# Click&Go Plus™ User's Manual

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www.moxa.com/product



# Click&Go Plus™ User's Manual

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Moxa's ioLogik 2500 is a remote I/O device designed for smart monitoring applications over Ethernet and wireless interfaces. With Click&Go Plus<sup>™</sup> intelligence built in, the ioLogik 2500 can be configured for simple outputs paired up with simple input triggers, without using a PC controller.

Click&Go Plus<sup>™</sup> intelligence allows the ioLogik 2500 to be configured to automatically report I/O events according to user-specified conditions. Simple IF-Then-Else statements are used to specify conditions that are required for certain actions to take place. Up to 8 conditions and 8 actions can be combined in one rule, and up to 48 rules can be defined. Supported actions include sending SNMP traps or TCP/UDP messages to up to 10 hosts at a time.

The following topics are covered in this chapter:

- □ Click&Go Plus<sup>™</sup> Overview
- ☐ Click&Go plus™ Features
- I Using Click&Go Plus™ Logic

# **Click&Go Plus™ Overview**

Click&Go Plus<sup>™</sup> logic can be managed and configured with the IOxpress utility to handle front-end events. IOxpress's graphical user interface also provides easy access to all status information and ioLogik 2500 settings.

# Click&Go plus™ Features

Click&Go Plus Logic has the following key features:

- Easy local logic control using graphical and intuitive IF-Then-Else style constructions
- Up to 48 user-defined rules
- · Choice of email, TCP, UDP, and SNMP trap for active I/O messaging
- · Customizable message content with dynamic fields for time, date, IP address, and more
- Up to 10 simultaneous IP destinations for TCP/UDP messaging
- · Internal register function for remote output control when Click&Go plus is running
- Timer Delay function for timing events
- Configurable interval for time-triggered events

# Using Click&Go Plus<sup>™</sup> Logic

The following flowchart shows an overview of the Click&Go Plus ™ Logic configuration process:



More information is available about each of these four topics:

- Setting up I/O Components: See the ioLogik 2500 User's Manual.
- Creating C&G+ Components: See Chapter 2 of this manual.
- Designing C&G+ Logic Rules: See Chapter 3 of this manual.
- Running C&G+ Simulation: See Chapter 4 of this manual.

# Click&Go Plus™ Components

# ClickGo Plus<sup>M</sup> components can be found in **IOxpress Utility** $\rightarrow$ Offline Configuration Management $\rightarrow$ Settings $\rightarrow$ Click&Go Plus.

Click&Go Plus<sup>™</sup> components can be used to specify conditions and actions that are required for certain actions to take place. Up to 8 conditions and 8 actions can be combined in one rule, and you can define up to 48 rules.

The following topics are covered in this chapter:

- Timer
- SNMP Trap
- TCP/UDP Message
- 🗖 Email
  - Server
  - > Recipients
  - > Email Content
- □ Schedule
- Internal Register
- Remote Action
- CGI Commands
  - As Server
  - As Client
- SMS (ioLogik 2500-GPRS/HSPA only)
  - > As Server
  - > As Client

## Timer

The Timer function allows users to delay an action, trigger an action to run, or repeat an action. A timer is activated by a change of the logic event. After the timed interval has expired, the output will be performed.

The Timer can be used in the following circumstances:

- If Condition: Timeout
- THEN/ELSE Action: Start / Stop / Restart

**NOTE** If you use a THEN/ELSE action to Stop / Stop / Restart Timer, the "IF condition" should be an edge-triggered condition. (For example, if you are using the DI as an if condition, then OFF to ON / ON to OFF / Change are all edge-triggered conditions.)

No.	Name		Interval (sec(s))	Initial State	
1	Timer_0		5	Stop	
	Settings lame	Timer_0			
т	īme Interval	5	sec(s)		
I	nitial State	Stop	•		

#### **Timer Settings**

#### <u>Name</u>

The name that will be shown in Click&Go rules.

#### Time Interval

The duration of the timer.

#### Initial State

The initial state of the timer when the ioLogik 2500 starts up.

