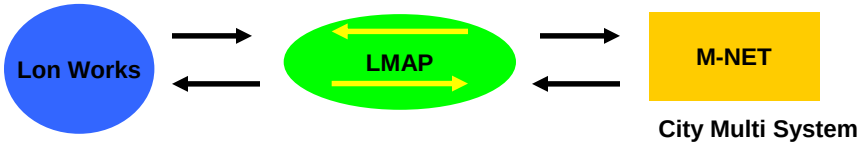
City Multi LMAP

Commissioning
&
Communications

Made Easy

What is LMAP ?

Protocol converter between Lon Works and M-NET

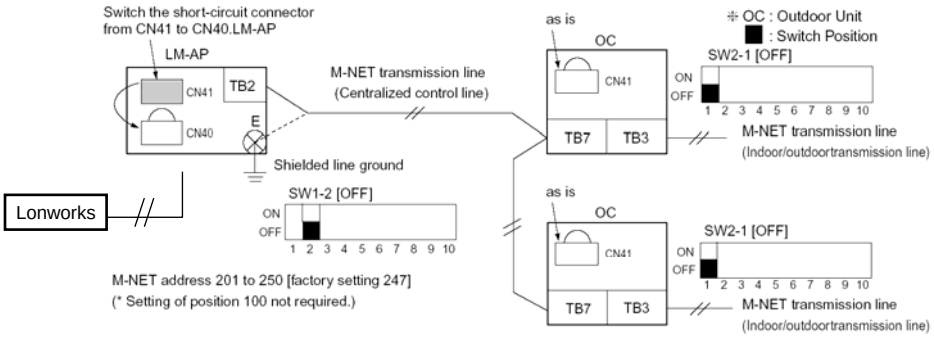


City Multi System

Operational and Communication Feature Available

	Item
Operation	Request On/Off
	Request Mode
	Setpoint from network(Both cool and heat)
	Request Fanspeed
	Request Local Prohibit On/Off
	Request Local Prohibit mode
	Request Local Prohibit SetPoint
	Request All Off
Monitor	On/Off run state
	Mode state
	Setpoint state(both cool and heat)
	FanSpeed state
	Thermo On/Off state
	Temperature state of indoor
	Alarm state
	Local Prohibit On/Off state
	Local Prohibit mode state
	Local Prohibit SetPoint state

Set-up previsions " WHEN NOT " using MELANS



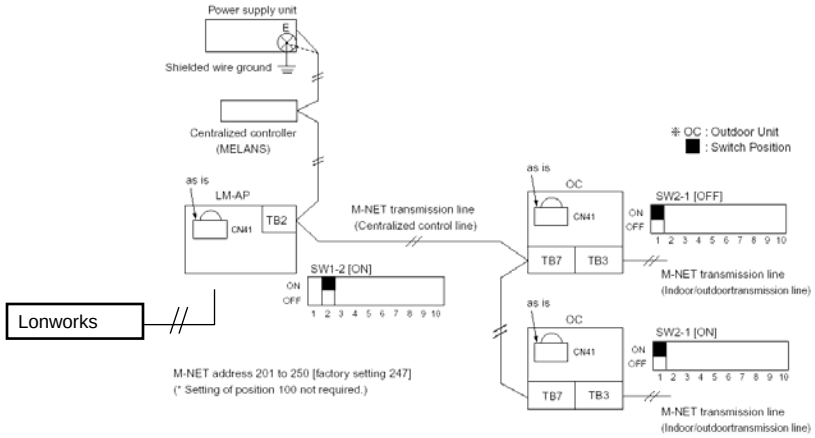
Iteam	Setting	Factory setting
M-NET address of LM-AP	SWU2, 1 [201 to 250]	247
LM-AP power switch connector	CN41 to CN40 (supplies power)	CN41
Combined switch for LM-AP system controller	SW1 - 2 [OFF] (Not used together with MELANS)	OFF
OC central control (SC) on/off switch	SW2 -1 [OFF] (No central control)	OFF
OC power supply connector	CN41 as is (power not supplied)	CN41

Set-up previsions " WHEN NOT " using MELANS

Additional steps and precautions to follow during set-up:

- **Do not connect Lonwork wires to such time the LMAP initialization is fully completed**
- **Ensure Outdoor and Indoor unit are commissioned properly and operational**
- **Ensure all necessary Dipswitch and Connectors are verified as per above example**
- **Note additional Dipswitch setting may be necessary depending on application or function request**
- **Ensure LMAP is wired to Outdoor unit TB7 before applying power to LMAP**
- **Apply LMAP power, initialization process begins – LED2 will light**
- **Wait 10-15 minutes for initialization, once completed LED2 is no longer be lit**
- **If LED2 still remains lit remove LMAP power and double check for proper settings and start again**
- **You may reference additional trouble shooting measures in the installation manual if necessary**
- **Switch LMAP SW1-9 "ON" starting TEST RUN operations from LMAP device**
- **If all has been completed properly all the Indoor unit controllers will show TEST RUN. This works as a verification of communication from LMAP to City Multi equipment**
- **Once all has been verified proceed in connecting Lonwork wiring so the 3rd party integrator can complete commissioning on the flip side.**

Set-up previsions “ WHEN ” using MELANS



Item	Setting	Factory setting
M-NET address of LM-AP	SWU2, 1 [201 to 250]	247
LM-AP power switch connector	CN411 as is (power not supplied)	CN41
Combined switch for LM-AP MALANS	SW1 - 2 [ON] (Used together with MELANS)	OFF
OC central control (SC) on/off switch	SW2 -1 [ON] (Central control)	OFF
OC power supply connector	CN41 as is (power not supplied)	CN41

Set-up previsions “ WHEN ” using MELANS

Additional steps and precautions to follow during set-up:

- **Do not connect Lonwork wires to such time the LMAP initialization is fully completed**
- **Ensure Outdoor and Indoor unit are commissioned properly and operational**
- **Ensure all necessary Dipswitch and Connectors are verified as per above example**
- **Note additional Dipswitch setting may be necessary depending on application or function request**
- **Ensure LMAP is wired properly with centralized controllers, power supply and Outdoor units TB7 before applying power to LMAP**
- **Ensure centralized controller Indoor unit groups have been programming with LMAP address (247)**
- **Apply LMAP power, initialization process begins – LED2 will light**
- **Wait 10-15 minutes for initialization, once completed LED2 is no longer be lit**
- **If LED2 still remains lit remove LMAP power and double check for proper settings and start again**
- **You may reference additional trouble shooting measures in the installation manual if necessary**
- **Switch LMAP SW1-9 “ON” starting TEST RUN operations from LMAP device.**
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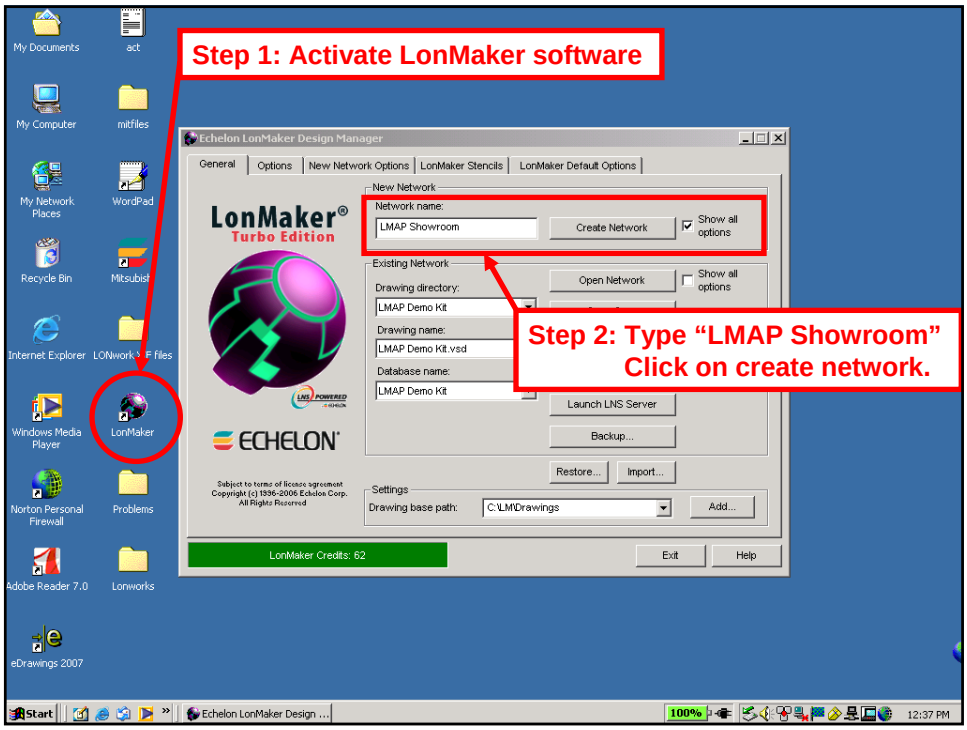
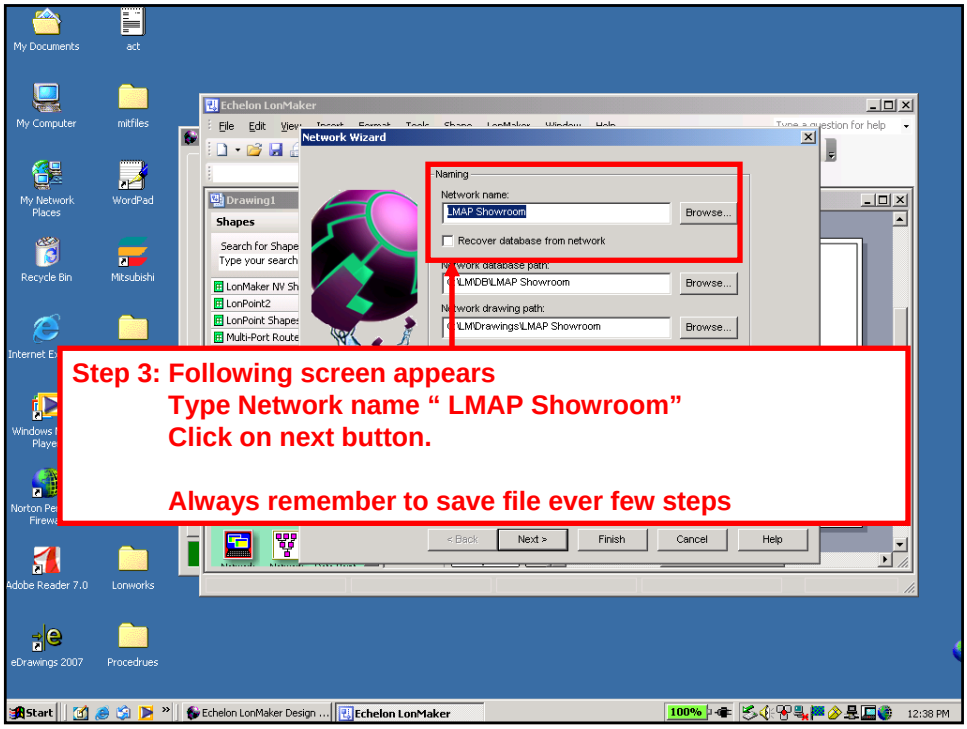
- **Once all has been verified proceed in connecting Lonwork wiring so the 3rd party integrator can complete commissioning on the flip side.**

