LA-POE Socket Communication Sample Program (Excel Macro VBA)

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1. Overview

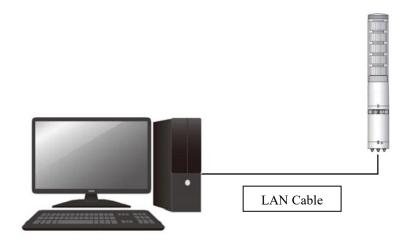
This is an outline of sample programming to control LA6-POE via socket communication.

The programs are intended to control the unit using Excel Macro VBA control without using the DLLs provided by PATLITE.

1.1. System Overview

The system configuration diagram of this program is as follows.

The sample program controls one LA6-POE by socket communication.



2. Development environment

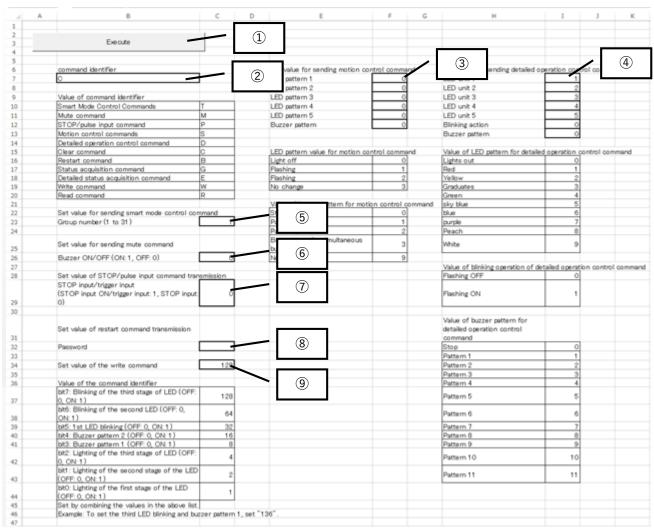
The development environment of the sample program is shown below.

| Development Environment | | Remarks |
|-------------------------|------------------|------------|
| Development | Windows 10 64bit | |
| OS | | |
| Development | VBA | Excel 2013 |
| Language | | |
| Арр Туре | GUI application | |

3. Application Overview

3.1. Screen Operation

In Excel, the command for each action is executed by clicking the Execute button with the identifier of the command to be executed and the parameters to be used are specified.



| No. | Item Name | Description |
|-----|----------------------|--|
| 1 | Execute Button | Executes a command with the specified command identifier |
| 2 | Command Identifier | Select the command identifier to execute. |
| 3 | Operation Control | Set LED patterns 1 to 5 and alarm pattern to be used when executing Operation |
| | Command Transmission | Control command |
| | Value Setting | |
| 4 | Detailed Operation | Set LED color, flashing operation, and alarm pattern of LED units 1 to 5 used when |
| | Control Command | executing Detailed Operation Control command |
| | Transmission Value | |
| | Setting | |

| 5 | Smart Mode Control | Set the group number to be used when executing Smart Mode Control commands |
|---|----------------------|---|
| | Command Transmission | |
| | Value Setting | |
| 6 | Mute Command | Set the alarm being used ON/OFF when executing the Mute command. |
| | Transmission Value | |
| | Setting | |
| 7 | STOP/ Pulse-input | Set STOP input/trigger input used when executing STOP/ Pulse input command. |
| | Command transmission | |
| | Value Setting | |
| 8 | Restart Command | Set the password to use when executing the Restart command |
| | Transmission Value | |
| | Setting | |
| 9 | Write Command | Set the operation data to be used when executing the Write command. |
| | Transmission Value | |
| | Setting | |

3.1.1. Command list

| Command name | Description |
|-------------------------------------|--|
| Smart Mode Control Commands | Run Smart Mode with the specified group number |
| Mute Command | Controlling ON/OFF of the alarm during smart mode |
| STOP/Pulse Input Command | When transmitted during time trigger mode, pattern stop/restart is controlled. |
| | When transmitted during pulse trigger mode, pattern transitions. |
| Operation Control Command | Controls LED unit pattern for each tier and alarm pattern (1 to 3). |
| Detailed Operation Control Commands | Controls the color and operation pattern for each LED unit tier and alarm |
| | pattern (1 to 11). |
| Clear Command | Turn off LED unit and stop alarm. |
| Restart Command | Restart LA6-POE |
| Status Acquisition Command | Used to acquire status of signal lines/contact inputs and the status of the |
| | LED unit and alarm. |
| Detailed Status Acquisition Command | Used to acquire status of signal lines/contact inputs, LED unit and alarm |
| | status, and color information for each tier. |
| Write Command | Controls continuous on and flashing patterns for LED Unit tiers 1-3 and |
| | alarm patterns 1 and 2. |
| Read Command | Used to acquire continuous on and flashing of LED Unit tiers 1-3 and |
| | alarm patterns 1 and 2. |

