PMS.NEXO30.CEGID - Y2 Interface

User Guide

Version 1.5 - 22/07/2022

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1. INTRODUCTION

This document describes how to install, configure and use the PMS.NEXO30.CEGID Y2 driver (also called "Driver" inside this document).

1.1. ARCHITECTURE DESCRIPTION

The driver provides access to any terminal running nexo Retailer 3.0 to perform transactions.

1.2. Y2 DRIVER CAPABILITIES

The Y2 driver allows making the following transactions or operations:

✓ Purchase, refund and cancellation transactions

A purchase or refund is done as follows:

- a. The merchant operator enters or computes, onto the sale system, the amount to pay.
- **b.** The cashier initiates the transaction (payment or refund) on the Y2 interface.
- c. The Y2 system sends a NEXO Retailer 3.0 order to the terminal.
 - i. The order contains the amount of the transaction, optionally additional information.
- **d.** The terminal displays the amount and waits for the customer to insert, swipe or present its card.
- **e.** When the transaction is completed on the terminal a NEXO Retailer 3.0 containing the result is sent back to the Y2 system.
- **f.** The Y2 interface displays the result to the operator.
- g. The transaction, whatever the result is stored on the NEXO Server of the acquirer.

A cancellation is done as follows:

- **a.** The merchant operator identifies the transaction to cancel.
- **b.** The cashier initiates the cancellation on the Y2 interface.
- c. The Y2 system sends a NEXO Retailer 3.0 order to the terminal.
 - i. The order contains no amount, the transaction is fully cancelled or not.
- **d.** The terminal displays the amount eventually waiting for the merchant to validate the cancellation and waits for the customer to insert, swipe or present its card.
- **e.** When the transaction is completed on the terminal a NEXO Retailer 3.0 containing the result is sent back to the Y2 system.
- **f.** The Y2 interface displays the result to the operator.
- g. The transaction, whatever the result is stored on the NEXO Server of the acquirer.

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2.1. NOTICE

2.1.1. SUPPORTED SYSTEMS

This driver has been tested on:

✓ CEGID Y2 v20 (valid for any version over v13)

All Y2 versions starting from v12 should normally be supported, subject to a test before.

✓ Windows 10 (64 and 32 bits), Windows 7 (64 and 32 bits)

Compatibility with Windows 8 can't be guaranteed.

✓ PAX Terminals running a nexo Fast application by Payplug/BPCE

Out of these parameters any modification (Y2 version, OS, functionalities) needs to be retested.

2.1.2. SUPPORTED CURRENCIES AND COUNTRIES

Supported currencies

The PMS.NEXO30.CEGID Y2 driver supports any currency valid for the acquirer.

The currency is set in the driver settings.

It is possible to declare any currency inside a JSON file located inside the user directory and called "nexosale.currencies.json". Each currency is defined by both its ISO code and number of decimals.

If no currency is defined inside this file, the driver automatically uses the default currency details of the local computer.

Supported countries

The PMS.NEXO30.CEGID Y2 driver can be used in any country where the acquirer operates.

The only limitation to using the PMS.NEXO30.CEGID Y2 driver is all messages are today displayed in English (though translating them is possible). As long as these messages can be accepted by a merchant the PMS.NEXO30.CEGID Y2 driver can be used at any store.

2.1.3. SUPPORTED INSTITUTIONS

The PMS.NEXO30.CEGID Y2 driver can operate for any merchant whose acquirer's terminals support NEXO Retailer 3.0.

2.2. Installation overview

Installation is made possible using the provided:

InstalPMS.NEXO30.CEGIDYInstallPMS.NEXO30.CEGID-vx.x.x.x-vYYYY-MM-DD.exe

file which will:

- ✓ Create all directories required to install the Driver.
- ✓ Copy files inside the directories.
- ✓ Install the required components.
- ✓ Provide an uninstall procedure.

2.2.1. PREREQUISITES

2.2.1.1. Software

The Driver uses the Microsoft .NET framework version 4.7 and won't be usable if this framework is not installed on the computer.

If not installed, the Microsoft .NET framework version 4.7 can be downloaded from https://www.microsoft.com/en-US/download/details.aspx?id=55167.

2.2.1.2. Hardware

The driver requires the use of a NEXO terminal supporting NEXO Retailer 3.0.

2.2.2. DIRECTORIES

The created (and default) local directories are the following ones:

1. C:\Program Files (x86)\PMS.NEXO30.CEGID Y2 Driver

This is the main directory inside which are copied the following files:

- PMS.NEXO30.CEGID.dll: the CEGID Y2 driver itself;
- PMS.NEXOSALE30.dll, PMS.NEXO30.dll, PMS.HPDF, PMS.COMMON.dll and Newtonsoft.Json.dll, libhpdf.dll: support modules required by the CEGID Y2 driver.