#### <u>Add</u>

For adding a new timer function.

#### <u>Apply</u>

For changing the setting of an existing timer function.

## **SNMP** Trap

The ioLogik supports SNMP (Simple Network Management Protocol) v1/v2c to allow monitoring of the network and I/O devices with SNMP Network Management software. SNMP Traps can be used for THEN/ELSE actions. It is useful for building automation and telecom applications.

The SNMP Trap function sends an SNMP trap to one or more IP destinations. The specific ID can be any number between 1 and 20. (You may need to consult with your network administrator to determine how trap numbers will be used and defined on your network.)

Enter your desired message in the **Content Settings** section. Dynamic fields such as time, date, IP address, and I/O status can be inserted in your message by clicking **Keyword Lookup**. Messages are sent in ASCII. The Timer function allows users to delay an action, trigger an action to run, or repeat an action. A timer is activated by a change of the logic event. After the timed interval has expired, the output will be performed.

	Name								
1 SNMP_Trap_0									
lame	SNMP_Trap_0								
Serve	er Settings								
Versio	n	v1	© v2c						
Serve	r 1 IP Address	192 . 168 . 127 . 25	2 Server 2 IP Address		0	. 0	. (	).	0
Serve	r 1 Trap Commun	ity public	Server 2 Trap Comm	nunity	public				
Paran	neter Settings								
Vari	able	Slot	Channel	Selec	t Spec	ific ID	01		•
		[Slot 00 Model: 2542-HSPA]	AI-00						
	Variable 1	[Slot 00 Model: 2542-HSPA]	AI-00						
	Variable 1		AI-00 AI-00						
	Variable 1	[Slot 00 Model: 2542-HSPA]							
Conte	Variable 1 Variable 2	[Slot 00 Model: 2542-HSPA]							
Conte	Variable 1 Variable 2 ent Settings	[Slot 00 Model: 2542-HSPA] [Slot 00 Model: 2542-HSPA]				Кеуи	vord I	.ooki	q
Conte Conte	Variable 1 Variable 2 ent Settings Send as ASCII	[Slot 00 Model: 2542-HSPA] [Slot 00 Model: 2542-HSPA]				Кеуи	vord I	.ooki	đ
Conte © S Cont	Variable 1 Variable 2 ent Settings Send as ASCII tent : 17 (charac	[Slot 00 Model: 2542-HSPA] [Slot 00 Model: 2542-HSPA]				Кеуи	vord I	.ooki	

#### <u>Name</u>

The name that will be shown in Click&Go rules.

#### **Content Settings**

#### **Version**

You can select v1 or v2c.

#### Server IP address

The IP address of SNMP server.

#### Server Trap Community

For setting the trap community.

#### **Parameter Settings**

#### <u>Variable</u>

You can select the variable that you would like to send by SNMP trap. Up to 3 variables can be selected. After a variable has been enabled, click the "Slot" and "Channel" columns to update the configuration of that variable.

#### Select Specific ID

The specific ID can be set to any number from 01 to 20.

#### **Content Settings**

#### Send as ASCII

The content can be sent by ASCII mode.

#### Content

The content can be added in the SNMP trap.

#### Keyword Lookup

You can specify keywords related to the ioLogik 2500 device data to be included in the SNMP trap. The device data includes information such as server date, server time, server name, server MAC, LAN IP, Cellular IP, Channel Tag, and Channel Alias Name.

The system RSSI can be determined using the Channel Tag and Channel Alias Name parameters. The RSSI value is applicable only for cellular devices.

<server_date></server_date>	
<server_time></server_time>	
<lan_ip></lan_ip>	
<server_name></server_name>	
<server_mac></server_mac>	
<cellular_ip></cellular_ip>	
Slot-00 Channel Tag	+
Slot-00 Channel Alias Name	•

# **TCP/UDP** Message

The TCP/UDP Message feature enables you to configure one or more IP addresses of the Message Servers to which Click&Go Plus logic sends generated event messages. Click&Go Plus logic sends the defined active message to all addresses listed.

