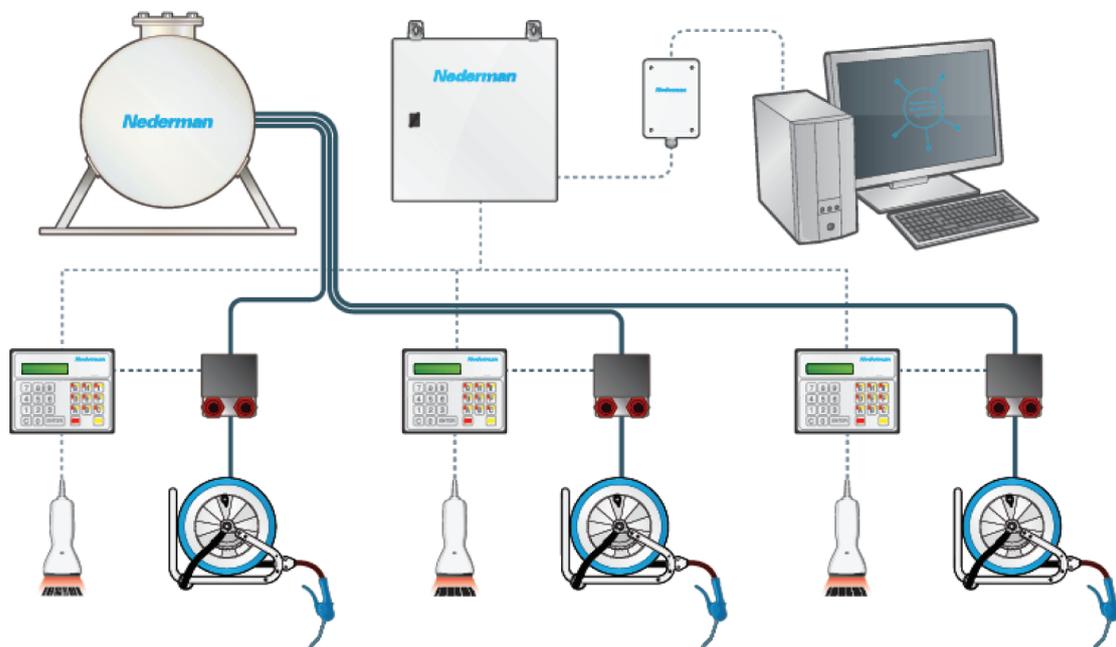


Lubrication Equipment

Nederman Monitoring System

Installation of NMS 3.0 software



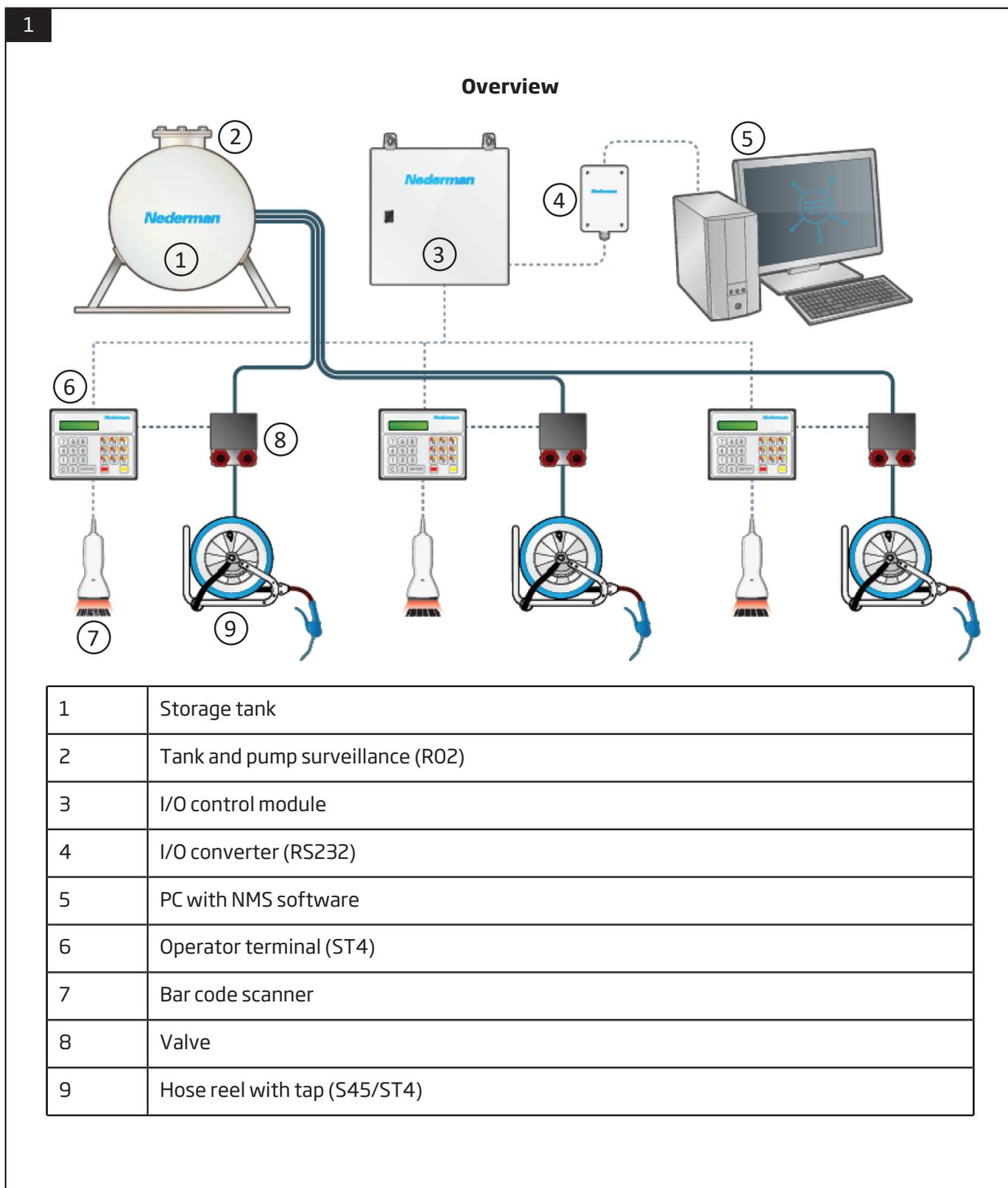
Original installation & configuration manual

EN INSTALLATION & CONFIGURATION MANUAL

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Figures



1 Preface

Thank you for using a Nederman product!

The Nederman Group is a world-leading supplier and developer of products and solutions for the environmental technology sector. Our innovative products will filter, clean and recycle in the most demanding of environments. Nederman's products and solutions will help you improve your productivity, reduce costs and also reduce the impact on the environment from industrial processes.

Read all product documentation and the product identification plate carefully before installation, use, and service of this product. Replace documentation immediately if lost. Nederman reserves the right, without previous notice, to modify and improve its products including documentation.

This product is designed to meet the requirements of relevant EC directives. To maintain this status, all installation, maintenance, and repair is to be done by qualified personnel using only Nederman original spare parts and accessories. Contact the nearest authorized distributor or Nederman for advice on technical service and obtaining spare parts. If there are any damaged or missing parts when the product is delivered, notify the carrier and the local Nederman representative immediately.

2 Description

The Nederman Monitoring System (NMS) is a computerised system for monitoring and registering different fluid media used in service installations such as for trucks and cars. The purpose of the system is partly to:

- Achieve smooth registration of the various liquids and quantities that are part of a specific service job, in order to easily generate documentation for debiting.
- Minimise waste that would otherwise occur in a service workshop. This is achieved by each tap having a solenoid valve and a flow sensor that is controlled from the software in the computer.

2.1 Main components in NMS-system

- Field bus converter - Connected via USB to customers computer and transform field bus signal to PC
- I/O-units - interface to system operating units
- Keypads - user interface component
- Inline meters - surveillance component for liquid flow
- Tank surveillance - surveillance component for tank level
- NMS 3.0 software

3 Introduction

This manual covers the installation and configuration of the NMS software.

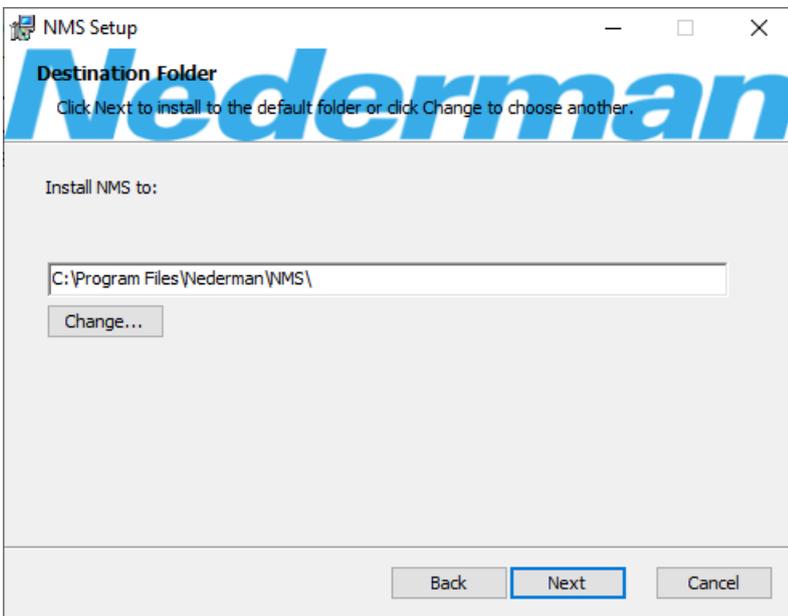
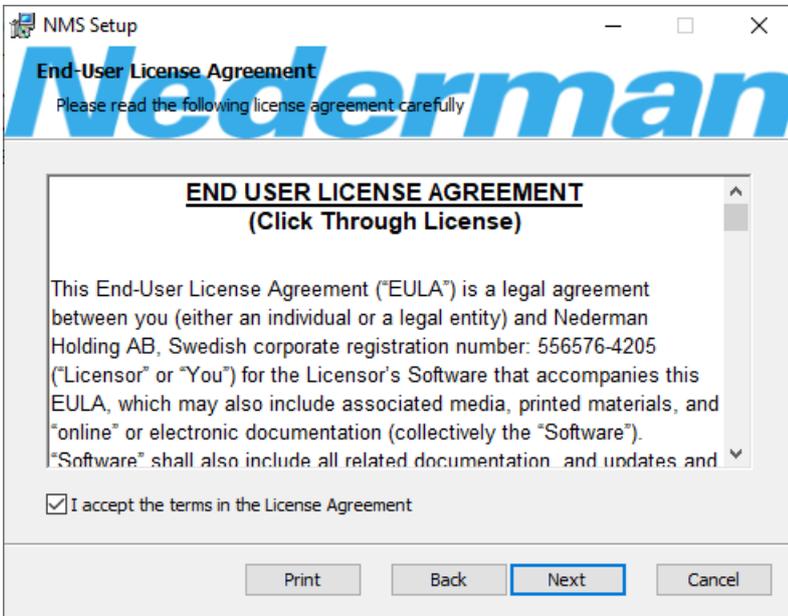
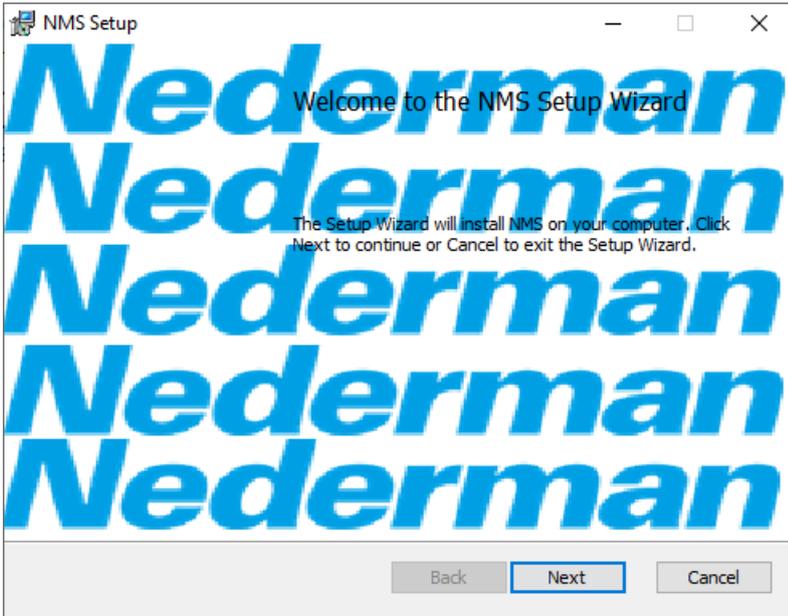
4 System Requirements

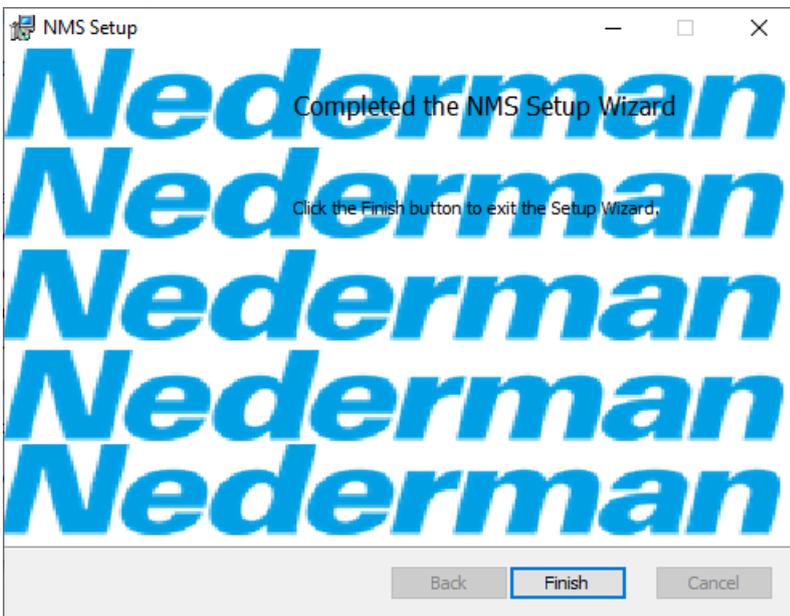
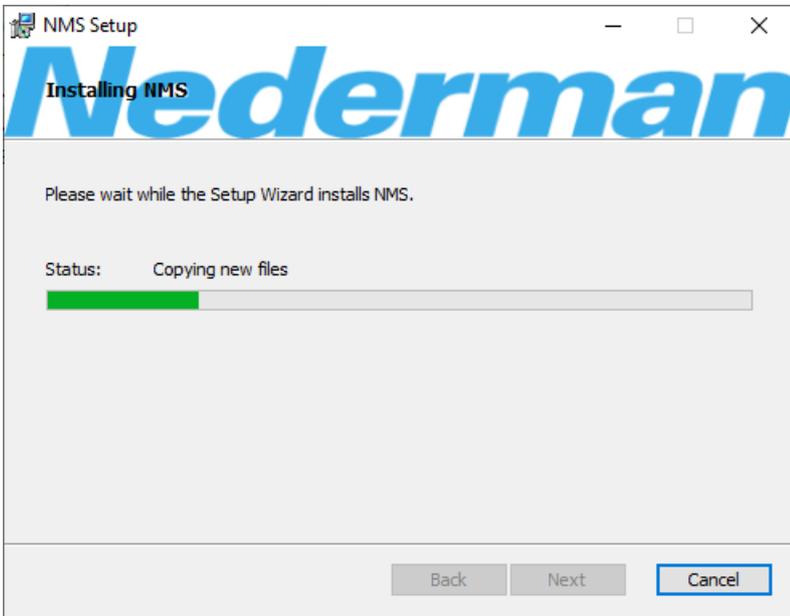
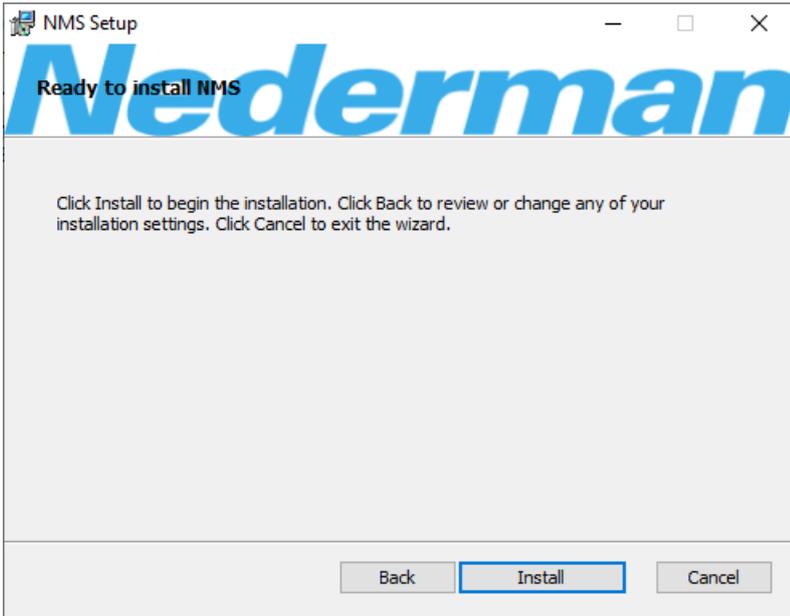
The PC where NMS is installed must meet at least these specifications:

- Standard PC with Windows 10 Enterprise / Professional 8 GB RAM
- One free USB-port
- Network connection
- Recommended Web browsers: Chrome, Edge and Firefox. Internet Explorer is technically outdated.

