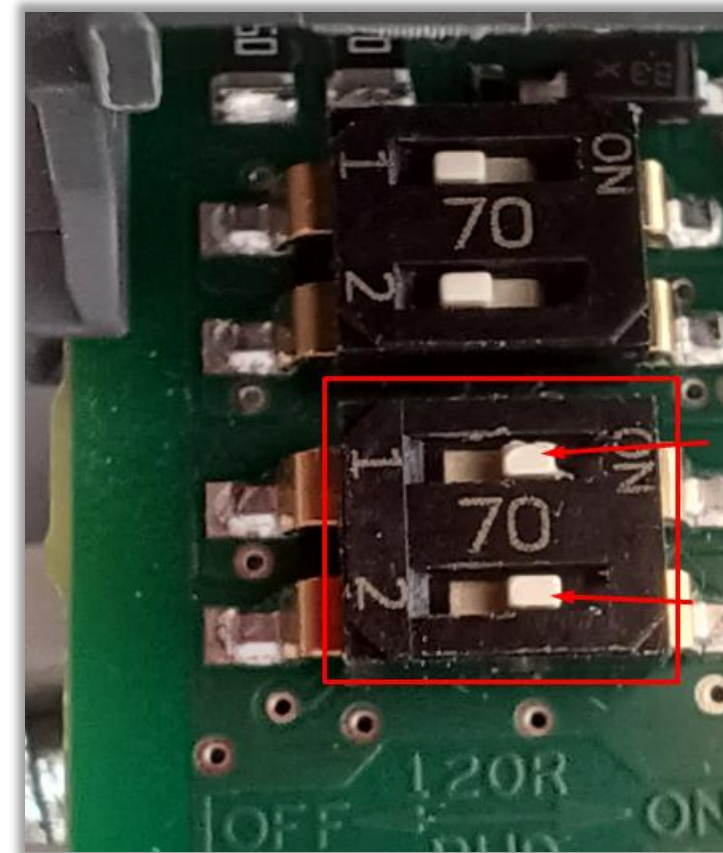




GrowSphere™

RadioNet Mapping  
using "Polenet2Max Application".

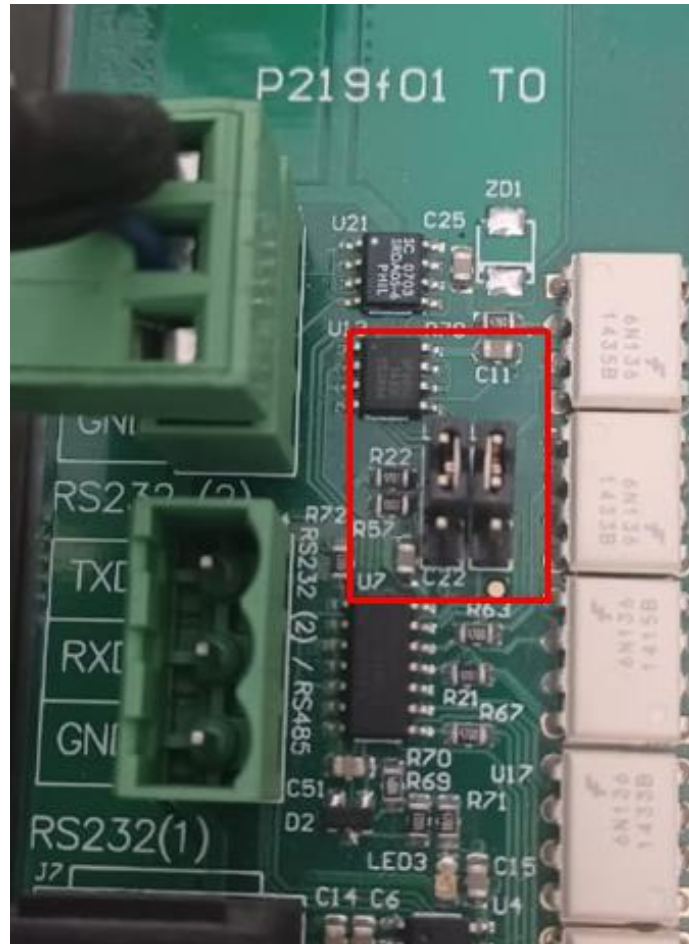
RadioNet interface with GS is currently only via RS485. RS485 Module must be installed on Upper Port. Note the “DIP Switch” position on the RS 485 module marked in RED Must be towards the “ON” Side



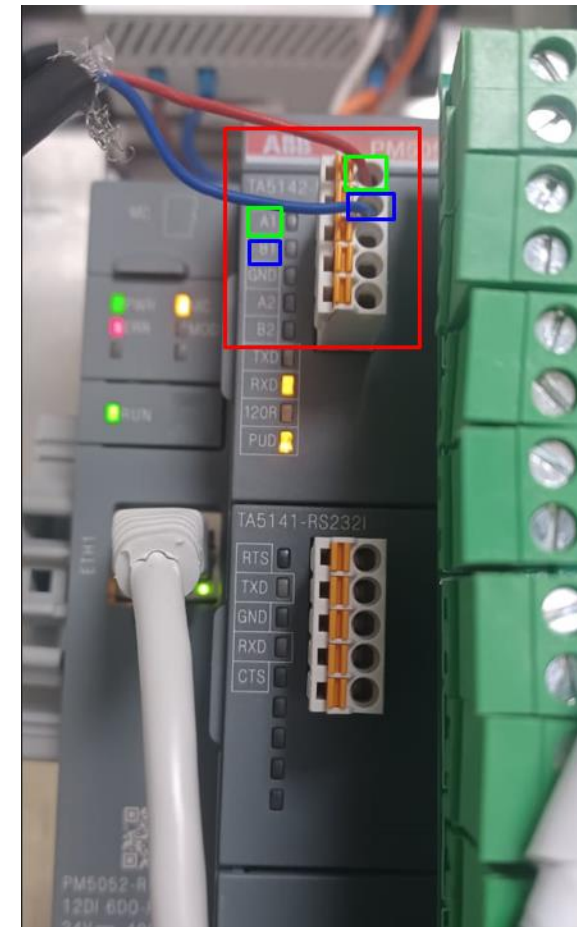
# Wiring Between Host & GS max Controller

A to A & B To B. LK1 & LK2 Jumper on the RadioNet Host should be on Upper side

## RadioNet Host



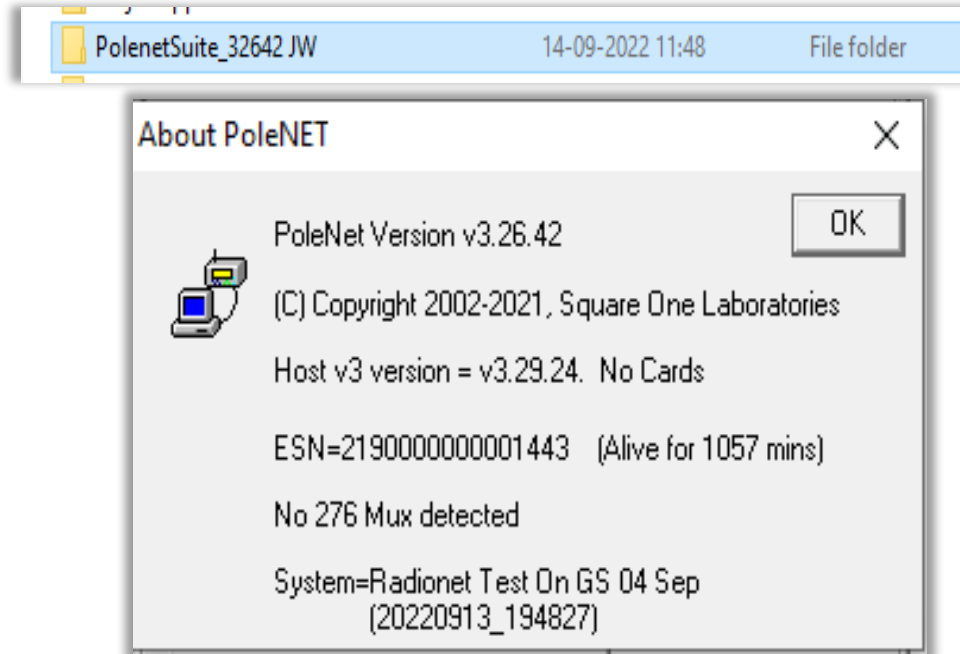
## GrowSphere Max



## Required Polenet Version

**Always Check for Latest & Recommended Versions of PoleNet & Polenet2Max App.**

- **Use PoleNet Version: 3.26.42 Or Newer Version**



- **Use Host Firmware Version: 3.29.24 the Newer Version**
- **Use Base Firmware Version: 2.74 Or the Newer Version**
- **Use RTU Firmware Version: 2.74 Or the Newer version**

# Create New System in PoleNet. If you have New System, then ignore Slide No 6 to 9 & then Continue.

- Create a new System in PoleNet

New System

Allow By: Agile system. Radio network.

System:

Controller: MODBUS Select an Alias mode

Base ESN: 20210000000

Platform: 209 (Radio base gateway)

Firmware: AgileBase v2.74 Released 19-11-2021

OK Cancel

- Select Bits in Words

MODBUS Aliases

Mode: Bits in Words

Sq1 00001	40001
Sq1 10001	30001
Sq1 20001	40001
Sq1 30001	30001
Sq1 40001	40001
Sq1 50001	30001

OK Cancel

- Enter the System Name and Base ESN No.

New System

Allow By: Agile system. Radio network.

System: Radionet Net test 22 Nov

Controller: MODBUS Bits in Words

Base ESN: 2021000000008610

Platform: 209 (Radio base gateway)

Firmware: AgileBase v2.74 Released 19-11-2021

OK Cancel

if you want to connect existing **“RadioNet from NetBeat to GS Max”**, then you need to do some Changes in Polenet. Right Click on Activated File and Copy Radionet System. Uncheck Map & Route Setting & Click **“ OK”**

The screenshot shows the Polenet Suite interface with a table of systems. The table has columns for System Type, System, RTUs, PoleNet Status, Database Status, Modify Status, and Last Modified Time. The row for 'RN test for Alias Mode' is highlighted with a red border. A 'Copy system' dialog box is open in the foreground, showing the system name 'RN test for Alias Mode-Copy' and two checkboxes: 'Copy map setting' (unchecked) and 'Copy route setting' (checked). The dialog box also has 'OK' and 'Cancel' buttons.

