# TransLink Configurator Users Guide

V2.1





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# 2 Overview

Translink Configurator is a software application used to perform initial setup of a Hamfield Translink Controller.

This software is designed to be used by systems integrators when commissioning a Translink Controller, and enables the configuration of the following parameters.

- Translink Controller Network discovery
- Translink Controller Network settings
  - o Static or Dynamic IP addressing (static recommended)
  - Communications Port
  - o Netmask
  - o Gateway
- Translink Controller Email Settings
  - o Server IP address
  - o Server Port
  - o User Name
  - o **Domain**
  - o Email Subjects
  - o Recipients
  - Message Triggers
- C-Bus lighting application addresses (2)
- English names associated with Group Addresses
- Trigger Application objects
- Measurement Application objects

**Note**: The Translink Controller will only accept 1 connection at a time on its Ethernet port. In order for this application to successfully connect to the controller, any other Translink user applications must be closed first.

# 3 Initial Setup

When a Translink Controller is first installed it knows nothing about the C-Bus or Ethernet networks with which it will interact. This information must be supplied by the installer and loaded into the Translink Controller before it will function correctly.

The following is a list of steps that should be undertaken for each installation and the order in which they should be done. See the relevant section for details on how to perform each step.

- 1. Install the Translink Controller as described in the Translink Controller Installation Guide.
- 2. Install the Translink Configurator software onto a suitable windows PC or laptop connected to the same subnet as the Translink Controller.
- 3. Scan the network for Translink Controllers.

- 4. Set the IP address and network settings of the Translink Controller
- 5. Set the email details (if required)
- 6. Set the 2 lighting application addresses
- 7. Set the Bridge address (if required)
- 8. Set the Email Triggers (if required)
- 9. Load all group names
- 10. Set the PIN

#### 3.1 Translink Controller Network Setup

In order to be able to set the Translink Controllers network IP address and other parameters, the Translink Controller must first be discovered by the Configuration software.

- 1. Start the Translink Configurator software.
- 2. Press the "Scan For Translinks" button on the connect tab, the configuration software will scan the subnet looking for Translink Controllers and list them. Note: you may also see other unrelated entries for devices that use a similar interfacing mechanism. The C-Bus CNI is one such device. These unrelated devices should be ignored.

<ol><li>Select the Translink Controller from the list, and its network details will be displayed</li></ol>	3.	Select the	Translink (	Controller fro	om the list	and its netwo	ork details wil	l be displayed
--	----	------------	-------------	----------------	-------------	---------------	-----------------	----------------

anslink Configurator V2.0.0.0 - Dis	connected			
Connect		Connect	To Translink	
	Configure Translink Communications	k IP Details	Email Se	erver Details
Apps & Email	IP Address         Port         MAC Address           192.168.72.15         10003         00-20-4A-EA-3E-B3	Static (Recommended) Opnamic	Email Server IP Address 0.0.0.0	Recipient 1 Email Address
	192.168.72.16 10003 00-20-4A-32-C1-17	IP Address 192.168.72.16 Port 10001	Email Server port 0 User Name Domain Name	Recipient 2 Email Address
Groups		Net Mask         255.255.255.0           Gateway         192.168.72.1	@ Email 1 Subject	Edit Settings
	Scan for Translinks		Email 2 Subject Email 3 Subject	Edit Settings
Triggers				
ETE .	Connect to Translink Establish a Connection	Translink Details	Translink Details	
Measurement	IP Address Port 192.168.72.16 10001	DB Version	Get         Settings Allowed         Get           Get         F/W Version         2.0.0         Get	
	Connect Disconnect	t Lighting 1 Max G	P/W Version 2.0.0 Get	ing 2 Max Group Address Count Get
saction Log				
May 2013 14:06:43 - Dev May 2013 14:07:57 - Trai May 2013 14:08:26 - Dev May 2013 14:08:26 - Dev	nslink Disconnected rice IP = 192.168.72.15			Translink

Figure 1 Translink Configurator Connection Screen

4. Press the "Edit Settings" Button and change the settings to those desired. When finished press "Save Settings" **Note:** it is strongly recommended to use a static IP address, as this

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address needs to be known by the Translink User applications, so it may connect to the controller.

The fields are described as follows;

Field	Description
Static/Dynamic	Static (fixed) IP address or DHCP / BOOTP / AutoIP allocated
IP Address	Static IP address
Port	Communications Port for user applications to connect on
Net Mask	Network Mask
Gateway	Network Gateway

#### 3.2 Translink Controller Email Delivery Setup

- 1. Using the same Translink Controller discovery mechanism as described in "Translink Network Setup"
- 2. Edit the Email Server Details and Press "Save Settings".

