
Multi LABELIST Component Reference Manual

SATO Corporation

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Introduction

Thank you for using the Multi LABELIST Component (hereinafter referred to as MLComponent). MLComponent is a .NET component developed to add label/tag issuance functionality to your applications by utilizing the assets of our general-purpose label/tag issuance software, Multi LABELIST V6 (hereinafter referred to as MLV6).

To enable you to build a highly flexible label/tag issuance system based on layout files created in MLV6, we have omitted some of MLV6's features. However, the component supports output devices such as USB, LAN, COM (serial port), and our printer drivers, and is designed to be compatible with various output devices. It also supports status monitoring functionality, allowing you to check the current status of the printer.

This manual explains the properties and methods of MLComponent.

For usage methods specific to applications, please refer to the **"MLComponent Technical Manual,"**

and for first-time users of ML products, please refer to the **"MLComponent Practice Manual."**

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Target Version

This document is intended for the following software and versions.

Please note that the available features and content may vary depending on the version you are using.

Multi LABELIST Component Ver.6.2.2.0 or later

Table

Introduction.....	2
Important.....	2
Applicable Versions.....	2
Chapter 1 Product Information	6
1-1. Required Hardware and Software	7
■Hardware.....	7
■Software.....	7
■Layout Files.....	7
■Supported Printers.....	7
1-2. MLComponent Function List	8
■List of properties	8
■Method List	9
Chapter 2 Properties.....	10
2-1. [Communication] Setting	11
2-2. [Communication] Protocol.....	14
2-3. [Communication] Timeout.....	16
2-4. [Communication] StatusID.....	18
2-5. [Communication] Job Name	19
2-6.[Basic]LayoutFile	20
2-7.[Basic]PrnData.....	21
2-8.[Basic]PrnDataType.....	23
2-9.[Operation] Darkness	24
2-10.[Operation]Speed.....	26
2-11.[Behavior]Offset.....	28
2-12.[Operation]MultiCut.....	29
2-13.[Operation] SortMark.....	31
2-14.[Operation]EjectCut	32
2-15.[Operation] Header Tail Setting.....	33
2-16.[Operation] Header File.....	35
2-17.[Operation] TailFile	36
2-18.[Special] Formoverlay.....	37
2-19.[Special]LayoutNameCaption.....	39
2-20.[Special]Total Quantity Caption	40
2-21.[Special] TaxRate	41
2-22.[Information]Version	43
Chapter 3 Methods and Exceptions	44
3-1.[Communication]OpenPort.....	45

3-2.[Communication] ClosePort	47
3-3.[Output]Output	48
3-4.[Output] OutputHeader	50
3-5. [Output] OutputTail	52
3-6. [Output] SendStringData	54
3-7.[Output]SendRawData	57
3-8. [Output] GetStatus.....	60
3-9. [Control] Cut.....	61
3-10. [Control] SendCancel.....	63
3-11. [Information] GetPrinter	65
3-12. [Data] GetInputFields	66
3-13.[Data]SetPrnDataField.....	69
3-14.[Data]GetPrnDataArray	71
3-15.[Data]SetPrnDataArray.....	72
3-16.[Device]EnumerateBluetoothDevices	74
3-17.[Device]AuthenticateBluetoothDevice.....	76
3-18.[Exception] MLComponentException class	78
3-19.[Error] Communication Error	80
3-20.[Error] Issuance Error	82
■About Exception Errors	89
■Minimum/Maximum Digit Count for RFID Objects.....	90
■About the digit unit of RFID objects (UHF)	90
Chapter 4 Usage and Precautions.....	91
4-1. Programming.....	92
■About Version Upgrades	92
■When issuing multiple labels with the same data.....	92
■Regarding cutting operations.....	92
■Using ASP.NET	92
■Delay upon initial startup or when loading layout files.....	92
■High DPI settings.....	93
■Memory usage (layout distortion)	93
■Use of multithreading	93
■Exceptions in Visual Studio.....	93
■Printer sleep mode.....	94
■Full-width spaces in Windows fonts (WPF) vary depending on the .NET Framework version	94
■About the use of Windows fonts (WPF)	94
4-2. About interfaces.....	95
■LAN	95
■USB	95

■COM	99
■Bluetooth	99
■Printer Driver	99
4-3. About layout information	101
■Input Definitions	101
■Windows Fonts	101
■Graphic Objects	101
■Fixed Objects (Improved Output Speed)	101
■Sequential Variables	101
■Multi-faceted labels	102
Chapter 5 Appendix	103
5-1. Supported Printers	104
■ Theta Series	104
■Respri Series	104
■ScanTronics Series	104
■SATOC Series, Evi Series, Bartronics Series, FLEQV	105
■Lapin Series	106
■Tough Arm Series	106
■Overseas Printers	107
5-2. Status List	109
■Status Strings	109
■Status List (Status 3, Status 4)	109
■Status List (Respri V Series, PW208NX/PW208 Series, PW4NX Additional)	110
■Status List (Status L Additional)	111
■Status List (PT408e, PT412e, PT200m/e/j Status 3)	111
■Status List Send/Receive Status and Recovery Status	112
■Printer Error Resolution Methods	112

Chapter 1

Product Information

1-1**Required Hardware and Software**

■Hardware ■Software

The following hardware and software are required to use MLComponent.

■Hardware

An environment running the following supported operating systems

Hard disk with 5MB or more of free space

[Our label printer](#)

■Software

Supported operating systems ^{*1}	Windows 11, Windows 10 Windows Server 2022, Windows Server 2019, Windows Server 2016
Operating environment ^{*2}	.NET Framework 4.8
Confirmed to work	Visual Studio 2022 (Visual Basic, C#), Visual Studio 2019 (Visual Basic, C#) Excel VBA, Access VBA
Development Tools	

^{*1} Runs on both 32-bit and 64-bit systems.

^{*2} We recommend using versions supported by Microsoft.

<https://docs.microsoft.com/ja-JP/lifecycle/faq/dotnet-framework>

■Layout file

A separate MLV6 is required to create and edit layout files used for label printing.

Layout files created with MLV5 can also be used.

■Supported Printers

Follow the MLV6 compatible printer list.

1-2**MLComponent Feature List**

■ Properties ■ Methods

This section lists the properties, methods, and exceptions available in MLComponent.

■ Property List

Property Name	Description	Default
Communication settings		
Setting	Communication parameter settings	LAN:127.0.0.1
Protocol	Communication Protocol Settings	0 (Status 3)
Timeout	Communication timeout value settings	3
Status ID	Status ID setting	0
JobName	Job name setting	"" (empty string)
Basic Settings		
LayoutFile	Layout file settings	Default.mllayx
PrnData	Print data settings	"" (empty string)
PrnDataType	Print data type settings	Tsv
Printer operation settings		
Darkness	Print density settings	S (Layout dependent)
Speed	Print speed setting	S (Layout dependent)
Offset	Setting the print correction value	0.0000,0.0000
MultiCut	Cut specification settings	0 (Do not cut)
SortMark	Sort mark printing settings	False (Do not print)
EjectCut	Eject cut settings	False (Do not cut)
HeaderTailSetting	Header/Tail Label Settings	False (Do not print)
HeaderFile	Header tag acquisition	"" (empty string)
TailFile	Get tail tag	"" (empty string)
Special settings		
Formoverlay	Form overlay settings	0 (Do not use)
LayoutNameCaption	Layout Name settings	"" (empty string)
TotalQtyCaption	Set "Total Number of Copies"	0
TaxRate	Tax rate setting	"" (empty string)
Version information		
Version	Obtaining version	—

	information	
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■Method List

Method Name	Description
Communication	
OpenPort	Opens a communication port
ClosePort	Close communication port
Issue	
Output	Label issuance
OutputHeader	Header tag issuance
OutputTail	Tail label issuance
SendStringData	Send printer command (specify end condition)
SendRawData	Send printer command (binary) (specify end condition)
Printer control	
GetStatus	Check printer status
Cut	Cut printing
SendCancel	Cancel printing
Get layout information	
GetPrinter	Get printer information
Specify print data	
GetInputFields	Acquiring input information
SetPrnDataField	Set print data for input items
GetPrnDataArray	Retrieving multiple data
SetPrnDataArray	Set multiple data
Device control	
Enumerate Bluetooth Devices	Execute device search
Authenticate Bluetooth Device	Execute device authentication

Chapter 2

Properties

2

[Communication] Setting property

Sets and retrieves communication parameters.

■Format

MLComponent.Setting [As String](#)

■Setting value

Output	Setting	
	Description	
Default	LAN:127.0.0.1	
LAN-connected printer	LAN:aaa.aaa.aaa.aaa[,Port1][,Port2]	
	aaa.aaa.aaa.aaa	IP address
	[,Port1]	Port number 1 [optional]
	[,Port2]	Port number 2 [optional]
USB-connected printer	USB:[SerialNumber]	
	[Serial Number]	Serial No. [optional]
RS-232C connection printer	COMnnn:bbbbbb,p,d,s	
	nnn	Port number (1 to 256)
	bbbbbb	Baud rate (4800 to 115200)
	p	Parity bit (n: none, e: even, o: odd)
	d	Data bits (7, 8)
	s	Stop bit (1, 1.5, 2)
Bluetooth-connected printer	BT:BDAddress	
	BDAddress	BD address (12-digit hexadecimal number)
Printer driver	DRV:Drivername	
	Drivername	Printer driver name
File	FILE:Filename,m	
	Filename	File name
	m	Output mode (0: overwrite, 1: append)

■Explanation

- [For usage instructions for each interface, refer to the Usage Instructions and Precautions.](#)
- Do not switch between interface output (LAN, USB, COM, Bluetooth) and printer driver output when connecting to a single printer. Doing so may result in a double connection

and cause an error.

- When specifying a LAN, normally specify "1024" or "9100" for the port number.
Example: `MLComponent.Setting = "LAN:192.168.1.1,1024"`
Example: `MLComponent.Setting = "LAN:192.168.1.1,9100"`

When the Protocol property is set to "Status3," a single-port connection is established using the specified port number.

If the port number is omitted, port 1024 is used.

When the Protocol property is set to "Status4," a single-port connection or a dual-port connection using the specified port number is established.

When "1024" is specified, a two-port connection using ports 1024 and 1025 are established.

When "9100" is specified, a single-port connection using port 9100 is established.

If the port number is omitted, a two-port connection using ports 1024 and 1025 will be established.

If the printer's TCP port number has been changed to a number other than "1024" or "9100," adjust the settings to match the printer's configuration.

- When specifying USB, select "USB:" if connecting one device.
If connecting and using two or more devices, specify "USB: (Serial No.)".
For instructions on how to confirm [the \[Serial No.\]](#), please refer to the "Usage Instructions and Precautions."

■Exception

Exception	Description
InvalidOperationException	Condition: Changing properties while the port is open The communication parameter cannot be changed when the port is opened.

■Example

When the communication settings for COM port 1 are 9600,n,8,1

```
MLComponent.Setting = "COM1:9600,n,8,1"
```

For IP address 192.168.1.1 and port number 1024

```
MLComponent.Setting = "LAN:192.168.1.1,1024"
```

For printer driver name "SATO CL4NX-J 305dpi"

```
MLComponent.Setting = "DRV:SATO CL4NX-J 305dpi"
```

When outputting to the file "C:¥My Documents¥Printout.prn" in overwritten mode

```
MLComponent.Setting = "FILE:C:¥My Documents¥Printout.prn,0"
```

For USB

```
MLComponent.Setting = "USB:"
```

For Bluetooth

```
MLComponent.Setting = " BT:000b5d3db4c2"
```

■Related items

Properties [Protocol](#), [Timeout](#)

Method [OpenPort](#), [Output](#), [GetStatus](#), [SendStringData](#), [SendRawData](#),
[EnumerateBluetoothDevices](#)

■Support Information

Notes [About the Interface](#)

Appendix [How to configure the communication protocol settings on the printer itself](#)

2-2**[Communication] Protocol property**

Sets and gets the communication protocol.

■FormatMLComponent.Protocol [As Integer](#) / [SATO.MLComponent.Protocols](#)**■Setting**

<i>Protocol</i>	Description
0 - Protocols.Status3 (default value)	Status 3 Status L (LR only)
1 - Protocols.Status4	Status 4

■Explanation

- Set according to the communication protocol settings of the printer itself.
- Changing this setting after the OpenPort method succeeds (while the communication port is open) will cause an exception.
- This does not support communication protocol status 5.
- Use this when the Setting property is set to LAN, USB, COM, or BT (Bluetooth). Not used with DRV (printer driver) or FILE.
- When the Setting property is USB, specify "1 - Protocols.Status4".
If anything other than "1 - Protocols.Status4" is specified, an error 12 will occur in the OpenPort method.

■Exception

Exception	Description
InvalidOperationException	Condition: Property changed while port is open The value of the Protocol property cannot be changed when the port is open.
ArgumentOutOfRangeException	Condition: Out-of-range setting value The value of the Protocol property is invalid.

■ Example

Set status to 4.

```
MLComponent.Protocol = 1
```

Get the current communication protocol.

```
Protocol = MLComponent.Protocol
```

■Related

Properties [Setting, Timeout](#)

Method [OpenPort](#), Output , GetStatus , Cut , SendCancel , SendStringData ,
[SendRawData](#)

■Support Information

Notes [About the Interface](#)

Appendix [How to set the communication protocol for the printer itself](#)

2-3**[Communication] Timeout property**

Sets and retrieves the communication timeout value.

■FormatMLComponent.Timeout *As Integer***■Set**

<i>Timeout</i>	Description
3	Initial
Any value	Specifies the communication timeout duration in seconds (1–60) for connection, transmission, and reception.

■Explanation

- Used when the Setting property is LAN, USB, COM, or BT (Bluetooth).
Not used for DRV (printer driver) or FILE.
- Changing this setting after the OpenPort method succeeds (while the communication port is open) will cause an exception.
- The timeout is applied to the following methods.

Method	Description
OpenPort	If the Setting property is set to LAN or Bluetooth and no connection destination is found, a port open error occurs.
Output	If the Protocol property is set to status 3 and no ACK/NAK response is received from the printer, a receive timeout occurs.
GetStatus	A receive timeout occurs when there is no status response from the printer.
Cut	Receive timeout occurs when there is no ACK/NAK response from the printer.
SendCancel	
SendStringData	If the specified termination condition in the method is not met, a receive timeout occurs.
SendRawData	

■Exceptions

Exception	Description
InvalidOperationException	Condition: The port is open and the property is being changed. The value of the Timeout property cannot be changed when the port is open.
ArgumentOutOfRangeException	Condition: Invalid setting value The value of the Timeout property is invalid. This property must be within the range from 1 to 60.

■ Example

Example of setting the communication timeout.

```
Dim Result As Integer
MLComponent.Setting = "COM1:9600,n,8,1"      ' Initial communication settings
MLComponent.Timeout = 5                      ' Set the timeout value to 5 seconds
Result = MLComponent.OpenPort(1)             ' Open port
If Result <> 0 Then
    ' Error handling
End If
```

■ Related

Properties [_Setting](#), [_Protocol](#)

Method [_OpenPort](#), [Output](#), [_GetStatus](#), [SendStringData](#), [_SendRawData](#)

2-4**[Communication] StatusID property**

Sets and retrieves the status ID.

