

PC Software IA-OS

First Step Guide Fifth Edition

Thank you for purchasing our product.

Make sure to read the Safety Guide and detailed Instruction Manual as well as this First Step Guide to ensure correct use. This Instruction Manual is original.

Warning: Read the instruction manual carefully and follow instruction manual when handling this product.
Please download instruction manual from our website.
You can download it free of charge. User registration is required for the first time downloading.

URL www.iai-robot.co.jp/data_dl/CAD_MANUAL/

Keep a printout of the introduction manual near the equipment in which this product is installed so that it can be checked at all times, or display it on your computer, tablet terminal, etc. so that you can check it immediately.

If you need a bound copy of the instruction manual, order it from the nearest sales office listed in the First Step Guide or at the end of the instruction manual. It will be provided for a fee.

- Using or copying all or part of this Instruction Manual without permission is prohibited.
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The updating of this software version is available in IAI homepage.
website: www.iai-robot.co.jp/download/pcsoft/

Inspect the Products

Standard build of this product consists of following components. If you find any faulty or missing parts, contact your local IAI distributor.

1. Components

1.1 Model IA-OS

Applicable controllers : RCON, REC, ACON, DCON, PCON, SCON(2), MCON, MSCON, RCP6S, ELECYLINDER

No.	Description	Model	Quantity	Remarks
1	PC Software DVD-ROM	-	1	Serial number on DVD-ROM
2	First Step Guide	ME0391	1	This manual
3	Safety Guide	M0194	1	

1.2 Model IA-OS-C

Applicable controllers : RCON, REC, ACON, DCON, PCON, SCON(2), MCON, MSCON, RCP6S, ELECYLINDER

No.	Description	Model	Quantity	Remarks
1	PC Software DVD-ROM	-	1	Serial number on DVD-ROM
2	External device link cable	CB-RCA-SIO050	1	
3	USB Conversion Adapter	RCB-CV-USB	1	
4	USB cable	CB-SEL-USB030	1	
5	First Step Guide	ME0391	1	This manual
6	Safety Guide	M0194	1	

Hardware requirements

To run this software the system must meet following requirements.

Compatible OS	Model	OS on which the software can run
.NET Framework	IA-OS	Windows 11, Windows 10, Windows 7
Computer		Personal computers which run on compatible OS (Windows).
Key board		The key boards which are compatible with personal computer running on compatible OS (Windows).
Memory		1GB or more
Display		WXGA or higher (1366×768)
Pointing device		Mouse, etc. and the compatible drivers
Memory media reading drive		DVD-ROM drive
Hard disk		Hard disk with 1GB or more free space (To run this software it must be installed on the hard disk.)
Communication Port		USB port

Notes

- The copy right of this software belongs to IAI Corporation.
- The software and the first step guide can only be used upon the software license agreement.
- It shall be accepted that we are not responsible for the results or the consequential damages of the use of the software and the first step guide.
- Please note the version code (ver.) of First Step Guide and that for software do not match.
- The contents of First Step Guide may be revised in the future without notice.

Software License Agreement

Before opening this product, read the software license agreement (hereinafter referred to as "Agreement").

This Agreement is applied to the PC software for this product (hereinafter referred to as "this Software", and also includes updated versions.).
By using this software, you are deemed to have agreed to the terms of this Agreement.
You may not use this software if you do not agree to the terms of this Agreement.

IAI Corporation (hereinafter referred to as "IAI") shall grant to the user (hereinafter referred to as "the User"), and the User shall accept, a non-transferable, non-exclusive right to use the software program supplied with this Agreement (hereinafter referred to as "the Licensed Software"), based on the following terms and conditions.

Witnesseth

1. Term of Agreement

This Agreement shall take effect when the User opens this software and remain effective and in force until this Agreement is terminated upon a written request made by the User to IAI or pursuant to the provision of Section 3.

2. Licensing

If the User owns an electronic medium, such as DVD-R, which is sold by IAI and which this Software is recorded to, or if user registration has been held to this Software, it should be allowed that the User uses this Software on multiple computers.
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If the User violates anything in the agreement and causes any loss to IAI, the User is to compensate the loss caused to IAI.

