User's Guide

MOTO-SCAN

Application for Motorola Win CE/WM devices

Our "Frequently Asked Questions" (FAQ) section on the website may also have an answer for your question.

Visit www.moto-scan.com

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Installation

1) We recommend that you download the latest release from www.moto-scan.com. The software package contains to modules: Moto-scan Configurator and Microsoft ActiveSync (Win XP) or Microsoft Mobile Device Center (Vista / Win7+)

2) Start the installation process and be aware that on Windows 7+ you must disable UAC before installing the software. Type UAC in the start-button search field and drag the slider all the way to the bottom. Installation requires administrative rights.

3) If your do not have Microsoft Active Sync (MAS) for Windows XP installed, please install this first. Or if you have Windows 7+, then Microsoft Mobile Device Center (MMDC) either 32 or 64bit version must be installed, depending of operating system. The installation files for the synchronization apps are included in the software package; you just downloaded from the web site. Refer to the FAQ at the web site if you need more help for this. If you are using Windows 10 the MMDC must be installed using Windows Vista compatibility mode as administrator.

4) Install Moto-scan on the PC. Take the device out of the docking station and put it back in. The MMDC/MAS will now detect the device and turn green. We recommend that you keep the default settings during the installation process.

Disable partnerships: Default: this box too be ticked, and thereby disable partnerships. Then ActiveSync / MDC will acknowledge all connections as Guest connections. This means that calendar, contacts etc. *will not* be synchronized. It is normally preferred to disable partnerships in a hand terminal / scanner work-setup, as it is only annoying the user to take action each time you dock your scanner or hand terminal. This setting will be valid for all devices connected to this PC – also Smartphones and so on, but it makes it easier to synchronize data for these kinds of applications in general

Windows 7+ / Vista info: Before starting installation, please deactivate UAC (User Access Control). In the search field, type UAC. Pull the slider to the bottom, press OK and restart the PC. If you do not do this, you may experience problems with the data transfer from the scanner/terminal to the PC.

Data transfer

Data from the terminal will synchronize with the PC when Microsoft ActiveSync/MDC have connection with the scanner/terminal. This can be verified by watching the sys-tray for the green icon (ActiveSync only), and Mobile Device Center (Windows 7+) will pop-up the connection screen.

When the scanner/terminal is connected, the NPT TerminalSync software will retrieve all stored data from the terminal and clean-up the memory of the terminal afterwards.

It is very important that the scanner/terminal finish the synchronization before removed it from the cradle again.

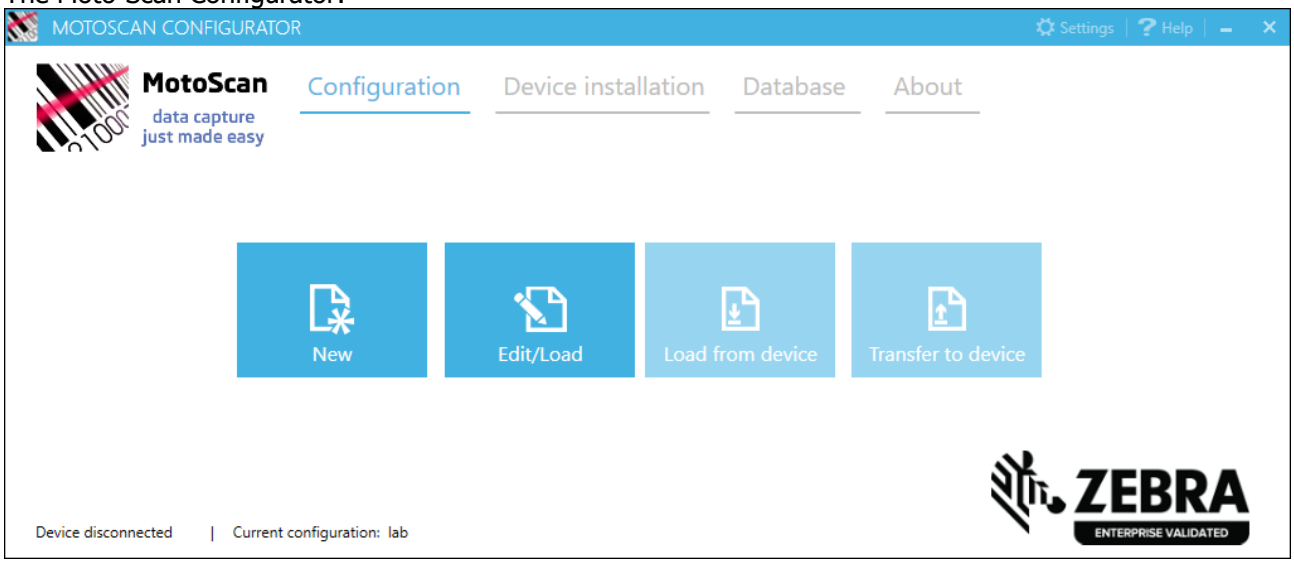
Another option is using the built-in functionality to synchronize to an FTP server via WIFI or 3G. The terminal will send all data to the FTP server and clean-up the memory at configurable intervals. The status screen on the terminal will show the last synchronization time of the device.

