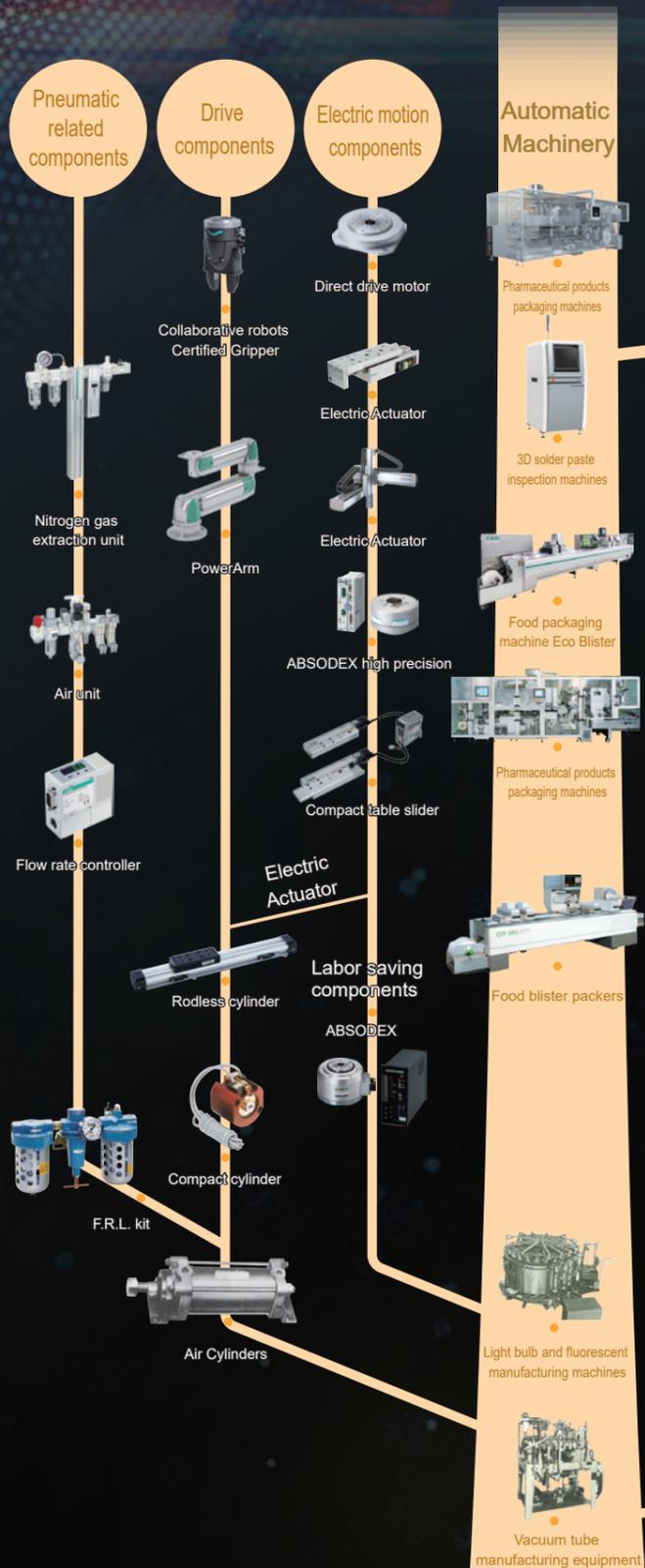


Image processing Visual programming tool



Image processing software that allows intuitive operation and programming



Image processing AI tools



Software that can learn and evaluate images and output model files that can be used with Facilea

