OMRON Industrial Automation

Mobile Robot LD Series

Ethernet Driver

Supported version TOP Design Studio V1.4.10.22 or higher



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Describes the data addresses which can communicate with an external device.



1. System configuration

The system configurations of TOP and "OMRON Industrial Automation – Mobile Robot LD Series" are as follows:

| Series | Model | Communication method | System setting | Cable |
|--------|----------------|----------------------|---|----------|
| LD | LD-60 LD-90 | Ethernet | 3. TOP communication setting 4. External device setting | Wireless |

■ Connectable configuration

 \cdot N : N connection









2. External device selection

■ Select a TOP model and a port, and then select an external device.

| Select Device | | | | | | × |
|---|--|---|-----------------|----------|-------|---------------|
| PLC select [Wir | eless] | | | | | |
| Filter : [All] | - | \sim | | Search : | | |
| 0.01 | | | | | Model | Vendor |
| Vendor | Mo | del | | | | |
| M2I Corporation | <u>^</u> 5 | SYSMAC | CS/CJ/CP Series | | | |
| MITSUBISHI Electric Corpo | ration | | hernet/IP | | | |
| OMRON Industrial Automa | tion 🧳 | V6805 P | EID Series | | | |
| LS Industrial Systems | | | | | | |
| MODBUS Organization | | MicroHA | WK Barcode Read | er | | |
| SIEMENS AG. | | 🖉 🛛 Mobile R | obot LD Series | | | |
| Rockwell Automation | | | | | | |
| GE Eanus Automation | | | | | | |
| Bablacobile Electric Mede | | | | | | |
| PANASONIC Electric Works | s | | | | | |
| YASKAWA Electric Corpora | ation | | | | | |
| YOKOGAWA Electric Corpo | pration | | | | | |
| Schneider Electric Industrie | es | | | | | |
| KDT Systems | | | | | | |
| RS Automation | * | | | | | |
| | | | Back | | lext | X Cancel |
| | | | | | | |
| | | | | |)(|) |
| Select Device | | | | | | X |
| Select Device PLC Setting[Mobile | Robot LD Seri | es] | | | | × |
| Select Device PLC Setting[Mobile Alias Name : | Robot LD Seri १८८१ | es] | | | | × |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E | Robot LD Seri | es] | | | | × |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : 7 State Source Network | Robot LD Seri PLC1 Ethernet ARCL | es] | | | Com | x m Manual |
| Select Device PLC Setting[Mobile Alias Name : [F Interface : [E Protocol : [String Save Mode : [F] | Robot LD Seri PLC1 Ethernet ARCL First LH HL | es] v Change | | | Com | x m Manual |
| Select Device PLC Setting[Mobile Alias Name : [Interface : [Protocol : [String Save Mode : [Use Redundancy | Robot LD Seri PLC1 Ethernet ARCL First LH HL | es] v Change | | | Com | × m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : AND | Robot LD Seri PLC1 Ethernet ARCL First LH HL | es] | | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Conditon : AND Change Conditon : C | Robot LD Seri PLC1 Ethernet ARCL First LH HL | es] V Change (Secon | đ | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : T C | Robot LD Seri PLC1 Ethernet ARCL First LH HL imeOut 5 ondition | es] | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : T C Primary Option | Robot LD Seri PLC1 Ethernet ARCL First LH HL imeOut 5 ondition | es] V Change (Secon | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : 7 String Save Mode : F Operate Condition : AND Change Condition : T C Primary Option IP [| Robot LD Seri PLC1 Ethernet ARCL irrst LH HL imeOut 1 | es] V Change (Secon | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : 7 String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : AND Change Condition : T I P Ethernet Protocol | Robot LD Seri PLC1 Ethernet ARCL irist LH HL imeOut fondition 1 (2) TCP v | es] | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Operate Condition : AND Change Condition : T IP Ethernet Protocol Port | Robot LD Seri PLC1 Ethernet ARCL irrst LH HL imeOut 1 © 2 TCP ~ 7171 © | es] | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : T I Primary Option IP Ethernet Protocol Port Timeout | Robot LD Seri PLC1 Ethernet ARCL irist LH HL imeOut 1 © 2 TCP ∨ 7171 © msee | es] Change (Secon | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : T F Ethernet Protocol Port Timeout Send Wait | Robot LD Seri PLC1 Ethernet ARCL irist LH HL imeOut 5 ondition 1 TCP 7171 1 1000 TCP 7171 1 1000 TCP 7 | es] Change (Secon | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : T IP Ethernet Protocol Port Timeout Send Wait • Comm. Message | Robot LD Seri PLC1 Ethernet ARCL First LH HL imeOut imeOut 1 1 2 TCP ~ 7171 1 1000 mse 0 mse | es] Change (Secon | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : MD Change Condition : T F Ethernet Protocol Port Timeout Send Wait Comm. Message Save Comm. Message Save Comm. Message | Robot LD Seri PLC1 Ethernet ARCL First LH HL imeOut imeOut 1 2 TCP 7171 1 1000 mse 0 mse | es] Change (Secon | d) | | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : A String Save Mode : F Use Redundancy Operate Condition : AND Change Condition : T Ethernet Protocol Port IP Ethernet Protocol Port Send Wait Comm. Message Save Comm. Message Save Address | Robot LD Seri PLC1 Ethernet ARCL irrst LH HL imeOut imeOut 1 (2) 7171 (2) 7171 (2) mse 0 (2) mse 0 (2) mse | es] Change (Secon (Secon | d) | 150 | Com | m Manual |
| Select Device PLC Setting[Mobile Alias Name : F Interface : E Protocol : / String Save Mode : F Use Redundancy Operate Condition : MN Change Condition : MN Change Condition : T Ethernet Protocol Primary Option IP Ethernet Protocol Port Send Wait Comm. Message Save Comm. Message Save Address Offset | Robot LD Seri PLC1 Ethernet ARCL inreOut 5 inreOut 5 inreou | es] Change Change (Secon (Secon Change Change Change Change Change | | | | m Manual |

| Settings | | | Contents | |
|---------------------------------|---|--|-------------------------|---------------------------------|
| TOP | Model | Select the TOP model. | | |
| External device | Vendor | Select the vendor of the external device to be connected to TOP. Please select "OMRON Industrial Automation". | | |
| | PLC | Select the external device to be | e connected to the TOP. | |
| | Model Interface | | Protocol | |
| Mobile Robot LD Series Ethernet | | | Ethernet | ARCL |
| | Please check the system configuration in Chapter 1 to see if the external de connect is a model whose system can be configured. | | | the external device you want to |

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3. TOP communication setting

The communication can be set in TOP Design Studio or TOP main menu. The communication should be set in the same way as that of the external device.