5 Installing the NMS software

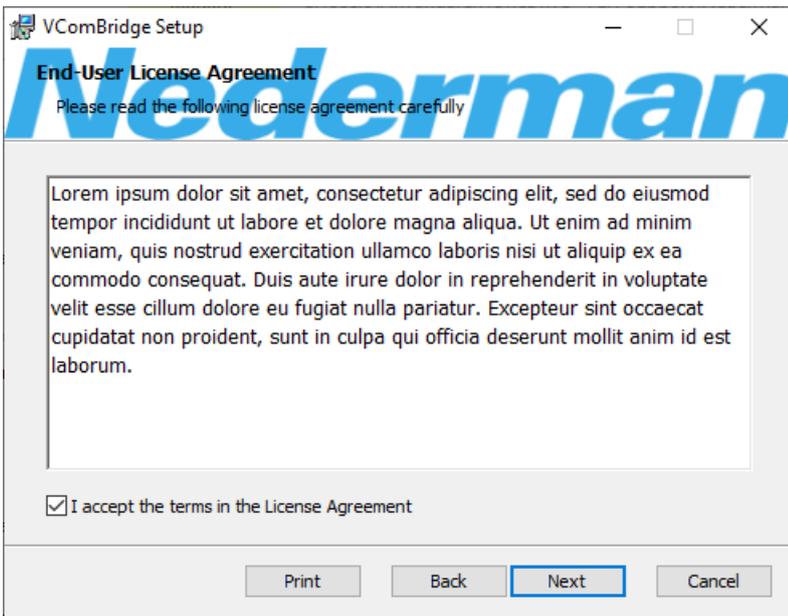
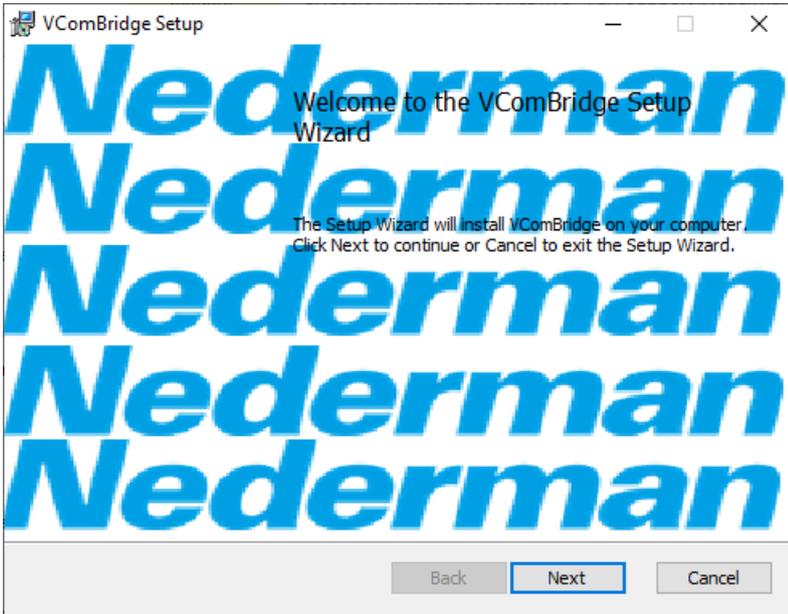
- 1 Make sure you are the administrator of the PC where you install NMS.
- 2 Insert the USB memory with the NMS software in a USB port.
- 3 Use Windows File Explorer to locate the files on the USB memory.
- 4 Double click on the .msi file named 'nms' and version.
- 5 Follow the installation instructions.

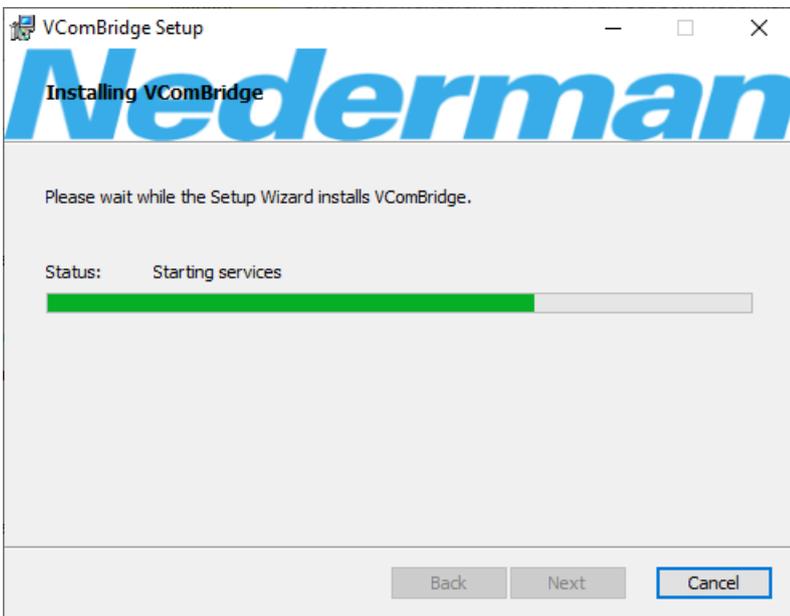
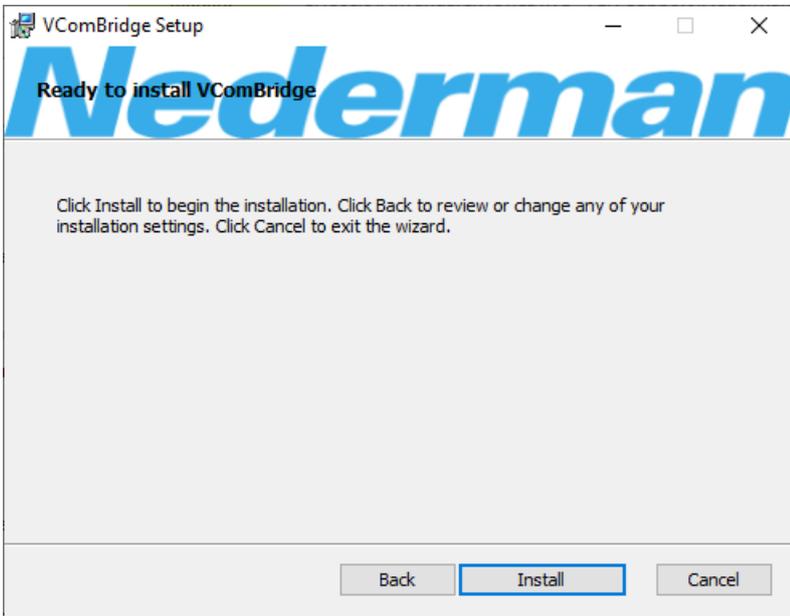
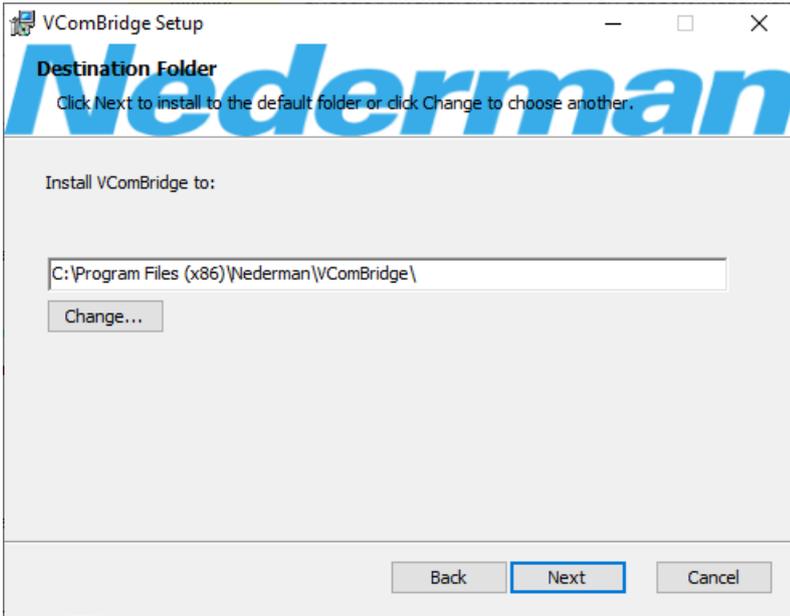


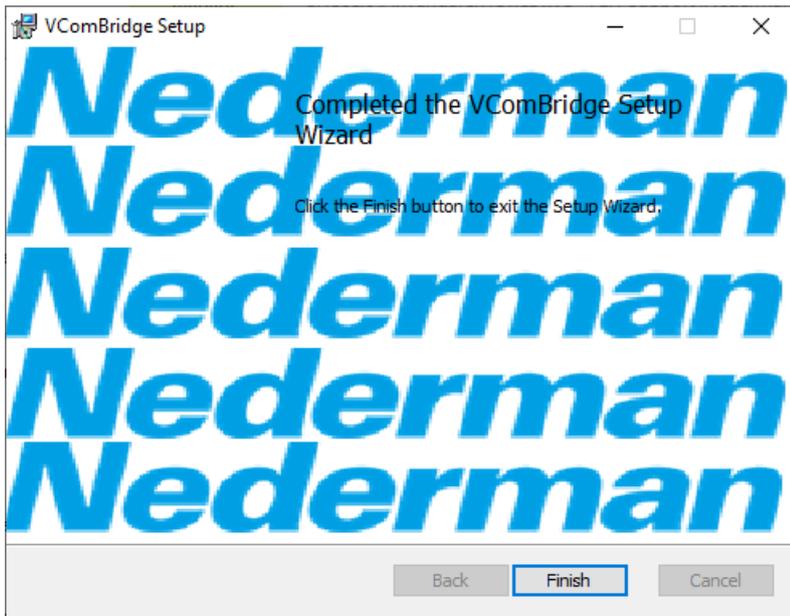


- 6 TacDis, GDS or Kobra communication only: Repeat steps 4 and 5 for the .msi file named 'VComBridge' and version. Contact your IT department before performing this step. If your company does not use TacDis, GDS or Kobra, this step can be excluded.

Standard installation is preferable and this is executed via acceptance of each step in the installation procedure.



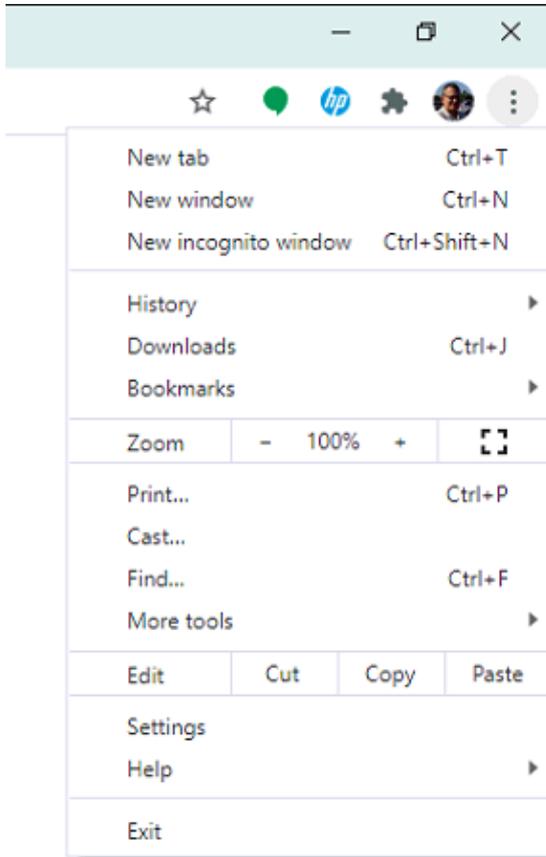




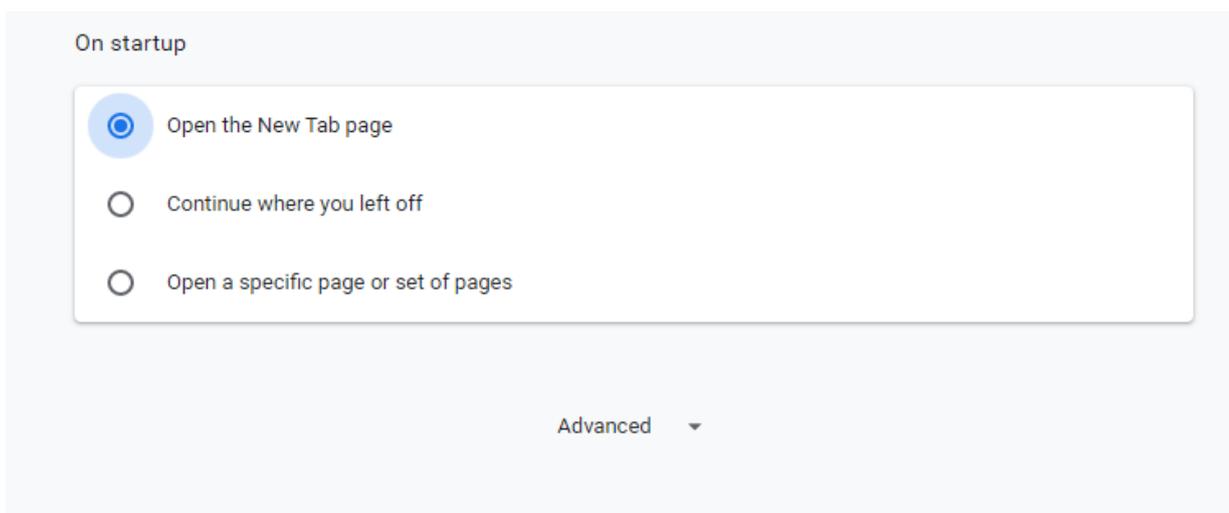
5.1 Menu language web browser

The NMS software follows the web browser language. Follow the instructions below to change the language.

Chrome



Click on **Settings**.



Scroll down and select **Advanced**.

Use current pages

Advanced ▲

Languages

Language
English ▼

Spell check



Basic spell check

Enhanced spell check
Uses the same spell checker that's used in Google search. Text you type in the browser is sent to Google.