3. Termination of the Agreement

In the event of breach by the User of any of the terms and conditions hereunder, or upon discovery of a material cause that makes continuation of this Agreement impossible, IAI may immediately terminate this Agreement without serving any prior notice to the User.
In this case, the User should delete or dispose everything of this Software (including software copies) and dedicated connection cables within ten days after the day when the Agreement is terminated.

Installing the Software

Once the installer gets launched, the following softwares start being installed in turns.

- .NET Framework 4.5.2 * In Windows 10 or later, this step is omitted since it is already installed.
- IAI Toolbox
- Safety Unit Configuration Tool
- USB Driver (for RCON) * In Windows 10 or later, this step is omitted since it is already installed.
- USB Driver (USB Conversion Unit: For RCB-CV-USB)
* It should be skipped when it is already installed.

6. IA-OS

Make sure that all of the steps from 1 to 6 are conducted for the installation work.

Shown Below is the installation procedures in a Windows 10 system environment.

[Launching Installation Tool]

- Insert the DVD-ROM enclosed to IA-OS to the optical drive on a PC.

Insert the DVD-ROM
enclosed to IA-OS



- "Tool for installation" window should appear.



Tool for installation window

Point!

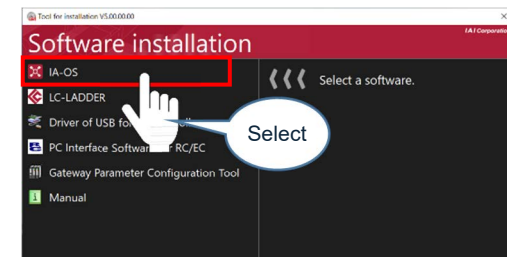
In case a confirmation window for the launching system shows up when the DVD-ROM is inserted, select "Automatically Play". In case a folder is shown, double-click "IAI_Install" to execute the installation process.

- Select **English** and click **OK**.



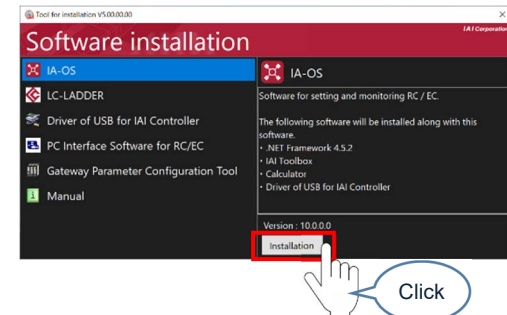
Tool for installation Window

- Select **IA-OS**.



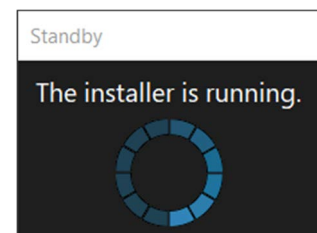
Tool for installation Window

- Click **Installation**.



Tool for installation Window

- "Standby" window should appear. Wait for the installer to start.



Standby window

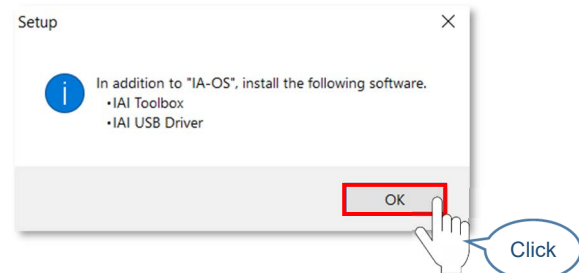
- 7) "Select Language Japanese / English" window should appear.
Select "English" and click **OK**.



"Select Language Japanese / English" window

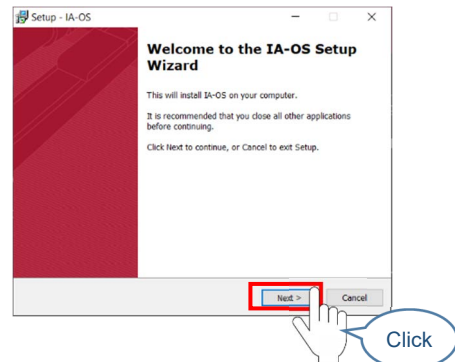
- 8) "Confirmation" window should appear.
Click **OK**.