192.168.72.16 10001 00-20-4A-32-C1-17 Port 10003 User Name Domain Name	Recipient 1 Email Address
Apps & Email         In Address         Poil         In Address         Poil         In Address	
Instruction         Instruction	nydomain.com
Port         10003         User Name         Domain Name           Net Mask         255 255 255 .0         Hany         @ mydomain com au         HanywU	
	Recipient 2 Email Address
Groups Gateway 192 168 72 1 Email 1 Subject Front Light Transmed	/ife@mydomain.com
Email 2 Subject Door Bell Pressed	Edit Settings
Email 3 Subject Garage Door Opened	Save Settings
Scan for Translinks	Save Seturigs
Triggers	
Connect to Translink	
Establish a Connection Translink Details	
Measurement IP Address Port DB Version Get Settings Allowed Get Serial	Number Ge
H/W Version Get F/W Version 20.0 Get	
Connect Disconnect Lighting 1 Max Group Address Count Get Lighting 2 Max Group	p Address Count Ge
tion Log	
	253 (\$FD) ^
ay 2013 14:11:21 - Received Measurement for Application 228 (\$E4) Number 1 (\$1) Device 2 (\$2) Channel 3 (\$3) Units 38 (\$26) Multiplier	
ay 2013 14:11:21 - Received Measurement for Application 228 (\$E4) Number 1 (\$1) Device 2 (\$2) Channel 3 (\$3) Units 38 (\$26) Multiplier ay 2013 14:11:23 - Received Measurement for Application 228 (\$E4) Number 3 (\$3) Device 2 (\$2) Channel 4 (\$4) Units 38 (\$26) Multiplier ay 2013 14:11:24 - Received Measurement for Application 228 (\$E4) Number 3 (\$3) Device 142 (\$8E) Channel 1 (\$1) Units 0 (\$0) Multiplier	

Figure 2 Translink Configurator TCP & Email Messages

3.

The fields are described as follows;

Field	Description
Server IP Address	IP address of the mail server
Server Port	Mail server port
User Name	Username to logon to the mail server (also forms part of the from address)
Domain	Mail server domain (also forms part of the from address)

Email 1 Subject	Subject for Email 1 (Note: there is no message body)
Email 2 Subject	Subject for Email 2 (Note: there is no message body)
Email 3 Subject	Subject for Email 3 (Note: there is no message body)
Recipient 1	Email address of the 1 <sup>st</sup> recipient
Recipient 2	Email address of the 2 <sup>nd</sup> recipient (optional)

#### 3.3 Lighting Applications Setup

Note: Do not miss this step, failure to set the lighting application addresses will stop all other functionality from working.

The Clipsal C-Bus specification defines the lighting application addresses as a range between \$30 and \$3F. The Translink Controller can handle messages for up to 2 Lighting Application addresses; therefor it needs to be told which lighting application addresses it should process. If only 1 application address is in use, then the second address should be set to 255 (FF).

1. Establish a connection to the Translink Controller by entering the controllers IP address and Port, then pressing the "Connect" button.

Connect	Configure Translink Com	munications		Connect To Tra	nsiink	
1000	-		nk IP Details		Email Se	erver Details
Apps & Email	IP Address Por	t MAC Address	Static (Recommendation of the static static static)	nended) Oynamic Email Server I	P Address	Recipient 1 Email Address
Apps & Email			IP Address	Email S	erver port	
			Port	User Name	Domain Name	Recipient 2 Email Address
			Net Mask		e	
Groups			Gateway	Email 1 Subject		Edit Settings
W				Email 2 Subject		Edit Sottings
<b>A A</b>	Scan f	or Translinks		Email 3 Subject		Save Settings
Triggers						
	Connect to Translink	n a Connectio	n		nk Details	
Measurement	IP Address	Port		DB Version Get Settings Al	Get	Serial Number Get
	192.168.72.15	10003	H	W Version Get	F/W Version Get	
	Connect	Disconn	ect	Lighting 1 Max Group Address Count	Get Lightin	ng 2 Max Group Address Count Get
nsaction Log						
May 2013 14:14:17 - App May 2013 14:14:17 - UD						

Figure 3 Connect to Translink Controller

N N

2. Move to the "Apps & Email" tab and press the "Get all supported Application Types" button.
Translink Configurator V2.0.0.0 - Connected to 192168.72.15:10003

Connect				
	Supported Application Addresses           Address Dec         Address Hex         Type	Get All Supported Application Types from the Controller	nable Bridge 🔘 Disable Bridge Dec Hex	An Email will be sent when a message has been processed that matches at least 1 trigger condition.
Apps & Email		Dec Hex Dec Hex En	e Address	A Trigger match will occur when the message 'application address' and 'group address' match the trigger 'application address' and 'group address' and the
Groups			Gentroller Set Bridge Address to Controller	message 'level' is equal to or greater tha the trigger 'level'.
<u> </u>	Email Triggers			Get All Email Triggers from the
Triggers	Email 1 Trigger	Email 2 Trigger	Email 3 Trigg	
	Enable Email      Disable Email	Enable Email Disable Email	Enable Email Oisable	Email
1	Application Address	Application Address	Application Address	
Measurement	Group Address	Group Address	Group Address	Hex
	Level Threshold -	Level Threshold	Level Threshold	Set All Email Triggers to the Controller
action Log				
May 2013 14:15:21 - Rec May 2013 14:15:21 - Rec May 2013 14:15:21 - Rec May 2013 14:15:23 - Rec	eived Firmware Version 2.0.0 eived Measurement for Application 2	28 (\$E4) Number 2 (\$2) Device 2 (\$2) C 28 (\$E4) Number 3 (\$3) Device 142 (\$8		

