CKD

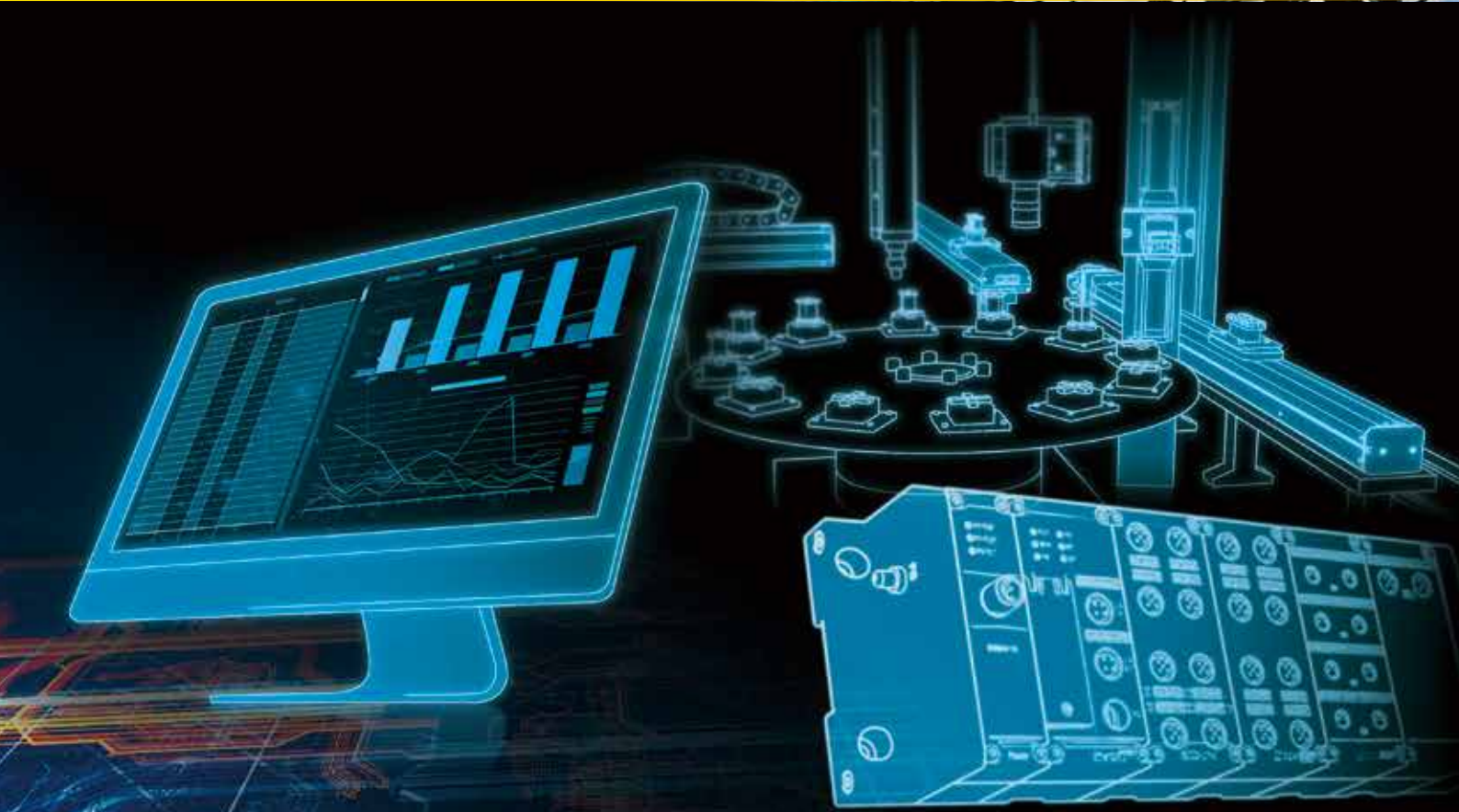
Device Visual Programming Tool

ExiaStudio

Visual programming tool for device control

Intuitive Programming of

Components Control and Data Collection



ExiaStudio

CKD Corporation

CC-1579AA 2

Proposing software solutions that can be done only by components and equipment manufacturers who are well versed in the field

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.