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet Net test 20 March	21				2023-03-20 20:24:19
Agile (MODBUS)	Radionet Net test 22 Nov	21				2023-03-17 22:08:54
Agile (MODBUS)	Radionet Test 13 April	19				2023-06-07 20:29:57
Agile (MODBUS)	RN test for Alias Mode	5	Active (20230608...	Last activated		2023-06-08 17:49:28

# Right Click on Copied System and Select “ Edit System name & Controller” and Change Alias Mode to “Bits in Words”

Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\AgileIUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet Net test 20 March	21				2023-03-20 20:24:19
Agile (MODBUS)	Radionet Net test 22 Nov	21				2023-03-17 22:08:54
Agile (MODBUS)	Radionet Test 13 April	19				2023-06-07 20:29:57
Agile (MODBUS)	RN test for Alias Mode	5	Active (20230608	Last activated		2023-06-08 17:49:28
Agile (MODBUS)	RN test for Alias Mode-Copy	5				2023-06-08 17:49:28

Edit System Name & Controller

System Type: Agile system. Radio network.

System Name: RN test for Alias Mode-Copy

Controller: MODBUS **Bits in Words**

Allow Byte mapping

OK Cancel

Merge Activate Edit Exit

# Earlier System Alias Mode was “**Bytes in Words**”. for GS Max Need to Change to “**Bits in Words**”.

Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\AgileIOUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet Net test 20 March	21				2023-03-20 20:24:19
Agile (MODBUS)	Radionet Net test 22 Nov	21				2023-03-17 22:08:54
Agile (MODBUS)	Radionet Test 13 April	19				2023-06-07 20:29:57
Agile (MODBUS)	RN test for Alias Mode	5	Active (20230608)	Last estimated		2023-06-08 11:58:57

**Edit System Name & Controller**

System Type: Agile system. Radio network.

System Name: RN test for Alias Mode

Controller: MODBUS **Bytes in Words**

Allow Byte mapping

OK Cancel

Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\AgileIOUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet Net test 20 March	21				2023-03-20 20:24:19
Agile (MODBUS)	Radionet Net test 22 Nov	21				2023-03-17 22:08:54
Agile (MODBUS)	Radionet Test 13 April	19				2023-06-07 20:29:57
Agile (MODBUS)	RN test for Alias Mode	5	Active (20230608)	Last estimated		2023-06-08 11:58:57

**MODBUS Aliases**

Mode: **Bits in Words**

System Type: Agile system. Radio network.

System Name: RN test for Alias Mode

Controller: MODBUS

Sq1 00001	40001
Sq1 10001	30001
Sq1 20001	40001
Sq1 30001	30001
Sq1 40001	40001
Sq1 50001	30001

OK Cancel



# If your Radionet System Connected with NMC, then you need to Change Controller Type to “ModBus” & Alias Mode “Bits in Words” for GS Max .

Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\Agile\OUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet Net test 20 March	21				2023-03-20 20:24:19
Agile (MODBUS)	Radionet Net test 22 Nov	21				2023-03-17 22:08:54
Agile (MODBUS)	Radionet Test 13 April	19				2023-06-07 20:29:57
Agile (MODBUS)	RN test for Alias Mode	5	Active (20230608...	Last activated		2023-06-08 17:49:28
Agile (MODBUS)	RN test for Alias Mode-Copy	5				2023-06-08 17:49:28

**Edit System Name & Controller**

System Type: Agile system. Radio network.

System Name: RN test for Alias Mode-Copy

Controller: **NMC PRO** Bits in Words

OK Cancel

Merge Activate Edit Exit



Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\Agile\OUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet Net test 20 March	21				2023-03-20 20:24:19
Agile (MODBUS)	Radionet Net test 22 Nov	21				2023-03-17 22:08:54
Agile (MODBUS)	Radionet Test 13 April	19				2023-06-07 20:29:57
Agile (MODBUS)	RN test for Alias Mode	5	Active (20230608...	Last activated		2023-06-08 17:49:28
Agile (MODBUS)	RN test for Alias Mode-Copy	5				2023-06-08 17:49:28

**Edit System Name & Controller**

System Type: Agile system. Radio network.

System Name: RN test for Alias Mode-Copy

Controller: **MODBUS** **Bits in Words**

Allow Byte mapping

OK Cancel

Merge Activate Edit Exit

# Make sure that all RTUs with expansion cards are added & Activate the System.

Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\AgileIOUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Radionet 12Jan22	10				2023-01-12 19:42:31
Agile (MODBUS)	Radionet Net test 22 Nov	21	Active (20230103...	Last activated		2023-01-03 22:29:22

New System in PoleNet

Merge Activate Edit Exit

# GrowSphere Hydraulic Configuration

GrowSphere™ by NETAFIM GS01 Main line 1 Settings

Configuration Local I/O Remote I/O Communication Wiring Diagram

Mainline Pump Station Filter Station Dosing Station Valves Other Devices

Mainline

Valves 20

Pump

Pump Station

Filter Station

Dosing Station

Main Valve

Main WM  Local  Pump station

Main Pressure sensor  After filter  Local

# Navigate to Settings >> Communication >> Select RadioNet >>Export Hydraulic Model. Also Check Modbus ID is same on Modbus Setup & Allocation Screen.













The screenshot shows the GrowSphere software interface. At the top, the 'Settings' menu is open, and the 'Communication' tab is selected. Under 'Communication', the 'RadioNet Allocation' sub-tab is active. The main area shows a configuration for 'RS-485 - Serial port (port 1)' with a 'Modbus ID' of '1'. A blue button labeled 'Export Hydraulic model' is visible next to the Modbus ID field. Below this is a table with columns: RTU S.N., #ID, Status, Name, and FW ver. The interface also shows a sidebar with various icons and a top navigation bar with 'Farm' and 'Mainline 1'.

The screenshot shows two overlapping dialog boxes. The 'PoleNet (Agile Host v3 - connected)' dialog is in the foreground, showing 'Activated System in PoleNet' and 'Agile Host v3' sections. The 'Modbus Setup' dialog is in the background, showing 'Modbus Id: 1' and 'Second Id: 0'. The 'Modbus Setup' dialog also includes fields for 'Network: RS485/232', 'Speed: 19200', 'Parity: None', 'Tx Delay: 4 (0-50 ms)', 'Error Timeout: 10 (0-600 secs)', and 'Report Errors as Input Id: 0 (0=Off,1-7680)'. A checkbox for 'Reverse Bit Order for Register Reports' is checked.

## After Successful “Export”, Click on Done

The screenshot displays the GrowSphere™ by NETAFIM™ interface. The top navigation bar includes the logo, 'Farm', 'Mainline 3', 'Settings', a warning icon, an SD card icon, the date 'Thu 13 Jul 2023', and the time '18:07:12'. The main menu has tabs for 'Configuration', 'Local I/O', 'Remote I/O', 'Communication', and 'Wiring Diagram'. Under 'Communication', there are sub-tabs for 'SingleNet Allocation', 'RadioNet Allocation', 'NetRTU (GW) Allocation', and 'Weather Station'. A modal dialog box is open, titled 'Hydraulic model', with the message 'Hydraulic model successfully exported' highlighted by a red rectangle. A blue 'Done' button is located at the bottom right of the dialog. The background interface is dimmed, showing a table with columns '#ID' and 'Na' and a 'Start Allocation' button.

# Open “Polenet2Max” Application

Name	Date modified	Type	Size
 configuration.properties	11/15/2022 1:13 PM	PROPERTIES File	1 KB
 D3DCompiler_47_cor3.dll	5/6/2022 8:46 PM	Application extens...	4,031 KB
 devices_types	11/10/2022 7:00 PM	JSON File	23 KB
 illust58-1841	11/28/2022 5:35 PM	JPG File	1,468 KB
 Penlmc_cor3.dll	11/19/2022 11:16 PM	Application extens...	143 KB
 Polenet2Max	1/18/2023 2:32 PM	Application	155,001 KB
 Polenet2Max.pdb	1/18/2023 2:31 PM	PDB File	50 KB
 PresentationNative_cor3.dll	10/13/2022 11:46 PM	Application extens...	924 KB
 sni.dll	7/12/2017 4:54 PM	Application extens...	134 KB
 SQLite.Interop.dll	11/2/2021 11:17 PM	Application extens...	1,343 KB
 vcruntime140_cor3.dll	11/10/2022 8:04 AM	Application extens...	89 KB
 wpfgfx_cor3.dll	11/19/2022 11:18 PM	Application extens...	1,763 KB