2. C:\ProgramData\PMS.NEXO30.CEGID Y2 Driver\Settings

This is the default driver's settings directory. These settings are the ones manipulated while going through the PMS.NEXO30.CEGID Y2 driver settings (§4.2).

Storing the settings in a different directory (on a server for instance) is done by modifying the registry entry HKCU\Software\PMS\NexoSale\SettingsFileName.

3. C:\ProgramData\PMS.NEXO30.CEGID Y2 Driver\Log

This is the default driver's log file directory.

Log files are created daily (the date being appended to the end of the file).

Storing the log files in a different directory (on a server for instance) is done by modifying the settings' file entry as described in chapter Advanced settings (§4.2.2 - Log file name).

4. C:\ProgramData\PMS.NEXO30.CEGID Y2 Driver\Doc

This directory is where all supporting documents (like this one) are stored.

2.2.3. REGISTRY

When launching the Y2 system and accessing the driver, the settings file is determined using a registry entry:

1. HKCU\Software\PMS\NexoSale\SettingsFileName

That entry identifies the path to the driver's settings file.

2.3. PACKAGE DESCRIPTION

The package is composed of:

1. PMS.NEXO30.CEGID.dll

The Y2 driver itself.

2. PMS.NEXOSALE30.dll, PMS.NEXO30.dll, PMS.HPDF, PMS.COMMON.dll

Fully equipped interface to the PMS.NEXO30.CEGID server, it requires the Microsoft .NET 4.7 framework to be installed on the target computer.

3. Newtonsoft.Json.dll, libhpdf.dll

Utility modules used by PMS.NEXO30.CEGID.dll.

4. PMS.NEXO30.CEGID - Y2 Interface - User guide.pdf

Support document.

5. nexoSaleTest.exe, nexoDSaleTest.exe

Programs allowing to test accessing the terminal (nexoSaleTest.exe) and the driver's settings (nexoDSaleTest.exe).

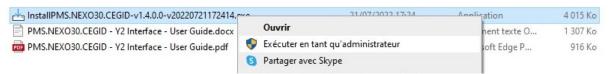
6. nexoBuilder30.exe, nexoSimulator30.exe

Programs allowing to build nexo retailer 3.0 messages (nexoBuilder30.exe) and to simulate a terminal (nexoSimulator30.exe).

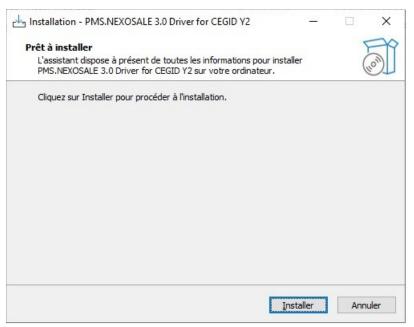
2.4. Installation process

Running *InstalPMS.NEXO30.CEGIDYInstallPMS.NEXO30.CEGID-vx.x.x.x.vYYYY-MM-DD.exe* will allow to copy all files inside the directories. No directory modification is allowed or even suggested, the user must only agree to install the Driver.

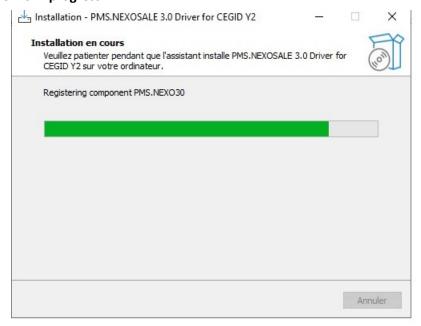
INSTALLATION REQUIRES TO HAVE ADMINISTRATOR PRIVILEGES, TO REGISTER SOME COMPONENTS ON THE COMPUTER AND FINALISE PROCEDURE.



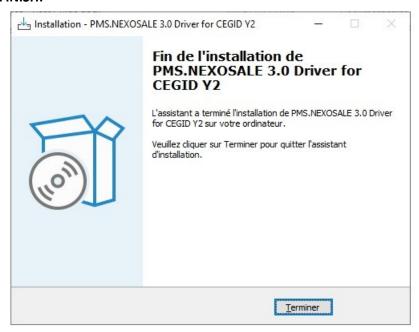
1. Click on INSTALL:



2. Installation is in progress:



3. Click on FINISH:



2.5. Uninstallation overview

To uninstall the driver it is necessary to go to the system settings using:

Windows Settings-> Applications-> Deinstall application
And choose

PMS.NEXOSALE 3.0 Driver for CEGID Y2

2.6. REINSTALLATION OVERVIEW

When reinstalling the driver (after an update) it is always a good practice to review the Advanced settings (§4.2.2) before proceeding.