Pneumatic related components

Nitrogen gas extraction unit

Air unit

Flow rate controller

Drive components

Collaborative robots
Certified Gripper

PowerArm

Air Cylinders

Electric motion components

Direct drive motor

Electric Actuator

Electric Actuator

ABSODEX high precision

Compact table slider

Electric Actuator

Rodless cylinder

Labor saving components

ABSODEX

Compact cylinder

F.R.L. kit

Automatic Machinery

Pharmaceutical products packaging machines

3D solder paste inspection machines

Food packaging machine Eco Blister

Pharmaceutical products packaging machines

Food blister packers

Light bulb and fluorescent manufacturing machines

Vacuum tube manufacturing equipment

Image processing
Visual programming tool

Facilea

Image processing software that allows intuitive operation and programming

Image processing AI tools

Facilea AI

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

Soft- ware

Device Visual Programming Tool

ExiaStudio

ExiaStudio Pro

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

Pneumatic Control Components

Intrinsically safe explosion-proof valve

Pilot operated 3•5-port valve

Pneumatic valve

4-way valve for pneumatic pressure

Fluid Control Components

Direct acting 2, 3-port solenoid valve

Flow rate sensor for water

Weir diaphragm valve

Direct acting general purpose valve

Fine System Components

Chemical liquid valves

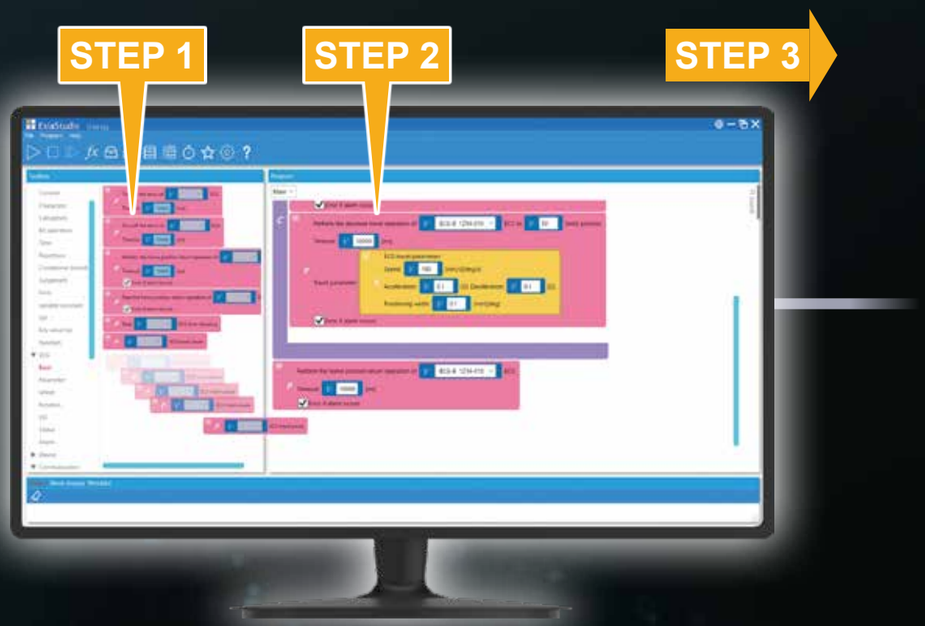
Integrated gas supply system

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.

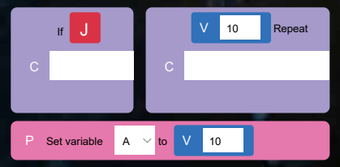
STEP 3 Start components control!

Function list

Basic functions

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

etc.



Arithmetic function

- Arithmetic Operations
- Rounding
- Bit operation
- n-decimal conversion

etc.

Character operation

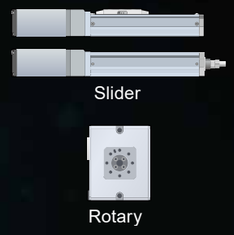
- Character combination
- Character extraction
- Character replacement
- Character counting
- ASCII conversion

etc.

Electric control

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

etc.