3.1 Communication setting in TOP Design Studio

(1) Communication interface setting

The Wi-Fi connection setting of TOP-RH-W is possible only on the main unit.

(2) Communication option setting

■ [Project] → [Project Property] → [Device Setting > Wireless > PLC1 : Mobile Robot LD Series]

- Set the options of the Mobile Robot LD Series communication driver in TOP Design Studio.

| Project Option | | | × |
|--|---|-------|-----------|
| Change HMI[H] Add PLC [A] | Change PLC[C] Delete PLC[D] | | |
| | C Setting[Mobile Robot LD Series] | | |
| V ···································· | Alias Name : PLC1 | | |
| Wireless (1) | Interface : Ethernet | | |
| | Protocol : ARCL | Co | mm Manual |
| | String Save Mode : First LH HL Change | | |
| | Use Redundancy | | |
| Op | erate Condition : AND V | | |
| Ch | nange Condition : TimeOut 5 🔷 (Second) | | |
| | Condition Edit | | |
| | Primary Option | | |
| IP | | | ^ |
| Et | hernet Protocol TCP V | | |
| Pa | 7171 💽 | | |
| Ē Tir | meout 1000 msec | | |
| Se | end Wait 0 💭 msec | | |
| • | Comm. Message | | |
| Sa | ave Comm. Message | | |
| Sa | ave Address SYS V 06000 C C C C C C C C C C C C C C C C C | | |
| to | ffset SyS V 00000 0 10 10 40 💽 | | |
| • | Password | | |
| Pa | assword | | |
| • | Status | | |
| Up | adate Interval 30000 💭 msec | | |
| < | Out> Status SYS v 01000 | | |
| | Out>Battery Charge | | ~ |
| | | Apply | Close |

| Items | Settings | Remarks |
|-------------------|---|--------------------|
| Interface | Select "Ethernet". | 2. External device |
| Protocol | Select "ARCL". | selection |
| IP | Enter the IP address of the external device. | |
| Ethernet Protocol | Select the Ethernet protocol between the TOP and an external device. | |
| Port | Enter the Ethernet communication port number of an external device. | |
| TimeOut (ms) | Set the time to wait for a response from an external device. | |
| SendWait (ms) | Set the waiting time before sending a data request to an external device. | |

• Comm. Message

| Items | Settings | Remarks |
|--------------------|---|---------|
| Save Comm. Message | Set whether to use the message save function or not. | |
| Caula Address | Set the starting address and length (bytes per line) of the TOP internal buffer | |
| Save Address | where messages are saved. | |
| Offeet | Set the starting address and number of lines in the TOP internal buffer where | |
| Onset | the offset value of a message is saved. | |



Password

| Items | Settings | Remarks |
|----------|---|---------|
| Password | Enter the ARCL connection password of the Mobile Robot. | |

• Status command

| Items | Settings | Remarks |
|--------------------|---|--------------|
| Update Interval | Set the Update Interval. | |
| Status | Set the starting address and length (bytes) of the TOP internal buffer where the current status is saved. | String |
| Battery Charge | Set the TOP internal buffer address in which the battery charging rate value is saved. | 32-bit Float |
| Location X | Set the TOP internal buffer address in which an X coordinate value is saved. | 32-bit Dec |
| Location Y | Set the TOP internal buffer address in which a Y coordinate value is saved. | 32-bit Dec |
| Location Theta | Set the TOP internal buffer address in which a Theta value is saved. | 32-bit Dec |
| Localization Score | Set the TOP internal buffer address in which a position accuracy value is saved. | 32-bit Float |
| Temperature | Set the TOP internal buffer address in which a temperature value is saved. | 32-bit Float |

• GoTo command

| Items | Settings | Remarks | |
|------------|--|---------|--|
| Goal | Set the TOP internal buffer address and length (bytes) to enter a destination. | String | |
| | Set the TOP internal buffer address and length (bytes) in which a destination is | Chuin e | |
| Arrived at | saved when GoTo operation is completed. | String | |

DoTask command

| Items | Settings | Remarks | |
|---------------|--|---------|--|
| Task | Set the TOP internal buffer address and length (bytes) to enter a task. | String | |
| A way was and | Set the TOP internal buffer address and length (bytes) to enter the argument | Chuin e | |
| Argument | corresponding to the task. | String | |

Patrol command

| Items | Settings | Remarks |
|-------|--|---------|
| Route | Set the TOP internal buffer address and length (bytes) to enter a route. | String |

• Say command

| Items | Settings | Remarks |
|-------|--|---------|
| Text | Set the TOP internal buffer address and length (bytes) to enter a text string. | String |

Play command

| Items | Settings | Remarks |
|-------|---|---------|
| Filo | Set the TOP internal buffer address and length (bytes) to enter a file path and | String |
| File | name. | Stillig |

• I/O

| Items | Settings | Remarks |
|-----------------|--------------------------|---------|
| Update Interval | Set the Update Interval. | |



3.2. Communication setting in TOP

* This is a setting method when "Use HMI Setup" in the setting items in "3.1 TOP Design Studio" is not checked.

■ Touch the top of the TOP screen and drag it down. Touch "EXIT" in the pop-up window to go to the main screen.



(1) Communication interface setting

 $\blacksquare [Control Panel] \rightarrow [System] \rightarrow [Wi-Fi]$





(2) Communication option setting

 $\blacksquare [Control Panel] \rightarrow [System] \rightarrow [PLC]$

| | | 1001 | PLC | × | | | |
|--|-------------------------|---|---|--------------|--|--|--|
| Run | S: | rstei Drvier(ETH) | PLC1(Mobile Robot LD Series) - Ethernet - | | | | |
| | | Protocol Bind IP | ARCL | | | | |
| YNC View Scret Shot | er Ethern Diagnos | IP Ethernet Port Timeout Send Wait Comm. Messag Save Comm. Me | 192 	 168 	 0 	 50 TCP 7171 1000 	 msec 0 	 msec ge ess □ | | | | |
| | [Sys | tem] Diagnostic | c Ping Test | Apply Cancel | | | |
| ltems | Setting | 5 | | Remarks | | | |
| Interface | Select " | Select "Ethernet". | | | | | |
| Protocol | Select " | Select "ARCL". | | | | | |
| IP | Enter th | Enter the IP address of the external device. | | | | | |
| Ethernet Protoco | | | | | | | |
| Port Enter the Ethernet communication port number of an external device. | | | | | | | |
| TimeOut (ms) | Set the | time for the TOP to wait | for a response from an external device. | | | | |
| SendWait (ms) | Set the | waiting time before TOP | sends a data request to an external device. | | | | |

* Except for the above basic options and password, the rest of the options are interlocked with the drawing. Do not change the main unit.