3. SETTING UP THE DRIVER

3.1. Prerequisites

Setting up the driver requires no specific information from the acquirer.

The merchant must however keep in mind the Y2 system communicates with the terminal by TCP/IP and the network must be configure accordingly to allow that communication.

3.2. SETUP PROCEDURES

Setting up the driver is made as follows:

- 1. Display the Minimum settings window (§4.2.1).
- 2. Manually enter the Mandatory settings (§3.3).
- 3. Verify the connection to the POS using the self tests provided.

3.3. MANDATORY SETTINGS

To access the PMS.NEXO30.CEGID server and perform transactions, the Driver must be configured by entering at least the following settings:

1. Sale ID

It indicates the sale the merchant wants to give to its Y2 system when it communicates with the terminal.

2. POIID

T It indicates the terminal name the merchant wants to give to the terminal the Y2 system will communicate with.

3. Application name

It can be any string identifying the application running on the Y2 system.

4. Manufacturer name

It can be any string identifying the Y2 system provider.

5. Software version

It can be any string identifying the application running on the Y2 system.

6. Certification code

It can be any string name validated by the terminal.

7. Terminal IP

This is the IP address of the terminal onto the network.

8. Terminal port

This is the port to reach in the terminal.

Note that the PAX terminals all use port 2018.

All other settings as described below are not mandatory or will find a default value

4. SETUP AND MODIFY PARAMETERS

4.1. SETTING UP THE Y2 SYSTEM

The screens presented in this chapter are all fully native CEGID Y2 screens.

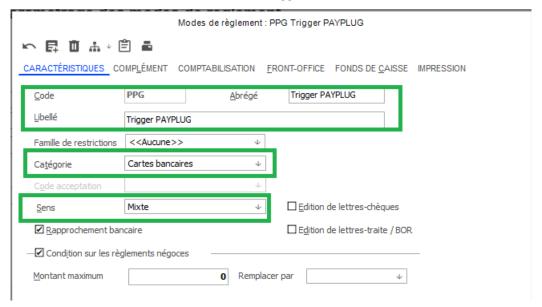
4.1.1. SETUP Y2 POS

Create Payment modes

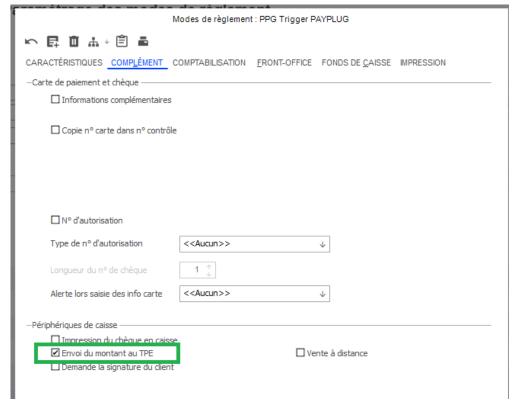
The payment modes must be created inside Y2 before setting the EFT settings. These payment methods will be used to book the payment after the transaction has succeeded (using the mapping table).

The payment codes used hereafter are customer specific but will be used when creating the mapping table.

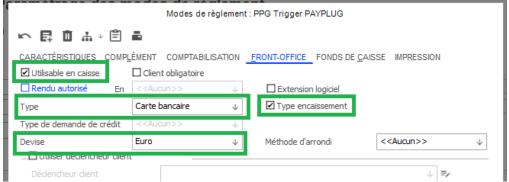
The first one, here named PPG, can be used to trigger the EFT interface.



First payment mode creation step

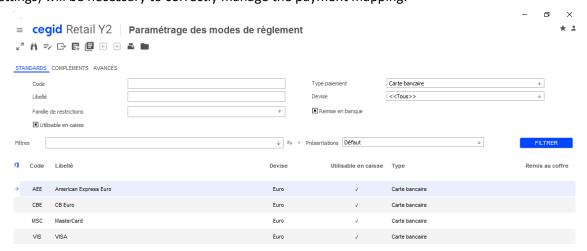


Second payment mode creation step



Third payment mode creation step

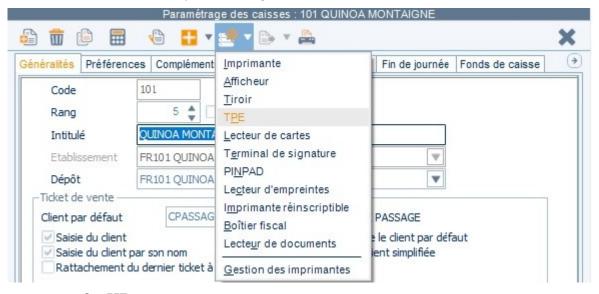
After having created the first payment method, several other payment methods (with the same settings) will be necessary to correctly manage the payment mapping:



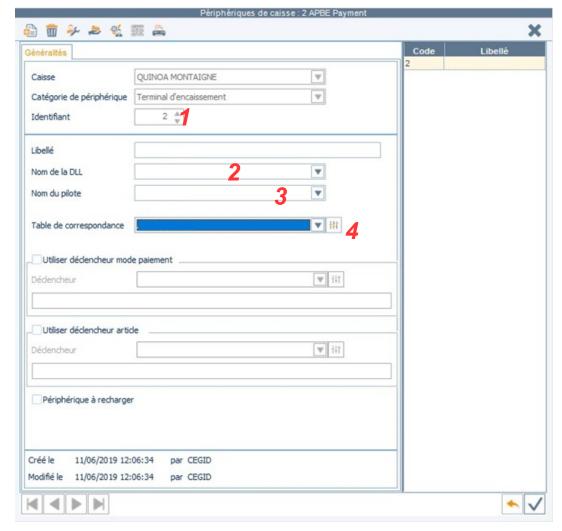
Call EFT settings

1. TPE

Call "TPE" (EFT) specific settings.



2. Set EFT parameters



a. Identifiant

This ID must be equal or greater than 2 (1 being reserved for gift cards).

b. Nom de la DLL

Choose PMS.NEXO30.CEGID.

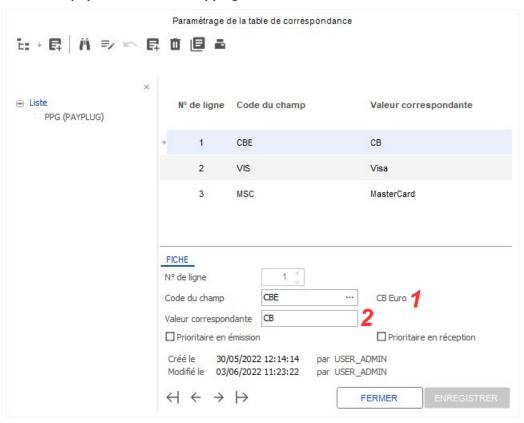
c. Nom du pilote

Choose PMS.NEXO30.CEGID Driver.

d. Table de correspondance

A mapping table must be created to allow identifying the payment method and print it on receipts.

3. Create payment methods mapping table



a. Code du champ

Choose one of the payment method created above.

b. Valeur correspondante

Enter a value defined inside the settings file identifying a scheme to recognise the payment method used on the EFT device. All values can be found inside the settings file in its "CardSchemmes" json section:

```
"CardSchemes": {
    "CB": [
        "CB",
        "Carte Bancaire",
        "Cartes Bancaires",
        "A000000042"
],
```

```
"Visa": [
 "VIS",
 "A00000003"
],
"Visa Electron": [
 "A000000032010"
],
"MasterCard": [
 "MCI",
 "Mastercard",
 "A00000004"
],
"VPAY": [
 "VPAY",
 "A000000032020"
],
"Maestro": [
 "maestro",
 "A000000043060"
],
"AMEX": [
 "AMEX",
 "American express",
 "A00000025"
],
"UnionPay": [
 "UPI",
 "CUP",
 "china union",
 "Unionpay",
 "A00000333"
],
"JCB": [
 "JCB",
 "A00000065"
],
"DINER": [
 "DINERS",
 "DINER'S",
 "A00000152"
],
"Discover": [
```

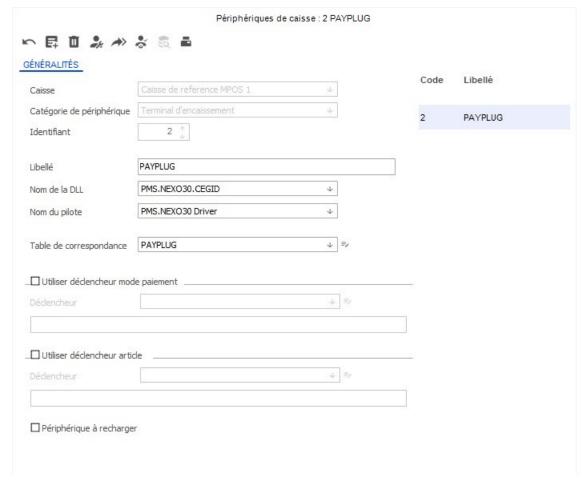
```
"DFS",

"discover",

"A000000324"
]
```

Recognising new schemes is made by adding them here.