(Note) The display of "Confirmation" window should differ depending on the status of the installation of the PC softwares. Only the softwares shown in the window should be installed.



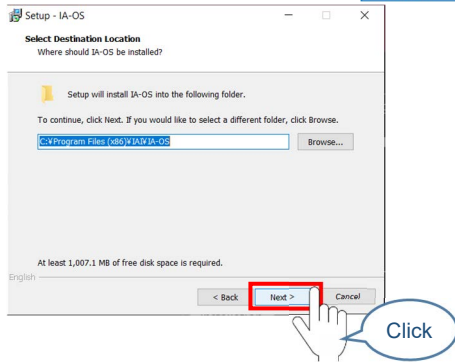
"Confirmation" window

- 9) "Welcome to the IA-OS Setup Wizard" window should appear.
Click **Next >**.



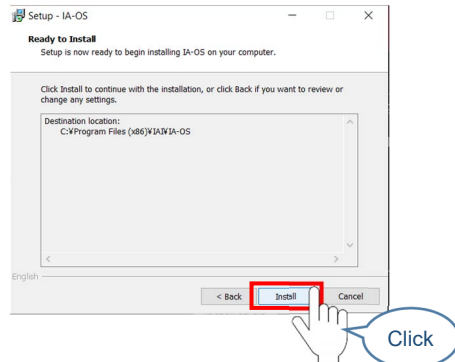
"Welcome to the IA-OS Setup Wizard" window

- 10) "Select Destination Location" window should appear. Click **Next >**.



"Select Destination Location" window

- 11) "Ready to Install" window should appear. Click **Install**.



"Ready to Install" window

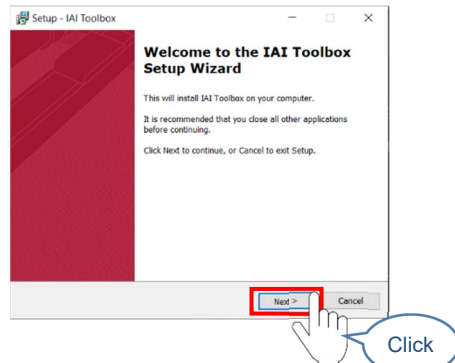
[How to Install IAI Toolbox]

- 1) "Select Language Japanese / English" window should appear.
Select "English" and click **OK**.



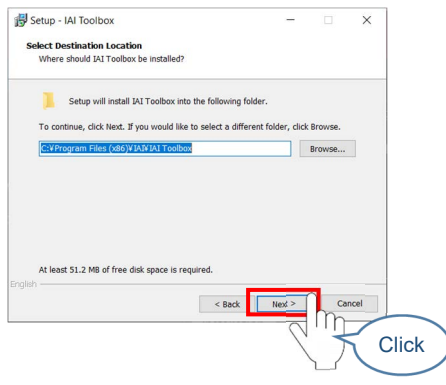
"Select Language Japanese / English" window

- 2) "Welcome to the IAI Toolbox Setup Wizard" window should appear.
Click **Next >**.



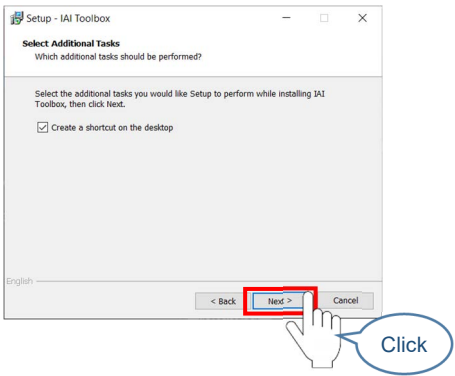
"Welcome to the IAI Toolbox Setup Wizard" window

- 3) "Select Destination Location" window should appear. Click **Next >**.