## Select RadioNet

# GrowSphere™

Legacy System Configuration Tool

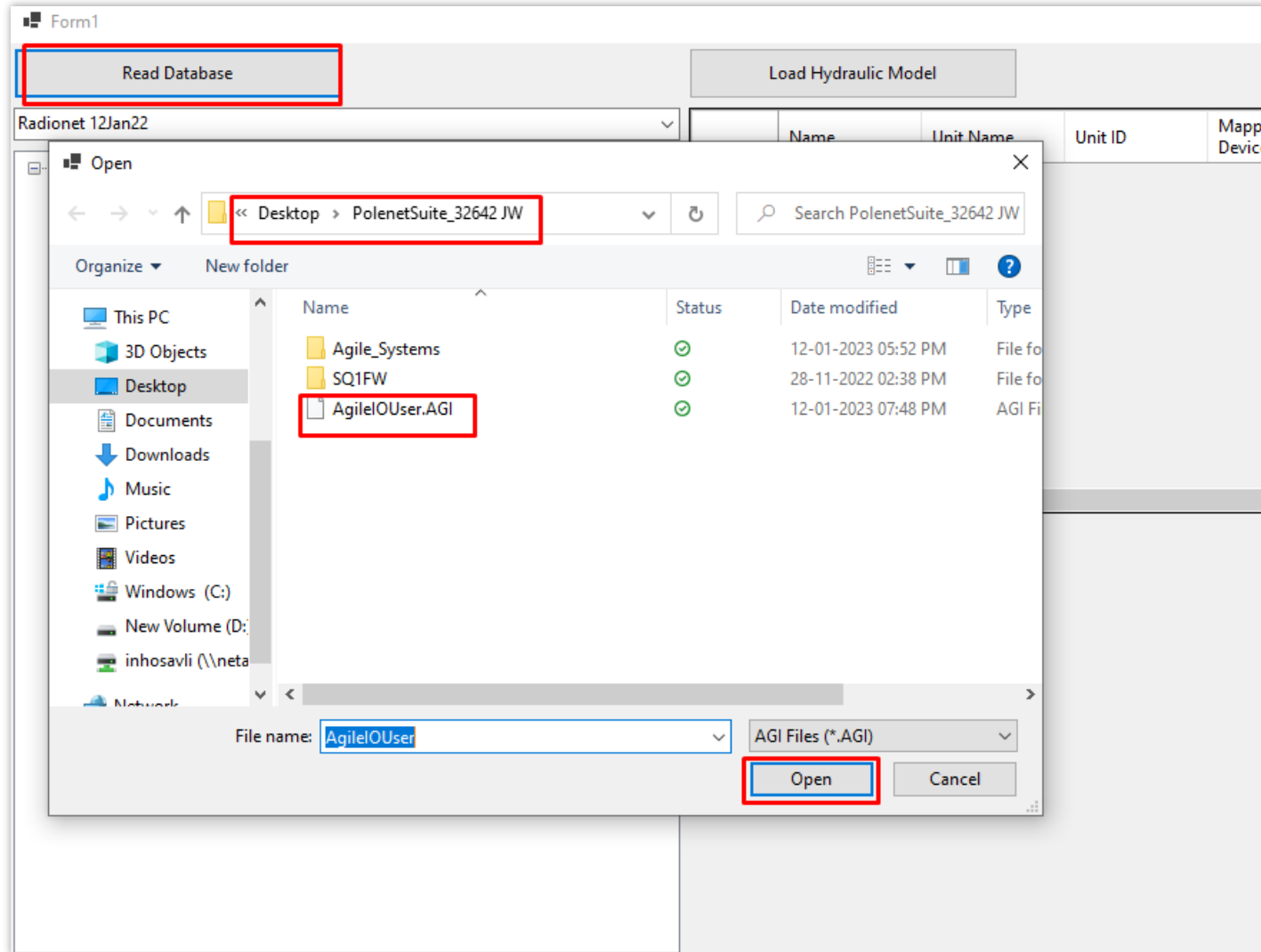
V 3.6.0.2

Chose System Type

Radionet

Singlenet

# Select Read Database, Select AgileIOUser.AGI file from the PoleNet folder, click Open





# Chose correct file from list after Read Database.

Form1

Read Database | Load Hydraulic Model | Digital Outputs | Digital Inputs | AI+Serial

Utilities

- Open Polenet
- Auto Modbus Mapping
- configuration
- Load Previous System

Save and Export

Read Database

Radionet Net test 22 Nov

Radionet Test On GS 04 Sep

RadioNet test 30 Sep

RadioNet test 04 Oct

Radionet Net test 22 Nov

AP\_Test\_19\_01

Radionet Test 13 April

GS02 27Jun2023-Copy

Radionet test 04 July 23

New RN System 19-07

Radionet Test 17 July 23

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Type ID
Unit 11025 (2021000000011025)							
Unit 26259 (2021000000026259)							
Unit 26260 (2021000000026260)							
Unit 26261 (2021000000026261)							
Unit 26262 (2021000000026262)							
Unit 26299 (2021000000026299)							
Unit 26300 (2021000000026300)							
Unit 26301 (2021000000026301)							
Unit 26302 (2021000000026302)							
Unit 26303 (2021000000026303)							
Unit 26304 (2021000000026304)							
Unit 26305 (2021000000026305)							
Unit 26306 (2021000000026306)							
Unit 26307 (2021000000026307)							
Unit 26308 (2021000000026308)							
Unit 26309 (2021000000026309)							

# PoleNet File and list of RTUs will be displayed

The screenshot shows a software window titled 'Form1' with several buttons at the top: 'Read Database', 'Load Hydraulic Model', 'Digital Outputs', 'Digital Inputs', and 'AI+Serial'. On the left, a tree view shows a folder 'Radionet Net test 22 Nov' containing a 'Base (202100000008610)' and a list of units from 09279 to 26309. A red box highlights this list. The main area is a table with the following columns: Name, Unit Name, Unit ID, Mapped Device Type, Main Line, Remote/Local, IO Card, IO Address, Modbus Address A, Modbus Address B, Modbus Address C, and Device ID. The table is currently empty. On the right, a 'Utilities' panel contains buttons for 'Open PoleNet', 'Auto Modbus Mapping', 'configuration', and 'Load Previous System'. At the bottom, a 'Device Parameters' section contains the text 'Select Device to Allocate to this IO'.

Name	Unit Name	Unit ID	Mapped Device Type	Main Line	Remote/Local	IO Card	IO Address	Modbus Address A	Modbus Address B	Modbus Address C	Device ID
------	-----------	---------	--------------------	-----------	--------------	---------	------------	------------------	------------------	------------------	-----------

# Click Auto Modbus Mapping and wait for message "Mapping Done" , click Ok

The screenshot shows a software interface with several panels. On the left, a tree view lists units under 'Radionet Net test 22 Nov'. The main area contains a table with columns: Name, Unit Name, Unit ID, Mapped Device Type, Main Line, Remote/Local, IO Card, IO Address, Modbus Address A, Modbus Address B, Modbus Address C, and Device ID. Below the table is the 'Device Parameters' section, which is partially obscured by a dialog box. The dialog box, titled 'Mapping done', has an 'OK' button. In the top right corner, a 'Utilities' panel contains buttons for 'Open Polenet', 'Auto Modbus Mapping' (highlighted with a red box), 'configuration', and 'Load Previous System'.

Name	Unit Name	Unit ID	Mapped Device Type	Main Line	Remote/Local	IO Card	IO Address	Modbus Address A	Modbus Address B	Modbus Address C	Device ID

Device Parameters

IO Type: **Digital Input**

RTU: Unit 09279

IO Number: 1

# Below screen shots shows “Before Mapping” and “After Mapping view on PoleNet Mapping View Tab.

Before Mapping

Agile System: Radionet 12Jan22, using MODBUS

System | Mapping Edit | Mapping View | Direct Mapping View | Route | AutoMap

Modbus A...	Bit Out	Bit In	Word Out	Word In	Unit	Card	ID	ID Type	Parameter	Playback

(Full Range)    Modbus Address

Display ESN     Used address only    Save    Exit

Supported Params     Sort by Unit ESN

After Mapping

Agile System: Radionet 12Jan22, using MODBUS

System | Mapping Edit | Mapping View | Direct Mapping View | Route | AutoMap

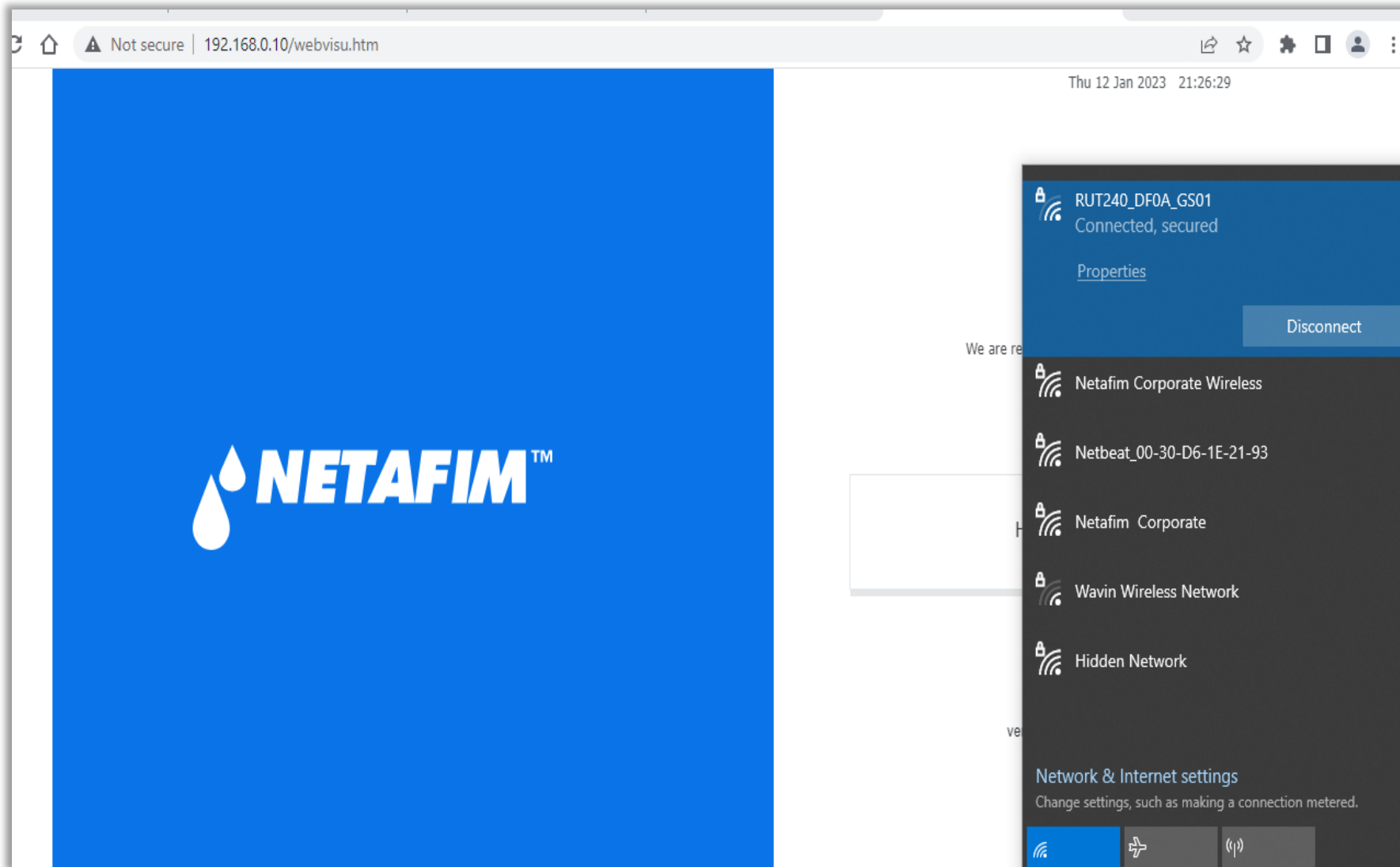
Modbus A...	Bit Out	Bit In	Word Out	Word In	Unit	Card	ID	ID Type	Parameter	Playback
1	1		40001		2021000000010528	1 (307)	1	DO	desired	
2	2		40001		2021000000010528	1 (307)	2	DO	desired	
3	3		40001		2021000000026299	1 (207)	3	DO	desired	
4	4		40001		2021000000026260	1 (207)	3	DO	desired	
5	5		40001		2021000000026300	1 (207)	3	DO	desired	
6	6		40001		2021000000026300	2 (208)	3	DO	desired	
7	7		40001		2021000000026300	2 (208)	4	DO	desired	
8	8		40001		2021000000026302	1 (207)	3	DO	desired	
9	9		40001		2021000000026302	2 (208)	3	DO	desired	
10	10		40001		2021000000026302	2 (208)	4	DO	desired	
11	11		40001		2021000000010489	1 (307)	1	DO	desired	
12	12		40001		2021000000010489	1 (307)	2	DO	desired	
13	13		40001		2021000000026259	1 (207)	3	DO	desired	
14	14		40001		2021000000026301	1 (207)	3	DO	desired	
15	15		40001		2021000000026301	2 (208)	3	DO	desired	
16	16		40001		2021000000026301	2 (208)	4	DO	desired	
17	17		40002		2021000000026308	1 (207)	3	DO	desired	
18	18		40002		2021000000026308	2 (208)	3	DO	desired	
19	19		40002		2021000000026308	2 (208)	4	DO	desired	
20	20		40002		2021000000026261	1 (207)	3	DO	desired	
10001		10001		30001	2021000000010528	1 (307)	1	DO	actual	
10002		10002		30001	2021000000010528	1 (307)	2	DO	actual	
10003		10003		30001	2021000000026299	1 (207)	3	DO	actual	
10004		10004		30001	2021000000026260	1 (207)	3	DO	actual	
10005		10005		30001	2021000000026300	1 (207)	3	DO	actual	
10006		10006		30001	2021000000026300	2 (208)	3	DO	actual	
10007		10007		30001	2021000000026300	2 (208)	4	DO	actual	
10008		10008		30001	2021000000026302	1 (207)	3	DO	actual	
10009		10009		30001	2021000000026302	2 (208)	3	DO	actual	
10010		10010		30001	2021000000026302	2 (208)	4	DO	actual	
10011		10011		30001	2021000000010489	1 (307)	1	DO	actual	

