JUN / 21 SimulationView Version 1

SimulationView







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web: www.smar.com/contactus.asp

INTRODUCTION

This user manual describes the features of the SimulationView application.

The **SimulationView** – Strategy Simulator is a software tool developed specifically to simulate control strategies with FoundationTM Fieldbus function blocks and ladder logic IEC 61131-3 standard.

Integrated to SYSTEM302

- It is not necessary to export configurations for simulation;
- Access data directly from SYSTEM302 database;
- The SYSTEM302 application tools use the simulation automatically and transparently;

OPC[™] Communication

- The simulated data are visible through the SYSTEM302 OPC[™] Server
- Any supervisory software and SCADA based on OPC[™] can benefit from simulation.

SimulationView runs on Microsoft® Windows.

This manual refers to version 1 of SimulationView available on SYSTEM302 version 8.2.

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INSTALLATION AND CONFIGURATION

Installation

SimulationView is installed by the **SYSTEM302** Installation media, along with all the other integrated applications you will use to configure, maintain and supervise your plant.

Please refer to the **SYSTEM302 Installation Guide**, which describes the procedures to install the **SYSTEM302**.

After installing the SYSTEM302 get the SimulationView - Strategy Simulator license.

Getting a license

There are two ways to get the **SimulationView** license. One version is protected via Hard Lock (Hard Key) and another via software (Softkey).

When using Hard Key, just connect it in the appropriated computer port (parallel or USB ports).

When using SoftKey, it is necessary to get a License Key through a Smar contact. For this, use the application **LicenseView**, in the **Studio302** interface.

Click Softkey, and then, Request License.

Smar Engineering Database		Û	LicenseView Hardkey	UNIT_NOT	_FOUND	Detaile
Control Modules			Saftk	۰	License Monitor	Exit
E Network Devices	LicenseView			Σ	3	
	Syscon	Not Licensed		Renove		
	DFI OLEServer	Licensed to 8 Blocks · DEMO · v7.3		Remove		
	Studio302	Licensed to Bitems - DEMO		Remove		
	LogicView	Licensed to 1 Net - DEMO		Remove		
h	SimulationView	Not Licensed		Remove		
	AssetView	Licensed to 4 Items - DEMO		Remove		
	DEMO				1	
	For use in demon The license is lim	stratian scenaria, just olick this buttan. ited	Use DE	МО Кеуз		
ļ	- LC800 For application us Full level for LC90	ing LC800 only, just click this button. 10 scenaria.	Use LC	800 Keys	1	
	ENTERPRISE Enterprise license Grant new License	erequires to Remove, Request and les.	Reques Grant L	t License		

Fill in the fields correctly, enter the LN (License Number) code that was received with the purchase of the product. See this code on the keyring that came with the installation media. A file (.zip) will be generated in the \Smar\OleServers folder for the user to send to Smar. Use the email

(techsupport@smar.com.br) or access the Technical Support channel through the website (www.smar.com.br).

After sending the email to Smar, a key will be generated according to the corresponding **LN** level. This key will be returned via the email informed in the previous form. This generation is not automatic and, therefore, you must wait for business hours.

After receiving the email from Smar, launch the **LicenseView** application again, enter the key obtained in the **DFI OLE Server** field and click **Grant License Keys**. If everything is correct, a message will notify you that the license has been accepted.

NOTE The academic license has some limitations. For the simulation mode, **Syscon** and **LogicView for FFB** tools, included in the package, only can access one local OPC Server. The remote access is blocked to the academic license. Refer to **SYSTEM302 Installation Guide** for further information about licenses.

Starting the SimulationView

To start the simulation, launch the SimulationView.

In the Studio302 toolbar click eight - SimulationView - Strategy Simulator.

If the button is not activated, check the preferences in File \rightarrow Preferences. Click the SimulateView tab and select the Enable the System302 simulation mode option.

However, to work with **SimulationView** first create a new network adapter, and configure it. See the next topic.

Configuration

SimulationView needs creating a new network adapter to work. This adapter is used exclusively for simulation, being isolated from the control network or corporate network. Or even, allowing you to work on a machine that does not have a network connection. This adapter will be automatically created by the **IP Configurator** tool at the first time that it was run. If there is any error and the interface is not created automatically refer to Appendix A for the manual creation procedure.

Setup tool

At each **SimulationView** execution the **Setup tool** will perform the configuration checking. They are:

Database checking

The **SimulationView** will run only if the database has at least one area. Otherwise, the following window will appear.

Simulation	View setup t	lool
8	Database	Database is empty! At least one area into the database is necessary to start the simulation.
×	License	
×	Network	
×	OPC	
	CLO	SE
	Close	and run SimulationView when ready.