Languages

Language
English ▲

Order languages based on your preference

English

This language is used when translating pages

This language is used to display the Google Chrome UI



Swedish



English (United States)



Norwegian Bokmål



Danish



Hebrew



[Add languages](#)

Offer to translate pages that aren't in a language you read

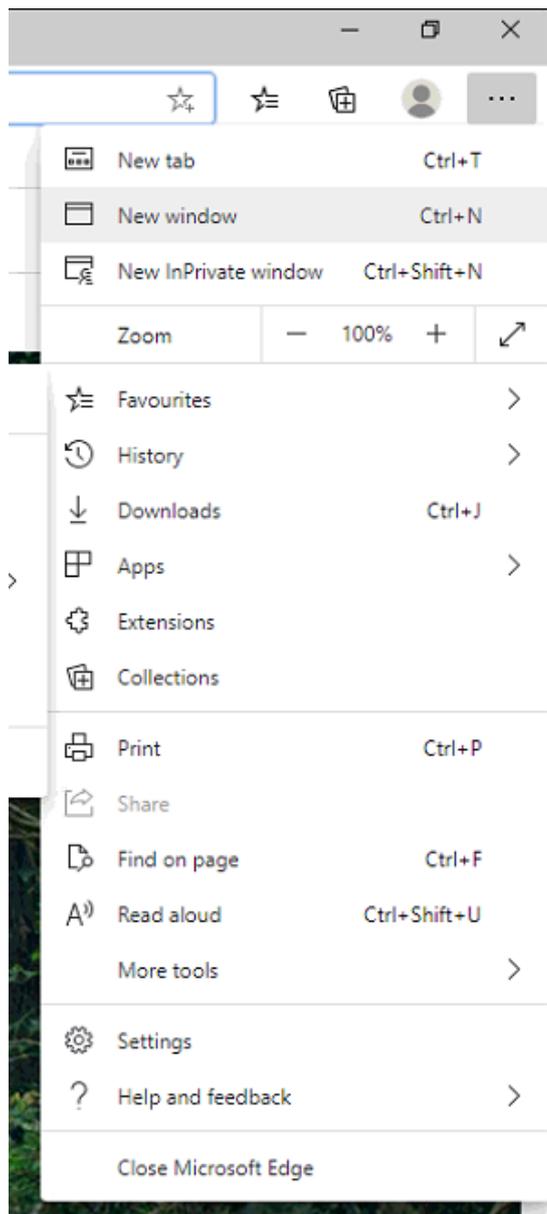


Spell check

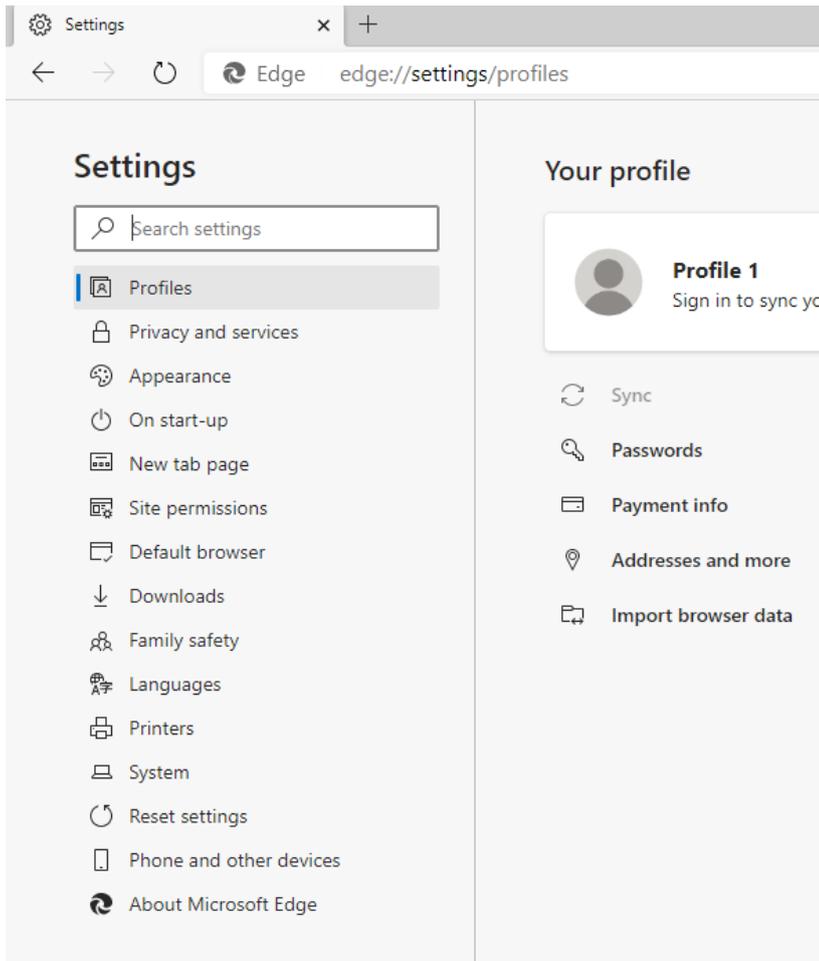


Select the preferred language. Click on **Save** and restart the browser.

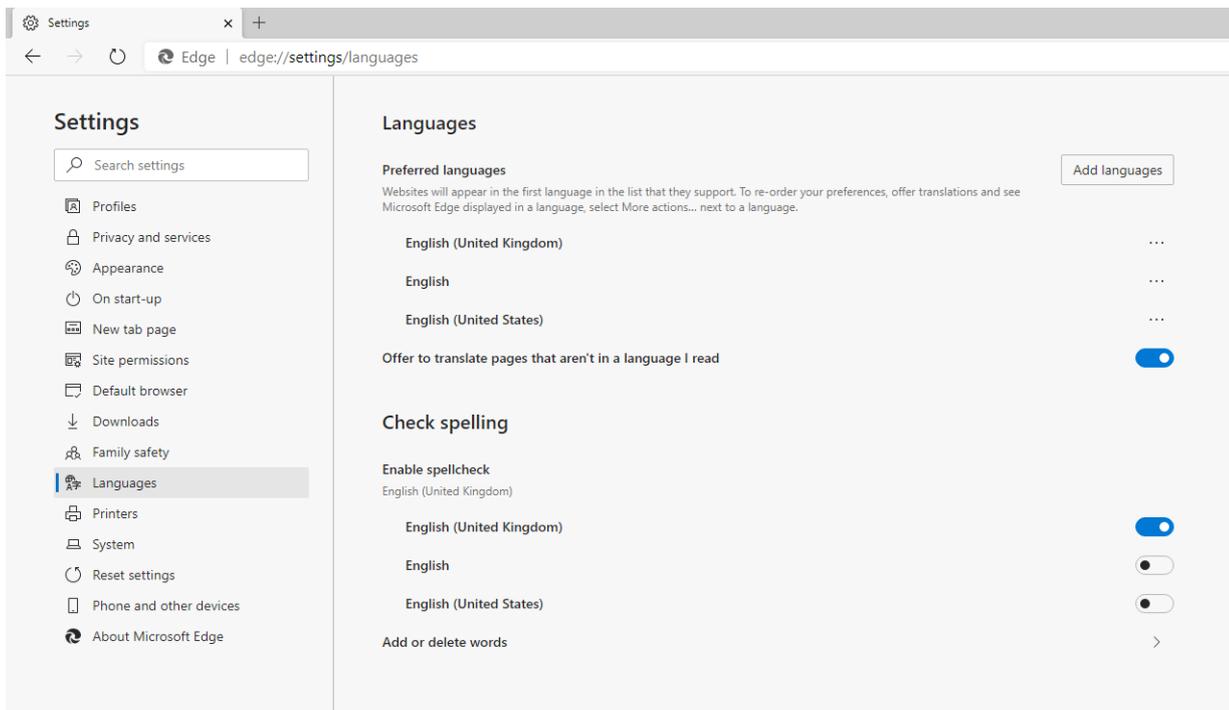
Edge



Click on **Settings**.

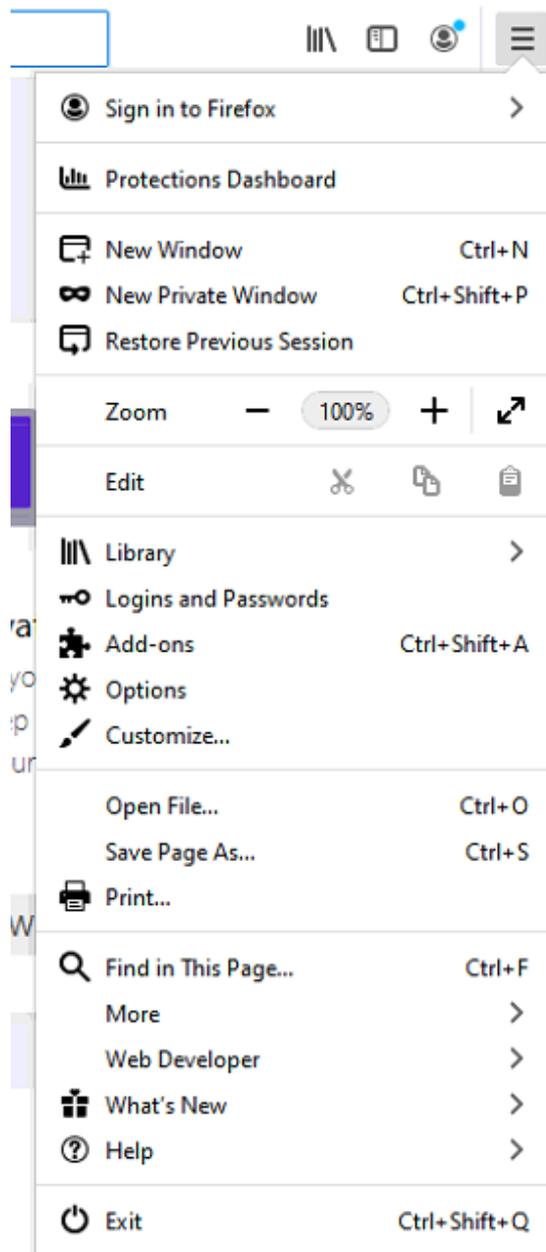


Select Languages.

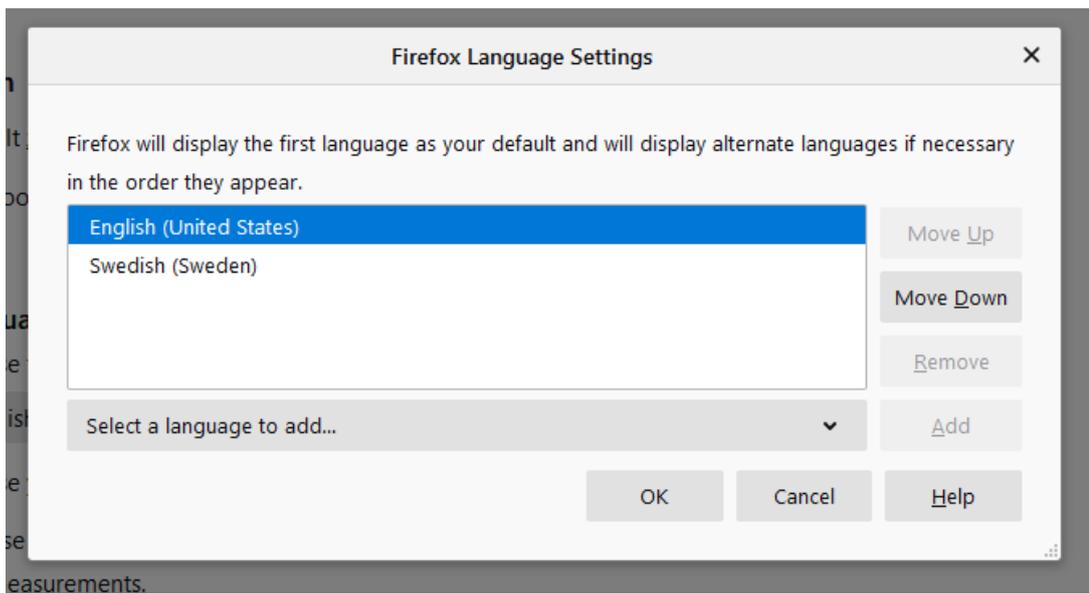
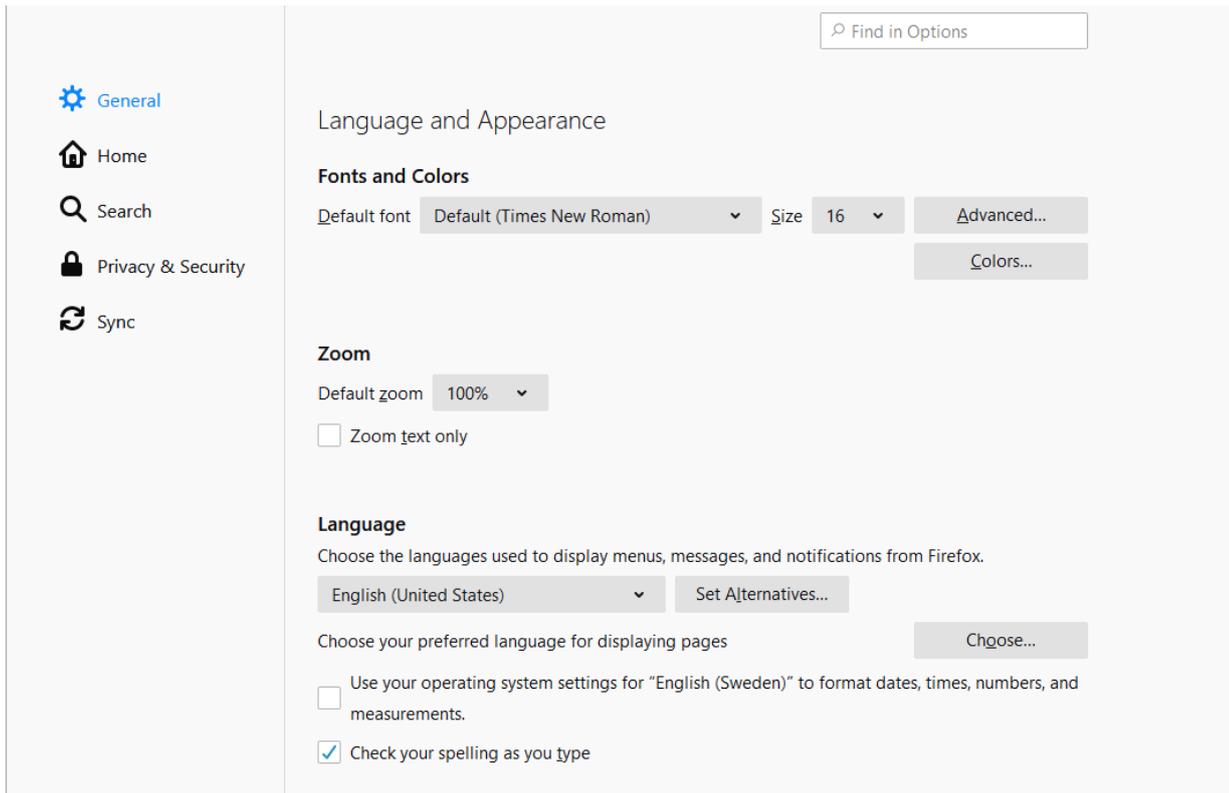


Select the preferred language. Click on **Save** and restart the browser.