4. At the end of this step, the result is:



Create till Mapping

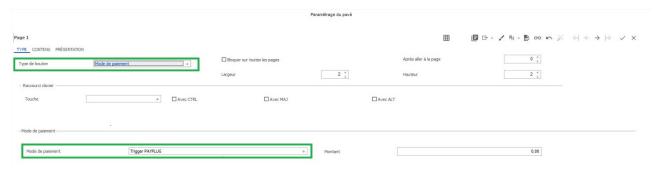
Some of the below elements depend on customer functional specifications.

Here, the button will be associated to the trigger payment method.

CREATE THE BUTTON IN THE MAPPING



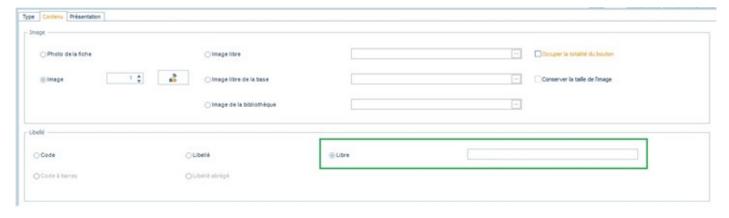
ASSCOCIATE THE PAYMENT MODE



Type of payment must be "Payment mode".

Payment mode name depends on customer specifications. The chosen payment mode must be an EFT payment trigger.

CHOOSE THE NAME OF THE BUTTON TO USE



4.1.2. SETUP THE PMS.NEXO30.CEGID Y2 POS

Call PMS.NEXO30.CEGID Y2 driver settings

1. Call the PMS.NEXO30.CEGID driver settings by clicking onto the dedicated button at the top of the screen. Doing that will bring the merchant to display the screen described in Minimum settings (§4.2.1).

Call PMS.NEXO30.CEGID Y2 driver advanced setting

The Y2 system must be put in SAV mode to allow calling Advanced Setting Putting the Y2 system in SAV mode is done as follows:

1. Press ALT+F11, display Y2 settings and call the "Préférences" screen.



2. The "Préférences" screen is displayed.



a. Debug

Click on "Debug" tab to access the "SAV" option.

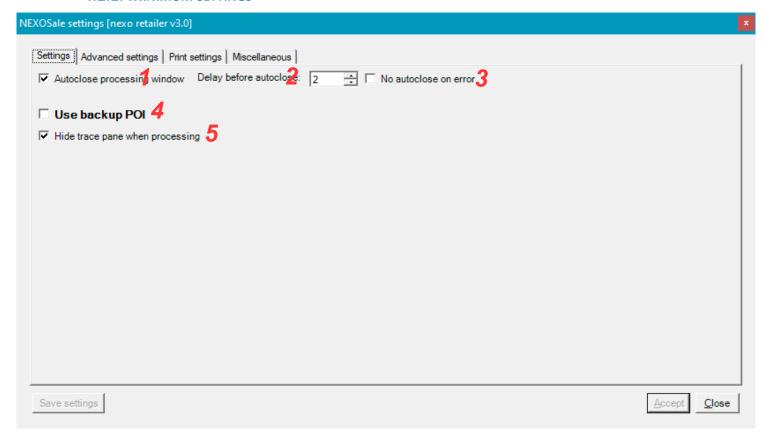
b. Se mettre en SAV

Check the option puts the Y2 in SAV mode and allows accessing the Advanced Setting instead of the Minimum settings and save.

BEWARE, ONCE IN SAV MODE THE Y2 SYSTEM REMAINS IN THAT MODE UNTIL THE SAV MODE HAS BEEN EXPLICITLY DISABLED. TO DISABLE THE SAV MODE DO THE EXACT SAME PROCEDURE BUT UNCHECK THE "SE METTRE EN SAV" OPTION AND SAVE.

4.2. PMS.NEXO30.CEGID Y2 DRIVER SETTINGS

4.2.1. MINIMUM SETTINGS



PMS.NEXO30.CEGID Y2 driver Minimum settings window

Auto close processing window

This flag allows specifying whether the transaction window (showing transaction progress) must be dismissed automatically when the transaction is finished, or not.

Checking this flag will make the window disappear automatically, unchecking it will force the merchant to manually and explicitly, close the window when the transaction is finished.

2. Delay before auto close

If the Terminal port flag has been set (checked), this value indicates the delay (in seconds) between the end of the transaction and the moment the window is automatically closed.