Slider

Rotary

App integration

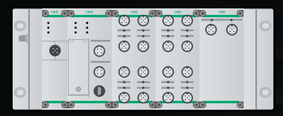
- Facilea
- Excel®Write /Read
- Database Apps
- Command

*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

ECG Series



RT Series

External communication

- Serial communication
- TCP communication
- MC Protocol
- HTTP

External PC

PLC

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.

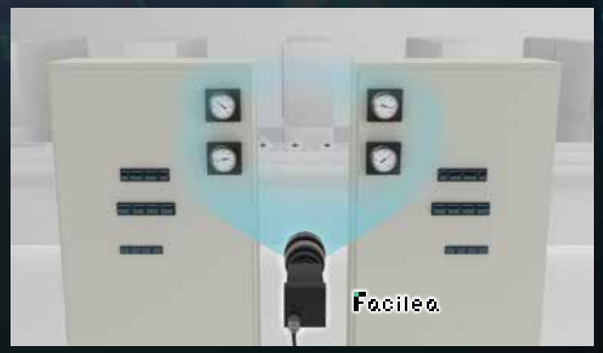
Digitization of analog instruments

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_2 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

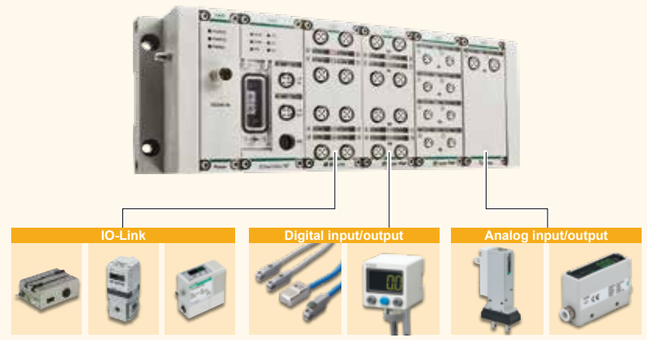
Basic functions	Arithmetic function	Character operation
Electric control	App integration	Various I/O controls
External communication	File folder creation	Script execution

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.

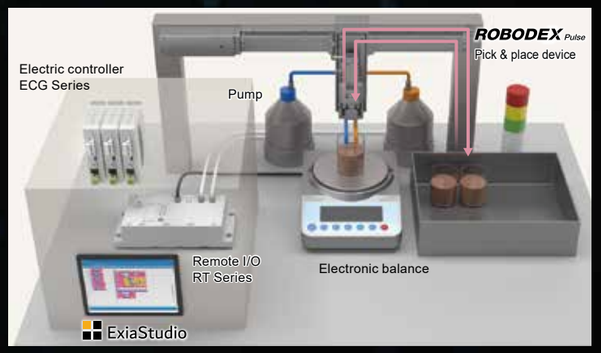
Automation of chemical liquid measurement work

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	File folder creation	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
	Input current when OFF	0.2 mA or less
Output section	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

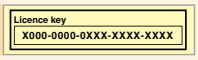
Directions after purchase

Sending the product

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

USB dongle

Handling precautions



License key

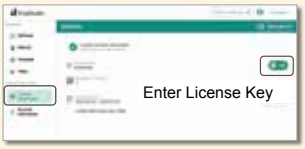
License Registration

Please register from ExiaStudio Homepage

https://www.ckd.co.jp/software/exiastudio/en/

When you register for the first time

When you register more than one license to the same e-mail address



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/).

CKD Corporation

[Website]
https://www.ckd.co.jp/en/

Head Office・Plant 2-250, Ouji, Komaki, Aichi 485-8551 TEL(0568)77-1111 FAX(0568)77-1123
Tokyo Office 4F, Bunkahousou Media Plus, 1-31-1, Hamamatsu-cho, Minato-ku, Tokyo 105-0013 TEL(03)5402-3620 FAX(03)5402-0120
Osaka Office 6F, PMO EX Shin-Osaka, 4-2-10 Miyahara, Yodogawa-ku, Osaka 532-0003 TEL(06)6396-9630 FAX(06)6396-9631

2025.1