Firefox

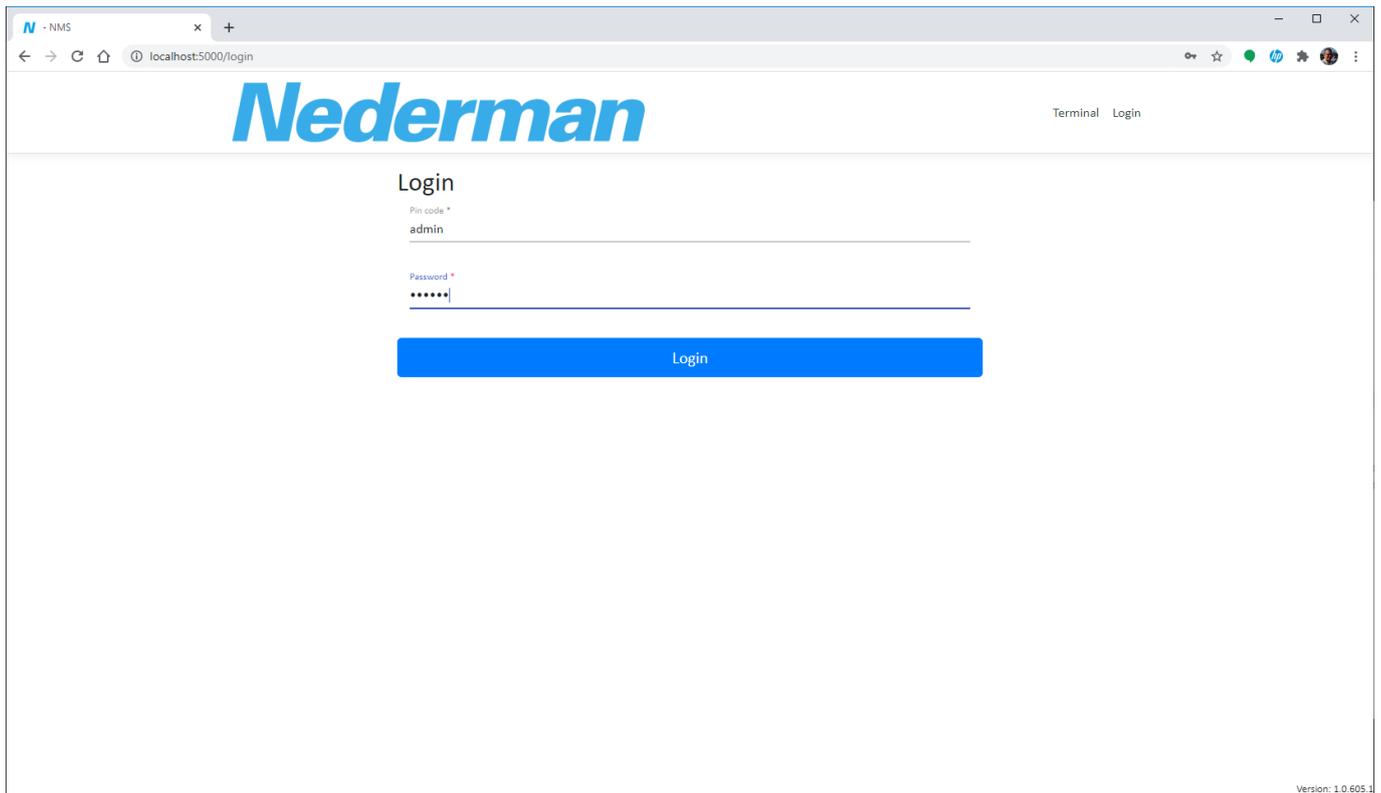


Click on **Options**.



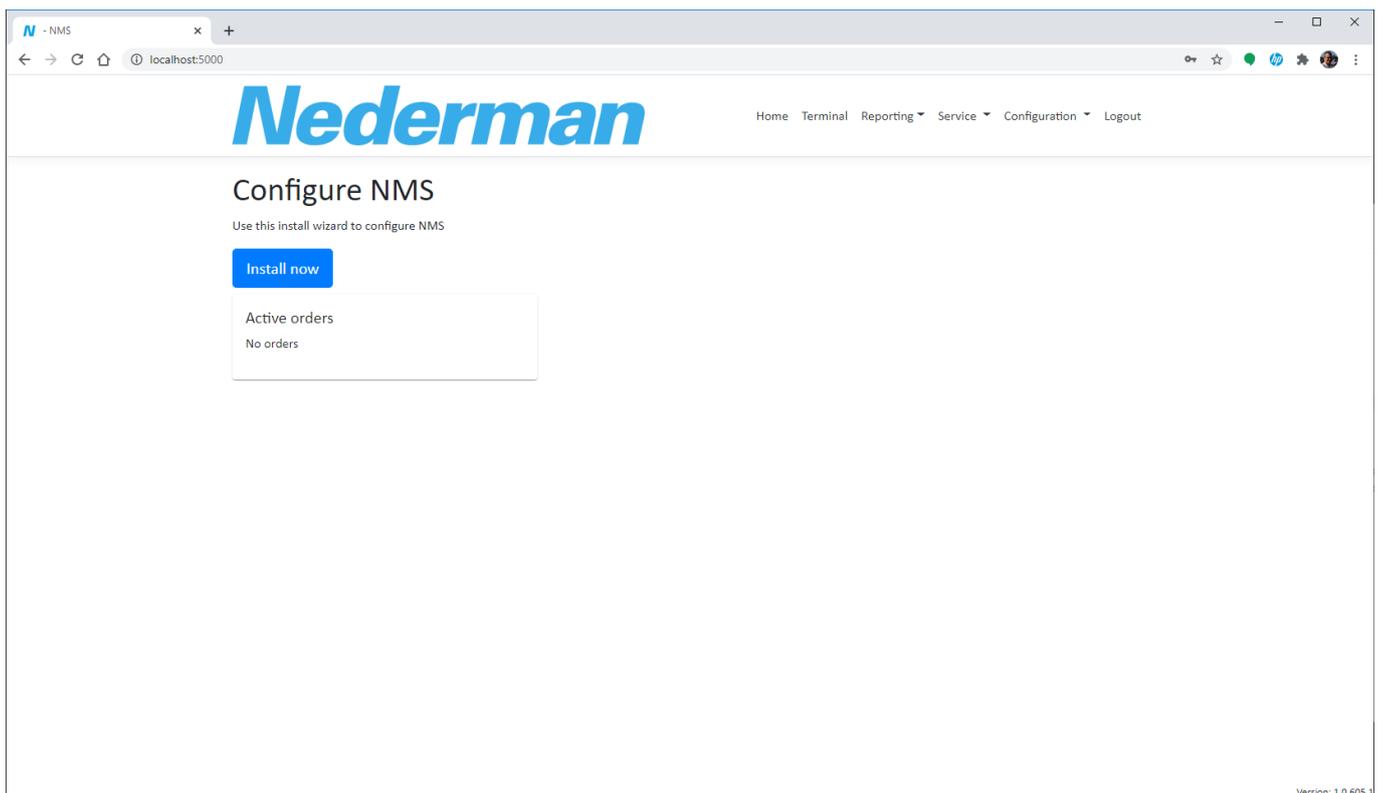
Select the preferred language, save and restart the browser.

6 Configuration Login



- 1 Type in 'localhost:5000' in the address field of your web browser and click on **Enter**.
- 2 Click on **Login**. Enter your user name and password and click on **Login**. The default user name is 'Admin' and the default password is 'abc123'. Note that the password should be changed after the installation is performed.

7 Configuring the NMS software



7.1 Project details

Project Details

Project name
Nederman test

Company
Nederman Nordic

Address
Sydhamngsgatan 2

City
Helsingborg

State
Skåne

Zip code
25228

Country
Sweden

Contact Details

Contact name
Per Andersson

Contact phone number
042188700

Contact email
per.andersson@nederman.com

IT Support Contact

Version: 1.0.605.1

Skåne 25228

Country
Sweden

Contact Details

Contact name
Per Andersson

Contact phone number
042188700

Contact email
per.andersson@nederman.com

IT Support Contact

Contact name
Per Andersson

Contact phone number
042188700

Contact email
per.andersson@nederman.com

Update project details

Back **Next**

2 Migrate old data

3 ERPs

4 Tanks

Version: 1.0.605.1

Start by describing the project and the contact details.

- 1 Enter the project and contact details.
- 2 Click on **Update project details**.
- 3 Click on **Next** when done.

7.2 Migrate old data

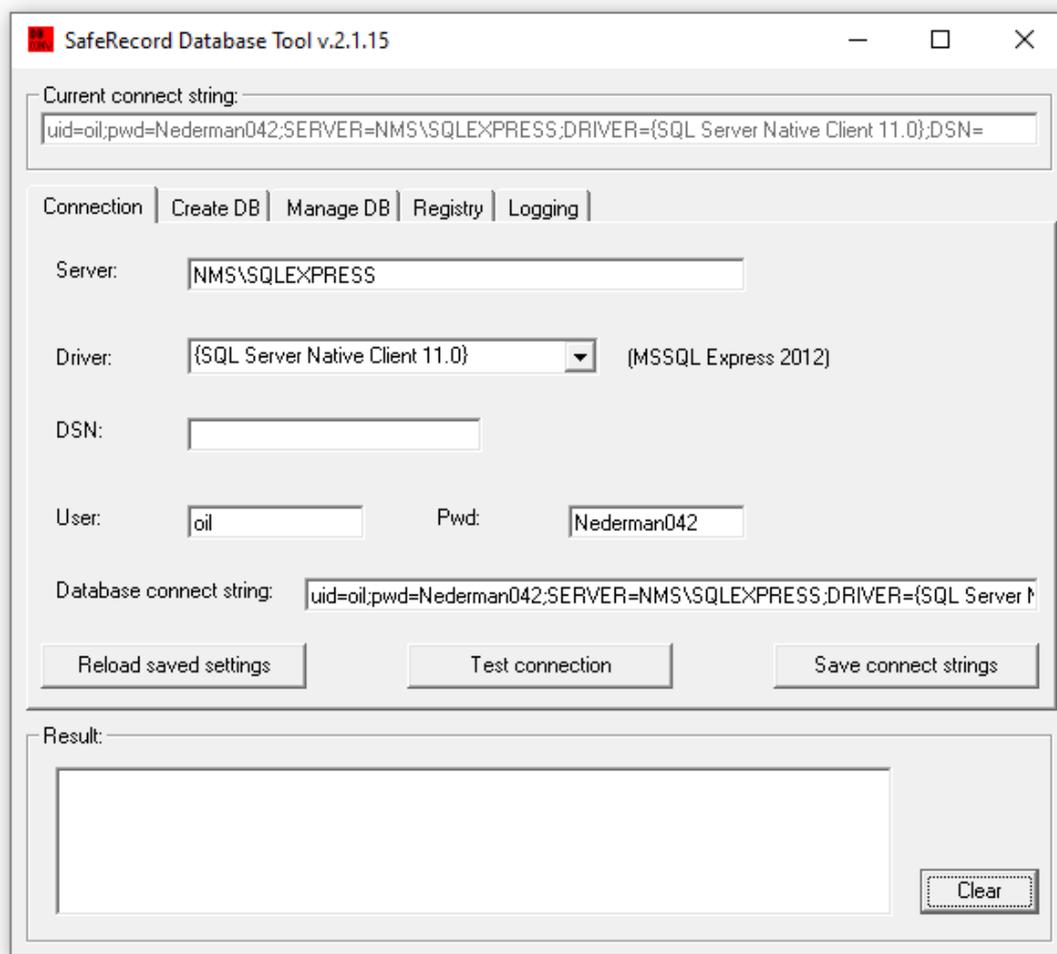
Only valid for updating old NMS Software Saferecord. Not used during a new installation.

2 Migrate old data

Migrate SafeRecord 2 data

SQL Server connection string

`uid=oil;pwd=Nederman042;`



Normal connection string: `uid=sa;pwd=wat;SERVER=localhost\SQLEXPRESS;Database=SafeRecord`
 Information about uid, pwd and SERVER can be found in the old database tool.

2 Migrate old data

Migrate SafeRecord 2 data

SQL Server connection string
uid=oil;pwd=Nederman042;

Import Imported

Back

Next

Click on **Import**.
 The import is finished.

3 ERPs

ERP Connections

Load migrated **Discriminator** Cancel **Save**

Name	Type	Start of range	End of range	Use Job No	Use verify	Send receipts	Fetch articles
+							

Back **Next**

Click on **Load migrated**.

3 ERPs

ERP Connections

Load migrated **Discriminator** Cancel **Save**

Name	Type	Start of range	End of range	Use Job No	Use verify	Send receipts	Fetch articles
GDS	GDS	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
+							

Back **Next**

Check the settings.

Load migrated **Discriminator** Cancel **Save**

Name	Type	Start of range	End of range	Use Job No	Use verify	Send receipts	Fetch articles
GDS	GDS	1	1000000000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
+							

Back **Next**

Add range or change **Discriminator** to length or prefix. Click on **Save**.

3 ERPs

ERP Connections

Name	Type	Start of range	End of range	Use Job No.	Use verify	Send receipts	Fetch articles	
GDS	GDS	1	1000000000	x	✓	✓	x	
+								

Buttons: Load migrated, Cancel, Edit

Buttons: Back, Next

Click on the **Settings** symbol.

ERP Details

GDS

GDS

Host

GDSOIL

Initiator

INIT10

Sender tag

INIT10

Partner name

Dealer

Branch

Use operation

Buttons: Save, Cancel, Load migrated

ERP Details

GDS

GDS

Host

GDSOIL

Initiator

INIT10

Sender tag

INIT10

Partner name

TH0433SE

Dealer

000354

Branch

24

Use operation

Save

Cancel

Load migrated

Click on **Load migrated** and check the settings.

3 ERPs

ERP Connections

Load migrated Cancel Edit

Name	Type	Start of range	End of range	Use Job No	Use verify	Send receipts	Fetch articles	
GDS	GDS	1	1000000000	x	✓	✓	x	⚙️
+								

Back Next

Execute by clicking **Next**.

Tanks

ERP integrations

Consumption

The Consumption section displays eight tanks, each with a lock icon in the top right corner. The tanks are arranged in two rows. The first row contains tanks 1 through 5, and the second row contains tanks 7 through 9. Tank 6 is represented by a dashed box with a plus sign, indicating it can be added. The fluid levels are shown as green bars within each tank's container.

Tank ID	Fluid Name
1	VDS-4.5
2	Super Gear
3	75w-90
4	VDS 5
5	Hindemith
7	Green coolant
8	yellow coolant
6	hydraulic oil

Waste

The Waste section contains a single dashed box with a plus sign in the center, indicating that waste items can be added.

Back Next

Check each tank and then click **Next**.

5 SIOX Config

SIOX-configuration

COM Port Baudrate 9600

Back Next

Select recognised COM-port. Click **Save** and then **Next**.

6 SIOX Units

SIOX Units

Load migrated Scan Cancel Edit

Type	Model	Address	Ports
+			

Back Next

Click on **Load migrated**.

6 SIOX Units

SIOX Units

Type	Model	Address	Ports		
Term	ST4-T	1	0	▼	
Term	ST4-T	2	0	▼	
Term	ST4-T	3	0	▼	
Term	ST4-T	4	0	▼	
Term	ST4-T	5	0	▼	
Unknown		21	0	▼	
Unknown		22	0	▼	
Unknown		23	0	▼	
+					

6 SIOX Units

SIOX Units

Type	Model	Address	Ports		
Term	ST3	1	0	▼	
Term	ST3	2	0	▼	
Term	ST3	3	0	▼	
Term	ST3	4	0	▼	
Term	ST3	5	0	▼	
Unknown	S45	21	0	▼	
Unknown	S45	22	0	▼	
Unknown	S45	23	0	▼	
+					

Select right I/O-model. Click **Save** and then **Next**.

7 Taps

Taps

Tap Id	Tank	I/O Unit	Port	Timeout (s)	Pulses after close	Pulses per liter
+						

Click on **Load migrated**.

7 Taps

Taps

Tap Id	Tank	I/O Unit	Port	Timeout (s)	Pulses after close	Pulses per liter
1	8 - yellow coolant	21	1	300	Suggested: 0 0	94
2	7 - Green coolant	21	2	300	Suggested: 0 0	100
3	1 - VDS-4.5	21	3	300	Suggested: 0 0	98
4	6 - hydraulic oil	21	4	300	Suggested: 0 0	102
5	5 - Hindemith	21	5	300	Suggested: 0 0	101
6	4 - VDS 5	21	6	300	Suggested: 0 0	100
7	2 - Super Gear	21	7	300	Suggested: 0 0	98
8	3 - 75w-90	22	1	300	Suggested: 0 0	100
9	3 - 75w-90	22	2	300	Suggested: 0 0	100
10	2 - Super Gear	22	3	300	Suggested: 0 0	100
15	1 - VDS-4.5	23	1	300	Suggested: 0 0	96
16	1 - VDS-4.5	23	2	300	Suggested: 0 0	98
17	1 - VDS-4.5	23	3	300	Suggested: 0 0	100

+

Check the settings. Click **Save** and then **Next**.

8 Pumps

Pumps

Load migrated Auto assign Cancel Edit

Pump Id	Tank	I/O Unit	Port
+			

Back Next

Click on **Load migrated**.

