
Serial Port Monitor and Analyzer

Model: AKM-RSM-100

Setup Manual

Version 4.13.0.0

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Precautions

[Trademark]

- Windows is a registered trademark of Microsoft Corporation in the United States and other countries.
- Windows Vista is a registered trademark of Microsoft Corporation in the United States and other countries.
- Adobe, the Adobe logo, Acrobat, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- All other brand or product names are or may be trademarks or registered trademarks of, and are used to identify products or services of, their respective owners.

[About the User ID]

The User ID is very important information.
Never disclose it. Be fully careful of handling of the User ID.

Caution:

- (1) You must not reprint all (or a part) of the contents of this manual without getting the permission of Akiyama Manufacturing.
- (2) The contents of this manual may be changed in the future without a notice.

Glossary

Terms	Meaning
DCE	The abbreviation of the "Data Circuit terminating Equipment". The device which is necessary to connect it to the network of the carrier. (e.g., Modem)
DTE	The abbreviation of the "Data Terminal Equipment". The device which actually does communications. (e.g., PC)

Introduction

Serial Port Monitor and Analyzer (Model: AKM-RSM-100) (From now on, it will be described as "AKM-RSM-100".) is the application software of the simplified monitor, simplified analyzer, and simplified debugger for the Serial Port (Asynchronous Serial Interface [ASYNC]) which is actuated on the PC.

AKM-RSM-100 has the following functions.

(1) Line Monitor

The Communications Data, the Signal Line Status changes, and so on of the Serial Port (Asynchronous Serial Interface [ASYNC]) are monitored.

(2) Support of Debugging

This function helps the "increase of development efficiency" and the "solution of the trouble" about the communications application which Serial Port (Asynchronous Serial Interface [ASYNC]) was used for.

***Note: This Application is not available in the Synchronous Serial Interface [SYNC].**

The AKM-RSM-100 is inferior to the dedicated measurement device about the "Data transmission timing", the "Time measurement", and so on. because it is the application software actuated on the PC.

Therefore, the AKM-RSM-100 is placed to "Simplified Monitor, Simplified Analyzer, and Simplified Debugger".

AKM-RSM-100 may be certainly inferior to the dedicated measurement device in the point of the accuracy. But, the AKM-RSM-100 will provide the following fully useful tools by the high cost-performance to the developer (such as the software technician) of the communications application which Serial Port (Asynchronous Serial Interface [ASYNC]) was used for.

(a) The Communications Monitor for the communications sequence verification

(b) The methods of the "Support of Development" and the "Support of Trouble Solution" for the communications application

The AKM-RSM-100 can't be used when the measurement of the very severe timing and signal waveform are necessary. In such a case, use the dedicated monitor and the dedicated analyzer.

Reselling the user ID of this product is prohibited.

[Topics]

The type of a part of data files was changed from Version 4.0.0.0 or more as follows.

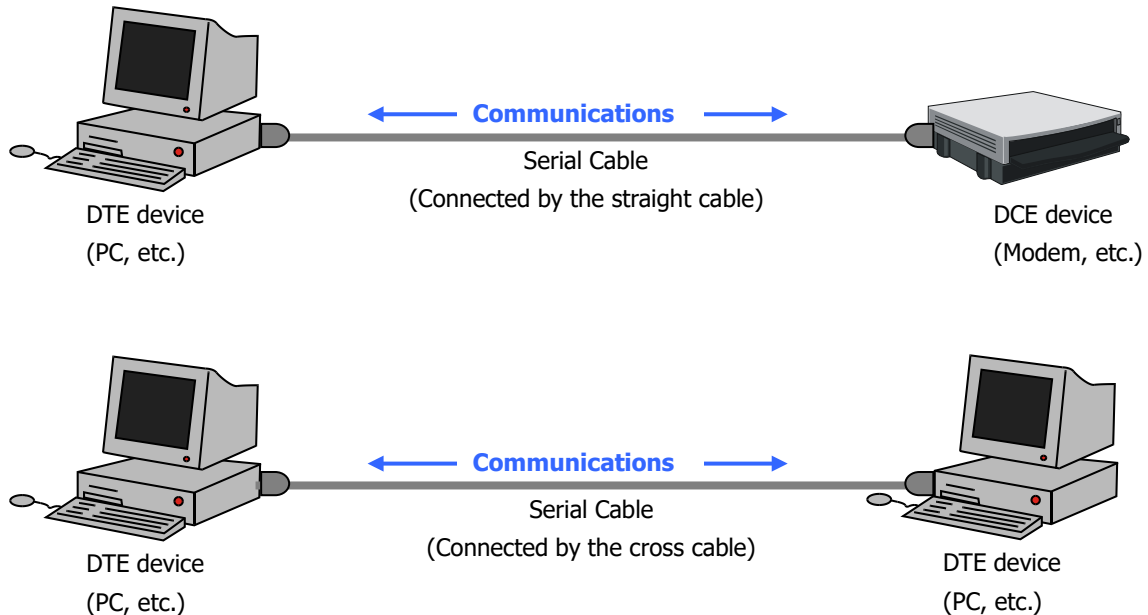
File	Former Ver. (1.0.0.0~3.1.0.0)	Version 4.0.0.0 or more
Monitor Data Report (.mon)	ASCII Text	UTF-8 Text with BOM
Each Pattern Data	ASCII Text	UTF-8 Text with BOM
Fore Color and the Background Color	ASCII Text	UTF-8 Text with BOM

By this change, UNICODE is available as the comment character in Version 4.0.0.0 or more.

The files made by the former version can be used by the latest version. (Version 4.0.0.0 or more)

System Configuration

The devices using Serial Port are usually communicating by a connection like the following pictures.



The AKM-RSM-100 is the application which is actuated as the communications monitor and as the DTE (or as the DCE) by being inserted between the DTE side device and the DCE side device. Then, it will support powerfully increase in efficiency of the software development and the solution of the trouble about the DTE device side and also the DCE device side.

There are two kinds as the method that is inserted between the DTE side device and the DCE side device. One is the **"Direct Connection"**. And another one is the **"Relay Connection"**. Then, connection cable for each case is necessary about each connection.

■ **Cable for the "Direct Connection":** *Note: This cable is called **"CABLE-A"**.

- (a) This cable is used for the communications monitor only.
- (b) This cable doesn't influence the communications of the monitor object. But this cable can't be used for the purpose except for the communications monitor.
- (c) When the monitor's purpose depends on the timing of the communications of the monitor object, this cable is used. (For example, when the monitor of the trouble analysis which occurred by the timing factor, and so on.)

***Caution:** In the monitor by using the "Direct Connection", there is a possibility that confuse the order of display by the timing of receiving of the high-speed communications data from the DTE side device and from the DCE side device. (For example; Echo back of Modem, and so on.)

Use the "Relay Connection" if this actuation is the serious problem for the verification and for the analysis of the Monitor Result.

■ **Cable for the "Relay Connection":** *Note: This cable is called **"CABLE-B"**.

- (a) This cable is used for the Communications Monitor and the Support of Debugging.
- (b) In the "Relay Connection", the communications timing and the control timing of signal line will be delayed a little because AKM-RSM-100 relays communications data and control signal.
- (c) This cable can't pass the CI (RI) signal from the DCE device to the DTE device.

Therefore, prepare for the followings in advance according to the use purpose of AKM-RSM-100.

(1) AKM-RSM-100 (Software)

(2) PC which AKM-RSM-100 is installed in

*Note: Refer to the "Hardware Requirements" regarding the required ability of the PC.

(3) "CABLE-A" or "CABLE-B", or "CABLE-A" and "CABLE-B"

*Note: Prepare "CABLE-A" and "CABLE-B" in the customer side.

Make cable by referring to the "Chapter 2: Preparation of the cable" of this manual.

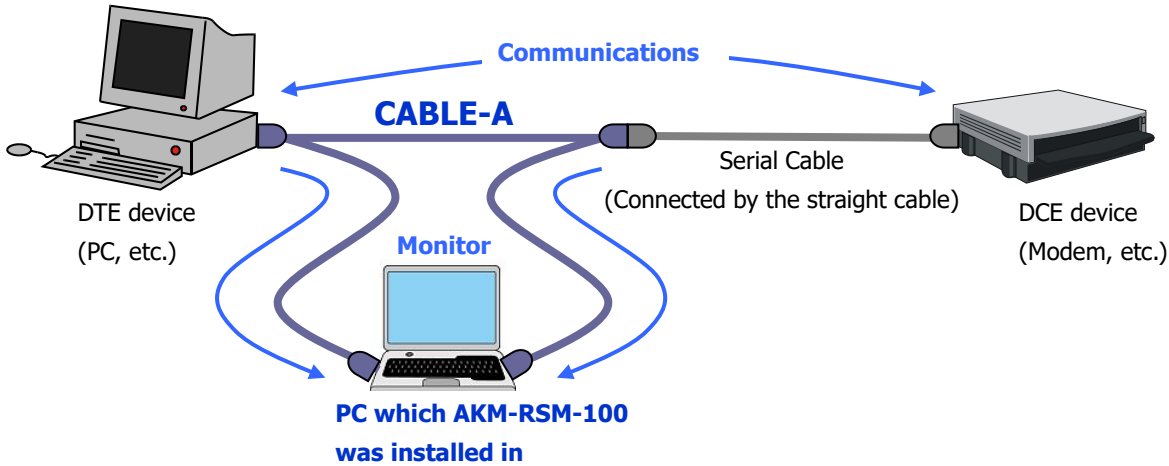
Purpose		CABLE-A	CABLE-B
Communications Monitor	When the delay can not be accepted;	Necessity	
	When the delay can be accepted;	Either is necessary.	
Use the Support of Debugging			Necessity

*Note: The Serial Cable which was being used originally between the devices of the monitor object is used continuously.

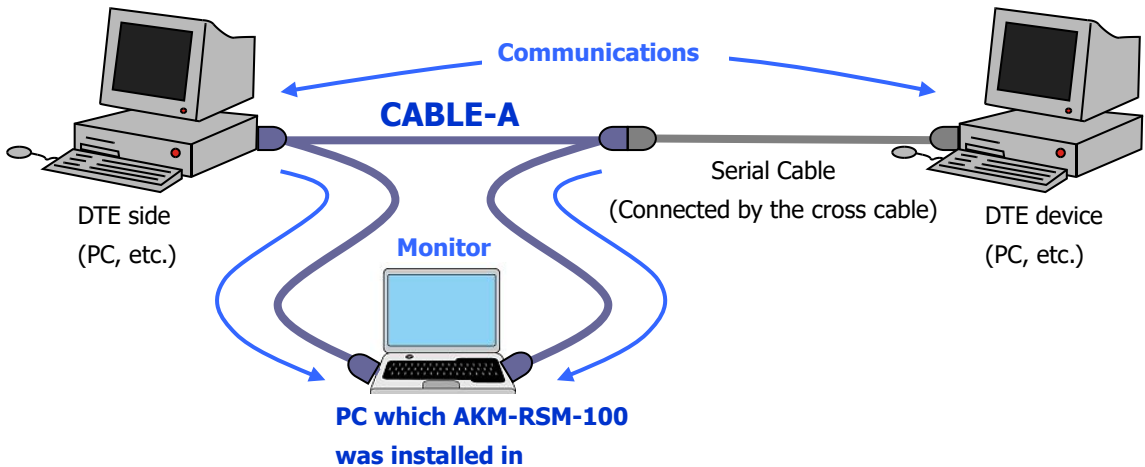
Refer to the following "Configuration of the AKM-RSM-100 which was set up".

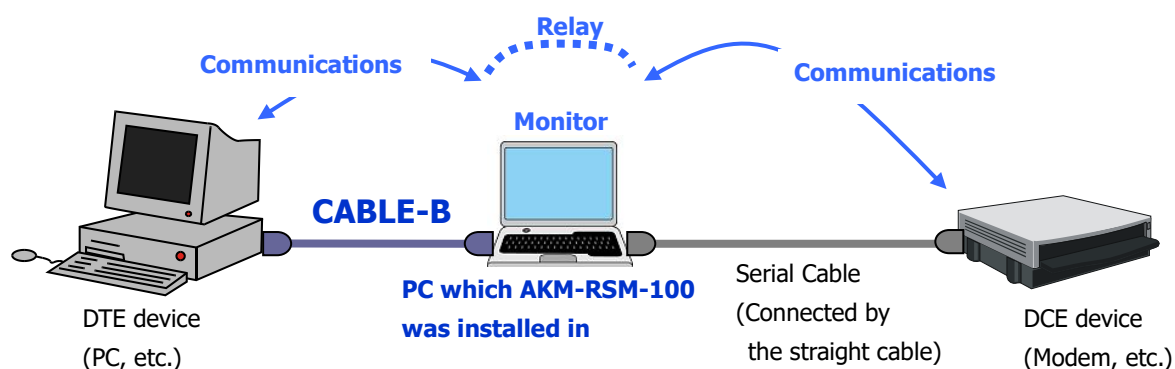
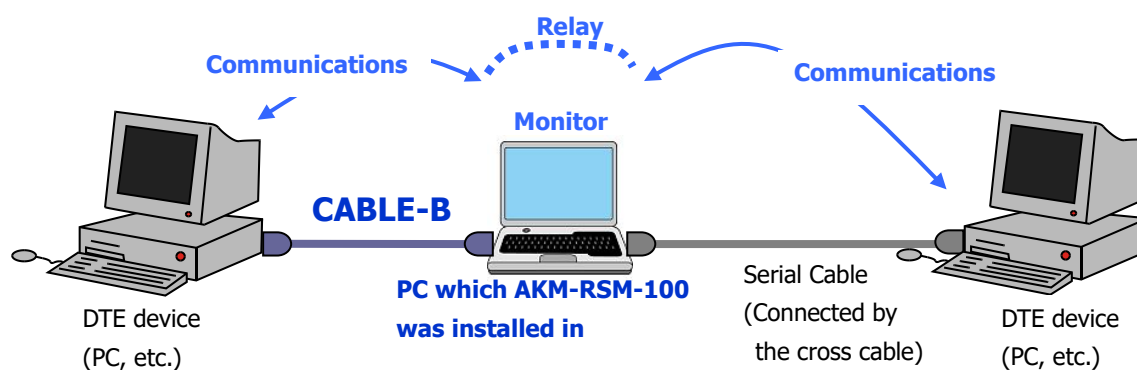
"Configuration of the AKM-RSM-100 which was set up" is the following.

■ **Direct Connection (DTE-DCE connection)** *Note: CABLE-A is used.



■ **Direct Connection (DTE-DCE connection)** *Note: CABLE-A is used.



■ Relay Connection (DTE-DCE connection) *Note: CABLE-B is used.**■ Relay Connection (DTE-DTE connection)** *Note: CABLE-B is used.

*Note: The "Relay Connection" is used for the Support of Debugging to do the increase in efficiency of software development and to do the support of the trouble solution of the DTE device side and the DCE device side, too.

Then, there is the difference in the concrete connection method by each function and by the option setting of each function.

For the details, refer to the "Chapter 4: For the full use (Support of Debugging)" of the "User's Manual".

Hardware Requirements

■ Requirement of each OS

OS		Requirement	
Windows 2000 *Note 1, Note 4	CPU	1. 2 GHz or more	*Note 2, *Note 3
	Memory	512 KB or more	
Windows XP (x86, x64) *Note 4	CPU	1. 6 GHz or more	*Note 2, *Note 3
	Memory	512 KB or more	
Windows Vista (x86, x64) *Note 4	CPU	1. 6 GHz or more	*Note 2, *Note 3
	Memory	2 GB or more	
Windows 7 (x86, x64) *Note 4	CPU	1. 6 GHz or more	*Note 2, *Note 3
	Memory	2 GB or more	
Windows 8/8.1 (x86, x64) *Note 4	CPU	1. 6 GHz or more	*Note 2, *Note 3
	Memory	2 GB or more	
Windows 10 (x86, x64) *Note 4	CPU	1. 6 GHz or more	*Note 2, *Note 3
	Memory	2 GB or more	
Windows 11 (x64) *Note 4	CPU	Follow Windows 11 system requirements	
	Memory	Follow Windows 11 system requirements	

*Note 1: Only the single CPU system is supported with Windows 2000.

*Note 2: The value of the CPU clock is described based on the single CPU.

When Dual CPU system is used, convert by [Requirement value / 1.5].

Dual Core CPU is contained to the Dual CPU system, too.

However, Hyper-threading CPU system is based on the requirement of the single CPU system.

*Note 3: There is the case that the CPU of the higher throughput is necessary by the functional combination of AKM-RSM-100.

When high-speed bidirectional communication (for example, 921600bps) is monitored, a part of the communications data sometimes may lack even if the condition which the Overrun Error isn't detected in. In this case, use high ability's PC, or use lower speed communications.

*Note 4: English AKM-RSM-100 is actuated with English Windows and Japanese Windows.

However, when English AKM-RSM-100 is actuated on the Japanese OS, the object that is controlled by OS is displayed in Japanese. (e.g. [Yes], [No], [Cancel], Print Setting, Print Preview)

Applying the latest service pack and the security patches to the OS is strongly recommended.

In addition, when OS which official support in the Microsoft Corporation has already been finished (Windows 2000, Windows XP, and so on) is used, you must be careful about the security and about the anti-virus.

■ Other Common Requirement

Item	Requirement
Hard Disk *Note 5, Note 7	System Drive : Free space of 50 MB or more Install Drive : Free space of 50 MB or more
Display	1,024 x 600 dot or more, 16bit color or more *Note 9
Serial Port *Note 6	2 ports
Mouse	Ordinary mouse, or the pointing device
Software *Note 8	(1) NETFramework2.0 or upper version must be installed (2) Adobe Reader must be installed

*Note 5: System Drive means the drive which OS is being installed in (usually, Drive C:).

Install Drive means the drive which AKM-RSM-100 is installed in.

*Note 6: Prepare the Serial Ports by using "USB-Serial port conversion cable" and so on when there are no Serial Ports in PC (such as laptop computer).

The actuation of AKM-RSM-100 by using the following cables is being confirmed.

▪ Buffalo	BSUSRC0605BS BSUSRC0610BS BSUSRC06SV
▪ Arvel (Buffalo-Kokuyo)	SRC06-USB
▪ RATO Systems, Inc.	REX-USB60F
▪ ELECOM	UC-SGT1
▪ ELECOM	UC-SGT (The end of S/N is "D" or after)
▪ Akizuki Denshi Tsusho Co., Ltd.	M-02746 (Prolific) M-08343 (FTDI)
▪ COMON	USB9-Y

*Note: Use it according to the specification of each cable about the support language, the support OS, and the support Communications Speed, etc.

*Note: Refer to the homepage of Akiyama Manufacturing (the following URL) for the latest information about the "USB-Serial conversion cable" which is suitable for the use with AKM-RSM-100. (URL http://www7b.biglobe.ne.jp/~akiyama_manufacturing/)

*Note 7: When the Long-run recording is used, much more hard disk free space will be necessary.

The drive name (and path) for output of the data can be specified at the Long-run recording.

*Note 8: Install this software in advance before installing AKM-RSM-100.

Use Adobe Reader of the version which was suitable for your OS. Refer to the bottom table.