(Full Range)    Modbus Address

Display ESN     Used address only    Save    Exit

Supported Params     Sort by Unit ESN

# Connect to GS ( in pic it is via RUT240 xx Modem)



# Click on "Load Hydraulic Model", Select Path sdcard >> RemoteSys >> Hydraulic Model.csv & Click on Open

The screenshot displays the software interface for loading a hydraulic model. The main window is titled 'Form1' and contains several panels:

- Left Panel:** A tree view showing the system hierarchy under 'singlenet', including units 000 through 035. Unit 000 is expanded to show sub-units like '1-208', '1-DI DI 0.1', '2-DI DI 0.2', '1-DO Pump 1', and '2-DO DO 0.2'.
- Top Panel:** A 'Load Hydraulic Model' button is highlighted with a red box. Below it, a 'Digital Outputs' tab is visible.
- Open Dialog:** An 'Open' dialog box is open, showing the file 'Hydraulic Model.csv' selected in the 'RemoteSys' directory. The 'Open' button is highlighted with a red box. The path is '192.168.0.10 > sdcard > RemoteSys >'. The file type is set to 'CSV Files (\*.CSV)'. The file name is 'Hydraulic Model.csv'.
- Table:** A table with columns 'IO Address', 'Modbus Address A', 'Modbus Address B', and 'Modbus Address C'. It lists 17 rows of data.
- Bottom Panel:** A 'Device Parameters' section for 'Digital Output'. It includes fields for 'RTU' (Unit 000), 'IO Number' (1), 'Mainline' (Main Line 1), 'Device Name' (Pump 1), 'Flow' (4), 'Area' (1), 'Unit', 'Card', and 'Input'. A list of devices is shown, with 'Pump 1' selected. Buttons for 'Attach' and 'Detach' are visible.
- Right Panel:** A 'Utilities' panel with buttons for 'Open Polenet', 'Auto Modbus Mapping', 'configuration', 'Load Previous System', and 'Save and Export'.

# Wait for Message "File loaded successfully", Click OK

The screenshot shows a software interface with a central table and a 'Device Parameters' section. A message box is overlaid on the interface, indicating that a file has been loaded successfully. The message box has a title bar with 'OK' and a close button, and a main area with an information icon and the text 'File loaded successfully'. Below the message box is an 'OK' button.

The interface includes a top navigation bar with tabs: 'Read Database', 'Load Hydraulic Model', 'Digital Outputs', 'Digital Inputs', and 'AI+Serial'. The 'Load Hydraulic Model' tab is active. Below the navigation bar is a table with the following columns: Name, Unit Name, Unit ID, Mapped Device Type, Main Line, Remote/Local, IO Card, IO Address, Modbus Address A, Modbus Address B, Modbus Address C, and Device ID. The table is currently empty.

Below the table is the 'Device Parameters' section, which includes the following fields:

- IO Type: Digital Input
- RTU: Unit 09279
- IO Number: 1
- Mainline: Main Line 1 (dropdown menu)
- Device Name: Banana 1 (text input)
- Pulse Rate: 10 (text input)

At the bottom right of the interface, there are buttons for 'Attach', 'Dettach', and 'Save and Export'.

# Digital Outputs / Inputs / AI+Serial can be assigned by selecting relevant Tabs

The screenshot shows a software window titled "Form1" with a menu bar containing "Read Database", "Load Hydraulic Model", "Digital Outputs", "Digital Inputs", and "AI+ Serial". The "Digital Outputs" tab is currently selected. On the left, a tree view shows a hierarchy starting with "Radionet Net test 22 Nov", which is expanded to show a "Base (2021000000008610)" and a list of "Unit" entries with their respective IDs. The central area is a table with the following columns: Name, Unit Name, Unit ID, Mapped Device Type, Main Line, Remote/Local, IO Card, IO Address, Modbus Address A, Modbus Address B, Modbus Address C, and Device ID. The table is currently empty. On the right, a "Utilities" panel contains buttons for "Open Polenet", "Auto Modbus Mapping", "configuration", "Load Previous System", and "Save and Export".

Name	Unit Name	Unit ID	Mapped Device Type	Main Line	Remote/Local	IO Card	IO Address	Modbus Address A	Modbus Address B	Modbus Address C	Device ID
------	-----------	---------	--------------------	-----------	--------------	---------	------------	------------------	------------------	------------------	-----------



# Click on "Digital Outputs" Tab, this will show DOs available on all RTUs

Form1

Read Database    Load Hydraulic Model    **Digital Outputs**    Digital Inputs    AI+Serial

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
  - Unit 09279 (2021000000009279)
  - Unit 09292 (2021000000009292)
  - Unit 09687 (2021000000009687)
  - Unit 10489 (2021000000010489)
  - Unit 10528 (2021000000010528)
  - Unit 11025 (2021000000011025)
  - Unit 26259 (2021000000026259)
  - Unit 26260 (2021000000026260)
  - Unit 26261 (2021000000026261)
  - Unit 26262 (2021000000026262)
  - Unit 26299 (2021000000026299)
  - Unit 26300 (2021000000026300)
  - Unit 26301 (2021000000026301)
  - Unit 26302 (2021000000026302)
  - Unit 26303 (2021000000026303)
  - Unit 26304 (2021000000026304)
  - Unit 26305 (2021000000026305)
  - Unit 26306 (2021000000026306)
  - Unit 26307 (2021000000026307)
  - Unit 26308 (2021000000026308)
  - Unit 26309 (2021000000026309)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
	Unit 09279	1	3	6   10006   0		0	0
	Unit 09279	2	3	7   10007   0		0	0
	Unit 09279	2	4	8   10008   0		0	0
	Unit 09279	3	3	9   10009   0		0	0
	Unit 09279	3	4	10   10010   0		0	0
	Unit 09292	1	3	1   10001   0		0	0
	Unit 09292	2	3	2   10002   0		0	0
	Unit 09292	2	4	3   10003   0		0	0
	Unit 09292	3	3	4   10004   0		0	0
	Unit 09292	3	4	5   10005   0		0	0

Utilities

Open Polenet

Auto Modbus Mapping

configuration

Load Previous System

Save and Export

# Click on any DO. This will open the window below, enter details such as Mainline, Device Name, flow, Area & Flow indicator.

Form1

Read Database    Load Hydraulic Model    **Digital Outputs**    Digital Inputs    AI+Serial

Radionet Net test 22 Nov-Copy

Radionet Net test 22 Nov-Copy

- Base (2021000000008610)
- Unit 09279 (2021000000009279)
  - 0-202
  - 1-207
    - 1-DI Flow indicator 1
    - 2-DI
    - 3-DO
  - 2-208
    - 1-DI
    - 2-DI
    - 3-DO Banana 2
    - 4-DO Pomo 3
  - 3-208
- Unit 09292 (2021000000009292)
- Unit 09687 (2021000000009687)
- Unit 10489 (2021000000010489)
- Unit 10528 (2021000000010528)
- Unit 11025 (2021000000011025)
- Unit 26259 (2021000000026259)
- Unit 26260 (2021000000026260)
- Unit 26261 (2021000000026261)
- Unit 26262 (2021000000026262)
- Unit 26299 (2021000000026299)
- Unit 26300 (2021000000026300)
- Unit 26301 (2021000000026301)
- Unit 26302 (2021000000026302)
- Unit 26303 (2021000000026303)
- Unit 26304 (2021000000026304)
- Unit 26305 (2021000000026305)
- Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
	Unit 09279	1	3	6   10006   0		0	0
	Unit 09279	2	3	7   10007   0		0	0
	Unit 09279	2	4	8   10008   0		0	0
	Unit 09279	3	3	9   10009   0		0	0
	Unit 09279	3	4	10   10010   0		0	0
	Unit 09292	1	3	1   10001   0		0	0
	Unit 09292	2	3	2   10002   0		0	0
	Unit 09292	2	4	3   10003   0		0	0
	Unit 09292	3	3	4   10004   0		0	0
	Unit 09292	3	4	5   10005   0		0	0

Device Parameters

IO Type: **Digital Output**

RTU: Unit 09279

IO Number: 3

Mainline: **Main Line 1**

Device Name: Banana 1

Flow: 10

Area: 1

Flow indicator: [reset indication](#)

Unit:

Card:

Input:

Select Device to Allocate to this IO

- Valve 1
- Valve 2
- Valve 3
- Valve 4
- Valve 5
- Valve 6
- Valve 7
- Valve 8
- Valve 9
- Valve 10
- Valve 11
- Valve 12
- Valve 13
- Valve 14
- Valve 15
- Valve 16
- Valve 17
- Valve 18
- Valve 19

Attach    Dettach

Utilities

- Open Polenet
- Auto Modbus Mapping
- configuration
- Load Previous System

Save and Export

# Select Device to Allocate IO . Enter Details Device Name , Flow and Area Click Attach

Form1

Read Database    Load Hydraulic Model    Digital Outputs    Digital Inputs    AI+Serial