Moto-Scan Configurator

The setup utility for Moto-Scan is the administrator's tool to modify and adapt the hand terminal software, to fit the user's needs for data capture. The setup utility written in English is not user guide for the end users.

The application is located on the desktop and in Start → Applications → Moto-Scan

The Moto-Scan Configurator:



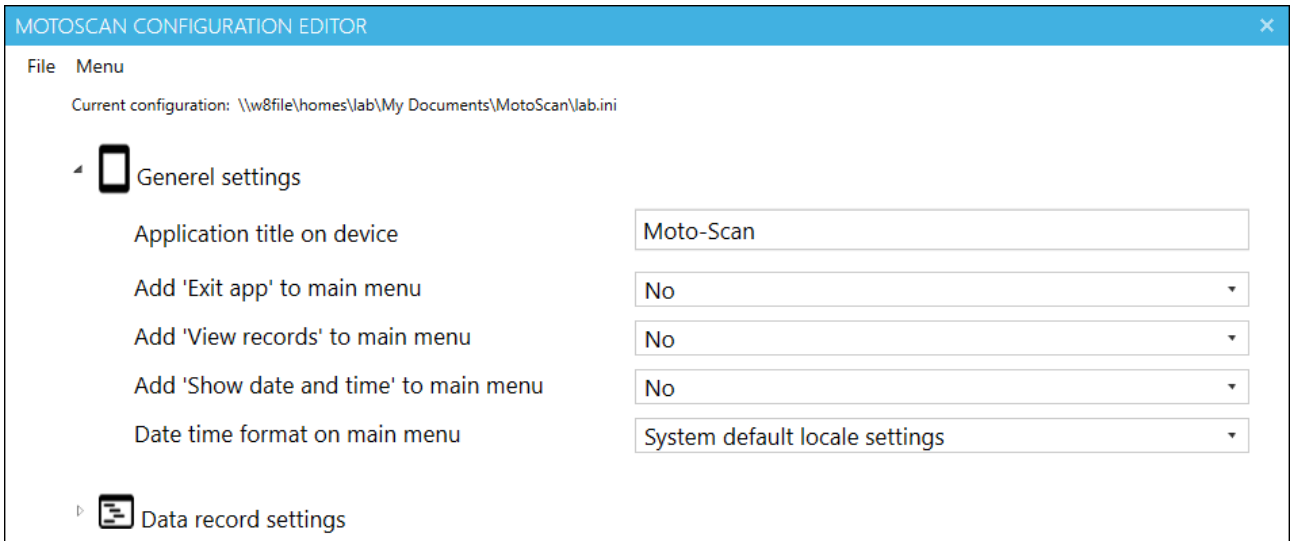
New

Configurations menu is open with a new, no-named default configuration.

Edit/Load

Open the last opened setup file.
A demo configuration, named; "Database sample.ini" can be found in the menu under File -> Open. Scanning sheet with barcodes become available, through a link, on the front page.

General Settings



Application title on device

Customize the product title in the main menu off Moto-Scan on the hand terminal.

Add 'Exit app' to main menu

Disable the possibility of the terminal used to exit the program. Exit of the program can be done by the administration code, F3 + F9.

Add 'View records' to main menu

Add the menu for viewing record to the terminal screen. This menu can be used to view records and delete records locally on the terminal.