OS \ Reader	Adobe Reader 9.5	Adobe Reader X	Adobe Reader XI	Adobe Acrobat Reader DC
Windows 2000	X	--	--	--
Windows XP	X	X	XX	--
Windows Vista	X	X	--	--
Windows 7	X	X	X	XX
Windows 8	--	X	X	XX
Windows 8.1	--	X	X	XX
Windows 10	--	X	X	XX
Windows 11	--	--	--	XX

XX: Available (Recommended)

X: Available

--: Not available

*Note: Official support in Adobe Systems Incorporated already finished about Adobe Reader 9.5 and about Adobe Reader X.

*Note 9: This requirement value is the value based on the resolution of 96 dpi (Normal).

Refer to the following value when other resolution is used.

120dpi (125%) : 1,366 x 768 dot or more, 16bit color or more

144dpi (150%) : 1,600 x 1,200 dot or more, 16bit color or more

Precautions about Operation

- (1) Shut other applications when AKM-RSM-100 is actuated and when AKM-RSM-100 is operated.
- (2) Don't use the power management function of PC.
- (3) Don't use Screen Saver.
- (4) In the normal setting, multiple AKM-RSM-100 can't be started in one PC to avoid the incorrect operation.
If you hope to start multiple AKM-RSM-100 in one PC, refer to the "Advanced Settings Manual".
[From the \[Start\] of Windows, under the \[All Programs\] - \[Serial Port Monitor and Analyzer\]](#)
- (5) Don't delete the files which relate to AKM-RSM-100 by the direct operation.
Don't change the files which relate to AKM-RSM-100 by the direct operation.
Uninstall of AKM-RSM-100 must be done by the "Uninstall Procedures" of the "Chapter 1: Setup of AKM-RSM-100" of this manual.

Chapter 1: Setup of AKM-RSM-100

This chapter is described about the Setup Procedure of AKM-RSM-100.

- The Install Procedures on Windows 2000
- The Install Procedures on Windows XP
- The Install Procedures on Windows Vista
- The Install Procedures on Windows 7
- The Install Procedures on Windows 8, Windows 8.1
- The Install Procedures on Windows 10
- The starting of AKM-RSM-100 (~ Registration of the User ID)
- Shutdown of AKM-RSM-100
- Uninstall Procedures
- Limitation of the Trial version

The Install Procedures on Windows 2000

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 2.0 or more
Adobe Reader

Install these before proceeding to the Procedure 1 if the above software is not being installed yet.

***Note:** You can get the .NET Framework from the homepage of Microsoft.

There are the several versions in .NET Framework. And, the version which can be used in Windows 2000 is .NET Framework 2.0. (And also, 2.x, Service Pack for 2.x, and modification patch for 2.x)

(The .NET Framework 3.0 or more is not being supported about the use on Windows 2000.)

***Note:** You can get the Adobe Reader from the homepage of Adobe.

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

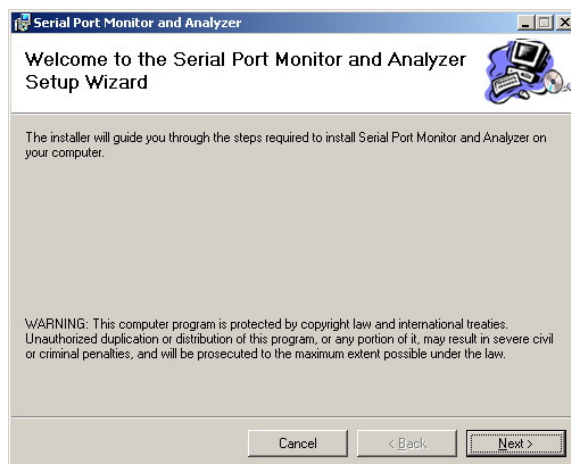
Serial Port Monitor and Analyzer x.x.x.x.msi

***Note:** x.x.x.x is the version number (for example, 4.13.0.0).

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

Then, click on the [Next >].



***Note:** When the following message was displayed, shut message by clicking on [No].

- This setup requires the .NET Framework version x.x. Please install the .NET Framework and run this setup again...

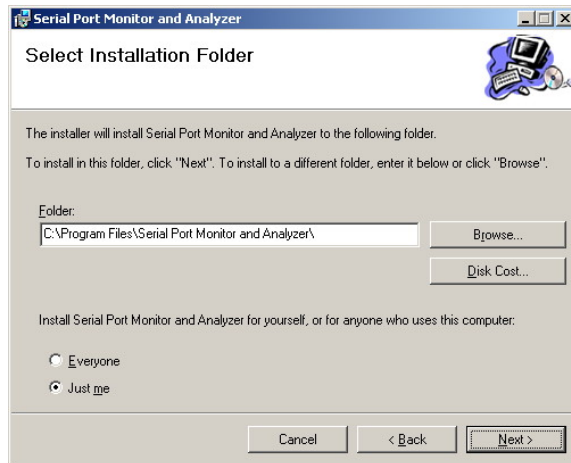
And, install the .NET Framework 2.0 or more. Then, do Procedure 2 again.

[Procedure 3]

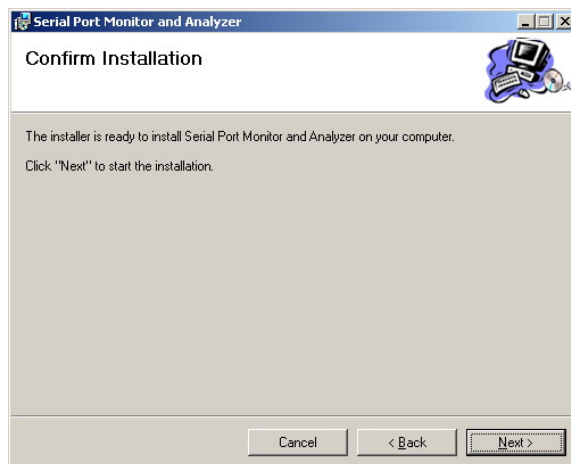
The following screen will be displayed.

Change install destination folder if necessary. And, choose the install object user if necessary.

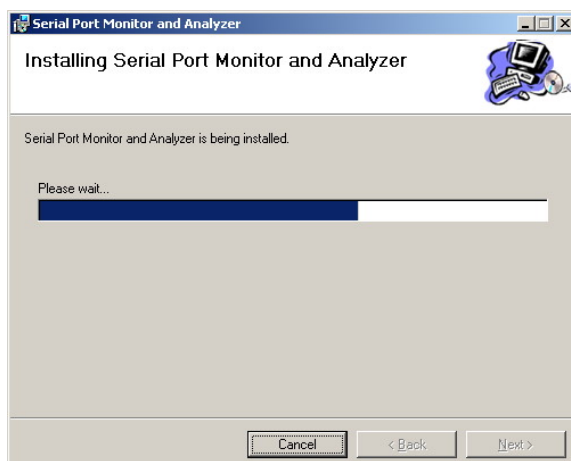
Then, click on the [Next >].

**[Procedure 4]**

The following screen will be displayed. Then, click on the [Next >].

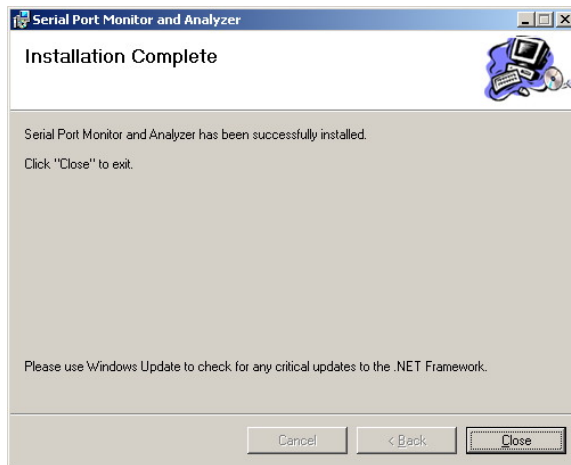
**[Procedure 5]**

Install begins, and then the following screen is displayed. Wait until install is completed.



[Procedure 6]

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

The Install Procedures on Windows XP

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 2.0 or more
Adobe Reader

Install these before proceeding to the Procedure 1 if the above software is not being installed yet.

***Note:** You can get the .NET Framework from the homepage of Microsoft.

***Note:** You can get the Adobe Reader from the homepage of Adobe.

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

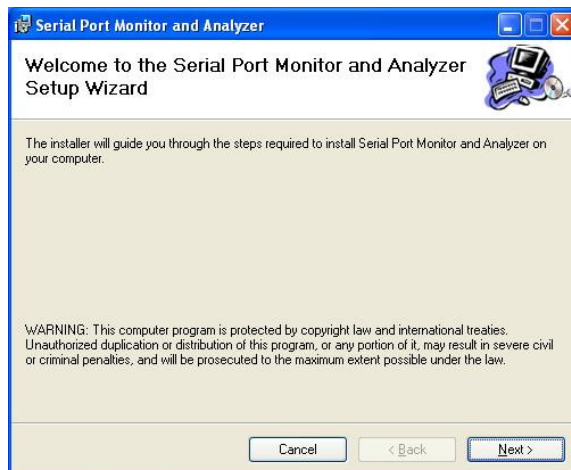
Serial Port Monitor and Analyzer x.x.x.x.msi

***Note:** x.x.x.x is the version number (for example, 4.13.0.0).

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

Then, click on the [Next >].



***Note:** When the following message was displayed, shut message by clicking on [No].

- This setup requires the .NET Framework version x.x. Please install the .NET Framework and run this setup again...

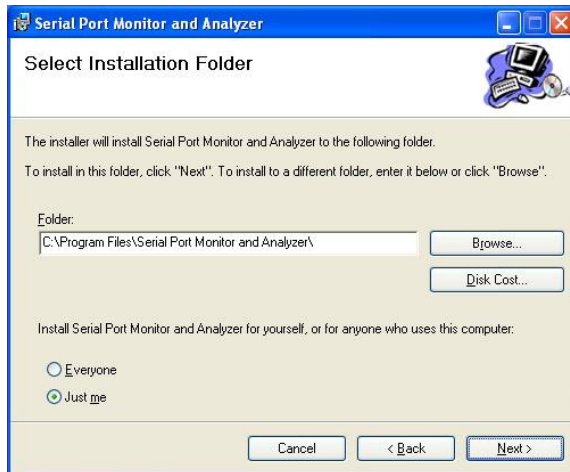
And, install the .NET Framework 2.0 or more. Then, do Procedure 2 again.

[Procedure 3]

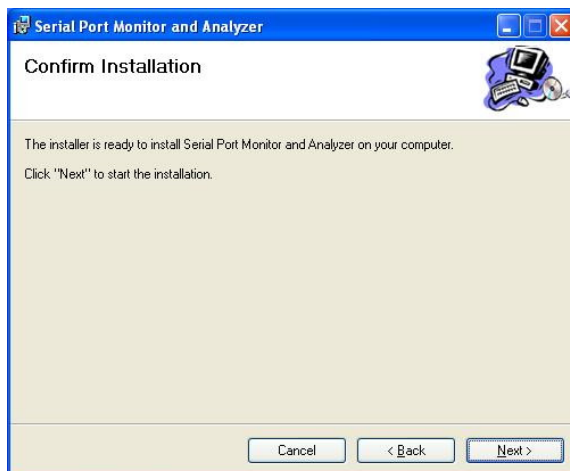
The following screen will be displayed.

Change install destination folder if necessary. And, choose the install object user if necessary.

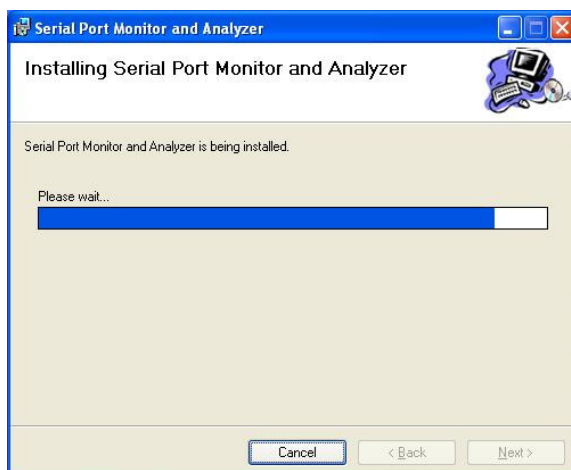
Then, click on the [Next >].

**[Procedure 4]**

The following screen will be displayed. Then, click on the [Next >].

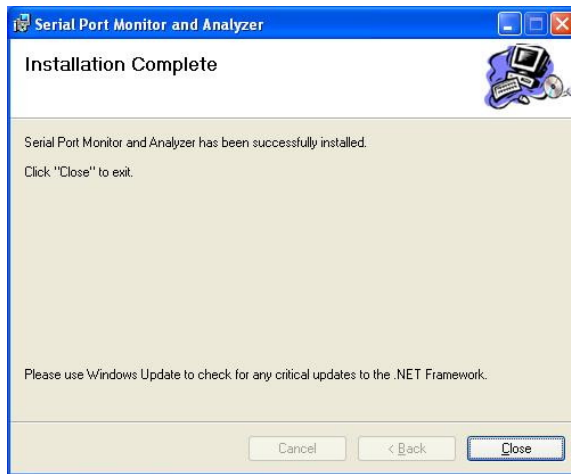
**[Procedure 5]**

Install begins, and then the following screen is displayed. Wait until install is completed.



[Procedure 6]

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

The Install Procedures on Windows Vista

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 3.0 or more
Adobe Reader

**Note: Usually, the .NETFramework3.0 is being included in Windows Vista in the standard.*

Install the .NET Framework before proceeding to the Procedure 1 if .NET Framework is not being installed yet.

**Note: You can get the .NET Framework from the homepage of Microsoft.*

There are the several versions in .NET Framework. And, the version which can be used in Windows Vista is .NET Framework 3.0 or more.

(The .NET Framework 2.x is not being supported about the use on Windows Vista.)

**Note: You can get the Adobe Reader from the homepage of Adobe.*

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

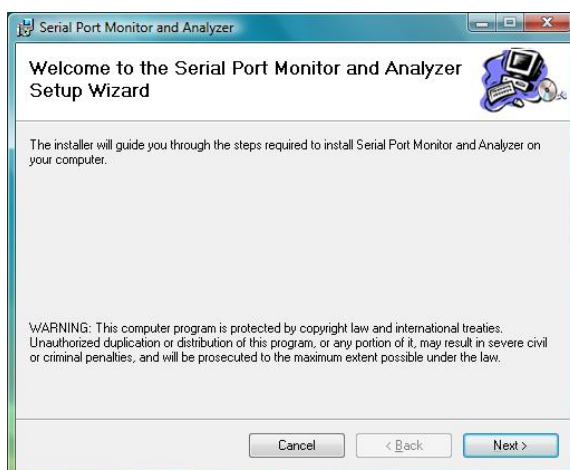
Serial Port Monitor and Analyzer x.x.x.x.msi

**Note: x.x.x.x is the version number (for example, 4.13.0.0).*

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

Then, click on the [Next >].

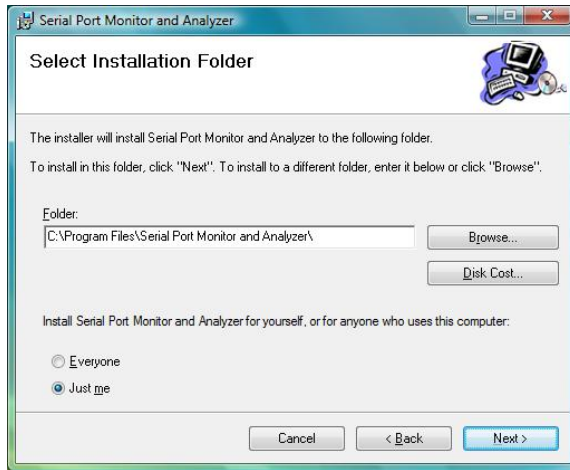


[Procedure 3]

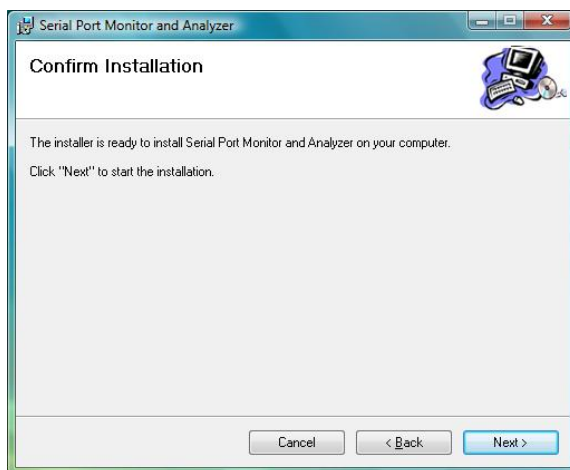
The following screen will be displayed.

Change install destination folder if necessary. And, choose the install object user if necessary.

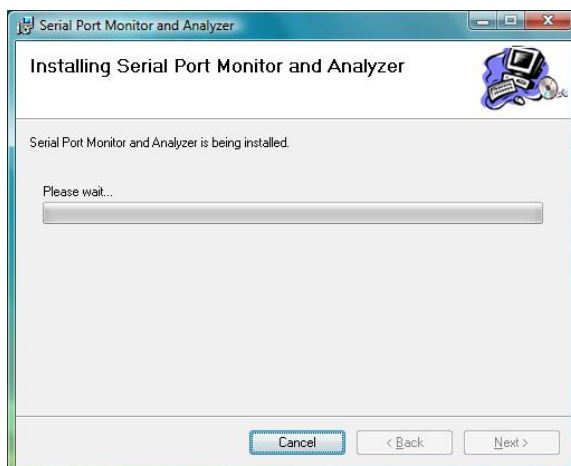
Then, click on the [Next >].

**[Procedure 4]**

The following screen will be displayed. Then, click on the [Next >].

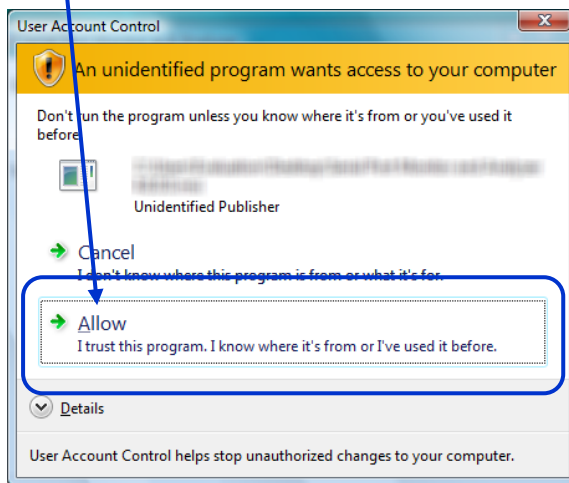
**[Procedure 5]**

Install begins, and then the following screen is displayed.



[Procedure 6]

When the "User Account Control" screen was displayed at the halfway, continue install by clicking on the [Arrow].



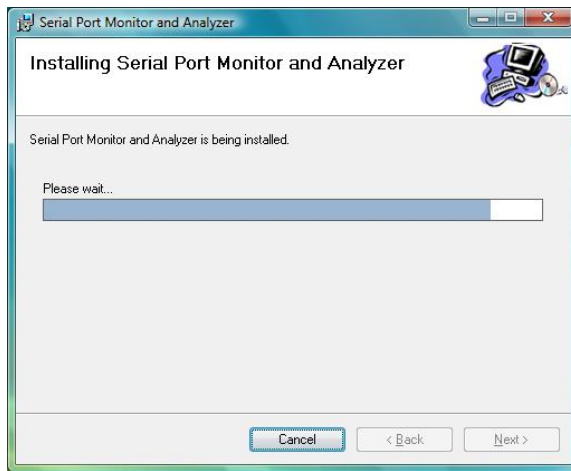
***Note:** Verification can't do by using the contents of the "Code Signing Certificate" to proving that this installation program is proper during the install in the Windows Vista.