No.	Name
1	TCP_UDP_Message_0
lame	TCP_UDP_Message_0
Server	Settings
Server	1 IP Address 192 . 168 . 127 . 252 Server 2 IP Address 0 . 0 . 0 . 0
Messag	ge Protocol UDP   Message Port (TCP/UDP) 9000
Retry	3 Interval 60 Timeout (ms) 1000
Conter	at Settings
© S€	end as ASCII 💿 Send as UNICODE 💿 Send as HEX (separated by ',')
Conte	ent : 18 (character limit=200) Keyword Lookup
UDP I	Message Sample
	*
	4
	Add Apply Delete

#### <u>Name</u>

The name that will be shown in Click&Go rules.

#### **Server Settings**

#### Server IP address

The IP address of TCP/UDP server.

#### Message Protocol

Select the protocol you would like to use. Available protocols: TCP, UDP

#### Message Port

Set the port number the computer uses to communicate with the device. The default TCP/UDP port number is 9000.

#### <u>Retry</u>

Enter the number of connection attempts.

#### <u>Interval</u>

The interval between two retries.

#### <u>Timeout</u>

The timeout for the ioLogik 2500 if it does not receive an ACK from the server.

#### **Content Settings**

#### Send as ASCII/UNICODE/HEX

The content can be sent by ASCII/UNICODE/HEX mode.

#### Content

The content can be added in the TCP/UDP message.

#### Keyword Lookup

You can specify keywords related to the ioLogik 2500 device data to be included in the SNMP trap. The device data includes information such as server date, server time, server name, server MAC, LAN IP, Cellular IP, Channel Tag, and Channel Alias Name.

The system RSSI can be determined using the Channel Tag and Channel Alias Name parameters. The RSSI value is applicable only for cellular devices.

<server_date></server_date>	
<server_time></server_time>	
<lan_ip></lan_ip>	
<server_name></server_name>	
<server_mac></server_mac>	
<cellular_ip></cellular_ip>	
Slot-00 Channel Tag	+
Slot-00 Channel Alias Name	•

## Email

The E-mail function can be used to send customizable emails to one or more mail boxes. The email can be set as a THEN/ELSE action.

### Server

On the server tab, you can set the email server that the ioLogik 2500 will use to send emails.

Server	Recipients	Email Content		
Email Server Set	ttings Gmail 🔹	Encryption TLS	✓ Authen	tication PLAIN -
IP (or URL)	smtp.gmail.com		Username	admin
Port	587	(1 to 65535)	Password	••••
Timeout (ms)	1000	(100 to 65535)	Confirm Password	••••

#### Server Type

You can choose Gmail or any other mail server as the server type. Default settings for the Gmail server will be configured if you select Gmail as your server type. Settings for all other server types have to be configured manually. Contact your IT administrator for server details.

#### Encryption

Choose how the emails will be encrypted (TLS or N/A).

#### Authentication

Choose how the emails will be authenticated (PLAIN or LOGIN).

#### IP (or URL)

The email server's IP address or URL.

#### <u>Port</u>

The email server's port number.

#### <u>Timeout</u>

Timeout for the server connection failures.

### **Recipients**

On the recipients tab, you can configure who will receive emails from Click&Go. The recipients must be set before writing the email content.

No.	Name		Email		
1	MOXA		MOXA@moxa.com		
2	MOXA1		MOXA1@moxa.com	ı	
3	MOXA G	roup (Group)	MOXA@moxa.com,MOXA1@m		m
	_				
lame	N	IOXA1			

#### <u>Name</u>

The name of the receiver.

#### Email address

The email address of the recipients.

#### Add Email

Add a Name and Email address of another recipient.

#### Add Group

Add more than two recipients together.

## **Email Content**

Serv	/er	Recipients	Email Content			
No.	Name					
1	Email_0					
Name	Email_0					
- Email Iu	nformation					
Subj		MOXA Example		То	MOXA	•
5005	cct				How	
Send	ler Name	MOXA Sender				
From	ı	MOXASender@mo	xa.com			
Conter	nt Settings					
	end as AS(		Send as UNICC	DDE		
Conte	ent: 14 (	character limit=200)				Keyword Lookup
Email	Contents					*
						~
						Þ
			Add	ł	Apply	Delete

#### <u>Name</u>

The name that will be shown in the Click&Go rules.