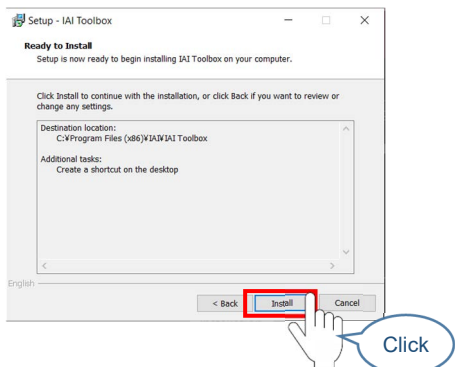
"Select Destination Location" window

- 4) "Select Additional Tasks" window should appear. Click **Next >**.



"Select Additional Tasks" window

- 5) "Ready to Install" window should appear. Click **Install**.
The installation starts.



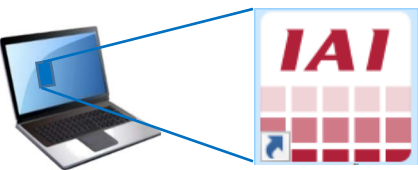
"Ready to Install" window

- 6) Once the setup is complete, the "Completing the IAI Toolbox Setup Wizard" window should appear. Click **Finish**.
The process should be terminated.



"Completing the IAI Toolbox Setup Wizard" window

Check that a shortcut of "IAI Toolbox" is placed on the desktop of your PC.



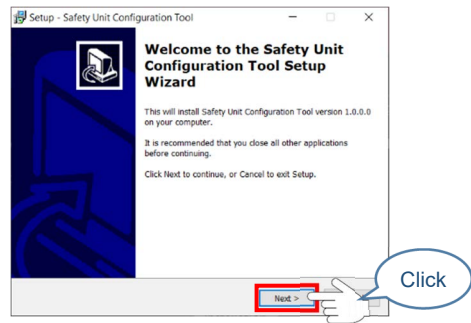
[How to Install Safety Unit Configuration Tool]

- 1) "Select Language Japanese / English" window should appear.
Select "English" and click **OK** .



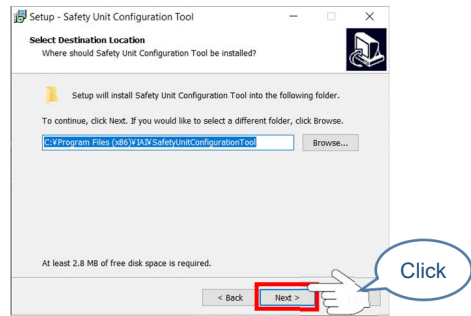
"Select Language Japanese / English" window

- 2) "Welcome to the Safety Unit Configuration Tool Setup Wizard" window should appear.
Click **Next >** .



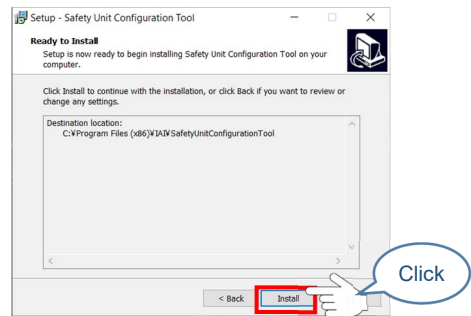
"Welcome to the Safety Unit Configuration Tool Setup Wizard" window

- 3) "Select Destination Location" window should appear. Click **Next >** .



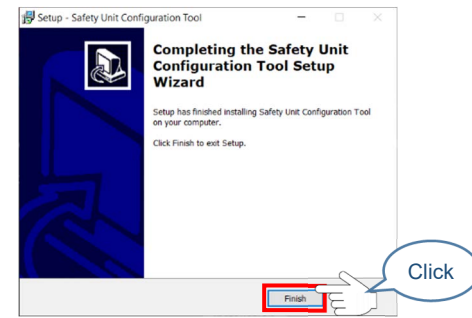
"Select Destination Location" window

- 4) "Ready to Install" window should appear. Click **Install** .
The installation starts.



"Ready to Install" window

- 5) When setup is complete, "Completing the Safety Unit Configuration Tool Setup Wizard" window will appear. Click **Finish** .
The process should be terminated.