<Reference description>

The Digest Algorithm SHA1 which was used for the "Code Signing Certificate" was changed from January, 2016 to stronger algorithm SHA2 (SHA256) by the policy change of the Microsoft. AKM-RSM-100 followed this policy change, too. However, Windows Vista is outside the object of the SHA2 (SHA256) support. Therefore, the "Unidentified Publisher" is displayed as publisher of this installing program. And, the warning screen of the UAC (User Account Control) is displayed.

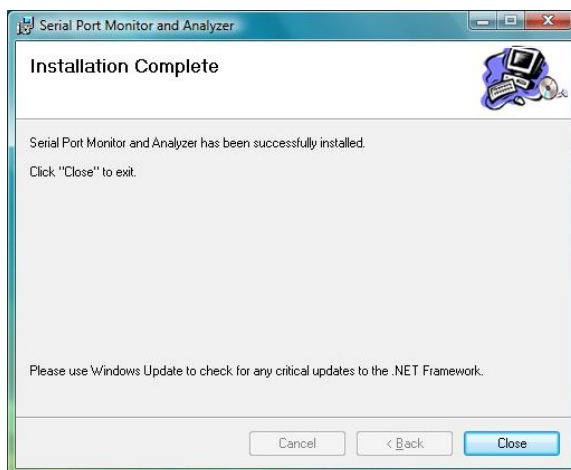
[Procedure 7]

By clicking on [Continue] in the Procedure 6, the following screen is displayed. Wait until install is completed.



[Procedure 8]

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

The Install Procedures on Windows 7

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 3.5.1 or more
Adobe Reader

**Note: Usually, the .NETFramework3.5.1 is being included in Windows 7 in the standard.*

Install the .NET Framework before proceeding to the Procedure 1 if .NET Framework is not being installed yet.

**Note: There are the several versions in .NET Framework. And, the version which can be used in Windows 7 is .NET Framework 3.5.1 or more.*

**Note: You can get the Adobe Reader from the homepage of Adobe.*

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

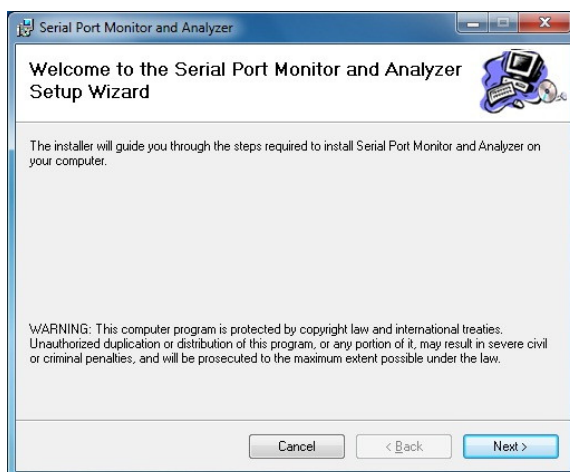
Serial Port Monitor and Analyzer x.x.x.x.msi

**Note: x.x.x.x is the version number (for example, 4.13.0.0).*

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

Then, click on the [Next >].

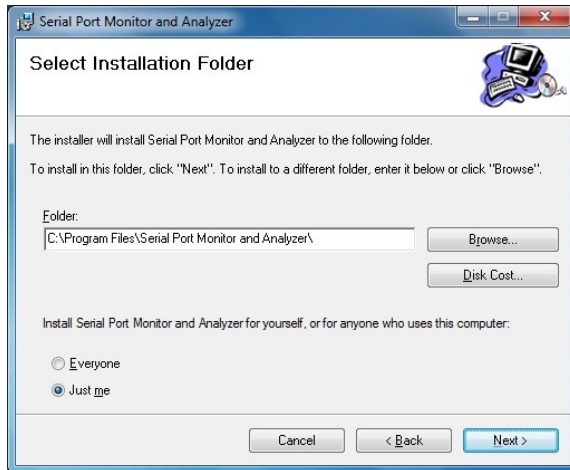


[Procedure 3]

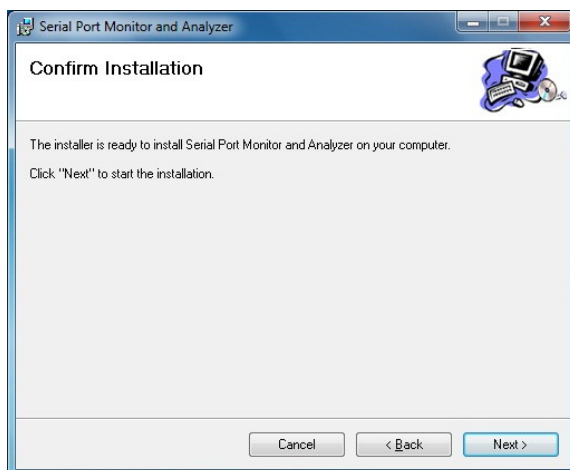
The following screen will be displayed.

Change install destination folder if necessary. And, choose the install object user if necessary.

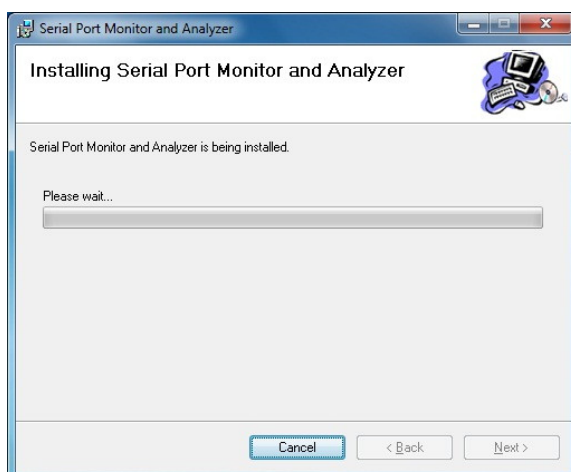
Then, click on the [Next >].

**[Procedure 4]**

The following screen will be displayed. Then, click on the [Next >].

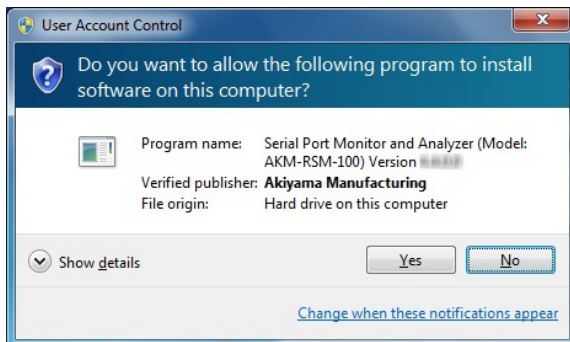
**[Procedure 5]**

Install begins, and then the following screen is displayed.

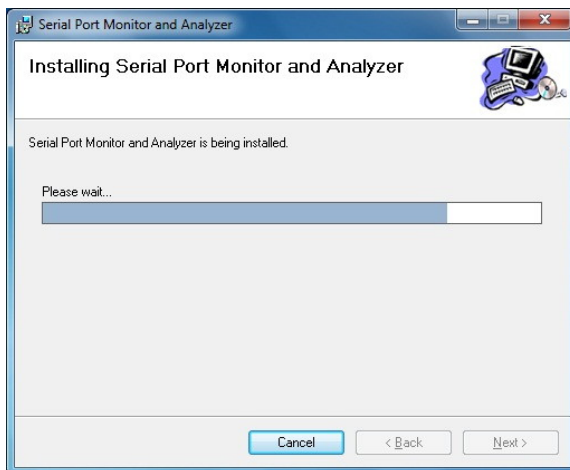


[Procedure 6]

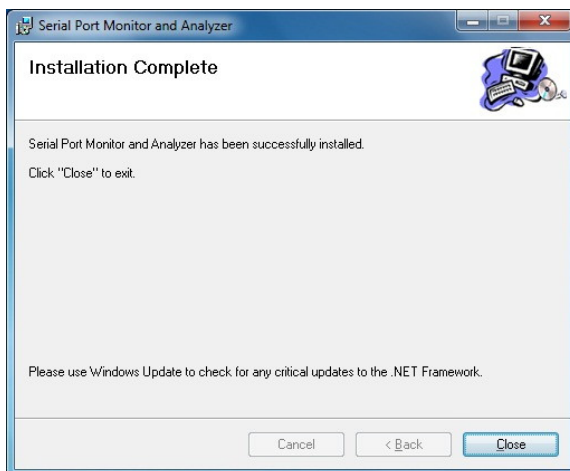
When the "User Account Control" screen was displayed at the halfway, continue install by clicking on the [Yes].

**[Procedure 7]**

By clicking on [Yes] in the Procedure 6, the following screen is displayed. Wait until install is completed.

**[Procedure 8]**

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

The Install Procedures on Windows 8, Windows 8.1

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 3.5 (includes .NET 2.0 and 3.0)
Adobe Reader

Install the .NET Framework before proceeding to the Procedure 1 if .NET Framework is not being installed yet.

**Note: There are the several versions in .NET Framework. And, the version which can be used in Windows 8 or Windows 8.1 is ".NET Framework 3.5 (includes .NET 2.0 and 3.0)".*

Refer to "Appendix A: Installation of the .NET Framework 3.5" for the install procedure.

**Note: You can get the Adobe Reader from the homepage of Adobe.*

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

Serial Port Monitor and Analyzer x.x.x.x.msi

**Note: x.x.x.x is the version number (for example, 4.13.0.0).*

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

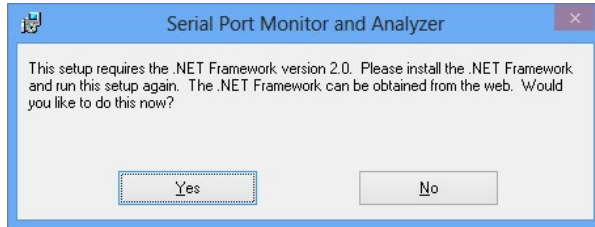
Then, click on the [Next >].



***Note:** When the following screen was displayed in this procedure, the ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" which is necessary for AKM-RSM-100 isn't being installed.

In this case, cancel installation by click on [No].

Then, install the ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" in advance by referring to "Appendix A: Installation of the .NET Framework 3.5".

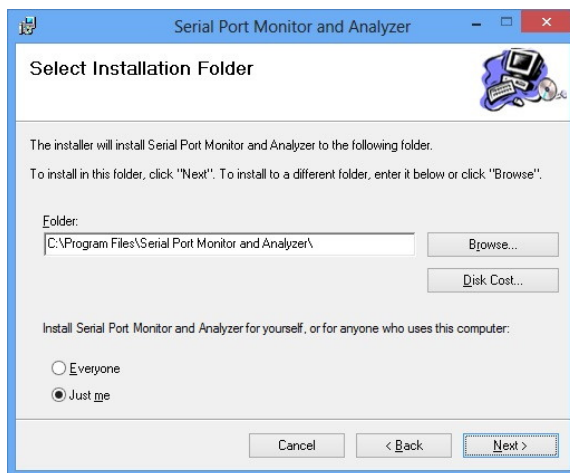


[Procedure 3]

The following screen will be displayed.

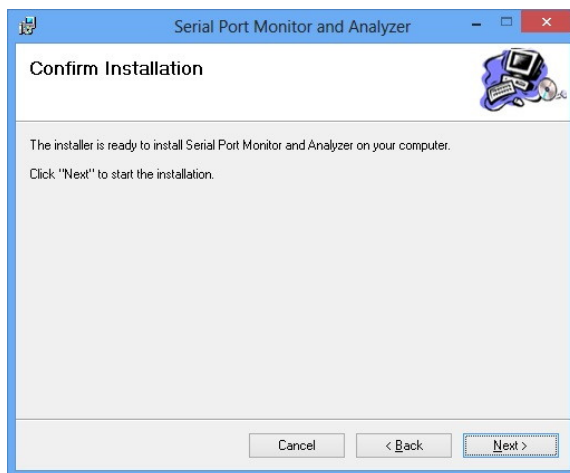
Change install destination folder if necessary. And, choose the install object user if necessary.

Then, click on the [Next >].



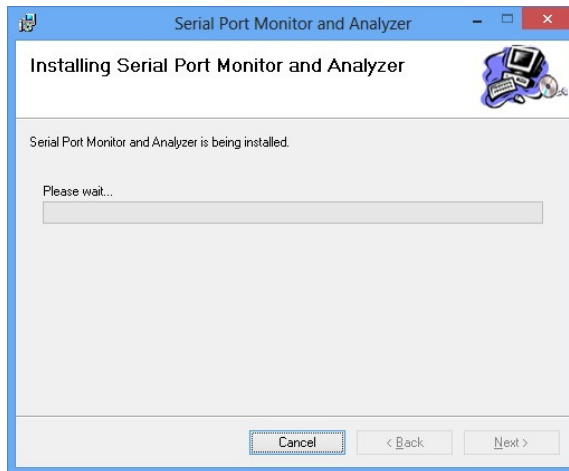
[Procedure 4]

The following screen will be displayed. Then, click on the [Next >].



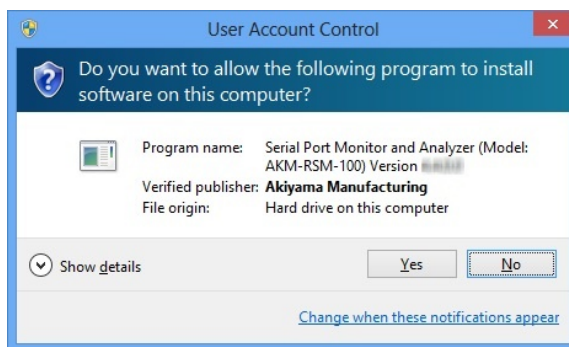
[Procedure 5]

Install begins, and then the following screen is displayed.



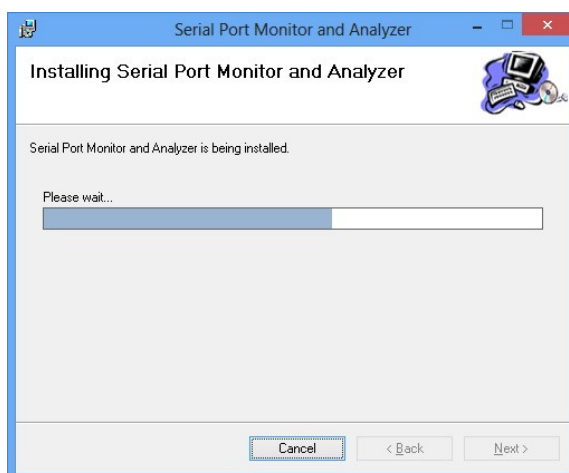
[Procedure 6]

When the "User Account Control" screen was displayed at the halfway, continue install by clicking on the [Yes].



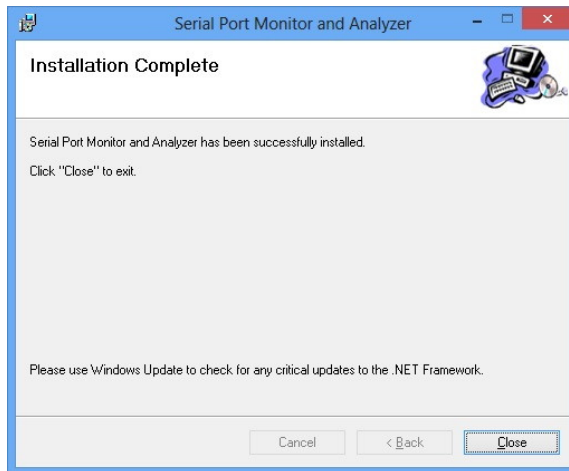
[Procedure 7]

By clicking on [Yes] in the Procedure 6, the following screen is displayed. Wait until install is completed.



[Procedure 8]

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

***Note:** When each manual of AKM-RSM-100 and help aren't displayed by Adobe Reader though Adobe Reader has already been installed, set up the Default Programs by referring to the following.

- Appendix B: Setting of the Default Programs

The Install Procedures on Windows 10

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 3.5 (includes .NET 2.0 and 3.0)
Adobe Reader

Install the .NET Framework before proceeding to the Procedure 1 if .NET Framework is not being installed yet.

**Note: There are the several versions in .NET Framework. And, the version which can be used in Windows 10 is ".NET Framework 3.5 (includes .NET 2.0 and 3.0)".*

Refer to "Appendix A: Installation of the .NET Framework 3.5" for the install procedure.

**Note: You can get the Adobe Reader from the homepage of Adobe.*

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

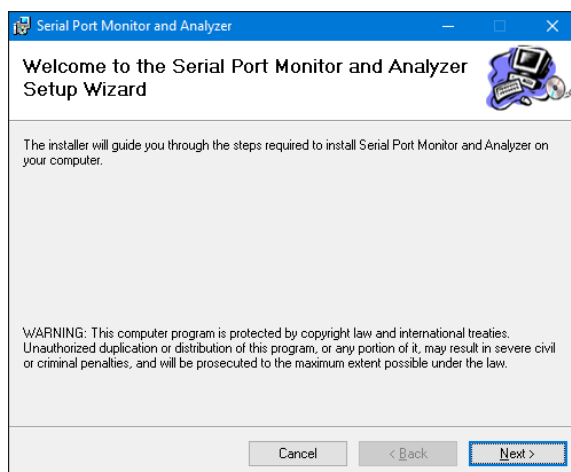
Serial Port Monitor and Analyzer x.x.x.x.msi

**Note: x.x.x.x is the version number (for example, 4.13.0.0).*

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

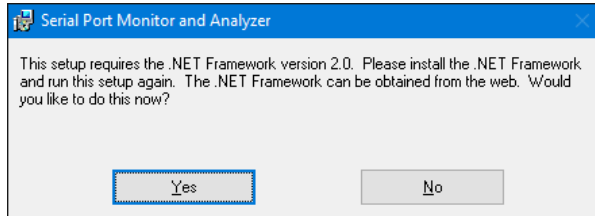
Then, click on the [Next >].



***Note:** When the following screen was displayed in this procedure, the ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" which is necessary for AKM-RSM-100 isn't being installed.

In this case, cancel installation by click on [No].

Then, install the ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" in advance by referring to "Appendix A: Installation of the .NET Framework 3.5".

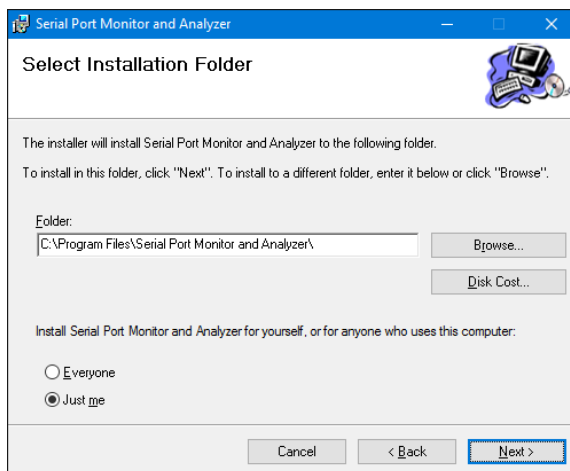


[Procedure 3]

The following screen will be displayed.

