

Functions List == Version 5 ==

There are three kinds of editions of **Basic Edition**, **Standard Edition**, and **Professional Edition** in AKM-RSM-100. The functions list of these two kinds of Editions is shown here.

*Note: Basic Edition was discontinued on June 30th, 2016.

*Note: The official user who already has the "Basic Edition License" can use continuously the similar functions as the Basic Edition.

(1/2)

Function		Basic Edition	Standard Edition	Professional Edition	
Line Monitor	Display and recording of the Communications Data	X"	X	X	
	Display and recording of the Signal Line Status change	--	X	X	
	Display and recording of the Line Error	X"	X	X	
	Display and recording of the Start and Stop event	X"	X	X	
	Display and recording of the Idle Time	--	X	X	
	Display and recording of the Time Stamp	--	X	X	
	Recording Mode	Normal Recording (to Recording Memory, RING)	X	X	X
		Normal Recording (to Recording Memory, FIX)	X	X	X
		Long-run Recording	--	X	X
		Mode change when the Long-run Recording was stopped	--	X	X
	Stop Trigger	Watching the Communications Data	--	X	X
		Watching the Signal Line Status change	--	X	X
	Start Trigger	Watching the Communications Data	--	X	X
		Watching the Signal Line Status change	--	X	X
	Error Stop		--	X	X
	Scheduled Monitor		--	--	X
	When shut, Recording Memory is saved		X	X	X
	Save and Reference of the Monitor Result		X	X	X
	Printout of the Monitor Result		X	X	X
	Display of Code Page Number List		X	X	X
Search	Communications Data	X	X	X	
	Signal Line Status change, Line Error, Condition Match, and so on	--	X	X	
Export of the Monitor Result	Text format	X	X	X	
	Tab Separated Value format	X	X	X	
	Comma Separated Value format	X	X	X	
	Character String format	X	X	X	
	Character String format (Advanced)	--	X	X	
Binary Data format		--	X	X	

*Note: X : Available, X" : Available (but not available in Long-run monitor), -- : Not available

(2/2)

	Function	Basic Edition	Standard Edition	Professional Edition	
Support of Debugging	Replay	--	--	X	
	Simulation	Actuate as DCE	--	--	X
		Actuate as DTE	--	--	X
		Circular Data File	--	--	X
		Switching of Simulation Pattern	--	--	X
	Sending Fixed Data Continuously	Actuate as DTE	--	--	X
		Actuate as DCE	--	--	X
		Continuous Send Data File	--	--	X
	Replace	--	--	X	
	Sending Manual Data	Manual Operation	--	--	X
		File Sending	--	--	X
	Speed Conversion	--	--	X	
Interim Report of Current Monitor	--	--	X		
Others	Setting (change) of the Display Character	X	X	X	
	Setting (change) of the Character Color and the Background Color	--	--	X	
	Return to the Default setting	X	X	X	
	Display of Sequence	--	--	X	
	Management of Add-on	--	--	X	

*Note: **X** : Available, -- : Not available

General Description about each function

General description about each function of AKM-RSM-100 is explained from here.

General description about each function is explained by one page.
Thus, understand about the "Ability of AKM-RSM-100".

General description about each function is being summarized by the following format.

General Description: (Title)

(Title) **Standard / Professional** **Note:*

- **Outline**
Outline of this function is described.
- **Main Purpose(s)**
The purpose about this function is described.
Of course, AKM-RSM-100 will be able to use for other purposes as well.
Thus, we want you to try it variously.
- **Function Condition(s)**
Conditions and limitations about this function are described.
- **Precaution(s)**
Precaution about the use of this function is described.
- **Default Setting(s)**
Default setting about this function is described.
- **Related Setting(s)**
The setting which is necessary to use this function, and the related setting items to this function are described.

Note:* **Basic / Standard / Professional : This function is available in all Editions.

Note:* **Standard / Professional : This function is available in Standard Edition and Professional Edition.

Note:* **Professional only : This function is available in Professional Edition only.

Display and recording of the Communications Data

■ Outline

This function monitors communications data between the DTE device and the DCE device.

Monitor Results are displayed to [Monitor and Reference Display] and are recorded.

And, Signal Line Status is recorded, too.

■ Main Purpose

- (1) Confirm the validity of the contents of the Communications Data between the DTE device and the DCE device.
And also, confirm the validity of the Communications Data sequence between the DTE device and the DCE device.

■ Function Conditions

- (1) The following 3 kind of Recording Modes for Monitor Result are available.
 - (a) Normal Recording (to Recording Memory, RING), (b) Normal Recording (to Recording Memory, FIX),
 - (c) Long-run RecordingRefer to "Recording Mode" for the difference in this recording mode.

- (2) The following items are available as the Communications Condition.

Connection Type	Direct Connection or Relay Connection
COM Port	COM1 ~ COM32
Speed	600bps, 1200bps, 2400bps, 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps, 230400bps, 460800bps, or 921600bps (Or, Speed can be inputted by the manual operation.)
Data bits	8bits or 7bits
Parity	None, Odd, Even, Mark, or Space
Stop bits	2bits or 1bit

- (3) Display of the Monitor Results is available from the 2 kinds of following.
 - HEX. : 1 byte is displayed by 2 columns of the hexadecimal system
 - CHR. or ASCII : 1 byte is displayed with 8 bits/7bits character

*Note: The character of 8 bits is called "CHR.", and the character of 7 bits is called "ASCII".

- (4) The detailed information of the event is displayed to Status bar by the following operation.
 - Put the cursor to the event which is hoped to display the detailed information. Then, press Shift key.

■ Precautions

- (1) The Communications Condition which can be used depends on PC and the ability of the Serial Port of PC.
- (2) Long-run Recording is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Actuating the display and the recording

■ Related Setting

None

Display and recording of the Signal Line Status change

■ Outline

This function monitors Signal Line Status change between the DTE device and the DCE device. Monitor Results are displayed to [Monitor and Reference Display] and are recorded.

■ Main Purpose

- (1) Confirm the validity of the Signal Line control between the DTE device and the DCE device.
And also, confirm that the trouble of Signal Line (such as disconnection of signal line) doesn't occur.

■ Function Conditions

- (1) All the signal line condition is shown by the point of view from the DTE device side.
 - RS (RTS) : DTE → DCE
 - CS (CTS) : DTE ← DCE
 - ER (DTR) : DTE → DCE
 - DR (DSR) : DTE ← DCE
 - CD (DCD) : DTE ← DCE
 - CI (RI) : DTE ← DCE
- (2) Each Signal Line is shown in the bit unit. Then, all the Signal Line Status is shown by the hexadecimal system number of 1 byte.
 - RS (RTS) : bit 0
 - CS (CTS) : bit 1
 - ER (DTR) : bit 2
 - DR (DSR) : bit 3
 - CD (DCD) : bit 4
 - CI (RI) : bit 5

Ex. CS=ON, Other Signal=OFF: In this case, "02" will be displayed.

Ex. CS=OFF, Other Signal=ON: In this case, "1F" will be displayed.
- (3) The detailed information of the Signal Line Status change event is displayed to Status bar by the following operation.
 - Put the cursor to the Signal Line Status change event which is hoped to display the detailed information.
 - Then, press Shift key.

■ Precautions

- (1) In the Relay Connection, the CI (RI) signal is not transmitted to the DTE side device. (Monitor is possible.)
- (2) This function is available in the Standard Edition and in the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Actuating the display and the recording

■ Related Setting

- (1) [Options] - [Line Monitor] - [Monitor Condition] of Menu bar

Display and recording of the Line Error

■ Outline

Line Error of the DTE device or the DCE device is detected.

Then, detected Line Error is displayed to [Monitor and Reference Display] and is recorded.

And, Signal Line Status is recorded, too.

■ Main Purpose

- (1) Confirm that the communications failure doesn't occur in the DTE device or the DCE device.

■ Function Conditions

- (1) The following 4 kinds of Line Error are detected, then, are displayed and are recorded.

- (a) Parity Error
- (b) Framing Error
- (c) Break Signal
- (d) Clear Break

*Note: The Break Signal and the Clear Break are not the Line Error in the strict sense of the word.
But these are being classified as the Line Error in the AKM-RSM-100.

*Note: The Clear Break is recorded when the autonomous sending (or execution) as done with the Simulation or with the Sending Fixed Data Continuously.

- (2) The detailed information of the Line Error event is displayed to Status bar by the following operation.

- Put the cursor to the Line Error event which is hoped to display the detailed information.
- Then, press Shift key.

■ Precautions

- (1) There is the Overrun Error in the kind of Line Error except for the 4 kinds of the above.

But, the AKM-RSM-100 can't detect the overrun error which occurs in the DTE device or the DCE device by the software structure and the configuration.

When AKM-RSM-100 detects the Overrun Error, it means mainly that the throughput of AKM-RSM-100 is lack.

Thus, the Overrun Error is indicated as the error message of AKM-RSM-100.

- (2) Long-run Recording is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Actuating the display and the recording

■ Related Setting

None

Display and recording of the Start and Stop event

■ Outline

In the Line Monitor and the Support of Debugging, this function displays the Start mark and the Stop mark to [Monitor and Reference Display] as the event. The Start event and the Stop event are recorded, too.

When the event of the Start and the Stop is recorded, the Signal Line Status at the start time and at the stop time is recorded, too.

■ Main Purposes

- (1) Start (and End) of the Monitor Result of the Line Monitor and of the Support of Debugging becomes clear.
- (2) In the Line Monitor and the Support of Debugging, the Signal Line Status at the start time and at the stop time can be verified.

■ Function Condition

- (1) The detailed information with the Signal Line Stats about the Start event and the Stop event is displayed to Status bar by the following operation.
 - Put the cursor to the Start or the Stop event which is hoped to display the detailed information.
 - Then, press Shift key.

■ Precaution

- (1) Long-run Recording is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Actuating the display and the recording

■ Related Setting

- (1) [Options] - [Line Monitor] - [Monitor Condition] of Menu bar

Display and recording of the Idle Time

■ Outline

In the Line Monitor and the Support of Debugging, this function displays the Idle Time to [Monitor and Reference Display] as the event. (The Idle Time means the time when an event doesn't occur at all.)

The Idle Time is recorded as an event.

■ Main Purposes

- (1) Confirm the validity of the Communications timing between the DTE device and the DCE device.
- (2) When the Idle Time outside the assumption occurs, confirm whether there is useless overhead and so on in the internal process of the DTE device and of the DCE device.
- (3) Actual communications conditions between the DTE device and the DCE device can be monitored in detail.

■ Function Conditions

- (1) The Idle Time is measured from 100ms to 400,000ms (from 0.1 sec to 400.0 sec) by the 100ms unit.
However, when the Idle Time to exceed 400 seconds occurred, the Idle Time is recorded as "400 sec. or more".
- (2) From 0.1 seconds to 9.9 seconds is displayed to [Monitor and Reference Display] because display limit on [Monitor and Reference Display] is maximum 2 digits. (It is displayed from 00 to 99 by the unit of 100ms.)
The Idle Time which is 10 seconds or more is displayed as "ov" (the meaning of overflow).
- (3) The detailed information of the Idle Time event is displayed to Status bar by the following operation.
 - Put the cursor to the Idle Time event which is hoped to display the detailed information.
 - Then, press Shift key.

■ Precautions

- (1) The Idle time is measured by using the Timer Interrupt function of Windows.
Thus, measurement time have a little error. (This is the function limitation.)
- (2) In the Relay Connection, there is the case that the start of the measurement of the Idle Time is delayed after communications data is displayed on the [Monitor and Reference Display]. This is the reason that display time of the Communications Data is faster than relay time. Therefore, this is not a problem.
The measurement of the Idle Time is started after the Communications Data relay was completed (After transmission buffer of AKM-RSM-100 became vacancy) because for the measurement of the accurate time.
- (3) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Actuating the display and the recording

■ Related Setting

- (1) [Options] - [Line Monitor] - [Monitor Condition] of Menu bar

Display and recording of the Time Stamp

■ Outline

This function records the Time Stamp as well when each event is recorded by the Line Monitor and the Support of Debugging.