"Completing the Safety Unit Configuration Tool Setup Wizard" window

[How to Install USB Connectivity Driver for RCON]

Regardless of an RCON controller or not, an installation confirmation window for the USB driver for RCON should appear under the conditions below.

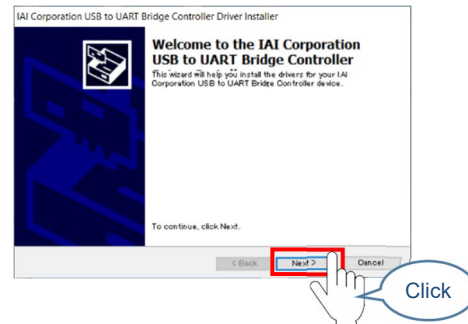
- (1) The installation tool for the PC software is launched in an OS earlier than Windows 10.
(2) The USB driver for RCON is not installed.

* On Windows 10 systems, it doesn't appear because you don't need to install the USB connection driver for RCON.

[How to Install USB to UART Bridge Controller Driver]

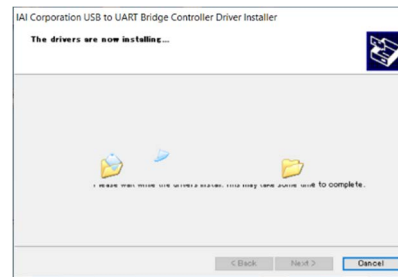
This software is required to connect the controller and PC via USB.
Depending on the usage environment, the installer will start twice, so please install both.

- 1) IAI Corporation USB to UART Bridge Controller Driver Installer window should appear.
Click **Next >** .



IAI USB to UART Bridge Controller Driver Installer window

- 2) The installation starts.



"Device Driver Installation Wizard" window

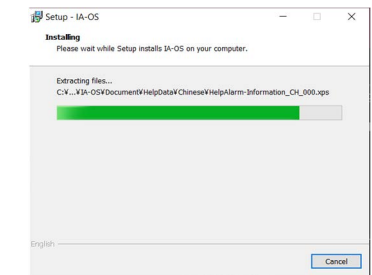
- 3) Once the installation is complete, the following window should appear.
Click **Finish** .



IAI USB to UART Bridge Controller Driver Installer window

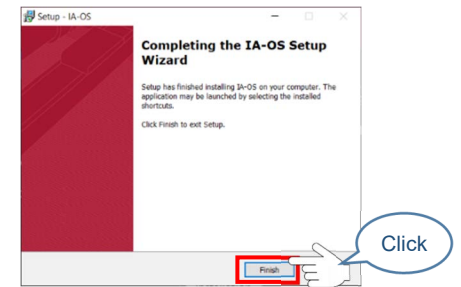
[How to Install IA-OS PC Software]

- 1) At the last of installation of each software, installation of "IA-OS PC software" should start.



Install status window

- 2) Once the setup is complete, the "Completing the IA-OS Setup Wizard" window should appear.
Click **Finish** . The process should be terminated.



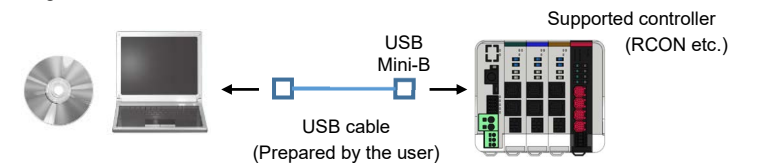
"Completing the IA-OS Setup Wizard" window

Now, all the installation work is finished.
Launch the IA-OS PC software following the process to launch it.

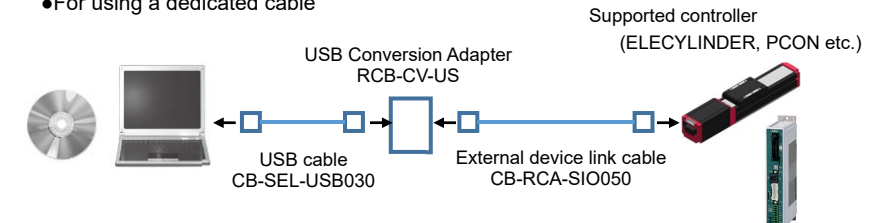
Connecting PC and controllers

[Connection Diagram]