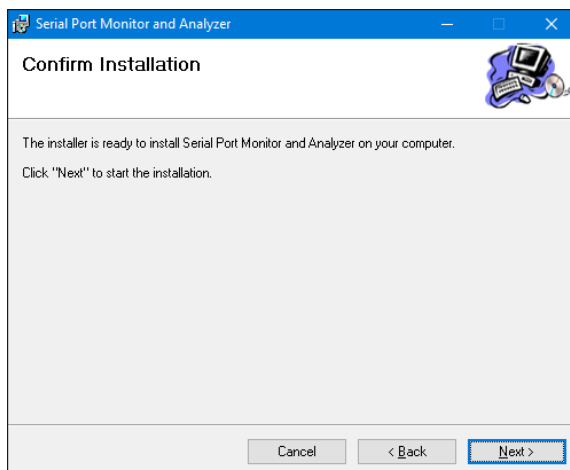
Change install destination folder if necessary. And, choose the install object user if necessary.

Then, click on the [Next >].



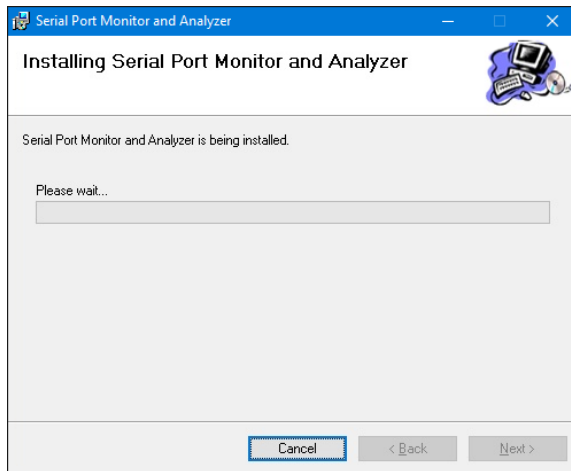
[Procedure 4]

The following screen will be displayed. Then, click on the [Next >].

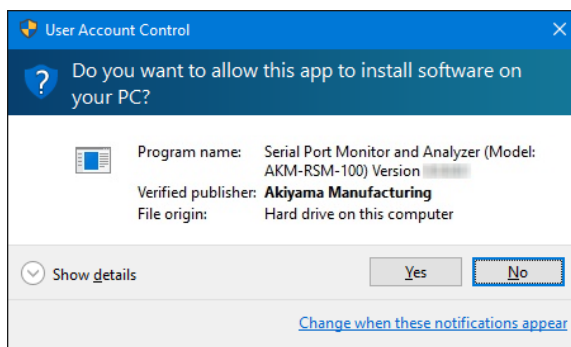


[Procedure 5]

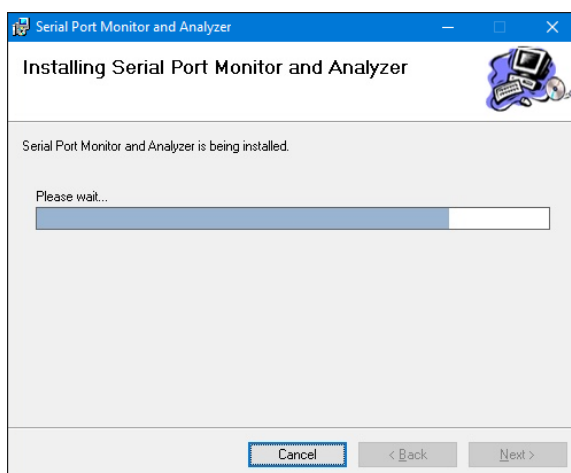
Install begins, and then the following screen is displayed.

**[Procedure 6]**

When the "User Account Control" screen was displayed at the halfway, continue install by clicking on the [Yes].

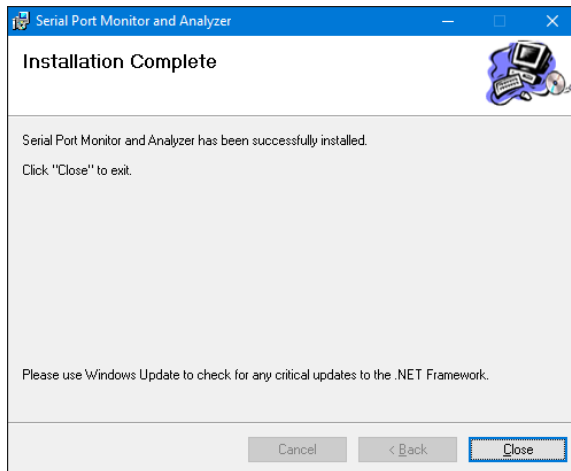
**[Procedure 7]**

By clicking on [Yes] in the Procedure 6, the following screen is displayed. Wait until install is completed.



[Procedure 8]

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

***Note:** When each manual of AKM-RSM-100 and help aren't displayed by Adobe Reader though Adobe Reader has already been installed, set up the Default Programs by referring to the following.

- Appendix B: Setting of the Default Programs

The Install Procedures on Windows 11

[Preparations]

Confirm that the following software is being installed in advance in PC which AKM-RSM-100 is installed in.

.NET Framework 3.5 (includes .NET 2.0 and 3.0)
Adobe Reader

Install the .NET Framework before proceeding to the Procedure 1 if .NET Framework is not being installed yet.

**Note: There are the several versions in .NET Framework. And, the version which can be used in Windows 11 is ".NET Framework 3.5 (includes .NET 2.0 and 3.0)".*

Refer to "Appendix A: Installation of the .NET Framework 3.5" for the install procedure.

**Note: You can get the Adobe Reader from the homepage of Adobe.*

[Procedure 1]

Copy the following file to the appropriate folder of PC which AKM-RSM-100 is installed in.

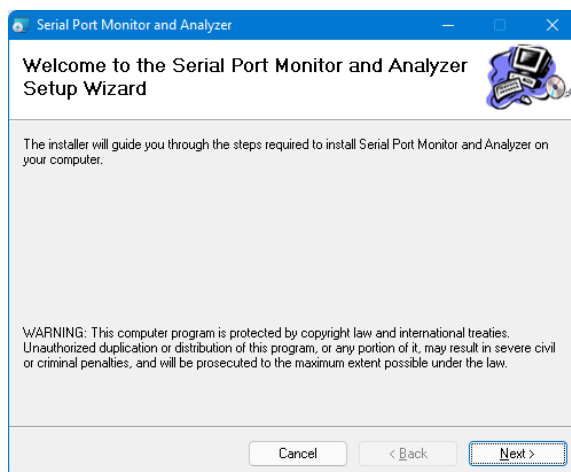
Serial Port Monitor and Analyzer x.x.x.x.msi

**Note: x.x.x.x is the version number (for example, 4.13.0.0).*

[Procedure 2]

Double-click on the file (Serial Port Monitor and Analyzer x.x.x.x.msi) copied in the Procedure 1. Then, the following screen will be displayed.

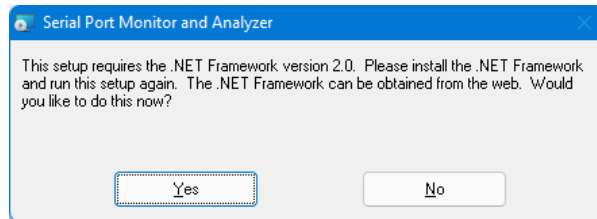
Then, click on the [Next >].



***Note:** When the following screen was displayed in this procedure, the ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" which is necessary for AKM-RSM-100 isn't being installed.

In this case, cancel installation by click on [No].

Then, install the ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" in advance by referring to "Appendix A: Installation of the .NET Framework 3.5".

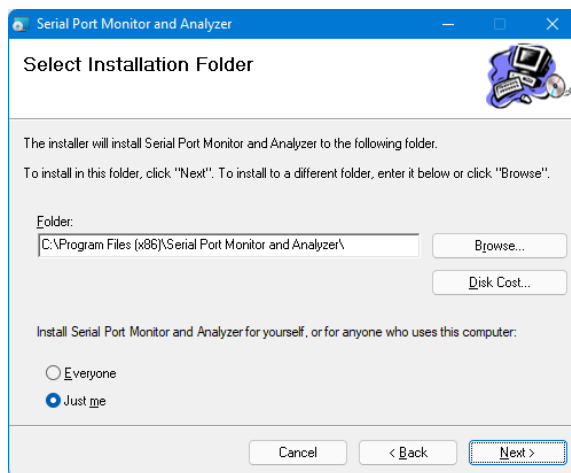


[Procedure 3]

The following screen will be displayed.

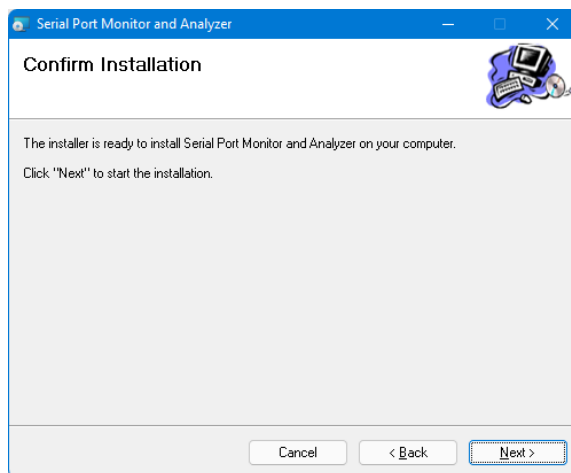
Change install destination folder if necessary. And, choose the install object user if necessary.

Then, click on the [Next >].



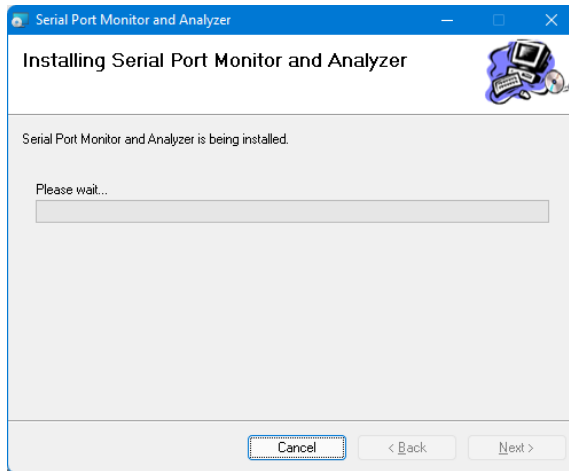
[Procedure 4]

The following screen will be displayed. Then, click on the [Next >].

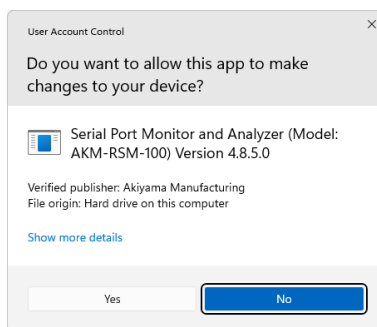


[Procedure 5]

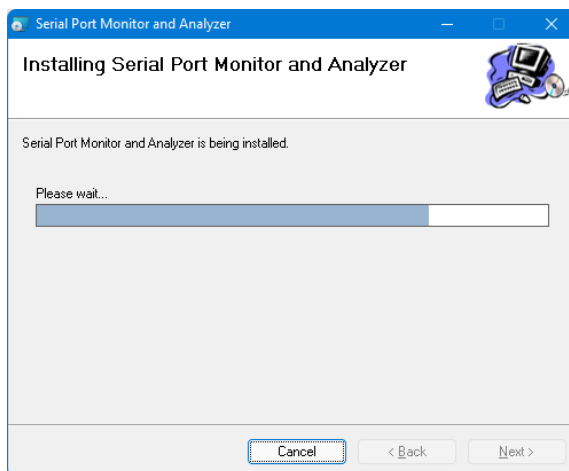
Install begins, and then the following screen is displayed.

**[Procedure 6]**

When the "User Account Control" screen was displayed at the halfway, continue install by clicking on the [Yes].

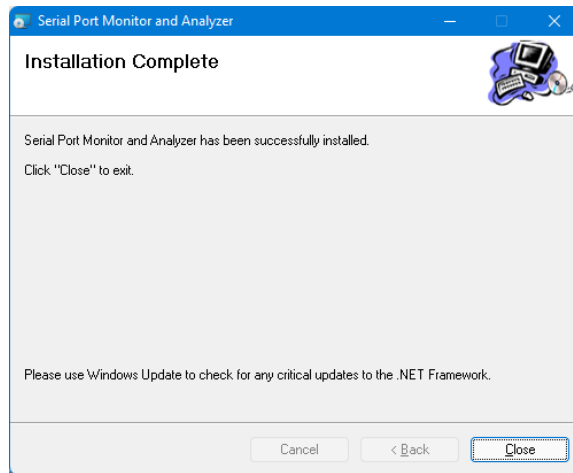
**[Procedure 7]**

By clicking on [Yes] in the Procedure 6, the following screen is displayed. Wait until install is completed.



[Procedure 8]

When install is completed, the following screen is displayed. Then, click on the [Close].



The install was completed in the above.

***Note:** When each manual of AKM-RSM-100 and help aren't displayed by Adobe Reader though Adobe Reader has already been installed, set up the Default Programs by referring to the following.

- Appendix B: Setting of the Default Programs

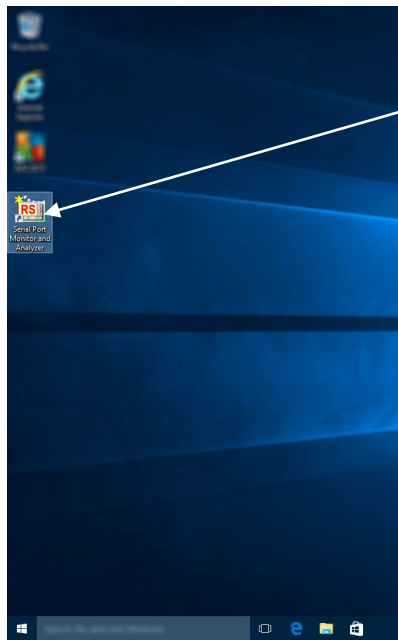
The Starting of AKM-RSM-100 (~ Registration of the User ID)

How to start AKM-RSM-100 is described here.

[How to Start (from Desktop)] Windows 2000 ~ Windows 11

The bottom figure is the screen image of Windows 10. In the other OS, the operation is almost same as Windows 10.

Double-click on [Serial Port Monitor and Analyzer] icon on the Desktop.

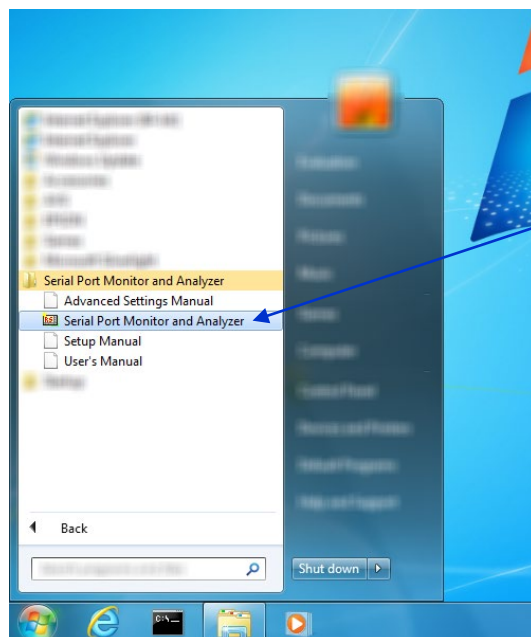


Double-click on this icon

[How to Start (from Start menu)] Windows 2000 ~ Windows 7

The bottom figure is the screen image of Windows 7. In the Windows 2000, the Windows XP and the Windows Vista, the operation is almost same as Windows 7.

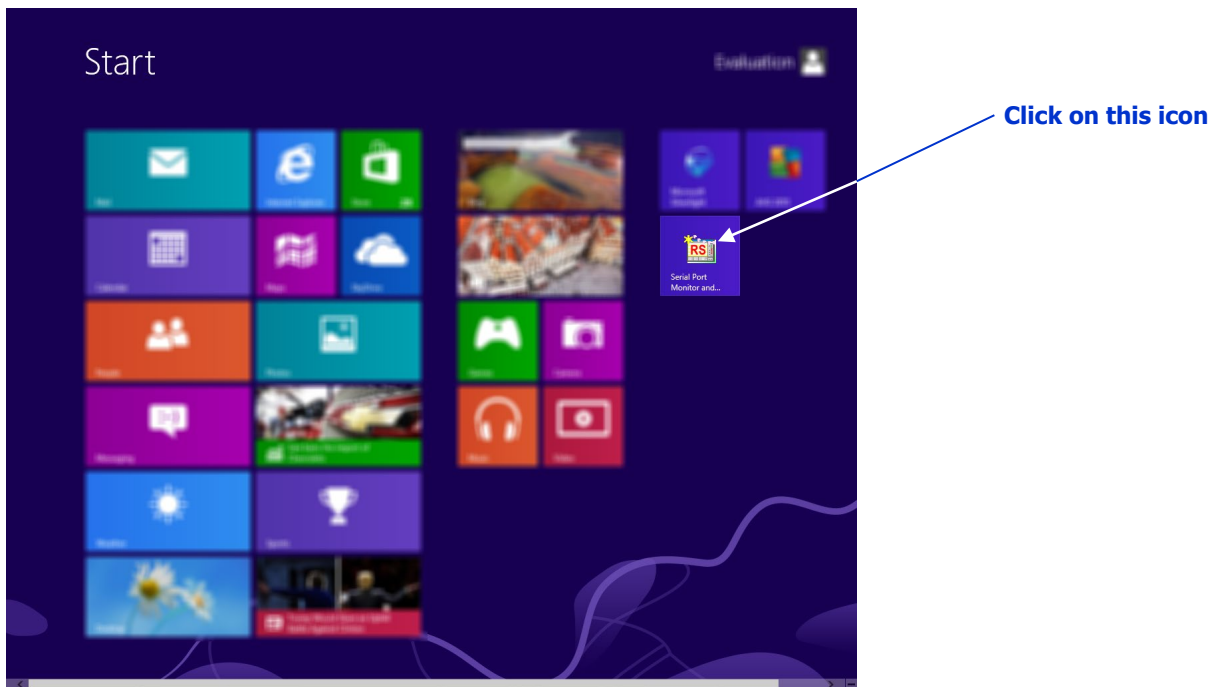
Click on [All Programs]-[Serial Port Monitor and Analyzer]-[Serial Port Monitor and Analyzer] from [Start] menu of Windows.