Radionet Net test 22 Nov-Copy

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
    - Unit 09279 (2021000000009279)
      - 0-202
      - 1-207
        - 1-DI Flow indicator 1
        - 2-DI
        - 3-DO
      - 2-208
        - 1-DI
        - 2-DI
        - 3-DO Banana 2
        - 4-DO Pomo 3
      - 3-208
    - Unit 09292 (2021000000009292)
    - Unit 09687 (2021000000009687)
    - Unit 10489 (2021000000010489)
    - Unit 10528 (2021000000010528)
    - Unit 11025 (2021000000011025)
    - Unit 26259 (2021000000026259)
    - Unit 26260 (2021000000026260)
    - Unit 26261 (2021000000026261)
    - Unit 26262 (2021000000026262)
    - Unit 26299 (2021000000026299)
    - Unit 26300 (2021000000026300)
    - Unit 26301 (2021000000026301)
    - Unit 26302 (2021000000026302)
    - Unit 26303 (2021000000026303)
    - Unit 26304 (2021000000026304)
    - Unit 26305 (2021000000026305)
    - Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
	Unit 09279	1	3	6   10006   0		0	0
	Unit 09279	2	3	7   10007   0		0	0
	Unit 09279	2	4	8   10008   0		0	0
	Unit 09279	3	3	9   10009   0		0	0
	Unit 09279	3	4	10   10010   0		0	0
	Unit 09292	1	3	1   10001   0		0	0
	Unit 09292	2	3	2   10002   0		0	0
	Unit 09292	2	4	3   10003   0		0	0
	Unit 09292	3	3	4   10004   0		0	0
	Unit 09292	3	4	5   10005   0		0	0

Device Parameters    Select Device to Allocate to this IO

IO Type: **Digital Output**

RTU: Unit 09279

IO Number: 3

Mainline: Main Line 1

Device Name: Banana 1

Flow: 10

Area: 1

Flow indicator Unit: Unit 09279

Card: 1

Input: 1 [reset indication](#)

Valve 1

Valve 2

Valve 3

Valve 4

Valve 5

Valve 6

Valve 7

Valve 8

Valve 9

Valve 10

Valve 11

Valve 12

Valve 13

Valve 14

Valve 15

Valve 16

Valve 17

Valve 18

Valve 19

Attach

Detach

Utilities

Open Polenet

Auto Modbus Mapping

configuration

Load Previous System

Save and Export

Device Name & Details

Flow Indicator : Select Unit and Input to which it is connected

# A Prompt message will appear, click Yes

Form1

Read Database Load Hydraulic Model Digital Outputs Digital Inputs AI+ Serial Utilities

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
  - Unit 09279 (2021000000009279)
    - 0-202
    - 1-207
      - 1-DI Flow indicator 1
      - 2-DI
      - 3-DO
    - 2-208
      - 1-DI
      - 2-DI
      - 3-DO Banana 2
      - 4-DO Pomo 3
    - 3-208
  - Unit 09292 (2021000000009292)
  - Unit 09687 (2021000000009687)
  - Unit 10489 (2021000000010489)
  - Unit 10528 (2021000000010528)
  - Unit 11025 (2021000000011025)
  - Unit 26259 (2021000000026259)
  - Unit 26260 (2021000000026260)
  - Unit 26261 (2021000000026261)
  - Unit 26262 (2021000000026262)
  - Unit 26299 (2021000000026299)
  - Unit 26300 (2021000000026300)
  - Unit 26301 (2021000000026301)
  - Unit 26302 (2021000000026302)
  - Unit 26303 (2021000000026303)
  - Unit 26304 (2021000000026304)
  - Unit 26305 (2021000000026305)
  - Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Banana 1	Unit 09279	1	3	6   10006   0		0	0
	Unit 09279	2	3	7   10007   0		0	0
	Unit 09279	2	4	8   10008   0		0	0
	Unit 09279	3	3	9   10009   0		0	0
	Unit 09279	3	4	10   10010   0		0	0
	Unit 09292	1	3	1   10001   0		0	0
	Unit 09292	2	3	2   10002   0		0	0
	Unit 09292	2	4	3   10003   0		0	0
	Unit 09292	3	3	4   10004   0		0	0
	Unit 09292		5	5   10005   0		0	0

Attach

Attach Valve 1 To DigitalOutput?

Yes No

Device Parameters

IO Type **Digital Output**

RTU Unit 09279

IO Number 3

Mainline Main Line 1

Device Name Banana 1

Flow 10

Area 1

Flow indicator

Unit Unit 09279

Card 1

Input 1

Valve 3

Valve 4

Valve 5

Valve 6

Valve 7

Valve 8

Valve 9

Valve 10

Valve 11

Valve 12

Valve 13

Valve 14

Valve 15

Valve 16

Valve 17

Valve 18

Valve 19

Attach

Detach

Save and Export

# Device will be mapped to Output on RTU & will be displayed in table

Form1
Read Database
Load Hydraulic Model
Digital Outputs
Digital Inputs
AI+Serial

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
    - Unit 09279 (2021000000009279)
      - 0-202
        - 1-207
          - 1-DI Flow indicator 1
          - 2-DI
          - 3-DO
        - 2-208
          - 1-DI
          - 2-DI
          - 3-DO Banana 2
          - 4-DO Pomo 3
      - 3-208
        - Unit 09292 (2021000000009292)
        - Unit 09687 (2021000000009687)
        - Unit 10489 (2021000000010489)
        - Unit 10528 (2021000000010528)
        - Unit 11025 (2021000000011025)
        - Unit 26259 (2021000000026259)
        - Unit 26260 (2021000000026260)
        - Unit 26261 (2021000000026261)
        - Unit 26262 (2021000000026262)
        - Unit 26299 (2021000000026299)
        - Unit 26300 (2021000000026300)
        - Unit 26301 (2021000000026301)
        - Unit 26302 (2021000000026302)
        - Unit 26303 (2021000000026303)
        - Unit 26304 (2021000000026304)
        - Unit 26305 (2021000000026305)
        - Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Banana 1	Unit 09279	1	3	6   10053   0	Valve 1	1	1
	Unit 09279	2	3	7   10007   0		0	0
	Unit 09279	2	4	8   10008   0		0	0
	Unit 09279	3	3	9   10009   0		0	0
	Unit 09279	3	4	10   10010   0		0	0
	Unit 09292	1	3	1   10001   0		0	0
	Unit 09292	2	3	2   10002   0		0	0
	Unit 09292	2	4	3   10003   0		0	0
	Unit 09292	3	3	4   10004   0		0	0
	Unit 09292	3	4	5   10005   0		0	0

Utilities

Open Polenet

Auto Modbus Mapping

configuration

Load Previous System

Device Parameters

IO Type: **Digital Output**

RTU: Unit 09279

IO Number: 3

Mainline: Main Line 1

Device Name: Banana 1

Flow: 10

Area: 1

Flow indicator:

Unit: Unit 09279

Card: 1

Input: 1

[reset indication](#)

Select Device to Allocate to this IO

- Valve 1
- Valve 2
- Valve 3
- Valve 4
- Valve 5
- Valve 6
- Valve 7
- Valve 8
- Valve 9
- Valve 10
- Valve 11
- Valve 12
- Valve 13
- Valve 14
- Valve 15
- Valve 16
- Valve 17
- Valve 18
- Valve 19

Attach

Detatch

Save and Export

# In Digital Inputs Details of flow Indicator assigned to DO can be seen here

Form1

Read Database Load Hydraulic Model Digital Outputs **Digital Inputs** AI+Serial Utilities

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
    - Unit 09279 (2021000000009279)
      - 0-202
        - 1-207
          - 1-DI Flow indicator 1
          - 2-DI
          - 3-DO
        - 2-208
          - 1-DI
          - 2-DI
          - 3-DO Banana 2
          - 4-DO Pomo 3
        - 3-208
      - Unit 09292 (2021000000009292)
      - Unit 09687 (2021000000009687)
      - Unit 10489 (2021000000010489)
      - Unit 10528 (2021000000010528)
      - Unit 11025 (2021000000011025)
      - Unit 26259 (2021000000026259)
      - Unit 26260 (2021000000026260)
      - Unit 26261 (2021000000026261)
      - Unit 26262 (2021000000026262)
      - Unit 26299 (2021000000026299)
      - Unit 26300 (2021000000026300)
      - Unit 26301 (2021000000026301)
      - Unit 26302 (2021000000026302)
      - Unit 26303 (2021000000026303)
      - Unit 26304 (2021000000026304)
      - Unit 26305 (2021000000026305)
      - Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Flow indicator 1	Unit 09279	1	1	10053   30644   ...	Flow indicator 1	1	31
	Unit 09279	1	2	10054   30646   ...		0	0
	Unit 09279	2	1	10055   30648   ...		0	0
	Unit 09279	2	2	10056   30650   ...		0	0
	Unit 09279	3	1	10057   30652   ...		0	0
	Unit 09279	3	2	10058   30654   ...		0	0
	Unit 09292	1	1	10047   30632   ...		0	0
	Unit 09292	1	2	10048   30634   ...		0	0
	Unit 09292	2	1	10049   30636   ...		0	0
	Unit 09292	2	2	10050   30638   ...		0	0

**NOTE :** Pl. note that Flow Indicator Input is not to be defined in GrowSphere Hydraulic Configuration anywhere. It is only to “confirm”, the Valve is OPEN & there is flow. On GrowSphere >> Remote Valves, it will show “P”  
This facility is only for Valves on RTU

Open Polenet  
Auto Modbus Mapping  
configuration  
Load Previous System

Save and Export

# Continue mapping all Digital Outputs are connected to RTU

Form1

Read Database    Load Hydraulic Model    Digital Outputs    Digital Inputs    AI+Serial

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
  - Unit 09279 (2021000000009279)
    - 0-202
    - 1-207
      - 1-DI Flow indicator 1
      - 2-DI
      - 3-DO
    - 2-208
      - 1-DI
      - 2-DI
      - 3-DO Banana 2
      - 4-DO Pomo 3
    - 3-208
  - Unit 09292 (2021000000009292)
  - Unit 09687 (2021000000009687)
  - Unit 10489 (2021000000010489)
  - Unit 10528 (2021000000010528)
  - Unit 11025 (2021000000011025)
  - Unit 26259 (2021000000026259)
  - Unit 26260 (2021000000026260)
  - Unit 26261 (2021000000026261)
  - Unit 26262 (2021000000026262)
  - Unit 26299 (2021000000026299)
  - Unit 26300 (2021000000026300)
  - Unit 26301 (2021000000026301)
  - Unit 26302 (2021000000026302)
  - Unit 26303 (2021000000026303)
  - Unit 26304 (2021000000026304)
  - Unit 26305 (2021000000026305)
  - Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Banana 1	Unit 09279	1	3	6   10053   0	Valve 1	1	1
	Unit 09279	2	3	7   10007   0		0	0
	Unit 09279	2	4	8   10008   0		0	0
	Unit 09279	3	3	9   10009   0		0	0
	Unit 09279	3	4	10   10010   0		0	0
	Unit 09292	1	3	1   10001   0		0	0
	Unit 09292	2	3	2   10002   0		0	0
	Unit 09292	2	4	3   10003   0		0	0
	Unit 09292	3	3	4   10004   0		0	0
	Unit 09292	3	4	5   10005   0		0	0