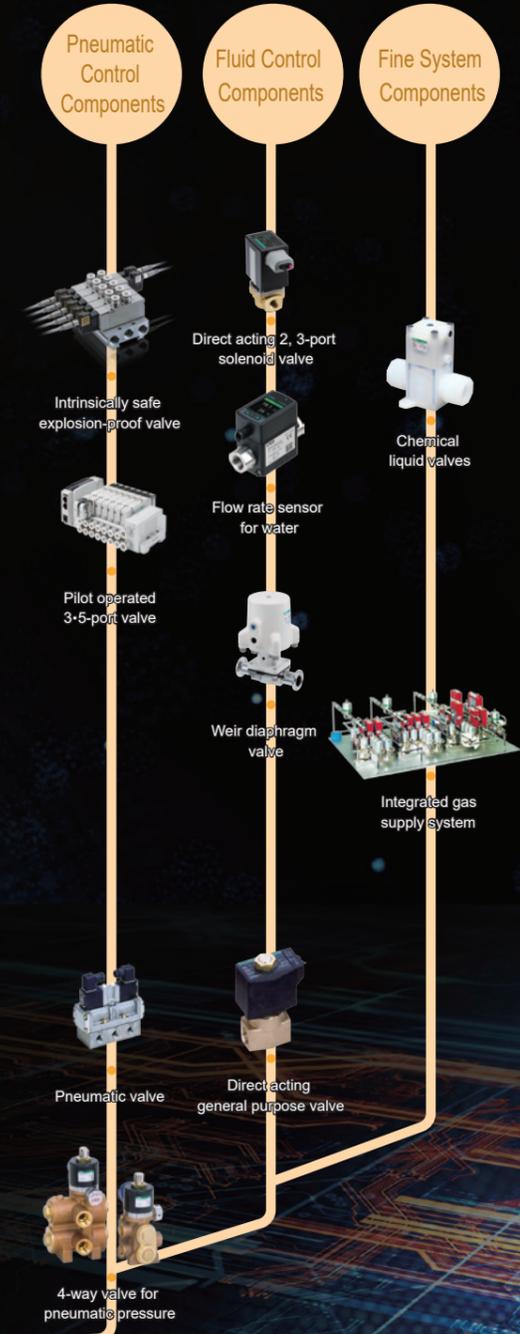


Soft- ware

Device Visual Programming Tool



Software that is easy to utilize even for beginners in programming and realizes information gathering and components control program construction with only a PC

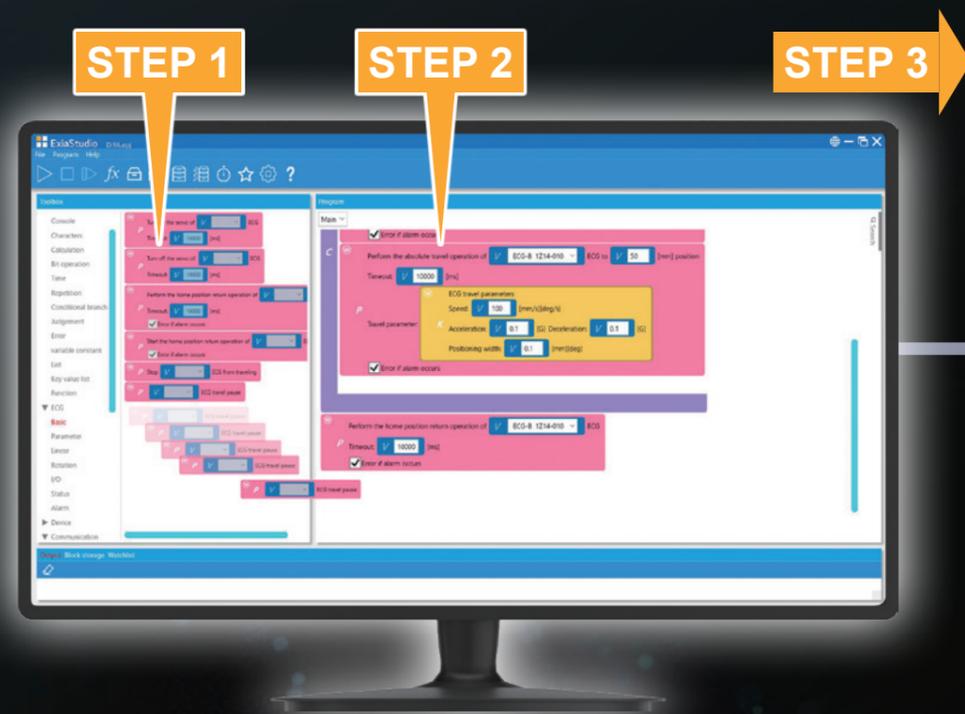


# ExiaStudio

No professional knowledge required! Easy information collection + automation with visual programming

## 3 Easy Steps

Anyone can build a components control system by simply dragging and dropping various blocks.



## Intuitive operation Easy programming with

### Visual programming adopted

Programs can be easily created by mouse operation, and components can be freely controlled without specialized knowledge of the ladder language.

**STEP 1** Drag & Drop Blocks

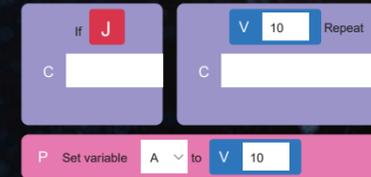
**STEP 2** Directly enter operation parameter settings.

**STEP 3** Start components control!

## Function list

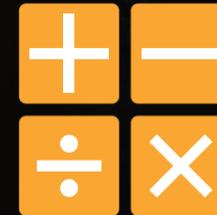
### Basic functions

- Conditional branch
- Repeat
- Variables / Constants
- List
- Key Value List
- Functions
- Timer
- etc.