#### Figure 4 Translink Configurator Lighting Application Addresses

- 3. Enter the 2 lighting addresses then press the "Set Lighting" button.
- 4. The Translink Controller will reboot.

#### 3.4 Bridge Address Setup

The Translink Controller is capable of discovering group addresses on the far side of a single C-Bus bridge. This is primarily intended to support wired and wireless networks connected via a wireless bridge. In order to use this feature, the 2 C-Bus networks on each side of the bridge must not share any group addresses, as the Translink Controller treats both networks as a single network entity.

- 1. Establish a connection to the Translink Controller.
- 2. Go to the "Apps & Email" tab and press "Get Bridge
- 3. Set the bridge address as required.
- 4. Press "Set Bridge" to save.

Note: The configurator will automatically disconnect and the Translink Controller will reboot

#### 3.5 Email Triggers Setup

The Translink Controller has the ability to send simple email messages to, up to 2 recipients in response to, up to 3 triggers. The triggers are defined as a combination of Application address, Group Address and Group Level threshold. Once a trigger condition has been met, the Controller will send an email as defined earlier under the "Translink Controller Email Delivery Setup" section.

- 1. Establish a connection to the Translink Controller.
- 2. Go to the "Apps & Email" tab and press "Get All Email Triggers"
- 3. Edit the triggers as required.
- 4. Press "Set All Email Triggers"
- 5. The Controller will reboot.

Translink Configurator V2.0.0.0 - Con	nected to 192.168.72.15:10003	Applicatio	ons & Email	
Apps & Email	Supported Application Addresses           Address Dec         Address Hex         Type           56         38         Lighting           255         FF         202         CA         Trigger Control           202         CA         Trigger Control         203           203         E4         Measurement         0           0         0         Not Defined         0	Get Al Supported Application Types from the Controller Lighting 1 Lighting 2 Dec Hex Dec Hex Set the Lighting Applications to the Controller	Bidge Address	An Email will be sent when a message has been processed that matches at least 1 trigger condition. A Trigger match will occur when the message 'application address' and 'group address' match the trigger 'application address' and 'group address' and the message 'level' is equal to or greater than
Triggers  Measurement	Email Trigger Email 1 Trigger Enail Disable Email Application Address 56 (\$33) • Dec Hex Group Address 31 1F Level Threshold 255 (100%) (\$FF) •	Email 2 Trigger Enable Email Disable Email Application Address 56 (\$38) Dec Group Address 32 20	Email 3 Trigg © Enable Email © Deable Application Address 56 (538) Hex Dec	Enal Hex 25
Transaction Log 13 May 2013 14:17:05 - Bridg 13 May 2013 14:17:10 - Sent 13 May 2013 14:17:10 - Rece 13 May 2013 14:17:10 - Emai	Get Supported Application Addres	is List Request		TronsLink

#### Figure 5 Translink Configurator Email Triggers

The fields are described as follows;

Field	Description
Email Enable	Enables this Email Trigger
Email Disable	Disables this Email Trigger
Application Address	C-Bus Application Address for this trigger to monitor
Group Address	C-Bus Group Address for this trigger to monitor
Level Threshold	C-Bus Level for this trigger to monitor (>= will match)

#### 4 Lighting Group Names

The Translink Controller has the ability to store descriptive names against C-Bus application/group address combinations. These names are transferred to the Translink User Application where they are used as a friendly method of group identification.

In order for this to occur, the group names must first be loaded into the Translink Controller. This can occur 2 different ways, either by manually typing them into the Translink Configurator, or by importing the C-Bus Toolkit XML file (or a combination of both).

#### 4.1.1 Manually load group names

To manually load group names perform the following steps;

- 1. Establish a connection to the Translink Controller.
- 2. Go to the 'Groups" tab
- 3. Choose the Application Address from the dropdown list.
- 4. Enter the Group Address.
- 5. Enter the Name e.g. Kitchen Lights
- 6. Press the "Set" button.