3.1.2. Smart Mode Control Commands

| No. | Configuration Parameters | Value |
|-----|--------------------------|-------|
| 1 | Command identifier | Т |
| 2 | Group Number | 1~15 |

3.1.3. Mute Control Commands

Set the following values in Excel and then press the Execute button to execute the command.

| No. | Configuration Parameters | Value |
|-----|--------------------------|-------------|
| 1 | Command Identifier | M |
| 2 | Alarm ON/OFF | ON:1, OFF:0 |

3.1.4. STOP/Pulse Input Command

Set the following values in Excel and then press the Execute button to execute the command.

| N | lo. | Configuration Parameters | Value |
|---|-----|--------------------------|---|
| 1 | | Command Identifier | P |
| 2 | | STOP Input/Trigger Input | STOP input ON/Trigger input: 1, STOP input: 0 |

3.1.5. Operation Control Commands

Set the following values in Excel and then press the Execute button to execute the command.

| No. | Configuration Parameters | Value |
|-----|--------------------------|--|
| 1 | Command Identifier | S |
| 2 | LED Pattern 1 | Off: 0 |
| 3 | LED Pattern 2 | Continuous On: 1 |
| 4 | LED Pattern 3 | Flash: 2 |
| 5 | LED Pattern 4 | No change: 9 |
| 6 | LED Pattern 5 | |
| 7 | Alarm Pattern | Stop: 0 |
| | | Pattern 1: 1 |
| | | Pattern 2: 2 |
| | | Alarm Sound when simultaneous alarm input: 3 |
| | | No change: 9 |

3.1.6. Detailed Operation Control Commands

| No. | Configuration Parameters | Value |
|-----|--------------------------|----------|
| 1 | Command Identifier | D |
| 2 | LED Unit 1 | Off: 0 |
| 3 | LED Unit 2 | Red: 1 |
| 4 | LED Unit 3 | Amber: 2 |
| 5 | LED Unit 4 | Lemon: 3 |

| 6 | LED Unit 5 | Green: 4 |
|---|--------------------|-----------------|
| | | Sky: 5 |
| | | Blue: 6 |
| | | Purple: 7 |
| | | Pink: 8 |
| | | White: 9 |
| 7 | Flashing Operation | Flashing OFF: 0 |
| | | Flashing ON: 1 |
| 8 | Alarm Pattern | Stop: 0 |
| | | Pattern: 1 |
| | | Pattern: 2 |
| | | Pattern: 3 |
| | | Pattern: 4 |
| | | Pattern: 5 |
| | | Pattern: 6 |
| | | Pattern: 7 |
| | | Pattern: 8 |
| | | Pattern: 9 |
| | | Pattern: 10 |
| | | Pattern: 11 |

3.1.7. Clear Command

Set the following values in Excel and then press the Execute button to execute the command.

| No. | Configuration Parameters | Value |
|-----|--------------------------|-------|
| 1 | Command Identifier | С |

3.1.8. Restart Command

Set the following values in Excel and then press the Execute button to execute the command.

| No. | Configuration Parameters | Value |
|-----|--------------------------|--|
| 1 | Command Identifier | В |
| 2 | Password | Password set during password setup in the Web Setup Tool |

3.1.9. Status Acquisition Command

Set the following values in Excel and then press the Execute button to execute the command.

| No. | Configuration Parameters | Value |
|-----|--------------------------|-------|
| 1 | Command Identifier | G |

3.1.10. Detailed Status Acquisition Command

| No. | Configuration Parameters | Value |
|-----|--------------------------|-------|
| 1 | Command Identifier | Е |

3.1.11. Write command

Set the following values in Excel and then press the Execute button to execute the command.

| No. | Configuration Parameters | Value |
|-----|--------------------------|--|
| 1 | Command Identifier | W |
| 2 | Operation Data | Bit7: LED tier 3 Flashing (OFF:0, ON:1) |
| | | Bit6: LED tier 2 Flashing (OFF:0, ON:1) |
| | | Bit5: LED tier 1 Flashing (OFF:0, ON:1) |
| | | Bit4: Alarm pattern 2 (OFF:0, ON:1) |
| | | Bit3: Alarm pattern 1 (OFF:0, ON:1) |
| | | Bit2: LED tier 3 Continuous On (OFF:0, ON:1) |
| | | Bit1: LED tier 2 Continuous On (OFF:0, ON:1) |
| | | Bit0: LED tier 1 Continuous On (OFF:0, ON:1) |

Example:145

3.1.12. Read Command

| | Jo. | Configuration Parameters | Value |
|---|-----|--------------------------|-------|
| 1 | | Command Identifier | R |

^{→ &}quot;LED tier 3 Flashing," "Alarm pattern 2," and "LED tier 1 Continuous On"