■FormatMLComponent.StatusID [As Integer](#)**■Set**

<i>StatusID</i>	Description
0	Initial
Any value	Numeric value (0 to 99) to set for the status ID

■Exception

Exception	Description
ArgumentOutOfRangeException	Condition: Invalid value outside the specified range The value of the StatusID property is invalid. This property must be within the range from 0 to 99.

■Example

Example of using StatusID.

```

Dim Result As Integer
Dim Status As String
MLComponent.StatusID = 36           Set StatusID to 36
Result = MLComponent.Output()       ' Execute the output process
Result = MLComponent.GetStatus(Status) ' Get status
If Left$(Status, 2) = "36" Then
    ' If status ID is 36
End If
End Sub

```

■Related itemsProperties [_Protocol](#), [_JobName](#)Method [_Output](#), [_GetStatus](#)

2-5**[Communication] JobName property**

Sets and retrieves the job name.

■FormatMLComponent.JobName [As String](#)**■Set**

<i>JobName</i>	Description
Empty string	Initial
Any string	String to set as the job name

■Explanation

- Used when the Protocol property is 1 – Protocols.Status4.

■Exceptions

Exception	Description
ArgumentException	Condition: Out-of-range setting value The value of JobName property is invalid. The length of this property must be within 16 bytes.

■Usage example

The following example shows how to use the job name.

```

Dim Result As Integer
Dim Status As String
Dim JobName As String
MLComponent.JobName = "SATO Print"           ' Set the job name
Result= MLComponent.Output()                 ' Print processing
Result = MLComponent.GetStatus(Status)        ' Get status
JobName = = Status.Substring(8, 16)
If RTrim(JobName) = " SATO Print " Then
    ' If the job name is SATO Print
End If

```

■Related itemsProperties [Protocol](#), [StatualD](#)Method [Output](#), [GetStatus](#)

2-6**[Basic]LayoutFile Properties**

Set and retrieve layout files created with MLV6.

■FormatMLComponent.LayoutFile [As String](#)**■Setting**

<i>LayoutFile</i>	Description
Default.mlayx	Default
Any string	Local file path of the layout file

■Explanation

- Only layout files (*.mlayx) can be used.
- Setting this value will initialize all input data specified by the PrnData property, SetPrnDataField method, and SetPrnDataArray method.

■Exceptions

Exception	Description
ArgumentException	Condition: Invalid setting value The value of the LayoutFile property is invalid.

■Example

Sets the layout file path.

```
MLComponent.LayoutFile = "C:¥SATO¥ABC.mlayx"
```

Get the current layout file path.

```
LayoutFile = MLComponent.LayoutFile
```

■Related

Properties [PrnData](#), Darkness , Speed , [HeaderTailSetting](#) , Formoverlay , HeaderFile , [TailFile](#)

Method [Output](#), [GetInputFields](#) , [SetPrnDataField](#) , [GetPrinter](#)

2-7**[Basic] PrnData property**

Sets and retrieves print data.

■FormatMLComponent.PrnData *As String***■Set**

<i>PrnData</i>	Description
Empty string	Initial
Any string	Specified by the data format of the PrnDataType property.

■Explanation

- When specifying data that includes a check digit in a barcode, please ensure that the check digit is correct in your application before specifying it. If verification is not possible, either modify the data to exclude the check digit or change the layout file to remove the check digit portion in the variable settings.
- The number of issues can be specified up to a maximum of 999,999 (9,999 for the Lapin series except PW208).
- The number of data items should be specified according to the number of input items in the layout file.
- The PrnData property is initialized when the LayoutFile property is set.
- Setting a value will initialize the input data set by the SetPrnDataArray method.
- When using the SetPrnDataField method, specify the PrnData property first to avoid confusion.
- Do not set the delimiter characters specified in the PrnDataType property as data. For example, if the PrnDataType property is set to "Tab-delimited," entering a tab (0x09) in the data will cause the input order of the input fields to shift, resulting in invalid input data.
- When including control codes in barcode data such as QR codes, set the input variable type in the layout to "Hexadecimal character code" and set the data as a hexadecimal character string from the upper-level application. (Example: For "12345<TAB>," set "313233343509")
- If the Setting property is set to anything other than DRV (printer driver), specify an issuance quantity that does not result in more than one sheet for layout files using sequential variables or multi-page layouts.
If you specify an issuance quantity that results in one sheet or more, an error 804 will occur in the Output method.

■Example

Set the print data.

```
MLComponent.PrnDataType = PrnDataTypes.Tsv  
MLComponent.PrnData = "1000" & Chr$(9) & "2000" & Chr$(9) & "1"
```

■Related items

Properties [_LayoutFile](#), [_PrnDataType](#)

Method [_Output](#), [_GetInputFields](#), [_SetPrnDataField](#), [_GetPrnDataArray](#),
[_SetPrnDataArray](#)

■Support Information

[Appendix] Technique Manual “How to Set Print Data”

2-8**[Basic] PrnDataType Property**

Sets and retrieves the type of print data (Tsv/Csv/Prn).

■FormatMLComponent.PrnDataType [As String](#) / [SATO.MLComponent.PrnDataTypes](#)**■Setting**

<i>PrnDataType</i>	Description
0 - PrnDataTypes.Tsv (default value)	Tab-delimited specification
1 - PrnDataTypes.Csv	Comma-separated (CSV format)
2 - PrnDataTypes.Prn	Space-delimited

■Explanation

- When including control codes in barcode data such as QR codes, set the layout input variable type to "Hexadecimal character code" and set the data as a hexadecimal string from the upper-level application. (Example: For "12345<TAB>" set "313233343509").

■Exception

Exception	Description
ArgumentOutOfRangeException	Condition: Out-of-range setting value The value of PrnDataType property is invalid.

■Example

Set the print data type to TSV.

MLComponent.PrnDataType = 0

■Related itemsProperties [_PrnData](#)Method [_SetPrnDataField](#), [_GetPrnDataArray](#), [_SetPrnDataArray](#)

2-9**[Operation] Darkness property**

Sets and retrieves the print density.

■FormatMLComponent.Darkness *As String***■Set**

<i>Darkness</i>	Description
Empty string	Uses the setting value registered in the printer itself
S (default)	Use the print density of the layout information
Print density level [, print density range]	Specify the print density level and print density range separated by commas (Print density range is optional)

■Point

- If "S" is not set in the layout, the settings registered in the printer will be applied.
- **The print density range does not typically need to be set.** For special paper such as two-color thermal paper, please consult our sales representative for details.
- For the two-sided layout of GN412T, the print density on both sides will be set to the specified value.

■Exception

Exception	Description
ArgumentOutOfRangeException	Condition: Setting value is out of range The value of the Darkness property is invalid.
ArgumentException	Condition: Invalid setting value The value of the Darkness property is invalid. This property must be alphanumeric.

■Example

Set the print density level to 3 and the print density range to A.

```
MLComponent.Darkness = "3,A"
```

Use the print density from the layout information.

```
MLComponent.Darkness = "S"
```

Gets the current setting value of the print density property.

```
Dark = MLComponent.Darkness
```


■Related

Properties [Speed, Offset](#)

Method [Output](#)

■Support

Appendix [Supported Printers](#)

2-10**[Operation] Speed property**

Sets and gets the print speed.

■FormatMLComponent.Speed [As String](#)**■Set**

<i>Speed</i>	Description
Empty string	Uses the setting value registered in the printer itself
S (default)	Use the print speed for layout information
Arbitrary string	Use the set value

■Explanation

- If no layout is set with "S", the value registered in the printer is used.

■Exception

Exception	Description
ArgumentOutOfRangeException	Condition: Setting value is out of range The value of the Speed property is invalid. The length of this property must be within 2 bytes.
ArgumentException	Condition: Invalid setting value The value of Speed property is invalid. This property must be alphanumeric.

■Example

Set the print speed to 5.

```
MLComponent.Speed = "5"
```

Use the print speed from the layout file.

```
MLComponent.Speed = "S"
```

Get the current setting value of the print speed property.

```
Speed = MLComponent.Speed
```

■Related itemsProperties [Darkness](#), [Offset](#)Method [Output](#)

■Support

Appendix

[Supported Printers](#)

2-11**[Operation] Offset property**

Sets and retrieves print correction.

■FormatMLComponent.Offset [As String](#)**■Set**

<i>Offset</i>	Description
0	Initial
S,S	Use layout information print correction
Horizontal correction value, Vertical correction value	Specify horizontal and vertical correction values separated by commas in mm units (-99.9 to 99.9) Up to 4 decimal places are valid

■Explanation

- If "S,S" is not set in the layout, the values registered in the printer will be used.
- When performing print correction, there is a possibility that the print area of the printer may be exceeded, or characters may overflow from the label. The following errors may occur in the Output method, so please note.

610 There are items that cannot be printed on the paper.

61 There are invalid items that cannot be calculated.

■Exception

Exception	Description
ArgumentOutOfRangeException	Condition: Out-of-range setting value The value of the Offset property is invalid. This property must be within the range from -99.9 to 99.9.

■Example

Print with a horizontal offset of 3mm and a vertical offset of 2mm.

```
MLComponent.Offset = "3.0,2.0" ' Set print correction values
```

Use the print offset values from the layout information.

```
MLComponent.Offset = "S,S" ' Set print offset values
```

■Related

Properties [Darkness](#), [Speed](#)

Method [Output](#)

2-12

[Operation] MultiCut Properties

Sets and gets the number of cut units.

■FormatMLComponent.MultiCut *As Integer***■Set**

<i>MultiCut</i>	Description
0 (default)	Do not cut
1 or higher	Cut the specified number of times (1 to 9999)
-	Follow printer's operation mode
-	Follow layout settings

■Explanation

- If the number of copies to be printed is less than the specified number, cutting will occur at the end of printing.
 (Example) MultiCut property is "5," number of copies is "3" ⇒ Cut at the 3rd copy
 MultiCut property is "5" and the number of copies is "7" ⇒ Cut after the 5th and 7th copies
- If "-2" is specified, the behavior will depend on the layout settings and how the print data is specified.

When specifying data in PrnData

Issue operation settings (issue operation) "Printing of sorting marks or timing of cutting operation"	
None (Follow printer settings)	Follows the operation mode of the printer itself.
Do not perform	No cutting is performed. Discharge cutting is performed according to the "Use discharge cutting" setting in the layout's print operation settings.
Perform for each line	Only the last label is cut. The cut is performed according to the "Use cut-off" setting in the layout issuance operation settings.
Per page	
Perform each time the value of the corresponding item changes	
Perform for each issuance instruction unit	
Perform for each specified number of sheets	Same as MultiCut "1 or more"

When specifying data using PrnDataArray

Print action settings (print action) "Print sorting mark or timing of cut action"

None (follows printer settings)	Follows the printer's operation mode.
Do not perform	No cutting is performed. Discharge cutting is performed according to the "Use discharge cutting" setting in the layout's print time action settings.
Perform per line	Cuts each array element. Output cutting is performed according to the "Use output cutting" setting in the layout issuance action settings.
Per page	Only the last label is cut. Output cuts are performed according to the "Use output cuts" setting in the layout's issuance action settings.
Perform each time the value of the corresponding item changes	Cut each time the input item set as the sorting/cutting action key changes. The output cut is performed according to the "Use output cut" setting in the layout issuance action settings ().
Perform for each issuance instruction unit	Only the last label is cut. The cut-off is performed according to the "Use cut-off" setting in the layout issuance action settings.
Performed each time the specified number of sheets is reached	Same action as MultiCut "1 or more"

■Exceptions

Exception	Description
ArgumentOutOfRangeException	Condition: Invalid setting value The value of the MultiCut property is invalid. This property must be within the range from -2 to 9999.

■Example

Cuts in units of 3 when issued.

```
Dim Result As Integer
MLComponent.MultiCut = 3      ' Cut in units of 3
Result= MLComponent.Output() ' Print processing
If Result < 0 Then
    ' Error handling
End If
```

■Related

Properties [LayoutFile](#), [EjectCut](#)

Method [Output](#), [Cut](#)

■Support

Appendix [Supported printers](#)

2-13

SortMark Properties

Sets and retrieves the print settings for the sorting mark.

■Format

MLComponent.SortMark [As Boolean](#)

■Setting

SortMark	Description
True	Print sort mark
False (default)	Do not print sorting marks

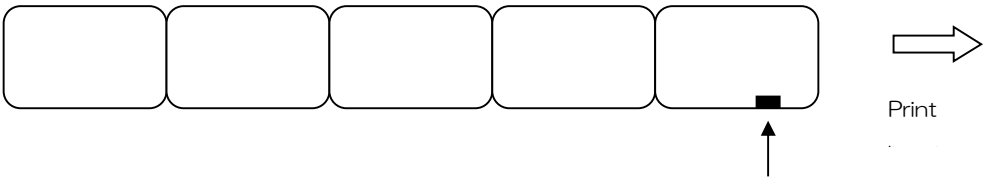
■Explanation

- The layout information sorting mark printing settings are not used.

■Example

Print the sorting mark.

```
Dim Result As Integer
MLComponent.SortMark = True      ' Sort mark ON
Result = MLComponent.Output()    ' Issue processing
If Return &lt;&gt; 0 Then
```



Mark the tag at the beginning of each issue
Setting the stacker enables more effective

■Reference

- Related items
 - Properties [LayoutFile](#)
 - Method [Output](#)
- Support Information
 - Appendix [Supported Printers](#)

2-14

[Operation] EjectCut property

Sets and gets the eject cut.

■Format

MLComponent.EjectCut [As Boolean](#)

■Setting value

<i>EjectCut</i>	Description
True	Perform eject cut
False (default)	Do not perform eject cut

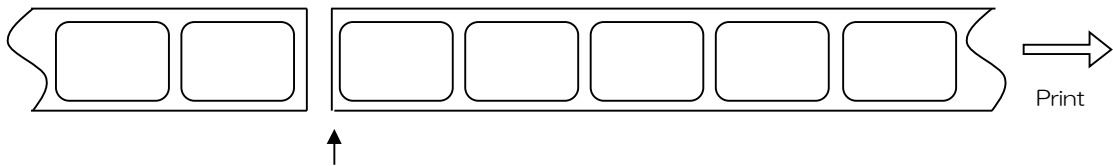
■Explanation

- When the MultiCut property is set to “-1” or “-2,” this property is not used.
- For the Respri V series and Respri V-ex series, when the printer’s operation mode is partial cut mode and the MultiCut property is set to “0,” the discharge cut is performed for all cuts.

■Example

Perform ejection cut.

```
Dim Result As Integer
MLComponent.EjectCut = True      ' Enable eject cut
Result = MLComponent.Output()    ' Execute output processing
If Result < 0 Then
```



Setting the EjectCut property to “True” will cut at the end of each print.
If set to “False,” the eject cut command is not sent.

■Related items

Properties [MultiCut](#)

Method [Output, Cut](#)

■Support

Appendix [Supported Printers](#)

2-15

[Operation] HeaderTail Setting property

Sets and retrieves whether header and tail labels are printed.

■Format

MLComponent.HeaderTail Setting [As Boolean](#)

■Setting value

<i>HeaderTailSetting</i>	Description
True	Issues header and tail tags according to the layout settings.
False (default)	Do not issue header and footer tags

■Explanation

- If "True" is specified and the layout setting is set to "Output per page," header and footer tags are output for each output instruction.
- If the Setting property is set to anything other than DRV (printer driver), this property is disabled.