■ Main Purpose

(1) When the Monitor Result which was saved to the file is referenced later, date of each event which is being referenced can be verified.

It is useful for the phenomenon analysis with time series of the trouble and for the analysis of the Communications.

■ Function Conditions

(1) The Time Stamp is recorded about the information of Year, Month, Day, Hour, Minute, and Second.

(2) Each event that the Time Stamp is recorded on the [Monitor and Reference Display] can show the Time Stamp information to Status bar by the following operation.

- Put the cursor to the event which is hoped to display the detailed information.
- Then, press Shift key.

■ Precautions

(1) The clock of PC which AKM-RSM-100 is being installed in must be set up precisely.

(2) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Actuating the display and the recording

■ Related Setting

(1) [Options] - [Line Monitor] - [Monitor Condition] of Menu bar

Recording Mode (Normal Recording (to Recording Memory, RING))

■ Outline

There are following 3 kinds of the record method for the Monitor Result. Choose the record method which is suitable for the purpose.

- (a) Normal Recording (to Recording Memory, RING)
- (b) Normal Recording (to Recording Memory, FIX)
- (c) Long-run Recording

The (a) Normal Recording (to Recording Memory, RING) will be described here.

■ Main Purposes

- (1) The Normal Recording is the mode which records the Monitor Result to internal Recording Memory in AKM-RSM-100. In the Normal Recording (to Recording Memory, RING), the Recording Memory is used as the Ring Buffer. Then, last 1M events of the Line Monitor and of the Support of Debugging are recorded. ([Usually, use this mode.](#))

■ Function Conditions

- (1) The memory volume of the Normal Recording is 1M events (1,048,576 events).

■ Precautions

None

■ Default Setting

Normal Recording (to Recording Memory, RING)

■ Related Settings

- (1) Click on [Mem.] button on the [Recording Mode] panel of the [Main Control] panel.
- (2) Specify the [RING] mode of the [Memory Mode] panel on the [Monitor Condition] panel.

Recording Mode (Normal Recording (to Recording Memory, FIX))

■ Outline

There are following 3 kinds of the record method for the Monitor Result. Choose the record method which is suitable for the purpose.

- (a) Normal Recording (to Recording Memory, RING)
- (b) Normal Recording (to Recording Memory, FIX)
- (c) Long-run Recording

The (b) Normal Recording (to Recording Memory, FIX) will be described here.

■ Main Purposes

- (1) The Normal Recording is the mode which records the Monitor Result to internal Recording Memory in AKM-RSM-100. In the Normal Recording (to Recording Memory, FIX), the Recording Memory is used as the General Buffer. Then, the Monitor Result of the Line Monitor and of the Support of Debugging is recorded until 1M events from the Start. (Use this mode when the monitor result of the part at the head of the communications is important.)

■ Function Conditions

- (1) The memory volume of the Normal Recording is 1M events (1,048,576 events).

■ Precautions

None

■ Default Setting

Normal Recording (to Recording Memory, RING)

■ Related Settings

- (1) Click on [Mem.] button on the [Recording Mode] panel of the [Main Control] panel.
- (2) Specify the [FIX] mode of the [Memory Mode] panel on the [Monitor Condition] panel.

Recording Mode (Long-run Recording)

■ Outline

There are following 3 kinds of the record method for the Monitor Result. Choose the record method which is suitable for the purpose.

- (a) Normal Recording (to Recording Memory, RING)
- (b) Normal Recording (to Recording Memory, FIX)
- (c) Long-run Recording

The (c) Long-run Recording will be described here.

■ Main Purposes

- (1) The Long-run Recording is the mode which records the Monitor Result of the Line Monitor and of the Support of Debugging to the storage such as hard disk drive. Use this mode when monitoring communications for a long time.

■ Function Conditions

- (1) The Long-run Recording outputs the file of unit of 1M events to the folder of the drive which was specified by user. File name is given automatically. (File name can't be specified by user.)
- (2) The Long-run Recording does output until the full capacity of the folder of the drive which was specified by user. Therefore, prepare the storage of the capacity corresponding to the expected amount of event. The file capacity which is necessary for the output of the 1M events is about 10 MB (10,485,760 bytes). Calculate the capacity of the necessary storage referring to this value.

■ Precautions

- (1) The Long-run Recording has the possibility that the Overrun and Buffer Overflow may occur by using the slow speed storage. Therefore, use the storage whose write speed is as fast as possible.
- (2) Long-run Recording is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Normal Recording (to Recording Memory, RING)

■ Related Settings

- (1) Click on [Long-run] button on the [Recording Mode] panel of the [Main Control] panel.
- (2) Specify output folder on the [Setting of the output folder of the Long-run monitor]. Then, start monitor.

Recording Mode (Mode change when the Long-run Recording was stopped)

■ Outline

Action when the Long-run monitor was stopped can be chosen from the following 2 kinds.

- (1) Recording mode is returned to the Normal Recording automatically
- (2) Recording Mode is held with the Long-run Recording

■ Main Purposes

(1) If you use the Normal Recording mainly, "Recording mode is returned to the Normal Recording automatically" is recommended.

(2) On the other hand, if you usually use the Long-run Recording, "Recording Mode is held with the Long-run Recording" is recommended.

Choose action corresponding to your main purpose.

■ Function Conditions

None

■ Precautions

(1) When "Recording Mode is held with the Long-run Recording" is chosen, the comment to the Monitor Result File will be a little hard to give.

In that case, input comment to the Monitor Result File in either following method. (Change method of the output folder of the Monitor Result File is the same.)

- (a) Click on [Long-run] button on the [Recording Mode] panel of the [Main Control] panel.
- (b) [File] - [Setting of the output folder of the Long-run monitor] of Menu bar

(2) Long-run Recording is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Recording mode is returned to the Normal Recording automatically

■ Related Settings

(1) [Options] - [Line Monitor] - [Line Monitor Condition] of Menu bar

Stop Trigger (Watching the Communications Data)

■ Outline

This function monitors the communications of the DTE device and the DCE device. Then, when the communications matched with the Trigger Condition which is set up in advance, it is informed.

■ Main Purposes

- (1) Confirm occurrence timing about the specific Communications Data Pattern.
- (2) When the trouble occurred, search the flow of the Communications Data which are different from the design of the DTE device or the DCE device.

■ Function Conditions

- (1) The following 2 kinds Trigger Condition can be used.

Communications Data:

- 5 kinds of maximum Data Patterns can be set up as the Trigger Condition from the prepared Data Patterns that 128 kinds of maximum are possible. (One Data Pattern is the data string of a maximum 128 bytes.)
- To specify the Communications direction is available in the Data Pattern. And, the condition of the multiple Negations and the Wildcard is available.

- (2) The methods of the notice when the condition was matched are 2 kinds of the following.

- (a) Monitor Stop ([Immediately stopping ~ Stopping after about 5 minutes. \(One-second unit\)](#))
- (b) Continue (The Monitor is continued, and "Matched Trigger Condition" mark is displayed as the event.)

■ Precautions

- (1) The Trigger function uses much throughput of PC.

Therefore, the Overrun Error and the Buffer Overflow may occur when many settings are done on the complex condition.

Set up conditions in the necessary minimum. (Or, use PC of high throughput.)

- (2) When the Trigger Condition was matched with part of the Communications Data, the "Matched Trigger Pattern" mark is recorded to the last 1 byte of the matched Communications Data. (Recording object of the mark is not the whole of the matched Communications Data.) The screen display to inform that part of the Communications Data was matched with the Trigger Condition is only last 1 byte, too.

- (3) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Trigger [OFF]

■ Related Settings

- (1) [Options] - [Line Monitor] - [Trigger Condition] of Menu bar
- (2) [Edit] - [Line Monitor] - [Trigger Condition] of Menu bar

Stop Trigger (Watching the Signal Line Status change)

■ Outline

This function monitors the communications of the DTE device and the DCE device. Then, when the communications matched with the Trigger Condition which is set up in advance, it is informed.

■ Main Purposes

- (1) Confirm occurrence timing about the Signal Line Status change.
- (2) When the trouble occurred, search the occurrence of the illegal Signal Line Status change.

■ Function Conditions

- (1) The following Trigger Condition can be used.
 - Signal Line Status change:
 - The multiple [ON -> OFF] or [OFF -> ON] can be specified about 6 kinds of the Signal Line.
 - However, the order of the change in the Signal Line Status can't be set up.
- (2) The methods of the notice when the condition was matched are 2 kinds of the following.
 - (a) Monitor Stop (Immediately stopping ~ Stopping after about 5 minutes.)
 - (b) Continue (The Monitor is continued, and "Matched Trigger Condition" mark is displayed as the event.)

■ Precautions

- (1) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Trigger [OFF]

■ Related Settings

- (1) [Options] - [Line Monitor] - [Trigger Condition] of Menu bar
- (2) [Edit] - [Line Monitor] - [Trigger Condition] of Menu bar

Start Trigger (Watching the Communications Data)

■ Outline

This function monitors the communications of the DTE device and the DCE device. Then, when the Communications Data Pattern set up in advance was detected, the Line Monitor (or Support of Debugging function) will be started.

■ Main Purposes

- (1) Record of communications data which begin from the specific Communications Data Pattern.
- (2) Repeat record by using the "Cooperation of the Trigger function".

■ Function Conditions

- (1) The following Trigger Condition can be used.

Communications Data:

- 5 kinds of maximum Data Patterns can be set up as the Trigger Condition from the prepared Data Patterns that 128 kinds of maximum are possible. (One Data Pattern is the data string of a maximum 128 bytes.)
- To specify the Communications direction is available in the Data Pattern. And, the condition of the multiple Negations and the Wildcard is available.

- (2) While the Cooperation of the Trigger function is being executed, the Recording Mode isn't changed regardless of the Monitor Option setting.

■ Precautions

- (1) The Start Trigger can't be actuated in the Replay function. (The setting of the Start Trigger will be ignored.)
- (2) When match of the Trigger Condition was detected, Line Monitor (or Support of Debugging function) is started. The Communications Data of the Trigger Condition is contained to the Line Monitor data also.
- (3) The Trigger function uses much throughput of PC. Therefore, the Overrun Error and the Buffer Overflow may occur when many settings are done on the complex condition. Set up conditions in the necessary minimum. (Or, use PC of high throughput.)
- (4) When the Trigger Condition was matched with part of the Communications Data, the "Matched Trigger Pattern" mark is recorded to the last 1 byte of the matched Communications Data. (Recording object of the mark is not the whole of the matched Communications Data.) The screen display to inform that part of the Communications Data was matched with the Trigger Condition is only last 1 byte, too.
- (5) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Trigger [OFF]

■ Related Settings

- (1) [Options] - [Line Monitor] - [Trigger Condition] of Menu bar
- (2) [Edit] - [Line Monitor] - [Trigger Condition] of Menu bar

Start Trigger (Watching the Signal Line Status change)

■ Outline

This function monitors the Signal Line Status Change of the DTE device and the DCE device. Then, when the Signal Line Status change set up in advance was detected, the Line Monitor (or Support of Debugging function) will be started.

■ Main Purposes

- (1) Record of communications data to begin from the specific Signal Line Status change status.
- (2) Repeat record by using the "Cooperation of the Trigger function".

■ Function Conditions

- (1) The following Trigger Condition can be used.

Signal Line Status change:

- The multiple [ON -> OFF] or [OFF -> ON] can be specified about 6 kinds of the Signal Line.
- However, the order of the change in the Signal Line Status can't be set up.

- (2) While the Cooperation of the Trigger function is being executed, the Recording Mode isn't changed regardless of the Monitor Option setting.

■ Precautions

- (1) The Start Trigger can't be actuated in the Replay function. (The setting of the Start Trigger will be ignored.)
- (2) When match of the Trigger Condition was detected, Line Monitor (or Support of Debugging function) is started. The Signal Line Status change status of the Trigger Condition is included in the Line Monitor data also.
- (3) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Trigger [OFF]

■ Related Settings

- (1) [Options] - [Line Monitor] - [Trigger Condition] of Menu bar
- (2) [Edit] - [Line Monitor] - [Trigger Condition] of Menu bar

Error Stop

■ Outline

This function stops the monitor when the specified Line Error was detected in the specified port while the communications of the DTE device and the DCE device is being monitored.