3.3 Communication diagnostics

■ Check the interface setting status between the TOP and an external device.

- Touch the top of the TOP screen and drag it down. Touch "EXIT" in the pop-up window to go to the main screen.
- Check that the settings in [Control Panel] \rightarrow [Wi-Fi] are those which can be connected to an external device.

Diagnosis of whether the port communication is normal or not

- Touch "Communication Diagnostics" in [Control Panel] \rightarrow [System] \rightarrow [PLC].

- A communication diagnostics result window pops up on the screen to determine the diagnosis status.

| ОК | Communication setting normal |
|----------------|--|
| Time Out Error | Communication setting abnormal |
| | - Check the cable, TOP, and external device setting status. (Reference: Communication diagnostics sheet) |

■ Communication diagnostics sheet

- If there is a problem with the communication connection with an external terminal, please check the settings in the sheet below.

| Items | Conter | Ch | eck | Remarks | |
|-----------------|---------------------------|------------------------------|-----|-------------------------|---|
| System | How to connect the system | | OK | NG | 1 Custom configuration |
| configuration | Connection cable name | OK | NG | 1. System configuration | |
| TOP | Version information | | OK | NG | |
| | Port in use | | OK | NG | |
| | Driver name | | OK | NG | |
| | Other detailed settings | | OK | NG | |
| | Relative prefix | Project setting | OK | NG | 2. External device selection |
| | | Communication diagnostics | ОК | NG | 3. Communication setting |
| | Ethernet port setting | IP Address | OK | NG | |
| | | Subnet Mask | OK | NG | |
| | | Gateway | OK | NG | |
| External device | CPU name | | OK | NG | |
| | Communication port na | ame | OK | NG | |
| | Protocol | | OK | NG | |
| | Setup Prefix | | OK | NG | 4 External device cotting |
| | Other detailed settings | | OK | NG | 4. External device setting |
| | Ethernet port setting | IP Address | OK | NG | |
| | | Subnet Mask | OK | NG | |
| | | Gateway | OK | NG | |
| | Check address range | | ОК | NG | <u>5. Supported addresses</u> (For details, please refer to the PLC vendor's manual.) |



4. External device setting

Activate the ARCL of Mobile Robot and set IP, port and password.

Step 1. Activate ARCL server in [Config] \rightarrow [ARCL server setup].

| Disconnect 1.2.3.4:Config Map SetVerGo Save Map SetVerGo Save Sarch Indo Interface Robot Operation Robot Operation Robot Operation Robot Operation Config Save < | MobilePlanner – D X ile <u>Edit Robot Map View Tools Window H</u> elp | | | | | | | | | | |
|---|--|------------------------|------------|------------------------------------|--|--------------|---------|-----------------|---|----------|-------|
| Output: | 2.3.4 Dis <u>c</u> onnect | ~ | 🚚 Fleet | Config N | O Image: Set Office Set Offic | Ø NetGo § | Rave Un | o C ido Redo | ∲ Search | | |
| Image: Note Operation Robot Physical Enterprise Debug Image: Note Expert+ Parameter Sections: Parameters for 'ARCL server setup': AV Config Parameter Value Default Min Max Description Connection timeouts Core Digital Uputs Destination Drawing Feedback Open TextServer Tue False Open the ARCL server. A Password must be specified below. Outgoing ARCL commands Outgoing ARCL commention setup Payload Present Messages and Breach Messages and Breacher Visital Question Specified District Server Password adept server. Payloand Intervision LogReceived Tue Tue Log the text received by the ARCL server. Payload Present Messages and Breach Messages and Breach Specified District Server False Log the text sent by the ARCL server. Specifi Synthesis False Log Sent False Log the text sent by the ARCL server. | i 1.2,3,4:Configuration | | | | | | | | | | |
| Sections: Parameters for 'ARCL server setup': AVC Config AHCL server setup Connection limeouts Core Digital Uptubs Destination Drawing Feedback Language/Location Outgoing ARCL connection setup Payload Present Messages and B Paripheral Power Digital Uptubs Speech Synthesis Parameters for 'ARCL server setup': Image: Contraction Uptubs Destination Drawing Feedback Language/Location Outgoing ARCL connection setup Payload Present Messages and B Paripheral Power Digital Uptub Speech Synthesis Parameters for 'ARCL server True False Password used to connect to the ARCL server. Image: Connection setup Payload Present Messages and B Paripheral Power Digital Uptub Speech Synthesis Image: Connection setup Payload Digital Uptub Speech Synthesis Image: Connection setup Payload Digital Uptub Speech Synthesis | 🖑 Robot Interface | Robot O | peration | Robot Physi | ical Ent | erprise | Debug | | Show Expert+ | Param | eters |
| AVV Config AVU Config APCL_Genver.setup Connection Immedia Corne Digital Inputs Open The XRCL server. A Password must be specified below. Core Digital Outputs PortNumber 7171 7171 7121 1025 65536 TCP port on which to open the ARCL server. Inguage/Location Partmeter Value Default Min Max Description Outgoing ARCL commands Password adept Password used to connect to the ARCL server. Fibre is no password, the ARCL server. Value Password adept Password used to connect to the ARCL server. Password used to connect to the ARCL server. Value Password adept Password password used to connect to the ARCL server. Value Password adept Password password used to connect to the ARCL server. Value Password adept True Log the text received by the ARCL server. Password password False Log the text sent by the ARCL server. Speech Synthesis Password Password Password Password Value Password Password Password Pas | Sections: | | Paramet | ers for 'ARCL s | server set | up': | | | | | |
| ARCL server setup OpenTextServer Tue False Open the ARCL server. A Password must be specified below. Core Digital Inputs Destination Drawing PortNumber 7171 7171 1025 65536 TOP port on which to open the ARCL server. A Password must be specified below. Imaguage/Location Dutgoing ARCL commands PortNumber 7171 7171 1025 65536 TOP port on which to open the ARCL server. Imaguage/Location Outgoing ARCL commands Password adept Server will not start. Imaguage/Location Utgoing ARCL commands Imaguage/Location Imaguage/Location Outgoing ARCL connection setup Password adept Server will not start. Imaguage/Location Imaguage/Location Imaguage/Location Imaguage/Location Outgoing ARCL connection setup Password True Log the text sective by the ARCL server. Peripheral Power Digital Outputs Poster False Log the text sent by the ARCL server. Speech Synthesis Password Password Log the text sent by the ARCL server. | A/V Config | | Parameter | r | Value | Default | Min | Max | Description | | |
| Core Digital Inputs PortNumber 7171 7171 1025 65536 TCP port on which to open the ARCL server. Destination Drawing Feedback Password adept Password used to connect to the ARCL server. If there is no password, the ARCL server will not start. Outgoing ARCL commands Outgoing ARCL commention setup Payload Present Messages and B True Log the text received by the ARCL server. Velogient Reserved Tou True Log the text sent by the ARCL server. | ARCL server setup Connection timeouts | | | OpenTextServer | True | False | | | Open the ARCL server. A Password must be specified below. | | |
| Core Digital Outputs Perstumber //// /// Password used to connect to the ARCL server. Perstumber /// Password used to connect to the ARCL server. Laguage/Location Outgoing ARCL commands Outgoing ARCL commands Outgoing ARCL connection setup Payload Present Messages and B Peripheral Power Digital Outputs Robei joystick goal button Speech Synthesis vertice with the area and the area a | Core Digital Inputs | | | Dentralia | 7474 | 7171 | 100 | | | | |
| Feedback Language/Location Outgoing ARCL commands • Password adept Payload Present Messages and B • LogSent False Peripheral Power Digital Outputs Robei Joystick goal button Speech Synthesis • Paise | Destination Drawing | | | Portnumber | /1/1 | /1/1 | 102 | 5 65536 | TCP port on which to open the ARCL server. | | |
| Language / Detailoin Volgoing ARCL commands Outgoing ARCL commands LogSent True LogSent False False Log the text sent by the ARCL server. LogSent False False Log the text sent by the ARCL server. LogSent False False LogSent False False Log the text sent by the ARCL server. LogSent False False LogSent False LogSent False LogSent False LogSent False LogSent LogSent False LogSent <li< td=""><td>Feedback</td><td></td><td></td><td>Password</td><td>adept</td><td></td><td></td><td></td><td>Password used to connect to the ARCL server. If there is no password, server will not start.</td><td>the ARCI</td><td></td></li<> | Feedback | | | Password | adept | | | | Password used to connect to the ARCL server. If there is no password, server will not start. | the ARCI | |
| Outgoing ARLL connection setup Payload Present Messages and B Peripheral Power Digital Outputs Robot joystick goal button Speech Synthesis | Outgoing ARCL comman | nds | | LogReceived | True | True | | | Log the text received by the ARCL server. | | |
| < | Payload Present Messa | ion setup ges and B | • | LogSent | False | False | | | Log the text sent by the ARCL server. | | |
| speech Symbolis speech Symbolis second | Peripheral Power Digital Bobot invistick goal butto | Outputs | | | | | | | | | |
| c > | Speech Synthesis | | | | | | | | | | |
| < > | | | | | | | | | | | |
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| | < | > | | | | | | | | | |
| | | | | | | | | | | | |