Click on this menu

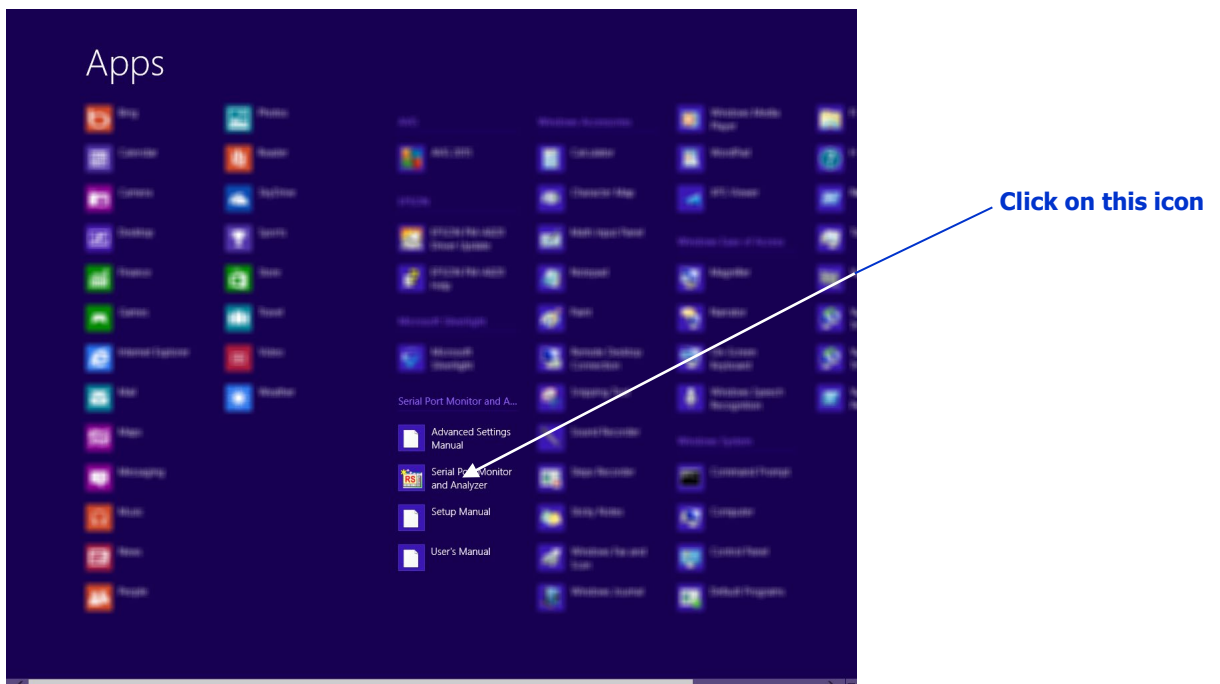
[How to Start (from Start menu)] Windows 8

(1) Click on [Serial Port Monitor and Analyzer] icon on the [Start] menu of Windows.




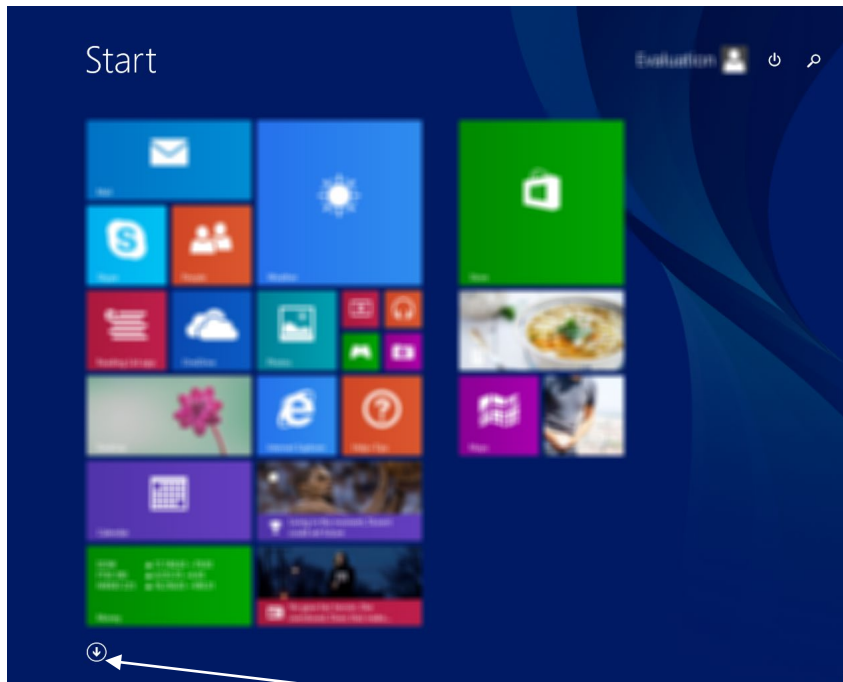
(2) Or, click on  [All apps] which is displayed by right clicking on the margin of [Start] menu of Windows.

Then, click on [Serial Port Monitor and Analyzer] icon in the [Apps] menu which is displayed.



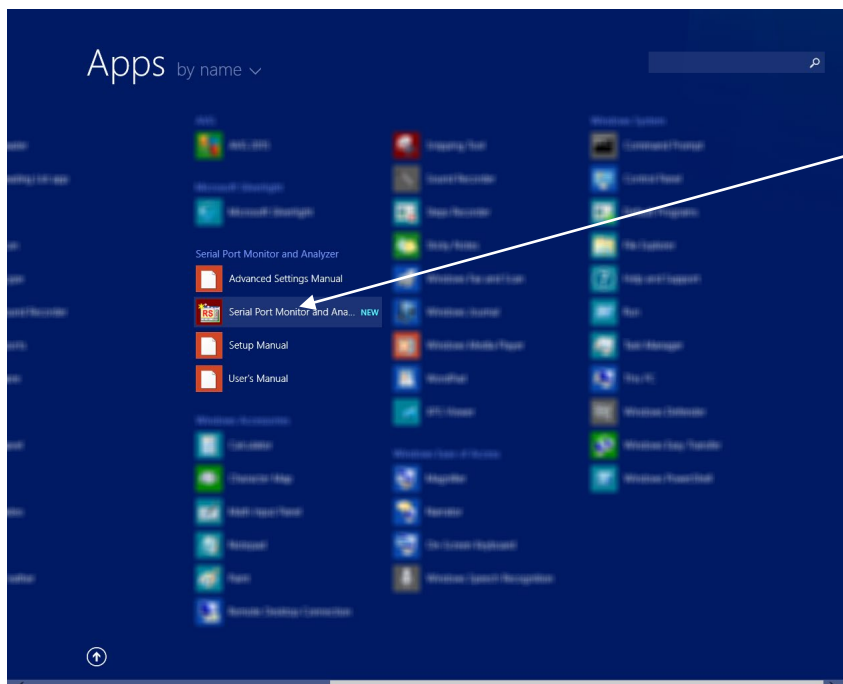
[How to Start (from Start Menu)] Windows 8.1

First, display "Apps" menu by clicking on  in the [Start] menu of Windows.



First, click on this button

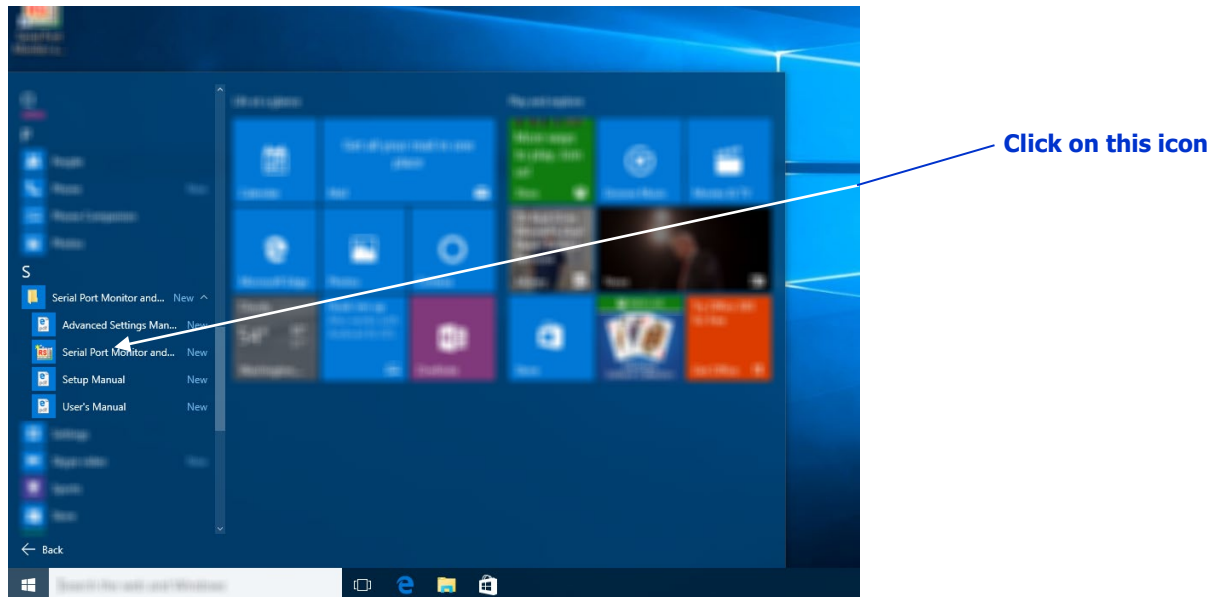
Next, click on [Serial Port Monitor and Analyzer] icon in the [Apps] menu which is displayed.



Next, click on this icon

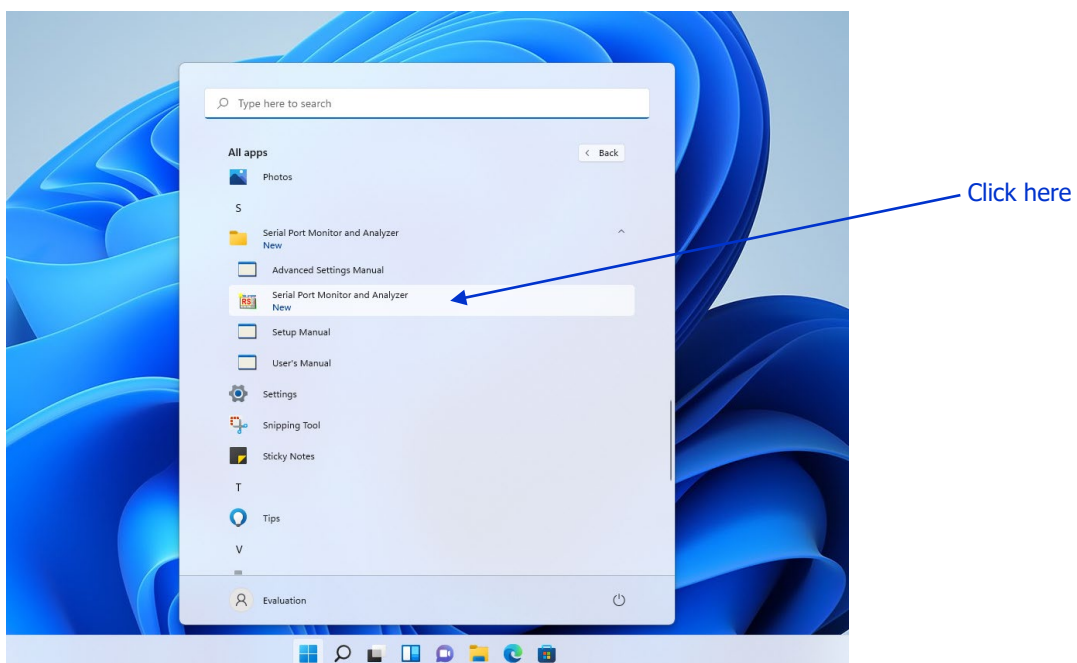
[How to Start (from Start Menu)] Windows 10

Click on [All apps]-[Serial Port Monitor and Analyzer]-[Serial Port Monitor and Analyzer] from [Start] menu of Windows.



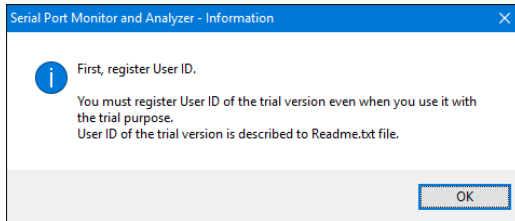
[How to Start (from Start Menu)] Windows 11

Click on [All apps] - [Serial Port Monitor and Analyzer] - [Serial Port Monitor and Analyzer] from [Start] menu of Windows.



[Registration of the User ID]

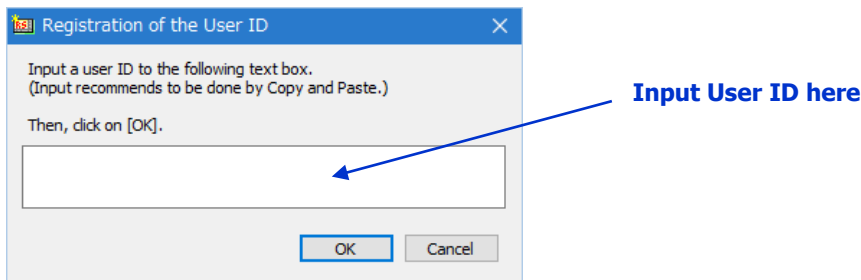
When AKM-RSM-100 is started for the first time, notice which suggests the registration of the User ID is displayed.



***Note:** The above screen may hide behind the Splash screen.

After AKM-RSM-100 was started, when the above screen is not displayed, click on [Serial Port Monitor and Analyzer - Information] of the Windows Task bar.

Click on the [OK]. Then, [Registration of the User ID] dialog box opens. Next, input a user ID to the text box. Then, click on the [OK].

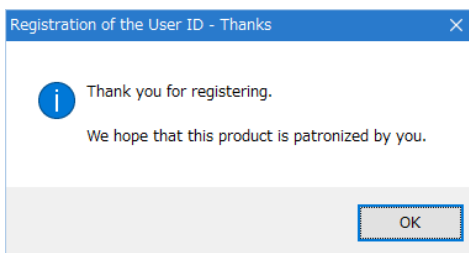


***Note:** Input the User ID which was notified at the time of the license purchase.

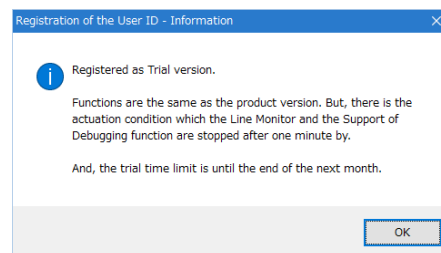
When uses as trial, input the Trial version's ID that is described to the ReadMe.txt file.

When the registration of the User ID succeeded, the following information is displayed.

In case of Product version:



In case of Trial version:



Click on the [OK].

***Note:** When the registration of the User ID failed, start AKM-RSM-100 again.

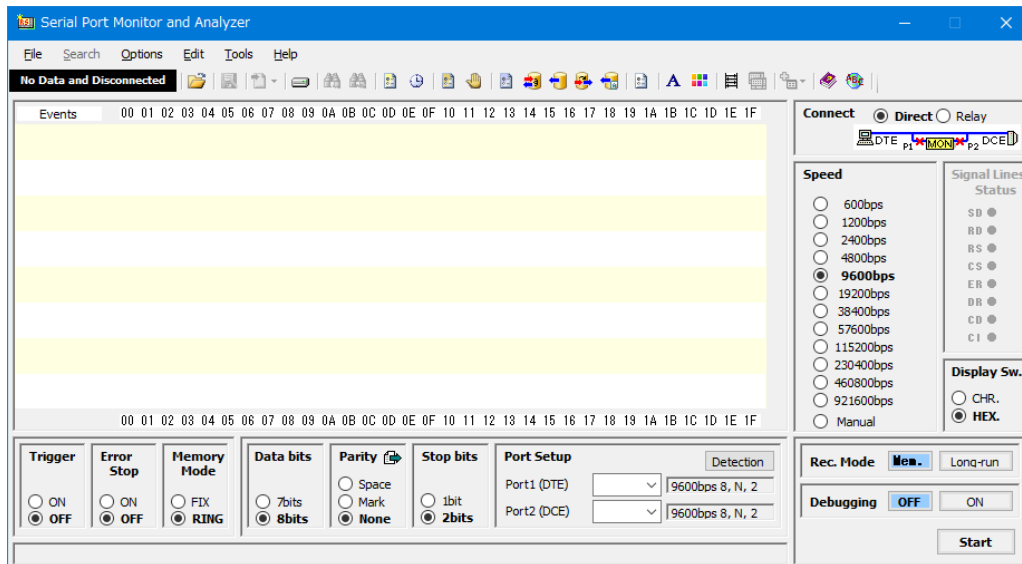
Then, register the User ID again.

***Note:** The User ID can register again later. When you hope for the re-registration of the User ID by the following case, refer to the "User's Manual", and register again.

- In the case that the User ID of the Product version is registered to AKM-RSM-100 of the Trial version.
- In the case that the Basic edition of AKM-RSM-100 is upgraded to the Professional edition.

[Opening Screen]

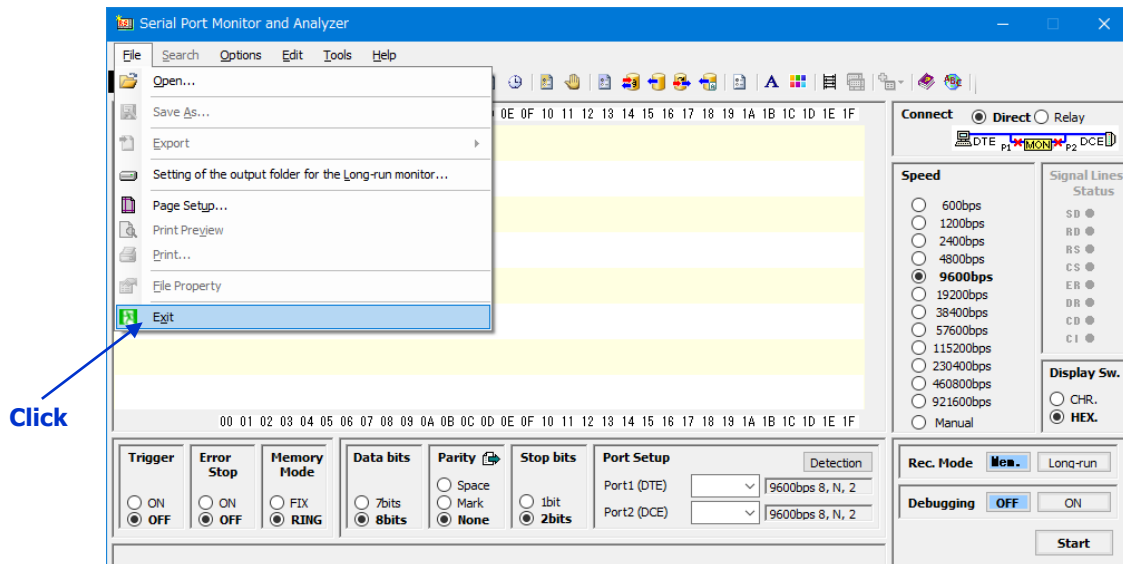
When AKM-RSM-100 was started, the following Main Form is displayed.