Create an area and try to run the **SimulationView**.

License checking

The **Setup tool** checks if the **SimulationView** is licensed. If noncompatible hard key is found neither a soft key the **Setup tool** does not allow the **SimulationView** execution.

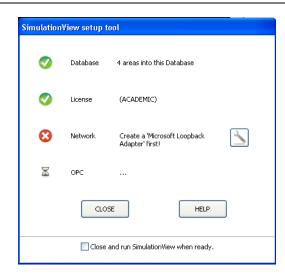
Simulation	View setup t	iool
0	Database	4 areas into this Database
⊗	License	(NOT LICENSED) Please, provide a license to run SimulationView
X	Network	
×	OPC	
	CLO	SE HELP
	Close	and run SimulationView when ready.

The figure above shows the license checking failure. Connect a hardkey or get a softkey and click

the button for a new checking. If the **Setup tool** has already closed run again the **SimulationView**. For further information refer to **Getting a license** topic.

Network checking

The Setup tool checks if there is a Microsoft Loopback Adapter properly installed.



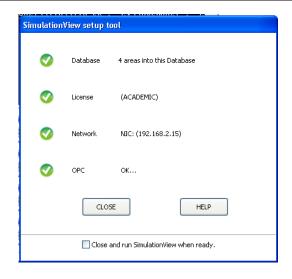
If it was not installed the **Setup tool** will show the detection failure as in the figure above. Click the button is to start the **IP Configurator**. For further details about this tool refer to **IP Configurator** topic.

OPC configuration checking

The **Setup tool** checks the **Smar OPC Server** configuration. This check compares the IP NIC with the one configured as **First IP** in the **IP Configurator** tool.

Simulation	iView setup t	ool
Ø	Database	4 areas into this Database
0	License	(ACADEMIC)
Ø	Network	NIC: (192.168.2.15)
€	OPC	NIC mismatch (192.168.164.215)
	۵۵	SE HELP
	Close	and run SimulationView when ready.

The previous window shows the NIC configured for network adapter different from the one used for simulation. Click the button and the NIC will be configured with correct IP and the simulator will be ready to run. The **Setup tool** will appear as in the next figure.



The window above shows the configuration ready to run on **SimulationView**. Select the **Close and run SimulationView when ready** option to run automatically the **SimulationView** if the configuration is correct. Even with this option checked the **Setup tool** will stop running the **SimulationView** when detect any inconsistency.

If there is any problem with the database and it was not detected the following window appears. In this case try restarting the database or restart the computer.

Simulation	View setup t	ool
ø	Database	Database do not responding!
X	License	
×	Network	
X	OPC	
	CLO	SE HELP
	Close	and run SimulationView when ready.

IP Configurator

The **IP configurator** tool is launched by the button and the **Setup tool** interface or on the main **SimulationView** screen.

SimulationView - Strategy Simulator (ACADEMIC)	
File Simulation Help	
- Areas DUMMY-1 DUMMY-2 DUMMY-3 DUMMY-4	() () ()
Network Adapter [00000012] Microsoft Loopback Adapter Simulated nodes	· · · · · · · · · · · · · · · · · · ·

The following window will appear confirming that the **SimulationView** will be closed to initiate the **IP Configurator**. Click **Yes**.



The **IP Configurator** tool is used to configure the IPs that will be used in simulation. Refer to the next topic to configure the Microsoft Loopback Adapter interface.

Configuring the "Microsoft Loopback Adapter" interface

Now that we have a network adapter, we will configure it to use the **SimulationView**. The simulator uses network IPs the same way as the real equipment, so we need to configure 32 valid and not repeated IPs more one IP to be used by the Server.

 In the IP configurator on the first Simulator network interface section the Microsoft Loopback Adapter interface should appear selected. If no interface is selected redo the step titled Creating a Microsoft Loopback Adapter type network interface. Refer to Appendixx A for further information.

😺 SimulationView - IP Co					_ 🗆 ×	
- Simulator Network Interface [0000008] Microsoft Loopback Adapter						
-IP Configuration		Actual IP co	nfiguration			
First IP: Default Gateway (as	sign this IP to NIC1)	192.168.2.1	00 192.168	.2.116		
192.168.2.100		192.168.2.1		.2.117		
		192.168.2.1	02 192.168	.2.118		
IP Table		192.168.2.1	.03 192.168	.2.119		
		192.168.2.1	.04 192.168	.2.120		
		192.168.2.1	.05 192.168	.2.121		
		192.168.2.1	.06 192.168	.2.122		
		192.168.2.1	07 192.168	.2.123		
1		192.168.2.1	.08 192.168	.2.124		
1		192.168.2.1		.2.125		
1		192.168.2.1		.2.126		
1		192.168.2.1		.2.127		
		192.168.2.1				
		192.168.2.1				
		192.168.2.1		.2.130		
		192.168.2.1	15			
GENERATE IP TABLE	APPLY	KEEP	HE	LP	CLOSE	

2. In the section **IP Configuration** enter an IP number in the **First IP** field. Note that this first IP address must be used as address of OPC Server, and must not be used for any other purpose. This IP is of the **Microsoft Loopback Adapter** interface.