#### **Email Information**

The subject of the email, and the sender's name and email address.

#### Subject

The subject of email.

#### Sender name

The sender's name that will be shown in the email.

#### <u>From</u>

The email address of senders

#### <u>To</u>

The recipient that the email is being sent to (the email must be listed on the "Recipients Tab")

#### **Content Settings**

#### Send as ASCII/UNICODE

Send the email in ASCII or UNICODE format.

#### Content

The content of the email.

#### Keyword Lookup

You can specify keywords related to the ioLogik 2500 device data to be included in the SNMP trap. The device data includes information such as server date, server time, server name, server MAC, LAN IP, Cellular IP, Channel Tag, and Channel Alias Name.

The system RSSI can be determined using the Channel Tag and Channel Alias Name parameters. The RSSI value is applicable only for cellular devices.

<server_date></server_date>	
<server_time></server_time>	
<lan_ip></lan_ip>	
<server_name></server_name>	
<server_mac></server_mac>	
<cellular_ip></cellular_ip>	
Slot-00 Channel Tag	+
Slot-00 Channel Alias Name	•

## Schedule

The Schedule function can be used in an IF condition. It allows users to set a starting point or time period for a task.

For recurring actions, you can select the relevant weekdays. If a time period needs to be defined, specify the settings in the "Range of Recurrence" column. For example, the Schedule function can be used if a pump needs to start at 9:00 PM and stop at 11:00 PM every Monday, Wednesday, and Friday.

No.	Name							
Schedule	Name	Periodic_0						
Mode		Periodic		•				
Time Starts	21:00:0	00	Ends	23:00:00	* *			
Recurre	ence Pat		_					
🔘 We	ekly		every 1		ek(s) on:			
				Monday Friday	🔲 Tuesday		day	
Range	ofRecur	rence						
Starts	on 20	)15/ 5/11		۲	No end date			
				Ô	Ends after	10	occurrences	
				C	Ends by	2015/ 5/11		
					Add	Apply		Delete

# **Internal Register**

Internal Register (Integer) is a flag that can be used with Click&Go Plus logic internally or externally. The 48 sets of internal registers can be polled and controlled by SCADA software using standard Modbus/TCP format, or configured to redirect the result of one Click&Go Plus logic to another.

The default value of an internal register is "0".

Internal	Register	Setting	(Unsigned	Short)
----------	----------	---------	-----------	--------

Float Internal	Register	Setting	(Float)
----------------	----------	---------	---------

No.	Name	Initial Value	^
0	Internal Register-00	0	Ξ
1	Internal Register-01	0	
2	Internal Register-02	0	
3	Internal Register-03	0	
4	Internal Register-04	0	
5	Internal Register-05	0	
6	Internal Register-06	0	
7	Internal Register-07	0	
8	Internal Register-08	0	
9	Internal Register-09	0	-

No.	Name	Initial Value	-
0	Float Internal Register-00	0.000	≡
1	Float Internal Register-01	0.000	
2	Float Internal Register-02	0.000	
3	Float Internal Register-03	0.000	
4	Float Internal Register-04	0.000	
5	Float Internal Register-05	0.000	
6	Float Internal Register-06	0.000	
7	Float Internal Register-07	0.000	
8	Float Internal Register-08	0.000	
9	Float Internal Register-09	0.000	-

# **Remote Action**

The Remote Action function can be used to send and receive triggers between several ioLogik 2500 devices.

- The "As Server" function can be used in IF conditions to trigger the local device.
- The "As Client" function can be used in THEN/ELSE actions to trigger a remote device.

No. Name	
Name Remote_/	Action_Server_0
Setting	
Client IP	0.0.0.0
Client IF	
Action ID	01 🗸
	Add Apply Delet

# **CGI** Commands

### As Server

The ioLogik 2500 will operate as a server. Server settings can be used in Click&Go if conditions  $\rightarrow$  CGI command (Server).