Step 2. Set the IP of the Mobile Robot and the router to be connected in [SetNetGo] \rightarrow [Network] \rightarrow [Wireless Ethernet].

| O MobilePlanner | | | | - 🗆 X |
|---|--|---|--------------|----------------------|
| <u>File Edit R</u> obot <u>Map V</u> ie | ew <u>T</u> ools <u>W</u> indow <u>H</u> elp | | | |
| Dis <u>c</u> onnect | ✓ 🖓 🐢 🔽 🍪 🔽 📀 Fleet Config Map | Image: Weight of the set NetGo Image: Weight of the set NetGo | Redo Search | |
| / 💿 1,2,3,4:S | ietNetGo 🛛 🛛 🗸 📀 | 1, 2, 3, 4:Configuration | \mathbf{X} | |
| SETNETGO - LD | | | | ROBOT ID: ADEPT-LYNX |
| | Status Network | Software Securi | ty System | |
| Wireless Ethernet | Wireless Ethernet | | | Apply Reset |
| User LAN Ethernet | | | | |
| RS-232 Port Forwarding | Status | Connected to AGV_AP | | |
| Ethernet Forwarding | | IP Address 192.168.0.50 | | |
| Utilities | IP Settings | | | |
| | IP Assignment: | Static 🖲 Dynamic (DHCF |) () | |
| | IP Address: | 192 168 0 | 50 | |
| | Netmask: | 255 255 255 | 0 | |
| | Gateway: | 192 168 0 | 1 | |
| | DNS1: | 0 0 0 | 0 | |
| | WiFi Network Settings | | | |
| | Selected Network: | AGV_AP | | |
| | | | | |
| | Choose from list of | ACV AD | _ | |
| | available networks; | ASV_AF | | |
| | | WN-203 | | |
| | | iptime | | • |
| | | | | ₽~ 里 |



5. Supported addresses and how to use them

Describes the supported address and drawing method of the Mobile Robot LD Series driver.

| Address | Description | Remarks |
|------------|--|----------|
| CONNECTION | Information on the status of communication connection with the robot | |
| STATUS | Manual update of robot status | |
| GOTO | Go to destination | |
| ARRIVED | Moving to destination completed | |
| ERROR | An error occurs while executing a command | |
| STOP | Stop | |
| DOCK | Go to charging station | |
| DOCKED | Docked at the charging station | |
| DOTASK | Perform a specified task | |
| PATROL | Route patrol | |
| SAY | Output the entered string in voice | |
| PLAY | *.wav sound file playback | |
| 11–16 | Core Digital Inputs | *Note 1) |
| O1–16 | Core Digital Outputs | *Note 1) |

*Note 1) Check [Alias] of I/O. Reference) I/O settings



How to use the address

• STATUS

Updates the robot's status information manually. The received status information is saved in the TOP internal address of the [Status] items of the communication option.

| Status | | | | |
|--------------------------------|-------------|------|-------|---------------------------------------|
| Update Interval | 500 💌 mse | ec | | |
| <out> Status</out> | 🚺 SYS 🗸 🗸 🖸 | 1000 | 127 🚔 | Current status (ASCII data) |
| <out> Battery Charge</out> | 🚺 SYS 🔍 🗸 🛛 | 1200 | | Charging rate (32-bit Float data) |
| <out> Location X</out> | 🚺 SYS 🔍 🗸 🛛 | 1202 | | X coordinate (32-bit Dec data) |
| <out> Location Y</out> | 🚺 SYS 🔍 🗸 🛛 | 1204 | | Y coordinate (32-bit Dec data) |
| <out> Location Theta</out> | 🚺 SYS 🗸 🗸 🛛 | 1206 | | Theta value (32-bit Dec data) |
| <out> Localization Score</out> | 🚺 SYS 🔍 🗸 🛛 | 1208 | | Position accuracy (32-bit Float data) |
| <out> Temperature</out> | 🚺 SYS 🔍 🗸 🛛 | 1210 | | Temperature (32-bit Float data) |

Example)



When pressed, enter ON in STATUS \rightarrow update status information.