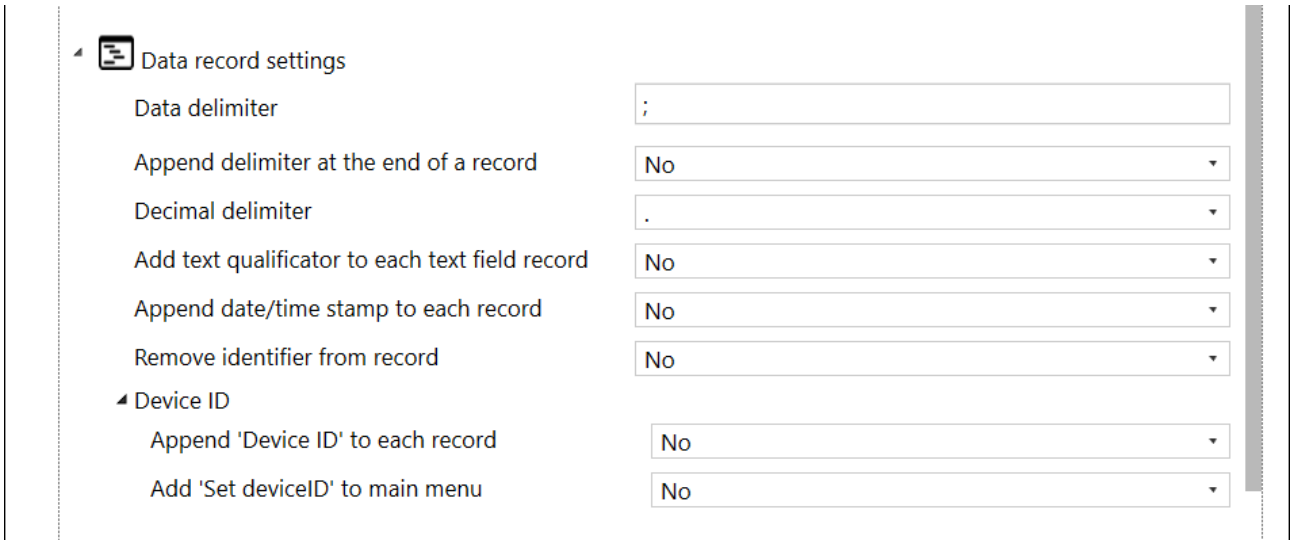
Add 'Show date and time' to main menu

Show the date and time on the screen of the terminal.

Date time format on main menu

Date and time can be set by selecting default for the local country where the terminal is used.

Data record settings



Date delimiter

Choose the data delimiter needed, in your application.
Default value is semicolon (;).

Append delimiter at the end of a record

If your host system needs a record to end with your data delimiter change the default value to ”Yes”, otherwise leave it as “No”.

Decimal delimiter

Change the decimal delimiter to fit your local standard. Default value is ”period” (.).

Add text qualificator to each text field record

The record fields, can be added, with quotation marks, in order for the receiving system to determine if the field is a text or number. By adding quotation marks, all data are marked as text.

Append date/time stamp to each record

Default value is: “No”. If this is changed to ”Yes”, each record will get a date and time stamp added. This will be added in the record just after the Record-Identifier as field no. 2.
Note: Date and time will have to be set on the terminal after activating this feature. If ”Add Device-ID” is set to “Yes” also, then the time stamp will be placed after the Device-ID as field no. 3 .