- For using a USB cable



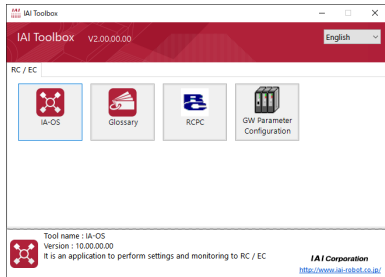
- For using a dedicated cable



Launching IA-OS PC Software

[Start up software]

- 1) Set the controller and the PC power off and connect the controller to the PC using a USB cable (to be prepared by a user) or the dedicated cable prepared separately.
- 2) Turn on power of controller and PC, and start up Windows.
- 3) Click the  icon to open the IAI toolbox.
- 4) "IAI Toolbox" should appear.

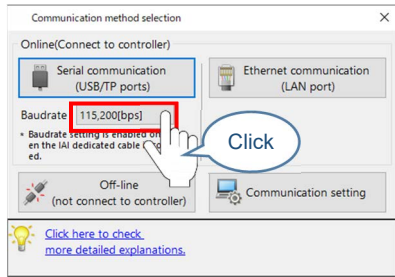


"IAI Toolbox" window

- 5) Click the  icon in IAI Toolbox to launch the IA-OS PC software.

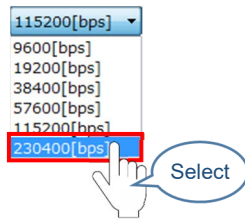
[Communication connection with controller]

- 1) "Communication method selection" window should appear. Click in the "Baudrate" box.

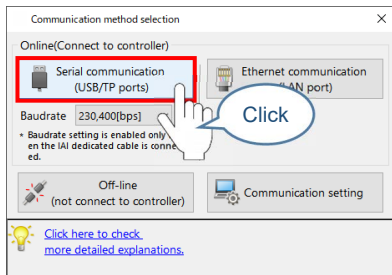


"Communication method selection" window

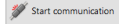
- 2) Select a baud rate and click one.
* It is set to "230400 [bps]" for example.

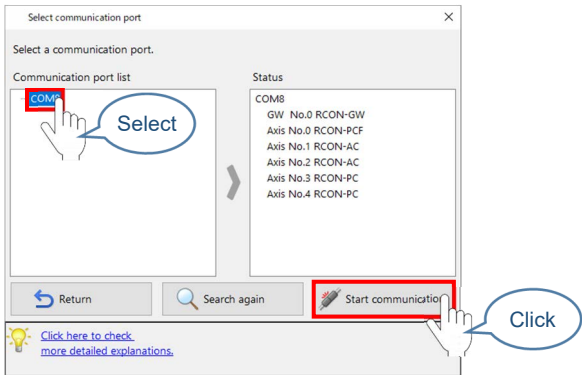


- 3) Click  in the "Communication method selection" window.



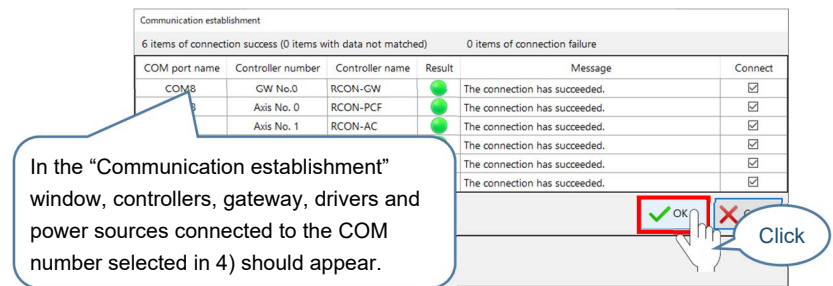
"Communication method selection" window

- 4) "Select communication port" window should appear. The communication path should be searched and be displayed in "Communication port list". Select a COM number of a controller to be connected in "Communication port list" and click .