3. Click the **GENERATE IP TABLE** button to create a table with 32 IPs in sequence generated from the **First IP** that was chosen earlier. The IP sequence will appear in the **IP Table** field. See the following figure.

Installation and Configuration

Simulator Network In				
[00000008] Microsof	t Loopback Adapter			✓ 100 ×
192.168.2.100 IP Table 192.168.2.100 1 192.168.2.101 1 192.168.2.102 1 192.168.2.103 1 192.168.2.103 1 192.168.2.104 1 192.168.2.104 1 192.168.2.104 1 192.168.2.104 1 192.168.2.106 1 192.168.2.107 1 192.168.2.108 1 192.168.2.109 1 192.168.2.109 1 192.168.2.101 1	way (assign this IP to NIC1) 92.168.2.112 192.168.2.124 92.168.2.113 192.168.2.125 92.168.2.114 192.168.2.125 92.168.2.115 192.168.2.126 92.168.2.115 192.168.2.128 92.168.2.117 192.168.2.129 92.168.2.119 92.168.2.119 92.168.2.120 92.168.2.121 92.168.2.122 92.168.2.123	Actual IP cor 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1 192.168.2.1	00 192.168.2.116 01 192.168.2.117 02 192.168.2.118 03 192.168.2.119 04 192.168.2.120 05 192.168.2.121 06 192.168.2.122 07 192.168.2.123 08 192.168.2.124 09 192.168.2.125 10 192.168.2.125 11 192.168.2.127 12 192.168.2.129 13 192.168.2.129 14 192.168.2.130	
GENERATE IP TAB	LE APPLY	KEEP	HELP	CLOSE

4. Click **APPLY** if you agree with the generated configuration. Otherwise, return to step 2 to generate another IP sequence.

5. If the **Actual IP Configuration** section has the correct IPs, click **KEEP** to maintain the configuration. Confirm the operation and click **CLOSE** to exit from the **IP Configurator**.

6. A confirmation message appears to confirm the IPs change. In case you confirm, the new configuration will be applied to the selected interface. In the **Actual IP configuration** section the current IPs are shown.

- 7. A success message appears indicating that the process finished.
- 8. Close the IP configurator and execute again the SimulationView.

Configuring the IPs of the plant HSE devices

This procedure is optional on **SimulationView** because the IPs for all HSE devices in the plant are automatically configured.

In the main **SimulationView** window select one area in the **Areas** section. All areas of the **Studio302** database are listed here.

Elle jimulation Help Areas DF63 FFB Network Adapter [00000009] Microsoft Loopback Adapter Simulated nodes Nodes Process ID Virtual IP Device ID Device Tag Serial Number Device type Status Image: Status </th <th></th> <th></th> <th>y Simulator</th> <th></th> <th></th> <th></th> <th></th> <th></th>			y Simulator					
DF63 FFB Network Adapter [00000009] Microsoft Loopback Adapter Simulated nodes Nodes Process ID Virtual IP Device Tag Serial Number Device SID Virtual IP Device Tag Serial Number Device SID Virtual IP Device Tag Serial Number	> Dimaraci							
Network Adapter [00000009] Microsoft Loopback Adapter Simulated nodes Nodes Process ID Virtual IP Device Tag Serial Number Device type Status I 3312 192.168.2.184 000302002D:SMAR-DF63:100 Bridge 1 100 DF63 online Item Configuration Parameters Parameters	eas							
Network Adapter [00000009] Microsoft Loopback Adapter Simulated nodes Nodes Process ID Virtual IP Device Tag Serial Number Device type Status I 3312 192.168.2.184 000302002D:SMAR-DF63:100 Bridge 1 100 Image: Device Tag DF63 online	63 FFB							
Network Adapter [00000009] Microsoft Loopback Adapter Simulated nodes Nodes Process ID Virtual IP Device Tag Serial Number Device type Status Image: Status Image: Serial Number Image: Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type Status Image: Serial Number Image: Serial Number Device type								
Network Adapter								
Image: Construction Series (Configuration Configuration								3
Simulated nodes Nodes Process ID Virtual IP Device ID Device Tag Serial Number Device type Status Solution Status Solution Item Configuration Item IP Parameters	etwork Ada	apter						
Nodes Process ID Virtual IP Device ID Device Tag Serial Number Device type Status 3312 192.168.2.184 000302002D:SMAR-DF63:100 Bridge 1 100 DF63 online Item Configuration Item IP Parameters		2012/02/2012	k Adapter					
Process ID Virtual IP Device ID Device Tag Serial Number Device type Status IP 3312 192.168.2.184 000302002D:SMAR-DF63:100 Bridge 1 100 Image: DF63	nulated no	odes						
Image: Signal and Sig	lodes —							
Item Configuration	Process ID	Virtual IP	Device ID	Device Tag	Serial Number	Device type	Status	
Tem Configuration	3 312	192.168.2.184	000302002D:SMAR-DF63:100	Bridge 1	100	💁 DF63	🥥 online	
Item Configuration								
Item Configuration Parameters								3
Ttem IP Parameters								
Ttem IP Parameters								
Ttem IP Parameters								
Ttem IP Parameters								
Ttem IP Parameters	tom Config	urstion .						
		juración		Paramet	ers -			
Device TAG								
Device ID				Device ID				
Available IP:	valiable IP	4						
1								