■ Main Purposes

- (1) Occurrence of the Line Error can be recognized promptly.
- (2) The communications condition which before and after of the Line Error occurs can be confirmed.
- (3) The useless Monitor after the Line Error occurrence is avoided when the Line Error is fatal at the target system.

■ Function Condition

- (1) The Monitor is stopped by this function when any of the following 3 kinds of the Line Error was detected.
 - (a) Parity Error
 - (b) Framing Error
 - (c) Break Signal
 - Designation of the detection port of the Line Error is available.
 - Combination designation of the kind of the Line Error is available.
- (2) When the specified Line Error was detected, the monitor can be stopped in the following 2 kinds of methods.
 - (a) Immediately stopping
 - (b) Stopping after a few seconds (1 second after ~ 300 seconds after (About 5 minutes))

■ Precaution

- (1) The autonomous actuation of the Line Error (Break Signal and Clear Break) by the Simulation function and by the Sending Fixed Data Continuously function isn't made the target of the Error Stop.
- (2) This function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

Error Stop [OFF]

■ Related Setting

- (1) [ON] of the [Error Stop] panel on the [Monitor Condition] panel.
- (2) [Options] - [Line Monitor] - [Error Stop Condition] of Menu bar

Scheduled Monitor

■ Outline

This function starts and/or stops the Line Monitor (or the Support of Debugging function) in the specified time.

■ Main Purposes

- (1) The monitor for a long time can be done efficiently about the trouble which occurs in the specific time slot.
- (2) You don't need to wait until the start time of the Line Monitor (or the Support of Debugging function).

■ Function Condition

- (1) The time slot which can be specified is only either 1 kind of the following items.
 - Only Once : Starts in the specified date and time, and stops with the specified date and time (or with the Length of Time to Execute).
 - Every Year : Starts in the specified month, day, and time, and stops with the Length of Time to Execute.
 - Every Month : Starts in the specified day, and time, and stops with the Length of Time to Execute.
 - Every Week : Starts in the specified day of the week, and time, and stops with the Length of Time to Execute.
 - Every Day : Starts in the specified time, and stops with the Length of Time to Execute.
- (2) While the Scheduled Monitor is being executed, the Recording Mode isn't changed regardless of the configuration of the Monitor Option.
- (3) Using this function with the Long-run monitor is recommended.

■ Precaution

- (1) The clock of the Scheduled Monitor uses the clock of Windows.
Therefore, adjust the clock of Windows to the exact time before executing the Scheduled Monitor function.
Then, don't change the clock of Windows while the Scheduled Monitor is being executed.
- (2) Do setting and start about the Scheduled Monitor with a sufficient margin.
- (3) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

None

■ Related Setting

- (1) Set up in [Options] - [Line Monitor] - [Scheduled Monitor] of Menu bar.
And, start the Line Monitor or the Support of Debugging function.

When shut, Recording Memory is saved

■ Outline

When AKM-RSM-100 is shut down, the Monitor Result which is being left in the recording memory of the Normal Recording is saved automatically. Then, when AKM-RSM-100 is actuated next time, the Monitor Result which was saved by this function is displayed again.

■ Main Purpose

(1) Monitor Result can be held temporarily when PC which AKM-RSM-100 is being installed in must be turned off by the reason of your work. The Monitor result will be able to be held more easily than using of the "Save and Reference of the Monitor Result".

(For example, when AKM-RSM-100 is being installed in the laptop PC, and when the DTE device and the DCE device were executed in the location where the DTE device and the DCE device exist, and when the result is analyzed in other location after that.)

■ Function Condition

(1) The saved object is the memory of the following Recording Mode.

- (a) Normal Recording (to Recording Memory, RING)
- (b) Normal Recording (to Recording Memory, FIX)

■ Precaution

None

■ Default Setting

It is saved

■ Related Setting

(1) [Options] - [Line Monitor] - [Line Monitor Condition] of Menu bar

Save and Reference of the Monitor Result

■ Outline

This function is used to save the contents of the Recording Memory of the following Recording Modes to file.

- (a) Normal Recording (to Recording Memory, RING)
- (b) Normal Recording (to Recording memory, FIX)

The saved files can be referenced in the AKM-RSM-100 later.

■ Main Purpose

- (1) Save the Monitor Result to make use of it later. (For the data analysis, as the data to make the report, and so on)

■ Function Condition

- (1) The Monitor Result file during the reference (also including the file made by the Long-run Recording) can't be saved.

*Note: The Monitor Result file of the memory recording origin being displayed by the "Interim Report of Current Monitor" function can be saved as an exception.

■ Precaution

None

■ Default Setting

None

■ Related Setting

- (1) For saving, use [File] - [Save As] of Menu bar
- (2) For reference, use [File] - [Open] of Menu bar
(Drag and drop operation of the Monitor Data Report File (File extension is .mon) to the [Monitor and Reference Display] from explorer of Windows is available also.)
- (3) After the file was opened, File Property can be referenced by use [File] - [File Property] of Menu bar

Printout of the Monitor Result

■ Outline

This function prints a part of the Monitor Result while the Monitor Result is being referred to or while the file is being referred to.

■ Main Purposes

- (1) The outputted files can be used for the paste of the data in the various reports and so on.
- (2) Preserve the important part of the Monitor Result as the document.

■ Function Conditions

- (1) The printing range is each 2K events (2,048 events) to the front and rear of the current cursor position of the [Monitor and Reference Display].
- (2) The Printing format is equivalent to [Monitor and Reference Display]. (The color is outputted equally when the color printer is used, too.)
- (3) Page Setup and Print Preview are available.

■ Precaution

None

■ Default Setting

None

■ Related Settings

- (1) For Prints, click [File] - [Print] of Menu bar.
- (2) For Page Setup, click [File] - [Page Setup] of Menu bar.
- (3) For Print Preview, click [File] - [Print Preview] of Menu bar.

Display of Code Page Number List

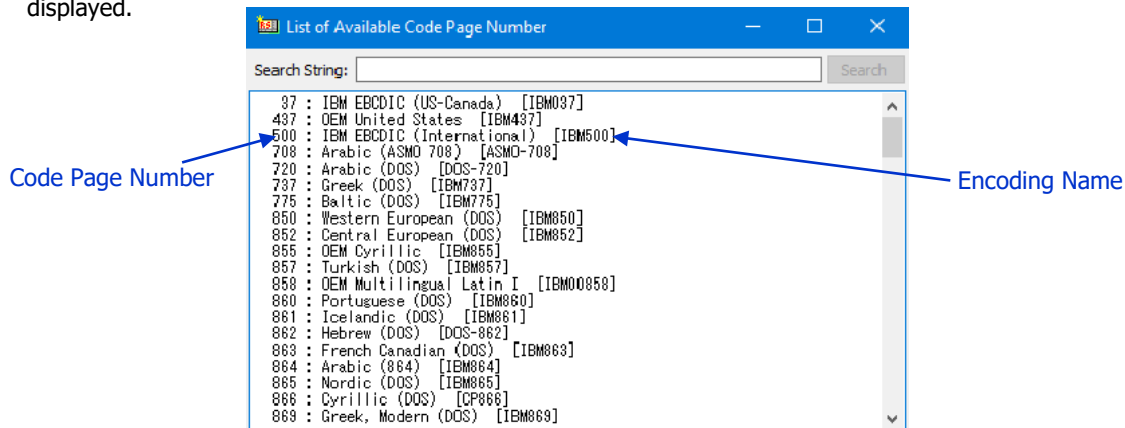
■ Outline

Code Page Number List being supported with OS which you are using is displayed as one function of the Help on the AKM-RSM-100.

■ Main Purposes

- (1) The input of "Code Page Number" (and "Encoding Name") in the following functions will be easy.
 - Export (Text format, CSV format, TSV format)
 - Exporting Monitor data as the Character String
 - Exporting Monitor data as the Character String (Advanced) (Professional Edition and Standard Edition)
 - Sending Manual Data (Professional Edition Only)
 - Input Support in [Line editing of the Data Pattern] of each [Pattern Editing] of the Support of Debugging (Professional Edition Only)
 - "Circular Data File" in the Simulation function (Professional Edition Only)
 - "Continuous Send Data File" in the Sending Fixed Data Continuously function (Professional Edition Only)

- (2) There is no waste in the table because only the Code Page Number being supported with OS which you are using is displayed.



■ Function Condition

- (1) The simple search function is available. But this function can do only the downward searching from the current cursor position in the table.

■ Precaution

None

■ Default Setting

None

■ Related Setting

- (1) [Help] - [Code Page Number List] of Menu bar.

Search (Communications Data)

■ Outline

This is the communications data (string) search function of the Monitor Result which is used while the Monitor Result is being referenced or while the file is being referenced.

■ Main Purpose

(1) The target part of data on the Monitor Result is found quickly.

■ Function Conditions

(1) The following searching keys are available.

Data String:

- The data string of the hexadecimal system of the maximum 256 bytes. Or, the character string of maximum 256 characters.
- The search direction ([Downward], or [Upward]) can be specified. The search object ([SD (TXD)], [RD (RXD)], or [Both]) can be specified.
- The encoding type of the character string is possible to choose in US-ASCII, UTF-8, or UTF-16. In addition, "Encoding Name" and "Code Page Number" is available by manual input except for the above selection.

■ Precaution

None

■ Default Setting

None

■ Related Settings

(1) For search of data string, click [Search] - [Search of the Serial Data String] of Menu bar.

Search (Signal Line Status change, Line Error, Condition Match, and so on)

■ Outline

This is the search function of the various event of the Monitor Result which is used while the Monitor Result is being referenced or while the file is being referenced.

■ Main Purpose

(1) The target part of event on the Monitor Result is found quickly.

■ Function Conditions

(1) The following searching keys are available.

(a) Signal Line Status:

- The search signal ([RS (RTS)], [CS (CTS)], [ER (DTR)], [DR (DSR)], [CD (DCD)], [CI (RI)], or [Either of these]) can be specified.
- The search condition ([ON -> OFF], [OFF -> ON], or [Signal change (Both)]) can be specified.
- The search direction ([Downward], or [Upward]) can be specified.

(b) Line Error:

- The search condition ([DTE side], [DCE side], or [Both]) can be specified. The error type ([Parity Error], [Framing Error], [Break Signal], or [Either of these]) can be specified.
- The search direction ([Downward], or [Upward]) can be specified.

(c) Condition Match:

- [Matched Trigger Condition] mark or [Matched Error Stop Condition] mark is searched.
- The search direction ([Downward], or [Upward]) can be specified.

(d) Time Stamp:

- [Year], [Month], [Day], [Hour], [Minute], and/or [Second] can be specified.
- The search direction ([Downward], or [Upward]) can be specified.

(e) Others:

- [Idle Time] event, [SD/TXD data] event, [RD/RXD data] event, [Start mark] event, [Stop mark] event, [Autonomous data] event, or [Un-match data of Replay] event can be specified.
- The search direction ([Downward], or [Upward]) can be specified.

■ Precaution

(1) This search function is function of the Standard Edition and the Professional Edition. (Not available in Basic Edition)

■ Default Setting

None

■ Related Settings

(1) To search except for data string, click [Search] - [Search of the Signal Line Status change and other] of Menu bar.

Export of the Monitor Result (Text format)

■ Outline

This function outputs the Monitor Result data to the file in the format which is different from the Monitor Result file format of AKM-RSM-100.

"Text format" will be described here.

■ Main Purposes

- (1) The outputted files can be used for the paste of the data in the various reports and so on.
- (2) When the Character Data such as Log Data from the Line Monitor object device were collected, Text File which is easy to see can be made.

■ Function Conditions

- (1) Simple text file which is equivalent to [Monitor and Reference Display] is outputted.
- (2) File extension is ".txt".
- (3) The Text format is always outputted by 1 file because a file can't be divided.

■ Precaution

- (1) Output to the NTFS drive is recommended because the huge file of the capacity may be made.

■ Default Setting

None

■ Related Settings

- (1) [File] - [Export] - [Text format] of Menu bar.