Append ‘Device ID’ to each record

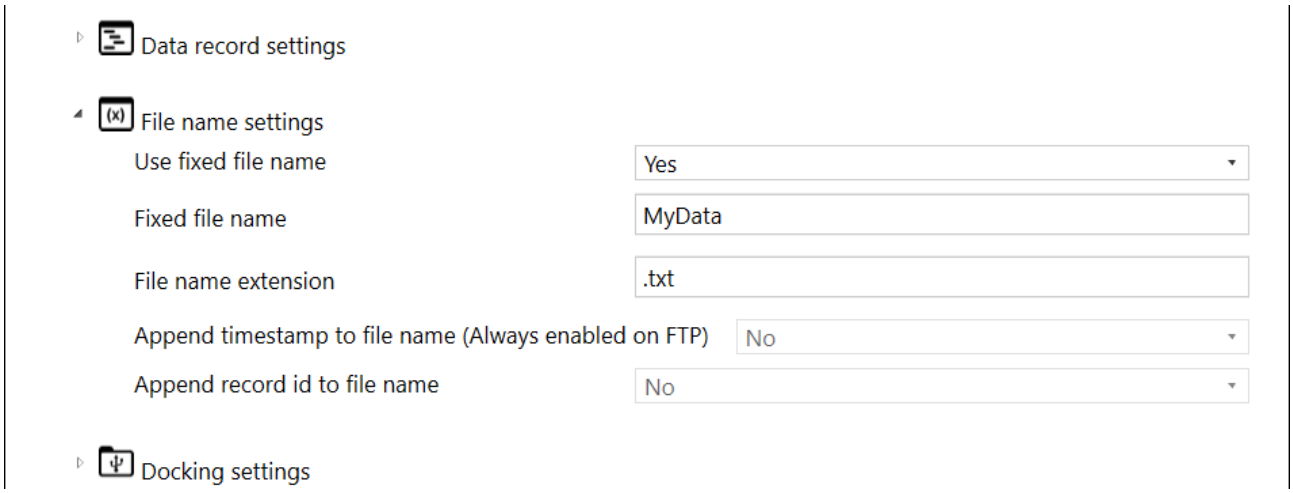
Default is ”No”. This option will add your pre-defined Device ID to each record. This is useful when more devices saves data to the host system and you would like the possibility to backtrack who did what. The user specific Device ID must be set on each terminal after loading these settings.

You can also display the possibility to chance the Device ID directly in the main menu.

Example without Device-ID:
A;04122008234302;21345;1;A-1; ;

Example with Device-ID:
A;Terminal01;04122008234302;21345;1;A-1; ;

File name settings



Use fixed file name

Default value is: ”Yes”. Please define a file name for the output data files – the default data file name is: ”MyData”. You can only chance this value, to ”No”, if you make one of the below mentioned options change to ”Yes”.

Fixed file name

By default the fixed filename is set to “MyData”.

File name extension

Default value is: ”.TXT”. Change if you need to another file extension name for the output data files. The files will always be saved in a readable ASCII format regardless of the name and extension choice.

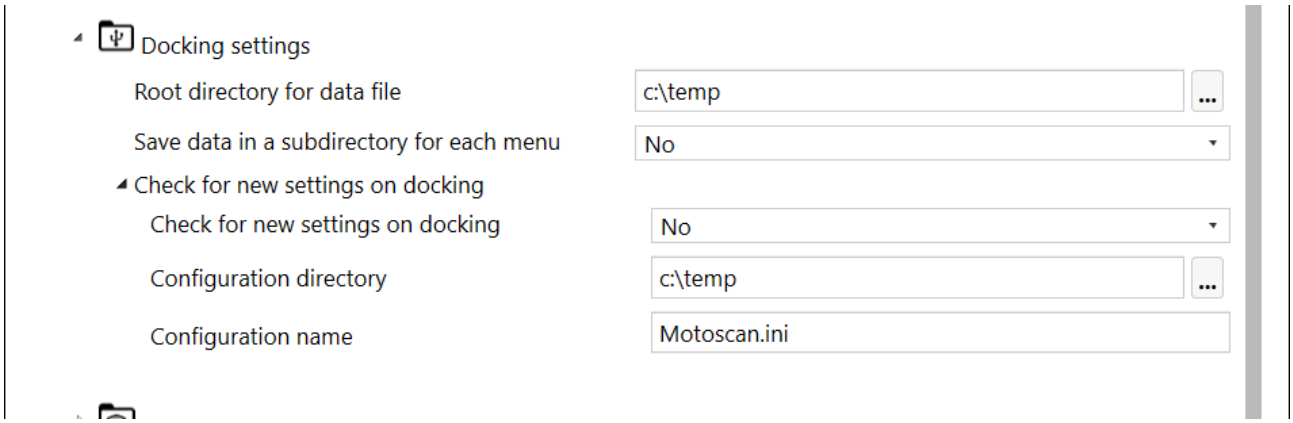
Append timestamp to file name (Always enabled on FTP)

Default value is: ”No”. It’s only possible to change the value if the ”Use fixed file name” option is ”No”. If set to ”Yes”, the system will make an unique file name each time a device delivers data to the PC. These files will get the current system time as file name.