■Example

Issue header and footer tags according to the layout settings.

```

Dim Result As Integer
Dim PrndataArray(0 to 3) As String
MLComponent.LayoutFile = "C:¥SATO¥ABC.mllayx"
PrndataArray(0) = "Product A" & Chr$(9) & "1"
PrndataArray(1) = "Product B" & Chr$(9) & "2"
PrndataArray(2) = "Product C" & Chr$(9) & "1"
PrndataArray(3) = "Product D" & Chr$(9) & "1"
Result = MLComponent.SetPrndataArray(PrndataArray)      ' Set multiple data
If Result < 0 Then
  //Setup error
End If
MLComponent.HeaderTailSetting = 1      ' Issue header and tail tags according to the layout
settings
Result = MLComponent.Output()          ' Execute issuance processing
If Result < 0 Then
  // Output error
End If

```

■Related items

Properties [Setting](#), [LayoutFile](#) , [PrnData](#)

Method [Output](#), [SetPrnDataArray](#)

2-16**[Operation] HeaderFile property**

Retrieves the header file. Settings cannot be changed.

■Format

MLComponent.HeaderFile [As String](#)

■Setting

<i>HeaderFile</i>	Description
String (path name)	Local file path name of the header file
Empty string	Failed to retrieve No header tag is set in the layout file

■Explanation

- Retrieves from the layout file specified in the LayoutFile property.

■Example

Retrieves the header tag.

```
Dim Result As Integer
Dim HeaderFile As String
HeaderFile = MLComponent.HeaderFile      ' Get header tag
If HeaderFile <> "" Then                  ' Get header OK?
    Debug.Print "HeaderFile = " & HeaderFile    ' Display header tag
```

■Related items

Properties [LayoutFile](#), [HeaderTailSetting](#) , [TailFile](#)

Method [OutputHeader](#)

2-17**[Operation] TailFile property**

Retrieves the tail file. Cannot be set.

■FormatMLComponent.TailFile [As String](#)**■Setting**

<i>TailFile</i>	Description
String (path name)	Local file path name of the tail file
Empty string	Failed to retrieve No tail tag is set in the layout file

■Explanation

- Retrieves from the layout file specified in the LayoutFile property.

■Example

Retrieves the tail tag.

```

Dim Result As Integer
Dim TailFile As String
TailFile = MLComponent.TailFile           ' Get the tail tag
If TailFile <> "" Then                     ' Retrieved OK?
    Debug.Print "TailFile = " & TailFile   ' Display tail tag

```

■Related itemsProperties [LayoutFile](#), [HeaderTailSetting](#) , [HeaderFile](#)Method [OutputTail](#)

2-18**[Special] Formoverlay Properties**

Sets and gets the form overlay.

■FormatMLComponent.Formoverlay *As String* / SATO.MLComponent.FormoverlayTypes**■Setting**

<i>Formoverlay</i>	Description
0 - FormoverlayTypes.None (default)	Do not use form overlay
1 - FormoverlayTypes.Save	Register form overlay
2 - FormoverlayTypes.Load	Call the form overlay
3 - FormoverlayTypes.Auto	Automatically register fixed items and issue multiple items

■Explanation

- When set to "1," the target for registration is all data output in Output. The maximum number of registrations is one. If two or more are registered, only the last registered data will be valid.
- If "1" or "2" is set for multi-view or two-view layouts, an error occurs during issuance.

■Exceptions

Exception	Description
ArgumentOutOfRangeException	Condition: Setting value is out of range The value of the Formoverlay property is invalid.

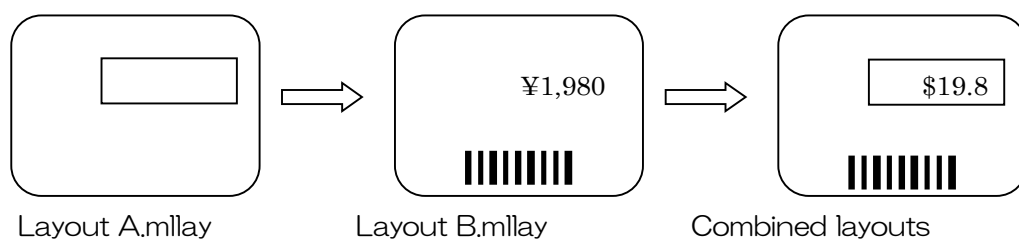
■Example

After registering the form overlay, call the form overlay.

```

Dim Result As Integer
MLComponent.LayoutFile = "A.mllay"      Set the layout to "A.mllay"
MLComponent.Formoverlay = 1             ' Register form overlay
Return = MLComponent.Output()           ' Execute output processing (register form overlay)
Set MLComponent.LayoutFile to "B.mllay" ' Set the layout file to "B.mllay"
MLComponent.PrnData = "1980" & Chr$(9) & "1" ' Set print data
MLComponent.Formoverlay = 2             ' Call form overlay
Result= MLComponent.Output()           ' Print processing (call form overlay)

```



■ Related items

Method [Output](#)

■ Support

Appendix [Supported Printers](#)

2-19**[Special]LayoutNameCaption property**

Sets and gets the layout name.

■FormatMLComponent.LayoutNameCaption [As String](#)**■Setting**

<i>LayoutNameCaption</i>	Description
Empty string (default value)	Uses the layout name set in the LayoutFile property
Any string	Any string to be set as the "Layout Name"

■Explanation

- The value is applied to the MLV6 system variable "Layout name".
- When specifying a "Local File Path," only the file name becomes the "Layout Name."

■Example

Set the "Layout Name."

```
MLComponent.LayoutNameCaption = "C:¥SATO¥ABC.mllayx"
```

Retrieve the "Layout Name".

```
LayoutNameCaption = MLComponent.LayoutNameCaption
```

The printed result of "Layout Name" is "ABC".

■Related itemsProperties [TotalQtyCaption](#)Method [Output](#)

2-20**[Special] TotalQtyCaption property**

Sets and obtains the "total number of issues."

■FormatMLComponent.TotalQtyCaption [As String](#)**■Setting value**

<i>TotalQtyCaption</i>	Description
0 (default value)	Automatically calculates the total number of issued items when the Output method is executed
Any numeric value (0 or greater)	Specify the system variable "Total number of issues"

■Explanation

- The value is applied to the MLV6 system variable "Total number of issues."

■Exception

Exception	Description
ArgumentOutOfRangeException	Condition: Setting value is out of range The value of TotalQtyCaption property is invalid.

■Example

Sets the total number of issues caption.

```
MLComponent.TotalQtyCaption = 13
```

Retrieves the current total number of issues caption.

```
TotalQtyCaption = MLComponent.TotalQtyCaption
```

■Related itemsProperties [LayoutFile](#)Method [Output](#)

2-21**[Special] TaxRate property**

Sets and gets the tax rate.

■FormatMLComponent.TaxRate *As String***■Set**

<i>TaxRate</i>	Description
Not specified	Default
Any string	Specify tax rates 1 to 20 separated by commas (range: 0 to 99,9)

■Explanation

- Used for the "User Tax Rate" in the tax edit settings of the variable edit parameters in the layout file. Not used if "Fixed Tax Rate" is specified in the tax edit settings.
- If no value is set, an error 413 will occur in the Output method.
- The set value is used when the data type for conditional printing is set to "Tax rate."

■Exceptions

Exception	Description
ArgumentOutOfRangeException	Condition: Setting value is out of range (tax rate is 20 or higher) The value of the TaxRate property is invalid.
	Condition: Invalid setting value (outside the range of 0 to 99,9) The value of the TaxRate property is invalid. This property must be within the range from 0 to 99,9.

■Example

Set User Tax Rate 1 to 10,0 and User Tax Rate 2 to 8,0.

```
MLComponent.TaxRate = "10.0,8.0"
```

Get the current tax rate.

```
Dim TaxRate As String
TaxRate = MLComponent.TaxRate
```

■ Related items

Properties [_LayoutFile](#)

Method [_Output](#)

2-22

[Information]

Version property

Retrieves version information. Cannot be set.

■Format

MLComponent.Version [As String](#)

■Setting

Version	Description
Multi LABELIST Component, Version x.x.x.x (x: version number)	MLComponent version information

■Example

Retrieves version information.

```
Dim Version As String
Version = MLComponent.Version
```

Result: "Multi LABELIST Component, Version 6.0.0.0"

Chapter 3

Methods and Exceptions

25**[Communication] OpenPort Method**

Opens a communication port.

■SyntaxMLComponent.OpenPort(ByVal *SyncMode* As Integer) *As Integer***■Param**

Parameter	Setting value	Description
<i>SyncMode</i>	1 (fixed)	Synchronous communication mode

■Return

Return	Description
0	Normal termination.
1	The value of the Setting property is invalid.
3	Already open.
4	An error occurred when opening the port.
1	The combination of communication settings and communication protocols are not supported.

■Explanation

- Opens the device specified in the Setting property.
- After OpenPort succeeds, you can continuously issue the Output method. If the Setting property is set to LAN, USB, COM, or Bluetooth, please check the printer status using GetStatus before executing Output each time.
- The return value "4" occurs when the port number, IP address, or printer driver name specified in the Setting property does not exist, the specified USB device or Bluetooth device cannot be found, the printer is being used by another program, or the printer is turned off. [Please also refer to the explanation of the Setting property.](#)
- When using Bluetooth in the Setting property, only the Microsoft standard Bluetooth stack is supported. Other Bluetooth stacks are not guaranteed to work.
- If Bluetooth is set in the Setting property, the specified Bluetooth device must be paired. If it is not paired, perform pairing using the Windows standard settings screen displayed on the PC side. While the settings screen is displayed, the OpenPort processing will not be returned. If no action is taken on the settings screen, an error will occur after approximately 30 to 40 seconds, and OpenPort will return the value "4."
- [Important: Please ensure you review the "About the Interface" section.](#)

■Example

The following is an example program demonstrating the process from opening to closing the communication port.

```
Dim Result As Integer
MLComponent.Setting = "COM1:9600,n,8,1"           ' Initialize communication settings
Result = MLComponent.OpenPort(1)                  ' Open port in synchronous mode
If Result = 0 Then
    ' Perform a series of output processes
    Call MLComponent.ClosePort()                   ' Close the port
End If
```

■Related items

Properties	_Setting , Protocol , _Timeout
Method	_Output , GetStatus , Cut , SendCancel , OutputHeader , OutputTail , _SendStringData , SendRawData , AuthenticateBluetoothDevice

3-2

[Communication] ClosePort Method

Close the communication port.

■Format

MLComponent.ClosePort() *As Integer*

■Return

Return	Description
0	Normal termination.
5	The port is not open.
6	An error occurred when closing the port.

■Example

The following is an example of a program that opens and closes a communication port.

```
Dim Result As Integer
MLComponent.Setting = "COM1:9600,n,8,1"           ' Initialize communication settings
Result = MLComponent.OpenPort(1)                  ' Open port in synchronous mode
If Result = 0 Then
    ' Output processing
    Call MLComponent.ClosePort()                  ' Close port
End If
```

■Related items

- Properties [_Setting](#)
- Method [_OpenPort](#)

3-3**[Issue] Output Method**

Issues labels and tags.

■FormatMLComponent.Output() *As Integer***■Return**

Return	Description
0	Normal termination.
5	The port is not open.
1	An error has occurred in the printer (NAK received from the printer). The print data has been sent to the printer, so it may be issued after the error is recovered. For details of the error, check the GetStatus method. Additionally, this error may occur if the printer is in sleep mode. For more information, refer to "About Printer Sleep Mode."
0	Refer to "Communication Error" or "Issuance Error."

■Explanation

- After OpenPort succeeds, you can issue continuously using the Output method.
- When specifying the printer driver using the Setting property, be sure to execute the ClosePort method after the print command is completed using the Output method. Due to OS restrictions, data may not be sent immediately.
- When specifying USB, LAN, COM, or Bluetooth in the Setting property, always check the printer status using the GetStatus method before executing the output method (Output, SendStringData, SendRawData).
- On Windows 10 and later, we have confirmed that the screen may shrink when executing Output. Please refer to ["About high DPI settings"](#) and ["About high DPI settings"](#).
- [Please be sure to review the "Important Notes: Interface" section.](#)

■Usage example

Perform sequential printing.

```

Dim Result As Integer
Const EndCount = 10
For n = 1 To EndCount                                ' Loop until the end of the sequential
numbers
    MLComponent.PrnData = Format$(n) & vbCrLf & "1"    ' Set the sequential number to the
print data
    ' Required if the Setting property is USB, LAN, COM, or Bluetooth
    ' Check printer status (GetStatus method)
    Result = MLComponent.Output()                    ' Print processing

```


End If
Next n

■Related

Properties [_Setting](#), [_Protocol](#) , [_Timeout](#)
Method [_GetStatus](#), [_Cut](#) , [_SendCancel](#)

■Support

Methods and Exceptions [_Communication Error](#)
Methods and Exceptions [_Issuance Error](#)

3-4**[Issue] OutputHeader Method**

Issues a header tag.

■FormatMLComponent.OutputHeader() *As Integer***■Return**

Return	Description
0	Normal termination.
5	The port is not open.
1	An error has occurred in the printer (NAK received from the printer). The print data has been sent to the printer, so it may be issued after the error is recovered. For details of the error, check the GetStatus method. Additionally, this error may occur if the printer is in sleep mode. For details, check out " About printer sleep mode ."
Other than 0	Please refer to " Communication Error " and " Printing Error ."

■Explanation

- Regardless of the specified number of copies, only one header label set in the layout file will be printed.
- When issuing header labels, the setting value of the FormoverlayTypes property is not applied.

■Example

Issues a header tag at the beginning.

```

Dim Result As Integer
Const EndCount = 10
For n = 1 To EndCount                                ' Loop until the end of the sequence
    MLComponent.PrnData = Format$(n) & vbTab & "1"      ' Set the serial number to the print
data
    If n = 1 Then
        Result = MLComponent.OutputHeader()           ' Issue header label
        If Result < 0 Then
            ' Error handling
        End If
    End If
    Result = MLComponent.Output()                      ' Issue processing
    If Result < 0 Then
        ' Error processing
    End If

```

■Reference items

Properties [_Setting](#), [Protocol](#) , [_Timeout](#) , [_HeaderTailSetting](#) , [_HeaderFile](#), [_TailFile](#)
Method [_GetStatus](#), [_Cut](#) , [_SendCancel](#) , [_OutputTail](#)

■Support Information

Methods and Exceptions [_Communication Error](#)
Methods and Exceptions [_Issuance Errors](#)

3-5**[Issue] OutputTail Method**

Issues a tail tag.

■FormatMLComponent.OutputTail() *As Integer***■Return**

Return	Description
0	Normal termination.
5	The port is not open.
1	An error has occurred in the printer (NAK received from the printer). The print data has been sent to the printer, so it may be issued after the error is recovered. For details of the error, check the GetStatus method. Additionally, this error may occur if the printer is in sleep mode. For more information, refer to " About Printer Sleep Mode ."
0	Refer to " Communication Error " or " Printing Error ."

■Explanation

- The tail label set in the layout file is issued only once, regardless of the specified number of copies.
- When issuing tail tags, the setting value of the FormoverlayTypes property is not applied.