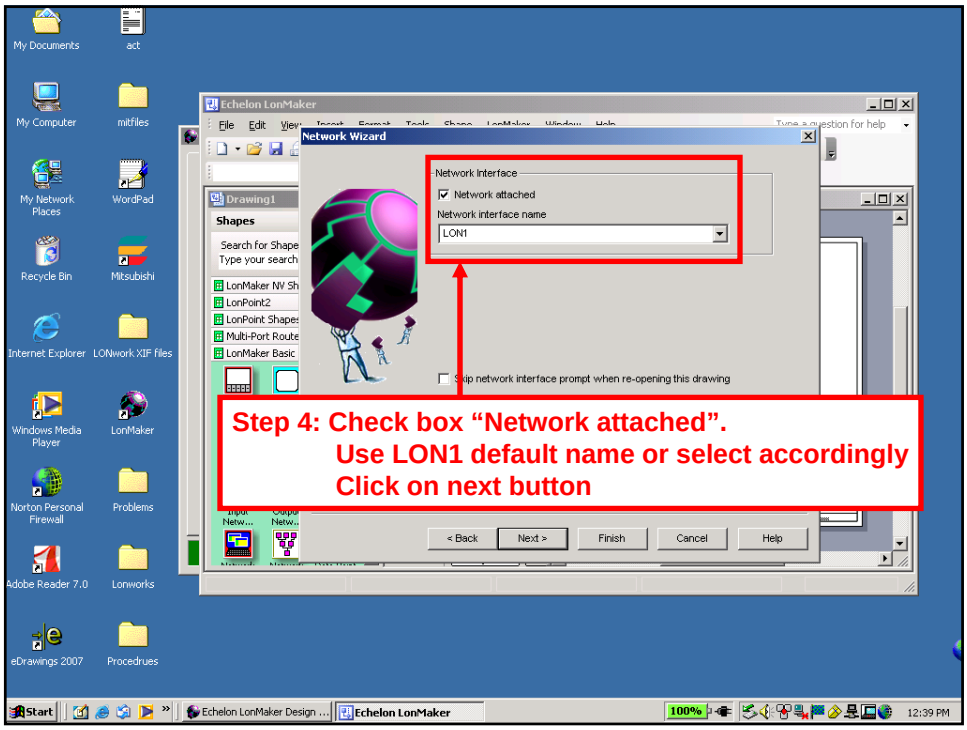
Commissioning LMAP

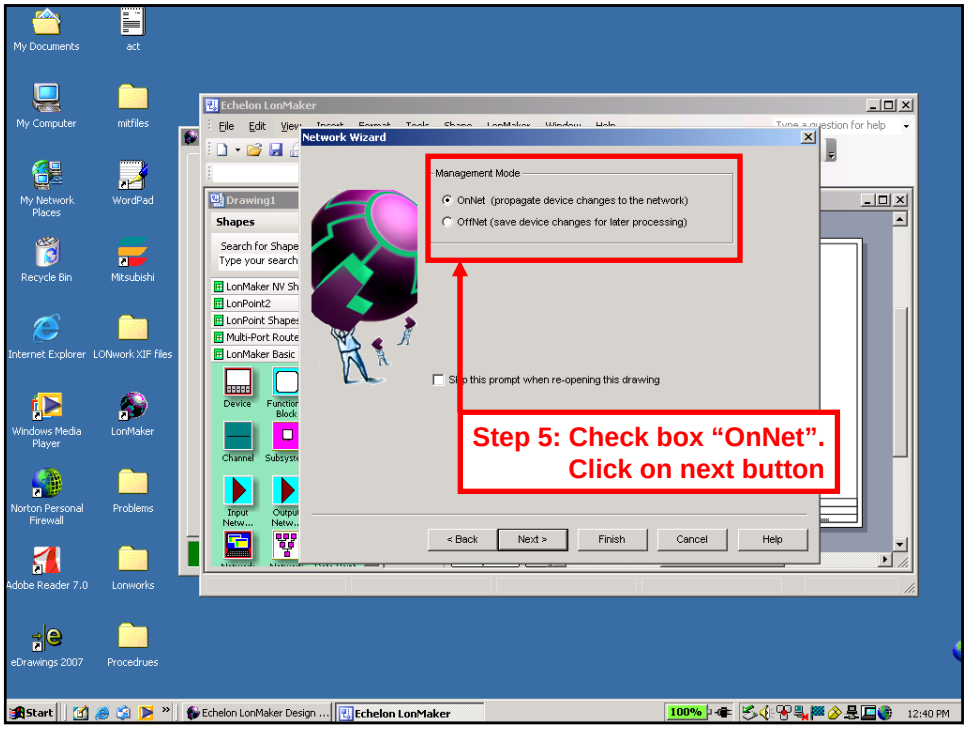
Necessary items required:

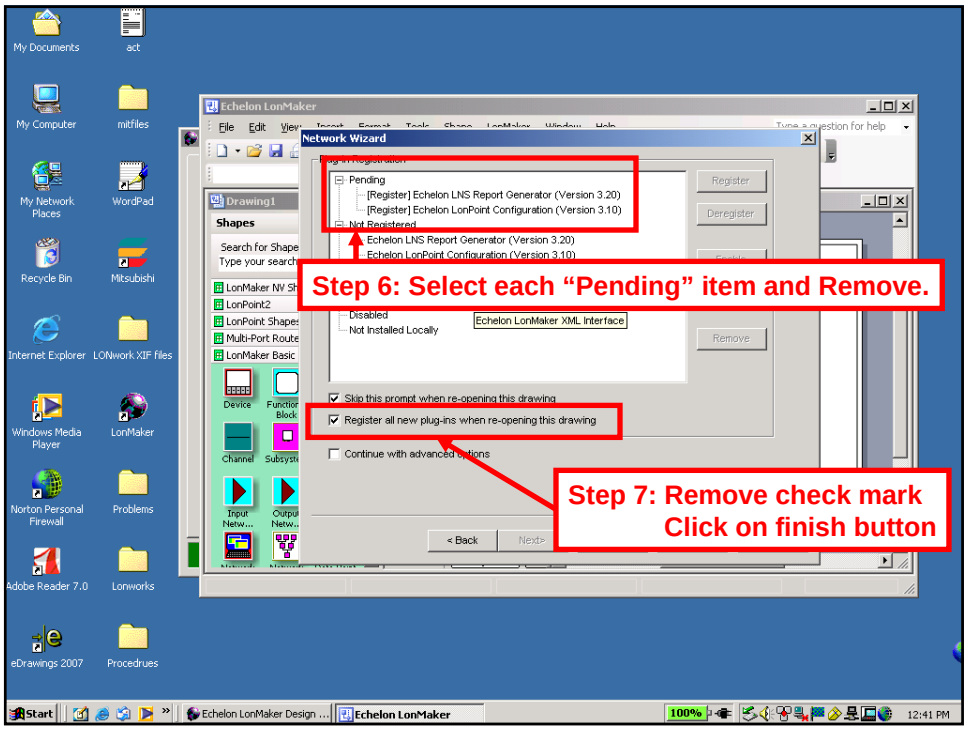
- Lonmaker Turbo Edition Software
  Model 37000-32 LONMAKER PROF TURBO
- U10 USB Network Interface – TP/FT-10
- LMAP .XIF file available from MESCA
- Experienced 3rd party integrator