Append record id to file name

Default value is: ”No”. It’s only possible to change the value if the ”Use fixed file name” option is ”No”. If set to ”Yes”, the system will create a file name for each menu on the device. This will sort the registration types into separate file names. These files will be named the same as their respective ”Record Type-ID”.

Docking settings



Root directory for data file

Directory used for uploading date from the terminal. Note that on by default this directory is set to login user, please change to a directory that can be used by all users. Ex; c:\temp

Save data in a subdirectory for each menu

Default value: ”No”. This setting will place all you output files in the same directory as defined just before. If you set this to ”Yes” each menu will have a destination folder where data are transferred to. The sub-directories names will be named as their respective ”Record Type-ID” (see this in each menu’s settings).

Check for new settings on docking

When docking the hand terminal, it is possible to update the terminal with a new setting. Choose Yes. Turning this feature on have to be done while connecting the device with Moto-Scan Configurator.

Configuration directory

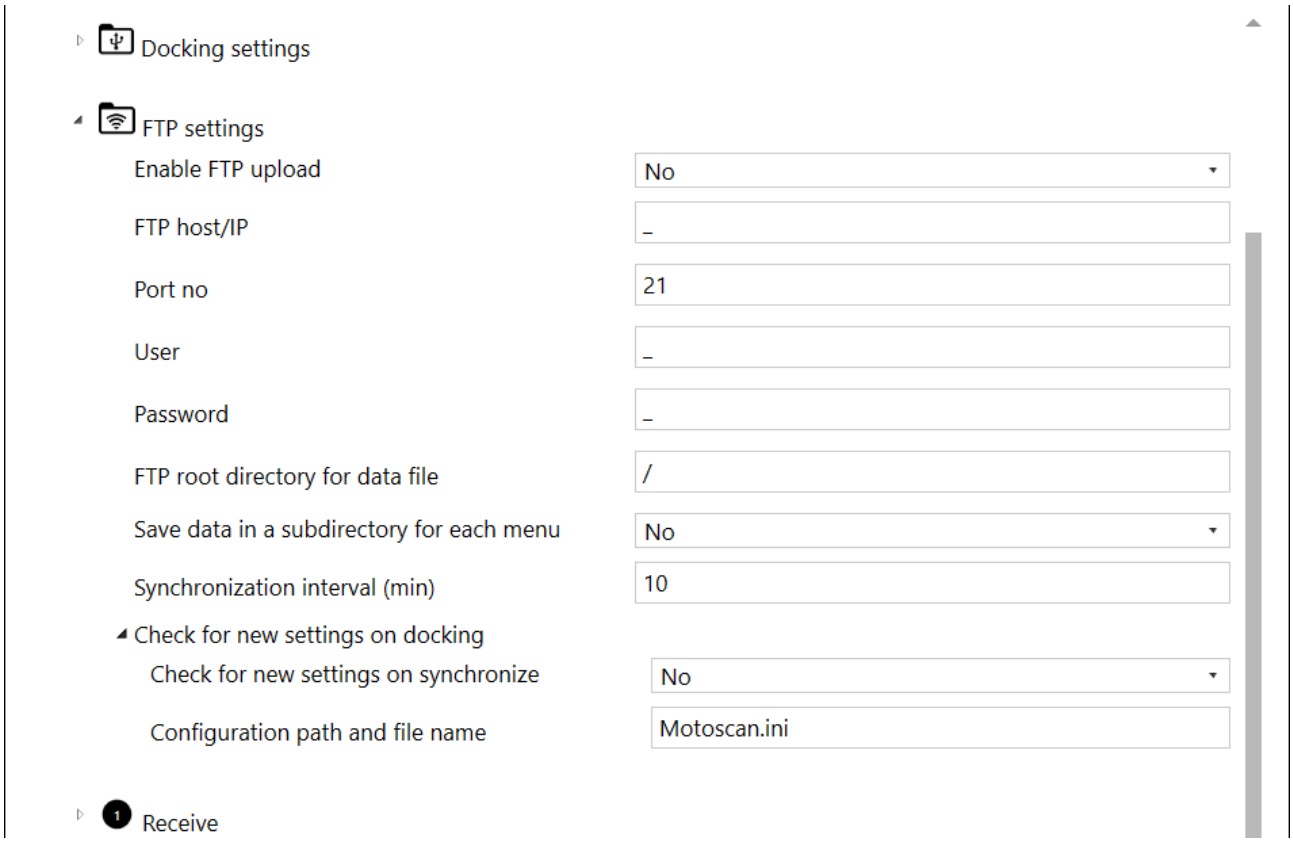
Directory where the configuration update are placed. In this location the terminal will look for new updates.