■Example

Issues a tail label at the end.

```

Dim Result As Integer
Const EndCount = 10
For n = 1 To EndCount                                ' Loop until the end of the sequence
    MLComponent.PrnData = Format$(n) & vbTab & "1"      ' Set sequential number to print data
    Result = MLComponent.Output()                      ' Print processing
    If Result <> 0 Then
        ' Error handling
    End If
    If n = EndCount Then
        Result = MLComponent.OutputTail()              ' Issue tail ticket
        If Result <> 0 Then
            ' Error handling
        End If
    Endif
Next n

```

■Reference items

Properties [_Setting](#), Protocol , Timeout , [_HeaderTailSetting](#) , [_HeaderFile](#), [_TailFile](#)
Method [_GetStatus](#), Cut , [_SendCancel](#) , [_OutputHeader](#)

■Support Information

Methods and Exceptions [_Communication Error](#)
Methods and Exceptions [_Issuance Error](#)

3-6**[Issue] SendStringData Method**

Sends a printer command (SBPL) with specified termination conditions.

■Format

```
MLComponent.SendStringData(
    ByVal Type As Integer
    ByVal Command As String,
    ByVal Length As Integer,
    ByVal EndChar As String) As Object
```

■Parameters

Param	Setting value	Description
<i>Type</i>	0	Receives received data as text (String type)
	1	Receive data as a byte array
	2	Receive data as hexadecimal character code (String type)
<i>Command</i>	Arbitrary string	Specify the transmission data (printer command) as a string
<i>Length</i>	Any numeric value	Specify the number of bytes that terminate the reception process
<i>EndChar</i>	Any character	Specifies the character that terminates reception processing

■Return value

Acquired data Returns data according to the set value.

■Exceptions

For details, refer to [the MLComponentException class](#) "".

Exception	Description
5	The port is not open.
7	An error occurred while sending the command.
8	A timeout occurred while sending the command.
9	An error occurred while receiving a response.
10	A timeout occurred while receiving a response.
5	The command string is empty.
55	Output to a color printer driver is not possible.

■Explanation

- The behavior of this method is based on the combination of termination conditions (Length, EndChar) as follows.

Length	EndChar	Description
0	Not specified	No reception is performed after command transmission. The return value is an empty string (or an array of zero bytes).
0	Specified	Wait until the character specified by EndChar is received.
1	Not specified	Wait until the specified number of bytes is received.
1 or more	Specified	Wait until the specified number of bytes is received or the specified character is received.

- If the Setting property is USB and Length is specified as 1 or more, wait until at least 1 byte is received, then receive messages containing the specified number of bytes or the specified character (EndChar) and set the return value accordingly.
- If the Setting property is DRV (printer driver) or FILE, the termination conditions for Length and EndChar are not used.
- If the transmission is successful, no error occurs, but the printer's behavior depends on the transmitted printer command. We are not responsible for the behavior of the printer if an invalid command is transmitted.
- If the termination conditions do not match, the reception timeout occurs after the time specified in the Timeout property.
- When sending print commands, please send them as a single item. If multiple items are sent at once, data transmission for the second and subsequent items is not guaranteed.

■Example

Send any control command to the printer.

```

Dim RecvData As String
Dim Command() As Byte

(Command generation omitted)

Try
    RecvData= MLComponent.SendStringData(0, Command, 10, Chr$(&H15))    ' Send
command
    ' Data analysis
Catch ex As MLComponentException
    If ex.Number = 5 Then
        ' Port open error
    Else If ex.Number = 54 Then
        ' Command string error
    End If

```

■ Related items

Properties [_Setting, Timeout](#)
Method [_SendRawData](#)

■ Support Information

Method/Exception [_Communication error](#)
Method and Exceptions [_Issuance Error](#)

3-7**[Issue] SendRawData Method**

Sends printer commands (SBPL) in binary format with specified termination conditions.

■Format

MLComponent.SendRawData(

ByVal *Type* As Integer,
 ByRef *Command* As byte(),
 ByVal *Length* As Integer,
 ByVal *EndChar* As String) [As Object](#)

■Parameters

Parameters	Setting value	Description
<i>Type</i>	0	Receives received data as text (String type)
	1	Receive data as a byte array
	2	Receive data as hexadecimal character code (String type)
<i>Command</i>	Arbitrary binary data	Specify transmission data (printer command) in binary format
<i>Length</i>	Any numeric value	Specify the number of bytes that terminate the reception processing
<i>EndChar</i>	Any character	Specifies the character that terminates reception processing

■Return value

Acquired data Returns data according to the set value.

■Exception

For details, refer to [the MLComponentException](#) class.

Exception	Description
5	The port is not open.
7	An error occurred while sending the command.
8	A timeout occurred while sending the command.
9	An error occurred while receiving a response.
10	A timeout occurred while receiving a response.
5	Cannot output to color printer driver.
5	The array element of the command does not exist.

■Explanation

- The behavior of this method is based on the combination of termination conditions (Length, EndChar) as follows.

Length	EndChar	
0	Not specified	No reception is performed after command transmission. The return value will be an empty string (or an array of zero bytes if it is a byte array).
0	Specified	Wait until the character specified by EndChar is received.
1	Not specified	Wait until the specified number of bytes is received.
1 or more	Specified	Wait until the specified number of bytes is received or the specified character is received.

- If the Setting property is USB and Length is specified as 1 or more, wait until at least 1 byte is received, then receive messages containing the specified number of bytes or the specified character (EndChar) and set the return value accordingly.
- If the Setting property is DRV (printer driver) or FILE, the termination conditions for Length and EndChar are not used.
- If the transmission is successful, no error occurs, but the printer's behavior depends on the transmitted printer command. We are not responsible for the behavior of the printer if an invalid command is transmitted.
- If the termination conditions do not match, the reception timeout occurs after the time specified in the Timeout property.
- When sending print commands, please send them as a single item. If multiple items are sent at once, data transmission for the second and subsequent items is not guaranteed.

■Example

Send any control command to the printer.

```
Dim RecvData As String
Dim Command As String

(Command generation omitted)

Try
    RecvData= MLComponent.SendRawData(0, Command, 10, Chr$(&H15)) ' Send
command
    ' Data analysis
Catch ex As MLComponentException
    If ex.Number = 5 Then
        ' Port open error
    Else If ex.Number = 54 Then
        ' Command string error
    End If
```

■Related items

Properties [_Setting, Timeout](#)
Method [_SendStringData](#)

■Support Information

Method/Exception [_Communication error](#)
Method and Exceptions [_Issuance Error](#)

3-8**[Issue] GetStatus Method**

Check the printer status.

■FormatMLComponent.GetStatus(ByRef *Status* As String) *As Integer***■Param**

Parameter	Setting value	Description
<i>Status</i>	Status string	Status string indicating the printer status
	Empty	Failed to check status

■Return

Return	Description
0	Normal termination.
5	The port is not open.
5	Cannot be used for printer driver output or file output.
Other	Please refer to “ Communication_error ”.

■Example

Retrieve the printer status.

```

Dim Result1, Result2 As Integer
Dim Status As String
Result1 = MLComponent.GetStatus(Status) ' Get status
If Result1 = 0 Then                      ' Get OK?
    If Mid$(Status, 3, 1) = "A" Then      ' Is the status waiting for reception?
        Result2 = MLComponent.Output()   ' Issuance processing
        If Return &lt;&gt; 0 Then
            ' Error processing
        End If
    End If
End If
End If

```

■Related items

Properties [Setting](#), [Protocol](#) , [Timeout](#)
 Method [OpenPort](#)

■Support Information

Method/Exception [Communication Error](#)
 Appendix [Status List](#)

3-9**[Control] Cut Method**

Performs paper ejection cut.

■FormatMLComponent.Cut() *As Integer***■Return**

Return	Description
0	Normal termination.
5	The port is not open.
1	An error has occurred in the printer (NAK received from the printer). The cut command has been sent to the printer, so it may be cut after the error is recovered. Check the GetStatus method for details of the error. Additionally, this error may occur if the printer is in sleep mode. For more information, refer to " About Printer Sleep Mode. "
5	The cut command is not supported by this printer model.
0	Please refer to " Communication Error. "

■Explanation

- This is effective when printing is stopped without cutting the paper after printing is completed.
- Execute this method after specifying the LayoutFile property.

■Example

Performs cutting for each issuance.

```

Dim Result As Integer
For n = 0 To 5
    Result = MLComponent.Output()      ' Issue processing
    If Result < 0 Then
        Exit For                      ' Issuance error
    End If
    Result = MLComponent.Cut()         ' Cut processing
    If Result <= 0 Then
        Exit For                      ' Cut error
    End If
Next n

```

■Related

Properties [_LayoutFile](#)
Method [_Output](#)

■Support

Methods and Exceptions [_Communication Errors](#)
Appendix [_Supported Printers](#)

3-10**[Control] SendCancel Method**

Cancels issuance.

■FormatMLComponent.SendCancel() *As Integer***■Return**

Return	Description
0	Normal termination.
5	The port is not open.
1	An error has occurred on the printer (NAK received from the printer). The cancel command has been sent to the printer, so the print job may be canceled after the error is recovered. For details of the error, check the GetStatus method. This error may also occur if the printer is in sleep mode. For more information, refer to " About printer sleep mode ."
Other than 0	Please refer to " Communication Error ."

■Explanation

- This terminates the execution of the action and clears all data received by the printer. After executing SendCancel, wait at least 500 ms before executing the next Output method.

■Example

Prompts the user to cancel if an issuance error occurs.

```

Dim Result1, Result2 As Integer
Result1 = MLComponent.Output()           ' Issue processing
If Result1 < 0 Then                       ' Publication error?
    If MsgBox("An error occurred during issuance. Do you want to cancel?", vbOKCancel) = vbOK
Then
        Result2 = MLComponent.SendCancel() ' Cancel issuance
    End If

```

■Related items

Properties

[Setting](#)

Method

[Output](#), [SendStringData](#), [SendRawData](#), [GetStatus](#), [Cut](#)

■ Support Information

Methods and Exceptions [Communication Errors](#)

3-11**[Information] GetPrinter Method**

Retrieves printer information from the layout file.

■Format

MLComponent.GetPrinter() [As String](#)

■Return

Return	Description
String	The printer model name set in the layout file
Empty	Failed to retrieve

■Explanation

- Retrieves from the layout file specified in the LayoutFile property.

■Example

Retrieves the printer model from the layout file "C:¥SATO¥ABC.mllayx".

```
Dim PrinterModel As String
MLComponent.LayoutFile = "C:¥SATO¥ABC.mllayx" ' Set the layout file name
PrinterModel = MLComponent.GetPrinter          ' Get printer model
If PrinterModel <> "" Then
    ' Retrieved successfully
Else
    ' Retrieval error
End If
```

■Related

Properties [_LayoutFile](#)

■Support Information

Appendix [_Supported Printers](#)

3-12

[Data] GetInputFields Method

Retrieves input information from the layout file.

■Format

MLComponent.GetInputFields

(ByRef *InputCount* As Integer, ByRef *InputStatus* As Object) As Integer

■Param

Input	Setting value	Description
<i>InputCount</i>	Numeric reference type	Number of input items
<i>InputStatus</i>	String reference type	Input information (2-dimensional array)

• *InputStatus* format

Each element (record) of the input information is returned as a comma-separated string.

- ①Item name Input item name
- ② Header/Row 0 (header) / 1 (row)
- ③Display position Y (vertical) X (horizontal) H (height) W (width) Unit: pixels
* For row items, Y and X are 0.
- ④Number of digits Number of digits to be entered
- ⑤ Input Permission 0 (input allowed) / 1 (input not allowed) / 2 (hidden)
- ⑥Delete after issuance 0 (OFF) / 1 (ON)
- ⑦Kanji input 0 (OFF) / 1 (ON)
- ⑧Sorting/Cutting "0" OFF / "1" ON
- ⑨Input Check 0 (None) / 1 (Numeric) / 2 (Alphanumeric) / 3 (Alphanumeric) / 4
(Half-width)
5 (Full-width) / 10 (Date) / 11 (Hexadecimal) / 12 (CODE39) / 13
(NW-7)
- ⑩Input Screen Character Type P (Number of points) N (Font name)
- ⑪Other Checks 0 (None) / 1 (CD) / 2 (Table) / 3 (Rounding) / 4 (Date Range)
5 (Special) / 6 (Conditional)
- ⑫Initial value Initial value string

■Return value

Return value	Description
0	Normal termination.

1	An error occurred while loading the layout information file. <ul style="list-style-type: none"> • The specified layout file does not exist. • The specified layout file cannot be opened. • The corresponding input field does not exist.
61	The layout file was created with MLV6, which is a newer version than MLComponent. Please update the version of MLComponent.

■Explanation

- Retrieves from the layout file specified in the LayoutFile property.
- The order of input information obtainable via the InputStatus parameter corresponds to the input order in the layout file. The order of items specified in PrnData applies.
- The input screen character set is the character set for displaying input items set in the input definition of ML Design.

This is not the font used for the text on the label.

■Example

Retrieves input information.

```

Dim vInputStatus As Variant
Dim nInputCount As Integer
Dim n As Integer
Dim Result As Integer
Result = MLComponent.GetInputFields(nInputCount, vInputStatus)    ' Get input information
If Result < 0 Then
    Debug.Print "GetInputFields Error !! "                        ' Display error message
Else
    For n = 0 To nInputCount - 1
        Debug.Print vInputStatus(n)                               ' Display input
information
    Next n

```

- Output result (when the input order of variables is ①Part Number, ②Product Code, ③ Number of Copies)
Product code,0,Y100X150H10W70,7,0,0,0,0,1, P12NMS P Gothic,0,12345,
Product Code, 1, YOX0H10W80, 8, 0, 0, 0, 0, 1,, P12NMS P Gothic, 0, 12345678
Number of issues,1,YOX0H10W50,6,0,0,0,0,0,,P12NMS P Gothic,0,1

■Related items

Properties [_PrnData](#)
Method [_SetPrnDataField](#)

3-13

[Data] SetPrnDataField Method

Sets the print data for the specified input items.

■Format

MLComponent.SetPrnDataField

(ByVal *Name* As String, ByVal *Data* As String) As Integer

■Parameter

Parameter	Set value	Description
<i>Name</i>	Any string	Input field name
<i>Data</i>	Arbitrary string	Data to be set

■Return value

Return value	Description
0	Setup complete.
1	An error occurred while loading the layout information file. <ul style="list-style-type: none"> • The specified layout file does not exist. • The specified layout file cannot be opened. • The corresponding input field does not exist.
61	The layout file was created with MLV6, which is a newer version than MLComponent. Please update the version of MLComponent.

■Explanation

- If there are multiple entries with the same name, print data will be set only for the first input field in the input order.
- When the LayoutFile property is set, all previously set data will be cleared.
- When specifying data that includes a check digit in the barcode, please ensure that the check digit is correct in your application before specifying it. If verification is not possible, either modify the data to exclude the check digit or change the layout file to remove the check digit portion via variable settings.
- The number of copies can be specified up to a maximum of 999,999 (9,999 for the Lapin series excluding PW208).
- When using the PrnData property in combination, specify the PrnData property first to avoid confusion.
- Do not set the delimiter character specified by the PrnDataType property as data. For example, if the PrnDataType property is set to "Tab-delimited," entering a tab (0x09) in

the data will cause the input order of the input items to be misaligned, resulting in invalid input data.