A low value might make the window disappear too fast, not giving the opportunity to the merchant to really check the transaction result.

A high value makes the window to stay longer on the screen preventing the receipt to be printed.

The advised value is between 1 and 5 seconds (2 preferable).

3. No autoclose on error

If an error occurs while processing a transaction and Auto close processing window is checked, the transaction window will disappear after the Delay before auto close.

Checking that entry will prevent, in case of an error, the window to disappear automatically.

4. Use backup POI

Indicates whether the Y2 system must use the backup POI instead of the nominal one.

This is useful if the nominal POI is not reachable.

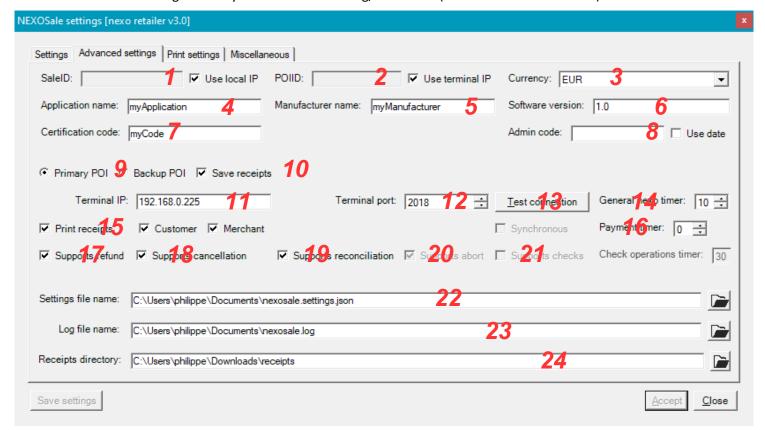
Hide trace pane when processing

Allows hiding the trace messages that can appear in the processing window.

4.2.2. ADVANCED SETTINGS

The advanced setup is only for administration purposes and allows to change internal behaviours of the PMS.NEXO30.CEGID Y2 driver. It can be accessed by calling the PMS.NEXO30.CEGID Y2 driver settings in Y2 "SAV mode". It is strongly advised to not provide advanced setup to regular users.

These settings can only be accessed in Debug/SAV mode (refer to Se mettre en SAV).



1. SaleID

Enter any ID identifying the sale.

To easily identify the sale it is possible to let the system use the IP address making it unique on the network.

2. POIID

Enter any ID identifying the POI (the terminal).

To easily identify the terminal it is possible to let the system use the IP address making it unique on the network.

3. Currency

Choose the currency that will be used to perform the transactions.

4. Application name

Any string identifying the application on the Y2 system.

5. Manufacturer name

Any string identifying the application manufacturer on the Y2 system.

6. Software version

Any string identifying the software version on the Y2 system.

7. Certification code

Any string accepted by the terminal.

Admin code

In case the terminal does not respond to a teller request, a code s requested to unlock the system. That code can be entered here. If no code is provided a date will be requested for that operation.

9. Primary POI / Backup POI

Allows indicating which POI settings to display and manipulate.

10. Save receipts

Allows indicating the sale system must save the receipts when they are received from the POI.

11. Terminal IP

The IP of the terminal to reach to perform a transaction (depends on Primary POI / Backup POI).

12. Terminal port

This IP port to reach on the terminal (depends on Primary POI / Backup POI).

13. Test connection

Allows to test the connection to the specified POI using the indicated IP + port data.

Testing the connection allows verifying whether the terminal is reachable or not. Testing is done by selecting the terminal to reach (Primary POI / Backup POI), checking the Terminal IP and Terminal port and pressing the Test connection button. Doing this will:

If the terminal is reachable Terminal IP and Terminal port will turn to green.



• If the terminal is reachable Terminal IP and Terminal port will turn to red (after a few seconds): in that case check the settings or check you're network configuration.



14. General nexo timer

The timer to wait for when a non blocking operation is in progress (login, logout,...).

The advised value is 10 seconds.

15. Print receipt

Allows indicating the Y2 system must print the transaction receipt when finished.

If checked it is possible to indicate which receipts are to be printed (merchant and/or customer).

16. Payment timer

The timer to wait for when a payment is in progress.

The advised value is 0 seconds (wait indefinitely).

17. Supports refund

Indicates if the terminal accepts to perform refunds.

18. Supports cancellation

Indicates if the terminal accepts to perform payment cancellations.

19. Supports reconciliation

Indicates if the terminal accepts to perform reconciliations.

20. Supports abort

Indicates if the terminal accepts to perform abort.