In the Simulated nodes section select the first item of the list.

Simulation	View - Strateg	y Simulator					_ 🗆 🗙
File Simulation	n <u>H</u> elp						
Areas							
DF63_FFB							
							3
Network Adap	ter						1
[00000009] Mi	crosoft Loopback	(Adapter					- ×
Simulated node	85						
-Nodes							10
Process ID	Virtual IP	Device ID	Device Tag	Serial Number	Device type	Status	
3312		000302002D:SMAR-DF63:100	Bridge 1	100	💁 DF63	less online	
-							
							0
Item Configu	ation						
_ Item IP			Paramet	ers			
1			Device TA	4G			
192.168.2.	184		Bridge 1				
			Device ID				
Avaliable IP:			0003020	02D:SMAR-DF63:1	00		
192.168.2.1			_				
192.168.2.1 192.168.2.1							
192.168.2.1			-				
1102 140 2 1			<u> </u>				

In the **Item configuration** section, in the **Available IP** field, select the IP that will be assigned to the item, and double-click it.

Select the remaining items and proceed as described above for all HSE devices of all configurations.

NOTE
emember do not select an IP that is assigned to the Server NIC in the System302
erverManager.
Jer i de la companya

Adjusting the System302 ServerManager to work with simulation

This procedure is optional on **SimulationView**, because the **Setup tool** always gives the option to configure the OPC. If the user needs to modify the configuration manually, follow the steps described in this section.

The simulation works with its own virtual network, so the user needs to inform the **SYSTEM302** that this network will be used, and not the automation network. If you are using an academic license the simulator only runs on this virtual network, and this configuration is not necessary.

To adjust the System302 ServerManager execute it. Click the System302 ServerManager - OPC Server Management icon in the Studio302 toolbar.



The next window will appear:

🏠 System302 ServerManager	x
System302 ServerManager	Q
Change settings to:	
Q Network	
Q Logs	
Q <u>Startup</u>	
ar and	
🗖 Show minimized	
Ok Cancel Help	

Choose Network.

In the NIC option choose the first IP generated by **SimulationView - IP Configurator**, and click **Apply**. This IP is of the **Microsoft Loopback Adapter**.

Application About						
DIFE HISE OFC HOR						
arverManager 3- Settings Logs Startup OPC 3- Logs HseLreComp.sml HSEOPCServer.sml IDShell HSE.sml	If more than local machin (NIC) or two Parameters	one NIC (Ne e it is necess (NIC and NIC 	twork Interface ary to inform th	×	in the	▲
	SE S	erver - OFFLI Source 1	NE		Servers running	^
	NOT VALID:	00000	00000			
	ACTIVE:	00000	00000			
	TOTAL:	00000	00000			
	HSE S	ierver - OFFL Source 1	INE	7		
	NOT VALID:	00000	00000			<u>-</u>

Now the system is already configured to use the virtual network adapter.

Operation

Start/Stop simulation through the notification icon

When the **SimulationView** is running the user can start, or stop the simulation through the icon that is on the **Windows Notification Area**.

Simulation stopped:



To start or stop the simulation, access the contextual menu by right-clicking the **SimulationView** icon:



Select Stop to stop all areas in execution.

Select Start to start all database areas (areas properly configured).

To check if the simulation is running or not, besides the color of the icon, a notification message is also displayed when the mouse moves over it.