Export of the Monitor Result (Tab Separated Value format)

■ Outline

This function outputs the Monitor Result data to the file in the format which is different from the Monitor Result file format of AKM-RSM-100.

"Tab Separated Value format" will be described here.

■ Main Purposes

- (1) And, the outputted files can be used as the input information of other application (such as the user individual application) via the file.
- (2) When the Character Data such as Log Data from the Line Monitor object device were collected, Text File which is easy to see can be made.

■ Function Conditions

- (1) Text file of the data which is separated by Tab is outputted.
(Refer to "Appendix C: Format of the Export File" for the details of each format.)
Output form can be chosen from 2 kinds of the following.
 - (a) [32 events / 4 lines] (32 events per 4 lines), (b) [1 event / 1 line] (1 event per 1 line)
- (2) The Output type can be chosen by either [To one file] or [To the divided files].
In case of [To the divided files], the file is divided as follows.
 - (a) [32 events / 4 lines]: The data are outputted to every about 20,500 (or 24,600) lines to the file.
 - (b) [1 event / 1 line]: The data are outputted to every about 16,400 lines to the file.Output the Monitor Results by divided file when large quantities of the Monitor Results are handled by the spreadsheet application.
- (3) In case of Tab Separated Value format, Text qualifier (") are given to all the data.
- (4) File extension is .tsv.

■ Precaution

- (1) Output to the NTFS drive is recommended because the huge file of the capacity may be made.

■ Default Setting

None

■ Related Settings

- (1) [File] - [Export] - [Tab Separated Value format] of Menu bar.

Export of the Monitor Result (Comma Separated Value format)

■ Outline

This function outputs the Monitor Result data to the file in the format which is different from the Monitor Result file format of AKM-RSM-100.

"Comma Separated Value format" will be described here.

■ Main Purposes

- (1) And, the outputted files can be used as the input information of other application (such as the user individual application) via the file.
- (2) When the Character Data such as Log Data from the Line Monitor object device were collected, Text File which is easy to see can be made.

■ Function Conditions

- (1) Text file of the data which is separated by Comma is outputted.
(Refer to "Appendix C: Format of the Export File" for the details of each format.)
Output form can be chosen from 2 kinds of the following.
 - (a) [32 events / 4 lines] (32 events per 4 lines), (b) [1 event / 1 line] (1 event per 1 line)
- (2) The Output type can be chosen by either [To one file] or [To the divided files].
In case of [To the divided files], the file is divided as follows.
 - (a) [32 events / 4 lines]: The data are outputted to every about 20,500 (or 24,600) lines to the file.
 - (b) [1 event / 1 line]: The data are outputted to every about 16,400 lines to the file.Output the Monitor Results by divided file when large quantities of the Monitor Results are handled by the spreadsheet application.
- (3) In case of Comma Separated Value format, Text qualifier (") are given to all the data.
- (4) File extension is .csv.

■ Precaution

- (1) Output to the NTFS drive is recommended because the huge file of the capacity may be made.

■ Default Setting

None

■ Related Settings

- (1) [File] - [Export] - [Comma Separated Value format] of Menu bar.

Export of the Monitor Result (Character String format)

■ Outline

This function outputs the Monitor Result data to the file in the format which is different from the Monitor Result file format of AKM-RSM-100.

"Character String format" will be described here.

■ Main Purposes

- (1) The outputted files can be used for the paste of the data in the various reports and so on.
- (2) The whole image of the communications of the character string data is becomes easy to see. Therefore, the conditions of the device and the flow of the communications will be easy to grasp.
- (3) When the Character Data such as Log Data from the Line Monitor object device were collected, Text File which is easy to see can be made.

■ Function Conditions

- (1) Following settings are available.
 - (a) Output object: ([SD (TXD)], [RD (RXD)], or [Both])
 - (b) Exporting the Time Stamp: ([Yes] or [No])
 - (c) Exporting the Data Direction: ([Yes] or [No])
 - (d) Idle Time which is judged the end of one data: ([0] (Don't judge) ~ [100] (10,000ms))
 - (e) Encoding type of Monitor Result: ([US-ASCII], [UTF-8], or [UTF-16]) ***Note1**
("Encoding Name" and "Code Page Number" is available by manual input except for the above selection.)
 - (f) Encoding type of Output File: ([US-ASCII], [UTF-8], or [UTF-16]) ***Note1**
("Encoding Name" and "Code Page Number" is available by manual input except for the above selection.)
 - (g) Time to divide file: ([None (No division)], [0:00], [1:00], [2:00], ..., [23:00]) ***Note2**

***Note1:** For example, when the communications data of the EBCDIC code is exported, specify EBCDIC code in (e) and specify [US-ASCII] in (f). The file which can be referred to in general viewer (such as Note Pad) of Windows will be made by this setting.

***Note2:** By this setting (g), the data divided into every other day are outputted to the files.

- (2) File extension is ".txt".

■ Precaution

- (1) Output to the NTFS drive is recommended because the huge file of the capacity may be made.
- (2) When the Time Stamp isn't recorded in the Monitor Result data, the "Time to divide file" is not available.

■ Default Setting

None

■ Related Settings

- (1) [File] - [Export] - [Character String format] of Menu bar.

Export of the Monitor Result (Character String format (Advanced))

■ Outline

This function outputs the Monitor Result data to the file in the format which is different from the Monitor Result file format of AKM-RSM-100.

"Character String format (Advanced)" will be described here.

■ Main Purposes

- (1) The outputted files can be used for the paste of the data in the various reports and so on.
- (2) The whole image of the communications of the character string data is becomes easy to see. Therefore, the conditions of the device and the flow of the communications will be easy to grasp.
- (3) When the Character Data such as Log Data from the Line Monitor object device were collected, Text File which is easy to see can be made.

■ Function Conditions

(1) Following settings are available.

- (a) Output object: ([SD (TXD)], [RD (RXD)], or [Both])
- (b) Exporting the Time Stamp: ([Yes] or [No])
- (c) Exporting the Data Direction: ([Yes] or [No])
- (d) Idle Time which is judged the end of one data: ([0] (Don't judge) ~ [100] (10,000ms))
- (e) Encoding type of Monitor Result: ([US-ASCII], [UTF-8], or [UTF-16])
("Encoding Name" and "Code Page Number" is available by manual input except for the above selection.)
- (f) Encoding type of Output File: ([US-ASCII], [UTF-8], or [UTF-16])
("Encoding Name" and "Code Page Number" is available by manual input except for the above selection.)
- (g) Time to divide file: ([None (No division)], [0:00], [1:00], [2:00], ..., [23:00])

(h) **Character Conversion:** ([Non-conversion], [Conversion (Type1)], [Conversion (Type2)], or [Hexadecimal Data String])

(i) **Automatic Detection of Newline Code:** ([Detect it] or [Don't detect it])

(j) **Designation of Special Newline Processing:** ([Newline Data], [Action], and [Object])

(1) [Newline Data] : The hexa-decimal character (string) for newline processing (maximum 4 bytes).

Negation and Wildcard are available also.

(2) [Action] : [Replace], [Insert BEFORE it], or [Insert AFTER it]

(3) [Object] : [Both], [SD (TXD)], or [RD (RXD)]

*Note: Maximum 5 kinds of special newline processing specified by the above item (1)~(3) are available.

Advanced points are here!

(2) File extension is ".txt".

■ Precaution

- (1) Output to the NTFS drive is recommended because the huge file of the capacity may be made.
- (2) When the Time Stamp isn't recorded in the Monitor Result data, the "Time to divide file" is not available.

■ Default Setting

None

■ Related Settings

(1) [File] - [Export] - [Character String format (Advanced)] of Menu bar.

Export of the Monitor Result (Binary Data format)

■ Outline

This function outputs the Monitor Result data to the file in the format which is different from the Monitor Result file format of AKM-RSM-100.

"Binary Data format" will be described here.

■ Main Purposes

- (1) Use this when making use of the Monitor Result as the binary data.
 - Make use of the raw data by taking out Program, Firmware, Configuration Data, and so on from the device.
 - Make the unique macro program about PIC and PLC is made by using the Monitor Result data.etc.

■ Function Conditions

- (1) Following settings are available.

(a) Output object: ([SD (TXD)], [RD (RXD)], or [Both])

- (2) File extension is ".bin".

- (3) When the Output Object is specified to [Both], _SD (_TXD) and _RD (_RXD) are given to the output file name automatically.

Ex. Output Object: [Both], Output File Name: BinaryData.bin:

2 files of BinaryData_SD.bin and BinaryData_RD.bin (or BinaryData_TXD.bin and BinaryData_RXD.bin) will be outputted.

■ Precaution

- (1) Output to the NTFS drive is recommended because the huge file of the capacity may be made.

■ Default Setting

None

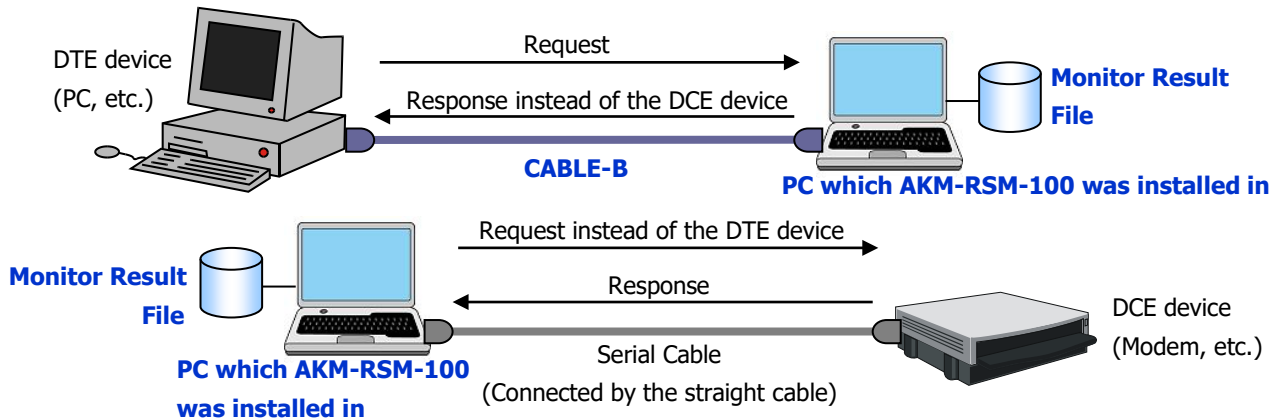
■ Related Settings

- (1) [File] - [Export] - [Binary Data format] of Menu bar.

Replay

■ Outline

AKM-RSM-100 does replay the Communication Sequence by doing the data communication instead of the DTE device side or the DCE device side by using the saved Monitor Result file.



The Replay of the Signal Line Status change and the replay of the Idle Time are available by option setting.

■ Main Purposes

- (1) In the work of the solution of the trouble, when the solution of trouble by the analysis on the desk of the Monitor Result is difficult, the replay of the communications which contains the trouble promotes the quick solution.
- (2) When the trouble is occurring in the customer site, it is hard to try the replay of the trouble many times by using the actual system during the operation. In such a case, monitor the communications which the trouble is contained to in the customer site. Then, bring back the Monitor Result from the customer site. After that, the quick solution of the trouble is promoted by using replay function of AKM-RSM-100 in your laboratory.

■ Function Conditions

- (1) When the difference between the communications data from the DTE device or the DCE device and the Monitor Result file was detected during the replay, event to inform of that point is displayed (and is recorded).
- (2) When the difference between the communications data from the DTE device or the DCE device and the Monitor Result file was detected during the replay, there is the case that the replay cannot be continued. In this case, skip of one communications data is available for continuous replay.