Device Parameters

IO Type: **Digital Output**

RTU: Unit 09279

IO Number: 3

Mainline: Main Line 1

Device Name: Banana 2

Flow: 0

Area: 0

Flow indicator:

Unit:

Card:

Input:

[reset indication](#)

Select Device to Allocate to this IO

- Valve 2
- Valve 3
- Valve 4
- Valve 5
- Valve 6
- Valve 7
- Valve 8
- Valve 9
- Valve 10
- Valve 11
- Valve 12
- Valve 13
- Valve 14
- Valve 15
- Valve 16
- Valve 17
- Valve 18
- Valve 19
- Valve 20

Attach

Detach

Save and Export

Utilities

- Open Polenet
- Auto Modbus Mapping
- configuration
- Load Previous System

# If there are Digital Input, Analog Inputs on RTU , Click on relevant Tab to assign it.

Form1

Read Database    Load Hydraulic Model    Digital Outputs    **Digital Inputs**    **AI+Serial**

Radionet Net test 22 Nov-Copy

- Radionet Net test 22 Nov-Copy
  - Base (2021000000008610)
    - Unit 09279 (2021000000009279)
      - 0-202
        - 1-207
          - 1-DI Flow indicator 1
          - 2-DI
          - 3-DO
        - 2-208
          - 1-DI
          - 2-DI
          - 3-DO Banana 2
          - 4-DO Pomo 3
        - 3-208
          - Unit 09292 (2021000000009292)
          - Unit 09687 (2021000000009687)
          - Unit 10489 (2021000000010489)
          - Unit 10528 (2021000000010528)
          - Unit 11025 (2021000000011025)
          - Unit 26259 (2021000000026259)
          - Unit 26260 (2021000000026260)
          - Unit 26261 (2021000000026261)
          - Unit 26262 (2021000000026262)
          - Unit 26299 (2021000000026299)
          - Unit 26300 (2021000000026300)
          - Unit 26301 (2021000000026301)
          - Unit 26302 (2021000000026302)
          - Unit 26303 (2021000000026303)
          - Unit 26304 (2021000000026304)
          - Unit 26305 (2021000000026305)
          - Unit 26306 (2021000000026306)

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Flow indicator 1	Unit 09279	1	1	10053   30644   ...	Flow indicator 1	1	31
	Unit 09279	1	2	10054   30646   ...		0	0
	Unit 09279	2	1	10055   30648   ...		0	0
	Unit 09279	2	2	10056   30650   ...		0	0
	Unit 09279	3	1	10057   30652   ...		0	0
	Unit 09279	3	2	10058   30654   ...		0	0
	Unit 09292	1	1	10047   30632   ...		0	0
	Unit 09292	1	2	10048   30634   ...		0	0
	Unit 09292	2	1	10049   30636   ...		0	0
	Unit 09292	2	2	10050   30638   ...		0	0

Utilities

- Open Polenet
- Auto Modbus Mapping
- configuration
- Load Previous System

Save and Export



# Click Digital Inputs Tab and Proceed to add Digital Input, select Mainline, Enter Device name etc, and click Attach Device Name (WM 1 here and associated with DI)

The screenshot shows a software interface for configuring digital inputs. On the left is a tree view of the system hierarchy. The main area contains a table of digital inputs and a configuration panel for a selected input. A dialog box is open to attach a device to the input.

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Flow indicator 1	Unit 09279	1	1	10053   30644   ...	Flow indicator 1	1	31
	Unit 09279	1	2	10054   30646   ...		0	0
	Unit 09279	2	1	10055   30648   ...		0	0
	Unit 09279	2	2	10056   30650   ...		0	0
	Unit 09279	3	1	10057   30652   ...		0	0
	Unit 09279	3	2	10058   30654   ...		0	0
	Unit 09292	1	1	10047   30632   ...		0	0
	Unit 09292	1	2	10048   30634   ...		0	0
	Unit 09292	2	1	10049   30636   ...		0	0
	Unit 09292			10050   30638   ...		0	0

**Attach**

Attach Water meter 1 To DigitalInput?

Device Parameters

IO Type: Digital Input

RTU: Unit 09279

IO Number: 2

Mainline: Main Line 1

Device Name: WM 1

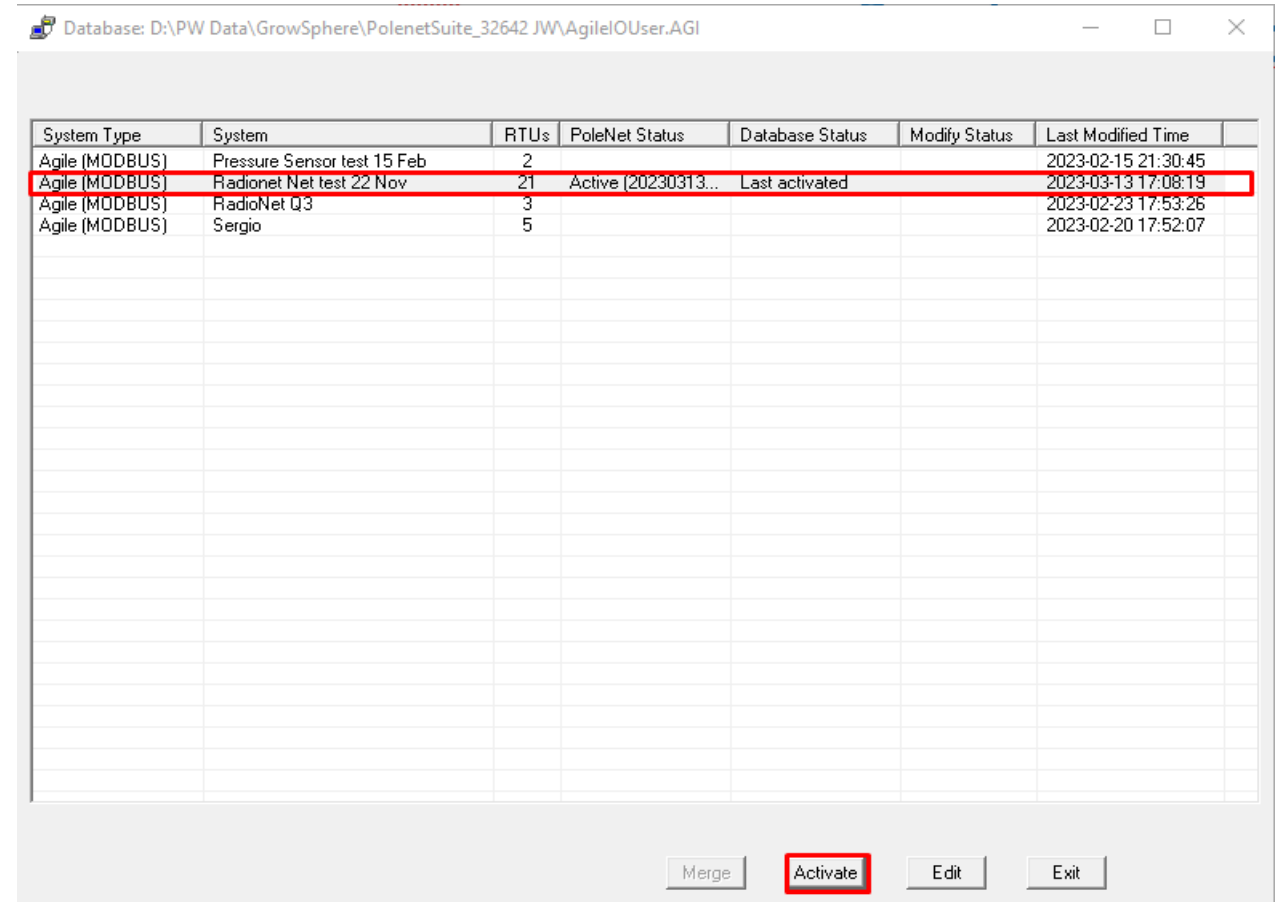
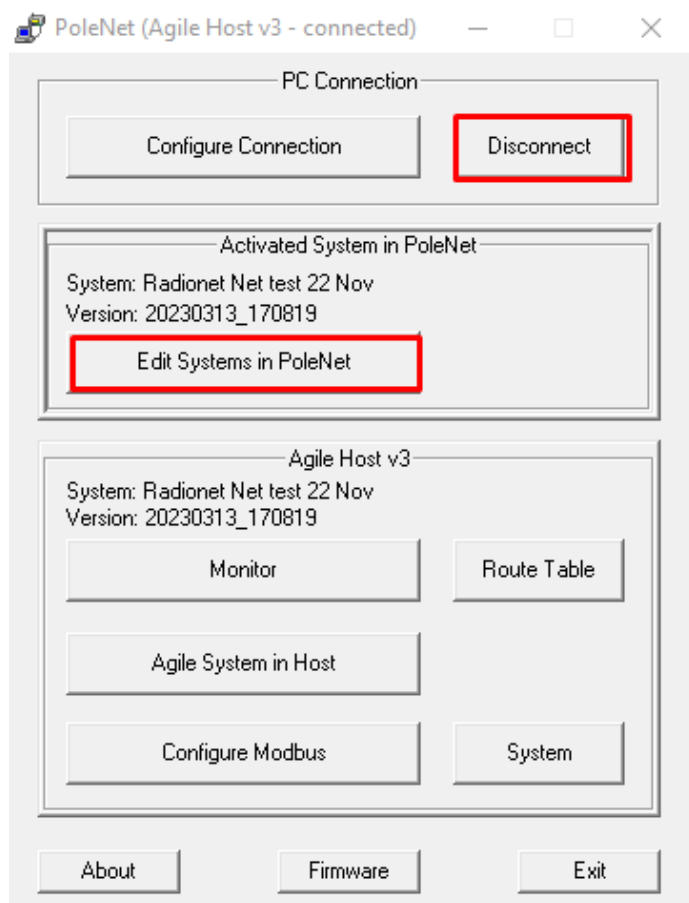
Pulse Rate: 10

After all I/Os devices are assigned , Click “Save and Export “ .  
A message will Appear “Saved to CSV”.Click OK

The screenshot shows a software interface for configuring I/O devices. The main window is titled 'Form1' and contains several tabs: 'Read Database', 'Load Hydraulic Model', 'Digital Outputs', 'Digital Inputs', and 'AI+Serial'. The 'Digital Inputs' tab is active, displaying a table of I/O configurations. The table has columns for Name, Unit Name, IO Card, IO Address, Modbus Addresses, Mapped Device Type, Main Line, and Device Typ ID. The row for 'WM 1' is highlighted in blue. Below the table is a 'Device Parameters' form for 'Digital Input' with fields for IO Type, RTU, IO Number, Mainline, Device Name, and Pulse Rate. The 'Mainline' dropdown is set to 'Main Line 1', 'Device Name' is 'WM 1', and 'Pulse Rate' is '10'. At the bottom right, there are buttons for 'Attach', 'Detach', and 'Save and Export'. The 'Save and Export' button is highlighted with a red box. A dialog box titled 'OK' with an information icon and the text 'Saved To CSV' is also highlighted with a red box, with an 'OK' button inside it.