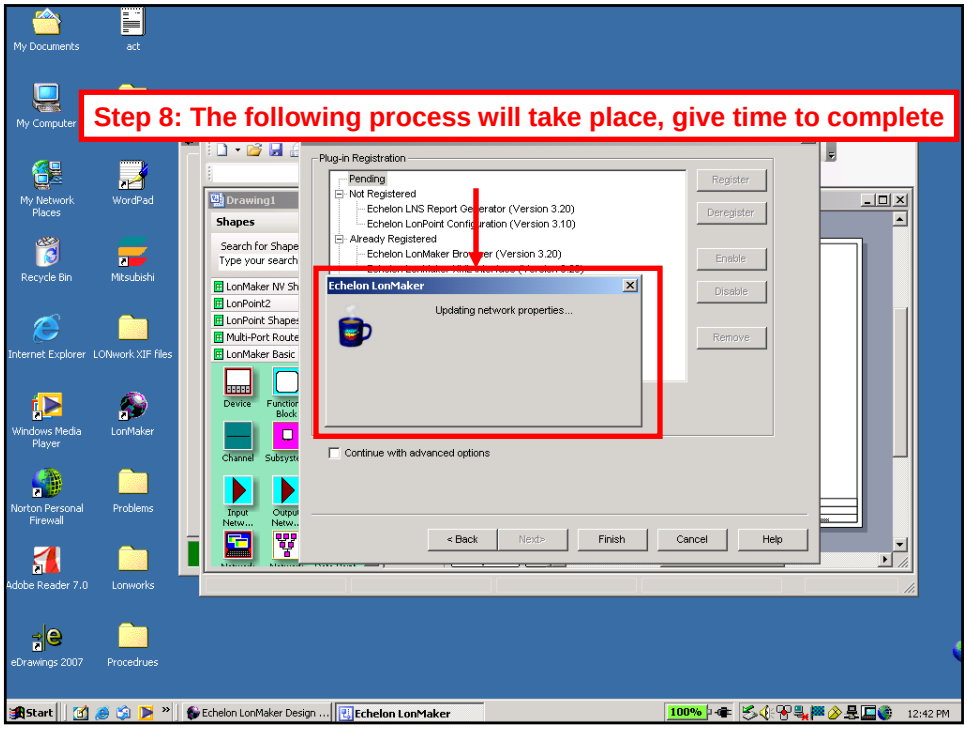


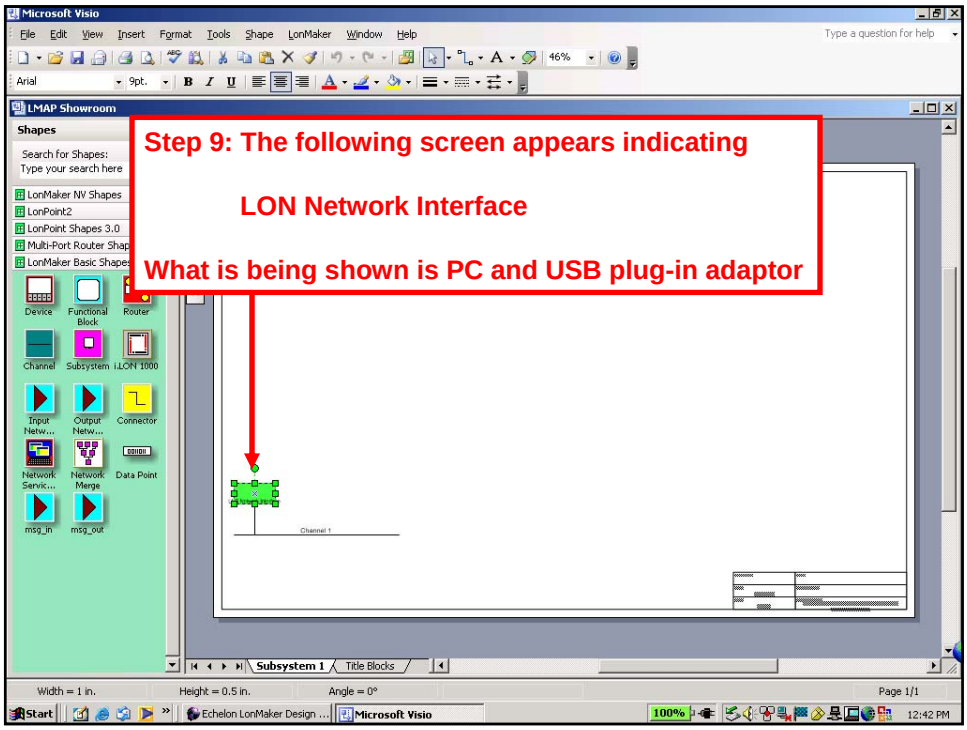

Echelon LonMaker
Network Wizard
Naming
Network name:
LMAP Showroom
Browse...
Recover database from network
Network database path:
\LM\DB\LMAP Showroom
Network drawing path:
\LM\Drawings\LMAP Showroom
Drawing1
Shapes
< Back
Next >
Finish
Cancel
Help
Step 3: Following screen appears
Type Network name " LMAP Showroom"
Click on next button.
Always remember to save file ever few steps

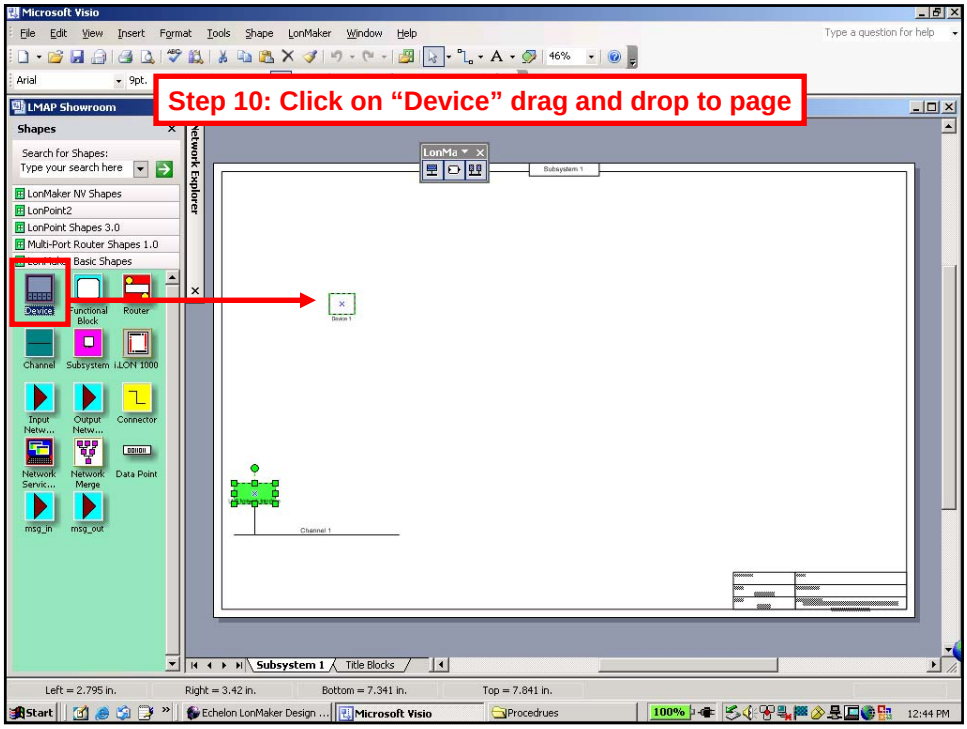

Echelon LonMaker
Network Wizard
Network Interface
Network attached
Network interface name
LON1
Skip network interface prompt when re-opening this drawing
Drawing1
Shapes
< Back
Next >
Finish
Cancel
Help
Step 4: Check box "Network attached".
Use LON1 default name or select accordingly
Click on next button

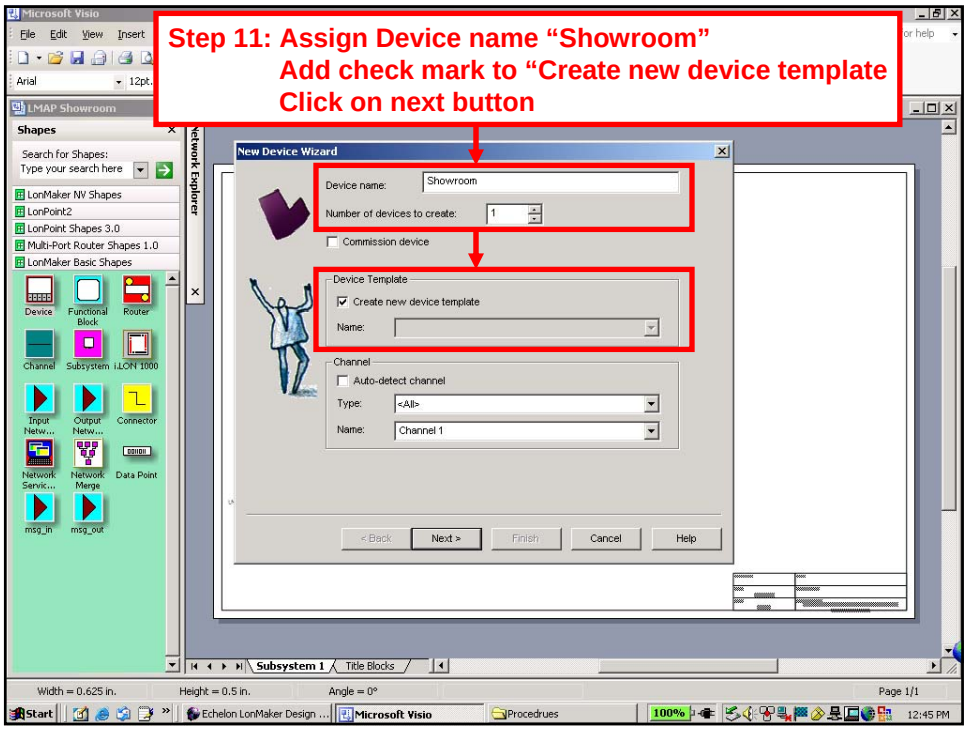

Network Wizard
Management Mode
OnNet (propagate device changes to the network)
OffNet (save device changes for later processing)
Skip this prompt when re-opening this drawing
< Back
Next >
Finish
Cancel
Help
Step 5: Check box “OnNet”.
Click on next button