■ Precautions

- (1) The replay by using the Monitor Result of the Normal Recording (to Recording Memory) instead of the Monitor Result file is possible. But, be careful because the contents of original Monitor Result of the Normal Recording (to Recording Memory) are erased by the start of the replay.
- (2) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Replay [OFF]

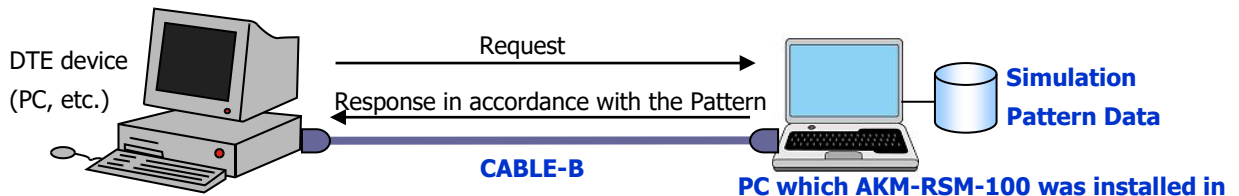
■ Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Detailed settings of the Replay] box of [Details (Page1)] tab. (Click [Options] - [Support of Debugging] of Menu bar)

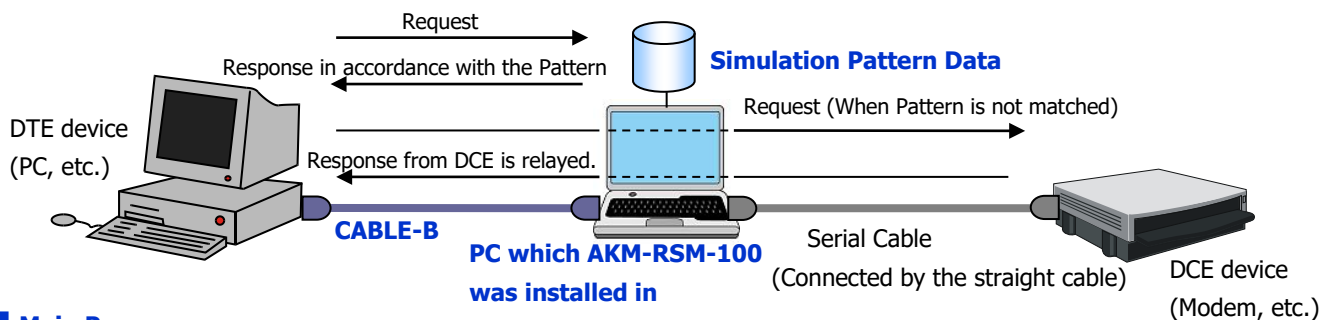
Simulation (Actuate as DCE)

■ Outline

Response data corresponding to the contents of the Request from the DTE device are transmitted automatically in accordance with the Simulation Pattern set up in advance.



Request is relayed to the DCE device by option setting and the following configuration when the Request which is not matched in the Simulation Pattern from the DTE device is transmitted.



■ Main Purposes

- (1) Development and Debugging of DTE device without the actual DCE device are possible by using this function if the interface specification between the DTE device and the DCE device is being decided.
- (2) When the DCE device doesn't send Response to the DTE device by reason that version is different between the DTE device and the DCE device and so on, use AKM-RSM-100 as a temporary response device.

■ Function Conditions

- (1) The Simulation Pattern can set up maximum 128 kinds by the following structure.
 [Comment] (Max. 64 characters), [Receiving Data Pattern] (Max. 2,048 bytes), [Response Data Pattern] (Max. 2,048 bytes)
 And, maximum 128 kinds can be set up as the simulation object.
 "Negation", "Wildcard", "Signal Line Status change", and "Start" are available in [Receiving Data Pattern].
 And, "Reference of the received data", "Setting of the BCC code", "Signal Line Control", and "Stop" are available in [Response Data Pattern].
- (2) The completion of the communications of one Request is recognized when Idle Time that was being specified in advance was detected after receiving of Request is started. After that, Response is transmitted in accordance with each pattern. Choose [Idle Time] from [100ms], [200ms], [300ms], [400ms], or [500ms].
 Or, you can determine the communications completion based on the specified communications data (string).
- (3) The setting of execution of simple flow-control corresponding to the Signal Line Status change of DTE device is available. However, the simple flow-control can't be used when the Request which is not matched with the Simulation Pattern is relayed to the DCE device. (The Signal Lines are controlled by the DTE device and the DCE device.)

■ Precaution

- (1) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Simulation [OFF]

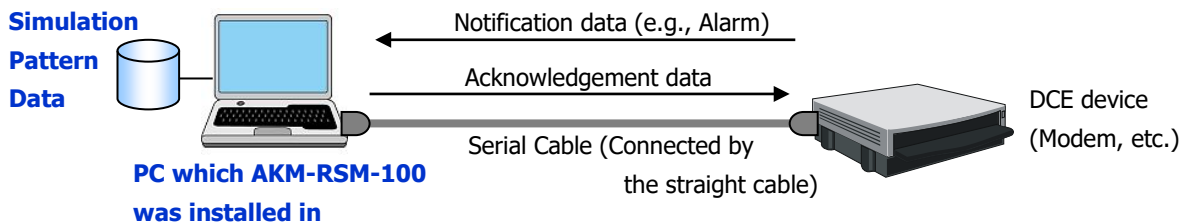
■ Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Detailed settings of the Simulation] box of [Details (Page1)] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (3) [Edit] - [Support of Debugging] - [Data Pattern of Simulation Function] of Menu bar.

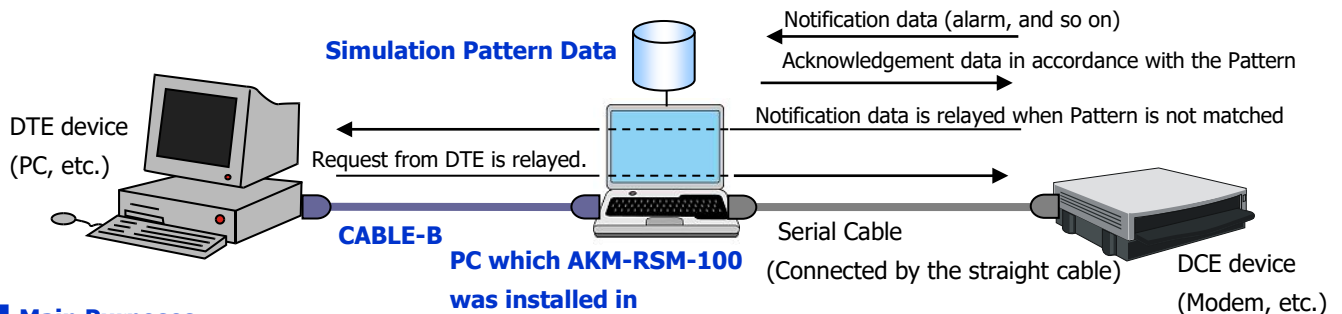
Simulation (Actuate as DTE)

■ Outline

Acknowledgement data corresponding to the contents of the Notification data (Alarm, and so on) from the DCE device are transmitted automatically in accordance with the Simulation Pattern set up in advance.



The Notification data is relayed to the DTE device by option setting and the following configuration when the Notification data which is not matched in the Simulation Pattern from the DCE device is transmitted.



■ Main Purposes

- (1) Development and Debugging of DCE device without the actual DTE device are possible by using this function if the interface specification between the DTE device and the DCE device is being decided.
- (2) When the DTE device doesn't send the Acknowledgement data to the DCE device by reason that version is different between the DTE device and the DCE device and so on, use AKM-RSM-100 as a temporary simulation device.

■ Function Conditions

- (1) The Simulation Pattern can set up maximum 128 kinds by the following structure.

[Comment] [Max. 64 characters], [Receiving Data Pattern] [Max. 2,048 bytes], [Response Data Pattern] [Max. 2,048 bytes]

And, maximum 128 kinds can be set up as the simulation object.

"Negation", "Wildcard", "Signal Line Status change", and "Start" are available in [Receiving Data Pattern].

And, "Reference of the received data", "Setting of the BCC code", "Signal Line Control", and "Stop" are available in [Response Data Pattern].

- (2) The completion of the communications of one Notification data is recognized when Idle Time that was being specified in advance was detected after receiving of Notification data is started. After that, the acknowledgement data is transmitted in accordance with each pattern.

Choose [Idle Time] from [100ms], [200ms], [300ms], [400ms], or [500ms].

Or, you can determine the communications completion based on the specified communications data (string).

■ Precaution

- (1) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Simulation [OFF]

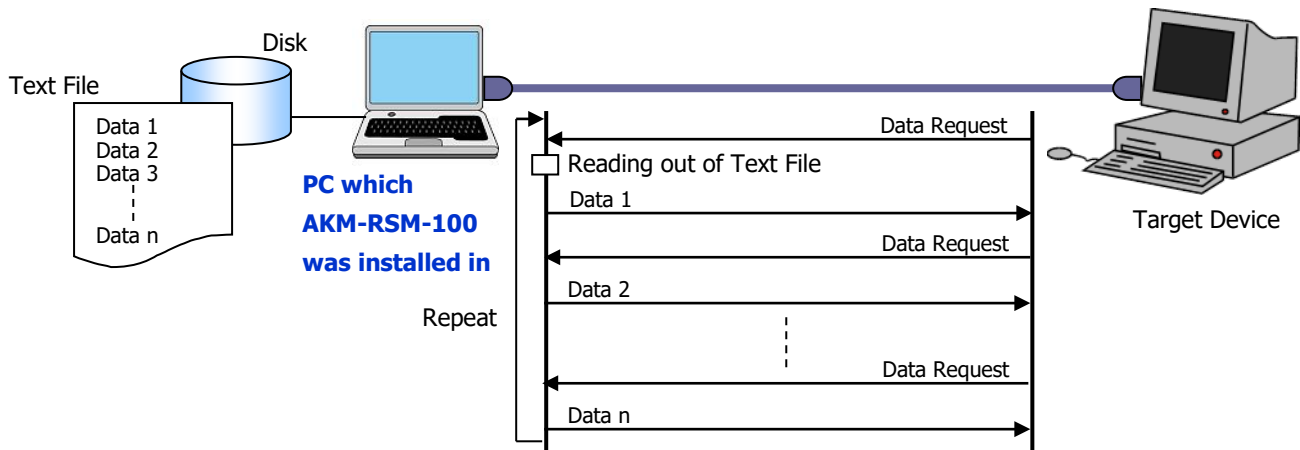
■ Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Detailed settings of the Simulation] box of [Details (Page1)] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (3) [Edit] - [Support of Debugging] - [Data Pattern of Simulation Function] of Menu bar.

Simulation (Circular Data File)

■ Outline

This function can send different response in the order described to the text file when the designated same event (such as the communications data and the signal line status change) was received by using "Text File which the multiple [Response Data Pattern] is described to" in the [Response Data Pattern] area on the AKM-RSM-100.



The "Text File which the multiple [Response Data Pattern] is described to" is called "Circular Data File".

■ Main Purposes

(1) In the system of divided communications data (such as the backup of the data), the simulation system which can be sent the different multiple response by receiving of the simple one type of request can be made.

■ Function Conditions

(1) The available format as the [Circular Data File Name] in the [Response Data Pattern] area is 3 kinds of following.

- [File Name (Full Path)]
- [File Name (Full Path)] <<<Encoding Type>>>
- [File Name (Full Path)] <<<Encoding Type>>> Default Response Pattern

Ex. C:\Simulation\Data\CircularDataFile001.txt <<<UTF-8>>> 45 52 52 4F 52 0D 0A

*Note: The Encode Type which is specified here is Encode Type of "Circular Data File".

[US-ASCII], [UTF-8], [UTF-16], and "Encoding Name" or "Code Page Number" is available.

(2) [Response Data Pattern] which can be described to the "Circular Data File" are maximum 1,000 patterns.

■ Precaution

- The [Circular Data File Name] can't be described on the "Circular Data File".
- This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

None

■ Related Settings

- [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- [Detailed settings of the Simulation] box of [Details (Page1)] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- [Edit] - [Support of Debugging] - [Data Pattern of Simulation Function] of Menu bar.

Simulation (Designation of Switching of Simulation Pattern)

■ Outline

By describing the other Simulation Pattern File Name in the [Response Data Pattern] area of the [Pattern of the Simulation], response is sent in accordance with the [Response Data Pattern] specified in advance, and in that time, "Simulation Pattern" can be changed to contents of the other Simulation Pattern File.

■ Main Purposes

(1) Even if there are multiple interfaces in the same channel, you will be able to actuate Simulation function easily if you were prepared for the multiple Simulation Patterns for each interface in advance.