Name	Unit Name	IO Card	IO Address	Modbus Addresses	Mapped Device Type	Main Line	Device Typ ID
Flow indicator 1	Unit 09279	1	1	10053   30644   ...	Flow indicator 1	1	31
WM 1	Unit 09279	1	2	10054   30646   ...	Water meter 1	1	18
	Unit 09279	2	1	10055   30648   ...		0	0
	Unit 09279	2	2	10056   30650   ...		0	0
	Unit 09279	3	1	10057   30652   ...		0	0
	Unit 09279	3	2	10058   30654   ...		0	0
	Unit 09292	1	1	10047   30632   ...		0	0
	Unit 09292	1	2	10048   30634   ...		0	0
	Unit 09292			10049   30636   ...		0	0
	Unit 09292			10050   30638   ...		0	0

After save csv, Go to PoleNet Application & Disconnect the system. Click on “Edit System in PoleNet” & Select last activated system & Activate again & Connect PoleNet.



# System will ask to Re-load the modified system? Click “Yes”. Then system will ask to Select “Program database version into Host” and Confirm

Database: D:\PW Data\GrowSphere\PolenetSuite\_32642 JW\AgileIOUser.AGI

System Type	System	RTUs	PoleNet Status	Database Status	Modify Status	Last Modified Time
Agile (MODBUS)	Pressure Sensor test 15 Feb	2				2023-02-15 21:30:45
Agile (MODBUS)	Radionet Net test 22 Nov	21	Active (20230313...	Last activated	Newer	2023-03-17 22:08:54
Agile (MODBUS)	RadioNet Q3	3				2023-02-23 17:53:26
Agile (MODBUS)	Sergio	5				2023-02-20 17:52:07

Exporting Re-load system

Re-load the modified Agile system:  
Radionet Net test 22 Nov

Yes No

Merge Activate Edit Exit

Host Capture - Options

SITUATION

Database contains a newer version of the system in the Host.

POSSIBLE ACTIONS TO TAKE

- Program database version into Host. (Restarts radio system)
- Replace version in the Database with version from Host

Cancel Confirm



# After CSV Upload able to see details in PoleNet System in “Mapping View” section.

Agile System: Radionet Net test 22 Nov, using MODBUS

System	Mapping Edit	Mapping View	Direct Mapping View	Route	AutoMap					
Modb...	Bit Out	Bit In	Word...	Word...	Unit	Card	IO	IO T...	Param...	Playb...
1	1		40001		2021000000009292	1 (207)	3 (Pomo 3)	DO	desired	
2	2		40001		2021000000009292	2 (208)	3 (Apple 1)	DO	desired	
3	3		40001		2021000000009292	2 (208)	4 (Apple 2)	DO	desired	
4	4		40001		2021000000009292	3 (208)	3 (Apple 3)	DO	desired	
5	5		40001		2021000000009292	3 (208)	4 (Kiwi 1)	DO	desired	
6	6		40001		2021000000009279	1 (207)	3 (Banana 1)	DO	desired	
7	7		40001		2021000000009279	2 (208)	3 (Banana 2)	DO	desired	
8	8		40001		2021000000009279	2 (208)	4 (Banana 3)	DO	desired	
9	9		40001		2021000000009279	3 (208)	3 (Pomo 1)	DO	desired	
10	10		40001		2021000000009279	3 (208)	4 (Pomo 2)	DO	desired	
11	11		40001		2021000000009687	1 (307)	1 (Kiwi 2)	DO	desired	
12	12		40001		2021000000009687	1 (307)	2 (Kiwi 3)	DO	desired	
13	13		40001		2021000000010528	1 (307)	1 (Vegitable 3)	DO	desired	
14	14		40001		2021000000010528	1 (307)	2 (Vegitable 4)	DO	desired	
15	15		40001		2021000000026309	1 (207)	3	DO	desired	
16	16		40001		2021000000010489	1 (307)	1 (Vegitable 1)	DO	desired	
17	17		40002		2021000000010489	1 (307)	2 (Vegitable 2)	DO	desired	
18	18		40002		2021000000026299	1 (207)	3 (DC 1)	DO	desired	
19	19		40002		2021000000026300	1 (207)	3 (DC 2)	DO	desired	
20	20		40002		2021000000026300	2 (208)	3 (DC 3)	DO	desired	
21	21		40002		2021000000026300	2 (208)	4 (DC 4)	DO	desired	
22	22		40002		2021000000026260	1 (207)	3 (Vegi 6)	DO	desired	
23	23		40002		2021000000026302	1 (207)	3	DO	desired	
24	24		40002		2021000000026302	2 (208)	3	DO	desired	
25	25		40002		2021000000026302	2 (208)	4	DO	desired	
26	26		40002		2021000000026259	1 (207)	3 (Vegitable 5)	DO	desired	
27	27		40002		2021000000026301	1 (207)	3 (DB Fk)	DO	desired	
28	28		40002		2021000000026301	2 (208)	3 (MV Fruit & Vegi)	DO	desired	
29	29		40002		2021000000026301	2 (208)	4 (Fruit and Vegi)	DO	desired	
30	30		40002		2021000000026308	1 (207)	3	DO	desired	
31	31		40002		2021000000026308	2 (208)	3	DO	desired	
32	32		40002		2021000000026308	2 (208)	4	DO	desired	
33	33		40003		2021000000026261	1 (207)	3 (Vegi 7)	DO	desired	
34	34		40003		2021000000026307	1 (207)	3	DO	desired	
35	35		40003		2021000000026307	2 (208)	3	DO	desired	
36	36		40003		2021000000026307	2 (208)	4	DO	desired	
37	37		40003		2021000000026262	1 (207)	3 (Vegi 8)	DO	desired	
38	38		40003		2021000000026306	1 (207)	3	DO	desired	
39	39		40003		2021000000026306	2 (208)	3	DO	desired	
40	40		40003		2021000000026306	2 (208)	4	DO	desired	
41	41		40003		2021000000026304	1 (207)	3	DO	desired	
42	42		40003		2021000000026303	1 (207)	3	DO	desired	
43	43		40003		2021000000026305	1 (207)	3	DO	desired	

Refer to Earlier Slides for name of the IO device

# Go to GrowSphere Screen , Under “Communication” select “RadioNet Allocation” and click on “Start Allocation”

The screenshot displays the GrowSphere web interface. At the top, the header includes the GrowSphere logo, the text 'Farm', a dropdown menu showing 'Mainline 3', and a 'Settings' button. On the right side of the header, there is a warning icon, an SD card icon, the date and time 'Thu 13 Jul 2023 18:09:12', and a Wi-Fi icon.

The main content area features a navigation menu on the left with icons for Home, System, Water, NPK, and Settings. The central panel has a top row of tabs: 'Configuration', 'Local I/O', 'Remote I/O', 'Communication', and 'Wiring Diagram'. The 'Communication' tab is selected and highlighted with a red box. Below this, there are four sub-sections: 'SingleNet Allocation', 'RadioNet Allocation', 'NetRTU (GW) Allocation', and 'Weather Station'. The 'RadioNet Allocation' section is highlighted with a red box and contains the following configuration:

- RS-485 - Serial port (port 1)
- Modbus ID: 1
- Buttons: 'Export Hydraulic model' and 'Start Allocation' (highlighted with a red box)

Below the configuration, there is a table with the following columns: RTU S.N., #ID, Status, Name, and FW ver. The table is currently empty.

Confirm all CSV files are detected. Click on “ Overwrite existing devices.

RadioNet Allocation

Files Detect :

DI CSV file     DO CSV file     AI CSV file     Info CSV file

Add to existing devices     Overwrite existing devices

# After allocation process , all devices successfully added. Click on “Go to Remote I/O Tab”

Allocation process

16 devices have been successfully added!

1 unallocated devices

Ignore this message its related to Flow Indicator

Go to Remote I/O tab

Done

Configuration Local I/O Remote I/O Communication Wiring Diagram

Remote digital output Remote digital input Remote analog input Unallocated devices

RTU	Card	IO	IO Type	Device type	NO.	Source	Name	Unallocated device type
9279	1	1	DI	Assign	1	M.Line2	Flowindi	Flow indicator



# After Allocation done, we can see the RadioNet RTU Status.

GrowSphere™ by NETAFIM™ Farm Mainline 3 Settings Thu 13 Jul 2023 18:14:13

Configuration Local I/O Remote I/O **Communication** Wiring Diagram

SingleNet Allocation **RadioNet Allocation** NetRTU (GW) Allocation Weather Station

RS-485 - Serial port (port 1) Modbus ID 1 Export Hydraulic model Unassign

RTU S.N.	#ID	Status	Name	FW ver.	Refresh
2190000000000000	0	Connected	AgileHostUnit	3.29	
2021000000008575	0	Connected	Base	2.74	
2021000000026300	212	Connected	Unit26300	2.74	
2021000000010489	174	Connected	Unit10489	2.74	
2021000000026302	220	Connected	Unit26302	2.74	

# Check all I/O s are appeared.

GrowSphere™ by NETAFIM Farm All Mainlines Settings Thu 13 Jul 2023 18:19:35

Configuration Local I/O **Remote I/O** Communication Wiring Diagram

Remote digital output Remote digital input Remote analog input Unallocated devices

RTU	Card	IO	Device type	NO.	Source	Name	Flow	Area (ha)	Assigned
26300	1	3	Valve	3	M.Line3	Valve3	10.0 m³/h	0.00	Unassign
26300	2	3	Valve	4	M.Line3	Valve4	10.0 m³/h	0.00	Unassign
26300	2	4	Valve	5	M.Line3	Valve5	10.0 m³/h	0.00	Unassign
10489	1	1	Valve	1	M.Line3	Valve1	10.0 m³/h	0.00	Unassign
10489	1	2	Valve	2	M.Line3	Valve2	10.0 m³/h	0.00	Unassign
26302	1	3	Pump	1	M.Line3	Pump1	10.0 m³/h	—	Unassign

Configuration Local I/O **Remote I/O** Communication Wiring Diagram

Remote digital output **Remote digital input** Remote analog input Unallocated devices

RTU	Card	IO	Device type	NO.	Source	Name	Type	Rate	Assigned
	1	1	Water mete	1	M.Line1	Banana1	LPP	10.00	Unassign

# To test Valve operations from UI. Click on any Valve and Click on “Manual On”

The screenshot shows the GrowSphere™ by NETAFIM web interface. The browser address bar displays "Not secure | 192.168.0.10/webvisu.htm". The page header includes the GrowSphere™ logo, "GS01", "Main line 1", and "Home". The navigation bar contains tabs for "General", "Shifts", "Valves", "Analytics", "Queue", and "Events". The "Valves" tab is active, and a sub-menu shows "All", "Alert", "Manual", and "Not assigned". The main content area displays a grid of valves, with "Valve1" selected. A dropdown menu is open for "Valve1", showing options: "Auto", "Manual - On", and "Manual - Off".