GOTO & ARRIVED

When ON is entered in the GOTO address, the device goes to the destination entered in the [GoTo-Goal] address. When OFF is entered in the GOTO address, a stop command is sent.

The GOTO address remains ON while moving by the goto command.

When arriving at the destination, the ARRIVED address becomes ON and the destination is saved in the [GoTo-Arrived at] address.

| • GoTo | | | | | |
|----------------|-----|----------------|-------|-------|---|
| <in> Goal</in> | SYS | v 01400 | | 127 🛓 | Goal entering address & length set in the map |
| Arrived at | SYS | V 01600 | t 🗟 🔜 | 127 🚔 | Arrived Goal storage address & length |

Example)

| Preview | 1 | | | - | | | |
|--|-------|---------------|---------------|-------------|----------------------------|-------------------------|----------|
| 11676 | Basic | Lamp | Shape | Effect & Ac | tion | | |
| | No | | Condit | tion | Effect | Action | |
| Goal1 | 1 | | Touch D | lown | None | [@SYS:01400:ASCII] = "G | oal1"; |
| | | | | | | | |
| | | | | | | | |
| | Щ | | - | | | | |
| | 🛨 U | p [U] | Down | 0 | | + Add [A] / Modify [M] | Delete [|
| | Cond | ition | Effect | Action | | | |
| | | - Contraction | Lincer | | ······ | D-1- T 0 (*) (100 | |
| | Maxex | cute Cour | 10:11 | • (0=00) In | iterval: U 💽 (100ms) | Delay Time : 0 (100m | s) |
| ID : 2 SEQ : 1 | | | 1 [@SYS | :01400:AS0 | <pre>[II] = "Goall";</pre> | | ^ |
| X: 350 🗘 Y: 117 🗘 | | | a [PLC1 | :GOTO:1:UI | EC] = 1; | | |
| dth : 76 A Height : 69 | | | | | | | |
| | | | | | | | |
| Security Level : 0 | Serie | + | | | | | |
| Create Security Log | Serie | | | | | | |
| JIgnore GlobalLock | | | | | | | ~ |
| If Security level is low then Hide Object | | Con | dition Expr | ession OK | | | 0400 |
| Visible InterLock Icon | - | | Citerin Espin | | | | |
| | | | | | | | |
| Display as here they also and | | | | | | | |
| Display on top when changed | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| emo : | | | | | | | |
| | | | | | | | |
| | | | | | | OK | Cancel |

When pressed, enter a destination in Goal entering address + Enter GOTO address ON \rightarrow Move to "Goal1".



Blink while executing goto command + keep ON lamp upon arrival

When there are several destinations, you can compare the strings in the Status address to find out what action is being performed.

If Goal1, Goal2, and Goal3 are set in the map, you can write the script as follows to distinguish the destination from the end

```
// Status 주소: [@SYS:01000:127:ASCII]
if( [@SYS:01000:127:ASCII] == "Going to Goall" )
ł
   // Goal1로 이동중
else if( [@SYS:01000:127:ASCII] == "Going to Goal2" )
   // Goal2로 이동중
else if( [@SYS:01000:127:ASCII] == "Going to Goal3" )
ł
   // Goal3으로 이동중
// Status 주소: [@SYS:01000:127:ASCII]
if( [@SYS:01000:127:ASCII] == "Arrived at Goall" )
   // Goal1에 도착
ł
   // Goal2에 도착
else if( [@SYS:01000:127:ASCII] == "Arrived at Goal3" )
ſ
   // Goal3에 도착
```

uch Operation Pane



DOCK & DOCKED

When ON is entered in the DOCK address, the device goes to the charging station. When OFF is entered in the DOCK address, a stop command is sent. The DOCK address remains ON while going to the charging station. When the robot is in the charging station, the DOCKED address remains ON.

Example)



When pressed, enter ON in DOCK address \rightarrow Send goto command to charging station.

| | 3/1#30/ 3/1#30/ | LAU MINIM Mense | |
|--|---------------------------------|--|-----------------------|
| Lamp Property | | | × |
| Preview | Basic Lamp Shape | Effect & Action | |
| 1/3 | Lamp Feature | © ∭ © Momentary © Bit Momentary Switch℃ | Selector[S] |
| ID: 2 SEQ: 1 X: 350 X: Y: 117 X Width: 76 Height: 69 X Security Level: 0 X Create Security Log Ignore Global.ock If Security level is low then Hide Object Visible InterLock Icon Visible Pemission Icon Display on top when changed | Lamp Setting Multiphase Lamp | P Feature amp [0] | N Bit Independent [D] |
| Memo : | | | |
| | | | OK Cancel |

| | | | | 7 | 대한 Touc | 민국대표 터치 h Operation F |
|--|-------|-------------------------|-----------|--------------------|------------|--------------------------|
| Lamp Property | VIAW | VIAW (3 | VIEW VI | | | × |
| Preview | lasic | amn Shane Effect & Acti | on | | | - |
| Dock | Sha | ape Shape Type : | • |] o 🔜 o 🍺 | 0 | |
| | Set | up | | | | |
| | No | Condition | On Color | Text | Effect | |
| | 1 | Default Case | | Dock | None | |
| | 2 | [PLC1:DOCK:1:DEC] | | Docking | Blink | |
| | 3 | [PLC1:DOCKED:1:DEC] | | Docked | None | |
| X: 350 ¥ Y: 117 idth: 76 ¥ Height: 69 Security Level: 0 Create Security Log | | | | | | |
| | | | | | | |
| If Security level is low then Hide Object | Colo | or Text Effect | | | | |
| ✓ Visible InterLock Icon | | Line Color[C] : | Line Styl | e[<u>S]</u> : — ~ | | |
| ✓ Visible Pemission Icon | | Line Width[W]: 1 | | | | |
| Display on top when changed | | Fill Color [0]: | Back Cold | or[B]: | | |
| emo : | | Fill Style 🖺 : 🗾 🗸 | | | | |
| | | | | c | K Canc | el |

Blink while executing dock command + keep ON lamp upon arrival



• DOTASK

When a value is entered in DOTASK, the dotask command is sent as parameters for the task entered in the [DoTask-Task] address and the corresponding task entered in the [DoTask-Argument] address.