Connect	Set Single (	Group /	Address	Nam	ŝ	ing	jle (	Gro	up	Add	iress	s Nar		ro	ups	Show All Gro	· .	es	Get	Al Clear Lis
Apps & Email	Application A Group A	ddress	Dec		▼ Hex IF	ıt									Get from Controller Set in Controller Erase in Controller			ec Group H		
Groups	Load Took	it XML	File	l	.oa	ł G	irou	p N	lam		Fron		olkit I	-ile	Read Toolkit XML File					
Triggers	Netwo	A1	A2	A3	A4	A5	A6	A7	A8	N	Арр	Арр	Gro	Group	Address					
Measurement																0 items selv	ected from a	total of 0 item	IS	
	0 items sel Select			otal of Seler		5								Upl	Show All Cols oad Selected Group Names	Select All	De Selec		Selected	Show All Co
<sup>sadion Log</sup> May 2013 14:34:24 - Rec May 2013 14:34:51 - Rec May 2013 14:34:53 - Rec May 2013 14:34:54 - Rec	eived Me eived Me	asur asur	emen emen	it fo it fo	r App r App	olica olica	tion tion	228 228	(\$E4 (\$E4	) Nu ) Nu	mber mber	1 (\$1) 2 (\$2)	Devic Devic	e 2 (\$2 e 2 (\$2	2) Channel 3 (\$3) U 2) Channel 4 (\$4) U	nits 38 (\$26)   nits 38 (\$26)	Multiplie Multiplie	253 (\$FI 253 (\$FI	D) <sup>:</sup> D)'	TransLir

Figure 6 Setting Group Address Names

**Note**: a single name entry can be viewed by pressing the "Get" button or erased by pressing the "Erase" button, after filling in the same details.

#### 4.1.2 Load Group Names from Toolkit XML file

To load group names from a C-Bus Toolkit XML file, perform the following steps;

- 1. Establish a connection to the Translink Controller.
- 2. Go to the 'Groups" tab.
- 3. Navigate to the Toolkit XML file by pressing the ... button and choosing the desired XML file.

ام	Load Toolkit	XML Fil	e		
	File Name				
	Network N	ame	Network Address	Application	Name

4. Choose the Application Address from the dropdown list.

Apps & Email       Single Group Address         Group Address       56 (\$38)         Dec       Hex         Group Address       31         IF       Name         Outside Front Light         Lead Tookt XML File         File Name       Cvdprat/C-Gate2/tag/VTUNKXmt         File Name       Cvdprat/C-Gate2/tag/VTUNKXmt		Get from Controller Set in Controller Erase in Controller	n	ation Address Group Dec	▼ ( Group Hex	Get All Clear Li Name
Apps & Email Group Address 31 1F Name Outside Front Light Groups	( ( From Toolkit File	Set in Controller	Applic	ation Group Dec	Group Hex	Name
Apps & Email Group Address 31 1F Name Outside Front Light Groups Load Group Names	From Toolkit File					
Name Outside Front Light  Cod Tookt XML File  Load Group Names	From Toolkit File					
Groups	From Toolkit File	Erase in Controller				
Groups Load Group Names	From Toolkit File					
Groups	From Toolkit File					
	plication Address 56 (\$38) 🔻 🦷	Read Toolkit XML File				
Network Name Network Address Application Name Applicati	on Address Group Name	Group Address				
Link 254 Lighting 56	<li>dinused&gt;</li>	255				
The 254 University 50	Lounge Lights	11				
Triggers TLink 254 Lighting 56	Kitchen Light	12				
TLink 254 Lighting 56	Family Down Lights	13				
TLink 254 Lighting 56	Kitchen Bench	14				
TLink 254 Lighting 56	Master Bedroom	15				
TLink 254 Lighting 56	Jonny's Room	16				
Measurement TLink 254 Lighting 56	Jane's Room	17				
TLink 254 Lighting 56	Dining Room Wall Uplights	18	<ul> <li>0 items</li> </ul>	selected from a tot	al of 0 items	
0 items selected from a total of 36 items		Show All Co	Select	All De Select Al	Delete Sel	ected Show All Co
Select All De Select All	Upload	Selected Group Name				
÷						
saction Log						

5. Press the "Read Toolkit XML file" button.

Figure 7 Loading Group Address Names from Toolkit XML File

- 6. Select the entries you wish to upload using the check boxes at the beginning of each row (you can use "select all" or "de select all" to make it easier when dealing with large lists)
- 7. Press "Upload Selected Group Names" and the names will be uploaded to the Translink Controller (This could take a few minutes depending on the size of the list)

# 4.1.3 Show all Loaded Group Names

To Show all group names loaded, perform the following steps;

- Establish a connection to the Translink Controller.
- Go to the 'Groups" tab.
- Under "Show All Group Addresses" choose the application address from the dropdown list.