21. Supports checks

Indicates if the terminal accepts to perform checks operations.

22. Settings file name

Allows indicating where the settings file is stored. It can be stored locally or on a network.

23. Log file name

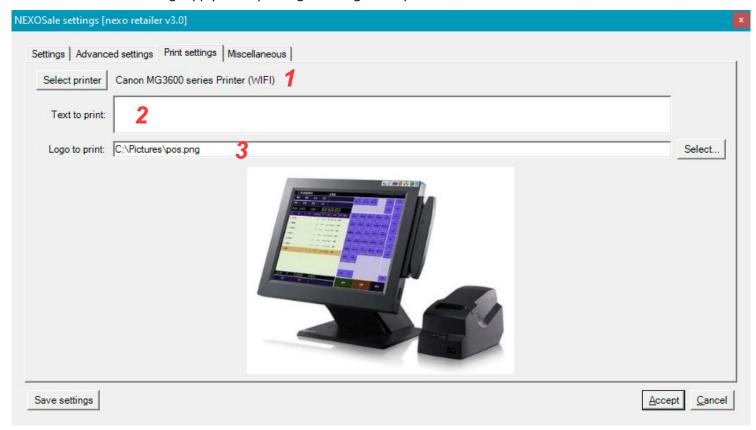
Allows indicating where the log file is stored. It can be stored locally or on a network.

24. Receipts directory

Allows indicating where the receipts will be stored when saved. If no directory is specified the receipts will be saved in the TEMP directory.

4.2.3. ADVANCED SETTINGS - PRINTER SETTINGS

These settings apply when printing or saving a receipt.



1. Select printer

Enter the printer to use for printing. If no printer is selected the default printer is used.

2. Text to print

The text to print on the customer receipt.

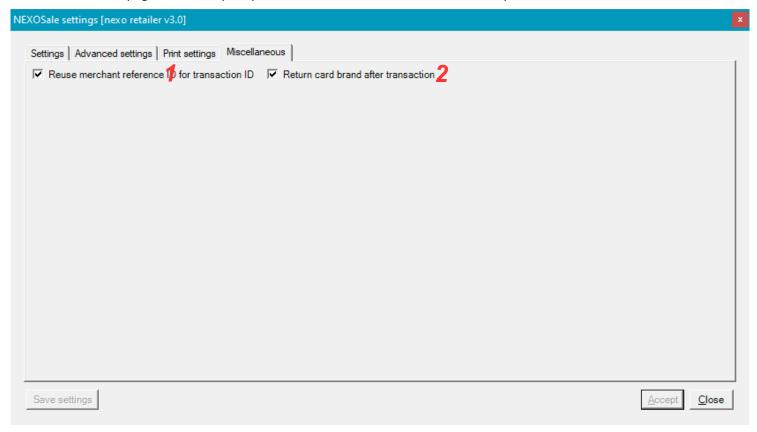
That option is not used at this time and will produce no effect.

3. Logo to print

A logo that will be printed on the customer receipt.

4.2.4. ADVANCED SETTINGS — MISCELLANEOUS

That page allows to specify how some transactions data will be manipulated.



1. Reuse merchant reference ID for transaction ID

Allows forcing to use the Y2 "*receiptRef*" entry during a transaction to populate all nexo transaction IDs.

The advised value is to leave this entry checked.

2. Return card brand after transaction

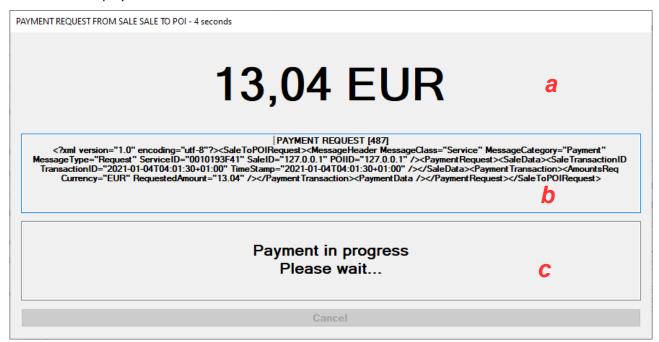
If set the driver will retrieve the card brand after the transaction in order to indicate it inside the Y2 log.

5. MAKING TRANSACTIONS

The following transactions are accessible through the Driver.