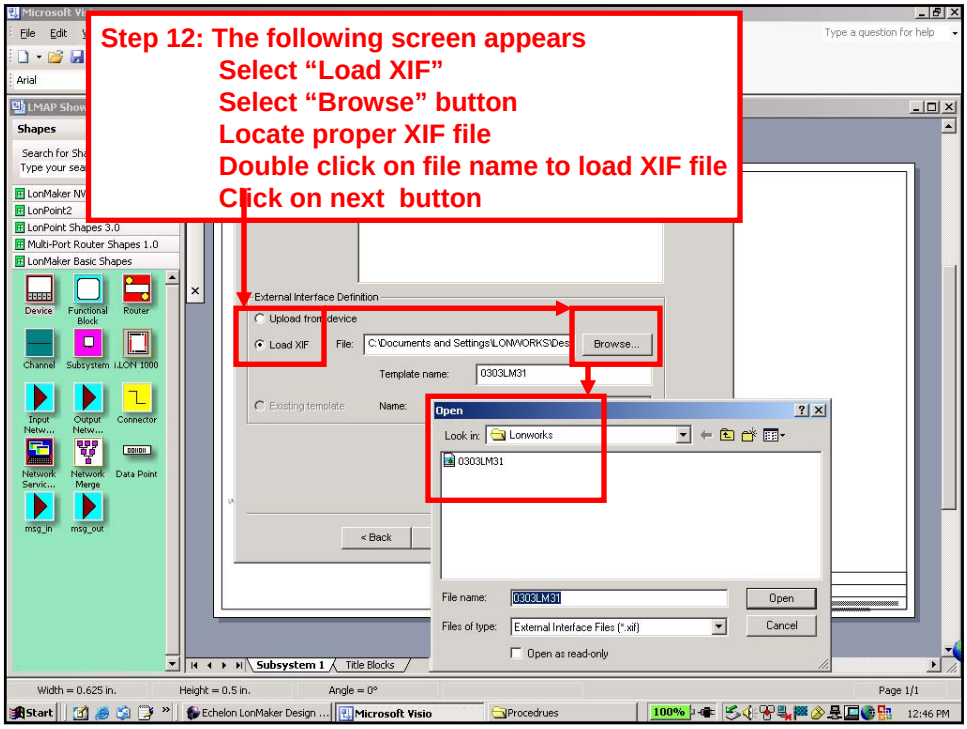

Network Wizard
Pending
[Register] Echelon LNS Report Generator (Version 3.20)
[Register] Echelon LonPoint Configuration (Version 3.10)
Not Registered
Disabled
Not Installed Locally
Echelon LonMaker XML Interface
Register
Deregister
Remove
Skip this prompt when re-opening this drawing
Register all new plug-ins when re-opening this drawing
Continue with advanced options
< Back
Step 6: Select each “Pending” item and Remove.
Step 7: Remove check mark
Click on finish button

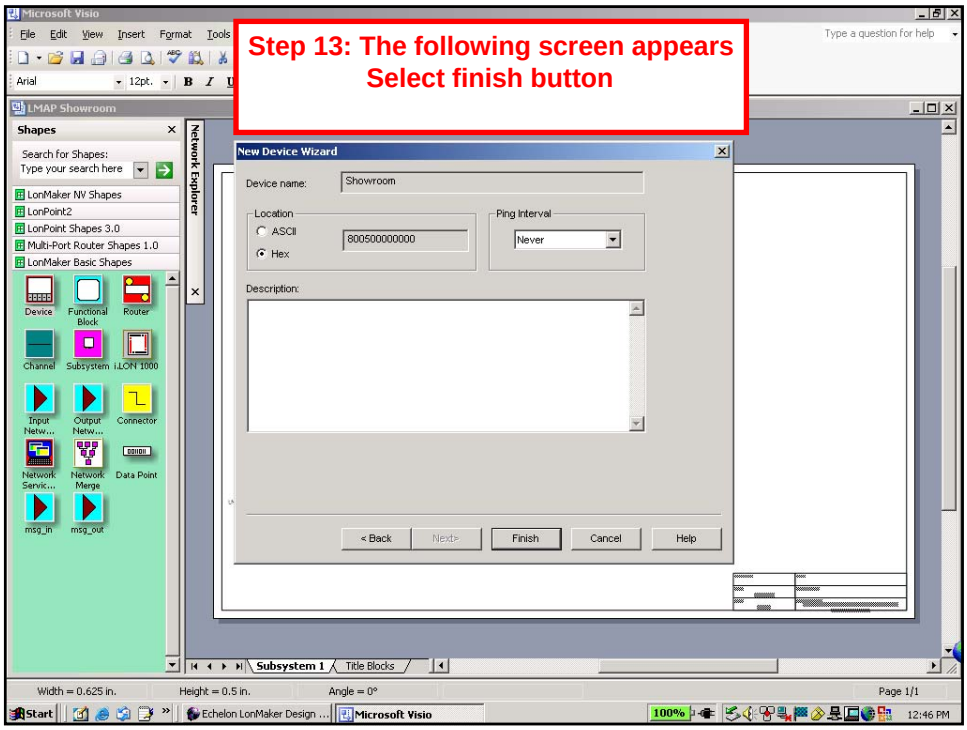

Step 8: The following process will take place, give time to complete
Plug-in Registration
Pending
Not Registered
Echelon LNS Report Generator (Version 3.20)
Echelon LonPoint Configuration (Version 3.10)
Already Registered
Echelon LonMaker Browser (Version 3.20)
Register
Deregister
Enable
Disable
Remove
Echelon LonMaker
Updating network properties...
Continue with advanced options
< Back
Next>
Finish
Cancel
Help
Drawing1
Shapes
Search for Shape
Type your search
LonMaker NV Sh
LonPoint2
LonPoint Shapes
Multi-Port Route
LonMaker Basic
Device
Channel
Input Netw...
Output Netw...
My Documents
act
My Computer
My Network Places
WordPad
Recycle Bin
Mitsubishi
Internet Explorer
LONwork XIF files
Windows Media Player
LonMaker
Norton Personal Firewall
Problems
Adobe Reader 7.0
Lonworks
eDrawings 2007
Procedrues
Start
Echelon LonMaker Design ...
Echelon LonMaker
100%
12:42 PM

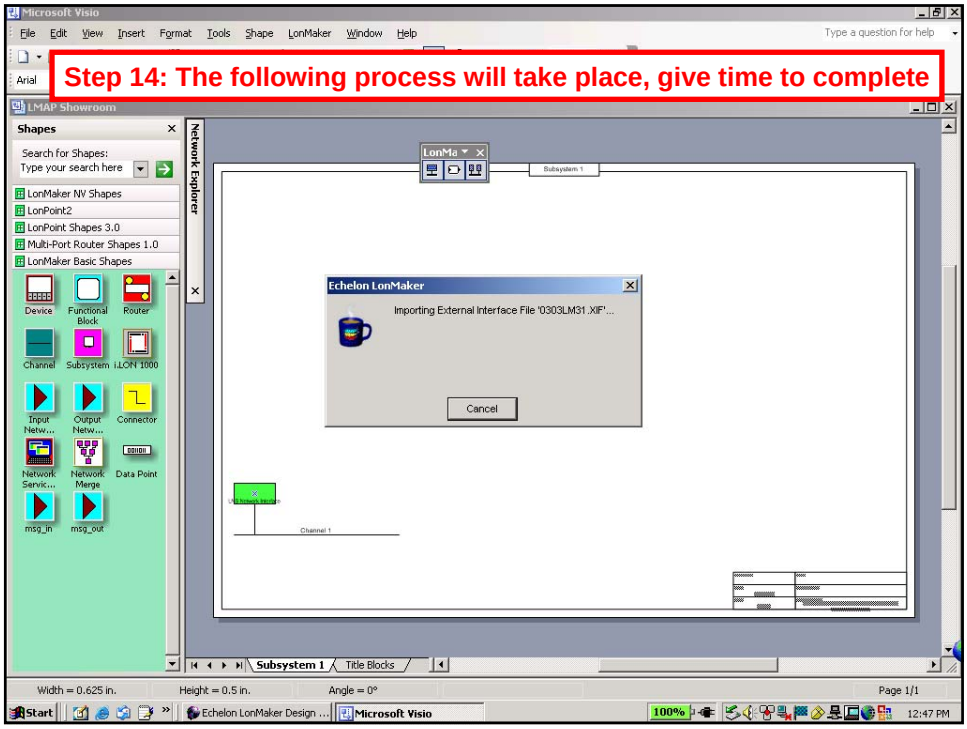

Step 9: The following screen appears indicating
LON Network Interface
What is being shown is PC and USB plug-in adaptor
Microsoft Visio
File Edit View Insert Format Tools Shape LonMaker Window Help
Type a question for help
Arial
9pt.
46%
LMAP Showroom
Shapes
Search for Shapes:
Type your search here
LonMaker NV Shapes
LonPoint2
LonPoint Shapes 3.0
Multi-Port Router Shap
LonMaker Basic Shapes
Device
Functional Block
Router
Channel
Subsystem
i.LON 1000
Input Netw...
Output Netw...
Connector
Network Servic...
Network Merge
Data Point
msg_in
msg_out
Subsystem 1
Title Blocks
Width = 1 in.
Height = 0.5 in.
Angle = 0°
Page 1/1
Start
Echelon LonMaker Design ...
Microsoft Visio
100%
12:42 PM

