Application Note EXOR UniOP eTOP HMI and Jmobile Studio

This document guides you through the setup of proprietary vendor specific software installed on you PC. Your supervisor may provide you with additional or alternative instructions.

The document consists of standard instructions that may not fit your particular solution. Please visit our support website for latest revisions of documentation and firmware:

http://www.secomea.com

Version: 1.0, September 2012



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Prerequisites for This Guide

This guide will assist you to setup a remote and online connection to the UniOP equipment placed on the customer site using your UniOP Jmobile Studio programming software installed on your PC.

Prerequisites for this guide are:

- You have an operational LinkManager installed on your PC with a GateManager certificate that allows you to connect to the SiteManager agents.
- You have the UniOP software installed.
- You have the EXOR UniOP device agent installed and configured on the SiteManager at the remote site, and there is access between the SiteManager and the HMI.
 - A network attached HMI (Such as the eTOP407) must be configured with agent device type EXOR/UniOP HMI on the SiteManager. (SiteManager firmware version 12401 or newer)
- NOTE: The panel eTOP407 can either be programmed with a static IP address or an IP address obtained from a DHCP server. If your panel is configured with DHCP, please referrer to Appendix A, to find out how to get the IP address of the HMI.

If any of these prerequisites are not met, you should contact the person / department responsible within your own company or at the company responsible hereof.

System Overview

The communication path is as follows:

Jmobile Studio \rightarrow LinkManager \rightarrow GateManager \rightarrow SiteManager \rightarrow PLC.

This guide will elaborate on the components marked with **bold**.

The following system overview depicts a SiteManager 1029/3229 at the customer location:





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1. TCP Ethernet Access

The following describes how to connect the Jmobile Studio software to an EXOR UniOP eTOP407 HMI, which is attached to a SiteManager via Ethernet.

Note: A network attached HMI must be configured with agent device type **EXOR/UniOP HMI** on the SiteManager.

1. Locate the agent that represents you TCPI/IP attached HMI



2. You will not see any activity on it yet. This only starts when you connect to the PLC via your project (Make a note of the IP address of the HMI):

L	i⊓k ≥c⊍m	:M ea	anager							(
				Disconnect Logout	Services		Sniffer				
				gm06.JH	is)				
				UniOP eTOP407 (SiteMa	nager) -	10.0.0.5	J	Dec	kata	P	t
			Agent	Address	Status	ok	fail	tx	rx	tx Dy	rx
		•	UniOP eTOP407	10.0.0.5:21,80,2100,990,991,443	IDLE	0	0	0	0	0	0
				:6918,27127	IDLE	0	0	0	0	0	0
				:6918,27127 (udp)	IDLE	0	0	0	0	0	0
				Secomea-win7-32:3689 (udp)	IDLE	0	0	0	0	0	0

3. Start the Jmobile Studio software, and open your project.



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4. Whenever you are ready to download to the panel, select **Run → Download To Target.**



5. Remember to type the address obtained in section

Download To Target 📃	-
Ready to download	
	1
10 . 0 . 0 . 5 V 🗸 Download only changes 🛛 Download Close]

6. You can now observe data traffic in the LinkManager.

LinkM sectmea	ana	ger									
		Disc	onnect Log	jout	Servi	ces (Sniffe	r			
			R	00T.test.	JHS.AB	В					
		ABI	3 Ethernet (SM32	29 demo	rack (JI Copr	HS)) - 19: vects	2.168.0.1 Pac	l0 kets	Bv	Butac	
		Agent	Address	Status	ok	fail	tx	rx .	tx	rx .	
	@ *	ABB Ethernet	192.168.0.10	IDLE	1	0	216	216	3,284	5,699	
			(udp)	UP:2	0	0	27	0	5,190	0	
		•	virtualpc	IDLE	0	0	0	0	0	0	
		۹	virtualpc (udp)	IDLE	0	0	0	0	0	0	



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2. Ethernet Access via Windows XP under VMWare

You can run the Control Builder Plus program inside a VMWare engine, to an ABB PLC that is Ethernet attached to a SiteManager.

From LinkManager version 12155 you can choose to run the LinkManager inside or outside the virtual machine. Note that LinkManager can only run inside VMWare if the host OS is Windows 7 and the PC's CPU has support for virtualization.

The following illustrates VMWare Player, which can be downloaded from http://www.vmware.com/support/product-support/player/, and for LinkManager running <u>outside</u> the virtual machine (i.e. on the host OS system)

1. Locate your Windows XP that has programming software installed, and enter Edit virtual machine settings.





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2. Make sure the Network Adapter settings is set to NAT:

Device	Summary	Device status
Memory Frocessors Hard Disk (IDE) CD/DVD (IDE) Hoppy	1024 MB 1 8 GB (Preallocated) Auto detect Using drive A:	Connected Connect at power on Network connection Bridged: Connected directly to the physical network
USB Controller	Present Using port COM6	Replicate physical network connection state NAT: Used to share the host's IP address Host-only: A private network shared with the host

- 3. Start the VMWare engine and on the host PC start LinkManager.
- 4. Follow the procedure of section **1 TCP Ethernet Access** to get access to the PLC via LinkManager



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Appendix A

If your device is configured to obtain an IP address from a DHCP server, you need to enable the DHCP server on the device port. Please note that you have to disable any other DHCP service on the device network. Otherwise, you will encounter IP address conflicts.