The following URL can be used to trigger the CGI command sever:

http://IP address:Port/action/cg?CGIMOXA=Command String

No.	Name						
1	CGI Comm	nand_Server_0					
ame	CGL Comma	nd_Server_0	 	 			
Server	Settings						
				Ler	ngth = 9 (d	haracter	limit = 99)
Comr	mand String	MOXA Test					

#### <u>Name</u>

The name that will be shown in the Click&Go rules.

#### Server Settings

#### Command string

The command string for the CGI command (server). The following URL can be used to trigger the CGI command sever: http://IP address:Port/action/cg?CGIMOXA=Command String

### **As Client**

The ioLogik 2500 will operate as a client. The server settings can be used in Click&Go THEN/ELSE actions  $\rightarrow$  CGI command (Client).

A successful back of the state bath (140)
+ query string length = 9 (character limit = 116)
test ? DI_ON
$\pm$ post content length = 0 (character limit = 116)
+ post content length = 0 (character limit = 116)
+ post content length = 0 (character limit = 116)
+ post content length = 0 (character limit = 116)
+ post content length = 0 (character limit = 116)
rval 0 Timeout (ms) 1000

The default strings for sending CGI commands to the ioLogik 2500 are:

#### GET Method

The ioLogik 2500 will use the GET method to send CGI commands.

GET Me	ethod (http://domain:port/path?q	uery	1)	path	+ query string length =	= 9 (	(character limit = 116)
http://	IP address	:	80	1	path	?	query

#### IP address/port

IP address of the CGI command receiver.

#### <u>Path</u>

The path can be self-defined.

#### <u>query</u>

The path can be self-defined.

#### **POST Method**

The ioLogik 2500 will use the POST method to send CGI commands.

POST I	Method			path	+ post content length = 33 (character limit = 116)
http://	IP address	:	80	1	path + post content length
Content	t (application/x-www-fo	rm-urlencoded	only)		
Content	1				

#### IP address/port

IP address of the CGI command receiver.

#### Path+post content length

The information for the CGI command receiver.

#### Content

The content of the CGI command.

# SMS (ioLogik 2500-GPRS/HSPA only)

The Short Message Service function allows the user to configure SMS in detail, including selecting recipients from the phone book, defining the escalation and acknowledgements, and defining SMS content.

There are two tabs: As Server and As Client.

### As Server

The ioLogik 2500-GPRS/HSPA can be used as a server to receive command strings send from other cellular devices (such as ioLogik 2500-Cellular devices and mobile phones). SMS commands allow users to use short messages to monitor or control the I/O status of an ioLogik 2500-GPRS/HSPA unit.

s Server	As Client	
. Name		
ne SMS_Se	rver_0	
rver Setting	s	
		Length = 0 (max = 140)
Command Str	ing	
		Add Apply Delete

### As Client

The ioLogik 2500-GPRS/HSPA can be used as a client for sending SMSs to other devices.

As Server	As Client				
No. Name					
lame SMS_0					
SMS Informatio					Phone Book
Recipient Cou	nt 01 🔻				
Recipient 1	▼ Recip	ient 2 🚽 R	lecipient 3	-	
Enable Esc	alation mode				
Acknowled	gement Timeout	Hour 15 Mi	in 0	Sec	
Retry loop	Count 0	(0=send once)		J	
Content Settin	gs				
Send as A	SCII	Send as UNICODE		Send as I	HEX (separated by ','
Content: 0	(max chars=120)				Keyword Lookup
					·
		Add		Apply	Delete

#### **Recipient Count**

You can choose how many recipients will receive the SMS. Before you can select a specific recipient, you first need to add the recipient's information in the **Phone Book** (see below).

#### Enable Escalation Mode

If you select **Enable Escalation Mode**, the SMS will be sent out in the sequence listed in the recipient list, and using the timeout interval. A recipient will stop receiving the SMS alarm when the preset maximum retry loop count is reached, or when one receiver acknowledges receiving the SMS.