Simulation running:

	SimulationView (running)
PT	() A 0 5 5

Simulation stopped:

	SimulationView (stopped)
рт 🤇	

	NOTES
•	Starting or stopping the simulation by the notification bar, the SYSTEM302
	continues in simulation mode. Only the ladder and blocks processing stop.
•	Whenever the simulation is stopped and then restarted a configuration

- download via **Syscon** must be done.
- The status of all TAGs of the OPC Server in the simulation mode are reported with "Local Override" substatus.

SimulationView Limits

Table of limits:

Maximum number of HSE devices per database	32	
Maximum number of function blocks per simulation	n session 11264	

NOTE

Depending on application, to use the maximum number of blocks and HSE equipment may cause loss of system performance, requiring that the computer configuration that runs the simulation is higher than that recommended by Smar to run **SYSTEM302** without simulation.

Understanding the main SimulationView screen

								(2)	
etwork Adapte	er									
0000012] Mic	rosoft Loopback	Adapter							\sim	
mulated node: Nodes	s									
Process ID	Virtual IP	Device ID	Device	Гад	Serial Number	Device ty	pe	Status	^	
1 3676	192.168.2.176	0003020025:SMAR-DF73:102	DF73-DL	JMMY	102	🚡 DF73	<	online		
📭 o	192.168.2.177	0003020026:SMAR-DF62:101	DF62-DL	JMMY	101	🛅 DF62	•	offline		
📭 o	192.168.2.178	0003020035:SMAR-DF89:108	DF89-DL	JMMY	108	🚱 DF89	•	offline		00
0	192.168.2.179	000302002A:5MAR-DF79:103	DF79-DL	JMMY		II DF79	•	offline		
-	192.168.2.180	000302002D:5MAR-DF63:100	DF63-DU	JMMY		🛅 DF63	•	offline		
		0003020026:SMAR-DF62:106	SMAR DI		100	🛅 DF62	•	offline		
		000302002E:SMAR-HFC302:105	HFC-302		105	🖗 НЕСЗ	02 🍕	offline		
0	192.168.2.183	000302002B:SMAR-DF75:104	DF75-DL	JMMY	104	DF75	-	offline	~	
tem Configura Item IP	ation			Parameters						
				Device TAG						
192.168.2.1	76			DF73-DUMMY						
				Device ID						
Avaliable IP:				0003020025:SMAR	-DF73:102					
192.168.2.15	52		13							

Here are the component parts of the main **SimulationView** screen.

1. Main Menu.

File

• *Exit*: Finishes the **SimulationView** stopping all simulation that is in progress.

Simulation

- Launch the simulation: Starts the simulation of all database areas.
- Refresh: Updates the areas list to be used when a new area is added to the database while the SimulationView is running.
- Stop the Simulation: Stops the current simulation.
- Show simulation report: Shows a summary of the number of devices in simulation. Only the HSE devices are represented in the simulation, all function blocks of devices connected to the bridge channels are simulated on the proper bridge.

Help

- Content: Opens the software's help.
- *About*: Shows the software version.

2. Areas

It lists all areas of the current database. This list is obtained directly from the SYSTEM302 database.



It starts the simulation of all devices of this area.

4. Button

It stops the simulation of all devices of this area.



It updates the list of areas. It is used when a new area is added to the database while the **SimulationView** is running.



It launches the network configurator. This tool is used to configure the network adapter that is used by **SimulationView**. See the **Configuring the "Microsoft Loopback Adapter" interface** topic.

7. Nodes

It lists the devices simulated of the area selected in 2. It lists the devices connected to HSE channel. Only the HSE devices are represented in the simulation, all function blocks of devices connected to the bridges' channels are simulated on the own bridge.



It starts the simulation for the device selected in 7.



ton Lesson for the

It stops the simulation for the device selected in 7.



It updates the device list for the area selected in 2, and looks for processes that are running on background.



It opens the software help pointing to the "Configuring the IPs of the HSE devices" topic.



It assigns the IP selected in 13 to the device selected in 7.

13. Available IP

It lists the network adapter IPs used for simulation.

Viewing the simulation

To view the area simulation, click **SimulationView - Strategy Simulator** in the **Studio302** toolbar.