8 Pumps

Pumps

Load migrated Auto assign Cancel Save

Some pumps are not linked to a tank!

Pump Id	Tank	I/O Unit	Port		
1	1 - VDS-4.5 - SE3 EXX153926				
2	1 - VDS-4.5 - SE3 EXX153926				
3	3 - 75w-90 - SE3 EXX153284				
4	4 - VDS 5 - VO 85153938				
+					

Back Next

Check the settings. Click **Save** and then **Next**.

9 Tank Monitors

Tank Monitors

Load migrated Auto assign Cancel Edit

Tank	I/O Unit	Port
+		

Back Next

Click on **Load migrated**.

9 Tank Monitors

Tank Monitors

[Load migrated](#)
[Auto assign](#)
[Cancel](#)
[Save](#)

Some tank monitors are not linked to a tank!

Tank	I/O Unit	Port	
1 - VDS-4,5 - SE3 EXX153926 ▼	▼	▼	
2 - Super Gear - SE3 EXX15... ▼	▼	▼	
+			

[Back](#)
[Next](#)

Check the settings. Click **Save** and then **Next**.

10 User management

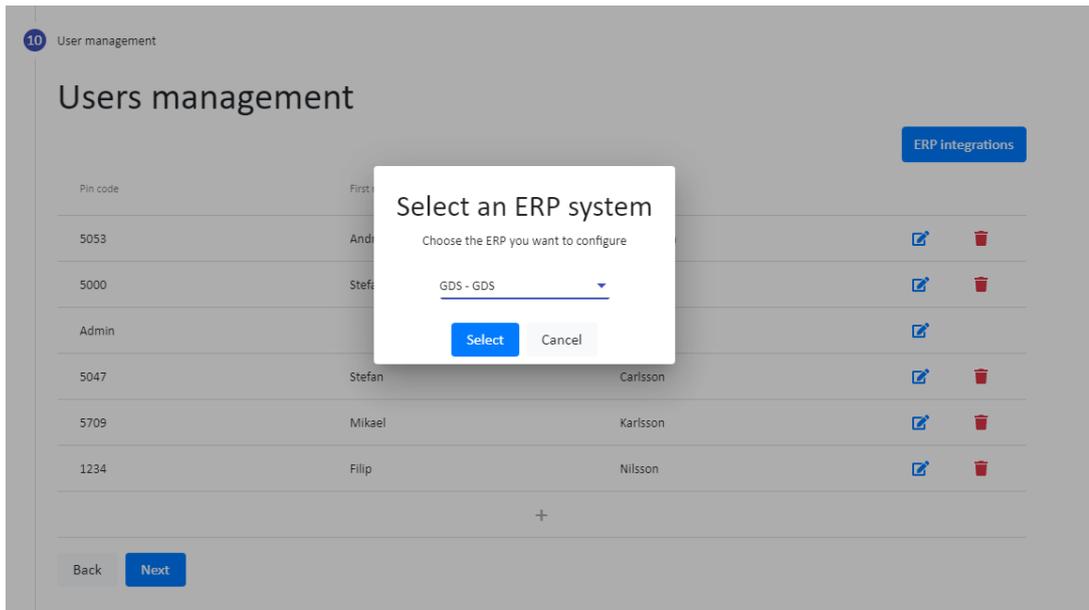
Users management

[ERP integrations](#)

Pin code	First name	Last name		
5053	Andreas	Andersson		
5000	Stefan	Nilsson		
Admin				
5047	Stefan	Carlsson		
5709	Mikael	Karlsson		
1234	Filip	Nilsson		
+				

[Back](#)
[Next](#)

Click on **ERP integration**.



Select ERP.

Erp <-> User integrations

GDS - GDS

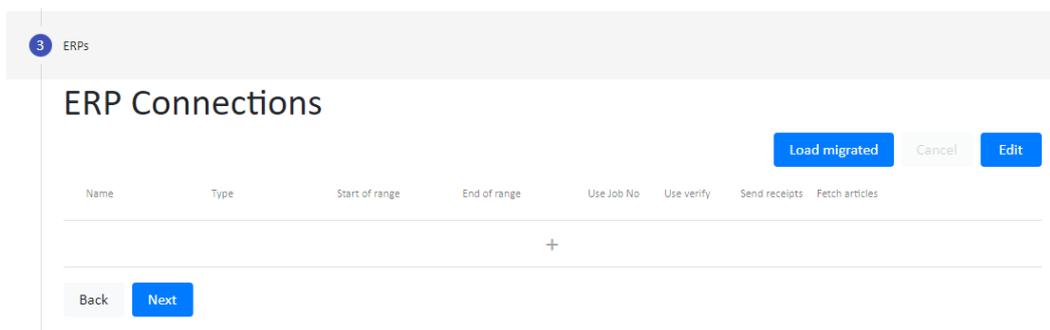
Pin code	First name	Last name	ERP ID
5053	Andreas	Andersson	_____
5000	Stefan	Nilsson	_____
5047	Stefan	Carlsson	_____
5709	Mikael	Karlsson	_____
1234	Filip	Nilsson	_____

Add ERP-id for each mechanic.

Click on **Save** and then **Back**.

 The import is not concluded.

7.3 ERP connections



3 ERPs

ERP Connections

Name	Type	Start of range	End of range	Use Job No	Use verify	Send receipts	Fetch articles	
TacDis	TacDis	20000	10000000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GDS	GDS	20000000	60000000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Csv	Csv	0	19999	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Back Next

Data from previous (NMS SafeRecord 2) installations can be imported.

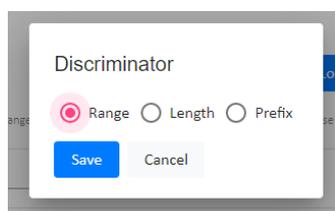
- 1 If SafeRecord 2 data is available, see [Section 7.2 Migrate old data](#).
- 2 Click on **Next** when done.

This menu is used to set up connected business systems (ERP's)

- 1 Choose customer ERP.
- 2 Choose **Discriminator**.

Discriminator Range/Length/Prefix should follow the chosen ERP standard.

It is important that customer IT is involved in this configuration.



Use job no. - If ERP uses job.no. choose this setting.

Use verify - If customer ERP system demands verification should use verify be activated.

Send receipts - If customer ERP system demands transfer volumes should send receipts to be activated.

Fetch articles - If ERP has article info that could be read by NMS should Fetch articles be activated (only in TacDis for now).

- 3 Click on **Save** and then **Next** when done.

ERP Details

TacDis

Tacdis

Host

TACOIL

Initiator

GENINT

Sender tag

GENINT

Partner name

VH369G1P

User

OILBAR

OK order status

20 ✕

30 ✕

OK job status

00 ✕

32 ✕

Fetch vehicle registration number

Save

Cancel

Load migrated

Host - Is the TacDis server address and can be found in the **netapi.cnf** file.

Initiator - Is almost always GENINT.

Partner name - Should be verified by customer IT.

User - Should be a valid user in TacDis. It's recommended to create a separate user for NMS.

OK order status - Normally 20 and 30. Discuss with customer IT or TacDis responsible before changing.

OK job status - Normally 00 and 32. Discuss with customer IT or TacDis responsible before changing.

Fetch vehicle registration number - If the customer wants the technician to verify registration number choose this option.

ERP Details

GDS

GDS

Host

GDSOIL

Initiator

INIT10

Sender tag

INIT10

Partner name

TH1333SE

Dealer

000380

Branch

31

Use operation

Save

Cancel

Load migrated

Host - is the GDS server address and can be found in the **netapi.cnf** file

Initiator - Is almost always INIT10

Sender tag - Is almost always INIT10

Partner name - Should be verified by customer IT

Dealer - Should be verified by customer IT

Branch - Should be verified by customer IT

Use operation - If the customer uses operation (job. No) choose this setting.

ERP Details

ERP Details

Csv

CSV

Order file

c:\nederman\order.txt

Order file fields

Order No Article Volume

Order No Job No Article Volume ignore

Receipt file

c:\nederman\receipt.txt

Receipt file fields

Order No Employee number Article Volume

Order No Job No Employee number Article Volume

Decimals

2

Delimiter (e.g. ;)

Save Cancel Load migrated

Order file

ERP Details

Csv

CSV

Order file

c:\nederman\order.txt

Path to file with a valid order number from ERP. It is possible to use a path to the file server.

Order file fields

Order file fields

Order No Article Volume

Order No Job No Article Volume ignore

Receipt file

c:\nederman\receipt.txt

Csv

CSV

Order file

Order file fields

Order No Article Volume

Order No Job No Article Volume Ignore

Delimiter (e.g. ;)

Tab

Space

Vertical tab

File separator

Group separator

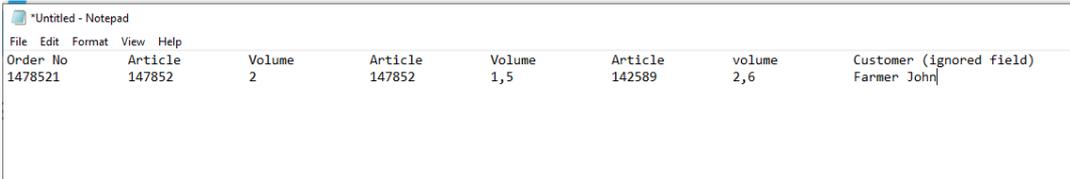
Delimiter (e.g. ;)

Required

Save Cancel Load migrated

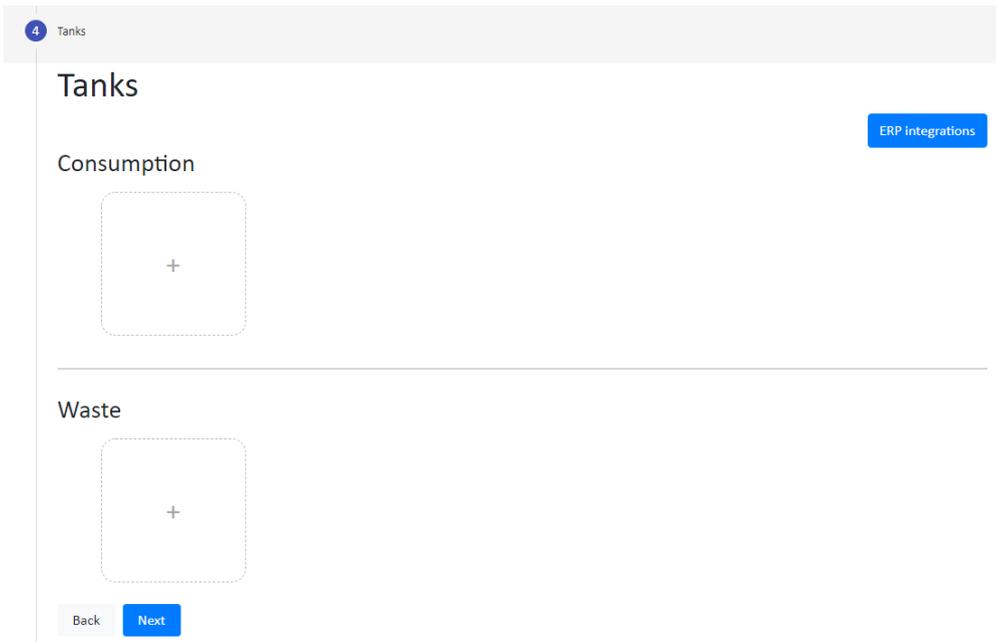
Select **Delimiter**.

Table 7.1 Order file explanation

	Order number from ERP.
	Job no from ERP.
	Article from ERP.
	Volume from ERP.
	Repeat mark. All info after this will be read to the end of row.
	This field will be ignored.
	

7.4 Tanks

7.4.1 Configure the tanks



Tank

Tank name

Motor oil

Capacity (Litres)

1000

Level (Litres)

500

Stop limit (Litres)

50

Contents

5w-40

Article no.

12458296

Maximum allowed volume per order (liters)

10

Minimum non-transferable volume per order (liters)

0.2

Dilution factor

1

Use concentrate volume for receipts & ERP transfer

Allow free tapping

Save

Cancel

- 1 Click on the **Plus** sign on one of the tank images and fill in all fields for each tank.
- 2 Enter the tank name and capacity (maximum volume) of the tank.
- 3 Enter the volume level in the tank. The system keeps count of the volume that is tapped and the volume level is updated accordingly.



For systems with tank surveillance, this is only done for first-time use of the system. For systems without tank surveillance, the level needs to be updated manually after each refill.

- 4 Set the stop limit. When the stop level is reached, taps connected to this tank cannot be opened.



The stop-limit must be set so that no air can be drawn into the pipes and there is enough time to order new contents for the tank.

- 5 Describe the medium in the tank and enter its article number. If you have a connection to a business system (ERP), it is important that the article numbers, including any prefix, are filled in for every medium. Use the **ERP integrations** button to find the correct article number.
- 6 Set the maximum allowed- and minimum non-transferable volume per order. It is common to set a minimum volume for transfer. Used when a superior system is used, and that system does not want to deal with very small quantities or 0 quantities. Volumes below the minimum nontransferable volume are not billed to the customer.
- 7 Set the dilution factor. This is set to 1 for oil tanks. For glycol or windscreen washer liquid that is mixed with water, set the dilution factor according to the mixture. Example: For a 30% mixture of windscreen washer liquid, set the volume factor to 0.3.
- 8 Mark the **Allow free tapping** checkbox if free tapping is allowed.
- 9 Click on **Save** and then **Next** when done.

7.4.2 After configuration

When the tanks are configured, the current tank volumes are shown for all tanks in the system. The eye icon on the tank images informs you whether the tank is equipped with tank surveillance or not. A crossed-out eye means that the tank does not have surveillance.

Tank

Tank name

Windscreen fluid

Capacity (Litres)

208

Level (Litres)

208

Stop limit (Litres)

10

Contents

Windscreen fluid concentrate

Article no.

25648274

Maximum allowed volume per order (liters)

8

Minimum non-transferable volume per order (liters)

0.2

Dilution factor

0.5

Use concentrate volume for receipts & ERP transfer

Allow free tapping

Save

Cancel

4 Tanks

Tanks

ERP integrations

Consumption

Motor oil
5w-40

Windscreen fluid
Windscreen fluid
concentrate

+

Waste

Waste oil
Waste oil

+

Back

Next

Tank

Tank name

Waste oil

Capacity (Litres)

2000

Level (Litres)

700

Stop limit (Litres)

1950

Contents

Waste oil

Save

Cancel

Delete

4 Tanks

Tanks

ERP integrations

Consumption

Motor oil

5w-40

Windscreen fluid

Windscreen fluid concentrate

+

Waste

Waste oil

Waste oil

+

Back Next

When using several ERP-systems there is a risk that each system uses separate article no for the same liquid. The ERP article mapping has to be used.

ERP <-> Article mappings

Back
Load migrated
Cancel
Edit

Tank name	Tank article number	ERP Type	Mapped article number
+			

ERP <-> Article mappings

Back
Load migrated
Cancel
Save

Tank name	Tank article number	ERP Type	Mapped article number
Motor oil		TacDis - TacDis	ERP Article Number LO 254789652 🗑
Windscreen fluid		TacDis - TacDis	ERP Article Number LO 2584156 🗑
Motor oil		Csv - Csv	ERP Article Number A2514785 🗑
Windscreen fluid		Csv - Csv	ERP Article Number C3541258 🗑

7.5 SIOX Config

5 SIOX Config

SIOX-configuration

COM Port Baudrate

9600 ▼

5 SIOX Config

SIOX-configuration

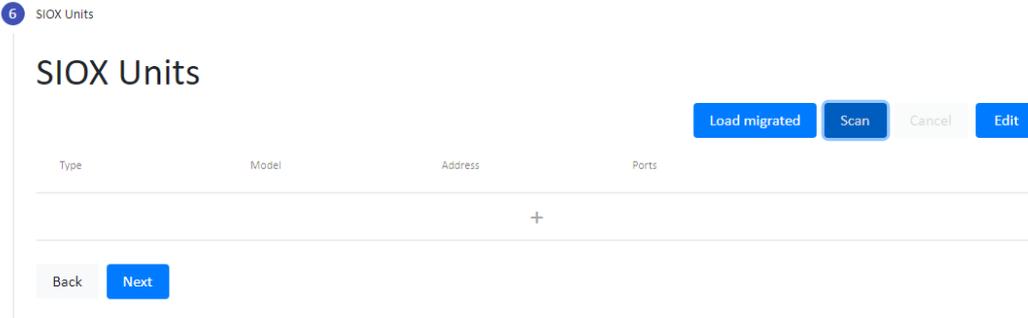
COM Port Baudrate

9600 ▼

- 1 Make sure the USB-cable to I/O-converter is connected. Normally will NMS detect the COM-port where the I/O-converter is installed. Standard setup BAUD rate is 9600.
- 2 Click on **Save** and then **Next** when done.