#### Phone Book

Use the Phone Book to add, modify, or delete recipient information, which includes Name and Phone No.

**NOTE** If the existing Phone Number of a recipient is changed, click the **Apply** button for all SMS rules related to the recipient.

#### **Content Settings**

Enter your desired message in the **Content** column. Dynamic fields, such as time, date, IP address, and I/O status, can be inserted in a message by clicking **Keyword Lookup**. Messages are sent in ASCII format by default, but can be sent in UNICODE format by selecting **Send as UNICODE**, and can be sent in HEX format by selecting the **Send as HEX (separated by ",")**.

vo.	Name			Phone Number	
1	Example	2		00112233445566	
Nam	e	Example	Add	Modify	Delete
	ne No.	00112233445566		ОК	Cancel

# Click&Go Plus<sup>™</sup> Rules

Click&Go Plus logic was developed by Moxa to provide an easy way to program your ioLogik 2500. In this chapter, we explain how to use Click&Go Plus logic to deploy a remote I/O solution.

The following topics are covered in this chapter:

- □ Click&Go Plus<sup>™</sup> Rules
  - Click&Go Plus Rule Settings
  - > Types of IF Conditions
  - Types of THEN/ELSE Actions
  - List of THEN/ELSE-Actions

# Click&Go Plus<sup>™</sup> Rules

After you finish configuring Click&Go components, you can create Click&Go Plus rules. Click&Go Plus logic provides an easy way to program your ioLogik 2500 product for Smart Ethernet/Wireless Remote I/O operations.

The main Click&Go rules page is shown below.

Moxa IOxpress Project Device Configuration Online D	andra 1	Options Help							- 0 ×
Offine Configuration     Office     Office		Setting	Click & Go Plus	Click & Go Plus Simulator	Peer-to-Peer				ΜΟΧΑ
				IF				THEN	
		+Condition 0		+1 <sup>st</sup> Layer Gate	+ 2 <sup>nd</sup> Layer Gate	+ 3 <sup>rd</sup> Layer Gate	1	+Action 0	
	00							ELSE +Action 0	
	•								
Offine Configuration Management									
Online Device Management									

### **Click&Go Plus Rule Settings**

Click&Go logic uses the IF-THEN-ELSE concept. The device will follow the rules you have programmed to detect the IF conditions and execute THEN/ELSE Actions.

			IF			THEN
	+Condition 0	+1 <sup>st</sup> Layer Gate	+ 2 <sup>nd</sup> Layer Gate	+3 <sup>rd</sup> Layer Gate	_	+Action 0
00						ELSE +Action 0

## **Types of IF Conditions**

"If" conditions are categorized into two types: EVENT and COMPARISON. You can find these two categories in the **Condition Settings** window. If the parameter is not shown (i.e., the space under Type, Module, and Parameter is empty), check to make sure that the Click&Go Plus components have been set. See Chapter 2 for details.

Condition Type Selection     EVENT     Parameter Settings   Type   Type   Diamondation     Solution Model: 2542:HSPA *     Parameter   Diamondation     Action <ul> <li>OFF</li> <li>Change from ON to OFF</li> <li>Change from OFF to ON</li> <li>Change from OFF to ON</li> <li>Change from OFF to ON</li> </ul>	Condition Setting	Contraction of the local division of the loc	10.010	X	
EVENT     Type     Module     DI     Slot 00 Model: 2542+HSPA •     DIO-00(DI) •     Action     Action     • ON     • OFF   • Change from ON to OFF   • Change from OFF to ON	Name Condition 0				
EVENT DI (Slot 00 Model: 2542+HSPA  DIO-00(DI)  Action  Action  OFF  COMPARISON Change from ON to OFF  Change from OFF to ON	Condition Type Selection	Parameter Settings			
ON     OFF     COMPARISON     Change from ON to OFF     Change from OFF to ON	EVENT				
OK Cancel	COMPARISON	OFF     Change from ON to OFF     Change from OFF to ON			

#### Trigger Type: Event

- Supports physical IO and software components (software IO)
- Monitors the result of Boolean type output (e.g., True/False, Enable/Disable, Start/Stop)
- Usually used with "Digital" IO types

#### Trigger Type: Comparison

- Supports physical IO and software components (software IO)
- Monitors the result of numerical output types
- Usually used with "Analog" IO types

#### List of IF-Conditions

The list of functions you can find in Click&Go Plus If conditions

#### Trigger Type: Event

The following functions are listed in "If EVENT" conditions.