- When including control codes in barcode data such as QR codes, set the layout input variable type to "Hexadecimal character code" and set the data as a hexadecimal string from the upper-level application. (Example: For "12345<TAB>," set "313233343509")

■Example

Set the print data at each input name position.

```
Dim Result As Integer
Result = MLComponent.SetPrnDataField("Part Number", "12-34")           ' Set part
number
If Result <> 0 Then
//Setup error
End If
Result = MLComponent.SetPrnDataField("Product No.", "012345")         ' Set Product No.
If Result &lt;&gt; 0 Then
//Setting error
End If
Result = MLComponent.SetPrnDataField("Customer Name", "Sato")         ' Set customer
name
If Result < 0 Then
//Setting error
End If

Result = MLComponent.SetPrnDataField("Number of Copies", "1")         ' Set number of
copies
```

■Related items

Properties [_LayoutFile](#), [_PrnData](#) , [_PrnDataType](#)
 Method [_Output](#), [GetInputFields](#)

3-14**[Data] GetPrnDataArray Method**

Retrieves multiple data.

■FormatMLComponent.GetPrnDataArray() [As String\(\)](#)**■Return**

null	Invalid
Not null	Multiple data

■Explanation

- All input data will be cleared when the LayoutFile property is set.

■Example

Retrieves multiple data in a multi-faceted layout.

```

Dim Result As Integer
Dim PrnDataArray1(0 to 3) As String
Dim PrnDataArray2() As String
PrnDataArray1(0) = "Product A" & Chr$(9) & "1"
PrnDataArray1(1) = "Product B" & Chr$(9) & "2"
PrnDataArray1(2) = "Product C" & Chr$(9) & "1"
PrnDataArray1(3) = "Product D" & Chr$(9) & "1"
Result = MLComponent.SetPrnDataArray(PrnDataArray1)           ' Set multiple data
If Result <> 0 Then
    // Setting error
End If
PrnDataArray2 = GetPrnDataArray()                             ' Get multiple data

```

■Related items

Properties	_LayoutFile , _PrnData , _PrnDataType
Method	_SetPrnDataArray

3-15

[Data] SetPrnDataArray Method

Sets multiple data.

■FormatMLComponent.SetPrnDataArray(ByRef *PrnDataArray* As String()) *As Integer***■Parameter**

Parameter	Set value	Description
<i>PrnDataArray</i>	Any string	Specify each item using the character delimiter corresponding to the value specified in the PrnDataType property.

■Return

Return	Description
0	Setup complete
Any value other than 0	Setup failed

■Explanation

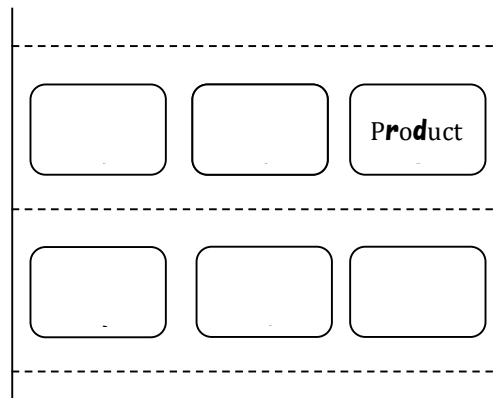
- When the LayoutFile property is set, the data set is initialized.
- Setting a value will initialize the data set in the PrnData property and the SetPrnDataField method.
- When specifying data that includes a check digit in the barcode, please ensure that the check digit is correct in your application before specifying it. If verification is not possible, either modify the data to exclude the check digit or modify the layout file to remove the check digit portion via variable settings.
- The number of copies can be specified up to a maximum of 999,999 (9,999 for the Lapin series excluding PW208).
- When including control codes in barcode data such as QR codes, set the input variable type in the layout to "Hexadecimal character code" and set the data as a hexadecimal character string from the upper-level application. (Example: For "12345<TAB>," set "313233343509")
- If the Setting property is not DRV (printer driver), specify an issuance quantity that does not result in one sheet or more. If you specify an issuance quantity that results in one sheet or more, an error will occur in the Output method.

■Example

Set multiple data for a multi-faceted layout (3-faceted horizontally).

```
Dim Result As Integer
Dim PrnDataArray(0 to 3) As String
PrnDataArray(0) = "Product A" & Chr$(9) & "1"
PrnDataArray(1) = "Product B" & Chr$(9) & "2"
PrnDataArray(2) = "Product C" & Chr$(9) & "1"
PrnDataArray(3) = "Product D" & Chr$(9) & "1"
```

```
Result = MLComponent.SetPrnDataArray(PrnDataArray) ' Set multiple data
If Result < 0 Then
//Setup error
End If
Result = MLComponent.Output() ' Issue processing
If Result < 0 Then
//Issuance error
End If
```



■Related items

Properties [_LayoutFile](#), [PrnData](#), [PrnDataType](#)
 Method [_Output](#), [GetPrnDataArray](#)

3-16**[Device] EnumerateBluetoothDevices Method**

Performs a search for Bluetooth devices.

■Format

MLComponent.EnumerateBluetoothDevices(
ByVal *SearchTime* As Integer) As Object

■Parameter

Parameter	Setting value	Description
<i>SearchTime</i>	Any number	Search time in seconds (1 to 61)

■Return

Return value	Array	Description
Device information (2-dimensional array)	Number of rows	Number of detected devices
	Column 1	BD address (12-digit hexadecimal number)
	Column 2	Device name
	Column 3	Pairing status (True: paired, False: not paired)

■Explanation

- PC-side Bluetooth devices can only use the Microsoft standard Bluetooth stack (Microsoft Bluetooth Enumerator). Operation is not guaranteed with other Bluetooth stacks.
- If the search results are 0, an invalid value is specified for SearchTime, no Bluetooth devices exist, or the Bluetooth stack is not the Microsoft standard, the number of elements in the return value will be "0."
- Paired devices will be reflected in the search results even if the device cannot be found (e.g., power is off or out of range).

■Example

Search for devices.

```
Dim arrayVar As Object = MLComponent.EnumerateBluetoothDevices (10) 'Search for devices for
10 seconds
Dim DevArray As Object(,) = CType(arrayVar, Object(,)) 'Convert to array
For n = DevArray.GetLowerBound(0) To DevArray.GetUpperBound(0)
    Dim address As String= CType(DevArray(n, 0), String) 'Retrieve BD address
    Dim name As String= CType(DevArray(n, 1), String) 'Get device name
    Dim isauth As String= CType(DevArray(n, 2), String) 'Get pairing status
    Debug.WriteLine(address & " ", name & " ", isauth & " ")
Next
'Output example: 00aabbccdde, SATO MOBILE PRINTER, False
```

■Related items

Method [AuthenticateBluetoothDevice](#)

3-17**[Device] AuthenticateBluetoothDevice Method**

Performs Bluetooth device authentication (pairing).

■Format

```
MLComponent.AuthenticateBluetoothDevice(
    ByVal Address As String,
    ByVal PIN As String,
    ByVal SearchTime As Integer) As Integer
```

■Parameters

Parameters	Set value	Description
<i>Address</i>	Any character string	BD address (12-digit hexadecimal number)
<i>PIN</i>	Any string	Bluetooth device PIN code
<i>SearchTime</i>	Any number	Search time in seconds (1 to 48)

■Return value

Return value	Description
0	Pairing is completed
3	Already open.
7	There are no Bluetooth devices on your PC (Bluetooth is disabled). The Bluetooth stack is not Microsoft standard.
7	An invalid BD address has been specified. The device with the specified BD address does not exist (search timeout).
70	An invalid PIN code has been specified.
703	Authentication failed with the specified PIN code. (Authentication was rejected by the printer.)

■Explanation

- The Bluetooth device on the PC can only use the Microsoft standard Bluetooth stack (Microsoft Bluetooth Enumerator). Operation is not guaranteed with other Bluetooth stacks.
- This method only performs pairing. It does not register services to the virtual COM port.
- If the authentication level is set to Level 1 (No Authentication) on a Bluetooth Ver. 3.0 printer, this method is not required.

- Pairing is performed after searching for the specified amount of time. If the device is not found, increase the search time and try again.
- If the device with the specified BD address is already paired, delete the device information first and then perform pairing again.

■Example

Pairs the device at the specified address.

```
Dim Result As Integer
Dim Address As String = "00aabbccdde"           'Set the BD address
Dim PIN As String = "1234"                       'Set PIN
Dim SearchTime As Integer = 3                    'Set search time
Result = MLComponent.AuthenticateBluetoothDevice (Address, PIN, SearchTime)
If Result = 0 Then
    'Pairing successful
End If
```

■Related

Method [_EnumerateBluetoothDevices](#)

3-18**[Exception] MLComponentException class**

This exception is notified when an MLComponent execution error occurs.

■ Methods where the exception occurs

[SendStringData](#), [SendRawData](#)

■ Namespace

SATO.MLComponent

■ Inheritance hierarchy

System.Exception
 ↳ SATO.MLComponentException

■ Public Properties

Property Name	Type	get	set	Description
Number	int	○	×	Stores the error number.

■ Example

```
Dim RecvData As String
Dim Command As String

(Command generation omitted)

Try
    RecvData= MLComponent.SendStringData(0, Command, 10, Chr$( &H3))      ' Send
command
    ' Analyze data
Catch ex As MLComponentException
    If ex.Number = 5 Then
        ' Port open error
    Else If ex.Number = 54 Then
        ' Command string error
    End If
```

■ Error details

Error number	Err object Error code	Description
--------------	--------------------------	-------------

5	&H80040205	Port is not open. Port is not open.
7	&H80040207	An error occurred while sending the command. An error occurred while sending command.
8	&H80040208	An error occurred while sending command. An error occurred while sending command.
9	&H80040209	An error occurred while receiving the response. An error occurred while receiving response.
10	&H8004020A	A timeout occurred while receiving response. An error occurred while receiving response.
5	&H80040236	Command string is empty. Command is empty.

■Explanation

- When an exception is caught in Visual Studio, the message is stored in the Message property of the Exception.
- When using an Err object, the error code is stored in the Number property, and the message is stored in the Description property.

3-19**Communication Error**

This section explains communication errors.

■Communication error occurrence method

[Output](#), [OutputHeader](#), [OutputTail](#), [SendStringData](#), [SendRawData](#), [GetStatus](#), [Cut](#), [SendCancel](#)

■Communication Error List

When a communication error occurs, disconnect using the ClosePort method, implement the following countermeasures, and then execute the OpenPort method again.

Return value	Description	Cause
7	An error occurred while sending the command (status request in progress).	①
8	A timeout occurred while sending the command (status request).	⑤
9	An error occurred while receiving a response (status).	①②③④⑥⑦
10	A timeout occurred while receiving a response (status reception).	

Cause ① The printer is not turned on.

⇒Check the printer's power supply.

Cause ② The cable is not plugged in.

⇒Check that the PC and printer are securely connected with a cable and that the cable is not damaged.

Cause 3: The printer is already in use. (LAN only)

⇒Check if other PCs, software, or printer drivers are using the printer.

Cause 4: The printer driver is not running.

⇒Please check if the "Print Spooler" service is running normally in the Control Panel's Management Tools.

Cause ⑤ The baud rate is different. (Only for RS-232C)

⇒Match the baud rate of the printer with the settings in the Properties dialog box.

Cause ⑥ The communication protocol is different.

⇒ Ensure that the printer's communication protocol matches the Protocol property settings.

For LAN and Status 4, make sure to set the ENQ response mode.

For setup instructions, refer to "[5-3 Communication Protocol Setup Method](#)."

Cause 7: Communication delay is occurring due to the network environment. (LAN only)

⇒ Adjust the value of the Timeout property. (Default value: 3 seconds)

3-20

Issuance Error

This section explains issuance errors.

■Methods that cause issuance errors

[Output](#), [OutputHeader](#), [OutputTail](#)

■List of issuance errors

Issuance errors occur when information necessary for issuance, such as layout files or printer information files, is missing. When an error occurs, take appropriate action based on the error content.

Return value	Details
File load error: Prepare the required files.	
5	An error occurred while loading the layout information file.
	The layout file (.mlayx) does not exist or cannot be read. Please check the file path specified in the request. If the file is being used by another application or you do not have access permissions, it cannot be read.
	Due to a Windows update issue, the PC's font information cannot be read. Please apply the update program. https://support.microsoft.com/ja-jp/help/4074906/
52	An error occurred while loading printer information.
	The printer model used in the layout file is not supported by the current version. Please upgrade MLComponent.
57	The print data is invalid.
	The data type set in the PrnDataType property does not match the data type specified. Please check the specified data.
6	An error occurred while loading the layout file.
	The layout file was created with a newer version of MLV6 than MLComponent. Please upgrade MLComponent.
62	An error occurred while loading the global information file.
	The global information file was created with a newer version of MLV6 than MLComponent. Please upgrade MLComponent.
63	An error occurred while loading the header tag file.
	The header tag file was created with a newer version of MLV6 than MLComponent. Please upgrade MLComponent.
64	An error occurred while loading the tail tag file.
	The tail tag file was created with a newer version of MLV6 than MLComponent. Please upgrade MLComponent.

65	An error occurred while loading the global table file.
	The global table file was created with a newer version of MLV6 than MLComponent. Please upgrade MLComponent.
66	An error occurred while loading the global check table file.
	The global check table file was created with a newer version of MLV6 than MLComponent. Please upgrade MLComponent.
10	An error occurred while loading the global file.
	The global information file (.mlglex) specified in the layout does not exist or cannot be read. Please check the file path specified in the layout. If the file is being used by another application or does not have access permissions, it cannot be read.
101	An error occurred while loading the header tag file.
	The header tag layout file (.mlhtlx) specified in the layout does not exist or cannot be read. Please check the file path specified in the layout. If the file is being used by another application or you do not have access permissions, it cannot be read.
102	An error occurred while loading the tail tag file.
	The tail tag layout file (.mlhtlx) specified in the layout does not exist or cannot be read. Please check the file path specified in the layout. If the file is being used by another application or does not have the necessary access permissions, it cannot be read.
103	The settings for the global information file do not match those in the header and tail tag.
	Please check the settings of the global information file (.mlglex) specified in the layout and header/tail tag layout.
110	An error occurred while saving the layout information file.
	The layout file cannot be saved. Please check that writing is not prohibited.
111	An error occurred while saving the global file.
	The global file cannot be saved. Please check that writing is not prohibited.
120	Failed to save the sequential number value of the layout file.
	Failed to save the sequential number value. Open the layout file in ML Print and correct the sequential number value based on the actual label print results. There are restrictions on the use of sequential numbers. Refer to the sequential number variable.
12	Failed to save the sequential number value in the global information file.
	Failed to save sequential number values. Open the layout file in ML Print and correct the sequential number values based on the actual label print results. There are restrictions on the use of sequential numbers. Refer to the sequential number variable.
15	The printer type for the header label does not match.
	Match the printer type (Sato printer/color printer) in the layout and header label layout file (.mlhtlx).
15	The printer type for the tail label does not match.