For example, in the case of the channel with the command mode and the data backup mode, when the command of the "Change to the data backup mode" was received while actuated in the command mode, the Simulation Pattern will be changed to the data backup mode at once after sent the response of [OK].

Then, Simulation function will be continued by the data backup mode after it.

(2) The [Designation of Switching of Simulation Pattern] can be described to the [Response Data Pattern] on the Circular Data File also except for the description on the [Response Data Pattern] on the AKM-RSM-100.

Therefore, the system building will be able to done easily even if you want to the complicated Simulation actuation.

■ Function Conditions

(1) [Designation of Switching of Simulation Pattern] must be described at the end of line of the [Response Data Pattern].

(2) The format about [Designation of Switching of Simulation Pattern] is as follows.

/PTNCHG=[Simulation Pattern File Name (Full Path)]

Ex. 4F 4B 0D 0A /PTNCHG=C: \ Simulate Pattern \ Pattern001.sdp

*Note: The Simulation Pattern is changed to Pattern001.sdp after the response of "OK".

(3) Even if the [Response Data Pattern] area which Circular Data File Name is being designated to, the [Designation of Switching of Simulation Pattern] can be specified if the encoding type is being specified. In this case, [Designation of Switching of Simulation Pattern] is handled as a part of [Default Data Pattern] of the Circular Data File.

(4) The Simulation actuation is stopped when some error related to [Designation of Switching of Simulation Pattern] was detected at the runtime.

■ Precaution

(1) When Simulation Pattern is changed, all the index of the Circular Data File is reset.

(2) When the Simulation actuation was stopped, the [Simulation Pattern Data] on the AKM-RSM-100 will be returned to the first pattern data. However, exporting of first pattern data is recommended just in case.

(3) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

None

■ Related Settings

(1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)

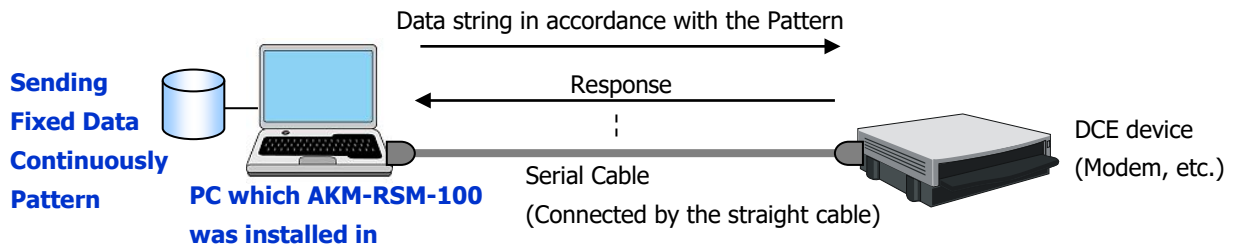
(2) [Detailed settings of the Simulation] box of [Details (Page1)] tab. (Click [Options] - [Support of Debugging] of Menu bar)

(3) [Edit] - [Support of Debugging] - [Data Pattern of Simulation Function] of Menu bar.

Sending Fixed Data Continuously (Actuate as DTE)

■ Outline

This function continues the transmission of the fixed data pattern in accordance with the Sending Fixed Data Continuously Pattern set up in advance to the DCE device.



■ Main Purpose

(1) Consecutive performance test and load test of the DCE device can be done without the actual DTE device if the interface specification between the DTE device and the DCE device is decided.

■ Function Conditions

- (1) The Sending Fixed Data Continuously Pattern can set up maximum 128 kinds by the following structure.
[Comment] (Max. 64 characters), [Fixed Data Pattern] (Max. 2,048 bytes) ("Designation of the BCC code" is available also.)
And, the actual communications data are made by combining patterns of maximum 128 kinds.
- (2) The Signal Line Control can be specified to the top and/or to the bottom of the one Fixed Data Continuously Pattern.
ER (DTR) ON, ER (DTR) OFF, RS (RTS) ON, RS (RTS) OFF, or these combinations is available.
- (3) The number of the consecutive transmission of the communications data in accordance with the Pattern can specify 1 ~ 1,000,000 times (or unlimited (Until it is stopped by the manual operation)).
- (4) The transmission pitch of each Sending Fixed Data Continuously Pattern is specified 0ms ~ 99,900ms by 100ms unit.
- (5) The waiting time to repeat the transmission of the communications data which Sending Fixed Data Continuously Pattern is being combined with is specified 0ms ~ 99,900ms by 100ms unit.

■ Precautions

- (1) Even if consecutive transmission is completed, the Line Monitor isn't stopped automatically. Stop by the manual operation.
- (2) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Sending Fixed Data Continuously [OFF]

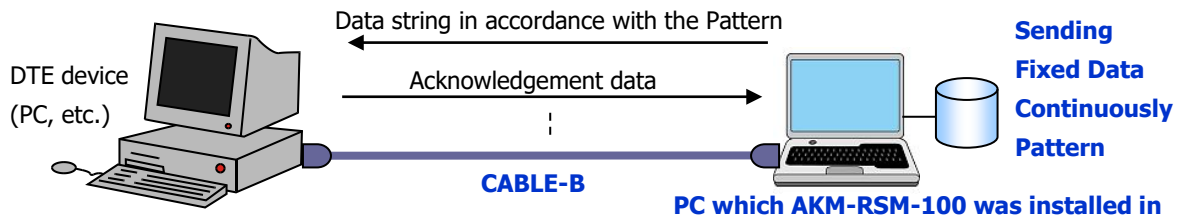
■ Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Detailed settings of Sending Fixed Data Continuously] box of [Details (Page2)] tab.
(Click [Options] - [Support of Debugging] of Menu bar)
- (3) [Edit] - [Support of Debugging] - [Data Pattern of Sending Fixed Data Continuously] of Menu bar

Sending Fixed Data Continuously (Actuate as DCE)

■ Outline

This function continues the transmission of the fixed data pattern in accordance with the Sending Fixed Data Continuously Pattern set up in advance to the DTE device.



■ Main Purpose

(1) Consecutive performance test and load test of the DTE device can be done without the actual DCE device if the interface specification between the DTE device and the DCE device is decided.

■ Function Conditions

(1) The Sending Fixed Data Continuously Pattern can set up maximum 128 kinds by the following structure.

[Comment] (Max. 64 characters), [Fixed Data Pattern] (Max. 2,048 bytes) ("Designation of the BCC code" is available also.)
And, the actual communications data are made by combining patterns of maximum 128 kinds.

(2) The Signal Line Control can be specified to the top and/or to the bottom of the one Fixed Data Continuously Pattern.
CS (CTS ON), CS (CTS OFF), DR (DSR ON), DR (DSR OFF), CD (DCD ON), CD (DCD OFF), or these combinations is available.

*Note: DR (Data Set Ready) and CD (Data Carrier Detect) become the same meaning at the reason of the connection of CABLE-B.

(3) The number of the consecutive transmission of the communications data in accordance with the Pattern can specify 1 ~ 1,000,000 times (or unlimited (Until it is stopped by the manual operation)).

(4) The transmission pitch of each Sending Fixed Data Continuously Pattern is specified 0ms ~ 99,900ms by 100ms unit.

(5) The waiting time to repeat the transmission of the communications data which Sending Fixed Data Continuously Pattern is being combined with is specified 0ms ~ 99,900ms by 100ms unit.

■ Precautions

(1) Even if consecutive transmission is completed, the Line Monitor isn't stopped automatically. Stop by the manual operation.

(2) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Sending Fixed Data Continuously [OFF]

■ Related Settings

(1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)

(2) [Detailed settings of Sending Fixed Data Continuously] box of [Details (Page2)] tab.

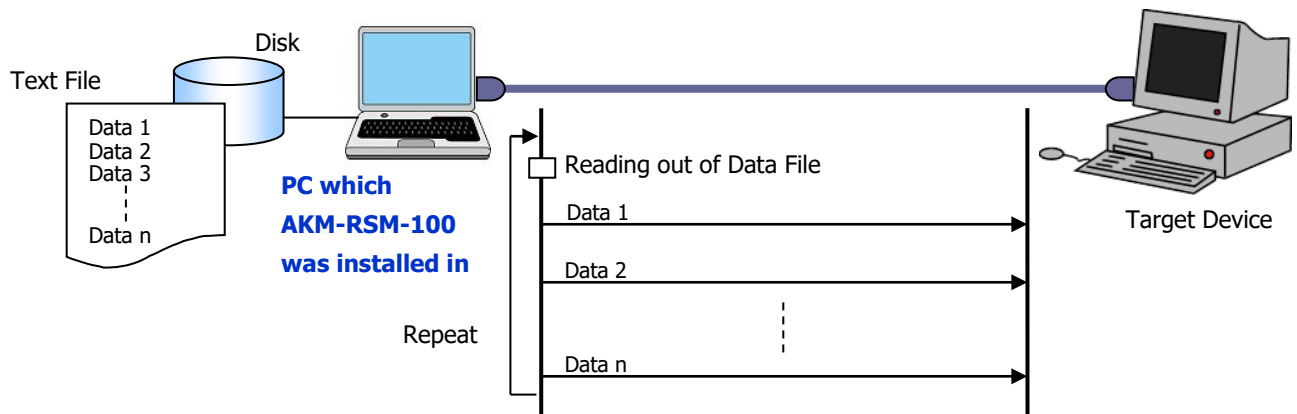
(Click [Options] - [Support of Debugging] of Menu bar)

(3) [Edit] - [Support of Debugging] - [Data Pattern of Sending Fixed Data Continuously] of Menu bar

Sending Fixed Data Continuously (Continuous Send Data File)

■ Outline

The number of the actual [Fixed Data Pattern] can be expanded by using "Text File which the multiple Fixed Data Pattern is described to" in the [Fixed Data Pattern] area on the AKM-RSM-100.



The "Text File which the multiple [Fixed Data Pattern] is described to" is called "Continuous Send Data File".

■ Main Purpose

(1) Use this function when the number of the [Fixed Data Pattern] is insufficient.

■ Function Conditions

(1) The available format as the [Continuous Send Data File Name] in the [Fixed Data Pattern] area is 3 kinds of following.

- [File Name (Full Path)]
- [File Name (Full Path)] <<<Encoding Type>>>
- [File Name (Full Path)] <<<Encoding Type>>> Default Response Pattern

Ex. C: \FixedData \Data \FixedDataFile002.txt <<<UTF-8>>> 45 52 52 4F 52 0D 0A

*Note: The Encode Type which is specified here is Encode Type of "Continuous Send Data File".

[US-ASCII], [UTF-8], [UTF-16], and "Encoding Name" or "Code Page Number" is available.

(2) [Fixed Data Pattern] which can be described to the "Continuous Send Data File" are maximum 1,000 patterns.

By specifying the [Continuous Send Data File Name] which has 1,000 patterns in all the [Fixed Data Pattern] areas on the AKM-RSM-100, the number of the actual [Fixed Data Pattern] will be able to be expanded to the maximum 128,000 patterns.

■ Precaution

- The [Continuous Send Data File Name] can't be described on the "Continuous Send Data File".
- This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

None

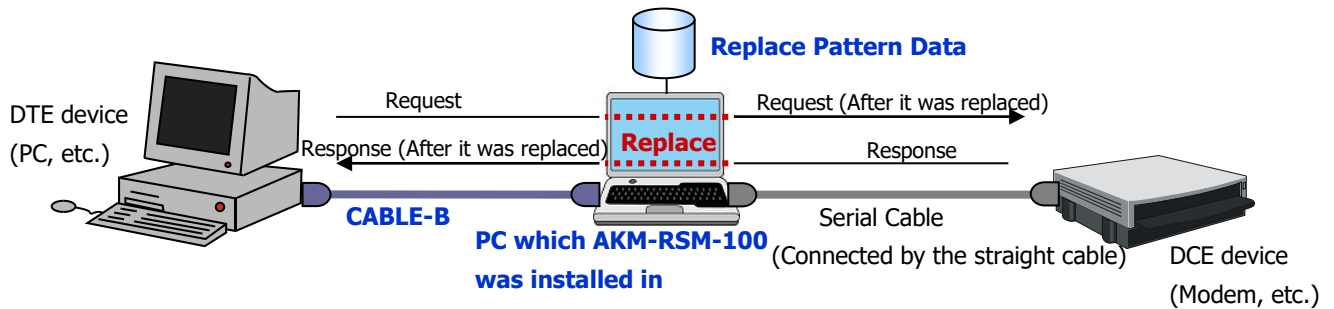
■ Rated Settings

- [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- [Detailed settings of Sending Fixed Data Continuously] box of [Details (Page2)] tab.
(Click [Options] - [Support of Debugging] of Menu bar)
- [Edit] - [Support of Debugging] - [Data Pattern of Sending Fixed Data Continuously] of Menu bar

Replace

Outline

The contents of Response from the DTE device to the DTE device and Request from the DTE device to the DCE device are replaced in accordance with the Replace Pattern set up in advance, and it is relayed.