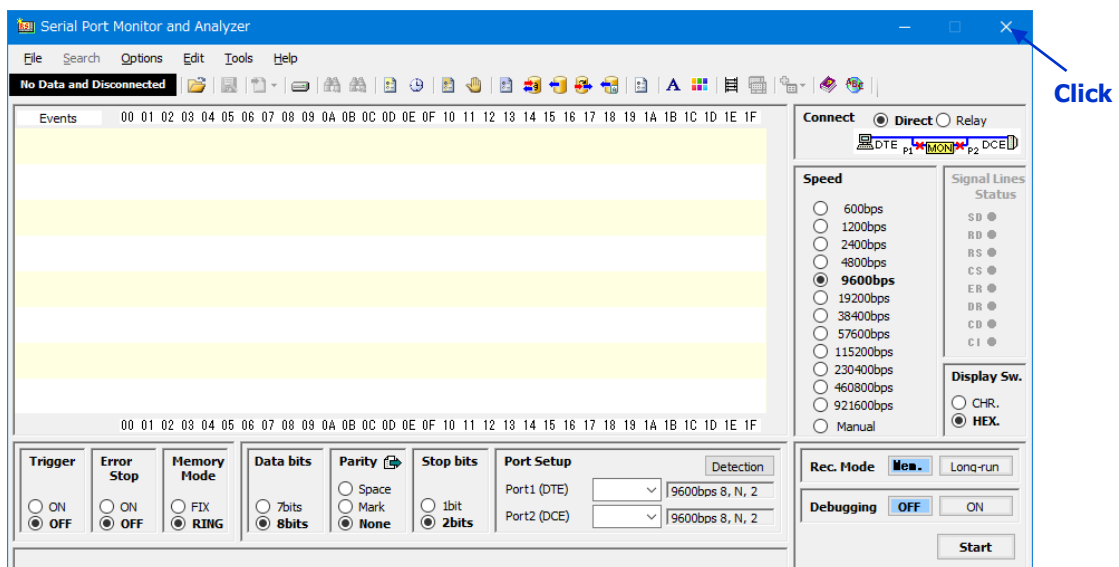
Shutdown of AKM-RSM-100

[Shutdown Method]

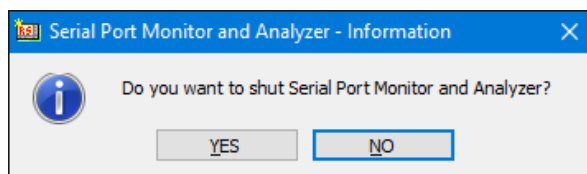
Click on the [File]-[Exit] of Menu bar.



Or, click on the [×].



The following verification screen is displayed. Click on the [Yes] to do the shutdown.



*Note: The shutdown is canceled by the clicking on the [No.].

Uninstall Procedures

Use the following function of Windows when you hope for uninstall of AKM-RSM-100.

In case of Windows 2000 or Windows XP

[Control Panel] - [Add/Remove Programs]

In case of Windows Vista, Windows 7, Windows 8, or Windows 8.1

[Control Panel] - [Programs] - [Uninstall a program]

In case of Windows 10

[Settings] - [Apps] - [Programs and Features]

or

[Control Panel] - [Programs] - [Uninstall a program]

In case of Windows 11

[Settings] - [Apps] - [Apps & features]

or

[Control Panel] - [Programs] - [Uninstall a program]



Even if AKM-RSM-100 is uninstalled, the data files made by the user are left.

(Point) The data files are the User ID registration, the option setting, each pattern data, etc.

Data can be used when AKM-RSM-100 is installed again by leaving data files.

Remove the following folder by the manual operation after uninstall of AKM-RSM-100 if you hope for completely removing of AKM-RSM-100.



In case of Windows 2000 or Windows XP

(The drive which OS is being installed in) \ Documents and Settings \ (User Name) 
 \ Application Data \ Akiyama Manufacturing \ AKM-RSM-100_E \

*Note: When "Application Data" folder is being hidden, display hidden folder by [View] tab of [Folder Options] in [Control Panel].

*Note: (User Name) may be (User Name.Computer Name).

In case of Windows Vista, Windows 7, Windows 8/8.1, or Windows 10

(The drive which OS is being installed in) \ Users \ (User Name) \ AppData 
 \ Roaming \ Akiyama Manufacturing \ AKM-RSM-100_E \

*Note: When "AppData" folder is being hidden, display hidden folder by [View] tab of [Folder Options] in [Control Panel].

Limitation of the Trial version

There are the following limitations in the Trial version.

Limitation 1: The actuation of AKM-RSM-100 is until the end of next month that the User ID of the Trial version was registered.

(Register the User ID of the Trial version again if continuing the trial.)

Limitation 2: The Line Monitor and the Support of Debugging are stopped automatically about one minute from the start.

There is no limitation except for the above 2 items.

Basically, it is very loose limitation.

Therefore, try it fully. Then, please examine the purchase of the product version by all means.

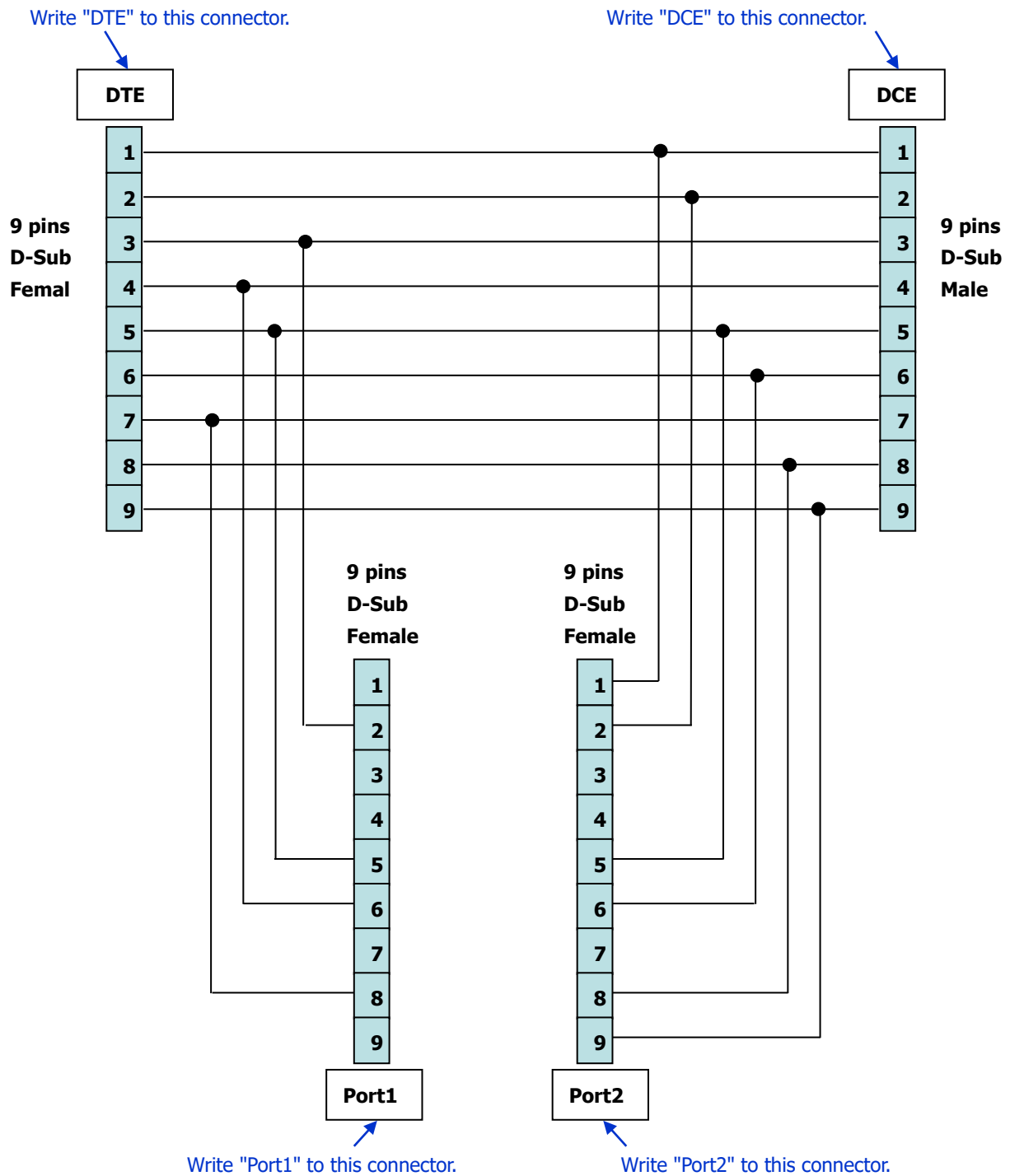
Chapter 2: Preparation of the cable

This chapter is described about the preparation of the Serial Cable to use with AKM-RSM-100.

- Preparation of CABLE-A
- Preparation of CABLE-B

Preparation of CABLE-A

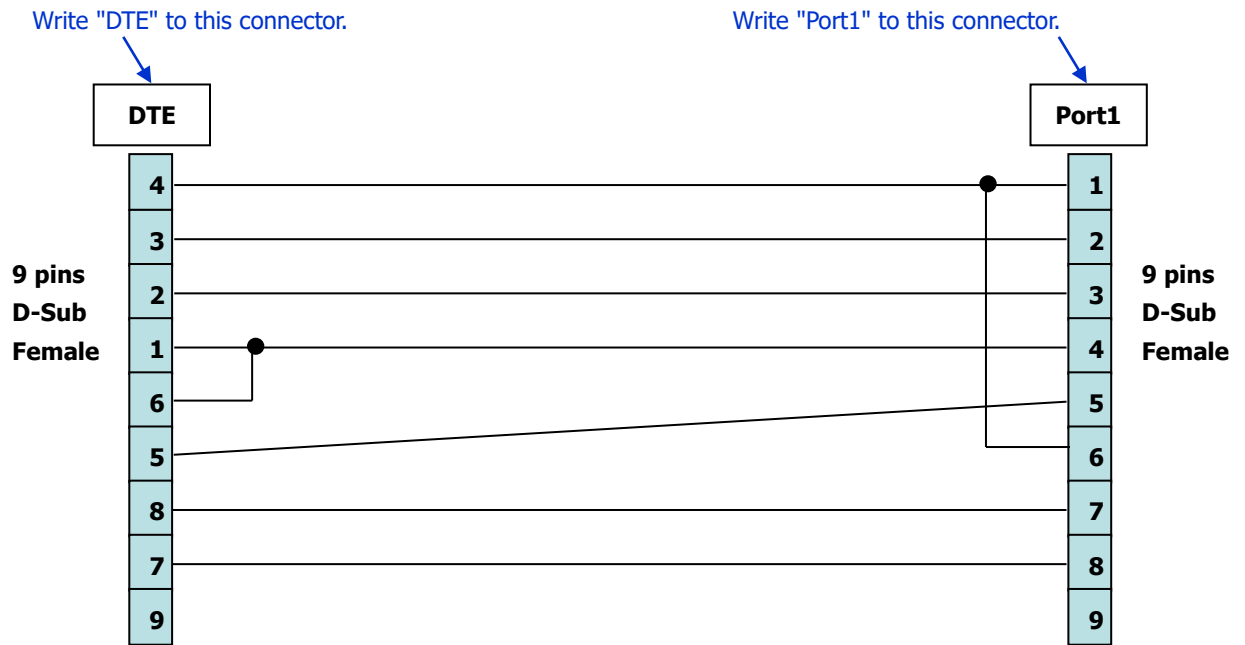
CABLE-A is the Serial Cable for the Direct Connection.
Make CABLE-A by in the following wiring diagram.



*Note: Be careful because only the connector of DCE is "Male".

Preparation of CABLE-B

CABLE-B is the Serial Cable for the Direct Connection.
Make CABLE-B by in the following wiring diagram.



*Note: Be careful of the pin numbering on the DTE side.

Appendix

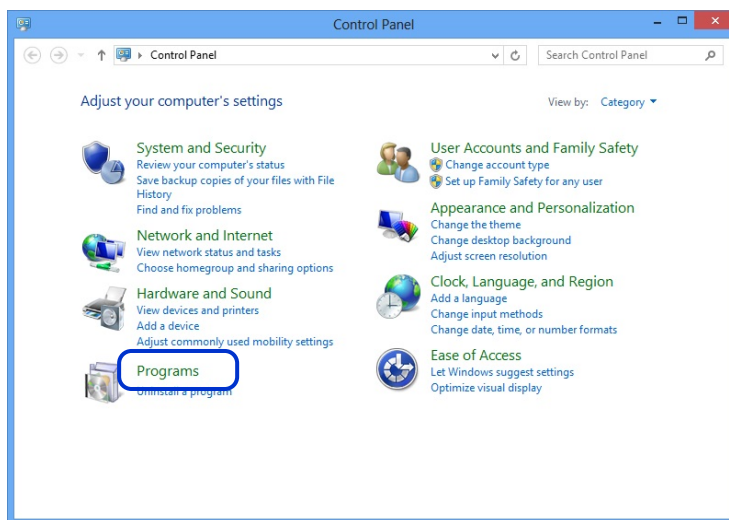
- Appendix A: Installation of the .NET Framework 3.5
 - Windows 8/8.1
 - Windows 10
 - Windows 11
- Appendix B: Setting of the Default Programs (Windows 8)
 - Windows 8/8.1
 - Windows 10
 - Windows 11

Appendix A: Installation of the .NET Framework 3.5

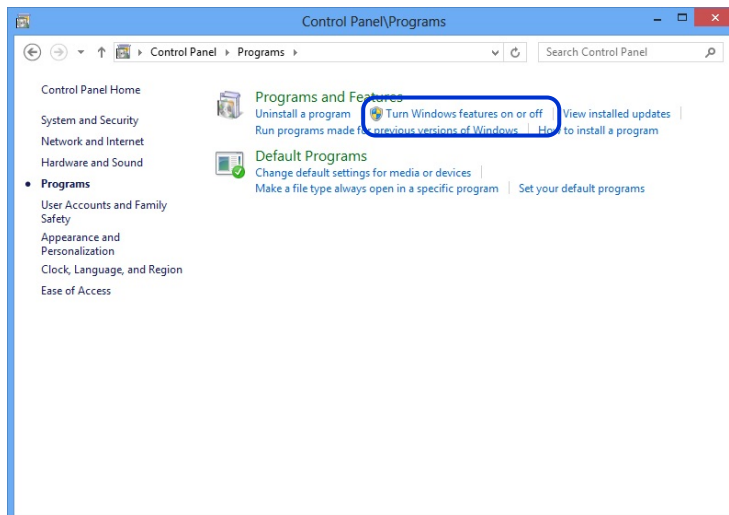
[Windows 8/8.1]

The procedure to install .NET Framework 3.5 (includes .NET 2.0 and 3.0) in Windows 8 or Windows 8.1 is the following.

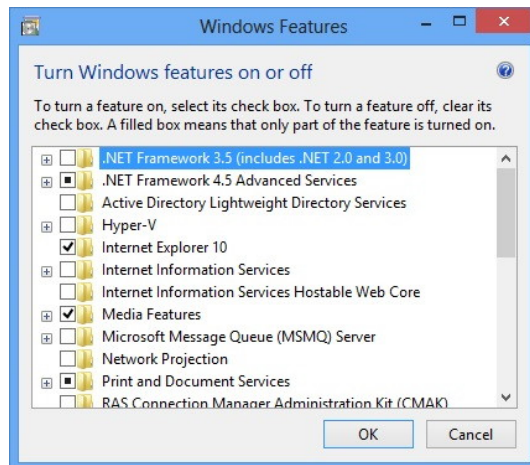
- (1) First, Connect PC to the internet.
- (2) Open the [Control Panel], and then click on the [Programs].



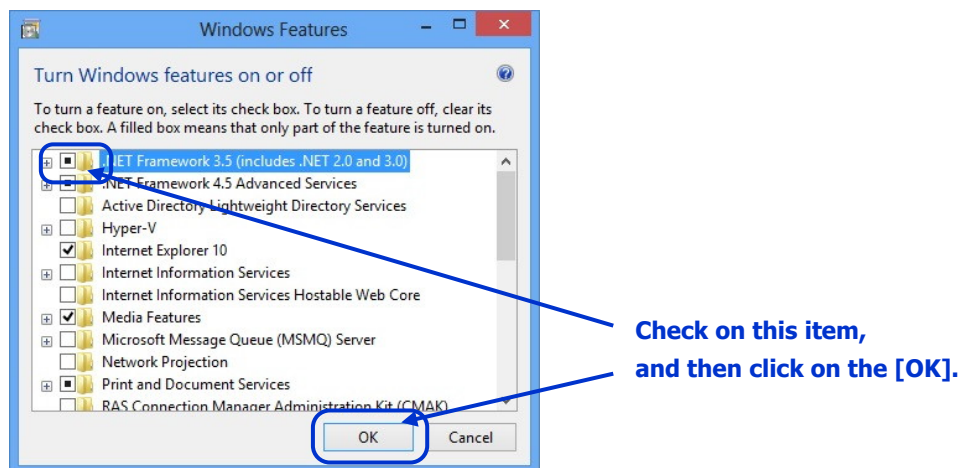
- (3) Next, click on the [Turn Windows features on or off].



Then, following screen will be opened.

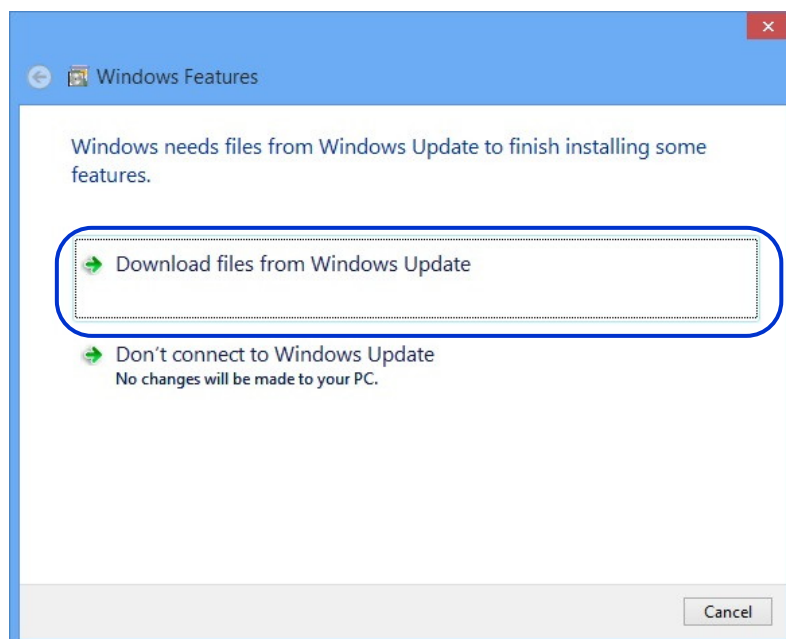


(4) Check on the [.NET Framework 3.5 (included .NET 2.0 and 3.0)], and then click on the [OK].



(5) Following screen will be displayed.

Then, click on the [Download files from Windows Update].



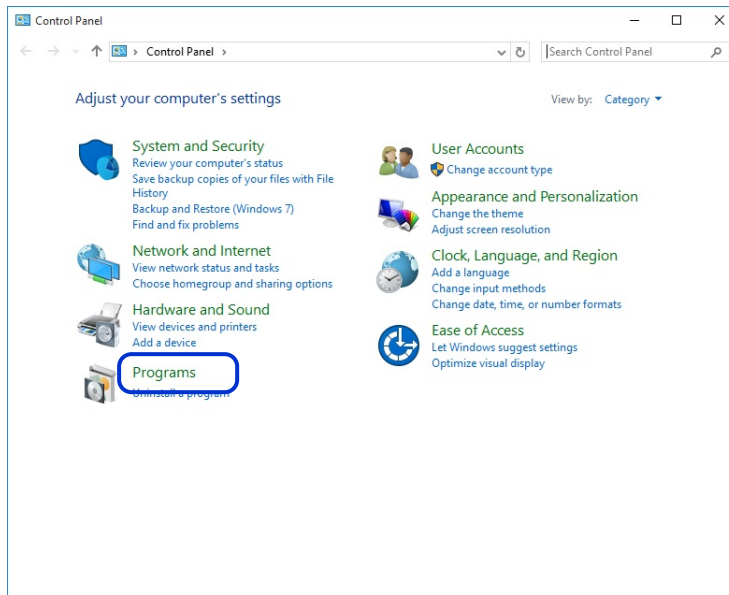
The ".NET Framework 3.5 (included .NET 2.0 and 3.0)" is installed by the above.
The completion of this install will take several minutes.
Wait until it is completed.