Configuration name

The configuration setup file, that the terminal is looking for when docked. The name, might be used, to group the terminals by function, or giving each terminal different configuration.

Win7+ specific: Do not choose the root directory of the C-drive. Use a sub-directory like C:\Temp or another destination. The root directory on Win7 PC’s are restricted due to UAC settings.

FTP Settings



Enable FTP-upload

Default value: ”No”. This setting will enable the FTP synchronization setting. Enabling FTP functionality does not turn off docking synchronization. Data exchange with the FTP server can happen through WIFI or 3G connectivity.

FTP host/IP

Default value is empty. Enter the hostname or IP address the FTP server.

Port no

Default value is: ”21”. Might be change if needed.

User

Default value is empty. Enter the username to the FTP server.

Password

Default value is empty. Enter the password to the FTP server.

FTP root directory

Default value is: ”/”. Change, if the data files, should be delivered to another directory than the default on the FTP server. This is the FTP server’s directory “/” indicates the root folder of the FTP.

Save data in a subdirectory for each menu

Default value is: ”no”. Change value to Yes, if each data type are to be stored in different sub directories. The name of these sub-directories will be named the same as their respective ”Record Type-ID” (set this in each menu’s settings).

Synchronization interval (min)

Default value is:”10”. Enter the interval, of minutes; the terminal will connect to the FTP server for data synchronization.

Check for new setting on synchronize

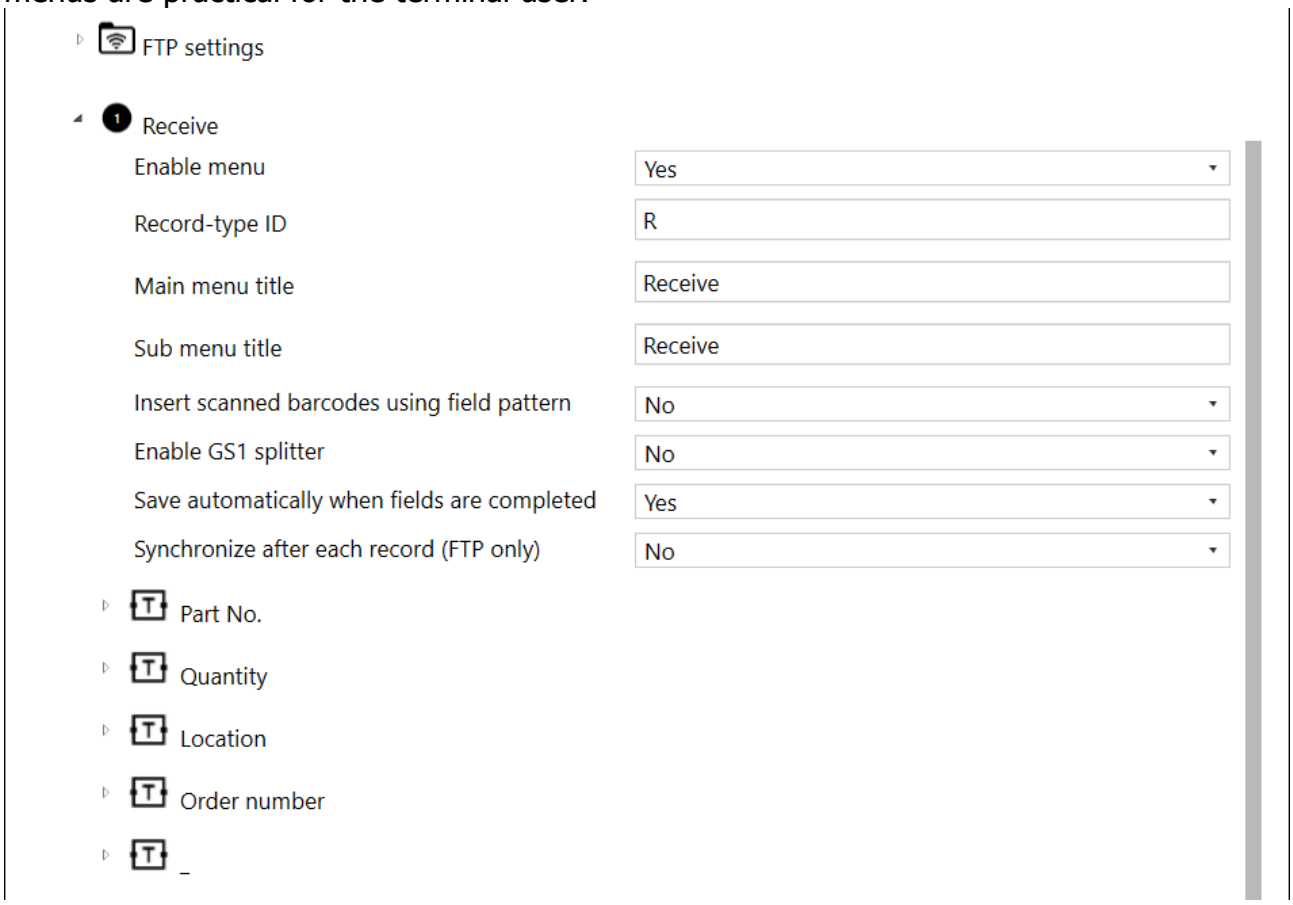
When docking the hand terminal, it is possible to update the terminal with a new setting. Choose Yes. Turning this feature on have to be done while connecting the device with Moto-Scan Configurator.