### Arithmetic function

- Arithmetic Operations
- Rounding



### Character operation

- Character combination
- Character extraction
- Character replacement
- Character counting
- ASCII conversion
- etc.



### Electric control

- **ROBODEX** Pulse
- Direct acting actuator
- Rotary actuator
- Status monitoring
- etc.



### App integration

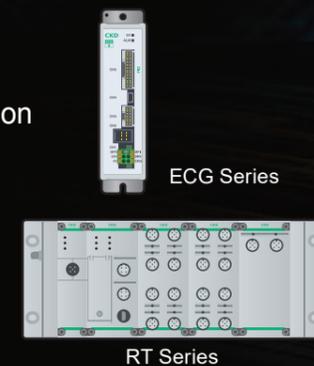
- Facilea
- Excel® Write /Read
- Database Apps
- Command



\*Excel is a registered trademark or trademark of Microsoft Corporation in the United States and other countries.

### Various I/O controls

- Digital I/O
- Analog I/O
- IO-Link integration



### External communication

- Serial communication
- TCP communication
- MC Protocol
- HTTP



### File folder creation

- File Copy/Move
- File output (csv / txt / xml / json)
- etc.



### Script execution

- Compile
- C# script execution



# Examples of information collection

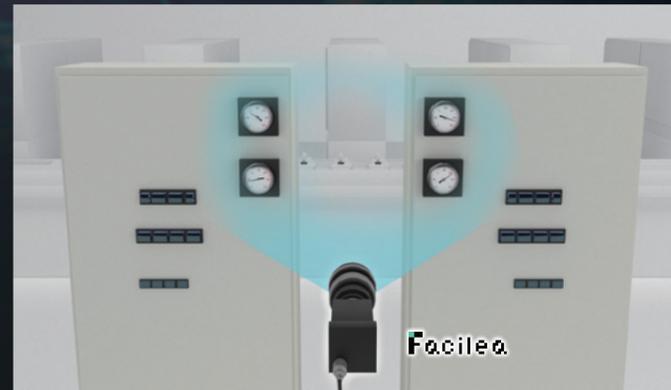
\*You can see the video of each processing by holding your smartphone over the QR code.



## Digitization of analog instruments

### Problem

It is difficult to go to the site for periodic inspections of analog instruments...



### Improvement result

- Analog instruments can be digitized, eliminating the need for visual inspection
- Quick response to abnormalities
- Minimizing work-hours at installation sites

### Functions Used

- Basic functions
- Arithmetic function
- Character operation
- Electric control
- App integration
- Various I/O controls
- External communication
- File folder creation
- Script execution

## CO<sub>2</sub> discharge rate measurement



- Various sensors are retrofitted, making it ideal for collecting data for carbon neutrality
- Easy graphing and tabulation by automatic entry in spreadsheets



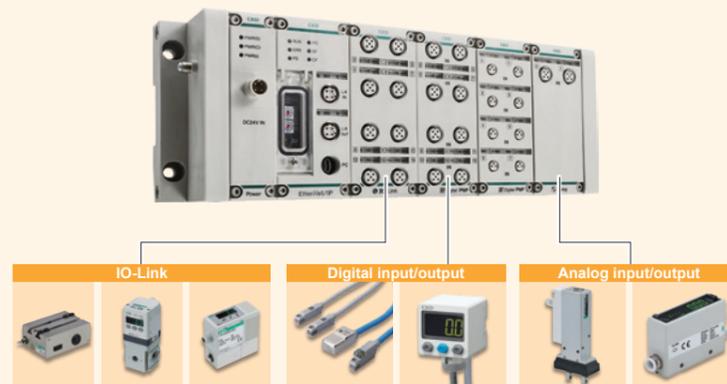
### Functions Used

- Basic functions
- Arithmetic function
- Character operation
- Electric control
- App integration
- Various I/O controls
- External communication
- File folder creation
- Script execution

## Remote I/O RT Series

- When used in conjunction with ExiaStudio, various sensor control is possible

Catalog No.CC-1557A



# Examples of automation

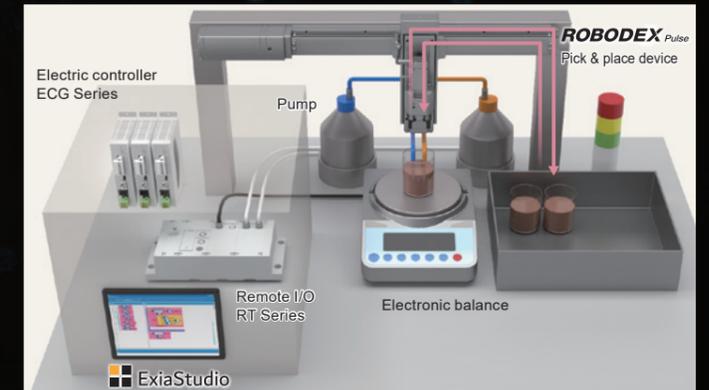
\*You can see the video of each processing by holding your smartphone over the QR code.