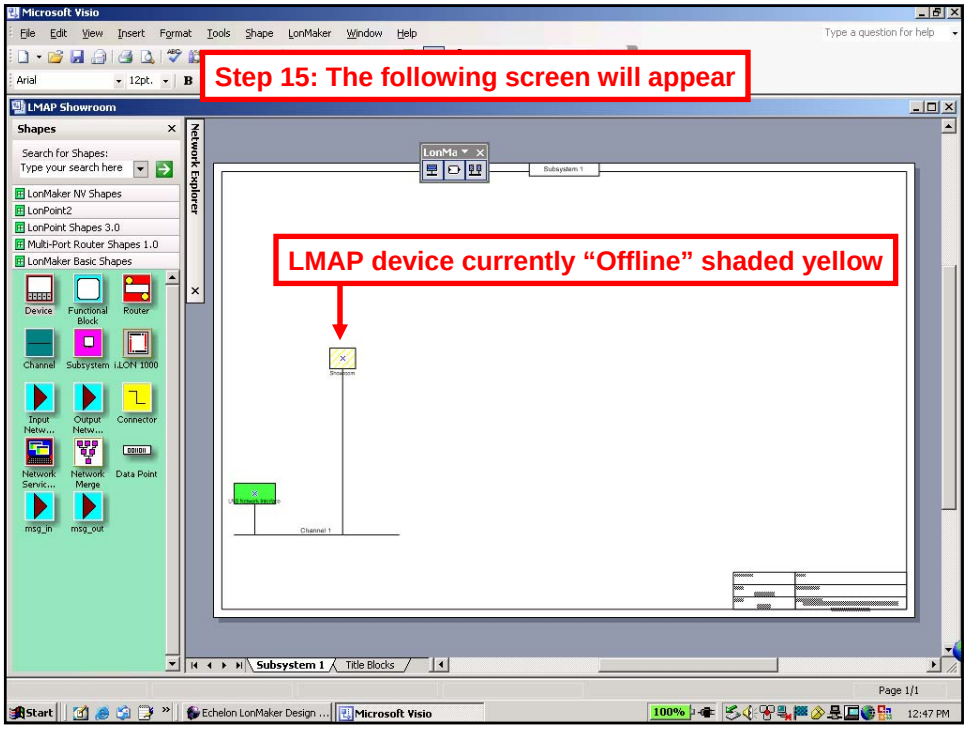

Step 10: Click on “Device” drag and drop to page
Microsoft Visio
LMAP Showroom
Shapes
LonMaker NV Shapes
LonPoint2
LonPoint Shapes 3.0
Multi-Port Router Shapes 1.0
LonMaker Basic Shapes
Device
Functional Block
Router
Channel
Subsystem
i.LON 1000
Connector
Data Point
Subsystem 1
Title Blocks

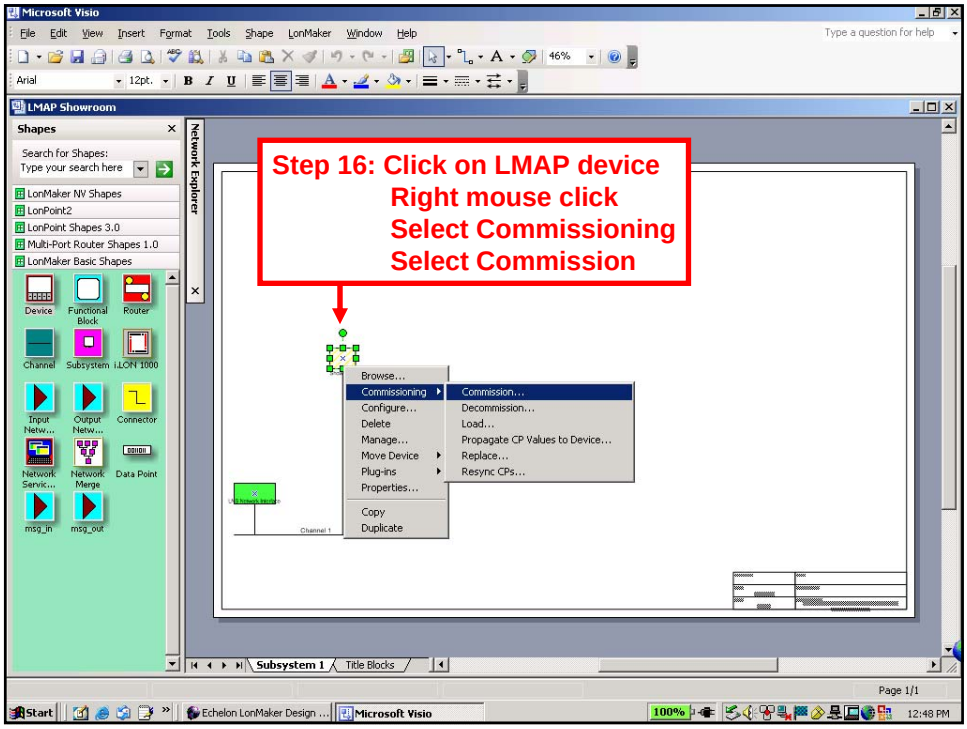

Step 11: Assign Device name “Showroom”
Add check mark to “Create new device template
Click on next button
New Device Wizard
Device name:
Showroom
Number of devices to create:
1
Commission device
Device Template
Create new device template
Name:
Channel
Auto-detect channel
Type:
<All>
Name:
Channel 1
< Back
Next >
Finish
Cancel
Help
Subsystem 1
Title Blocks

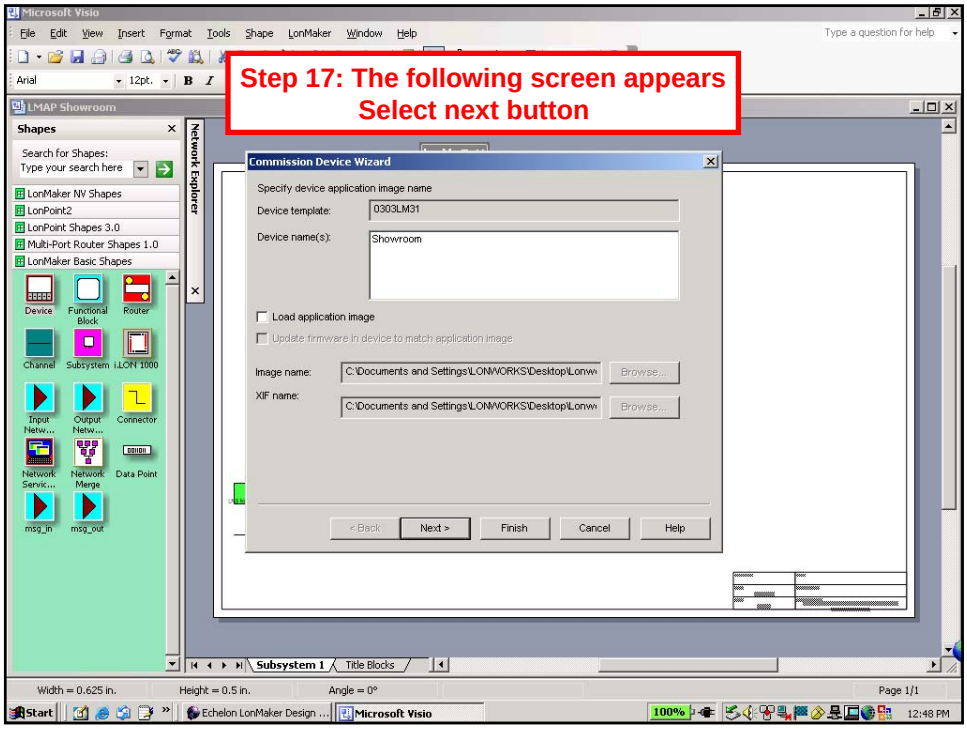

Step 12: The following screen appears
Select “Load XIF”
Select “Browse” button
Locate proper XIF file
Double click on file name to load XIF file
Click on next button
External Interface Definition
Upload from device
Load XIF
File:
Browse...
Template name:
0303LM31
Existing template
Name:
Open
Look in:
Lonworks
0303LM31
File name:
0303LM31
Open
Files of type:
External Interface Files (*.xif)
Cancel
Open as read-only
< Back
Subsystem 1
Title Blocks