#### • Press the "Get All" button.

					Gr	oup						
Connect	Set Single Group /	Address Name				-		Show A	Group Addres	sses		
		S	ingle Grou	p Address	Name			Applica	ation Address	56 (\$38)	▼ Get A	I Clear L
	Application Address	56 (\$38) 🔻					Get from Controller	A1	Application	Group Dec	Group Hex	Name
		Dec Hex								11	OB	Lounge Ligh
Final parts & Email	Group Address	31 1F					Set in Controller			12	0C	Kitchen Ligh
	Name	Outside Front Ligh	*				Erase in Controller			13	0D	Family Dowr
-	Indific	outside Hone Light	n.				Ligge an controller			14	0E	Kitchen Ben
	Load Toolkit XML	File								15	OF	Master Bedr
		Load	d Group Na	ames From	Toolkit Fil	e		10		16	10	Jonny's Roo
Groups			<u> </u>					11	56	17	11	Jane's Roon
File Name C:\clipsal\C-Gate2'tag\TLINK.xml Application Address 56 (\$38)  Read Toolkit XML File	12	56	18	12	Group 18							
<b>•</b>	Network Name	Network Address	Application Name	Application Address	Course Name		Group Address	. 📃 14		20	14	Outside Shu
								15		21	15	Sweep Fan
🚔 🔏	TLink	254	Lighting	56	<unused></unused>			= 📃 1F		31	1F	Outside From
Triggers	TLink	254	Lighting	56	Lounge Lights		11 -	20		32	20	Outside Bac
	TLink	254	Lighting	56	Kitchen Light		12	21		33	21	Group 33
	TLink	254 254	Lighting	56 56	Family Down Lights Kitchen Bench	S	13	22		34	22	Group 34
	TLink	254	Lighting	56	Master Bedroom		15	23		35	23	Group 35
18	TLink	254	Lighting Lighting	56	Jonny's Room		16	24		36	24	Toilet Light
Measurement	TLink	254	Lighting	56	Jane's Room		17	( ) (	EC.	37	25	l sundar Link
ELE:	TLink	254	Lighting	56	Dining Room Wall	Lioliobte	18	- 0.	1			_
				50	Dining Nooni Wai	opiigino			selected from			
	0 items selected f	rom a total of 36 iten	ns				Show All Col	select	All De Sel	ect All Dele	te Selected	Show All Co
	Select All	De Select All			(	Upload S	elected Group Names					
-												
action Log												
Aay 2013 14:37:12 - Red	ceived Group N	Jame Renkr -	Fountain Pur	n is on								
/lay 2013 14:37:12 - Red /lay 2013 14:37:12 - Red												
			POOI FIILEI PU	mp								
lay 2013 14:37:13 - End												
/lay 2013 14:37:21 - Red	ceived Measure	ement for App	lication 228 (	\$E4) Number 1	(\$1) Device 2	2 (\$2) C	hannel 3 (\$3) l	Jnits 38 (\$2	6) Multiple	er 253 (\$F	-D)	

Figure 8 Show all group address names

• Multiple names can be Deleted by selecting the items to be deleted and pressing the "Delete Selected" button.

# 4.1.1 Phantom Group Addresses & Names

A common practice in C-Bus programming is the creation of Phantom Group addresses that are used by modules other than C-Bus output units. This is common when programming logic or simply sending action type commands between 2 C-Bus enabled devices. Phantom Group Addresses and names can simply be using the "Manually Load Group Names" procedure described above.

## **5** Triggers

The Translink can store and send out pre-defined trigger messages to perform functions such as firing of scenes stored in other C-Bus devices. Up to 50 Triggers can be stored and they are referenced sequentially, and numbered 1 to 50. Just like lighting groups, these stored triggers become trigger objects in the iOS application enabling them to be given friendly names and controlled like any other object.

Triggers are setup in much the same way as lighting groups (described above) with the following exceptions;

- Triggers are assigned a "Reference Trigger Number" and this is what makes them unique.
- When Triggers are loaded from the Toolkit XML file they will be stored in the Translink controller starting at position 1, and overwriting any previously setup triggers.