1. Logon the SiteManagers webinterface, and click Edit next to DEV port.

SETUP • System	m GateManager VPN	Routing Maintenance St	atus Log • HEL	þ
	SiteManager 10	29 - Setup Assistant		
1. GateManager:	gm06.secomea.com	Connected to 130.226.210.173:	443 (UPLINK) Edit	E
2. Uplink port:	172.16.15.16/24 (Fixed)	Up	Edit	E
3. Uplink2 (2G/3G/4G):		Not Installed	Edit	E
4. DEV port:	10.0.0.1/24 [default]		Edit	D)
5. Device Agents:	1 up		Edit	
6. Admin Password:		Using default password	Fix	
You can ope Note: If you Pl	n the Setup Assistant at an a click on HELP it shows sp ease consult the online help a: Interface load fi	y time by clicking on SETUP in the ecific help for the current configu s your first step in solving setup pro or the last 30 minutes	he top menu. ration page. blems.	
UPLINK	M.		10 Mbps	
	Lege	nd: Tx Rx		

2. Click DHCP

· · ·	Help Continue Setup »
IP Address: Subnet Mask:	10.0.0.1
Auto Subnet Agent:	Enabled 🔻
Ethernet Settings:	Autonegotiation 🔻
Proxy ARP:	Disabled 🔻
Save	CP >> DNS >>



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3. Select Manual **or Auto** from the DHCP Server Mode dropdown menu, and fill in **Pool Start** and **Pool Stop** with the IP range, you want to have the DHCP server to delegate IP addresses in. The, click **Save** and **Back**.

Activ	e Pool Range: 10.0.0.10 - 10.0.0.20	
DHCP Server Mode:	Manual or Auto 🔻	
DHCP Relay Server:	0.0.0.0	
Pool Start:	10.0.0.10	
Pool Stop:	10.0.0.20	
Lease Time:	86400 seconds [3600-31449600]	
Domain Name:		
WINS Server:	0.0.0.0	
WINS Secondary:	0.0.0.0	
Cisco CallManager:	0.0.0.0	

 Now, reboot the manager in order to activate the DHCP server. Select Maintenance → Reboot. Make sure No delay is selected, and click Reboot.

SiteManager secumea	
SETUP • System GateManager VPN Rout	ing Haintenance Status Log • HELP
Maintenance Info • Password	• Upgrade • Export Import Reset
Confirm Re	elav 💌
3 Reboot	Cancel



5. Wait for the SiteManager to reboot, and click Edit again next to DEV1.

SETUP • System	n GateManager	VPN	Routing	Maintenance	Status Lo	og • HELP
	SiteManag	er 10	29 - Setı	ıp Assistant		
1. GateManager:	gm06.secomea.com	n	Connected	l to 130.226.210	.173:443 (UPL)	INK) Edit
2. Uplink port:	172.16.15.16/24 (F	ixed)	Up			Edit
3. Uplink2 (2G/3G/4G):			Not Instal	ed		Edit
4. DEV port:	10.0.0.1/24 [defau	lt]				Edit
5. Device Agents:	1 up					Edit
6. Admin Password:			Using defa	ault password		Fix
You can open Note: If you <i>Ple</i>	the Setup Assistant click on HELP it sho ase consult the online	t at any ws spe help as	y time by cl cific help f your first s	licking on SETUP or the current co tep in solving setu	in the top me onfiguration page of problems.	enu. ge.
_	Interrace		or the last 2	so minutes		
UPLINK					10 Mbp	8
		Leger	nd: Tx Rx		<u> </u>	

6. Click DHCP

	Help Continue Setup »
IP Address:	10.0.0.1
Subnet Mask:	255.255.255.0
Auto Subnet Agent:	Enabled 🔻
Ethernet Settings:	Autonegotiation 🔻
Proxy ARP:	Disabled 🔻
Save	ICP >> DNS >>



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7. Click Leases >>

Activ	re Pool Range: 10.0.0.10 - 10.0.0.20
DHCP Server Mode:	Manual or Auto 🔻
DHCP Relay Server:	0,0,0
Pool Start:	10.0.0.10
Pool Stop:	10.0.0.20
Lease Time:	86400 seconds [3600-31449600]
Domain Name:	
WINS Server:	0.0.0.0
WINS Secondary:	0.0.0.0
Cisco CallManager:	0.0.0.0
Sa	ave Back Leases >>

8. You will now see the DHCP lease table. NOTE: There can be multiple entries in the table, depending on how many devices configured as DHCP clients on the device network. In our scenario, the devices MAC address begins with 00:30:d8. If you do not know the MAC address of the device, please consult the manufacture of the product or your supervisor.

SiteM secomea	anag	er							C	6
	SETUP •	System	GateManager	VPN	Routing	Maintenand	e Status	Log •	HELP	
DHCP Server Leases Using 0 static and 1 dynamic leases Dynamic leases										
	Lock	IP	address	MAC	address	Hostname	Expir	es		
		10.0.0.20		00:30:	d8:01:d1:5	9	2012/09/28	14:15:54		
			Save	New	Refr	esh B	ack			



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