## Automation of chemical liquid measurement work

### Problem

Manual weighing can take time and lead to recipe errors



### Improvement result

- Automation has eliminated the need for a permanent worker at the inspection equipment.
- Data collection is also automated through data linkage with electronic balances
- Reduced programming hours

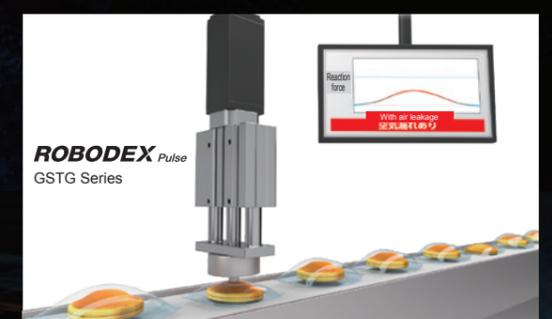
### Functions Used

- Basic functions
- Arithmetic function
- Character operation
- Electric control
- App integration
- Various I/O controls
- External communication
- File folder creation
- Script execution

## Leak inspection of packaging bags



- Flexible control of electric actuator with a single block
- Serial communication function enables easy data linkage with strain gauges
- All-in-one system from inspection to device control using only a PC



### Functions Used

- Basic functions
- Arithmetic function
- Character operation
- Electric control
- App integration
- Various I/O controls
- External communication
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- Script execution

## Electric controller

# ECG-A/ECG-B Series ROBODEx Pulse

- Can be used as a digital I/O unit when used with ExiaStudio

Catalog No.CC-1591A



### I/O unit specifications

	Item	Description
Input section	No. of inputs	13 points
	Input	Photo coupler insulation input (no polarity)
	Input voltage	24 VDC ±10%
	Input current	4 mA/point
	Input voltage when ON	19 V or higher
Output section	Input current when OFF	0.2 mA or less
	No. of output points	13 points
	Output	Photo coupler insulation open collector output (No polarity)
	Load voltage	24 VDC ±10%
	Load current	20 mA or less/point
	Internal voltage drop when ON	3 V or less
	Leakage current when OFF	0.1 mA or less
Output short-circuit protection	Yes	

# Directions after purchase

## Sending the product

CKD will send you the "User's Manual" and "USB Dongle".



## License Registration

Please register from ExiaStudio Homepage  
<https://www.ckd.co.jp/software/exiastudio/en/>



## Software Download and Installation

## Start using

# 2 software options

Standard  
model

## ExiaStudio

- To edit programs on site
- To keep the capital investment budget low
- Requires 1 dongle key per PC

Professional  
model

## ExiaStudio Pro

- To make repeat production of components with the same configuration
- To reduce the cost per device
- Dongle key required only for development PCs
- ExiaRuntime allows output of executable files

## Specifications

Item		Description			
Part name		ExiaStudio (Exia Studio)		ExiaStudio Pro	
Model No.		AESM-EXIA-1	AESM-EXIA-2	AESM-EXIAPRO-1	AESM-EXIAPRO-2
Type		ExiaStudio body	Renewal license	ExiaStudio Pro body	ExiaStudio Pro update license
Operating Environment	OS	Windows10, 11 64bit			
	CPU	Intel Celeron CPU N3050 1.60GHz or more			
	Required Memory	4 GB or more			
	Required Disk Space	10 GB or more free space			

## Caution

- Check the USB power supply of the PC and the power consumption of the components before use. Failure to do so may cause insufficient power supply and malfunction.
- Using a USB hub may cause a delay in communication and prevent the expected operation.
- AESM-EXIA-1 can only run programs with a USB dongle plugged in.
- The warranty period for this product is one (1) year from the initial delivery to the customer's designated site.  
For details of the warranty, refer to the CKD website (<https://www.ckd.co.jp/kiki/en/>).
- AESM-EXIA-1 and AESM-EXIAPRO-1 are subject to US Export Administration Regulations (EAR99).
- When using the electric controller as an I/O terminal, since it is not under ExiaStudio control immediately after the power is turned ON, signals compliant with the controller specifications are output. Take measures as necessary. For details, refer to the CKD website (<https://www.ckd.co.jp/kiki/en/>).

The goods and/or their replicas, the technology and/or software found in this catalog are subject to complementary export regulations by Foreign Exchange and Foreign Trade Law of Japan. The law requires a license from Ministry of Economy, Trade and Industry to export them.

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