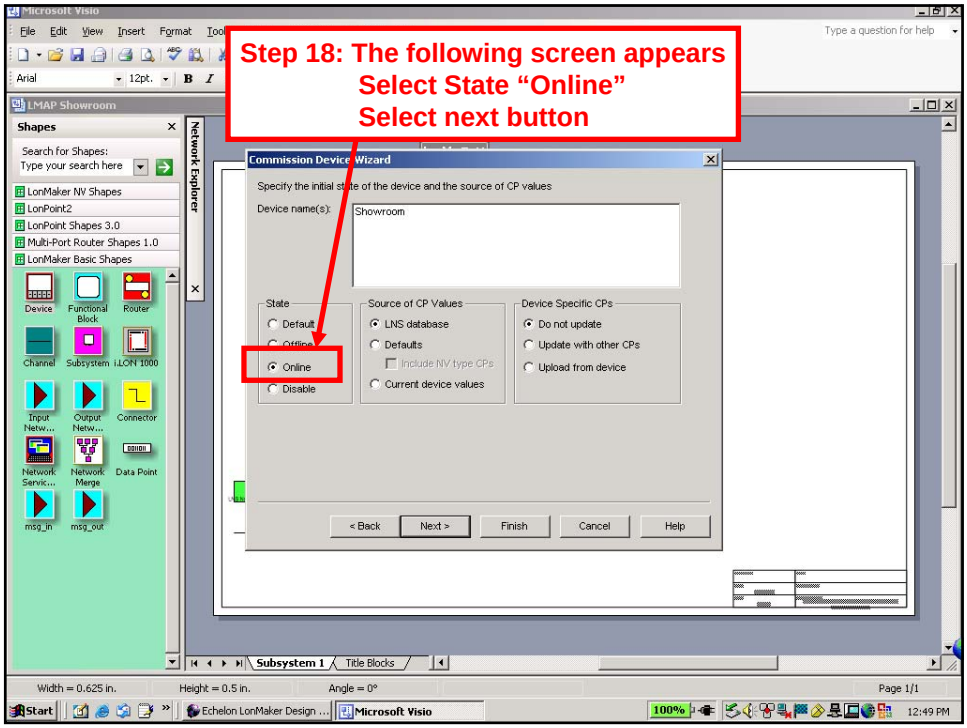

Step 13: The following screen appears
Select finish button
New Device Wizard
Device name:
Showroom
Location
ASCII
Hex
800500000000
Ping Interval
Never
Description:
< Back
Next>
Finish
Cancel
Help
Subsystem 1
Title Blocks

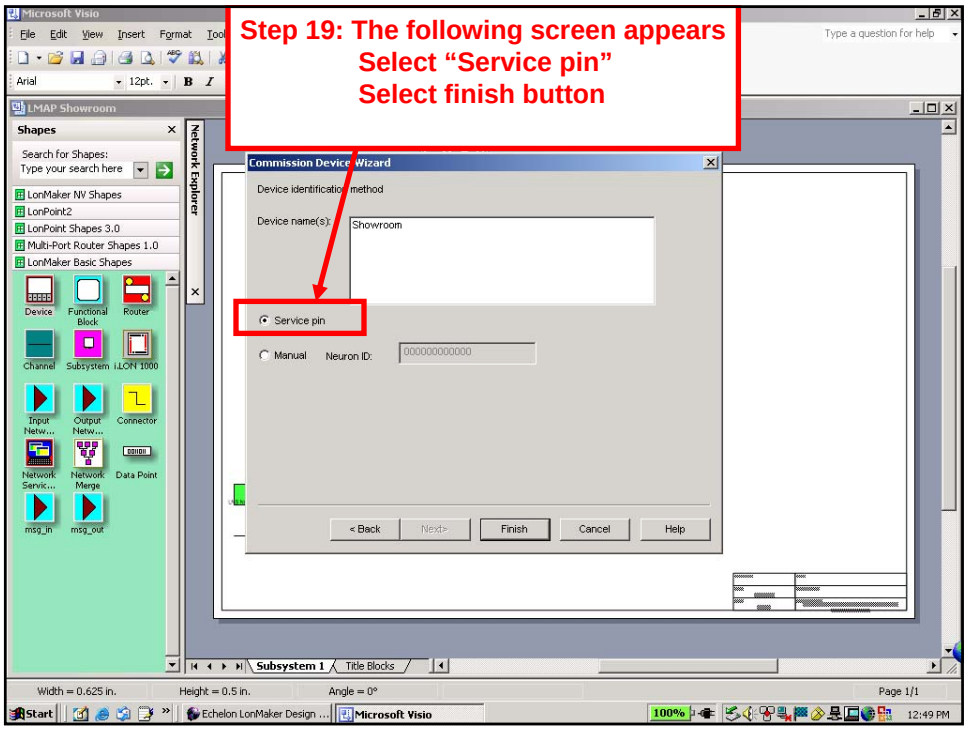

Step 14: The following process will take place, give time to complete
Microsoft Visio
LMAP Showroom
Shapes
Echelon LonMaker
Importing External Interface File '0303LM31.XIF'...
Cancel
Subsystem 1
Title Blocks

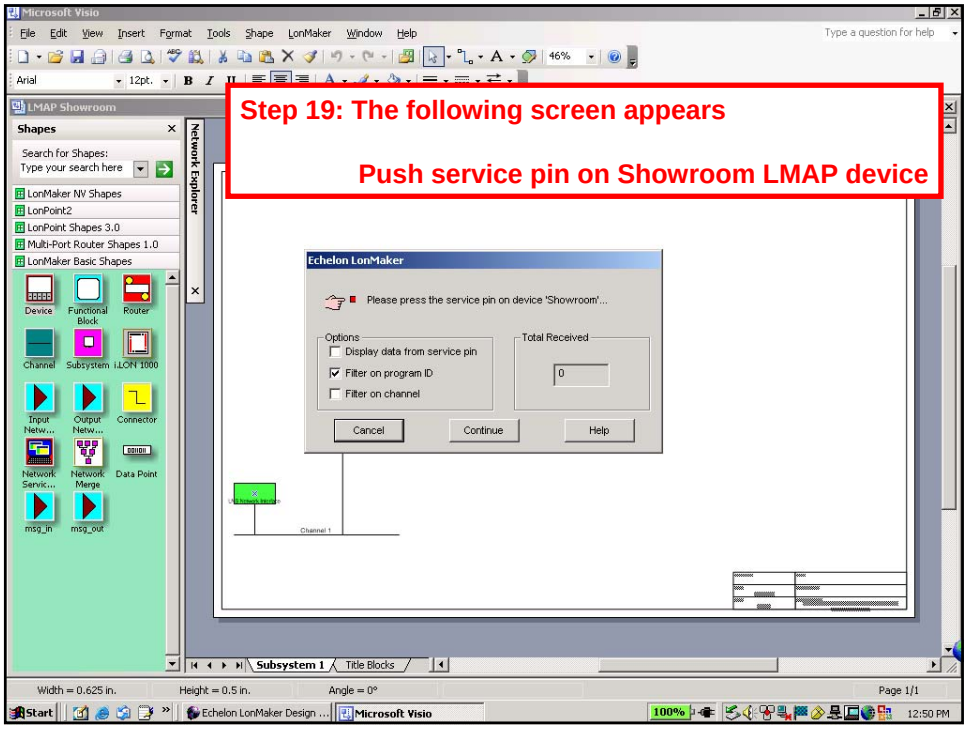

Step 15: The following screen will appear
LMAP device currently “Offline” shaded yellow
Microsoft Visio
LMAP Showroom
Shapes
Subsystem 1
Title Blocks

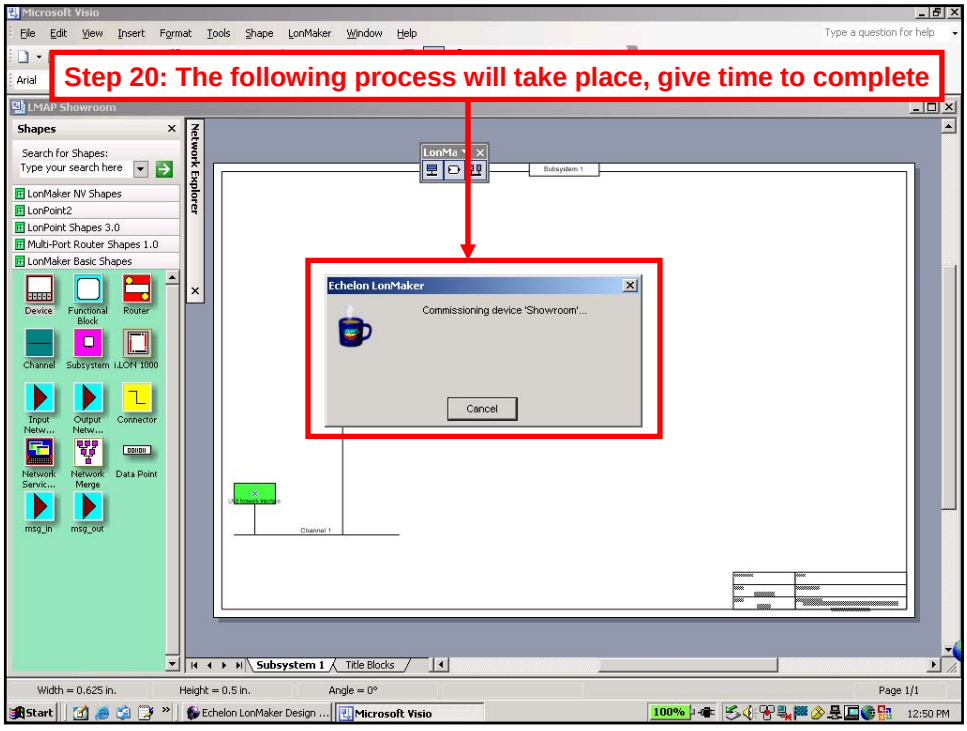

Step 16: Click on LMAP device
Right mouse click
Select Commissioning
Select Commission
Browse...
Commissioning
Configure...
Delete
Manage...
Move Device
Plug-ins
Properties...
Copy
Duplicate
Commission...
Decommission...
Load...
Propagate CP Values to Device...
Replace...
Resync CPs...