Parameter Type	Conditions	Note
DI	ON/OFF/Change	
	/Change from OFF to ON	
	/ Change from ON to OFF	
DO	ON/OFF/Change	
	/Change from OFF to ON	
	/ Change from ON to OFF	
Relay	ON/OFF/Change	
	/Change from OFF to ON	
	/ Change from ON to OFF	
System Start-Up	TRUE	
Cellular link up	TRUE	
WLAN link up	TRUE	
Modbus Host Connection Timeout	TRUE	
Schedule	TRUE	
Timer	Timeout	
Remote Action (Server)	TRUE	
SMS (Server)	TRUE	
CGI Command (Server)	TRUE	
Serial TAG	TRUE	

#### Trigger Type: COMPARISION

The following are functions listed in "If COMPARISION" conditions.

Parameter Type	Operator	Second Parameter	Note
AI	<, <=, =, >=, >	Constant	
		Percentage	
		Other Data	
Counter	<, <=, =, >=, >	Constant	
		Other Data	
Virtual Channel	<, <=, =, >=, >	Constant	
		Other Data	
Relay Counter (Current)	<, <=, =, >=, >	Constant	With ioLogik E1214
		Other Data	Expansion module only
Relay Counter (Total)	<, <=, =, >=, >	Constant	With ioLogik E1214
		Other Data	Expansion module only
Input Power Voltage		Constant	Cellular models only
		Other Data	
Internal Register	<, <=, =, >=, >	Constant	
		Other Data	
Float Internal Register	<, <=, =, >=, >	Constant	
		Other Data	
Serial TAG (Float/DWORD/WORD)	<, <=, =, >=, >	Constant	
		Other Data	

The percentage is based on the full-scale range. If the difference between two sampling values exceeds the percentage, the IF condition will be triggered.

## **Types of THEN/ELSE Actions**

THEN/ELSE actions are categorized into two types: ACTION and ACTIVE MESSAGE. You can find these two categories in the **action settings** window. If the parameter is not shown (i.e., the space under Type, Module, and Parameter is empty), check to make sure that the Click&Go Plus components have been set. See Chapter 2 for details.

Action Settings	-	_	
Name Action 0			
Action Type Selection	Parameter Settings	Module	Parameter
ACTION	<u>D0</u>	[Slot 00 Model: 2542-HSPA] V	·
ACTIVE	Action		
MESSAGE	OFF		
			OK Cancel

#### Action Type: Action

- Supports physical IO and software components (software IO)
- · Sets the result of output to a fixed value or state
- Includes both Digital and Analog IO types

#### Action Type: Active Message

- Specific types of "Actions" that contain customized content using different protocols
- Sends messages or data packages using different protocols

## List of THEN/ELSE-Actions

The list of functions you can find in Click&Go Plus – THEN/ELSE actions.

#### Action Type: Action

Parameter Type	Actions	Note
DO	ON/OFF	
Pulse Output	START/STOP	
Counter	RESET	
Relay Pulse Output	START/STOP	
Relay	ON/OFF	
Relay Counter (Current)	RESET	
Internal Register	SET TO " "	
Float Internal Register	SET TO " "	
Timer	START/STOP/RESTART	
Data Log	START/STOP	
FTP Upload	START/STOP	
Remote Action	Send	
AO	SET TO " "	With ioLogik E1241
		Expansion module only

#### Action Type: Active Message

Parameter Type	Actions
SNMP Trap	Send Every "Sec" (0: Send One Time)*
TCP/UDP Message	Send Every "Sec" (0: Send One Time)*
E-Mail	Send Every "Sec" (0: Send One Time)*
SMS	Send Every "Sec" (0: Send One Time)*
CGI Command	Send Every "Sec" (0: Send One Time)*

\*If the "IF condition" is continuously being triggered, the active message will keep sending messages.