After the install of ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" was completed, resume the install of the AKM-RSM-100 from [Procedure 2].

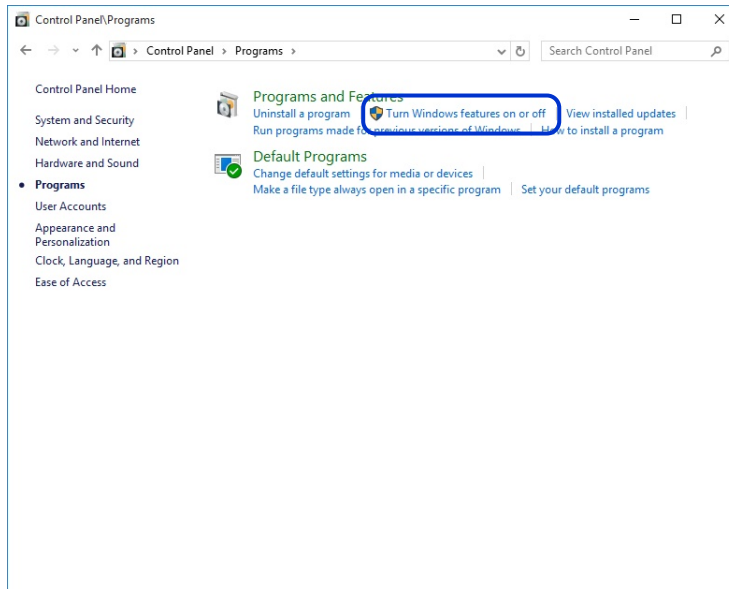
[Windows 10]

The procedure to install .NET Framework 3.5 (includes .NET 2.0 and 3.0) in Windows 10 is the following.

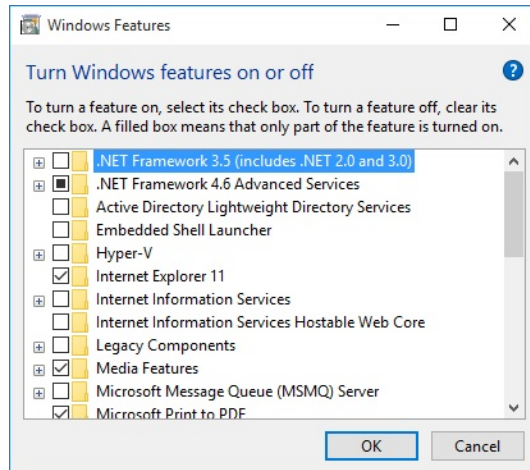
- (1) First, Connect PC to the internet.
- (2) Open the [Control Panel] by using **[All apps] - [Windows System] - [Control Panel]**, and then click on the [Programs].



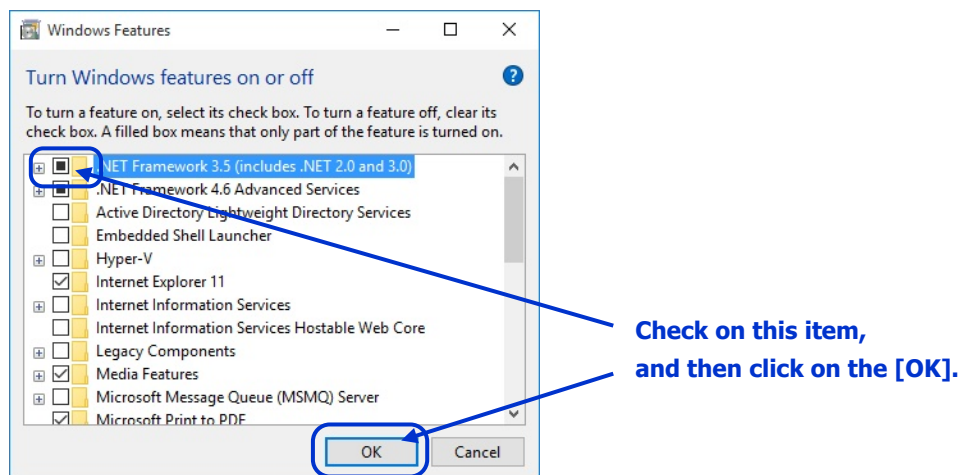
- (3) Next, click on the [Turn Windows features on or off].



Then, following screen will be opened.

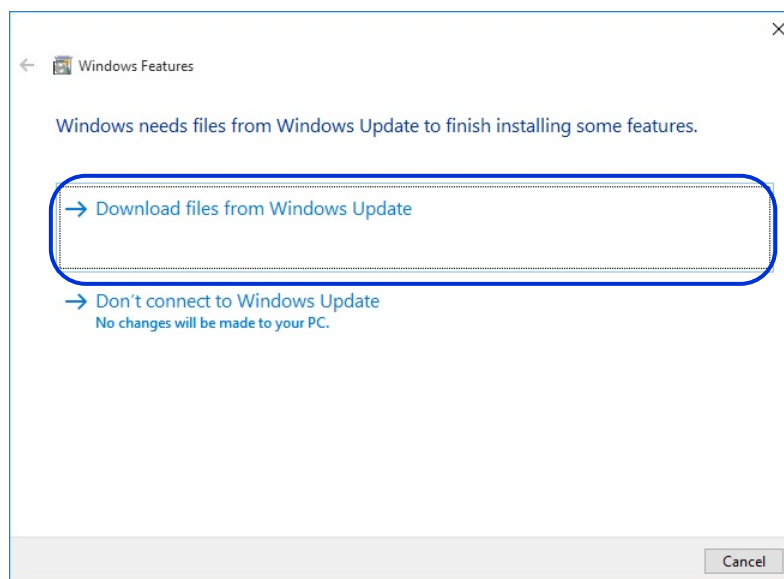


(4) Check on the [.NET Framework 3.5 (included .NET 2.0 and 3.0)], and then click on the [OK].



(5) Following screen will be displayed.

Then, click on the [Download files from Windows Update].



The ".NET Framework 3.5 (included .NET 2.0 and 3.0)" is installed by the above.
The completion of this install will take several minutes.
Wait until it is completed.

After the install of ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" was completed, resume the install of the AKM-RSM-100 from [Procedure 2].

[Windows 11]

The procedure to install .NET Framework 3.5 (includes .NET 2.0 and 3.0) in Windows 11 is the following.

(1) First, Connect PC to the internet.

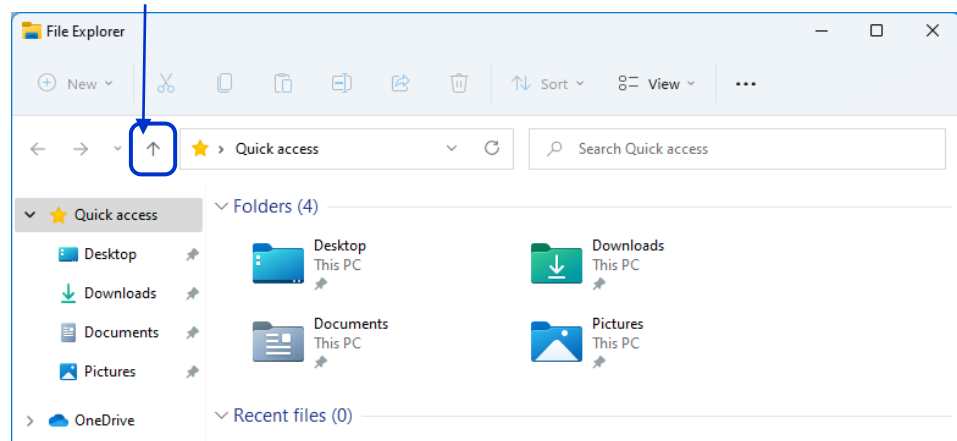
(2) Open the [Control Panel].

[Control Panel] will be opened by the following procedure.

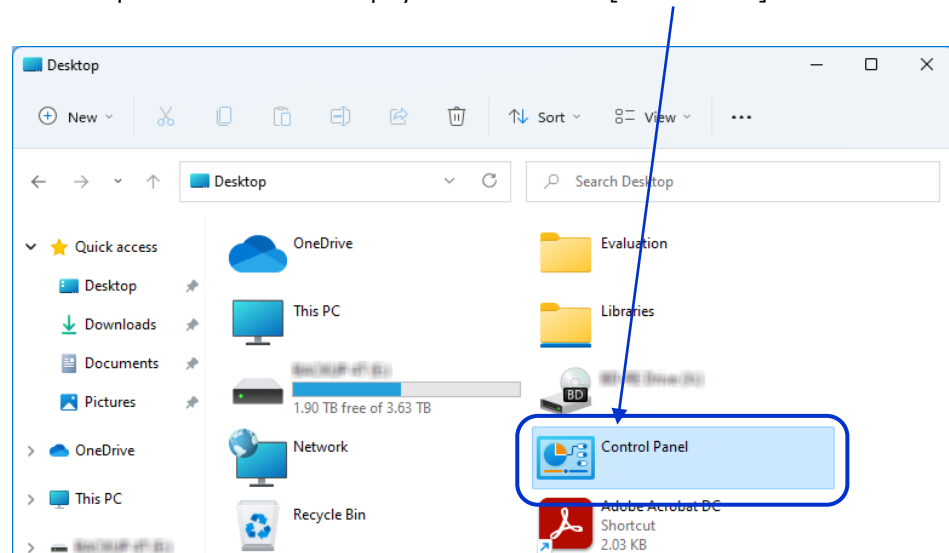
(a) Open by using Windows Explorer:



Click on the [↑].

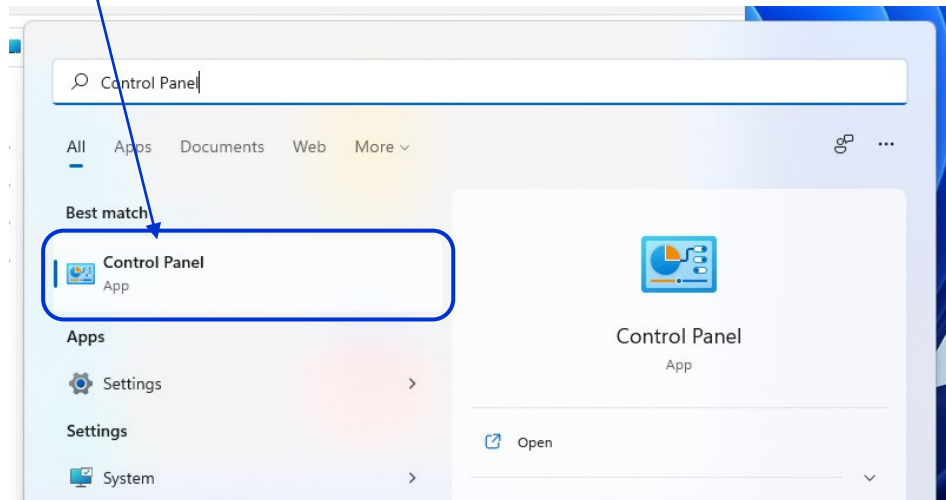


The desktop information will be displayed. And there is a [Control Panel] in it. Double-click it.

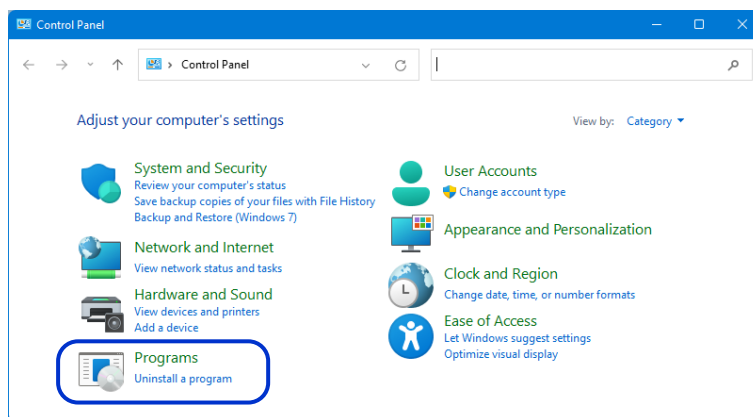


(b) Open from Start menu:

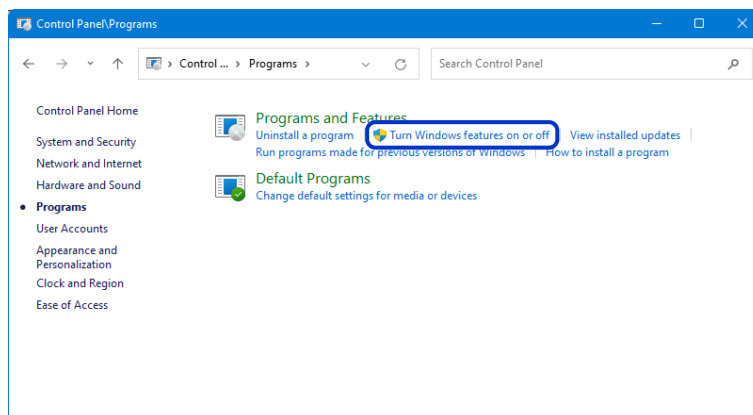
In the Search field ([Type here to search]) of the Start menu, type "Control Panel" in and [Control Panel] will appear. Click it.



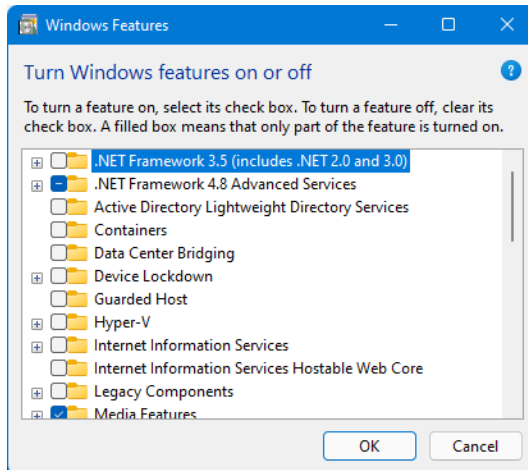
(3) Open [Programs] in the Control Panel.



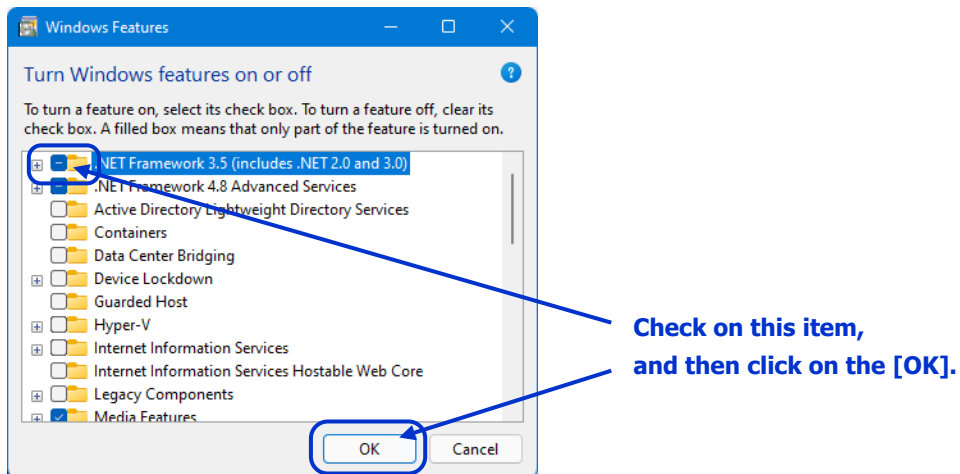
(4) Click on the [Turn Windows features on or off] in the [Programs and Features].



Then, following screen will be opened.

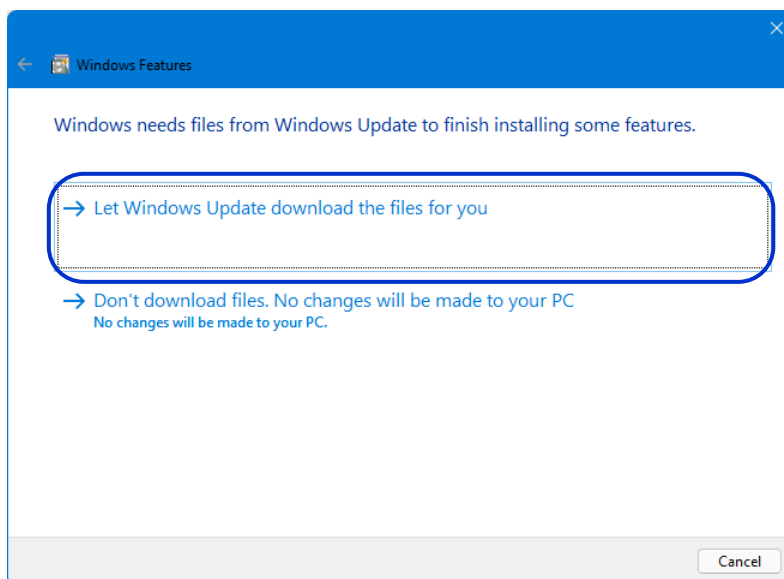


- (5) Check on the [.NET Framework 3.5 (included .NET 2.0 and 3.0)], and then click on the [OK].



- (6) Following screen will be displayed.

Then, click on the [Let Windows Update downloaded the files for you].



The ".NET Framework 3.5 (included .NET 2.0 and 3.0)" is installed by the above.
The completion of this install will take several minutes.
Wait until it is completed.

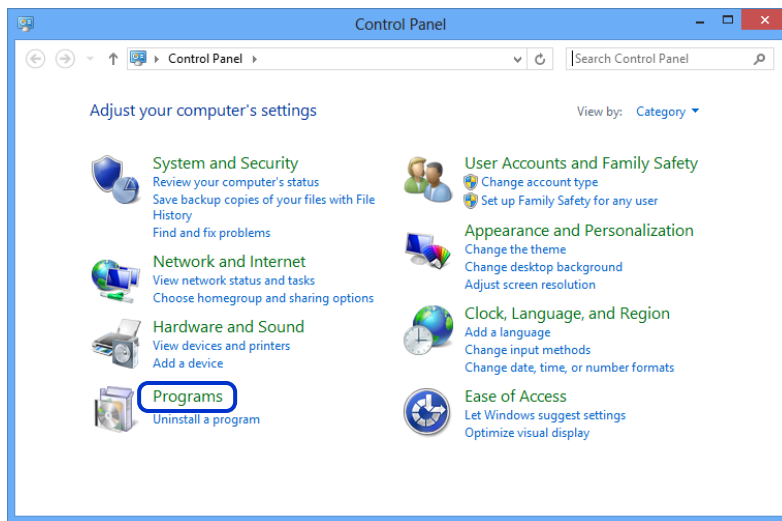
After the install of ".NET Framework 3.5 (includes .NET 2.0 and 3.0)" was completed, resume the install of the AKM-RSM-100 from [Procedure 2].