Run the **Syscon** by clicking in the **Studio302** toolbar. Check if the automatic commissioning option is selected in the **Syscon**. Select **File** \rightarrow **Preferences** on the main menu. Click the **Simulation** tab, and the following window will appear:

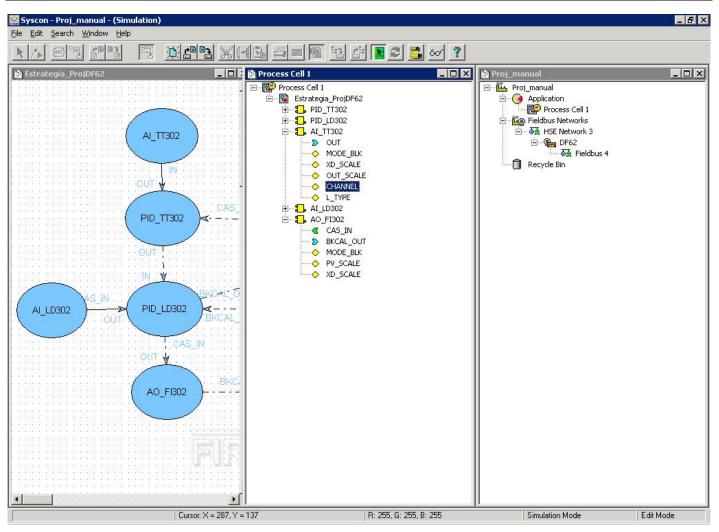
¥.		Logger	Simula		DataBase
V	Automatic C	ommissior	iingi		

By default, the **Automatic Commissioning** option is already selected. Keep selected if you do not want to do the commissioning manually.

IMPORTANT
The commissioning process does the correlation between the actual and configuration
devices and must be performed every time the plant is set on online.
This procedure is optional for simulation; it can be used to train operators for this
procedure.

Open the area that will be simulated in the Studio302 interface. The file will open in Syscon. Then,

active the **Online** mode by clicking and the **Syscon** toolbar. A window similar to the following will appear.



The **Simulation** mode is indicated in the title bar by the text **(Simulation)** beside the area name. It is also indicated at the bottom of the window by Simulation Mode. Work normally as if in a real environment. For further details, please refer to **Syscon** manual.

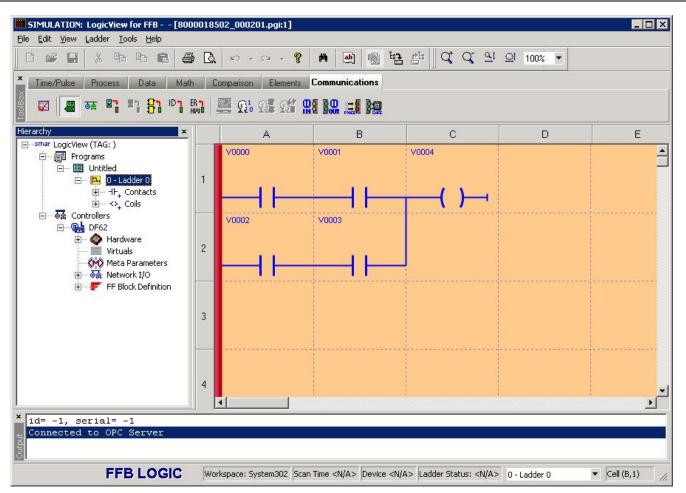
If the IP address configured in the simulation is different from the NIC the following error message appears immediately after the **Syscon** is set on **Online Mode**:

mulation Mode: I	Please set NIC	to Loopback		

Stop the simulation, run the **System302 ServerManager** and configure correctly the IP of **Microsoft Loopback Adapter** interface.

The control logic also can be simulated in the **LogicView for FFB**. Edit the logic from the **Syscon** that should already be in simulation mode. Both **Syscon** and **LogicView for FFB** must be in **Online** mode.

A window similar to the following will appear.



The simulation mode is indicated in the title bar by the text **SIMULATION**. It is also indicated by the background color of the work area. This color can be changed in **Tools** \rightarrow **Options**. The following window will appear:

Auto Scrolling Grid Color: Enable Function Addresses on Property List Page Break Color: Enable Modbus Addresses on Property List Page Break Color: Enable Information Dialog during FFB Download Selection Color: Only Scan Time (prevails upon Sync Time) Only Sync Time Only Sync Time Alternate List Color: Display Links Only in the Current Net Online List Color: Separator: Cache Level: Indo/Redo levels: 20	ieneral Interface (Connections ModBus	Address	
Grid Lolor: Grid Lolor: Enable Function Addresses on Property List Page Break Color: Enable Modbus Addresses on Property List Page Break Color: Enable Information Dialog during FFB Download Selection Color: Only Scan Time (prevails upon Sync Time) Only Sync Time Only Sync Time Alternate List Color: Display Links Only in the Current Net Online List Color: Separator: Cache Level: Indo/Redo levels: 20	Show Grid		Paper Color:	-
Enable Modbus Addresses on Property List Page Break Color: Enable Information Dialog during FFB Download Selection Color: Only Scan Time (prevails upon Sync Time) Alternate List Color: Only Sync Time Alternate List Color: Display Links Only in the Current Net Online List Color: Separator: Cache Level: 2 Simulation Color: Jindo/Redo levels: 20		sses on Propertu List	Grid Color:	-
Only Scan Time (prevails upon Sync Time) Only Sync Time Alternate List Color: Display Links Only in the Current Net Online List Color: Separator: Cache Level: Zondo/Redo levels: 20			Page Break Color:	•
Display Links Only in the Current Net Online List Color: Separator: : Cache Level: 2 Jindo/Redo levels: 20 View Mode Color:			Selection Color:	•
Online List Color: Separator: Cache Level: Cache Level: Simulation Color: View Mode Colo	Only Sync Time		Alternate List Color:	-
Separator: 1 Cache Level: 2 Jndo/Redo levels: 20 ₹ View Mode Color:	Display Links Only in the	e Current Net	Online List Color:	-
1500	Separator:	ache Level: 2	Simulation Color:	•
)PC Timeout: 1500 ms Supervision Only Color:	Jndo/Redo levels: 20	*	View Mode Color:	•
	DPC Timeout: 1500	ms Suj	pervision Only Color:	×