# Click&Go Plus<sup>™</sup> Simulation

Click&Go Plus Simulation is a tool provided for users to simulate the Click&Go plus rules discussed in Chapter 3.

The following topics are covered in this chapter:

Starting a Simulation

# **Starting a Simulation**

The following two figures show the main pages and simulator window of Click&Go rules. When you click the Click&Go Simulator Tab, the simulator window will pop up.

#### Main Window

• [Bot 00 Model: 2540-459A (17)] - 50		\Moxa\IOxpress\Database\IOxpress.prj		- 0
• [Soi to Model: 2542-459A (17)] - Se		Options Help		
Condition 0 Set to Notes 2542-4559 (-1)] 00 •Action 0 •Action 0 •Action 0 •Action 0 •Action 0	<ul> <li></li></ul>	Setting Click&Go Plus Click&Go Plus Simulator Peer-to-Peer		N
Condition 0 Bit Do Model 2922-41974 (-7)] EL SE - Action 0 - A		IF	THEN	
Image: Second product and the second			Action 0	
00 +Action 0 +Action 0				
Image: The Configuration Management       Online Device Management	00			
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management	L_			
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management				
Offine Configuration Management       Online Device Management				
Online Device Management				
	Offine Configuration Management			
te Time Event	Online Device Management			
	ate Time Event			

#### Simulator Window

Type A				•	Time for Simulator	_	T	_	-
Module [S	lot 00 Model: 2542-HS	PA (-T)] - Se	erver 01	•	Date 2015/ 4/ 9	¥ .	Time 下午 03:05:18 🚔	Run	Stop
Module			Variable		Value				-
[Slot 00 Mod	el: 2542-HSPA (-T)] -	Server 01	DIO-00 (DI) (DIO-00)		OFF				
[Slot 00 Mod	el: 2542-HSPA (-T)] -	Server 01	DIO-01 (DI) (DIO-01)		OFF				
[Slot 00 Mod	el: 2542-HSPA (-T)] -	Server 01	DIO-02 (DO) (DIO-02)		OFF				
	el: 2542-HSPA (-T)] -		DIO-03 (DO) (DIO-03)		OFF				
-	el: 2542-HSPA (-T)] -		DIO-04 (DI) (DIO-04)		OFF				
	el: 2542-HSPA (-T)] -		DIO-05 (DI) (DIO-05)		OFF				
-	el: 2542-HSPA (-T)] -		DIO-06 (DI) (DIO-06)		OFF				
	el: 2542-HSPA (-T)] -		DIO-07 (DI) (DIO-07)		OFF				
[Slot 00 Mod	el: 2542-HSPA (-T)] -	Server 01	DIO-08 (DI) (DIO-08)		OFF				
g									
Date	Time	Trigg	er			E	Event		

#### <u>Usage</u>

Take the following steps to simulate your Click&Go Plus rules.

- 1. Set a "Value" for I/O status in advance by clicking the "Value" column.
- 2. Set "Time for Simulator" to simulate your system time.
- 3. Click "Run" to start the simulation.
- 4. While the simulation is running, you can change the value of any I/O status in the simulator window. The result will be shown in the main window.

	IF	THEN
00	Condition 0         F           [Site 00 Model: 2542:HSPA (-T)]         F           DIO-00(DI) = ON         T	Action 0 ELSE +Action 0
	Click&Go Plus Simulator (Run mode)	<b>x</b>
	Input Parameter     Type     All     Time for Simulator       Module     [Slot 00 Model: 2542:HSPA (-T)] - Server 01     Date     2015/ 4/ 9 ③ ▼ Time 下午 03:10:23 🔭	Pause Stop

Click Pause to temporarily stop a simulation, or click Stop to terminate a simulation. For example, if a counter currently has a value of 11, pausing the counter will cause the counter to continue counting from 11 when the simulation resumes. If you click stop, the counter will be reset to the initial counter value.