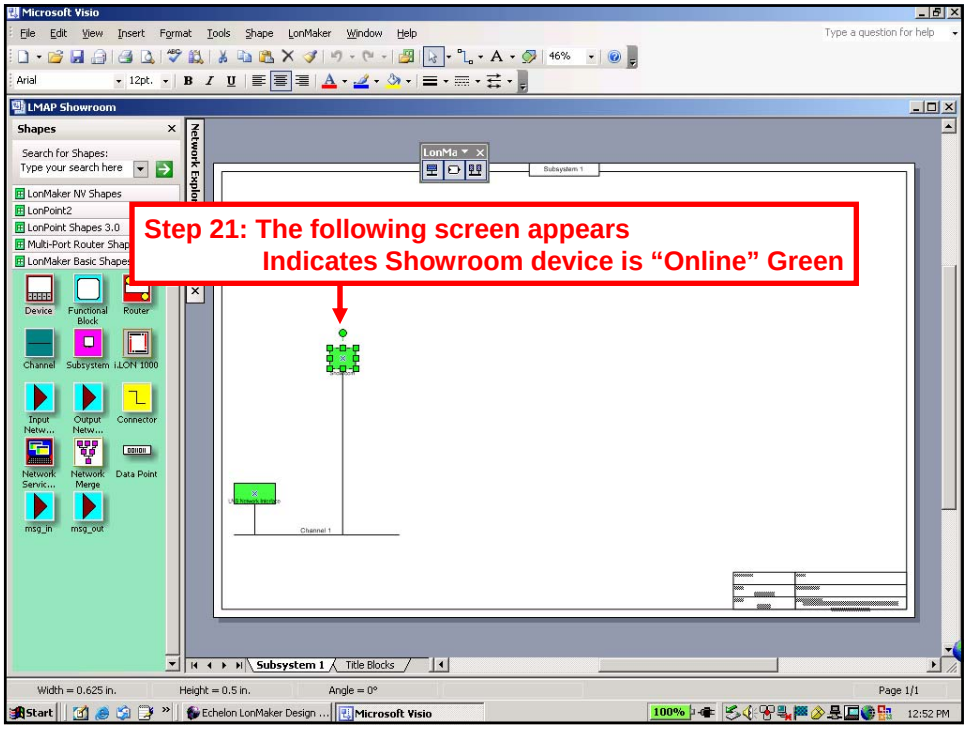

Step 17: The following screen appears
Select next button
Commission Device Wizard
Specify device application image name
Device template:
0303LM31
Device name(s):
Showroom
Load application image
Update firmware in device to match application image
Image name:
XIF name:
Browse...
< Back
Next >
Finish
Cancel
Help

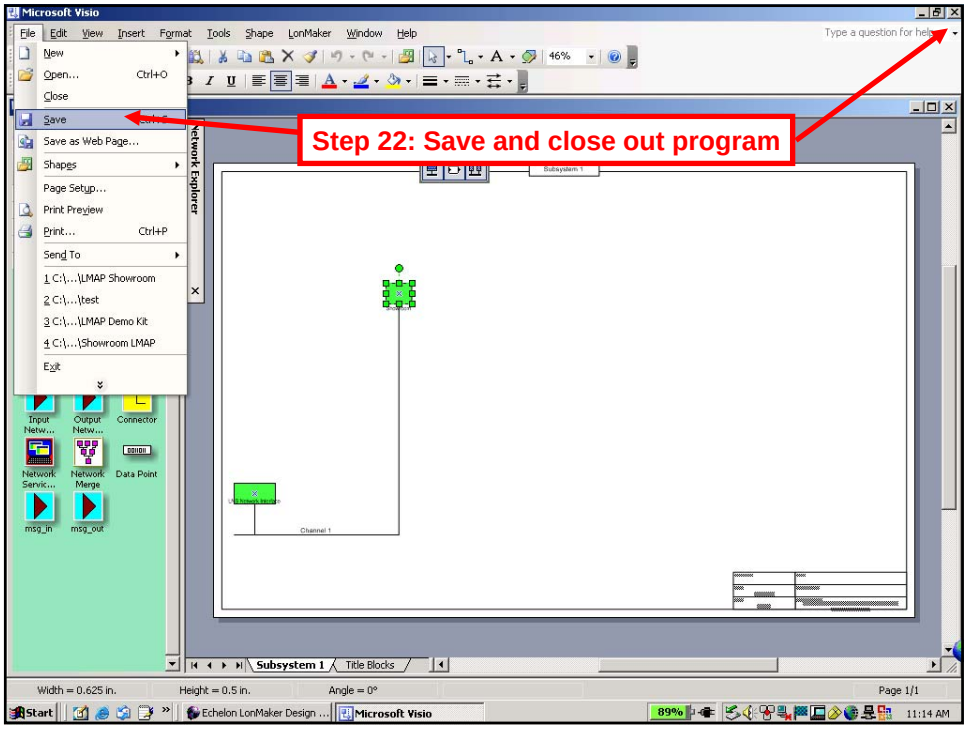

Step 18: The following screen appears
Select State “Online”
Select next button
Commission Device Wizard
Specify the initial state of the device and the source of CP values
Device name(s):
Showroom
State
Default
Offline
Online
Disable
Source of CP Values
LNS database
Defaults
Include NV type CPs
Current device values
Device Specific CPs
Do not update
Update with other CPs
Upload from device
< Back
Next >
Finish
Cancel
Help

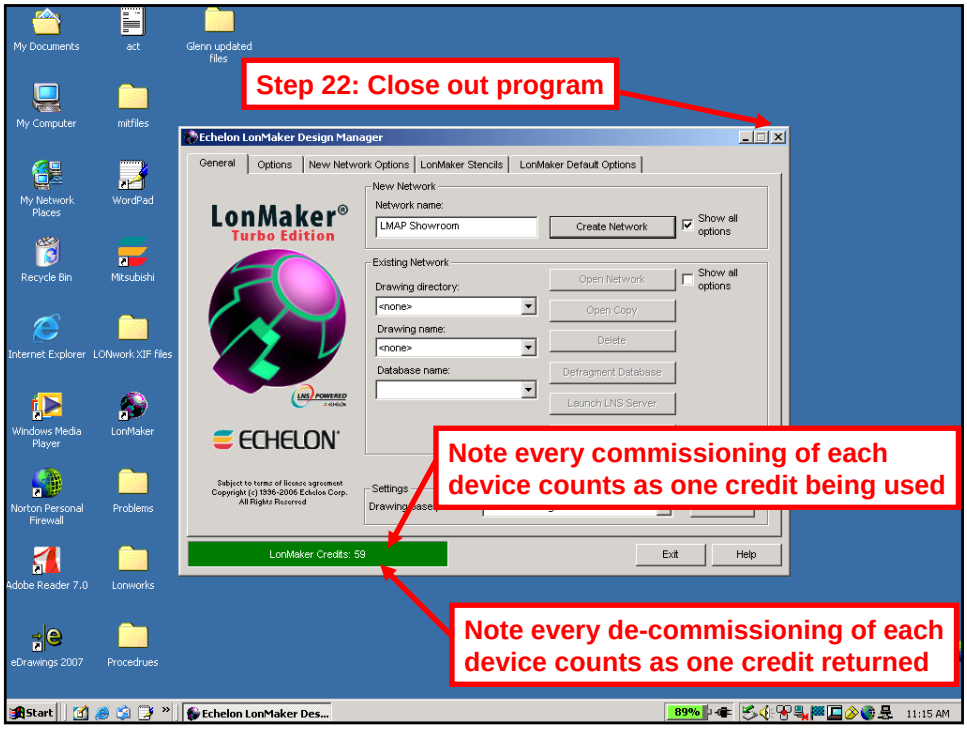

Step 19: The following screen appears
Select “Service pin”
Select finish button
Commission Device Wizard
Device identification method
Device name(s):
Showroom
Service pin
Manual
Neuron ID:
000000000000
< Back
Next>
Finish
Cancel
Help


Step 19: The following screen appears
Push service pin on Showroom LMAP device
Echelon LonMaker
Please press the service pin on device 'Showroom'...
Options
Display data from service pin
Filter on program ID
Filter on channel
Total Received
0
Cancel
Continue
Help


Step 20: The following process will take place, give time to complete
Echelon LonMaker
Commissioning device 'Showroom'...
Cancel


Step 21: The following screen appears
Indicates Showroom device is “Online” Green