In the **Simulation Color** option change the background color.

If the license is academic, when LogicView for FFB is set on online mode the remote server connection is disabled.

Work normally as if in a real environment. For further details, please refer to LogicView for FFB manual.

IMPORTANT

If the user wants to simulate a control strategy that is not configured for this, the user must quit the simulation mode, and only then, to configure the new area.

TROUBLESHOOTING

If you are experiencing difficulties with the simulator, the following Q & A topics may help you:

1. I started the SimulationView and received the following message:

"There is no loopback ethernet interface configured! The SimulationView Network configurator will be executed. Note that SimulationView will be closed and must be reinitiated after the configuration."

This message indicates that no network "Microsoft Loopback Adapter" was configured. Follow the instructions on Creating a network interface "Microsoft Loopback Adapter" topic to solve the problem. And then, launch the SimulationView again.

2. I started the SimulationView and received the following message:

"There are unconfigured equipments\n\nPlease Access SimulationView and configure IP for those equipments:"

This same message shows a device list (PD Tags). This message indicates that there are devices without IPs assigned. Follow the instructions on **Configuring the IPs of plant HSE devices** topic to solve the problem.

3. The simulation is performing, but on Syscon all devices are without communication.

Check on the Windows notification area if the **SimulationView** icon is present.

Moving the mouse over this icon it should display the message *SimulationView (running)*. If the message *SimulationView (stopped)* appears follow the instructions on **Start/Stop simulation through the notification icon** topic.

4. I started the SimulationView and received the following message:

Title "Fail configuring IP!" and the message "There are no free IP to use! The selected network adapter doesn't have the number of IP necessary to simulate your entire database. Or you are trying to simulate more than 32 equipments at the same time."

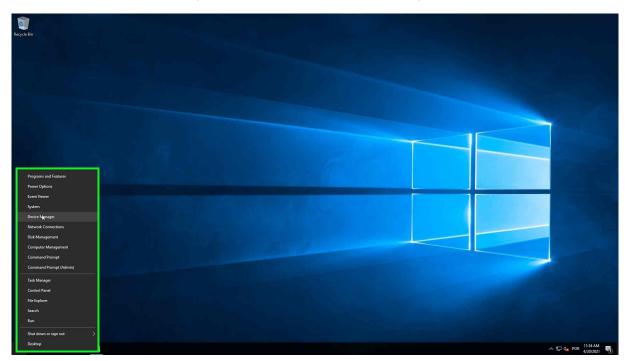
First hypothesis: You have selected various areas to be simulated and the total number of HSE devices exceeded 32. See the **SimulationView Limits** topic.

Solution: Exit from **SimulationView**, and on **Studio302** select only the configurations that are necessary at this moment. Try starting the **SimulationView** again.

CREATING A "MICROSOFT LOOPBACK ADAPTER" TYPE NETWORK INTERFACE

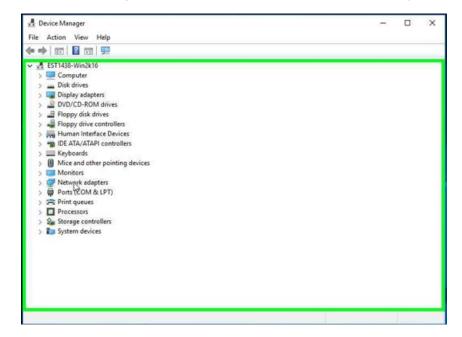
Follow the steps bellow to create a network interface Microsoft Loopback Adapter, using the Windows 10 operating system.