Connect	Set Single Group A	ddress Name				rigger	S	Show A	I Group Addre	sses	
			Single T	rigger Na	ame						Get All Clear List
_	Trigger Number					G	iet from Controller	#	Group Hex	Selector Hex	Name
		Dec Hex		Dec Hex			Set in Controller	1	01	01	Guests Scene
Apps & Email	Trigger Group	1 1	Action Selector 1	1			Set in Controller	2		00	All Off Scene
	Name	Guests Scene				E	rase in Controller	3		02	Watch Movie Scene
-								<b>4</b>		03	Action Selector 3
2	Load Toolkit XML							5	01	04	Action Selector 4
3		Load	d Group Na	ames Fro	m Toolkit	File		6	01	05	Action Selector 5
Groups								<b>7</b>	01	FF	Action Selector 255
<b>T</b>	File Name C:\cli	osal\C-Gate2\tag\T	LINKxml	Applicat	ion Address 202 (	SCA) Rea	d Toolkit XML File				
-	Network Name	Network Address	Application Name	Group Name	Group Address	Action Name	Action Address				
🚊 🔊	TLink	254	Trigger Control	Trigger Group 1		Action Selector 1	1				
Triggers	TLink	254	Trigger Control	Trigger Group 1	1	Action Selector 0	0				
ringgers	TLink	254	Trigger Control	Trigger Group 1	1	Action Selector 2	2				
	TLink	254	Trigger Control	Trigger Group 1		Action Selector 3	3				
	TLink	254	Trigger Control	Trigger Group 1		Action Selector 4	4				
1.00	TLink	254	Trigger Control	Trigger Group 1		Action Selector 5	5				
Measurement	TLink	254	Trigger Control	Trigger Group 1	1	Action Selector 25	5 255				
								0 items	selected from	n a total of 7 ite	ns
	0 items selected fi	rom a total of 7 items	3				Show All Cols	Selec	All De Sel	lect All Delet	e Selected Show All Cols
<u> </u>	Select All	De Select All				Upload Sele	cted Group Names				
action Log											
-	onived Measure	mont for Apr	lightion 229 (		ar 2 (¢2) Dou	ion 140 (\$9E)	Channel 1 (¢1)	Linite O	(¢O) M	olior DEE /	
May 2013 15:03:54 - Re May 2013 15:04:02 - Sei				φE4) Numbe	si 5 (\$5) Dev		Channel 1 (\$1)	Units U	φu) Mulu	pilei 200 (4	
May 2013 15:04:02 - Re											
May 2013 15:04:03 - Re		lamo Ponty =	Gueste Scon	0							
viay 2013 13.04.03 - Re	ceived Group N	атте керіу -	Guesis Scen	6							-00



## 6 Measurement

The Translink can process pre-defined broadcast measurement application messages for display on the iOS device. Like lighting and triggers, objects are created and stored in the Translink Controller with friendly names, allowing objects to be viewed in real time. Up to 20 measurement objects may be created and stored using "Reference Measurement Numbers" in exactly the same way as triggers.

Measurement objects are also setup exactly like trigger objects, except there is no bulk load from a toolkit XML file. This is because the way measurement information is stored in the XML file makes it difficult to extract.

Translink Configurator V2.0.0.0 - Co	onnected to 192.168.72.15:10003							
Translink Configurator V2.00.0 - Co Connect Apps & Email Groups Triggers Measurement		Acas ureme Get from Controller Set in Controller Erase in Controller	Show A	2 2 142		Channel Dec 3 4 1		t All Clear List
13 May 2013 15:06:04 - Ser 13 May 2013 15:06:04 - Rec	d of Measurement Name messages tt Get Single Measurement Name Request ceived ACK ceived Measurement Name Reply = Mains Power		Selec	t All De Se	ect All Del	te Selected		Show All Cole
	III						Þ	

Figure 10 Measurement Setup

# 7 Commands

The Translink Configurator has built in utility functions that allow the reading and setting of C-Bus levels, sending of triggers and reading measurements. These functions are primarily designed as a mechanism to verify the functionality of the Translink Controller independently of the Translink User Application.

#### 7.1 Lighting

#### 7.1.1 Initial Levels on Power up (or Reboot)

The Translink Controller maintains its own internal set of levels for all the group addresses that are known to C-Bus i.e. stored in a C-Bus output unit. These levels are queried by the controller on start-

up and are used as the basis of level information that is sent to the Translink User Application each time it starts.

Over time as activity occurs this internal level list gets modified and added to as network traffic is received and processed, thus ensuring the controller knows the state of all known & active group addresses on the C-Bus network.

This table that is held in RAM for fast access, and can be viewed using the Translink Configurator by performing the following steps;

- 1. Establish a connection to the Translink Controller.
- 2. Go to the "Levels" tab
- 3. Under "Show all Group Levels" select the Application Address from the dropdown list.
- 4. Press the "Get All" button.

	/1.0.1.2 - Connected to 192.168.72.40:10001	and a few Hore I have	Leve			Sand. 2	-	
Connect	Get Single Group Address Leve	I (C-Bus) Set Si	ngle Group Address Level		Show All Group		· · · · · ·	
	Application Address	<ul> <li>Applic</li> </ul>	ation Address	-	Application A	ddress 56 (\$	38) 🔻	Get All Clear List
	Dec	Hex	Dec H	Hex	Application	Group Dec	Group Hex	Level
	Group Address		aroup Address		56	11	В	128 (50%) (\$80)
Apps & Email					56	12	С	123 (49%) (\$7B)
	Level		On	Off	56	13	D	0 (0%) (\$0)
		-			56	14	E	84 (33%) (\$54)
	Group Exists		-	_	56	15	F	0 (0%) (\$0)
		Lev	el 🔻	Time •	56	16	10	0 (0%) (\$0)
Comment	Get 0%	100%			56	17	11	0 (0%) (\$0)
Groups		100%	Ramp		56	18	12	0 (0%) (\$0)
Levels								
Factory					8 items			
Transaction Log								
07 Oct 2012 18:35 07 Oct 2012 18:35	19 - Received Group Level Reply 19 - Received Group Level Reply 19 - End of Group Level message 29 - Received On for application 5						ł	TransLink

#### Figure 11 Levels held in Controller RAM

**Note**: The returned list will only show levels for group addresses the Controller was able to initially query, from the C-Bus network that the controller is connected to. If other traffic is received over time from other sources such as Phantom Group addresses or the far side of C-Bus bridges, then this will be added to the table.