For information on Task and Argument, refer to the vendor's ARCL Command Manual.

| • DoTask | | | | | |
|--------------------|-----|----------------|-------|-------|------------------------------------|
| <in> Task</in> | SYS | V 01800 | t 🗟 🔜 | 127 🚔 | Task entering address & length |
| <in> Argument</in> | SYS | v 02000 | 13 | 127 🚔 | Argument entering address & length |

Example)



When pressed, enter "Move" in the task address + enter "[distance] [speed]" in the argument address + enter ON in the DOTASK address \rightarrow Send dotask command ("dotask move xxxx yyyy")



• PATROL

When ON is entered in the PATROL address, the route entered in the [Patrol-Route] address is patrolled. When OFF is entered in the PATROL address, a stop command is sent. The PATROL address remains ON during patrol.

| • Patrol | | | | | |
|-----------------|-----|----------------|---|-------|--|
| <in> Route</in> | SYS | v 02200 | 1 | 127 🖢 | Route entering address & length set in the map |

Example)

| | Basic | Shape | e Optio | on Effect | & Action | | | | |
|---|--|---------|----------------------------|---------------------------------|--|-----------------------------|--------------------|--------------------|----------|
| | No | | Cond | ition | E | ffect | | Action | |
| Patrol | 1 | | Touch | Down | | None | // Route: [@ | SYS:02200:127 | ASCII] |
| | The second secon | | - Dowr | | | | ∓ Add 🗛 🖌 | Modify [<u>M]</u> | Delete (|
| | Condi | ition | Effect | Action | | | | | |
| | Max Exc | ute Cou | nt : 1 | ★ (0=∞) | Interval : 0 | ÷ (100m | ns) Delay Time : 0 | 🗘 (100m | s) |
| ID: 3 SEQ: 2 X: 396 Y: 216 dth: 68 Height: 66 + | | | 1 // R 2 [@SY 3 [@PL | oute: [(S:02200 C1:PATR(| SYS:02200: 127:ASCII] DL:1:UDEC] = | 127:ASCI = "rout = 1; | I] el"; | | ^ |
| Security Level : 0 | Script | t | | | | | | | |
| If Security level is low then Hide Object | · | Cor | ndition Exp | pression OK | | | | | ~ |
| Visible InterLock Icon | | | | | | | | | |
| Display on top when changed | | | | | | | | | |
| emo · | | | | | | | | | |

When pressed, enter a route in Route address + enter ON in PATROL address \rightarrow patrol route "Route1".

When there are several routes, you can compare the strings in the Status address to find out what action is being performed. If Route1, Route2 are set in the map, you can write a script as follows to distinguish the destination from the end.





• ERROR

When a problem occurs while the robot is executing a command, the ERROR address remains ON.

• STOP

When a value is entered in STOP, a stop command is sent.

Example)

| switch Property | | | | | | | | × |
|-------------------------------|------------|------------|----------|----------|--------------|----------------|---------------------------|------------|
| Preview | Basic | Shape | Option | Effect & | Action | | | |
| | No | | Conditio | n | | Effect | Action | |
| Stop | 1 | | Touch Do | wn | | None | [PLC1:STOP:1:DEC]=ON grou | up:0 |
| | | | | | | | | |
| | | | | | | | | |
| | • 1 | n IUI 🚽 | Down (O | 1 | | | Add [A] | Delete (D) |
| | | | | | | | | |
| | Cond | ition | Effect / | Action | | | | |
| | Max Ex | cute Count | t:1 📮 | (0=0) | Interval : 0 | | Delay Time : 0 🚽 (100ms) | + |
| ID:3 SEQ:2 | E | | PLC1 | ✓ STOP | | | | × |
| X: 396 🗘 Y: 216 🗘 | Rit | | | Nr. 5 | A 0 | @ [©] | Group Index : 0 🖨 | |
| Width : 68 🜩 Height : 66 🜩 | - | | | | - t | •J | Pulse Time : 10 🗘 (100 | ms) |
| Security Level : 0 | | | | | | | | |
| Create Security Log | | | | | | | | |
| If Security level is low then | | | | | | | | |
| Hide Object | | | | | | | | |
| | | | | | | | | |
| Display on top when changed | | | | | | | | |
| | | | | | | | | |
| Mana a | | | | | | | | |
| memo : | | | | | | | | |
| | | | | | | | ОК | Cancel |

When pressed, enter ON in STOP address \rightarrow send stop command.

• SAY

When a value is entered in SAY, the character string entered in the [Say-Text] address is outputted as voice.

| • Say | | | | | |
|----------------|-----|----------------|-------|-------|--------------------------------|
| <in> Text</in> | SYS | v 02400 | t 🔂 🔜 | 127 🚔 | Text entering address & length |

* When using Korean, set [Project Settings > Language > Character Set] to EUC-KR.

PLAY

When a value is entered in PLAY, the *.wav file entered in the [Play-File] address is played.

| • Play | | | | | |
|----------------|-----|----------------|-------|-------|-------------------------------------|
| <in> File</in> | SYS | v 02600 | t 🔂 🔜 | 127 🌲 | File name entering address & length |

* Enter up to the extension name.