Configuration path and file name

The configuration setup file, that the terminal is looking for when docked. The name, might be used, to group the terminals by function, or giving each terminal different configuration.

Custom menu

It's possible to have multiple menus in the main screen. There are no limit to the amount of menus in the main menu, but on the screen, only 6-7 can be shown. In practice max 5 menus are practical for the terminal user.



Enable menu

Described if the menu point is visible on the current terminal. It can be set individual for each main menu on the terminal.

Record-type ID

To distinguish data from different menus it's possible to add a record before the data. Ex; Received goods have "R" before all records. Inventory have "I" before all record. It's selected for each menu on the terminal.

Main menu title

The title of the menu to be shown on the terminal. Received Goods are by default named "Received" can be localized.

Sub menu title

Makes it possible to make a different between the name on the main menu and the headline in the menu screen.

Insert scanned barcode using field pattern

Field pattern is used to place the scanned barcode information into different fields on the scanner.

Enable GS1 splitter

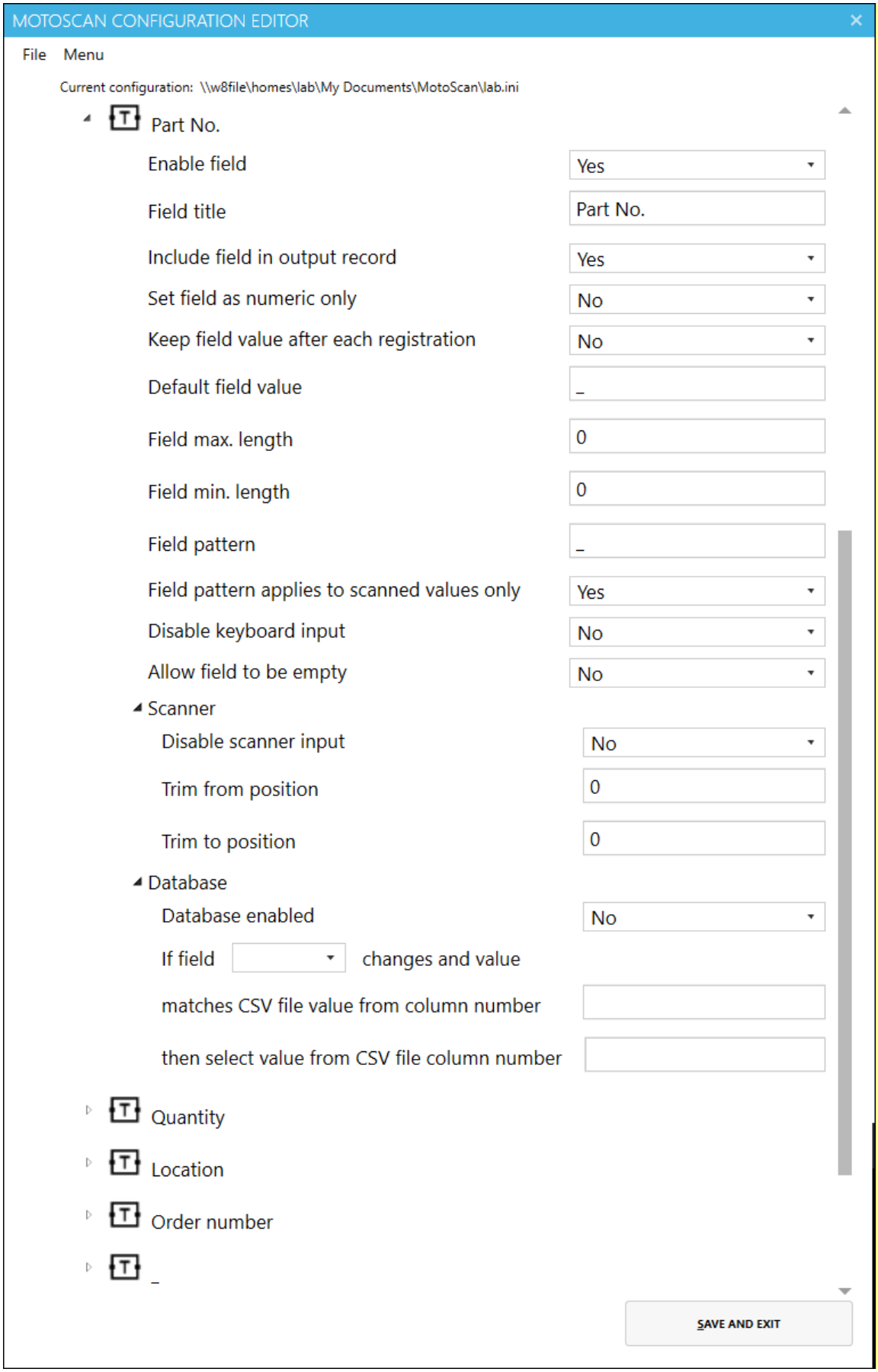
The GS1, splitter function, is used together with field pattern, to split the scanned barcode into the different input fields on the scanner.

Save automatically when fields are completed

Save the records automatically after all fields; have been scanned. If "No" the scanning have to be closed by pressing "Enter".

Synchronize after each record (FTP only)

Synchronize data through the FTP after each record. When FTP is configured in the FTP menu, it's possible to synchronize the data after each scan.


MOTOSCAN CONFIGURATION EDITOR
File
Menu