## 7.1.2 Get Single Group Address Level

This function will show the level of a single chosen group address. This function retrieves the level directly from C-Bus and not from the Controllers internal table as described above. Because of this only Group Addresses known to the C-Bus network can be queried, all other will return a level of 0 and be flagged as not existing on the network.

To get a single group address level, perform the following steps;

- 1. Establish a connection to the Translink Controller.
- 2. Go to the "Levels" tab.
- 3. Under "Get Single Group Address Level" choose the Application address from the drop down list.
- 4. Enter the Group Address.
- 5. Press the "Get" button.

Translink Configu	rator V1.0.1.2 - Conne	ected to 192.168.72.40:10001	an Elm. Bron Erne Bron E-		a. 2%	la.	
			Levels				
Connect	2	Get Single Group Address Level (C-Bus)	Set Single Group Address Level	Show All Grou	p Levels (TL F	RAM)	
		Application Address 56 (\$38)	Application Address	Application A	ddress 56 (s	38) <b>-</b>	Get All Clear List
	_	Dec Hex	Dec Hex	Application	Group Dec	Group Hex	Level
		Group Address 12 C	Group Address	56	11	В	0 (0%) (\$0)
Apps & Email				56	12	С	123 (49%) (\$7B)
		Level 123 (49%) (\$7B)	On Off	56	13	D	0 (0%) (\$0)
	-		On Off	56	14	E	84 (33%) (\$54)
		Group Exists Yes		56	15	F	0 (0%) (\$0)
	8		Level Time 🔻	56	16	10	0 (0%) (\$0)
	8	Get		56	17	11	0 (0%) (\$0)
Groups		0% 100%		56	18	12	0 (0%) (\$0)
	<b>H</b>		Ramp	56	32	20	0 (0%) (\$0)
				56	34	22	255 (100%) (\$FF)
Levels							
Factory				10 items			
Transaction Log							
07 Oct 2012 1 07 Oct 2012 1	8:52:19 - Sent G 8:52:19 - Receiv	ed Group Level Reply iet Single Group Level Request ed ACK ed Group Level Reply				ŀ	TransLink

Figure 12 Get Group Level

#### 7.1.3 Set Single Group Address Level

This function will set the level of a single chosen group address. This function causes the Controller to send the appropriate command onto the C-Bus network. Any group address can be chosen regardless as to whether it exists on the C-Bus network or not.

To set a single group address level, perform the following steps;

- 1. Establish a connection to the Translink Controller.
- 2. Go to the "Levels" tab.
- 3. Under "Set Single Group Address Level" choose the Application address from the drop down list.
- 4. Enter the Group Address.
- 5. Press the "On" or "Off" button or
  - a. Select the desired level
  - b. Select the desired ramp time

	1		Levels					
onnect	1 - Contraction	Get Single Group Address Level (C-Bus)	Set Single Group Address Level	Show All Grou	o Levels (TL F	RAM)		
		Application Address 56 (\$38) -	Application Address 56 (\$38) -	Application A	ddress 56 (s	\$38) 🔻	Get All	Clear List
		Dec Hex	Dec Hex	Application	Group Dec	Group Hex	Level	
		Group Address 12 C	Group Address 12 C	56	11	В	0 (0%) (\$0)	
ps & Email				56	12	С	123 (49%)	(\$7B)
		Level 123 (49%) (\$7B)	On Off	56	13	D	0 (0%) (\$0)	
	-			56	14	E	84 (33%) (	\$54)
		Group Exists Yes		56	15	F	0 (0%) (\$0)	
	8		Level 127 (50%) (\$7F) 🔻 Time \$32 (40s) 🔻	56	16	10	0 (0%) (\$0	
	30	Get		56	17	11	0 (0%) (\$0)	
oups		0% 100%		56	18	12	0 (0%) (\$0)	
			Ramp	56	32	20	0 (0%) (\$0)	
	•			56	34	22	255 (100%	) (SFF)
rels								
ctory				10 items				
saction Log								
Oct 2012 1 Oct 2012 1	8:57:40 - Rece	vived On for application 56 (\$38) Group 11 (\$E vived Off for application 56 (\$38) Group 11 (\$E Set Single Group Level Ramp vived ACK						IronsLin

c. Press the "Ramp Button.

Figure 13 Set Group Level

# 8 Factory Utilities

The Translink Configurator has 3 additional utility functions normally used at the factory when the controller is first built.