/subfolder1/subfolder2/wavefile.wav



• I/O

Displays the Mobile Robot's built-in I/O. In order to read/write I/O data in TOP, set [Alias] of I/O as follows: Set Alias of Inputs to 11 - 116 in order from the top. Set Alias of Inputs to O1 - O16 in order from the top.

| Example | י ר ב | Set | Alias | of | Innut 1 | 1 | to | "i1" | and | Alias | of | Innut | 3 1 | to | "i9" |
|---------|----------|-----|-------|-----|---------|-----|----|---------|-----|-------|-----|--------|-----|----|------|
| слаттри | ΞΙ, | Jet | Allas | UI. | input_i | • • | ω | · · · , | anu | Allas | UI. | input_ | | 10 | 19. |

| O MobilePlanner | | | | | - 🗆 × |
|--|---|----------------|-------------------------------|-----|--|
| <u>Eile Edit Robot Map ⊻iew R</u> | ols <u>W</u> indow <u>H</u> elp | | | | |
| 192, 168, 0, 50 V | 🚁 🖓 🎲 🧖 🍞 🧭 📕 Fleet Config Map SetNetGo Save | 비해 Redo Search | | | |
| 0 192, 168, 0, 50: Fleet | ☑ √ ◎ 192,168.0.50:Configura | ation 🛛 🛛 🗸 🚱 | 192, 168, 0, 50:m2i_test, map | | (0) 192, 168, 0, 50: SetVetGo |
| ✓ Robot Interface Robot O | peration Robot Physical Enterprise Deb | ug | | | Show Expert+ Parameters |
| Sections: | Parameters for 'Core Digital Inputs': | | | | |
| A/V Config ARCL server setup | Parameter | Value | Default Min | Max | Description ^ |
| Connection timeouts Core Digital Inputs | ⊿ ? □ Input_1.1 | | | | A digital input. |
| Core Digital Outputs Dectination Drawing | ⊘ ⊟ Allas | ii. | 11 | | Meaningful name to use in place of the raw name 'Input_1.1'. If this has spaces they will be replaced with |
| Feedback | | | | | True (enabled) if logical ON is electrically low, or ground, for Input_1.1. False if logical ON is electrically high. |
| Outgoing ARCL commands | ⊿ 🤉 🗔 OnList | | | | List of responses when Input_1.1 switches on. |
| Payload Present Messages and B | ∂ ⊐ Suffix | | | | Suffix appended to the alias when the input switches on. If an alias is not specified, then the suffix is appended to the raw name. |
| Peripheral Power Digital Outputs Robot joystick goal button | 🖓 🗔 Count | 1 | 1 0 | 5 | Number of responses when Input_1.1 switches on. |
| Speech Synthesis | ခွ ၊ Type1 | custom | custom | | A response when the input switches on. |
| | ⊿ 🤉 🗆 OffList | | | | List of responses when Input_1.1 switches off. |
| | ⊋ ⊟ Suffix | _off | _off | | Suffix appended to the alias when the input switches off. If an alias is not specified, then the suffix is appended to the raw name. |
| | ⊘ ⊟ Count | 0 | 0 0 | 5 | Number of responses when Input_1.1 switches off. |
| | ▷ @ □ Input_1.2 | | | | A digital input. |
| | ▷ @ □ Input_1.3 | | | | A digital input. |
| | ▷ @ □ Input_1.4 | | | | A digital input. |
| | ▷ @ □ Input_2.1 | | | | A digital input. |
| | ▷ @ □ Input_2.2 | | | | A digital input. |
| | ▷ @ □ Input_2.3 | | | | A digital input. |
| | ▷ @ □ Input_2.4 | | | | A digital input. |
| | 4 2 ⊡ Ioout 31 | | | | 4 distal low it |
| | | 19 | 19 | | Meaningful name to use in place of the raw name "input 3.1". If this has spaces they will be replaced with - |
| | 2 E Inverted | | | | True (enabled) if logical ON is electrically low, or ground, for Input, 3.1, False if logical ON is electrically high. |
| | 4 ⊗ ⊟ Onlist | | | | List of responses when Input 3.1 switches on. |
| | ∂ ⊟ suffix | | | | Suffix appended to the alias when the input switches on. If an alias is not specified, then the suffix is appended to the |
| | ∂ □ Count | 1 | 1 0 | 5 | Number of responses when Input_3.1 switches on. |
| | @□Type1 | custom | custom | | A response when the input switches on. |
| | | | | | |
| | | | | | ی ۲۰۹ |



| O MobilePlanner | | | | | - 🗆 X |
|--|-----------------------------------|--|-------------------------------|-----|---|
| <u>File Edit Robot Map View</u> | ools <u>W</u> indow <u>H</u> elp | | | | |
| ≦ Dis <u>c</u> onnect 192,168,0,50 √ | 🙀 🖓 🍪 🖓 🏹 🖓 Fleet Config Map S | 😿 🖳 🗐 🖉 🔎 etNetGo Save Undo Redo Search | | | |
| 192, 168, 0, 50: Fleet | I V 😳 19 | 12.168.0.50:Configuration 🛛 🛛 🗸 😳 | 192, 168, 0, 50:m21_test, map | | ④ 192, 168, 0, 50: SetVetGo |
| 🛷 Robot Interface 🛛 Robot O | peration Robot Physical E | nterprise Debug | | | Show Expert+ Parameters |
| Sections: | Parameters for 'Core Digital Ou | itputs': | | | |
| A/V Config ARCL server setup | Parameter | Value | Default Min | Max | Description |
| Connection timeouts Core Digital Inputs | ⊿ 🖗 🛱 Output_1 | | | | A digital output. |
| Core Digital Outputs Destination Drawing | 🖓 🗔 Alias | 01 | 01 | | Meaningful name to use in place of the raw name 'Output_1'. |
| Feedback | ନ୍ଦ 🛱 Inverted | | | | True (enabled) if logical ON is electrically low, or ground, for Output_1. False if logical ON is electrically high. |
| Outgoing ARCL commands | 🖓 🖽 Count | 1 | 1 0 | 5 | Number of items that trigger Output_1. |
| Payload Present Messages and B | ⊘ ⊟ Type1 | custom | custom | | A trigger of the output. |
| Peripheral Power Digital Outputs Robot joystick goal button | ▷ @ □ Output_2 | | | | A digital output. |
| Speech Synthesis | ▷ @ ⊟ Output_3 | | | | A digital output. |
| | D 🖓 🛱 Output_4 | | | | A digital output. |
| | ▷ @ □ Output_5 | | | | A digital output. |
| | ▷ @ □ Output_6 | | | | A digital output. |
| | ▷ ∂ ⊟ Output 7 | | | | A digital output. |
| | ▷ ⊘ ⊟ Output 8 | | | | A dicital output. |
| | | | | | |
| | D 🖓 🖾 Output_9 | | | | A digital output. |
| | ▷ @ ☐ Output_10 | | | | A digital output. |
| | ▷ 🧟 🗖 Output_11 | | | | A digital output. |
| | ▷ @ ☐ Output_12 | | | | A digital output. |
| | ⊿ 🤉 🗆 Output_13 | | | | A digital output. |
| | ∂ □ Alias | 013 | 013 | | Meaningful name to use in place of the raw name 'Output_13'. If this has spaces they will be replaced with |
| | ∂ □ Inverted | | | | True (enabled) if logical ON is electrically low, or ground, for Output_13. False if logical ON is electrically high. |
| | ନ୍ 🛱 Count | 1 | 1 0 | 5 | Number of items that trigger Output_13. |
| | ⊘ □ Type1 | custom | custom | | A trigger of the output. |
| | ▷ @ □ Output_14 | | | | A digital output. |
| | ▷ @ □ Output_15 | | | | A digital output. |
| < | ▷ @ ⊟ Output_16 | | | | A digital output. |
| | | | | | |
| | | | | | |

It takes some time until receiving a response data from the robot after requesting 1 I/O data. (50–300ms) Set the I/O update cycle appropriately so that there is no problem with the update rate of other data.