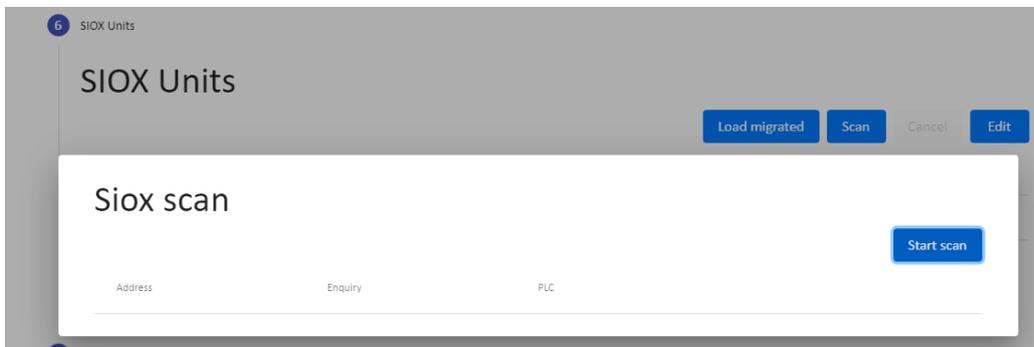
7.6 SIOX Units

7.6.1 Setup of SIOX units

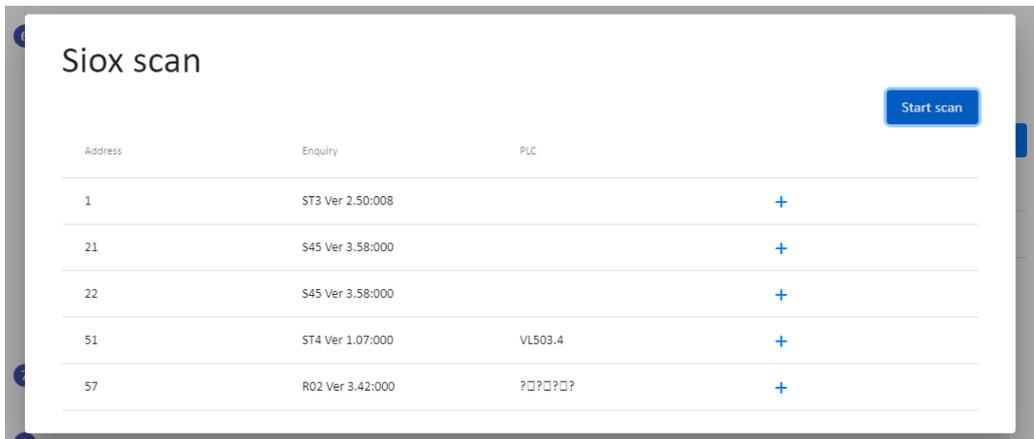


There are two options to make the setup of SIOX units.

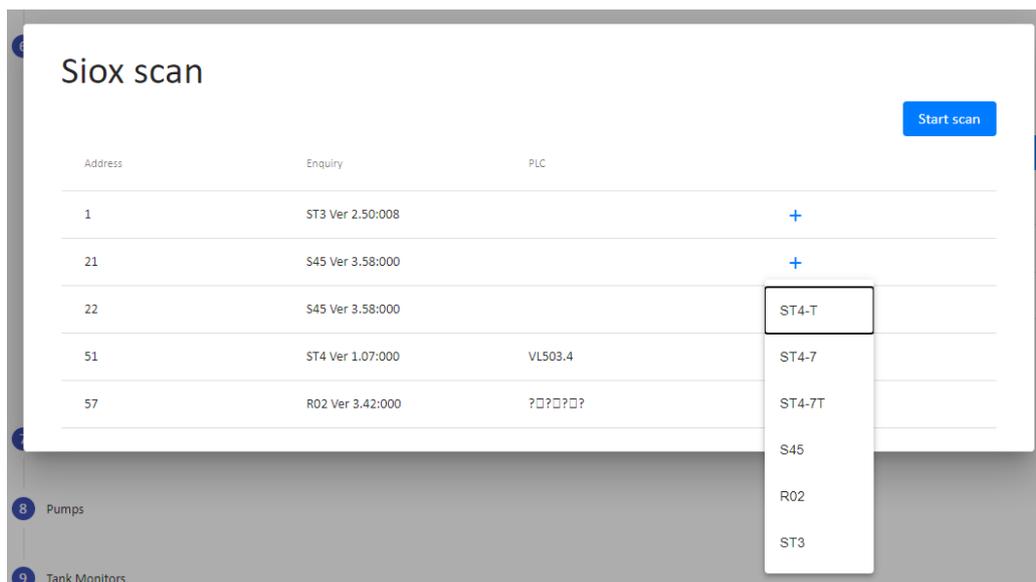
- 1 Add each unit manually using the + sign.
- 2 Automatically by using the Scan function. See below.
 - Click on **Start scan**.



- All correct installed units will now be detected by the software.



- Choose correct designation for each unit.



7.6.2 Configure SIOX units

6 SIOX Units

SIOX Units

Load migrated Scan Cancel Edit

Type	Model	Address	Ports	
Term	ST3	1	0	▼
IO	S45	21	7	▼
IO	S45	22	7	▼
IO	ST4-7	51	7	▼
Tank Monitor	R02	57	2	▼

+

Back Next

SIOX units are normally keyboard terminals (ST4's), taps (S45/ST4's) and pressure gauges on tanks (R02's). The preferred method of configuring the taps is by using the 'Scan' function. This requires that the SIOX addresses of the S45/ST4's and ST4's are according to the Nederman standard configuration. See [Chapter 8 Nederman standard configuration](#).

The SIOX units can be configured using the Scan function, by using manual setup or a combination of them.

Scan method

- 1 Click on **Scan** and then **Start scan** to search the system for SIOX units.
- 2 A list with available SIOX units appear.
- 3 Click on the **+** sign to change the configuration.
- 4 Click on **Save** and then **Next** when done.

Manual method

- 1 Click on the **+** sign before or the **▼** sign after. A scan has been performed.
- 2 Change the configuration.
- 3 Click on **Save** and then **Next** when done.

SIOX Units

Type	Model	Address	Ports
+			

Add units manually.
Click on the cross sign.

SIOX Units

Type	Model	Address	Ports
New	ST4-7	21	0
+			

7.7 Taps

7.7.1 Using of taps and connection to tanks

7 Taps

Taps

Tap Id	Tank	I/O Unit	Port	Timeout (s)	Pulses after close	Pulses per liter
+						

The taps are handled in groups, each called a subterminal. They correspond to the I/O modules with the S45/ST4 modules.

Each I/O module can contain up to six or seven S45/ST4 units, depending on the system version.

The port number is the output in the S45/ST4 I/O module and they are numbered 1 to 7. For older S45/ST4's the port numbers are numbered 1 to 6.

Normally, the mechanic is expected to close orders manually after receiving the desired oil and other fluids. As a safety measure, the **Timeout (s)** setting ensures that the order is closed automatically with a 10 minute (600 seconds) standard value. It may be appropriate to change these times depending on the working methods used at your workshop. NMS will print the order or transfer it to the business system if so selected in the configuration of that tap.

The pulses after close is a small amount of liquid that runs past the solenoid valve during the closing phase, which the pulse sensor includes in the total volume. This volume is always the same on the individual tap, regardless of whether a small or large volume has been preset.

The number of pulses is normally one, two or three and is because the fluid has a high viscosity and/or being under high pressure. Basically the result of the S45/ST4 counting pulses and then closing the output when the correct number of pulses has been detected.

Due to the delay, viscosity and pressure, a couple of pulses always get registered after this time. The setting reduces or increases the number of pulses to allow before closing the output.

Use the **Auto assign** function to detect the taps or set them up manually with the plus sign.

7.7.2 Auto assign function

- 1 Click **Auto assign** to start the scan. A list with available taps appears when the scan is ready.
- 2 Click **Edit** to change the configuration of the taps.
- 3 For each tap id: Set the **Timeout (s)**, **Pulses after close** and **Pulses per litre**.
- 4 Delete taps that are not used by clicking the dustbin.
- 5 Click on **Save** and then **Next** when done.

Taps

[Load migrated](#)
[Auto-assign](#)
[Cancel](#)
[Edit](#)

Some taps are not linked to a tank!

Tap Id	Tank	I/O Unit	Port	Timeout (s)	Pulses after close	Pulses per liter
1		21	1	600	0	100
2		21	2	600	0	100
3		21	3	600	0	100
4		21	4	600	0	100
5		21	5	600	0	100
6		21	6	600	0	100
7		21	7	600	0	100
8		22	1	600	0	100
9		22	2	600	0	100
10		22	3	600	0	100
11		22	4	600	0	100
12		22	5	600	0	100
13		22	6	600	0	100
14		22	7	600	0	100
15		23	1	600	0	100

7 Taps

Taps

Tap Id	Tank	I/O Unit	Port	Timeout (s)	Pulses after close	Pulses per liter
1	Motor oil - 5w-40	21	1	60	0	100
2	Windscreen fluid - Windscreen fluid concentrate	21	2	600	0	100
3	Motor oil - 5w-40	21	3	300	0	100
4	Windscreen fluid - Windscreen fluid concentrate	21	4	600	0	100
5	Motor oil - 5w-40	21	5	120	0	100
6	Windscreen fluid - Windscreen fluid concentrate	21	6	600	0	100
8	Motor oil - 5w-40	22	1	180	0	100
9	Windscreen fluid - Windscreen fluid concentrate	22	2	600	0	100
10	Motor oil - 5w-40	22	3	600	0	100
11	Windscreen fluid - Windscreen fluid concentrate	22	4	600	0	100

+

Back Next

Load migrated Auto assign Cancel Edit

7.8 Pumps

8 Pumps

Pumps

Pump Id	Tank	I/O Unit	Port
+			

Back Next

Load migrated Auto assign Cancel Edit

Assign the pumps for each available tank.

The pump id can be selected freely but it is suggested that the **Auto assign** function is used. The pump id should preferably match the tank id.

- Use the **Auto assign** function to detect the pumps or set them up manually with the plus sign.

Auto assign function

- 1 Click on **Auto assign** to start the scan. A list with available pumps appears when the scan is ready.
- 2 Click on **Edit** to change the configuration of the pumps.
- 3 Set correct tank id for each pump.
- 4 Delete taps that are not used by clicking on the **Dustbin**.
- 5 Click on **Save** and then **Next** when done.

8 Pumps

Pumps

Load migrated Auto assign Cancel Edit

Some pumps are not linked to a tank!

Pump Id	Tank	I/O Unit	Port
1		51	1
2		51	2
3		51	3
4		51	4
5		51	5
6		51	6
7		51	7
+			

Back Next

8 Pumps

Pumps

Load migrated Auto assign Cancel Edit

Pump Id	Tank	I/O Unit	Port
1	Motor oil - 5w-40 - 12458296	51	1
2	Windscreen fluid - Windscreen fluid concentrate - 25648274	51	2
+			

Back Next

7.9 Tank Monitors

9 Tank Monitors

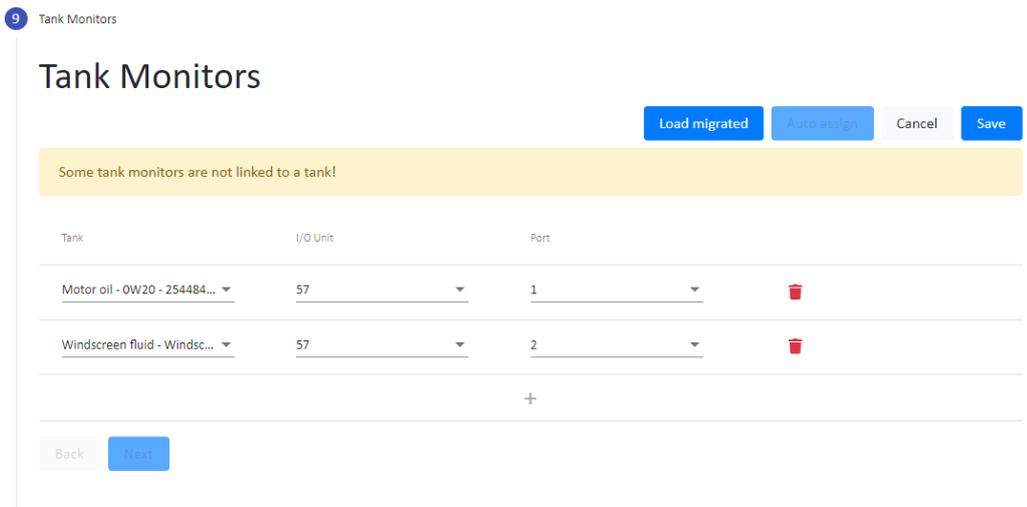
Tank Monitors

Load migrated Auto assign Cancel Edit

Tank	I/O Unit	Port
+		

Back Next

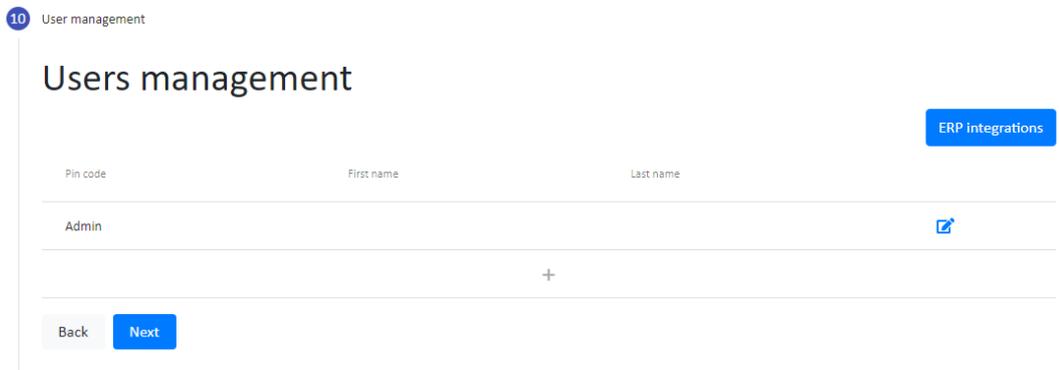
7.9.1 Auto assign function



- 1 Click **Auto assign** to start the scan. A list with available tank monitors appears when the scan is ready.
- 2 Click **Edit** to change the configuration of the monitors.
- 3 For each tank monitor: Set the correct I/O module (unit) and port to the desired tank by clicking the tank field with the arrow for each tank.
- 4 Delete monitors that are not used by clicking the **Dustbin**.
- 5 Click on **Save** and then **Next** when done.

7.10 User management

7.10.1 Set user (operator) details



Add a new user

Pin code

123456

Password

••••••

Confirm Password

••••••

First name

Fredrik

Last name

Lindgren

Phone number

E-Mail

fredrik@nms.com

Permissions

Mechanic

Save

Cancel

GDPR Notice: This is the only place where first name, last name, phone number and email are stored. Removal of a user (or removal of the data) means removal of this data from the system.

 GDPR notice: This is the only place where the first name, last name, phone number and email are stored. Removal of a user (or removal of the data) means removal from the system.

 The personal pin code should consist of at least four digits. It is used to identify the operators when they start tapping oil and it is expected to be somewhat secret so that the operators use their own pin code.

If NMS is connected to a business system it is important that the operator's employee number is the same as in the ERP system.