	Match the printer type (Sato printer/color printer) in the layout and tail label layout file (.mlhtlx).
Exception error	
2	An exception error occurred during processing before generating the printer command.
	Please refer to the exception error.
20	An exception error occurred during printer command generation.
	Please refer to the exception error.
Target variable error: Reset the target variable.	
3	An error occurred while searching for the target variable for the date/time variable.
	The variable set as the elapsed value for the date/time variable does not exist in the layout.
301	An error occurred when searching for the target variable for the pre-edit copy variable.
	The variable set as the copy target for the pre-edit copy variable does not exist in the layout.
302	An error occurred when searching for the target variable for the input date/time variable.
	The variable set as the elapsed value or position target for the input date/time variable does not exist in the layout.
303	An error occurred when searching for the target variable for table conversion.
	The variable set as the conversion target key for the table conversion does not exist in the layout.
304	An error occurred when searching for the target variable for the price rounding variable.
	The variable set as the rounding target for the calculation variable's price rounding does not exist in the layout.
306	An error occurred when searching for the target variable for the price check CD variable.
	The variable set as the calculation target in the price check CD of the calculation variable does not exist in the layout.
307	An error occurred during the search for the target variable for the cross-check variable.
	The variable set as the comparison target in the split variable cross-check does not exist in the layout.
30	An error occurred when searching for the target variable for the post-edit copy variable.
	The variable set as the copy target for the edited copy variable does not exist in the layout.
309	An error occurred when searching for the sub-variable of the join variable.

	The variable set as the child item of the join variable does not exist in the layout.
3	An error occurred when searching for the parent variable of the join item.
	The variable that is the parent item of the join variable does not exist in the layout.
320	An error occurred while searching for the local variable assigned to the layout.
	The local variable set in the design object does not exist in the layout.
321	An error occurred while searching for global variables assigned to the layout.
	The global variable set in the design object does not exist in the layout.
Edit error: Occurs when "Graphic conversion error" is enabled in the error handling settings for publish behavior.	
330	The graphic does not exist at the specified path.
	Please check that the path is correct or that the file exists.
332	The graphic with the specified No. is not found in the graphic table.
	Please check that the No. is correct and that the graphic is registered correctly in the graphic table.
33	The graphic cannot be read from the specified path.
	Please check that the file content is correct, such as that the graphic format is not BMP/GIF/JPEG/PNG/TIFF/WMF/EMF, or that it is not a graphic file.
Editing error: This error occurs when the settings specified in parentheses are enabled in the error handling of the publication settings.	
40	An error occurred during date/time variable editing. (Date/time field editing error)
	Date and time calculation failed. Please check the elapsed value.
403	An error occurred during table conversion. (Table conversion error)
	There are no values in the table list that match the input value.
404	An error occurred during ODBC table conversion. (ODBC table conversion error)
	There are no values in the table list (ODBC) that match the input value.
405	An error occurred during price rounding calculation. (Price rounding conversion error)
	Price rounding calculation cannot be performed. Please check the input value of the rounding target variable.
406	An error occurred during arithmetic calculation. (Formula calculation error)
	Arithmetic operations cannot be performed. Please check the input values.
407	An error occurred during price check CD calculation. (Price C/D calculation error)
	Price check CD calculation cannot be performed. Please check the input values of the target variables.
408	An error occurred during yen and comma editing. (Currency comma editing error)
	The number of digits required to add ¥ and commas for table conversion or calculations is insufficient. Please check the input values or the number of digits in the variables.
409	An error occurred during 1-character fill-in editing. (1-character fill-in editing error)

	There are insufficient digits to add one character during table conversion or calculations. Please check the digit count of the input values or variables.
410	An error occurred during CD calculation. (C/D calculation error)
	When CD replacement is set to error detection with modulus 11, an error occurs if the CD value cannot be replaced. Please check the input value.
411	An error occurred during special editing.
	The DLL or functions used in special editing are missing, or editing information is insufficient. Please reconfigure the settings.
413	An error occurred during tax editing. (Tax editing error)
	The consumption tax rate has not been set. Set the TaxRate property.
414	An error occurred during Excel table conversion.
	There are no matching values in the table list.
415	An error occurred during the conversion of application identifier data. (Application identifier data conversion error)
	Data that does not match the application identifier format has been set. For details, open the ML Print [File] > [Help] menu and refer to section 4.6.1.4. [Error Handling].
430	An error occurred during condition evaluation. (Condition Evaluation Error)
	The condition expression for the condition variable cannot be evaluated. Please verify that the condition expression and the target variable have the correct values set.
431	The variable used in the condition check result cannot be found. (Condition check error)
	Please check that the variable specified for the condition variable's judgment result exists.
61	There are items that cannot be printed on the paper. (When items specified outside the paper exist)
	The object is positioned outside the paper. Please check the ML design for any objects causing errors. Objects not required for printing should be set to "Do not print" in the print attribute settings.
Edit error: Occurs when the RFID data does not match the specifications during data checking.	
34	An input data error has occurred for a local variable assigned to the layout.
	The input format for the RFID object is "Hexadecimal character code (HEX)." Please enter the input data using hexadecimal characters (0-9, A-F).
341	An input data error has occurred for a global variable assigned to the layout.
	The input format for the RFID object is "Hexadecimal character code (HEX)". Please enter the input data using hexadecimal characters 0-9, A-F (a-f).
342	A minimum digit error has occurred in the local variables assigned to the layout.
	Please check the number of digits in the RFID object data.
343	A minimum digit count error has occurred for a global variable assigned to the layout.
	Please check the number of digits in the RFID object data.

344	An error occurred in the maximum digit count of the local variable assigned to the layout.
	Please check the number of digits in the RFID object data.
345	An error occurred in the maximum digit count of the global variable assigned to the layout.
	Check the number of digits in the RFID object data.
346	An input data digit error has occurred for the local variable assigned to the layout.
	Please check the number of digits in the RFID object data.
347	An input data digit count error has occurred for a global variable assigned to the layout.
	Please check the number of digits in the RFID object data.
348	An input data error has occurred for a local variable assigned to the layout.
	The input format of the RFID object is "Binary (BINARY)". Please enter the input data as binary data (0, 1).
349	An input data error has occurred for the global variable assigned to the layout.
	The input format for the RFID object is "Binary (BINARY)". Please enter the input data as binary data (0, 1).
433	An error occurred during the application identifier data conversion of the local variable assigned to the layout.
	Please enter data in a format suitable for the application identifier.
434	An error occurred during the conversion of the application identifier data for the global variable assigned to the layout.
	Enter data that matches the application identifier format.
437	An error occurred in the maximum value of the local variable assigned to the layout.
	Enter an RFID variable serial number that is less than or equal to "274877906943".
438	An error occurred in the maximum value of the global variable assigned to the layout.
	Please enter an RFID variable serial number that is less than or equal to "274877906943".
440	An error occurred in the filter value fixed value of the global variable assigned to the layout.
	A fixed value cannot be used for the filter value of the RFID variable. Update the layout file to MLV6 file version 3 or higher.
Drawing error: This occurs when "Check image drawing and display an error message if black" is enabled in Other in the issuance settings.	
13	Black filling occurred during image drawing.

	<ul style="list-style-type: none"> There may be an issue with Windows Update. Please apply the latest update and check if the issue is resolved. This may occur when the PC being operated is switched during issuance due to "user switching" or a remote desktop connection. This is a Windows limitation, so please avoid operations that switch the login user or operating PC during issuance.
Drawing error: The necessary information for drawing the object is missing.	
450	An error occurred during condition printing.
	The variables or check tables specified in the print condition settings do not exist, or the files containing the global information or global check tables being used do not exist.
470	文The character format tag is invalid.
	Check the format tag description, such as whether the number of start and end tags matches.
471	文 A variable that cannot be used as a character format tag (用) is set.
	Symbol variables cannot be used to specify format tags. Change the variable for the character object.
472	用 f character format tags are enabled, C/D自 automatic addition is not available.
	Disable C/D auto-add.
473	文When character format tags are enabled, the font size width cannot be set arbitrarily.
	Please set the font size to automatic.
600	The Windows font used in the layout is not available.
	Install the Windows font corresponding to the production environment. If you need to perform a temporary production test in the development environment, use the operation settings file. For details on the operation settings file, refer to the Technical Manual.
601	The barcode information used in the layout is missing.
	Please upgrade MLComponent.
60	An error occurred during symbol drawing.
	<ul style="list-style-type: none"> Place BCD32.dll and BCD64.dll in the same folder as MLComponent.dll. Data that cannot be drawn as symbols has been set. For details, open the ML Print [File] > [Help] menu and refer to the section 4.6.1.4. [Error Handling].
Unsupported error: Properties are set in an invalid combination.	
80	You cannot issue layouts that use sequential variables [Numeric (Layout)] or [Text] in layouts other than printer driver output or file output.
	Change to printer driver output or modify the input variables to allow sequential numbers to be entered from the application.
801	You cannot specify more than one sheet for multi-page layouts except for printer driver output or file output.

	Change to printer driver output or modify the number of sheets to be printed to one sheet or fewer.
802	The number of sheets to be printed has not been specified.
	Check the data entered in the PrnData property, SetPrnDataField method, or SetPrnDataArray method.
803	Form overlays cannot be specified for multi-page or double-sided layouts.
	Use a layout that combines registration and printing without using a form overlay.
804	You cannot specify multiple data using the SetPrnDataArray method for layouts that are not multi-page when using printer driver output or file output.
	For interface output (LAN, USB, COM, Bluetooth), specify data for each sheet and issue while confirming the printer status.
805	The specified number of cuts cannot be used in multi-page layouts.
	This error does not occur in versions 6.0.0.0 and later.
82	A header label is not set in the layout.
	If you want to output header tags, set the header/tail tag output in the issuance action settings.
821	A tail tag is not set in the layout.
	If you want to output a tail tag, set the Header/Tail Tag Output option in the Issue Action Settings.
Other	Please confirm that the layout file is a Sato printer layout. Color printer layouts are only supported in the paid version "MLComponentPlus."

■About exception errors

This occurs when MLComponent catches an exception from the OS at an unexpected time during the issuance process. For details of the exception, please check the event "SATO MLV6 MLComponent" output to the Event Viewer after the error occurs.

- The error may be resolved by restarting the application or increasing the issuance interval. Memory shortage may be occurring. Enable "Automatic memory release" in the operation settings file* and confirm whether memory usage stabilizes. If the issue persists even after enabling automatic memory release, use Task Manager to check memory usage for application handles, GDI objects, etc., and improve the application logic.
Example: Threads created during issuance remained active even after issuance was completed, causing handle and GDI object leaks. The issue was resolved by modifying the logic to reuse issuance threads.

*For information on how to use the operation settings file, refer to the separate document "MLComponent Technique Manual."

■ Regarding the minimum/maximum digit count for RFID objects

The minimum/maximum number of digits of data to be entered into an RFID object varies depending on the inlet type and IC chip type.

- When the communication band is "HF"

Input format Inlet type	Characters (ASCII)	Hexadecimal character code (HEX)	Binary data (BINARY)
	Maximum digit count	Maximum number of digits	Maximum number of digits
I-CODE SLI	112	224	896
Tag-it HF-I	256	512	2048

- When the communication band is "UHF"

Input format IC chip		Characters (ASCII)		Hexadecimal character code (HEX)		Binary data (BINARY)	
		Minimum digit count	Maximum digit count	Minimum digit count	Maximum digit count	Minimum number of digits	Maximum number of digits
Not specified	EPC	2	62	4	124	16	496
	USER	2	1024	4	2048	16	8192
MonzaR6		4	62	8	124	32	496
M730		2	62	4	124	16	496
M750	EPC	2	62	4	124	16	496
	USER	2	1024	4	2048	16	8192

■ RFID Object (UHF) Digit Unit

The unit of data written to the IC chip in RFID objects (UHF) is fixed.

For example, if the IC chip is "MonzaR6" and the input format is "hexadecimal character code," set the number of digits in the data to a multiple of 8 (8 digits, 16 digits, 24 digits, etc.).

Input format IC chip	Character (ASCII)	Hexadecimal character code (HEX)	Binary Data (BINARY)
Not specified	Multiple of 2	Multiple of 4	Multiple of 16
MonzaR6	Multiple of 4	Multiple of 8	Multiple of 32
M730	Multiple of 2	Multiples of 4	Multiples of 16
M750	Multiple of 2	Multiple of 4	Multiple of 16

Chapter 4

Usage and Precautions

4-1**About Programming**

This section explains how to use and important notes regarding programming.

■About Version Upgrades

To upgrade MLComponent, overwrite "MLComponent.dll" and "MLComponent.XmlSerializers.dll." No program recompilation is necessary.

■When issuing multiple labels with the same data

When issuing multiple labels for the same data, instead of sending "Issue Count = 1" multiple times, sending "Issue Count = N" (e.g., "Issue Count = 10" for 10 labels) once is faster.

■Regarding the cut operation

MLComponent does not perform cutting by default.

If the cut operation does not work properly, please check the following. Additionally, if sequential variables are used in the layout file, the MultiCut property cannot be used. Control the cut operation using the Cut method.

- Is the number of copies specified in the print data?
If the number of copies is not specified, only one label will be issued, and the cut operation will not be performed. Refer to the separate document "**MLComponent Technique Manual**" under "[Enter data in bulk]" and "[Specify data by variable name]" to confirm that the data is correctly set.
- Have you set the properties or methods required for cutting?
For instructions on how to use the cut operation, refer to the "**MLComponent Technique Manual**" and set the properties and methods as described in the "Controlling Cut Operations" section.

■Using in ASP.NET

Use in web applications (JavaScript, ASP.NET, etc.) is not supported.

■Delay during initial startup or layout file loading

Since the .NET Framework libraries used by MLComponent are loaded, there may be a delay in processing when MLComponent is called for the first time after application startup, or when layout information is read for the first time (e.g., in the Output method or GetPrinter method).

If delays become an issue in production, please consider the following workarounds: use a thread to asynchronously call MLComponent to load a temporary layout at application startup, or distribute the "MLComponent.XmlSerializers.dll" file along with MLComponent.

Additionally, if the production application is launched via a shell, please consider using multithreading.

■ High DPI Settings

Applications on Windows 10 and later require additional high DPI settings. Configure the settings in the manifest file or the properties of the executable file. If high DPI settings are not configured, the application screen may appear smaller during execution, or some Windows font sizes may not be printed correctly.

- Set `<dpiAware>` to true or false in the manifest file.
<https://docs.microsoft.com/ja-jp/archive/blogs/ttanaka/dpihigh-dpi-3-12503>
※If the GUI of the development application does not take high DPI into account, set it to false.
- In the application (*.exe) properties, enable “Override high DPI scaling behavior” in the Compatibility tab, and select “System” or “System (Enhanced)” as the scaling source.

■ Memory usage (layout issues)

If various system resources such as “Memory,” “Handles,” “Threads,” and “GDI Objects” are insufficient, issues such as font types or sizes specified in the layout not being printed, graphics missing (blank printing), or other printing errors may occur.

To ensure stable operation, please thoroughly verify resource consumption and leaks during load testing or stress testing of the development application.

■ Use of multithreading

When multiple outputs are executed simultaneously using multithreading, the processing load may increase, potentially causing delays in issuance speed. If delays occur, please improve the issuance environment or usage methods.

- Modify the layout by changing character objects to printer fonts to reduce data size.
- Distribute the load by separating the issuing terminals or processes (applications).
- Reduce the number of simultaneously running threads to shorten the issuance time per thread.

When implementing multithreading in Visual Studio using the Thread class, deep thread nesting may cause memory not to be released due to Windows issues. Please use the Task class or review the nesting of the issuance processing threads.