Appendix B: Setting of the Default Programs

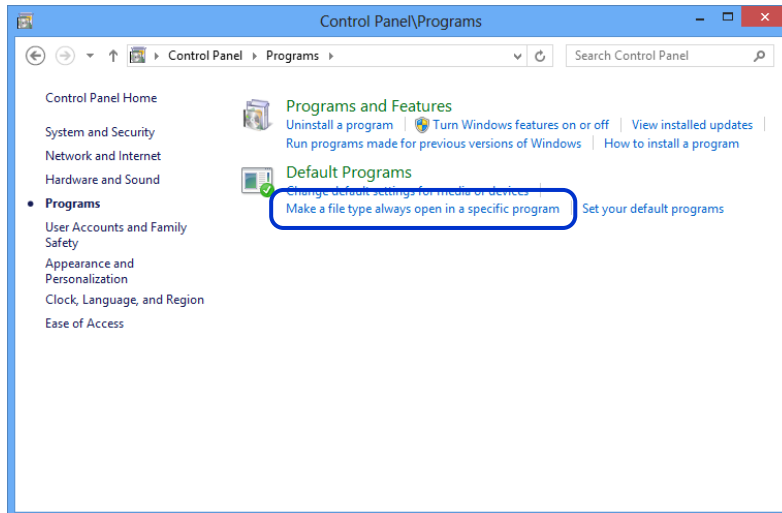
[Windows 8/8.1]

The setting procedure for the PDF file to be opened by Adobe Reader is the following in Windows 8 (or Windows 8.1).

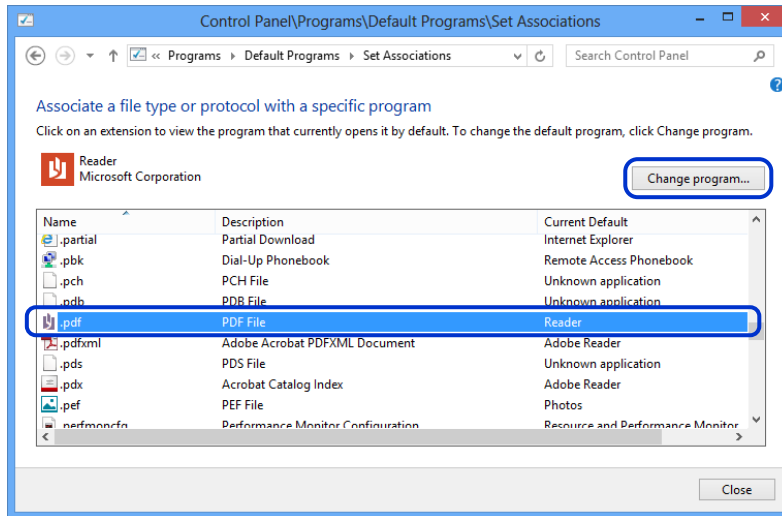
- (1) Install Adobe Reader in advance.
- (2) Open the [Control Panel], and then click on the [Programs].



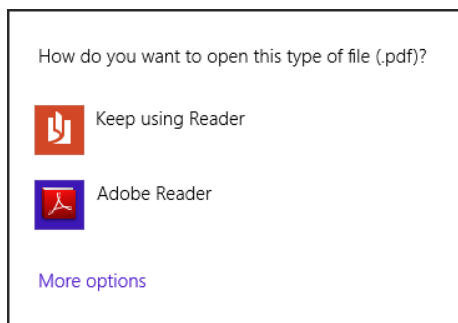
- (3) Next, click on the [Make a file type always open in a specific program].



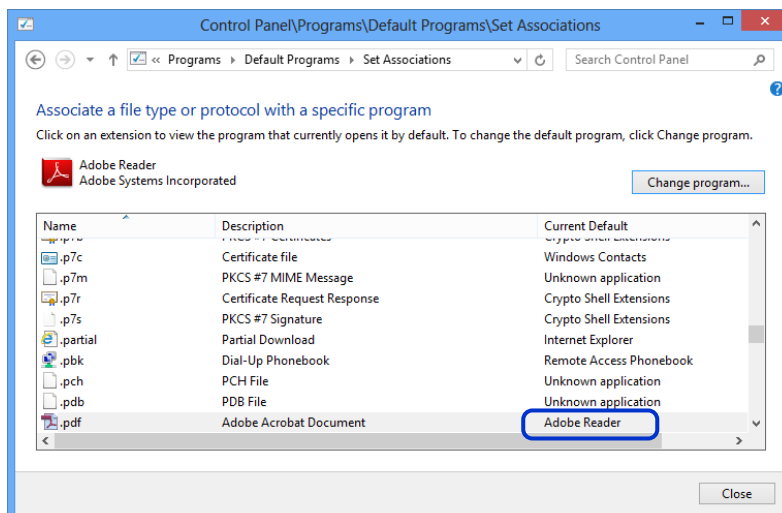
(4) Next, select the line of ".pdf" from the list. Then, click on the [Change program...].



Then, following screen will be opened. Click on the [Adobe Reader].



(5) Confirm that [Current Default] item was changed to [Adobe Reader]. Then, click on the [Close].

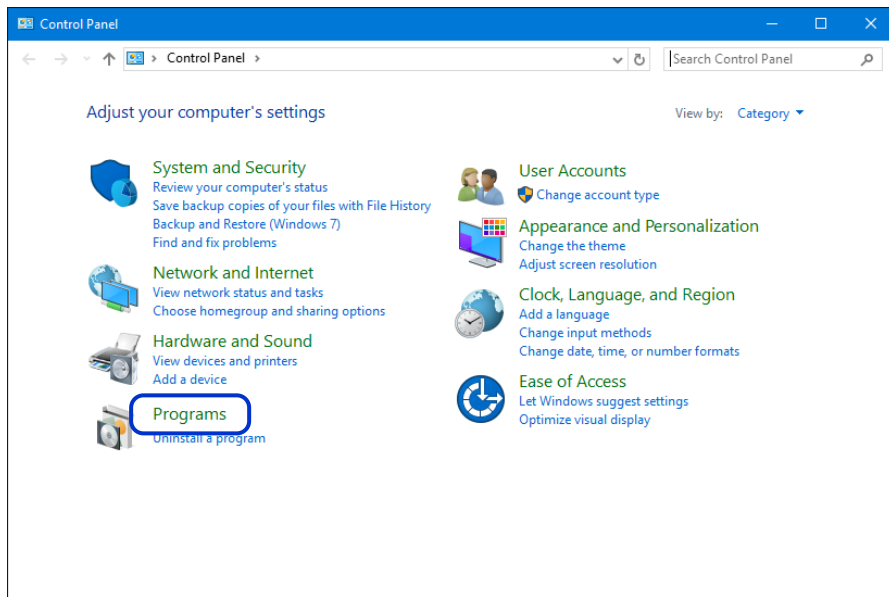


The setting is completion in the above.

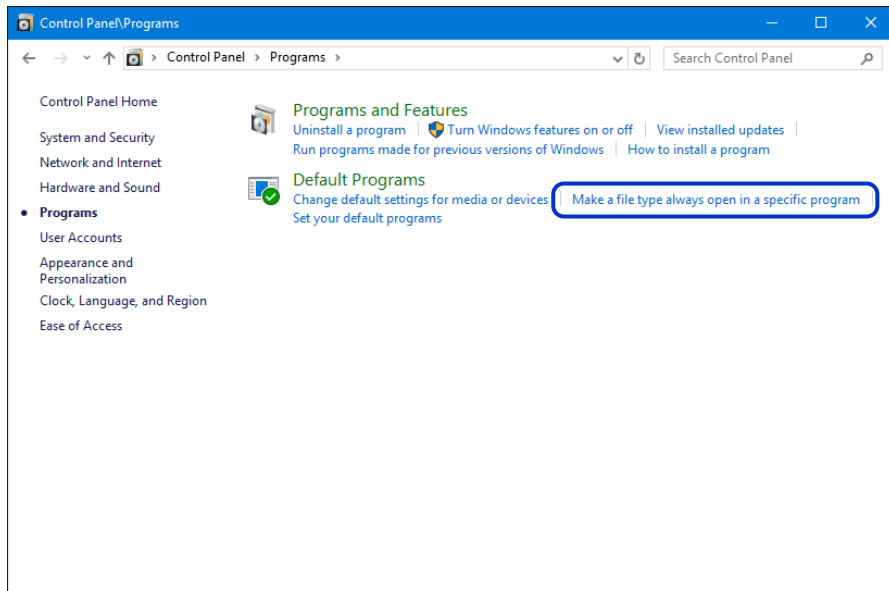
[Windows 10]

The setting procedure for the PDF file to be opened by Adobe Reader is the following in Windows 10.

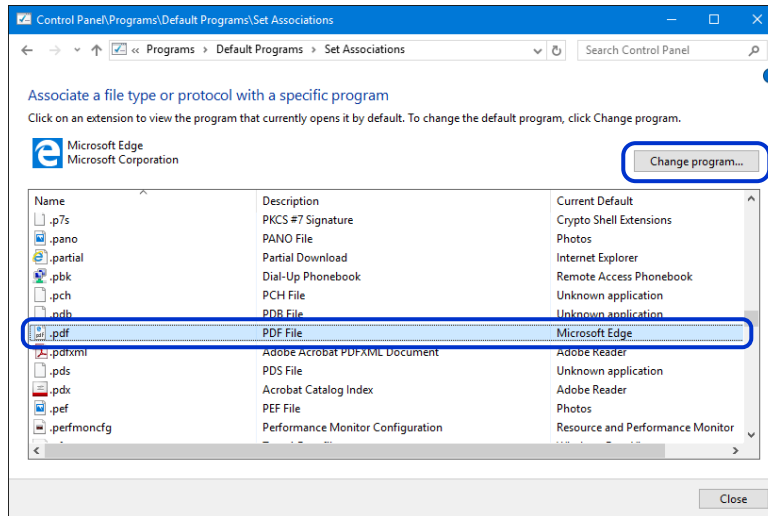
- (1) Install Adobe Reader in advance.
- (2) Open the [Control Panel], and then click on the [Programs].



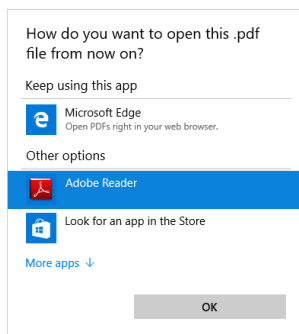
- (3) Next, click on the [Make a file type always open in a specific program].



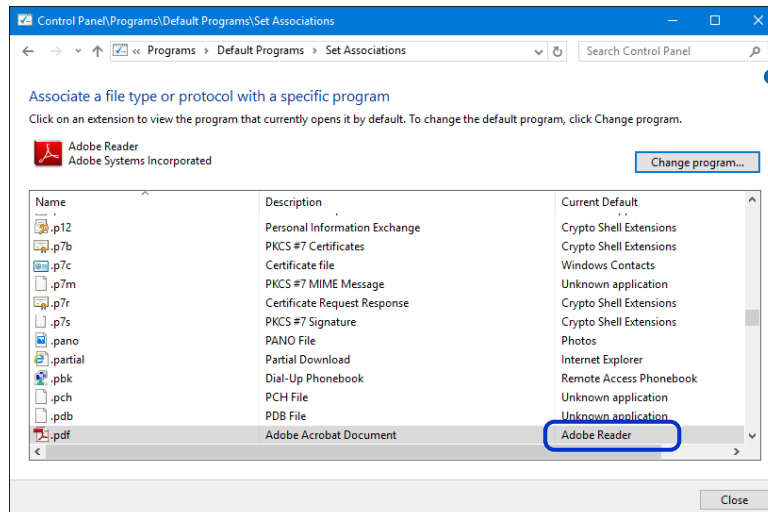
(4) Next, select the line of ".pdf" from the list. Then, click on the [Change program...].



Choose the [Adobe Reader], and click on the [OK].



(5) Confirm that [Current Default] item was changed to [Adobe Reader]. Then, click on the [Close].



The setting is completion in the above.

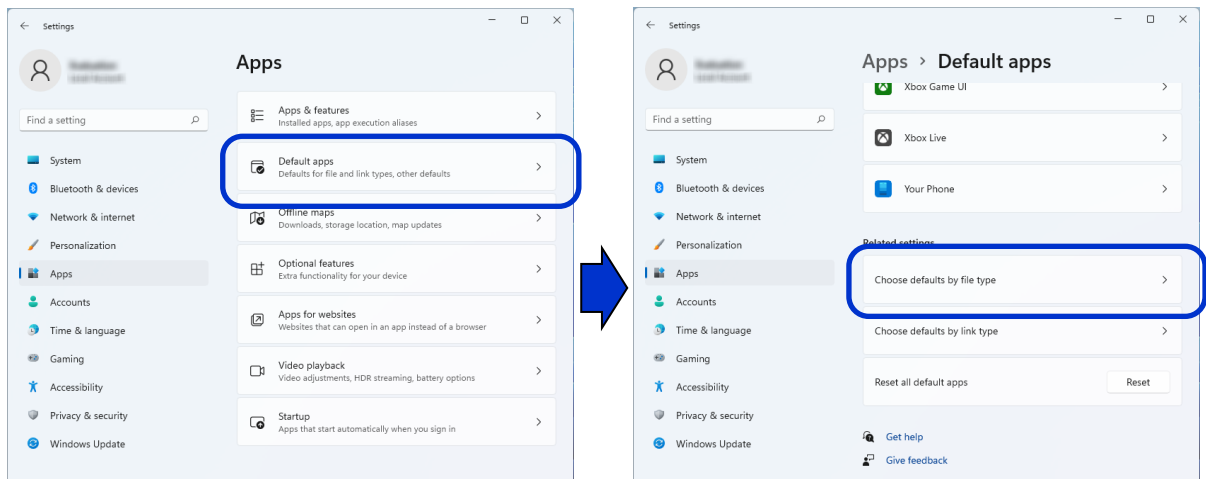
[Windows 11]

The setting procedure for the PDF file to be opened by Adobe Reader is the following in Windows 11.

(1) Install Adobe Reader in advance.

(2) Click Windows [Settings] - [Apps] - [Default apps].

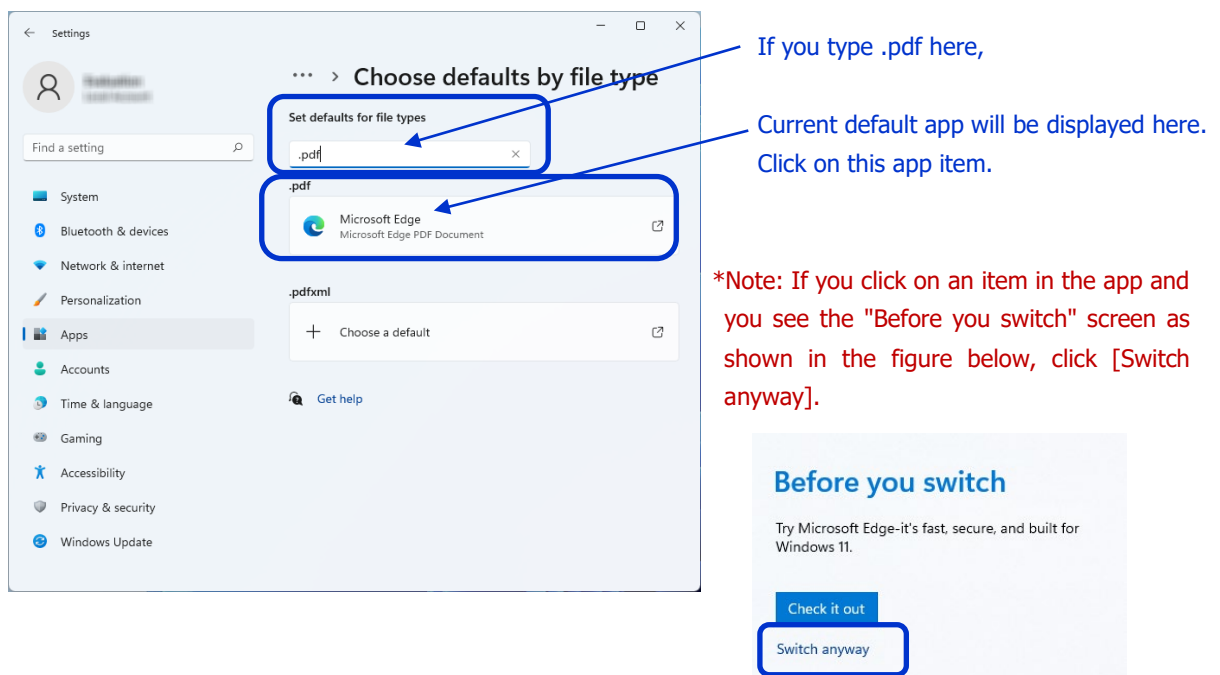
At the bottom of the [Default apps] screen, click [Choose defaults by file type].



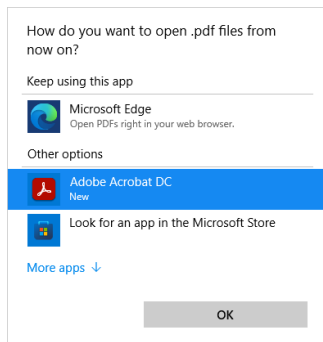
(3) Enter ".pdf" in [Set a default for a file type or link type] on the screen displayed next.

Then, as shown in the figure below, an app for .pdf files that is not Adobe Reader is displayed.

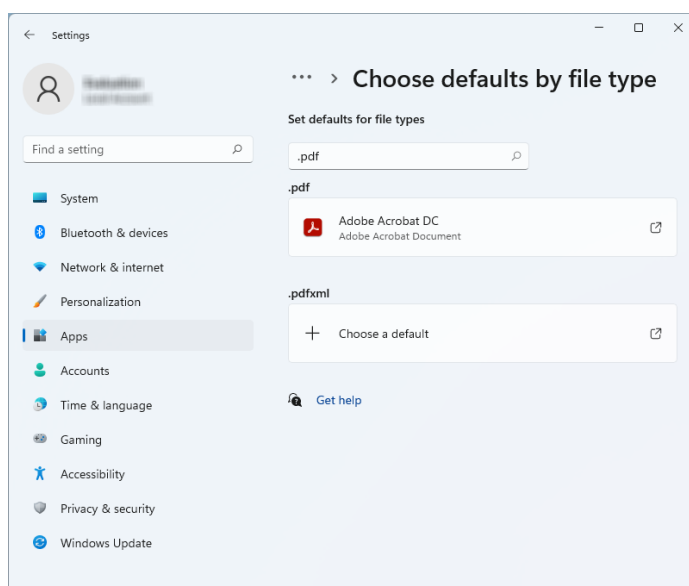
So, click on the view of the app.



(4) The screen below will open, select [Adobe Reader], and then click OK.



(5) Confirm that [Current Default] item was changed to [Adobe Reader]. Then, click on the [Close].



The setting is completion in the above.

Serial Port Monitor and Analyzer (Model: AKM-RSM-100) Setup Manual

July, 2010	Version 1.0.0.0	December, 2014	Version 4.5.0.0
August, 2010	Version 1.1.0.0	August, 2015	Version 4.5.0.0a
November, 2010	Version 2.0.0.0	July, 2016	Version 4.6.0.0
April, 2011	Version 3.0.0.0	December, 2016	Version 4.6.1.0
July, 2011	Version 3.1.0.0	July, 2018	Version 4.8.0.0
June, 2012	Version 4.0.0.0	September, 2018	Version 4.8.1.0
September, 2012	Version 4.1.0.0	April, 2019	Version 4.8.2.0
March, 2013	Version 4.2.0.0	May, 2019	Version 4.8.3.0
May, 2013	Version 4.3.0.0	July, 2019	Version 4.8.4.0
June, 2013	Version 4.3.1.0	November, 2019	Version 4.8.5.0
June, 2013	Version 4.3.2.0	February, 2022	Version 4.12.0.0
July, 2014	Version 4.4.0.0	July, 2023	Version 4.13.0.0

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