7.10.2 Permissions setting

Add a new user

Pin code

147258

Password

••••••

Confirm Password

••••••

First name

Per

Last name

Andersson

Phone number

E-Mail

per.andersson@nederman.se

Permissions

Workshop manager

Save

Cancel

GDPR Notice: This is the only place where first name, last name, phone number and email are stored. Removal of a user (or removal of the data) means removal of this data from the system.

The **Permissions** setting is the role in NMS and this controls how much the user is allowed to do in the system. The following roles are defined:

- **Mechanic:** Access to dispense fluids.
 - **Workshop Manager:** Access to change volume, article no, users, check recipes, dispense fluids.
 - **Service Engineer:** Calibration and same as workshop manager.
 - **Administrator:** Full access to all NMS features.
- 1 Click the **+** sign to add a new user or click on **ERP integrations** to synchronize employee numbers with the business system.
 - 2 Click on **Save** and then **Next** when done.

7.10.3 Set ERP id

10 User management

Users management

[ERP integrations](#)

Pin code	First name	Last name		
Admin				
123456	Fredrik	Lindgren		
147258	Per	Andersson		
+				

[Back](#) [Next](#)

When using ERP connection, the operator ERP id must be set.

Select an ERP system

Choose the ERP you want to configure

TacDis - TacDis ▼

[Select](#) [Cancel](#)

Erp <-> User integrations

TacDis - TacDis

[Back](#) [Cancel](#) [Save](#)

Pin code	First name	Last name	ERP ID
123456	Fredrik	Lindgren	<input type="text" value="2589"/>

11 Done

You're finished!

[Done](#) [Back](#) [Reset](#)

7.11 Done or system reset

In the **Done** menu you can see and confirm that the configuration is performed. Here you also find a **Reset** option, if needed.

Use the **Reset** option with care. All entered data is deleted (even saved data). The function is protected with admin rights and a password to avoid unintentional deletion of data.

7.12 Main menu

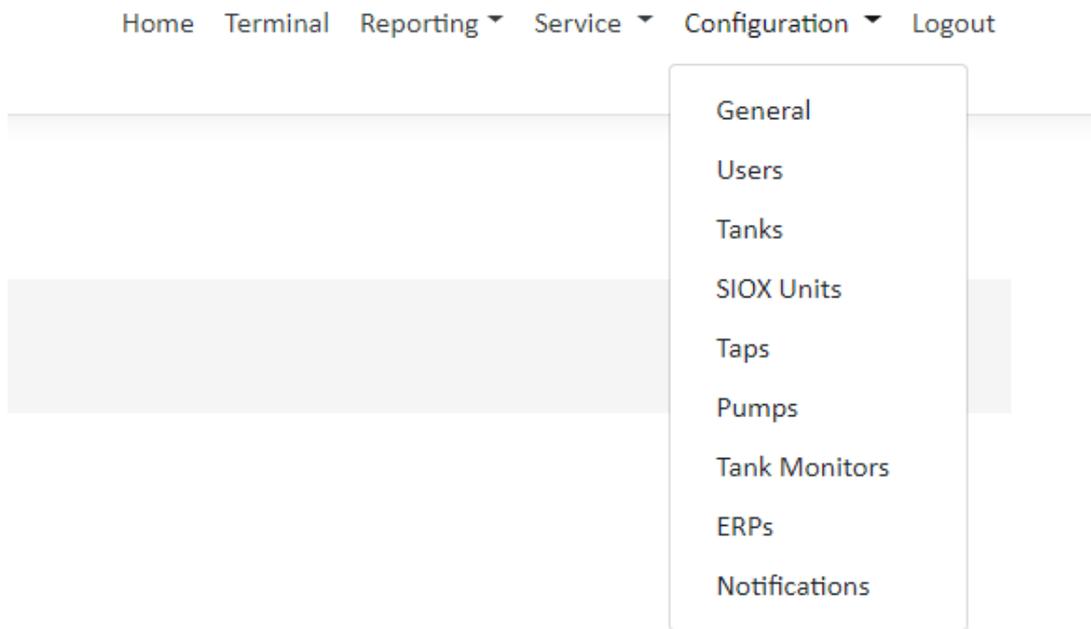
When the configuration steps are completed, the main menu looks like this:



7.13 System icons

Configuration edit icons	
	<p>Settings</p> <p>Click to show available settings.</p>
	<p>Tank surveillance active</p> <p>Informs whether the tank is equipped with tank surveillance or not. The tank has surveillance.</p>
	<p>Tank surveillance not active</p> <p>Informs whether the tank is equipped with tank surveillance or not. The tank does not have surveillance.</p>
	<p>New entry</p> <p>Click to add a new entry, tank, pump, etc.</p>
	<p>More information</p> <p>Click to show more information.</p>
	<p>Less information</p> <p>Click to show less information.</p>
	<p>Selection</p> <p>Click to show a menu with previously defined options.</p>
	<p>Edit</p> <p>Click to edit available settings.</p>
	<p>Dustbin</p> <p>Click to delete row.</p>

7.14 Configuration menu



From the main menu: Click on **Configuration** and select an option to configure.

7.15 Notifications and receipts

7.15.1 Set up receipts and get notifications when tanks need to be refilled

Notifications

Cancel Edit

Trigger	Action	Target
+		

To add a notification, click on the + sign.

Notifications

Cancel Save

Trigger	Action	Target
Tank limit reached	Send email	123456 - fredrik@nms.com
Receipt transfer failed	Send email	147258 - per.andersson@...
+		

- 1 Choose **Trigger**.
- 2 Choose **Action**.
- 3 Choose **Target**.

Tank notification details

Back Cancel Edit

Tank	Level (liters)
+	

To add notification details click on the + sign.

Tank notification details

Back Cancel Save

Tank	Level (liters)
Motor oil - 5w-40 - 124582...	250
Motor oil - 5w-40 - 124582...	50
Windscreen fluid - Windsc...	52
Motor oil - 5w-40 - 12458296	0
Windscreen fluid - Windscreen fluid concentrat...	
Waste oil - Waste oil -	
+	

Set tank and then correct volume when the notification mail should be sent.
It is possible to set several actions for each tank.

Tank notification details

Back Cancel Save

Tank	Level (liters)	
Motor oil - 5w-40 - 124582... ▾	250	
Motor oil - 5w-40 - 124582... ▾	50	
Windscreen fluid - Windsc... ▾	52	
Windscreen fluid - Windsc... ▾	0	

Stop

10%

25%

Tank notification details

Back Cancel Save

Tank	Level (liters)	
Motor oil - 5w-40 - 124582... ▾	250	
Motor oil - 5w-40 - 124582... ▾	50	
Windscreen fluid - Windsc... ▾	52	
Windscreen fluid - Windsc... ▾	10	

+

Home Terminal Reporting ▾ Service ▾ Configuration ▾ Logout

- General
- Users
- Tanks
- SIOX Units
- Taps
- Pumps
- Tank Monitors
- ERPs
- Notifications

SMTP Configuration

Hostname	Port 25	<input type="checkbox"/> Use SSL
Username	Password (Blank = no cha...)	
From address		
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>	<input type="button" value="Test"/>

7.15.2 Receipts

To get receipts, the email server (SMTP) needs to be configured. Contact the customer IT department for assistance and details.

- 1 From the main menu: Click on **Configuration > General**.
- 2 Enter the data for the email server.
- 3 Click on **Save** when done.

SMTP Configuration

Hostname smt.office365.com	Port 25	<input checked="" type="checkbox"/> Use SSL
Username user	Password (Blank = no change) ●●●●●●	
From address oil@nms.com		
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>	<input type="button" value="Test"/>

8 Nederman standard configuration

- **Terminal (ST4):** The terminal is the device that the mechanic opens and closes the taps from. They are usually addressed between 01-20.
- **Tap (S45/ST4):** S45/ST4 is the device that controls solenoid valves and counts the pulses from the pulse sensors. There are one or two S45/ST4 's installed in each I/O module, depending on whether it is intended for seven or fourteen taps.
- **Tank/pump surveillance unit (R02):** An R02 is a pressure sensor that monitors the pressure in tanks and pumps. Each R02 unit can handle 1 - 2 tanks. The R02 units are usually addressed 57 - 63.

8.1 Addressing overview

Unit	Function	Address
Terminal (ST4)	Start orders	1-20
Tap (S45/ST4)	Open taps/register pulses	21-50
Tap (S45/ST4)	Open pumps	51-56
Tank/pump surveillance unit (R02)	Sense and alert pressure (levels)	57-63
Keypad with I/O module (ST4/7T)	Start orders/Open taps/register pulses	21-50

9 User Manual

9.1 Refill tank

Home Terminal Reporting ▾ Service ▾ Configuration ▾ Logout

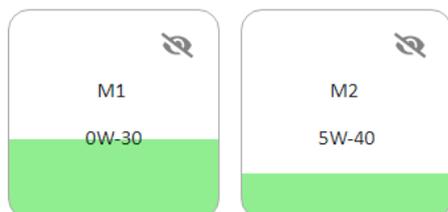
Refill tank

Log in as a user with Workshop manager rights.

Click on **Service** and **Refill a tank**.

Tanks

Consumption



Select a tank.

Refill M2

Capacity (Litres): 2000

Contents: 5W-40

Level: 428.8496740993286

Article number

MOB 150010

Volume change (Litres)

400

Save

Cancel

Add filled volume and then click on **Save**.

9.2 Reports

Home Terminal Reporting ▾ Service ▾ Configuration ▾ Logout

Receipts

Usage statistics

Click on **Reporting, Receipts**.



Home Terminal Reporting ▾ Service ▾ Configuration ▾ Logout

Order number	Job number	Date	Mechanic	Status
3543090	1	8/13/20, 2:25 PM	Malm, Anton	▾
3547489	1	8/13/20, 2:00 PM	Rolf, Thomas	▾
3541259	1	8/13/20 1:09 PM	Malm, Anton	▾

Search in a **Filter**, select **Date**.

Order number	Job number	Date	Mechanic	Status
3543090	1	8/13/20, 2:25 PM	Malm, Anton	^

Summary

Start time
8/13/20, 2:25 PM

Stop time
8/13/20, 2:35 PM

Tappings

Article number	Tap	Volume (liters)	Status
LO 10201200	15	3.44	☒
MOB 150010	17	4.51	

Open **Receipt**.

Home Terminal Reporting ▾ Service ▾ Configuration ▾ Logout

Receipts

Usage statistics

Click on **Reporting, Usage statistics**.



Selected liquids
 MOB 150010 / 5W-40, MOB 153317 / 0W-20, MOB 152988 / 0W-30

Article No.	Name
MOB 150010	5W-40
MOB 153317	0W-20
MOB 152988	0W-30

Pick a date

Today APPLY

Yesterday

Last 7 Days

Last 30 Days

This Month

Last Month

Custom range

< Aug 2020 >

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15

Select **Liquids** and **Date**.



Selected liquids
 MOB 150010 / 5W-40, MOB 153317 / 0W-20, MOB 152988 / 0W-30

Pick a date
 08/07/2020 - 08/13/2020

Article No.	Name	Tapped volume (liters)
LO 10201200	Spolarväska	39.45
MOB 150010	5W-40	17.65
MOB 153317	0W-20	26.10
MOB 152988	0W-30	51.31

Volumes on chosen liquids and date interval will be shown.

9.3 Using the web browser as a keypad

Nederman Home Terminal Reporting Service

Pin code
••••

Order number
2014879

Job number
1

Verify Next

Active orders
No orders

- 1 Click on **Terminal**.
- 2 Enter the PIN code.
- 3 Enter the order number.
- 4 If applicable, enter the job number.
- 5 Click on **Next**.

Pin code
••••

Order number
2014879

Job number
1

Verify Next

Active orders
• 2014879, 1

Tap
Tap number is required
Volume (liters)

Reset Start

Pin code

••••

Order number

2014879

Job number

1

Verify

Next

Active orders

• 2014879, 1

X

Tap

2

Volume (liters)

5,4

Tap

4

Volume (liters)

10

Reset

Start

Enter the tap number and preset volume.

It is possible to open several taps at the same time.

Active orders

• 2014879, 1

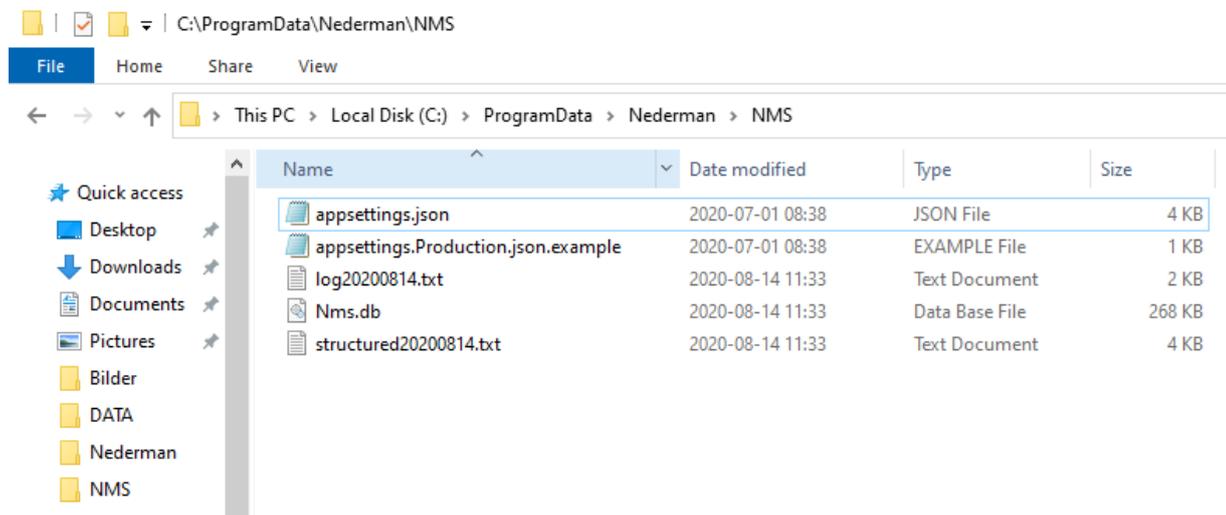
X

Next

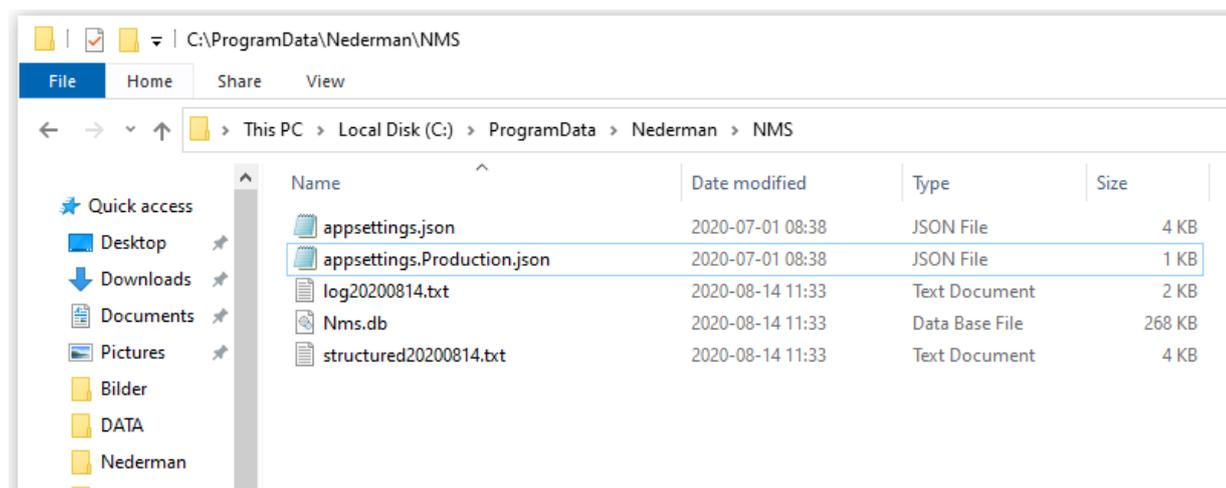
When closing an order, click on the white cross behind correct order no.