5.1. Purchase

- 1. The merchant enters or compute the amount to pay for and calls the PMS.NEXO30.CEGID payment procedure (the procedure for calling this functionality might vary on cash registers).
- 2. The amount is sent to the POI for processing.
- **3.** Once the transaction has been initiated onto the POI the purchase processing window is displayed.



a. AMOUNT

This upper part displays the amount of the transaction along with the transaction currency.

b. TRACE

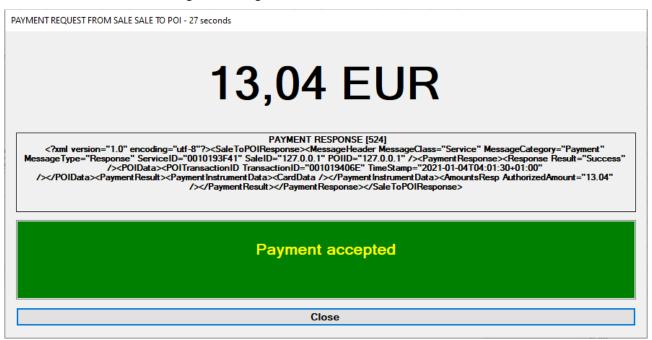
The middle part displays information about how the transaction is being performed.

That part can be hidden by setting "Hide trace pane when processing" in Minimum settings in §4.2.1.

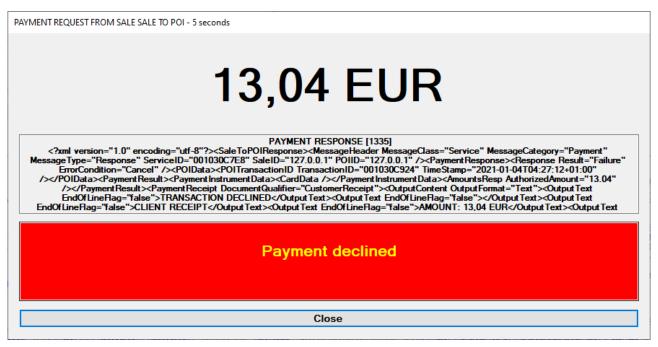
c. MESSAGE/RESULT

The lowest part displays messages to the merchant and the result of the transaction.

4. When the transaction is completed (accepted or not) the RESULT part indicates it with a colour code and a message indicating the final result.



This transaction has been accepted (RESULT is GREEN)



This transaction has been declined (RESULT is RED)

Please note that cancelling the transaction using the "Cancel" button will also decline the transaction (RESULT is RED) with a different message indicating the transaction was cancelled.

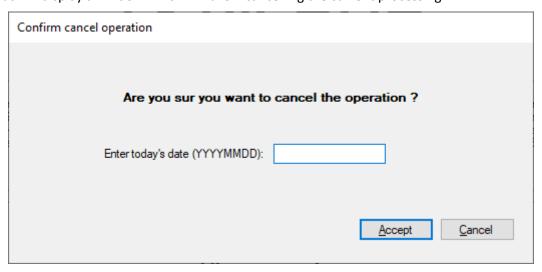
5.2. STOP PROCESSING

In case the terminal does not answer the Y2 system is blocked.

In that case it is possible to unlock it by doing as follow:

- 1. Double-click on "AMOUNT" part.
- 2. Double-click on "INFORMATION" part. It is possible to hide this part, in that case and only in that case, double-clicking on the other parts as indicated will give the same result/
- 3. Double-click on "MESSAGE/RESULT" part.

That will display a window which will allow cancelling the current processing.



Window to cancel processing in progress

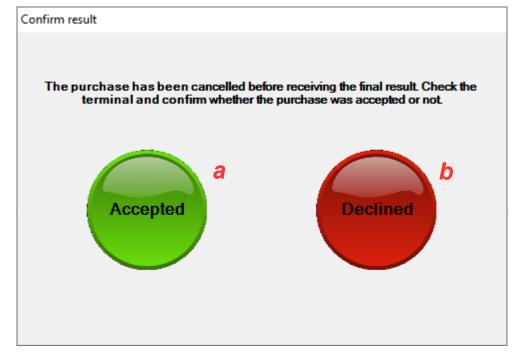
The operator must then enter either (i) the Admin code if defined or (ii) the date in the indicated format (YYYYMMDD) and validate (entering the date has no effect if an admin code has been defined).

4. If a valid admin code or date has been entered the transaction is aborted and the Y2 system is released.



Beware, aborting the transaction that way does not abort the transaction on the POI. The operator must use that option only in specific cases (terminal does not answer, no more network,...).

5. Whenever stopping the transaction while in progress the user will be asked whether the transaction has been completed or not on the POI.



a. ACCEPTED

Pressing the green button indicates the transaction has been successfully processed, the purchase will be saved as paid.

b. **DECLINED**

Pressing the red button indicates the transaction has not been successfully processed, the purchase will be saved as **unpaid**.