■ Communication message saving function

The communication message between the TOP and the robot can be saved in the TOP internal address to be displayed on the screen.

| Comm. Message | | | | |
|-----------------------------------|-----|----------------|-------|-------|
| Save Comm. Message | ~ | | | |
| Save Address | SYS | v 06000 | : 6 🗖 | 150 🚔 |
| Offset | SYS | ~ 00000 | 16 🖿 | 40 🛓 |

Message saving start address & maximum bytes

Offset saving address & number of lines

When set it as shown in the figure above, register the string object on the screen as follows:

| Sys:06000 @Sys:00000 /WXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDFFGHIJKLMNOPQRSTUVWXYZABCDFFGHIJKLMNOPQRSTUVXYZ |
|--|
| SYS:06000@SYS:000011WXYZABCDEFGHIJKLMN0PQRSTUVWXYZABCDEFGHIJKLMN0PQRSTUVWXYZABCDEFGHIJKLMN0PQRSTUVWXYZABCDEFGHIJKLMN0PQRSTUVWXYZABCDEFGHIJKLMN0PQRSTU |
| SYS:06000@SYS:00002]/WXYZABCDEFGHIJKLMNOPQRSTUWXYZABCDEFGHIJK |
| SYS:06000@SYS:000031WXYZABCDEFGHIJKLMNOPQRSTUWXYZABCDEFGHIJK |
| SYS:06000@SYS:00004 MWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMN |
| SYS:06000@SYS:00005/WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKNOPQRSTUVNXYZABCDFGHIJKKNOPQRSTUVNXYZABCDFGHIJKX |
| SYS:06000@SYS:000061/WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKK |
| SYS:06000@SYS:00007/WWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMN |
| SYS:06000@SYS:000081WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRST |
| SYS:06000@SYS:00009/WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKK |
| SYS:06000@SYS:00010]/WXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKYZ |
| SYS:06000@SYS:000111/WXYZABCDEFGHIJKLMNOPQRSTUVXYXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVXYXYZABCDEFGHIJKLMNOPQRSTUVXYXYZABCDFGHIJKYYZABCDFGHIJKLMNOPQRSTUVXYXYZABCDFGHIJKLMNOPQRSTUVXYXYZABCDFGHIJKLMN |
| SYS:06000@SYS:00012]WWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVYXYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDFGHIJKLMNOPQRSTUVNYYZABCDFGHIJKK |
| SYS:06000@SYS:00013 WWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMN |
| SYS:06000@SYS:00014]WWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKK |
| SYS:06000@SYS:00015 WWXYZABCDEFGHIJKLMNOPQRSTUVXXYZABCDEFGHIJKLMNOPQRSTUVXXYZABCDEFGHIJKLMNOPQRSTUVXXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMN |
| SYS:06000@SYS:00016]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMN |
| SYS:06000@SYS:00017]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCD |
| SYS:06000@SYS:00018]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKKLMNOPQRSTUVNXYZABCDFGHIJKK |
| SYS:06000@SYS:00019]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKNOPQRSTUVNXYZABCDFGHIJKKLMNOPQRSTUVNYYZABCDFGHIJKK |
| SYS:06000@SYS:00020]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKKNOPQRSTUVNXYZABCDFGHIJKK |
| SYS:06000@SYS:00021 WWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDFGHIJKLMNOPQRSTUVXYZABCDFGHIJKLMNOPQRSTUVXYZABCDFGHIJKLMNOPQRSTUVXYZABCDFGHIJKK |
| SYS:06000@SYS:00022]WWXYZABCDEFGHIJKLMNOPQRSTUVXYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDEFGHIJKLMNOPQRSTUVNYYZABCDFGHIJKLMNOPQRSTUVNYYZABCDFGHIJKLMNOPQRSTUVNYYZABCDFGHIJKK |
| SYS:06000@SYS:00023]WWXYZABCDEFĠHIJKLMNOPQRSTUVWXYZABCDEFĠHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRST |
| SYS:06000@SYS:00024] WXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTU |
| [SYS:06000@SYS:00025]/WXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMN |
| [SYS:06000@SYS:00026] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00027] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| SYS:06000@SYS:00028]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMN |
| SYS:06000@SYS:00029]WWXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDEFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKLMNOPQRSTUVNXYZABCDFGHIJKKLMNOPQRSTUVNXYZABCDFGHIJKK |
| [SYS:06000@SYS:00030] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00031] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00032] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00033] MWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00034] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00035] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00036]WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJK |
| [SYS:06000@SYS:00037] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |
| [SYS:06000@SYS:00038] WMXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRST |
| [SYS:06000@SYS:00039] WWXYZABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHI |

| String Property | × | |
|---|--|--|
| PREVIEW | Data Shape Style Input Case Effect & Action | |
| | Feature 123 Image: String St | |
| | Address | |
| | [SYS]00000 Register in increments of 1 per line | |
| ID:4 SEQ:3 | Max String Length [L] : 150 🖨 🗇 Byte Swap [B] Use Korean | |
| X : 652 • Y : 194 • Width : 231 • Height : 99 • | Maximum length of the line | |
| Create Security Log Ignore GlobalLock If Security level is low then Hide Object | | |
| ✓ Visible InterLock Icon ✓ Visible Permission Icon | | |
| Memo : | | |
| | OK Cancel | |

In the Mobile Robot LD Series communication driver, save the communication message in Save Address, and save the offset value, where the next line is saved, as many as the number of lines starting from the Offset address.

* Do not save status messages which are received/sent periodically.