Main Purposes

- (1) Behavior of the receiving process of the illegal data during the communications sequence of the DTE device side and the DCE device side is confirmed by replacing the communications data to illegal data intentionally.
- (2) When the interface specification different between the DTE device and the DCE device by reason that the version is different between the DTE device and the DCE device and so on, Use this function for the tentative communications.

Function Conditions

- (1) The Replace Pattern can set up maximum 128 kinds by the following structure.
 [Comment] (Max. 64 characters), [Direction] ([DTE -> DCE], [DCE -> DTE], or [Both]), [Communications Data] (Max. 2,048 bytes), [Action] ([Replace] or [Abandon]), [Replace Data Pattern] (Max. 2,048 bytes)
 And, maximum 5 kinds can be set up as the replacing object.
 Negation and Wildcard are available in [Communications Data]. And, Reference of the received data and setting of the BCC code is available in [Replace Data Pattern].
- (2) The completion of the communications of one Request (or one Response) is recognized when Idle Time that was being specified in advance was detected after receiving of Request (or Response) is started.
 Choose [Idle Time] from [100ms], [200ms], [300ms], [400ms], or [500ms].
 Or, you can determine the communications completion based on the specified communications data (string).

Precautions

- (1) When the communications data becomes the replacing object of other Replace Pattern after the communications data was replaced by the one Replace Pattern, the Replace by other Replace Pattern isn't done.
 Ex. Setting of Replace Pattern 1: "41 41 41" (Hex.) is replaced to "42 42" (Hex.).
 Setting of Replace Pattern 2: "42 42 42" (Hex.) is replaced to "43 43 43" (Hex.).
 In the above condition, when the data string "41 41 41 42" (Hex.) was communicated;
 41 41 41 42 (Original communications data string)
 ↳ 42 42 42 (After it was replaced by Replace Pattern 1.)
 ↳ X → 43 43 43 (This replacing is not done.)
- (2) The priority order of the replacing is the order of the Replace Pattern number.
- (3) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

Default Setting

Replace [OFF]

Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Detailed settings of the Replace] box of [Details (Page2)] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (3) [Edit] - [Support of Debugging] - [Data Pattern of Replace Function] of Menu bar.

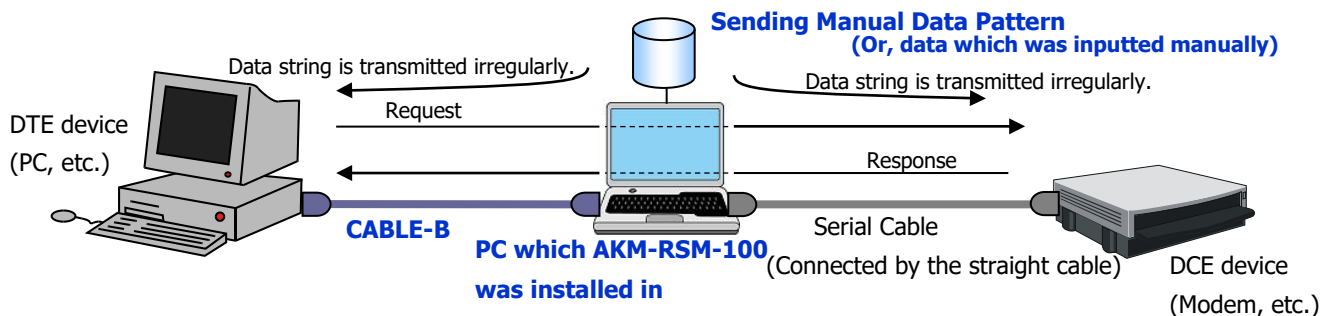
Sending Manual Data (Manual Operation)

■ Outline

When communications between the DTE device and the DCE device is being relayed, this function transmits designated data string irregularly by the manual operation to the DTE device or the DCE device.

There are two methods in the transmission.

- (1) Data is prepared for in advance as the pattern. (2) Data is made when data is transmitted.



■ Main Purposes

- (1) By transmitting suitable data string to both devices during the communications between the DTE device and the DCE device, actuation when the illegal data was received is confirmed of the DTE device and the DCE device.
- (2) When the interface specification different between the DTE device and the DCE device by reason that the version is different between the DTE device and the DCE device and so on, Use this function for the tentative communications. **BCC code is available in the transmission data string of the hexadecimal system. (BCC code is not available in the transmission data string of the character.)**

■ Function Conditions

- (1) The Sending Manual Data Pattern can set up maximum 128 kinds by the following structure.
 [Comment] (Max. 64 characters), [Sending Data Pattern] (Max. 2,048 bytes) ("Designation of the BCC code" is available also.)
 Choose the [Sending Manual Data Pattern] set up in advance at the time of the actual transmission, and transmit it.
- (2) Transmission data string to create every time is the data string of the maximum 2,048 bytes.
- (3) By specifying file name, sending the contents of the file is available.

■ Precautions

- (1) Because this function transmits data which is trying to cut in to the communications between the DTE device and the DCE device, there is the case that the data string isn't transmitted by the timing of the other data string and the relay conditions of the communications.
 In this case, error message will be displayed. After that, do transmission operation again.
- (2) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Sending Manual Data [OFF]

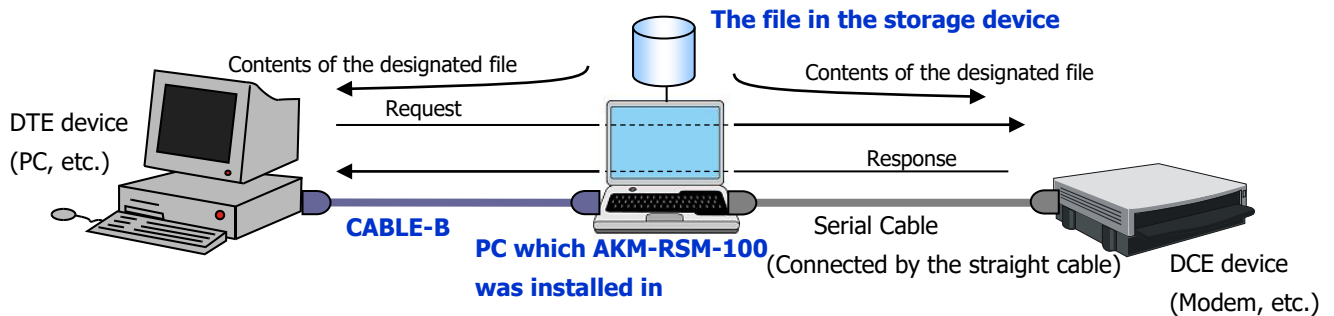
■ Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Edit] - [Support of Debugging] - [Data Pattern of Sending Manual Data] of Menu bar.

Sending Manual Data (File Sending)

■ Outline

When communications between the DTE device and the DCE device is being relayed, this function transmits contents of the designated file to the DTE device or the DCE device.



■ Main Purposes

(1) A file can be forwarded to the DTE device or the DCE device.

■ Function Conditions

- (1) All files are transmitted as the binary data.
- (2) Each different file at the same time can be sent to the DTE device and the DCE device.
- (3) During send of the file, [Pause] operation and [Cancel] operation is available.

■ Precautions

- (1) Because this function transmits data which is trying to cut in to the communications between the DTE device and the DCE device, there is the case that the data string isn't transmitted by the timing of the other data string and the relay conditions of the communications.
In this case, error message will be displayed. After that, do transmission operation again.
- (2) During send of the file, [Manual Operation] is not available.
- (3) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Sending Manual Data [OFF]

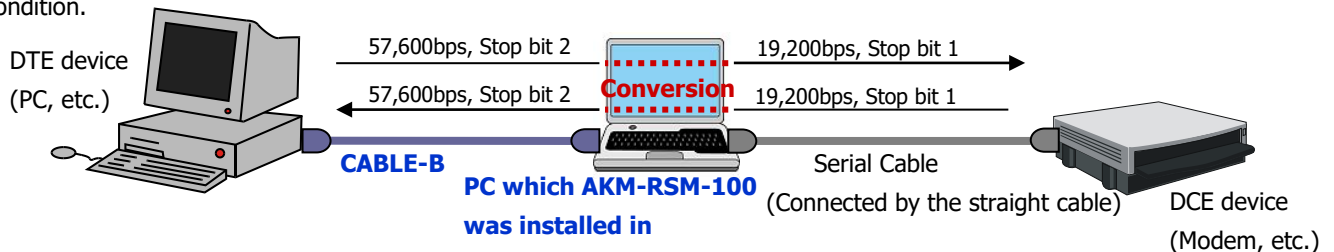
■ Related Settings

- (1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
- (2) [Edit] - [Support of Debugging] - [Data Pattern of Sending Manual Data] of Menu bar.

Speed Conversion

■ Outline

This function relays communications between the DTE device and the DCE device on the different communications condition.



■ Main Purpose

(1) For example, the following configuration; The DCE device is dedicated device (software) and the DTE device is the dumb terminal device (software).

In the above configuration example, when the specification of the communication speed between the DCE device and the DTE device isn't matched, or when the dedicated device on the DCE side requires communications by the speed which isn't being supported with the dumb terminal device (software) on the DTE side, the communications between the DTE device and the DCE device can do by conversion and relay of AKM-RSM-100.

■ Function Condition

(1) The following 4 kinds of communications conditions can convert it.
(a) Speed, (b) Data bits, (c) Parity, (d) Stop bits

■ Precautions

(1) When communications data between the DTE device and the DCE device are flowing in the disorder, and/or when the one communications data is very long data string in the communications sequence between the DTE device and the DCE device, the AKM-RSM-100 sometimes displays Error Message about the Overflow of the internal buffer because the difference in the communications condition can't be absorbed by the internal process any more.

This function is suitable for the communications that communications between the DTE device and the DCE device are flowing sequential. Then, the data length of the communications should be restrained in about several KB (1 KB, 2 KB, and so on).

(2) When "Data bits" is converted, the condition of the communications data which is relayed properly is that it is being composed by the substantial 7 bits data (such as ASCII code).

(Use this function after confirming the specification of the DTE device and the DCE device well.)

Ex. When Data bits of the DTE device side is being set to 8bits, and when Data bits of the DCE device side is being set to 7bits, the hexadecimal data string "7F 7F" is transmitted from AKM-RSM-100 to the DCE device by conversion function when the hexadecimal data string "FF FF" was received from the DTE device.

(3) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

Speed Conversion [OFF]

■ Related Settings

(1) [Support of Debugging == Function Selection ==] tab. (Click [Options] - [Support of Debugging] of Menu bar)
(2) [Communications Condition (Speed setting)] panel and [Communications Condition (except for Speed setting)] panel on the Main Form.

Interim Report of Current Monitor

■ Outline

While the Line Monitor (or the Support of Debugging) is being executed, Interim Report of Current Monitor can be displayed on the other AKM-RSM-100 screen.

■ Main Purposes

- (1) The present condition of the monitor result can do verification without stopping the Line Monitor and the Support of Debugging function.
- (2) Start this function in the timing when you want to confirm the monitor result. New screen of the AKM-RSM-100 is opened. Then, the present condition of monitor result is displayed. Therefore, you will be able to do the verification of the conditions timely. Then, you will be able to do time savings for the development, the testing, the debugging, and the solution of the trouble.