Step 1 - Right-click the Start button, and the following window will appear:

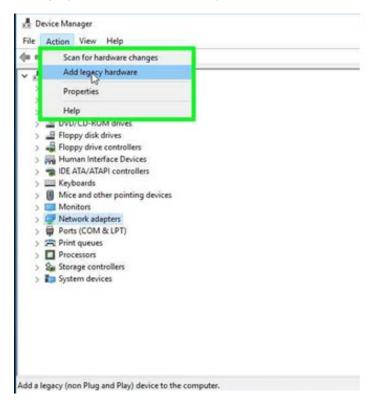


Step 2 - Select Device Manager.

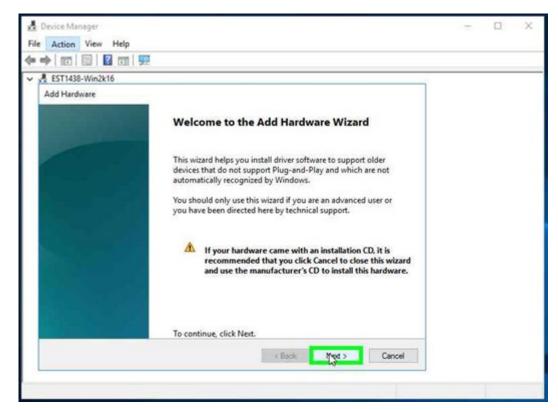
Step 3 - In the Device Manager window, select Network Adapter. See the next figure.



- Step 4 Click the Action option in the menu of Device Manager window.
- Step 5 Select Add legacy hardware. See the next figure:



Step 6 – In the window that will appear, click Next.



Step 7 – Select the option Install the hardware that I manually select from a list (Advanced), and then, click Next.

• 🔿 📅 🔄	2k16				_
Add Hardware	can help you install other hardw	are			
	ard can search for other hardware actly which hardware model you				
What do	you want the wizard to do?				
Ose	arch for and install the hardware a	automatically (Recomme	nded)		
) In	stall the hardware that I manually	select from a list (Advan	ced)		
		< Back	_	Cancel	

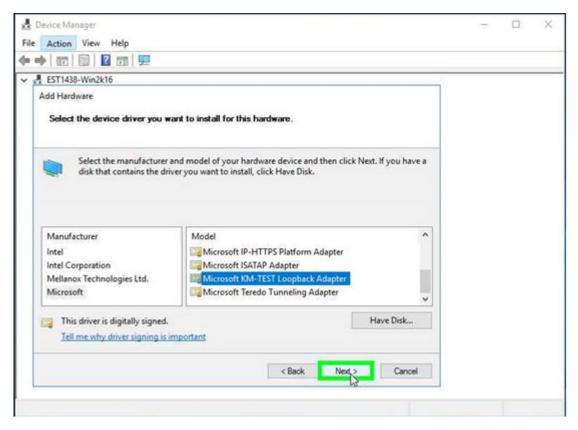
Step 8 – Select Network Adapters in the list, and then, click Next.

EST1438-Win2k16			1	
From the list below, select the type of ha	rdware you are installing			
If you do not see the hardware categor	you want, click Show All D	evices.		
Common hardware types:				
Imaging devices		^		
Media Center Extenders				
Miracast display devices				
Moderns Wulti-port serial adapters				
Network adapters		~		

EST1438-Win2k16		-
Add Hardware Select the device driver you w	want to install for this hardware.	
	and model of your hardware device and then click Next. If you have a river you want to install, click Have Disk.	
Manufacturer Intel Intel Corporation	Model Model Intel(R) 82567LF Gigabit Network Connection Intel(R) 82567LF-2 Gigabit Network Connection Intel(R) 82567LM Gigabit Network Connection	
Mellanox Technologies Ltd. Microsoft	Gintel(R) 82567LM-2 Gigabit Network Connection	
Mellanox Technologies Ltd.	Have Disk	

Step 9 – Select Microsoft in the manufacturers list.

Step 10 - Select Microsoft KM-TEST Loopback Adapter from the Model list, and then, click Next.



 ➡ [m] [m] [m] [m] ➡ EST1438-Win2k16 		
Add Hardware The wizard is ready to install your hardware		
Hardware to install:		
Microsoft KM-TEST Loopback Adapter		
To start installing your new hardware, click Next.		
< Back Next > C	Cancel	

Step 11 – To start installing the new hardware, click Next again.

Step 12 – The installation is complete. Click Finish to close the wizard.

device Manager	- 0	×
File Action View Help		
**		
✓ ♣ EST1438-Win2k16		
Add Hardware		
	Completing the Add Hardware Wizard	
	The following hardware was installed:	
	Microsoft KM-TEST Loopback Adapter	
	Windows has finished installing the software for this device.	
	To close this wizard, click Finish.	
	« Back: Cancel	