9.4 Setting up remote management of NMS

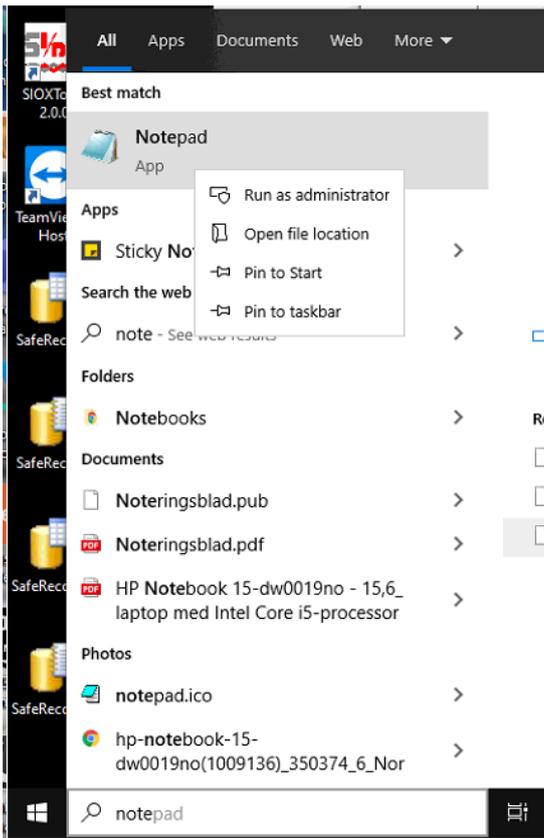
If the customer wants to manage NMS or use the terminal from another computer on the company's network, some changes must be done.



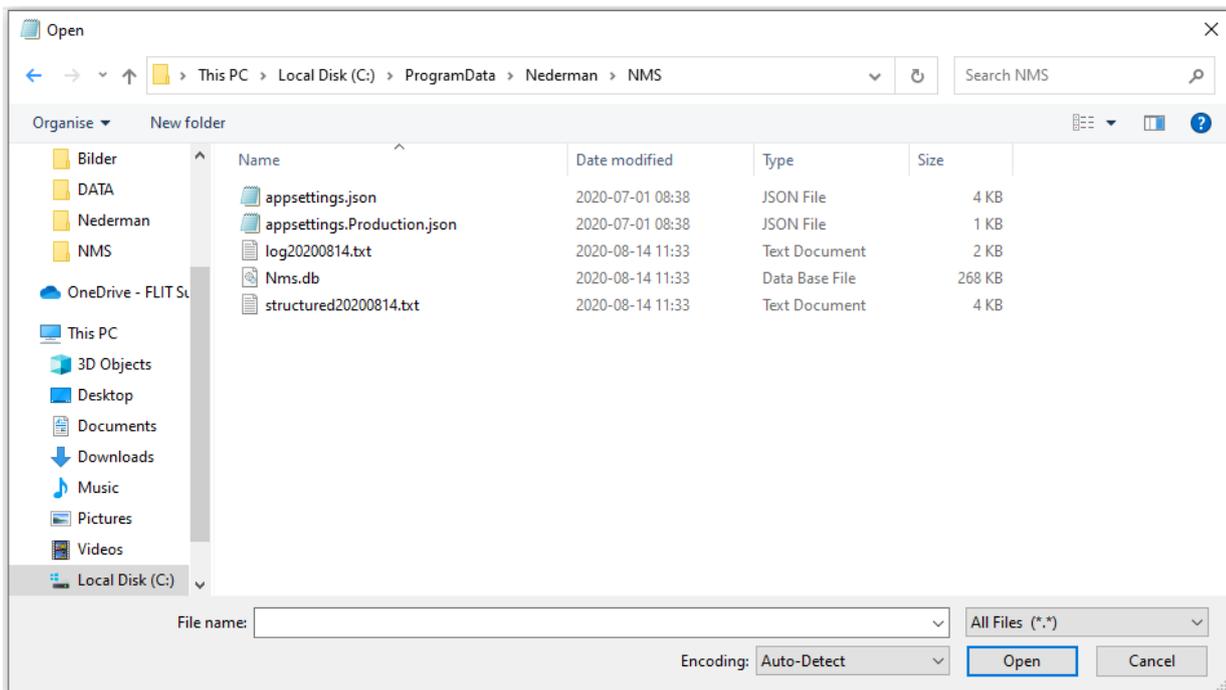
Open Explorer and go to path `C:\ProgramData\Nederman\NMS`.



Rename **appsettings.Production.json.example** to **appsettings.Production.json**.



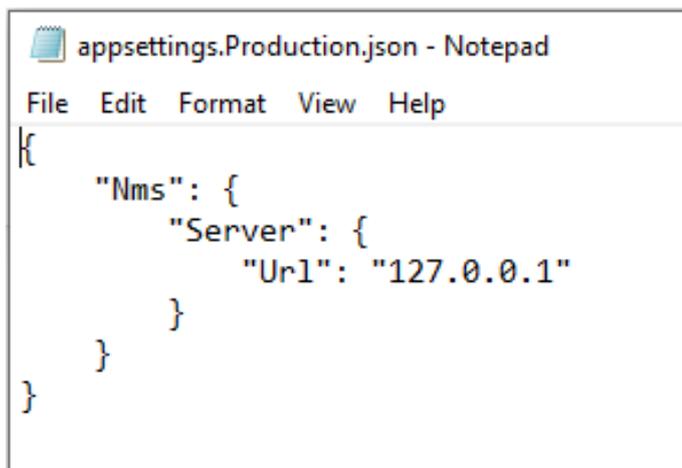
Open notepad as administrator.



Select path `C:\ProgramData\Nederman\NMS`.

In the lower right corner, select all files.

Select **appsettings.Production.json** and then click on **Open**.



```
appsettings.Production.json - Notepad
File Edit Format View Help
{
  "Nms": {
    "Server": {
      "Url": "127.0.0.1"
    }
  }
}
```

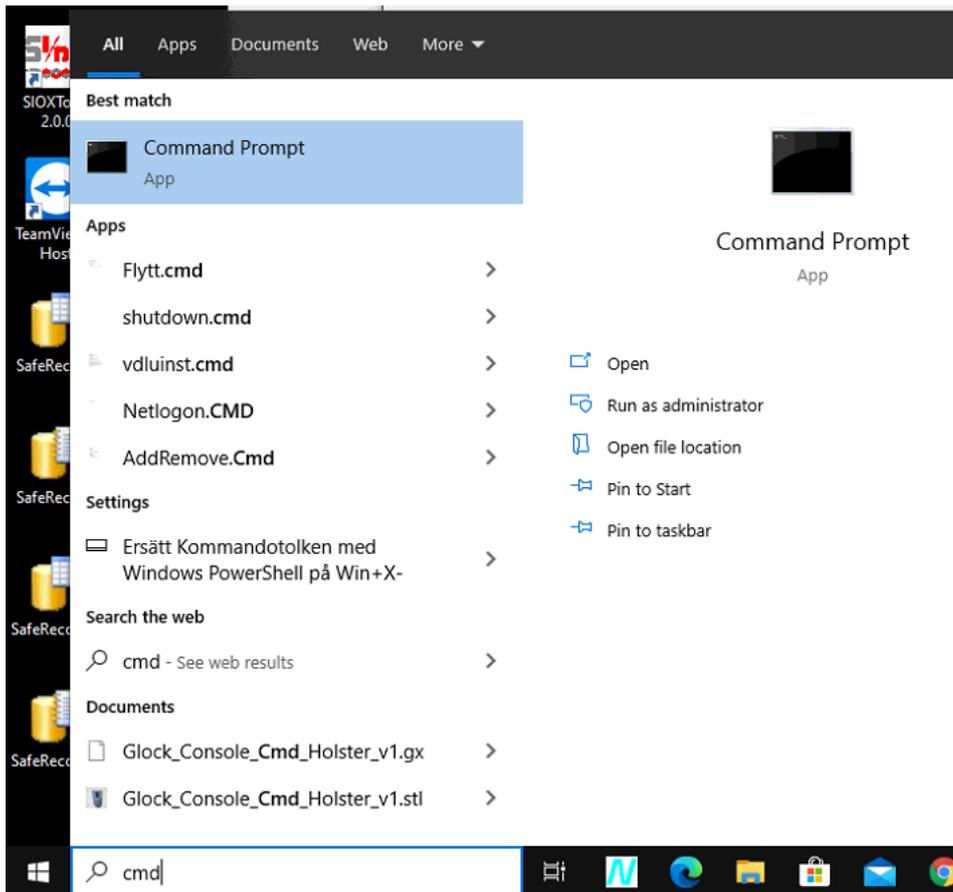
Change 127.0.0.1 to 0.0.0.0.



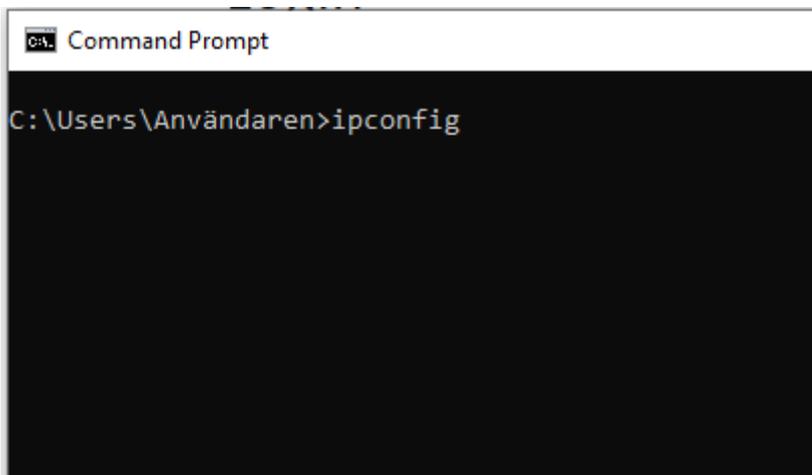
```
*appsettings.Production.json - Notepad
File Edit Format View Help
{
  "Nms": {
    "Server": {
      "Url": "0.0.0.0"
    }
  }
}
```

Click on **Save** and close notepad.

Restart the computer.



In search field type **CMD** and open **Command Prompt**.



Type **ipconfig** and press **Enter**.

```

C:\Users\Användaren>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Anslutning till lokalt nätverk* 13:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Anslutning till lokalt nätverk* 14:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

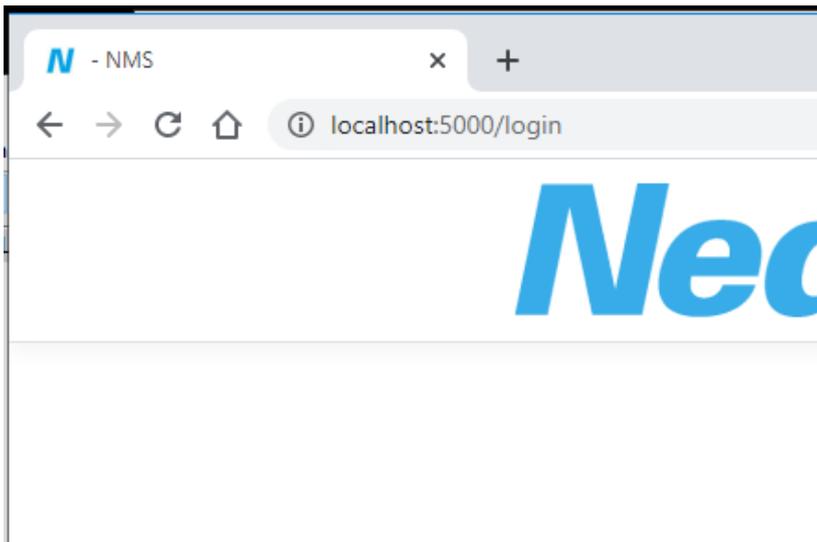
Wireless LAN adapter Wi-Fi 3:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::f49f:f908:a559:bf00%5
    IPv4 Address. . . . . : 192.168.1.102
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

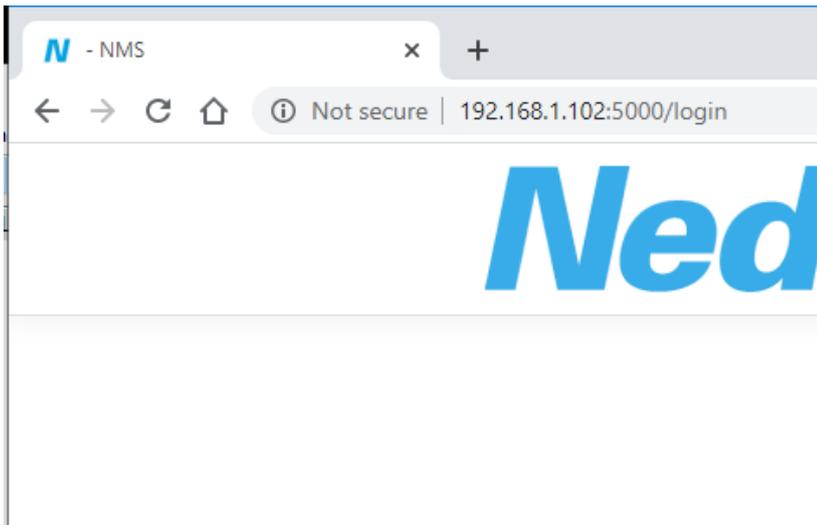
C:\Users\Användaren>
    
```

Find the row: **IPv4 Address.....:192.168.1.102**

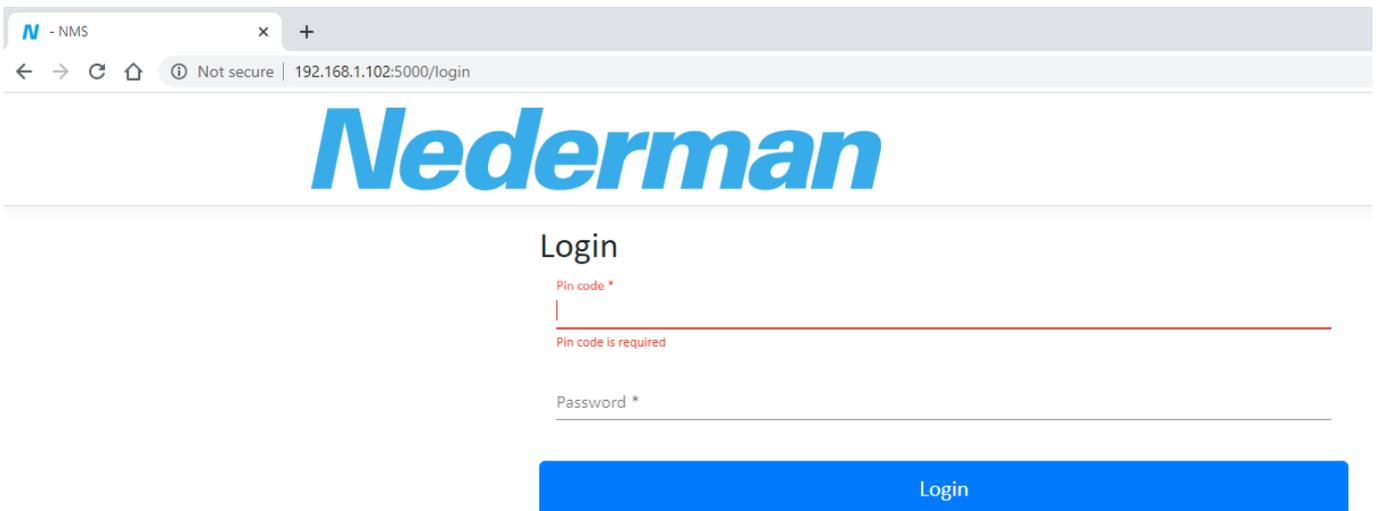
Note the IP-address: X.X.X.X



Open the web browser on the NMS computer.



Replace localhost with NMS computers IP address.



It is now ready to use in the network.

Try to open the path on another computer on the network.

The customers' employees can now administrate and open orders on all computers on the network.

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