Valve1	Valve2	Valve3	Valve4	Valve5	Valve6	Valve7	Valve8
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●				

# Check Valve state is changed to "M"(Manual) & "P"(Pending). "P" will disappear, Valve will turn Green when Status Changes to 1 in PoleNet

GrowSphere™ by METAFIM GS01 Main line 1

General Shifts

Valves

Banana1 ● **M,P Banana2** ● Banana3

3 ● Kiwi1 ● Kiwi2

● Vegitabl ● Vegi6 ● Vegi7



Monitor Live Agile System - Radionet Net test 22 Nov - 20230103\_222922

Recent contacts:

	Listed	Present	Missing	Extra	On
Networks	2	2	0	0	
Units	22	22	0	0	
Dig Ins	63	63	0	0	0
Dig Outs	43	43	0	0	0
An Ins	1	1	0	0	0

Networks	Units	Dig Ins	Dig Outs	An Ins	Routing	System
Address	Present	Extra	actual	desired	Information	
2:202100000009279:1.3	Yes		0	0		
2:202100000009279:2.3	Yes		0	1	Change to 1	
2:202100000009279:2.4	Yes		0	0		
2:202100000009279:3.3	Yes		0	0		
2:202100000009279:3.4	Yes		0	0		
2:202100000009292:1.3	Yes		0	0		

GrowSphere™ by METAFIM GS01 Main line 1

General Shifts

Valves

Banana1\_ ● **M Banana2** ● Banana3

3 ● Kiwi1 ● Kiwi2

● Vegitabl ● Vegi6 ● Vegi7



Recent contacts:

	Listed	Present	Missing	Extra	On
Networks	2	2	0	0	
Units	22	22	0	0	
Dig Ins	63	63	0	0	0
Dig Outs	43	43	0	0	1
An Ins	1	1	0	0	0

Networks	Units	Dig Ins	Dig Outs	An Ins	Routing	System
Address	Present	Extra	actual	desired	Information	
2:202100000009279:1.3	Yes		0	0		
2:202100000009279:2.3	Yes		1	1		
2:202100000009279:2.4	Yes		0	0		
2:202100000009279:3.3	Yes		0	0		
2:202100000009279:3.4	Yes		0	0		
2:202100000009292:1.3	Yes		0	0		
2:202100000009292:2.3	Yes		0	0		
2:202100000009292:2.4	Yes		0	0		
2:202100000009292:3.3	Yes		0	0		
2:202100000009292:3.4	Yes		0	0		
2:202100000009687:1.1	Yes		0	0		
2:202100000009687:1.2	Yes		0	0		
2:2021000000010489:1.1	Yes		0	0	Unsure	
2:2021000000010489:1.2	Yes		0	0	Unsure	
2:2021000000010528:1.1	Yes		0	0		

# “M”(Manual –ON) Valve which is associated with Flow Indicator “P” (Pending) sign will be disappeared when flow indicator switch “ON”

GrowSphere by METAFIM GS01 Main line 1 Home

Monitor Live Agile System - Radionet Net test 22 Nov - 20230103\_222922

Recent contacts:

	Listed	Present	Missing	Extra	Dn
2021000000026300 Inf	2	2	0	0	
2021000000026301 Inf	22	21	1	0	
2021000000026302 Inf	63	61	2	0	
2021000000026303 Inf	43	42	1	0	1
2021000000026304 Inf	1	1	0	0	0

Valves

**M,P** Banana1\_ ● Banana2 ●

● Apple3 ● Kiwi1 ●

● Vegitabl ● Vegi6 ●

Address	Present	Extra	actual	desired	Information
2.2021000000009279.1.3	Yes		1	1	
2.2021000000009279.2.3	Yes		0	0	
2.2021000000009279.2.4	Yes		0	0	
2.2021000000009279.3.3	Yes		0	0	
2.2021000000009279.3.4	Yes		0	0	
2.2021000000009292.1.3	Yes		0	0	
2.2021000000009292.2.3	Yes		0	0	
2.2021000000009292.2.4	Yes		0	0	
2.2021000000009292.3.3	Yes		0	0	
2.2021000000009292.3.4	Yes		0	0	
2.2021000000009687.1.1	Yes		0	0	
2.2021000000009687.1.2	Yes		0	0	
2.2021000000010489.1.1	Yes		0	0	Unsure
2.2021000000010489.1.2	Yes		0	0	Unsure
2.2021000000010528.1.1	Yes		0	0	
2.2021000000010528.1.2	Yes		0	0	
2.2021000000026259.1.3	Yes		0	0	
2.2021000000026260.1.3	Yes		0	0	
2.2021000000026261.1.3	Yes		0	0	

GrowSphere by METAFIM GS01 Main line 1 Home

Monitor Live Agile System - Radionet Net test 22 Nov - 20230103\_222922

Recent contacts:

	Listed	Present	Missing	Extra	Dn
2021000000026301 Inf	2	2	0	0	
2021000000026302 Inf	22	21	1	0	
2021000000026303 Inf	63	61	2	0	
2021000000026304 Inf	43	42	1	0	1
2021000000026305 Inf	1	1	0	0	0

Valves

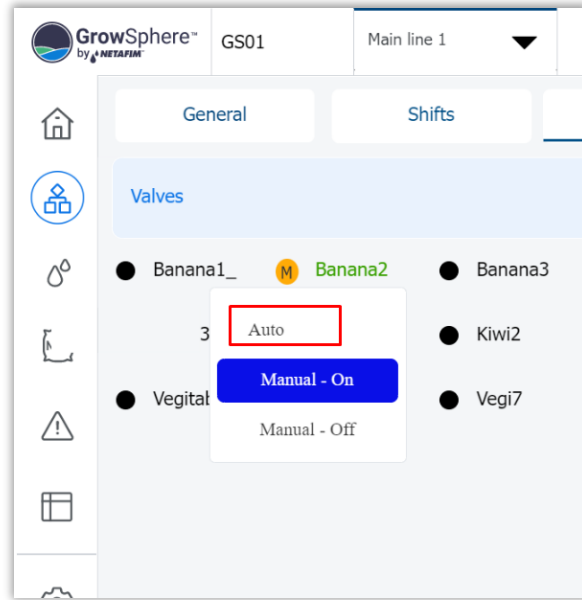
**M** Banana1\_ ● Banana2 ●

● Apple3 ● Kiwi1 ●

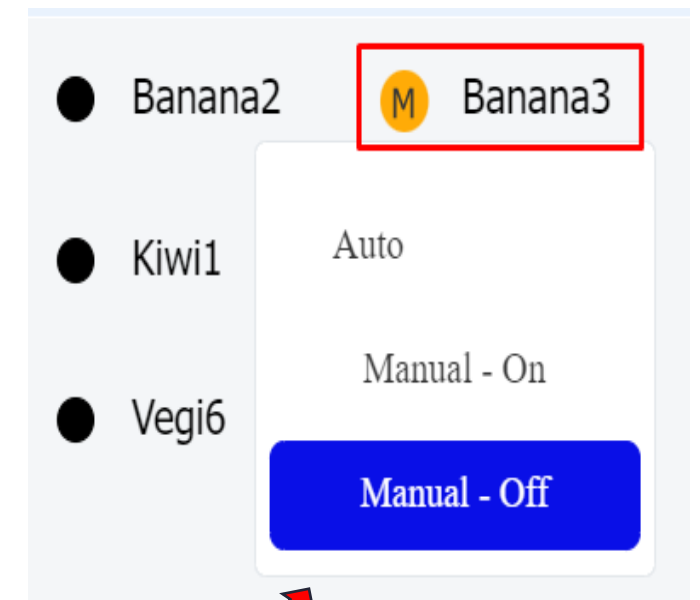
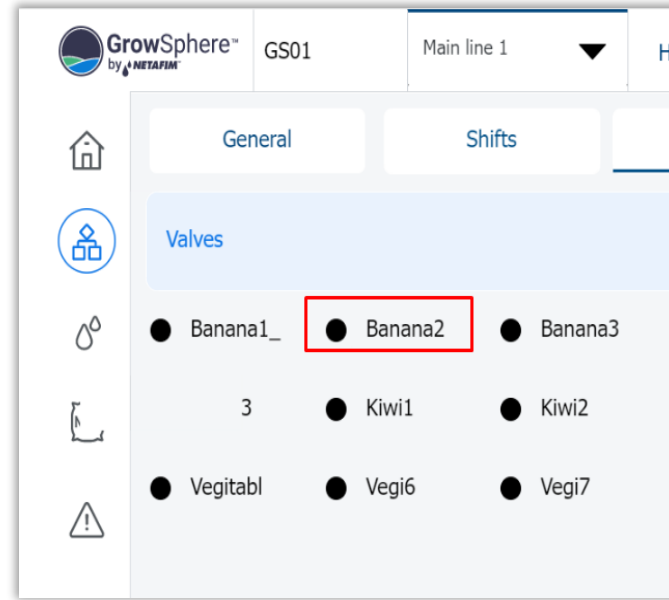
● Vegitabl ● Vegi6 ●

Address	Present	Extra	value	count	period	clear	cal_hi_raw	cal_hi_user	pullup
2.2021000000009279.1.1	Yes		1	1					
2.2021000000009279.1.2	Yes								
2.2021000000009279.2.1	Yes								
2.2021000000009279.2.2	Yes								
2.2021000000009279.3.1	Yes								
2.2021000000009279.3.2	Yes								
2.2021000000009292.1.1	Yes								
2.2021000000009292.1.2	Yes								
2.2021000000009292.2.1	Yes								
2.2021000000009292.2.2	Yes								
2.2021000000009292.3.1	Yes								
2.2021000000009292.3.2	Yes								
2.2021000000009687.1.3	Yes								
2.2021000000009687.1.4	Yes								
2.2021000000010489.1.3	Yes								
2.2021000000010489.1.4	Yes								
2.2021000000010528.1.3	Yes								
2.2021000000010528.1.4	Yes								
2.2021000000011025.1.1	Yes		0	0			0	0	1

To Close Valve Click on “Auto” or Manual- Off



Confirm in PoleNet accordingly.



Note : If “Manual –OFF” is chosen, Valve will not open in AUTO mode. Need to Select “ AUTO “ to make it active. “M” against the Valve name in Black is the indication of Manual OFF .

**GO FOR IT !**