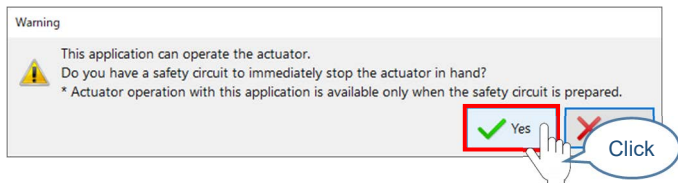
"Select communication port" window

- 5) Click  in the "Communication establishment" window.



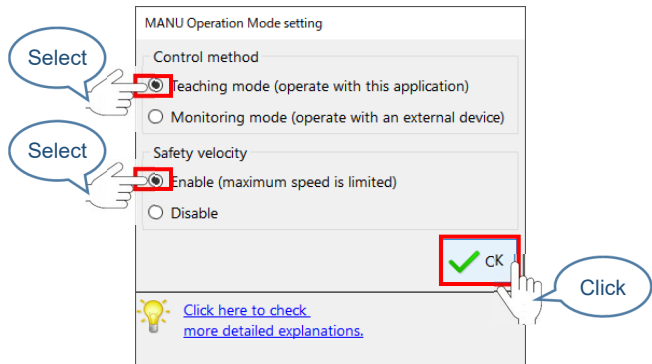
"Communication establishment" window

- 6) Confirm the content in the "Warning" window and click .



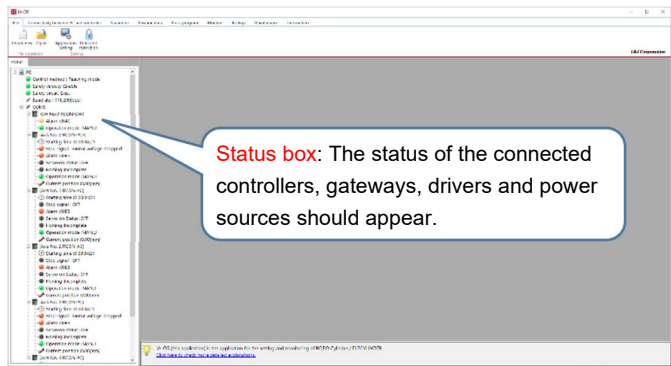
"Warning" window

- 7) Establish the settings in the "MANU Operation Mode setting" window. Put a checkmark to "Teaching mode (operate with this application)" for "Control method" and "Enable (maximum speed is limited)" for "Safety velocity". Click .



"MANU Operation Mode setting" window

- 8) The main window of the "IA-OS PC software" should open.

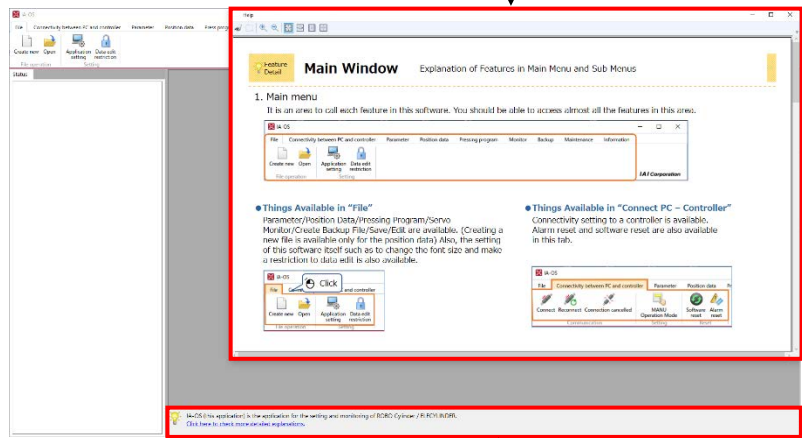


Main window of "IA-OS PC software"

Operation Help

At the bottom of the main window, some helps related to operation should be shown in a sentence.
If you see "click here" in the help, click it and another help window will open.
If you feel uncertain about operation, refer to the help to carry on the operation.

Help Window



Display of Operation Help

Main window of "IA-OS PC software"

Before Asking Questions

In case such as a failure in connection, check the following things.

Problem	Solution
Can not communicate with the controller.	Showing nothing in the status box in the main window of IA-OS represents that the connection is not established.

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