■ About exceptions in Visual Studio

During debugging in Visual Studio, exceptions caught internally by MLComponent may be displayed in the output window. If this interferes with debugging, change the debug settings to "My code only."

<https://learn.microsoft.com/ja-jp/visualstudio/debugger/just-my-code?view=vs-2022>

■ About printer sleep mode

When using the "CL4NX-J series," "CL6NX-J series," or "PW208NX/PW208," if the printer is in sleep mode, the output methods ([Output](#), [OutputHeader](#), [OutputTail](#), [Cut](#), [SendCancel](#)) may return error 11. Please address this issue using one of the following methods.

1. Change the sleep mode to OFF.

For instructions on how to change the sleep mode, refer to the printer's user manual.

<https://www.sato.co.jp/support/printer/>

2. Update the printer firmware. (PW208NX/PW208 only)

Please contact your sales representative or customer support.

<https://www.sato.co.jp/contact/>

■ The width of full-width spaces in Windows fonts (WPF) varies depending on the version of .NET Framework.

When sharp characters are enabled in Windows fonts (WPF), the width of full-width spaces may vary slightly depending on the version of .NET Framework. If you upgrade .NET Framework to version 4.6.2 or later by replacing PCs or MLComponents, the print position may shift if full-width spaces are used in the print data. Please confirm that there are no issues with print content such as automatic line breaks.

■ About using Windows fonts (WPF)

When using Windows fonts (WPF) in MLComponent or MLPreviewComponent, do not execute .NET Framework (WPF) text drawing (such as `DrawingContext.DrawText`) simultaneously in your application during issuance or preview execution. Due to an internal Windows phenomenon, there is a rare possibility that printed characters may differ from the entered characters.

4-2**About the interface**

This section explains the usage and precautions related to connection methods.

■LAN

- **Specifying the method**

[Please refer to the Setting properties.](#)

- **Connection and Disconnection**

If you repeat the OpenPort method and ClosePort method each time you issue a command, please execute the next OpenPort method after waiting at least 200 milliseconds after the ClosePort method has been executed. Executing the OpenPort method without a delay may result in a double connection.

- **Double connection**

When another application is using the printer, the OpenPort method may succeed, but errors (return values 7, 9, or 10) may occur in the output methods (GetStatus, Output, SendStringData, SendRawData, Cut, SendCancel). If an error occurs immediately after connection using the above methods, execute the ClosePort method and reconnect after adding a wait process.

- **Pre-transmission status check**

Before executing output methods (Output, SendStringData, SendRawData), always confirm the printer status using the GetStatus method. If output methods are executed without confirming the printer status using the GetStatus method, the printed data may be lost and the printer may stop printing depending on the printer status.

- **Post-transmission status check**

If you execute the ClosePort method immediately after executing the Output method, the transmitted data may be interrupted depending on the OS or printer environment. Therefore, before executing the ClosePort method, confirm the communication status with the printer using the GetStatus method.

- **Precautions when using "Status 4"**

In Status 4, ACK/NAK confirmation to verify data arrival is not performed when the Output method is executed. After sending, use the GetStatus method to check the printer status.

■USB

- **Specifying the method**

[Refer to the Setting property.](#)

- **Pre-transmission status check**

Before executing the output methods (Output, SendStringData, SendRawData), always check the printer status using the GetStatus method. If you execute the output method () without checking the printer status using the GetStatus method, the printed data may be lost and the printer may stop printing depending on the printer status.

- **About the communication protocol**

[Specify status 4.](#)

- **Use on 64-bit OS**

Starting with MLComponent Ver.6.0.0.0, development is possible on 64-bit applications (AnyCPU or x64).

When using versions prior to Ver.6.0.0.0, development must be performed using a 32-bit application (x86).

- **Exclusive control**

Exclusive control is not available when connected via USB. Please ensure that simultaneous issuance processing does not occur across multiple threads within the app or across multiple apps.

- **Regarding the [Printer Model] property in Settings**

In MLComponent Ver.5.9.9.0, the "Printer Model" specification has been discontinued. Although it will continue to function as a compatibility feature in versions 5.9.9.0 and later, no additional models will be added. Going forward, specify "USB:" when using one USB printer, and "USB:(Serial No.)" when using two or more USB printers.

(Example of specification when using "Printer Model": USB:[Model Name][,Serial No. (optional)])

Printer model	Serial No.	Description
None	None	The first Sato printer found during USB device search
None	Yes	Sato printer with the specified serial number
Yes	None	The first Sato printer found in the USB device search with the specified printer model
Yes	Yes	Sato printer with the specified printer model and serial number

The value set for "Printer model" (supported model name)

Layout selection name	Setting value
L'esprit (Lesprit) T408v/R408v	Lesprit408v
L'esprit (Lesprit) T412v/R412v	Lesprit412v

Et Vie (Et Vie) EV208R	EV208R
Et Vie (EV212R)	EV212R
Et Vie (Evi) EV208R (SATOC)	EV208R
Et Vie (Evi) EV212R (SATOC)	EV212R
Bartronics CF408T	CF408T
Bartronics RT308R	RT308R
Scantronics HA212R	HA212R
Scantronics HA224R	HA224R
Scantronics CL4NX-J 08	CL4NX-J 08
Scantronics CL4NX-J 12	CL4NX-J 12
Scantronics CL4NX-J 24	CL4NX-J 24
SeaTa CT4-LX DT203/TT203	CT4-LX-J 203
SeaTa (Theta) CT4-LX DT305/TT305	CT4-LX-J 305
L'esprit (L'esprit) HC4-LX DT203/TT203	HC4-LX-J 203
L'esprit (L'esprit) HC4-LX DT305/TT305	HC4-LX-J 305
Scantronics SG408R-ex	SG408R-ex
Scantronics SG412R-ex	SG412R-ex
Scantronics SG424R-ex	SG424R-ex
Scantronics BF408R	BF408R
Scantronics BF412R	BF412R
Scantronics CL6NX-J 08	CL6NX-J 08
Scantronics CL6NX-J 12	CL6NX-J 12
Scantronics SG608R	SG608R
Scantronics SG612R	SG612R
Scantronics SG112T/R	SG112T/R
Scantronics GN412T	GN412T
SATOC ST308R	ST308R
SATOC (Satok) ST312R	ST312R
Petit lapin (Petit Lapin) PW208NX/PW208mNX/ PW208/PW208m	PW208
ScanTronics SG408R	SG408R
Scantronics SG412R	SG412R
Scantronics SG424R	SG424R
CL4NX (203 dpi)	CL4NX (203 dpi)
CL4NX (305 dpi)	CL4NX (305 dpi)
CL4NX (609 dpi)	CL4NX (609 dpi)
CT4-LX DT203/TT203	CT4-LX 203
CT4-LX DT305/TT305	CT4-LX 305
CL6NX (203 dpi)	CL6NX (203 dpi)
CL6NX (305 dpi)	CL6NX (305 dpi)

- **About the [Serial No.] in the Settings property**

The [Serial No.] can be confirmed on Windows.

1. Connect the printer to a USB port with the power turned on.
2. Open Device Manager from the Control Panel.
3. Select USB Printing Support under Universal Serial Bus Controllers.
4. Right-click and select Properties from the menu.
5. Select "Device Instance Path" from the Properties tab.
6. The value displayed at the end corresponds to the serial number.

(Example) USB\VID_XXXX&PID_XXXX\ (8-digit serial number)

■COM

- **Specifying the method**

[Please refer to the Setting property.](#)

- **Pre-transmission status check**

Before executing the output method (Output, SendStringData, SendRawData), be sure to check the printer status using the GetStatus method. If you execute the output method without checking the printer status using the GetStatus method, the printed data may be lost and the printer may stop printing, depending on the printer status.

■Bluetooth

- **Specifying the method**

[Refer to the Setting property.](#)

- **Bluetooth stack**

The Bluetooth device on the PC must use the Microsoft standard Bluetooth stack (Microsoft Bluetooth Enumerator). Other Bluetooth stacks are not supported.

Other Bluetooth stacks may not work properly with the OpenPort method, EnumerateBluetoothDevices method, and AuthenticateBluetoothDevice method. Replace the Bluetooth stack with the Microsoft standard Bluetooth stack. For replacement instructions, contact the manufacturer of your computer or Bluetooth adapter.

- **Double connection**

When another application is using the printer, the Output method will return a value of 7 (connection error). The printer can only communicate with one Bluetooth device at a time.

- **Pre-transmission status check**

Before executing the output methods (Output, SendStringData, SendRawData), always check the printer status using the GetStatus method. If you execute the output methods without checking the printer status using the GetStatus method, the printed data may be lost and the printer may stop printing, depending on the printer status.

- **Number of devices that can be used**

Due to Windows specifications, the maximum number of Bluetooth devices that can be connected simultaneously from the PC side is 7.

If more than 7 devices are connected, the Output method will return a value of 7 (connection error).

■Printer Driver

- **Specifying the printer driver**

[Please refer to the Setting property.](#)

- **Unavailable Properties and Methods**

Properties Protocol, Timeout

Method GetStatus

- **About the [Send print data directly to the printer] option in Advanced Settings**

If [Send print data directly to the printer] is set in the printer driver's [Advanced Settings], OpenPort will fail and the program will not operate normally. Change the setting to [Spool print documents and perform program printing quickly], or use interface output (LAN, USB, COM, Bluetooth) without using the printer driver.

- **About the [Spool print documents and perform program printing quickly] option in Advanced Settings**

If the printer driver's [Advanced Settings] is set to "Spool print documents and speed up program printing," the method of sending the spool varies depending on the selection.

"Send print data to the printer immediately" sends print data to the printer by either executing the Output method continuously or completing the transmission using the ClosePort method.

"Send print data to the printer after spooling all pages" sends print data to the printer when transmission is completed using the ClosePort method.

- **Printing starts slowly in Windows 10**

In Windows 7, each time the Output method was executed, the data spooled by the previous Output method was sent to the printer. However, in Windows 10, due to changes in the OS specifications, spooled data is sent in 256KB increments. To send data to the printer immediately, execute ClosePort immediately after the Output method.

4-3**About layout information**

This section explains how to use and precautions regarding layout information.

■Input Definition

Layout file input definitions (initial values, digit limits, input checks, etc.) are settings used in the ML Print issue screen. If you want to use input definition settings in your application, obtain them using GetInputFields.

■ Windows font

When “Windows Font” is specified for a text object, the text is drawn graphically.

While this allows for various character representations and free size adjustments, it also has the drawback of increasing the size of the transmission data and slowing down issuance. If issuance is slow during large-scale consecutive issuance or multi-threaded use, please confirm whether changing the character object to “Printer Font” improves performance.

Font	Supported characters *Depends on font type	Size adjustment	Small characters	Data volume
Printer font	O: Sufficient	Δ : Magnification specified	O: Clear	◎: Small
Windows font	◎: Abundant	O : Point specified	Δ: Blurry	Δ: Large

■Graphic objects

When you resize imported image files in the design, parts of the image may become faint or blurred. Please try resizing the original image file before importing it and using it at 100% size, or set the graphic object’s scaling mode to “GDI Compatible” to see if the issue is resolved.

■Fixed Objects (Improving Print Speed)

Fixed objects such as pasted text and grid lines, whose content does not change based on data, are also analyzed during printing and converted into printer commands. Enabling “Convert fixed items to printer commands when saving layout (for faster printing)” on the Other page of the printing settings and saving the layout can improve printing speed when there are many fixed objects or when automatic line breaks are frequently used with pasted text in Windows fonts.

■Sequential Variables

In MLComponent, please manage sequential numbers on the application side rather than using sequential variables in the layout file. While using sequential variables will not cause

errors, the following restrictions apply.

If you are using sequential number variables [number (layout)][characters], please issue labels using the printer driver output. [Interface output](#) * will result in error 800 in Output. When using sequential numbers with interface output *, please specify the sequential number value on the application side or use sequential number variables [number (printer)]. You cannot retrieve or modify sequential number values saved in the layout file. Additionally, starting from Ver.6.2.0.0, if sequential number value saving fails, error 120/121 will occur. Please confirm and modify using MLV6. If sequential number value management is required in your application, please use the "None" option for sequential number saving in the layout file.

■ Multi-part labels

When using multi-part labels in the interface output, enter the number of copies to be issued per sheet. If the number of copies exceeds one sheet, an error 801 will occur in the output.

*Interface Output

This is the output method where "LAN:", "USB:", "COM:", or "BT:" is specified in the Setting property.

■ Use of symbol drawing errors

If "Symbol Drawing Error" is enabled in the layout file's issuance action settings, place BCD32.dll and BCD64.dll in the same folder as MLComponent.dll.

Chapter 5

Appendix

5

Supported Printers

This section describes the supported printers for MLComponent.

Classification notation:

P : [Protocol](#) property D : [Darkness](#) property
 Spd : [Speed](#) property MCt : [MultiCut](#) property
 ECt : [EjectCut](#) property Sok : [SortMark](#) property
 F : [Formoverlay](#) property Cut : [Cut](#) method

■ Theta Series

Model	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>CT4-LX-J 203</i>	3	1 to 10	2 to 8	○	○	×	○	○
<i>CT4-LX-J 305</i>	3,4	1-10	2-6	○	○	×	○	○

■ Respri Series

Respri T408/R408⇒ Respri T8/R8

⇒ Respri T412/R412 Respri T12/R12

Model Name	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>HC4-LX-J 203</i>	3	1 to 10	2 to 8	○	○	×	○	○
<i>HC4-LX-J 305</i>	3,4	1-10	2 to 6	○	○	×	○	○
<i>Respri 408v</i>	3	1 to 5	2-6	○	○	×	○	○
<i>Respri 412v</i>	3,4	1-5	2-4	○	○	×	○	○
<i>Respri T8/R8</i>	3,4	1-5	2-6	○	○	×	○	○
<i>Respri T12/R12</i>	3,	1-5	2-4	○	○	×	○	○

■ ScanTronics Series

CL4NX-J 08, CL4NX-J 08 Plus → CL4NX-J 08

CL4NX-J 12, CL4NX-J 12 Plus ⇒ CL4NX-J 12

CL4NX-J 24, CL4NX-J 24 Plus → CL4NX-J 24

CL6NX-J 08, CL6NX-J 08 Plus → CL6NX-J 08

CL6NX-J 12, CL6NX-J 12 Plus → CL6NX-J 12

Model Name	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>CL4NX-J 08</i>	3,4	1 to 10	2-14	○	○	×	○	○