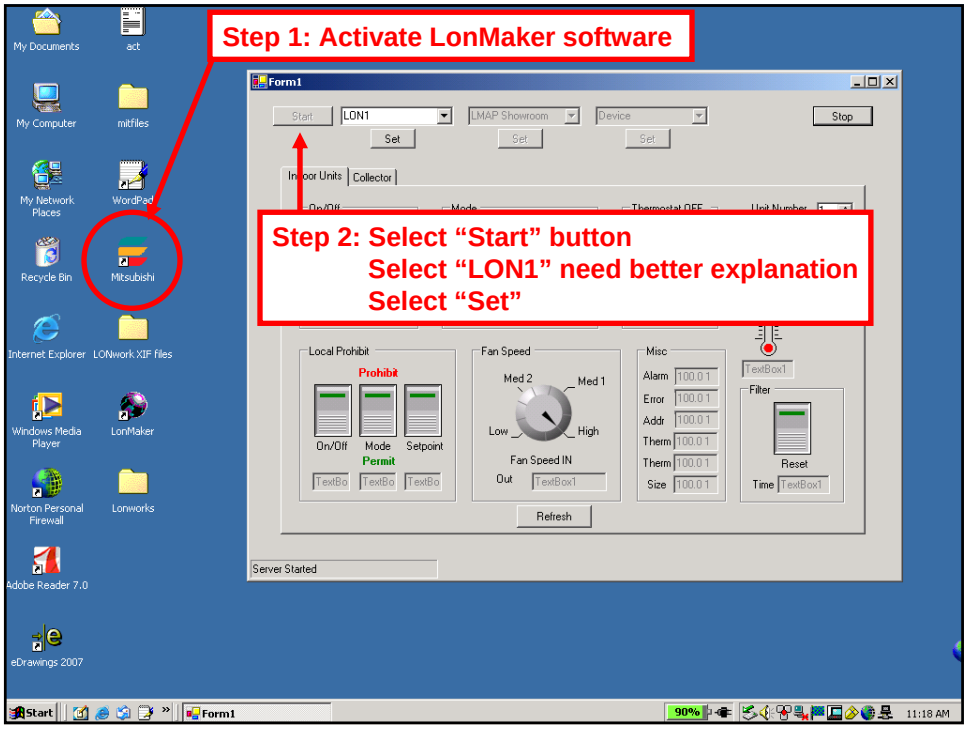

Step 22: Save and close out program

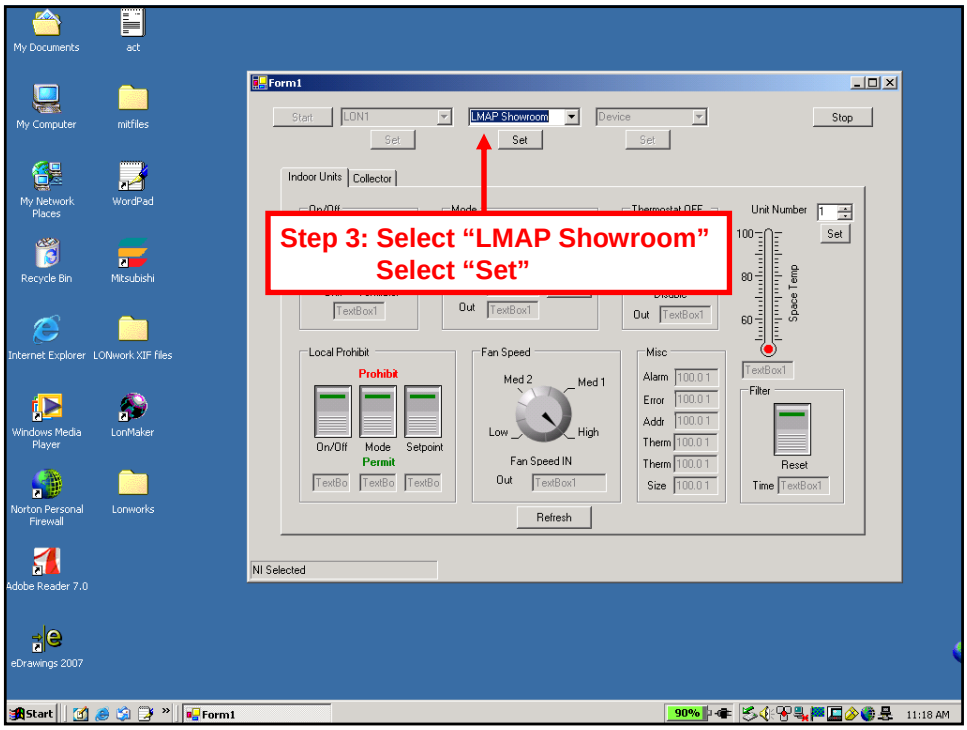


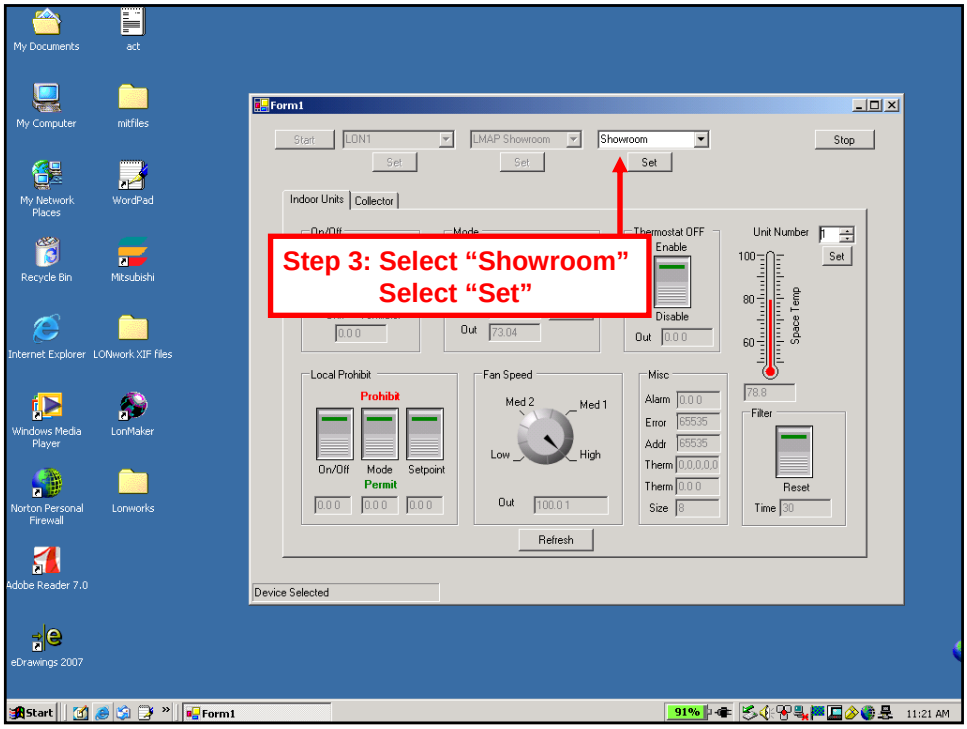
Lonworks Interface

Software Tool

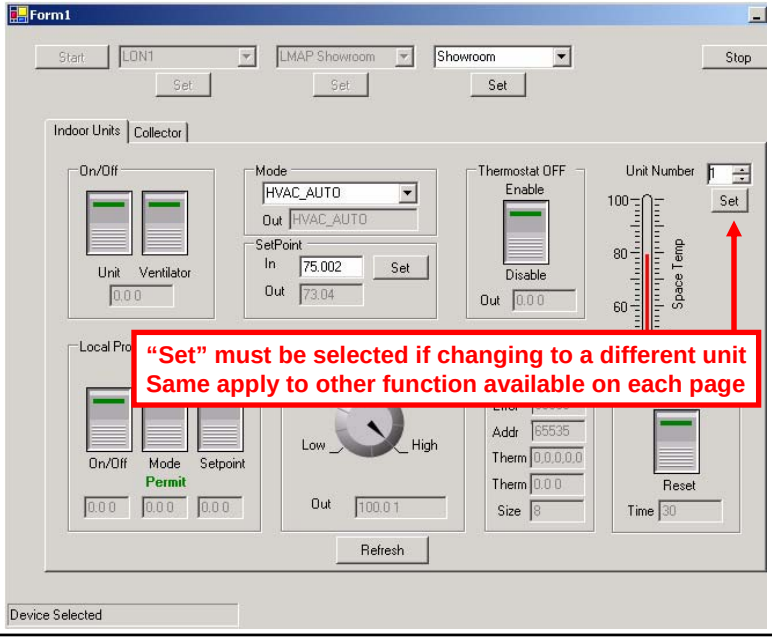
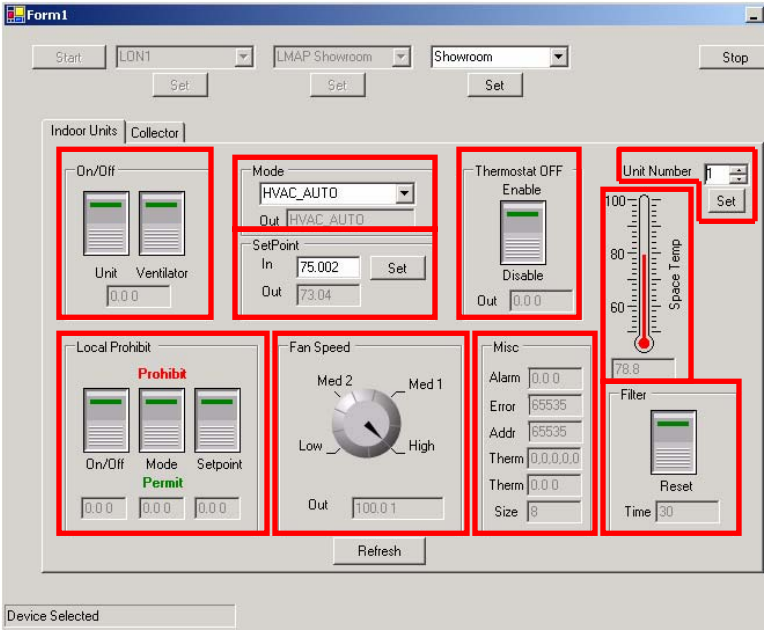
Exclusive to MESCA


Step 1: Activate LonMaker software
Step 2: Select “Start” button
Select “LON1” need better explanation
Select “Set”
Form1
Start
LON1
LMAP Showroom
Device
Set
Stop
Indoor Units
Collector
Local Prohibit
Prohibit
On/Off
Mode
Setpoint
Permit
Fan Speed
Med 2
Med 1
Low
High
Fan Speed IN
Out
Misc
Alarm
Error
Addr
Therm
Size
Filter
Reset
Time
Refresh
Server Started
My Documents
act
My Computer
mitfiles
My Network Places
WordPad
Recycle Bin
Mitsubishi
Internet Explorer
LONwork XIF files
Windows Media Player
LonMaker
Norton Personal Firewall
Lonworks
Adobe Reader 7.0
eDrawings 2007
11:18 AM


Step 3: Select “LMAP Showroom”
Select “Set”
Form1
LMAP Showroom
Unit Number
Space Temp
NI Selected
Refresh
11:18 AM



Now you are able to control city Multi Indoor Unit from this page



Full operational functions are available at your finger tips