■ Function Condition

- (1) This function is available only in the **Monitoring** status.
- (2) When the present condition is being displayed, the following operation is available also.
 - Save of the Monitor Result (Only the Memory Recording origin)
 - Search of the Communications Data
 - Search of the Signal Line Status change, Line Error, Trigger Condition, and so on
 - Each Export functions
 - Replay function
 - Display of Sequence

*Note: All the available operation in the **Displaying File Contents** status.

■ Precaution

- (1) The multiple Display of the AKM-RSM-100 can be actuated for the Interim Report. But, because the memory resource of PC (Windows) is used corresponding to the number of the actuated AKM-RSM-100, be careful about too much actuation of this function.
- (2) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

None

■ Related Setting

- (1) [Tools] - [Interim Report of Current Monitor] of Menu bar.

Setting (change) of the Display Character

■ Outline

The kind of the character displayed in [Monitor and Reference Display] can be edited.

■ Main Purposes

- (1) Mainly, Change the Default Setting of the control code of the [CHR.] and the ASCII].
- (2) Make the display character set of the new coding scheme (e.g., EBCDIC).
- (3) Change the display mark of each Event except for the character of the communications data.

■ Function Conditions

- (1) Each character set of 7 bits and of 8 bits can be changed.
- (2) The display mark of the Events which the setting (change) is possible for is the following.
 - (a) Start, Stop
 - (b) Idle Time, Overflow mark of Idle Time
 - (c) Title of Signal Line Status change
 - (d) Mark of the Matched Trigger Condition for the communications data string
 - (e) Title of Line Error, Parity Error mark, Framing Error mark, Break Signal mark

■ Precaution

- (1) Set up the display character by the maximum 2 characters in the half-size font character.

■ Default Settings

7 bits characters (Display Title: [ASCII])

	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	nl	sh	sx	ex	et	eq	ak	bl	bs	ht	lf	vt	ff	cr	so	si
10	d1	d1	d2	d3	d4	nk	sy	eb	cn	em	sb	ec	fs	gs	rs	us
20	!	"	#	\$	%	&	'	()	*	+	,	-	.	/	
30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	P	Q	R	S	T	U	V	W	X	Y	Z	[¥]	~	_
60	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	p	q	r	s	t	u	v	w	x	y	z	{		}	~	de

8 bits characters (Display Title: [CHR.])

	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	nl	sh	sx	ex	et	eq	ak	bl	bs	ht	lf	vt	ff	cr	so	si
10	d1	d1	d2	d3	d4	nk	sy	eb	cn	em	sb	ec	fs	gs	rs	us
20	!	"	#	\$	%	&	'	()	*	+	,	-	.	/	
30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	P	Q	R	S	T	U	V	W	X	Y	Z	[¥]	~	_
60	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	p	q	r	s	t	u	v	w	x	y	z	{		}	~	de
80	80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F
90	90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
A0	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF
B0	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF
C0	C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF
D0	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF
E0	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF
F0	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF

Start: [->]

Stop: [<-]

Idle Time: [ID], Overflow mark of Idle Time: [ov]

Title of Signal Line Status change: [SG]

Mark of the Matched Trigger Condition for the communications data string: [TR]

Title of Line Error: [ER], Parity Error mark] [pt], Framing Error mark: [fr],

Break Signal mark: [bk], Clear Break mark: [cb]

■ Related Setting

- (1) [Edit] - [Setting of the Display Character of Line Monitor] of Menu bar.

Setting (change) of the Character Color and the Background Color

■ Outline

Each part of the Main Form of AKM-RSM-100 can be changed.

■ Main Purpose

(1) When color setting of the Default is hard to see, or when the color of the screen is intuitively hard to understand, or when you want to change the tired mood by debugging, customize AKM-RSM-100 in your favorite color, and use it.

■ Function Conditions

(1) The background color of the following items which composes the appearance of the Main Form can be changed.

- (a) Main Form, (b) Menu bar, (c) Tool bar, (d) Status bar, (e) [Signal Line Status] panel,
- (f) [Display Switch] panel, (g) [Connection Type] panel, (h) [Monitor Condition] panel,
- (i) [Communications Condition (Speed setting)] panel,
- (j) [Communications Condition (except for Speed setting)] panel,
- (k) [Main Control] panel, (l) Buttons on the [Main Control] panel,
- (m) Buttons on the [Main Control] panel (When active), (n) Event count ribbon,
- (o) The even-numbered line of [Monitor and Reference Display],
- (p) The odd line of [Monitor and Reference Display], (q) Memo1 panel and Memo2 panel

(2) The color of the following items of [Monitor and Reference Display] can be changed.

- (a) Character of received data from Port 1 (DTE side), (b) Character of received data from Port 2 (DCE side),
- (c) Character of Event count, (d) Character and background of Start mark and of Stop mark,
- (e) Character and background of Idle Time mark, (f) Character and background of Signal Line Status change,
- (g) Character and background of Line Error, (h) Character and background of Matched Trigger (for Data),
- (i) Character and background of Matched Trigger (for Signal Line Status),
- (j) Character of communications data about Support of Debugging for the Port 1 (DTE side),
- (k) Character of communications data about Support of Debugging for the Port 2 (DCE side),
- (l) Character and background of the Signal Line Status change about Support of Debugging,
- (m) Character and background of un-match data display in Replay function,
- (n) Character and background of Matched Error Stop condition

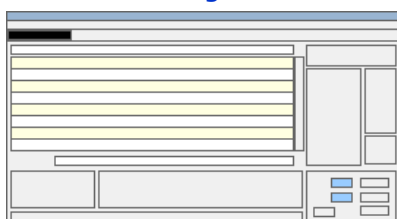
(3) The color of the following other items can be changed.

- (a) Character and background of Monitor Status, (b) Signal Line lamp [ON] (SD (TXD) and RD (RXD)),
- (c) Signal Line lamp [ON] (Except for SD (TXD) and RD (RXD)), (d) Signal Line lamp [OFF]

■ Precaution

(1) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Settings



Overview of Main Form

Monitor and Reference Display]

```

00000000 SD: -> ID 00 01 SG 02 03 ER
RD: -> 27 10 11 1B pt
00000020 SD: 04 05 1B 06 07 08 09 SG 0A
RD: 1B 12 13 1A
00000040 SD: 30 31 32 33 34 SG
RD: 1F 41 42 43 44
00000060 SD: ER 31 32 33
RD: 34 35 36 37 <
  
```

Monitor Status

```

No Data and Disconne
Displaying Monitor Re
No Data and Connecte
Displaying Monitor Re
Monitoring
  
```

Signal Line lamp

```

SD ●
RD ●
RS ●
CS ●
  
```

■ Related Setting

(1) [Edit] - [Setting of the Character Color and the Background Color] of Menu bar.

Return to the Default Setting

■ Outline

This function returns each setting of AKM-RSM-100 to the Default setting (The condition that the User ID is being registered after AKM-RSM-100 was installed).

■ Main Purpose

(1) When you hope to return to Default about a part of settings or about all of settings, use this function.

■ Function Condition

(1) Choose the item that is returned to the default from the following items.

The multiple selections of the items are available.

- (a) Various Option Data, Communications Conditions, Monitor Conditions, Character settings, and so on
- (b) Character Color and Background Color
- (c) Various Pattern Data
- (d) Monitor result data to be saved which is for re-display of next time
- (e) Add-on management Data
- (f) Others

If you return AKM-RSM-100 to the complete default condition, choose all items, and execute this function.

■ Precaution

(1) Be careful because this function does not have undo function.

■ Default Setting

None

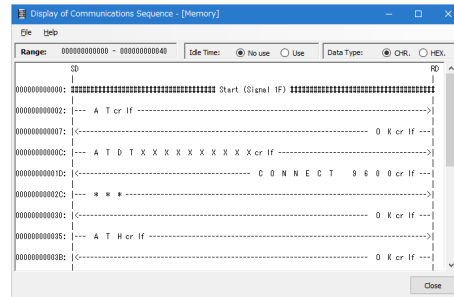
■ Related Setting

(1) [Options] - [Return to the Default Setting] of Menu bar.

Display of Sequence

Outline

The Sequence Chart of the Monitor Result data which is being displayed to [Monitor and Reference Display] is displayed by using this tool.



Screen image

Main Purpose

- (1) The flow of the communications between the DTE device and the DCE device is confirmed visually by this Sequence Chart.

Function Condition

- (1) When the Display of Sequence was actuated from the menu of AKM-RSM-100, the following items are taken over from AKM-RSM-100.
 - (a) The first data display position in the Sequence Chart.
 - (b) The first setting of [Data Type]. (This is based on the setting of [Display Switch] of AKM-RSM-100. ([CHR.] and [HEX.] only. [ASCII] is not used.)
 - (c) Date format
 - (d) Signal format

Precautions

- (1) The multiple Display of Sequence tool can be actuated from AKM-RSM-100. But, because the memory resource of PC (Windows) is used corresponding to the number of actuated tools, be careful about too much actuation of this tool.
- (2) When the Sequence Chart is made by using the monitor result, the maximum length of 1 communications data is restricted to about 10 KB (10,240 bytes) for the resource protection of the Display of Sequence tool. Thus, the several start lines of the Sequence Chart which is being displayed and the several end lines of the Sequence Chart which is being displayed, sometimes becomes uncertain contents. When the Sequence Chart of the Monitor Result file (or Recording Memory) which records the communications data that 1 communications data exceed 10 KB (10,240 bytes) is displayed, be careful to the condition that the beginning of several lines and the end of several lines may be not accurate contents.
- (3) The detailed contents of the Display of Sequence aren't described in this manual. Refer to the following "Related Setting" to refer to the detailed contents of the Display of Sequence. Then, start this tool actually. And then, refer to the "Serial Port Monitor and Analyzer (Model: AKM-RSM-100) "Display of Sequence" Manual" displayed by click on [Help] - [Help] of the menu bar of the Display of Sequence.
- (4) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

Default Setting

None

Related Setting

- (1) [Tools] - [Display of Sequence] of Menu bar.

Professional only

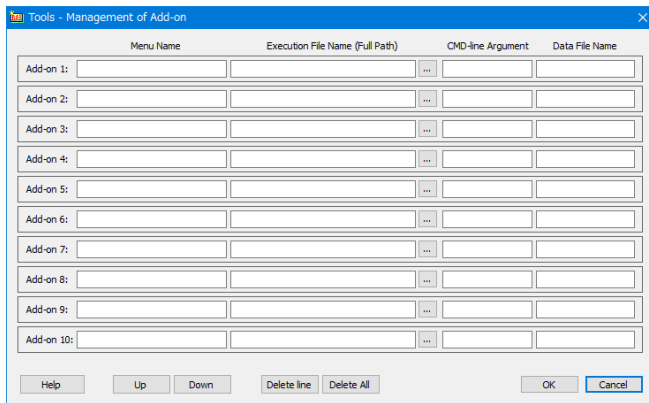
Management of Add-on

■ Outline

There is the function that actuates optional programs registered in advance by the user's operation from Menu bar in AKM-RSM-100. This function is called the [Add-on function](#).

And, the optional programs registered in advance by the user's operation are called the [Add-on program](#).

Management of Add-on is the function which manages an add-on program.



Screen image

The Add-on function can actuate the Add-on program after the various information of AKM-RSM-100 is outputted to the data file of the file name registered in advance by the user's operation.

■ Main Purposes

- (1) The user can develop the more detailed dedicated analysis program corresponding to each user's proprietary interface by using the Monitor Result of AKM-RSM-100.
- (2) By assigning the document to refer to frequently, URL, and so on, this function is available as the program launcher.

■ Function Condition

- (1) The maximum registration number of the add-on programs is 10 kinds.

■ Precaution

- (1) The detailed contents of the Management of Add-on aren't described in this manual.
Refer to the following "Related Setting" to refer to the detailed contents of the Management of Add-on. Then, start the Management of Add-on actually. And then, refer to the "Serial Port Monitor and Analyzer (Model: AKM-RSM-100) "Management of Add-on" Manual" displayed by click on [Help] button of the Management of Add-on.
- (2) This function is available in Professional Edition only. (Not available in Basic Edition and Standard Edition)

■ Default Setting

None

■ Related Setting

- (1) [Tools] - [Management of Add-on] of Menu bar.