<i>CL4NX-J 12</i>	3,4	1-10	2-14	○	○	×	○	○
<i>CL4NX-J 24</i>	3,4	1-10	2-6	○	○	×	○	○
<i>CL6NX-J 08</i> (Left-justify)	3,4	1-10	2-10	○	○	×	○	○
<i>CL6NX-J 12</i> (LEFT-JUSTIFY)	3,4	1 to 10	2-8	○	○	×	○	○
<i>CL6NX-J 08</i>	3,4	1-10	2-10	○	○	×	○	○
<i>CL6NX-J 12</i>	3,4	1-10	2 to 8	○	○	×	○	○
<i>MR600e</i>	3	1 to 3	4, 6, 8	○	○	×	○	○
<i>MR610e</i>	3,4	1-3	4, 6, 8	○	○	×	○	○
<i>MT/MR110w</i>	3,4	1-5	3-5	○	○	×	○	○
<i>MT400e</i>	3	1-5	2-6	○	○	×	○	○
<i>MT410e</i>	3,4	1-5	2-6	○	○	×	○	○
<i>M-48Pro8</i>	3,4	1-3	2, 4, 6, 8, 10	○	○	×	○	○
<i>M-48Pro12</i>	3,4	1-3	2, 4, 6, 8	○	○	×	○	○
<i>M-48Pro24</i>	3,4	1-3	2-6	○	○	×	○	○
<i>SR408</i>	3,4	1-5	2-12	○	○	×	○	○
<i>SR412</i>	3,4	1-5	2-12	○	○	×	○	○
<i>SR424</i>	3,4	1-5	2-6	○	○	×	○	○
<i>BF408R</i>	3,4	1-5	2-6	○	○	×	○	○
<i>BF412R</i>	3,4	1-5	2-6	○	○	×	○	○
<i>SG408R</i>	3,4	1 to 5	2-10	○	○	×	○	○
<i>SG412R</i>	3,4	1-5	2-10	○	○	×	○	○
<i>SG424R</i>	3,4	1 to 5	2 to 6	○	○	×	○	○
<i>HA212R</i>	3,4	1-5	1-4	×	×	×	○	×
<i>HA224R</i>	3,4	1-5	1-4	×	×	×	○	×
<i>GN412T</i>	3,4	1-5	3-10	○	○	×	○	○
<i>SG608R</i>	3,4	1-10	2-10	○	○	×	○	○
<i>SG612R</i>	3,4	1 to 10	2-8	○	○	×	○	○
<i>SG112R/T</i>	3,4	1-10	3-6	○	○	×	○	○
<i>SG408R-ex</i>	3,4	1 to 10	2 to 14	○	○	×	○	○
<i>SG412R-ex</i>	3,4	1-10	2-14	○	○	×	○	○
<i>SG424R-ex</i>	3,4	1-10	2-6	○	○	×	○	○

■ SATOC Series, Evy Series, Bartronics Series, FLEQV
FX3-LX, FX3-LX Plus ⇒ FX3-LX

Model Name	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>TR400e</i>	3,4	1 to 3	5-8	○	○	○	○	○
<i>TR410e</i>	3,4	1-3	4-6	○	○	○	○	○
<i>RT308R</i>	3,4	1-5	2 to 5	○	○	×	○	○
<i>ST308R</i>	3	1	2-10	○	○	○	○	○
<i>ST312R</i>	3,4	1-3	2-10	○	○	○	○	○
<i>EV208R</i>	3,4	1-5	2-5	○	○	×	○	○
<i>EV212R</i>	3,4	1-5	2-4	○	○	×	○	○
<i>EV208R (SATOC)</i>	3,4	1-5	2-5	○	○	×	○	○
<i>EV212R (SATOC)</i>	3,4	1-5	2-4	○	○	×	○	○
<i>CF408T</i>	3,4	~ 10	2-6	○	○	×	○	○
<i>FX3-LX</i>	3	1 to 10	2 to 6	○	○	×	○	○

■Lapin Series

PW208NX/PW208mNX, PW208m ⇒ PW208

Model Name	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>PW208</i>	3,4	1~ 10	3~ 6	×	×	×	○	×
<i>PW4NX</i>	3,4	1~ 10	2~ 6	×	×	×	○	×
<i>PT208m/e/i</i>	3	1-5	3 to 4	×	×	×	×	×
<i>PT408e</i>	3	1 to 5	3-4	×	×	×	×	×
<i>PT412e</i>	3	1-5	1-2	×	×	×	×	×

■Tough Arm Series

Model Name	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>LR4NX-FA 08 L/R</i>	3,4	1 to 10	2 to 10	×	×	×	○	×
<i>LR4NX-FA 12 L/R</i>	3,4	1-10	2 to 10	×	×	×	○	×
<i>LR4NX-FA 24 L/R</i>	3,4	1-10	2 to 6	×	×	×	○	×
<i>LR4080SR-T</i>	3,4	1-5	2-12	○	○	×	○	○
<i>LR4120SR-T</i>	3,4	1-5	2-12	○	○	×	○	○

■Overseas printers

CL4NX (203 dpi), CL4NX Plus (203 dpi) ⇒ CL4NX (203 dpi)

CL4NX (305 dpi), CL4NX Plus (305 dpi) ⇒ CL4NX (305 dpi)

CL4NX (609 dpi), CL4NX Plus (609 dpi) ⇒ CL4NX (609 dpi)

CL6NX (203 dpi), CL6NX Plus (203 dpi) ⇒ CL6NX (203 dpi)

CL6NX (305 dpi), CL6NX Plus (305 dpi) ⇒ CL6NX (305 dpi)

Model name	P	D	Spd	MCt	ECt	Sok	F	Cut
<i>CT400</i>	3	1 to 5	2 to 6	○	○	×	○	○
<i>CT410</i>	3,4	1-5	2-4	○	○	×	○	○
<i>CL408e</i>	3,4	1-5	1-5	○	○	×	○	○
<i>CL412e</i>	3,4	1-5	1-5	○	○	×	○	○
<i>CL608e</i>	3,4	1-3	4, 6, 8	○	○	×	○	○
<i>CL612e</i>	3,4	1-3	4, 6, 8	○	○	×	○	○
<i>MB200i</i>	3	1 to 5	1 to 2	×	×	×	×	×
<i>MB400i</i>	3	1-5	3 to 4	×	×	×	×	×
<i>MB410i</i>	3	1-5	3 to 4	×	×	×	×	×
<i>XL400e</i>	3	1-5	5-8	○	○	○	○	○
<i>XL410e</i>	3,4	1-5	4-6	○	○	○	○	○
<i>M-5900RVe</i>	3,4	1-5	2-6	○	○	×	○	○
<i>M-84Pro-2</i>	3,4	1-5	1-5	○	○	×	○	○
<i>M-84Pro-3</i>	3,4	1-5	1-4	○	○	×	○	○
<i>M-84Pro-6</i>	3,4	1 to 5	1 to 5	○	○	×	○	○
<i>GT408e</i>	3	1 to 5	1-11	○	○	×	○	○
<i>GT412e</i>	3,4	1-5	1-11	○	○	×	○	○
<i>GT424e</i>	3,4	1-5	1-5	○	○	×	○	○
<i>CL4NX (203 dpi)</i>	3,4	1-10	2-10	○	○	×	○	○
<i>CL4NX (305 dpi)</i>	3,4	1-10	2-8	○	○	×	○	○
<i>CL4NX (609 dpi)</i>	3,4	1-10	2-6	○	○	×	○	○
<i>CL6NX (203 dpi)</i>	3,4	1-10	2-10	○	○	×	○	○
<i>CL6NX (305 dpi)</i>	3,4	1-10	2-8	○	○	×	○	○
<i>CT4-LX 203</i>	3,4	1-10	2-8	○	○	×	○	○

<i>CT4-LX 305</i>	3,4	1-10	2-6	○	○	×	○	○
<i>PW208NX</i>	3,4	1~ 10	3~ 6	×	×	×	○	×
<i>PW4NX</i>	3,4	1~ 10	2~ 6	×	×	×	○	×

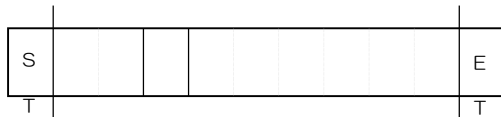
5-2**Status List**

This section explains the statuses of communication protocols.

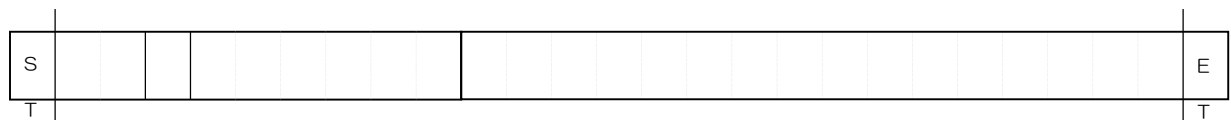
The status string returned by the GetStatus method is the status received from the printer with the STX and ETX characters before and after the status omitted.

■Status string

<Status 3, Status L> (9 bytes)



<Status 4> (25 bytes)



① Status ID (2 bytes) The value of the StatusID property set when using the Output method.

② Status (1 byte) The status of the printer. (See list)

③ Remaining print count (6 bytes) The number of pages remaining to be printed for a single print command. When Status L is selected, this is the number of sheets that have been printed.

④ Job Name (16 bytes) The value of the JobName property set when using the Output method.

■Status list (Status 3, Status 4)

Contents			ASCII	Hex Code	Send Yes/No	Restore Yes/No
Offline status	No error		0	3	O	O
	Ribbon near end		1	3	O	O
	Buffer Na Full		2	3	X	O
	Ribbon/Label Na End & Buffer Na Full		3	3	X	O
	Printing stopped (no error) *Status 4 only		4	3	O	O
Online	Waiting for reception	No error	A	4	O	O
		Ribbon/Label Near End	B	42	O	O
		Buffer Na Full	C	4	X	O
		Ribbon/Label End & Buffer Na Full	D	4	X	O
	Printing	No error	G	4	O	O
		Ribbon/label near end	H	4	O	O
		Buffer Na Full	I	4	X	O
		Ribbon/Label End & Buffer Full	J	4A	X	O
	Standby	No errors	M	4D	O	O
		Ribbon/label near end	N	4E	O	O

	(Hakuri/ Waiting for cut)	Buffer Na Full	O	4F	×	○
		Ribbon/Label End & Buffer Full	P	5	×	○
	Analysis/Editing	No errors	S	5	○	○
		Ribbon/Label near end	T	5	○	○
		Buffer Na Full	U	5	×	○
		Ribbon/Label End & Buffer Full	V	5	×	○
	Printing stopped (No error) *Status 4 only	Waiting for reception	E	4	○	○
		Printing	K	4B	○	○
		Waiting (waiting for peel and cut)	Q	5	○	○
		Analysis/Editing	W	5	○	○
Error detection (Offline)	Receive buffer full		a	6	×	×
	Head open		b	62	×	○
	Paper end		c	63	×	○
	Ribbon end		d	64	×	○
	Media error		e	65	×	○
	Sensor error		f	6	×	○
	Head error		g	67	×	×
	Cover open		h	68	×	○
	Card error		i	69	×	×
	Cutter error		j	6A	×	×
	Other errors		k	6B	×	×
	Cutter sensor error		l	6C	×	○
	Stacker full & rewinder full		m	6D	×	○
	RFID tag error		o	6F	×	○
	RFID protect error		p	70	×	○

- Buffer overflow occurs depending on the interface.

■ Status List (Respi V Series, PW208NX/PW208 Series, PW4NX Add-on)

Contents			ASCII	Hex Code	Transmit Yes/No	Restore Yes/No
Offline status	Battery low		5	3	△	○
	Battery low & ribbon low		6	3	△	○
	Battery End & Buffer Full		7	3	×	○
	Battery End & Ribbon End & Buffer Full		8	3	×	○
Online status	Waiting for reception	Battery End		2	△	○
		Battery low & ribbon low	"	22	△	○
		Battery End & Buffer Full	#	23	×	○
		Battery End & Ribbon End & Buffer Full	\$	2	×	○
	Printing	Battery End	%	2	△	○
		Battery near end & ribbon near end	&	26	△	○
		Battery End & Buffer Full	'	27	×	○
		Battery End & Ribbon End & Buffer Full	(28	×	○
	Standby (Hakuri)	Battery End)	29	△	○
		Battery End & Ribbon End	*	2A	△	○
		Battery End & Buffer End Full	+	2B	×	○

	Waiting for out)	Battery End & Ribbon End & Buffer Full	,	2C	×	○
	Analysis/Editing	Battery End	-	2D	△	○
		Battery End & Ribbon End	.	2E	△	○
		Battery End & Buffer Full	/	2F	×	○
		Battery End & Ribbon End & Buffer Full	@	40	×	○
Error detection	Battery Error		q	7	×	×

- PW208NX/PW208 series and PW4NX do not detect ribbon near end.

■ Status List (Status L Added)

Contents			ASCII	Hex Code	Send Yes/No	Restore Yes/No
Online status	Printing Pending (Waiting to pass)	No error	M	4D	○	○
		Label/ribbon/label near end	N	4E	○	○
		Buffer N/A Full	O	4F	×	○
		Label Ribbon/Label End & Buffer Full	P	5	×	○
	Printing adhesion Waiting for start signal/Applying	No error	o	6F	○	○
		Label/ribbon/label near end	p	70	○	○
		Buffer N/A Full	q	71	×	○
		Label Ribbon/Label End & Buffer Full	r	7	×	○
	Passing	No errors	s	73	○	○
		Label ribbon/label near end	t	74	○	○
		Buffer N/A Full	u	75	×	○
		Label Ribbon/Label N/A End & Buffer Full	v	7	×	○
Error detection	Label connection error (paper end)		c	6	×	×
	Label attachment error		l	6C	×	×
	Label adhesion error		#	23	×	×
	Capacity exceeded		\$	24	×	×
	Cylinder malfunction		%	25	×	×
	Timer error		&	2	×	×
	User-specific error		+	2B	×	×

■ Status list (for PT408e, PT412e, PT200m/e/j status 3)

Contents			ASCII	Hex Code	Transmission Possible	Restorable
Offline status	No error		0	3	○	○
	Battery end		1	3	△	○
	Buffer Near Full		2	3	×	○
	Battery End & Buffer Full		3	3	×	○
Online status	Waiting	No error	A	4	○	○
		Battery low	B	4	△	○

	for reception	Buffer Near Full	C	4	×	○
		Battery end & buffer full	D	4	×	○
	Printing	No error	G	47	○	○
		Battery end	H	4	△	○
		Buffer low	I	4	×	○
		Battery End & Buffer Full	J	4A	×	○
	Waiting for peeling	No errors	M	4D	○	○
		Battery end	N	4E	△	○
		Buffer end	O	4F	×	○
		Battery End & Buffer Full	P	5	×	○
	Analysis/Ecliting	No errors	S	5	○	○
		Battery end	T	5	△	○
		Buffer full	U	5	×	○
		Battery end & buffer full	V	5	×	○
Error detection (Offline status)	Receive buffer overflow		a	6	×	×
	Paper end		c	63	×	○
	Battery error		d	64	×	○
	Sensor error		f	6	×	○
	Head error		g	67	×	×
	Cover open		h	68	×	○
	Other errors		k	6B	×	×

■Status list send/receive status

- When calling the GetStatus method, if the parameter in the status section (3rd byte) of the returned status is [Transmission status] ×, do not execute the print data transmission methods (Output, SendStringData, SendRawData) until the [Transmission status] is returned as ○.
- When calling the GetStatus method, if the parameter in the status section (3rd byte) returned is [Send Status] △, printing data can be sent but depending on the relationship between battery level and printing data (such as print density or number of labels/tags to be issued), label/tag issuance may not complete normally. Please note this.
- When calling the GetStatus method, if the parameter in the status section of the returned status (3rd byte) is [Recovery Possible] ○, even if the printer is in an error detection state, the printer error state can be cleared (e.g., by replacing the label) to enable print recovery on the printer itself. If [Recovery Possible] is ×, the error requires a power reset of the printer, and any already transmitted print data will be discarded.

■How to clear printer errors

Refer to the printer's instruction manual.

<https://www.sato.co.jp/support/printer/>