These functions however could be of use when fault finding or moving a Controller between sites.

#### 8.1 Erase EEProm

This function is used to erase all user and site specific data from the EEProm. It is useful when moving the controller to a new site, or when a clean un-configured controller is desired.

#### 8.1 Reboot

This function is used to software reboot the controller.

**Note:** In extreme rare cases where the controller may have become unresponsive, it may be necessary to power cycle the controller instead.

#### 8.1 Set PIN

This function is used to set the access PIN number in the controller.

All devices that wish to connect to the controller need to present this PIN number correctly. It is also set in the configuration of the iOS application.

Connect	Factor	y
annee and a second seco		Translink Reboot
	Erase Translink EEProm	Reboot Translink
Apps & Email	Erase Translink EEProm Erase EEProm	Reboot Translink Reboot
	Warning: This will erase all user programmed data from the Translink.	Warning: This will reboot the Translink
Groups	The process will take over 10 Minutes to complete.	
in oups	During this time the Translink will be unuseable.	
~		Set PIN
evels		Set Personal Identification Number
		Pin Number Set
actory		PIN must be 4 digits.
A		
A		
nsaction Log		
Feb 2013 11:48:13 - Rece	ived Off for application 56 (\$38) Group 11 (\$B) ived Ramp for application 56 (\$38) Group 11 (\$B) To Level 128 (\$80) At Rai ived On for application 56 (\$38) Group 11 (\$B) Renly	te 26 (\$1A)

Note: PIN can only be set and not read for security reasons.

**Figure 14 Factory Utilities** 

# 9 Translink Controller Details

The Translink Configurator application also allows the viewing of several internal parameters.

These parameters are;

- Controller serial number.
- Controller hardware version.
- Controller firmware version.
- Controller Names database version.
- Controller "Settings Allowed" flag.

These parameters can all be viewed from the "Connect" tab after establishing a connection to the controller.

The parameters have the following definition;

Field	Description
Serial number	The factory set serial number of the controller. The same number as printed on the outside of the controller.
Hardware version	The controller Hardware revision
Firmware version	The controller firmware version
Names database version	A version number used to track and notify user applications of a change in the group address names database, thus triggering an upload of the new names. This value will change whenever a group name is changed.

"Settings Allowed"	A flag that is used by the "user application" to determine if access to the
flag	page configuration area should be allowed. This is set/reset by inserting a
	hardware key into the controller. It is used to prevent unauthorised
	changes to the "user application" page configuration.
Lighting 1 Max	The maximum number of group addresses allowed for the Lighting 1
Group Address	application. This is set in the factory, and is dependent on the Translink tier
Count	purchased.
Lighting 2 Max	The maximum number of group addresses allowed for the Lighting 2
Group Address	application. This is set in the factory, and is dependent on the Translink tier
Count	purchased.

# **10 Updating Controller Firmware**

The Translink Controller comes installed with a boot loader utility allowing the field upgrading of its firmware.

These firmware updates may be provided from time to time by Hamfield to fix bugs or provide extra functionality.

Note: Firmware updates are done via a serial RS232 connection, and not via the Ethernet port.

## 10.1 Updating firmware

To update the controller's firmware, perform the following steps;

- 1. Connect the optional Programming/update cable to the controller.
- 2. Connect the PC serial port to the programming cable (programming connector)
- 3. Start the Configurator application.
- 4. Go to the "Update" tab.
- 5. Choose the Com Port that the controller is connected to.
- 6. Press the "Connect" button.
- 7. Power cycle the controller.
- 8. If a connection has been made the "Browse for Hex" button will enable.
- 9. Press the "Browse for hex" button and locate the hex file containing the update.
- 10. Press the "Begin Upload" button
- 11. When complete, power cycle the controller.

**Note:** the actual update time can vary from 5 minutes to nearly an hour depending on the PC serial port type. Built in serial ports are the fastest, with serial over Ethernet adapters being the slowest.

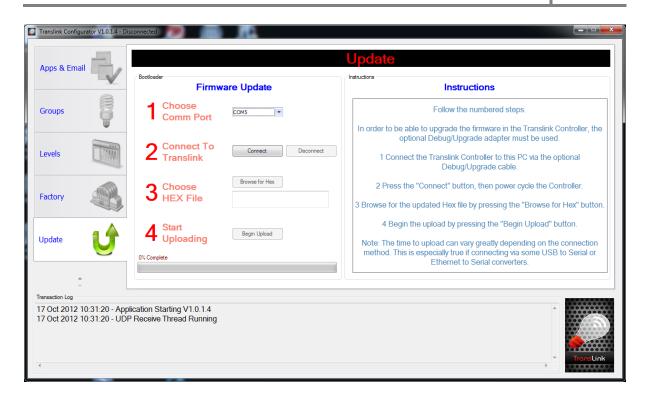


Figure 15 Controller Firmware Update