Current configuration: \\w8file\homes\lab\My Documents\MotoScan\lab.ini
Part No.
Enable field
Yes
Field title
Part No.
Include field in output record
Yes
Set field as numeric only
No
Keep field value after each registration
No
Default field value
_
Field max. length
0
Field min. length
0
Field pattern
_
Field pattern applies to scanned values only
Yes
Disable keyboard input
No
Allow field to be empty
No
Scanner
Disable scanner input
No
Trim from position
0
Trim to position
0
Database
Database enabled
No
If field
changes and value
matches CSV file value from column number
then select value from CSV file column number
Quantity
Location
Order number
_
SAVE AND EXIT

Under each Main menu it's possible to make 5 input fields. Each input fields can be specified individually. The settings possibilities are identically for each input field.

Enable field

Select if this field is visible or not on the terminal.

Field title

Customize the title of the input field.

Include field in output record

Select if the field is to be logged to the output record.

Set field as numeric only

Select if the field only can contain numeric values or it contains characters.

Keep field value after each registration

Select if the field is cleaned after storing the record.

Default field value

If a default value, before scanning is needed it can be added here.

Field max. length

Max length of the input field. Pattern is included in the counted length.

Field min. length

Min length of the input field. Pattern is included in the counted length.

Field pattern

Determine the pattern for the scanned input. If the scan contains the pattern, it's placed in this field.

Field pattern applies to scanned values only

If set to "Yes" only scanned values are validated with pattern. Input from the keyboard are not validated.

Disable keyboard input

Select if input is possible to type through the keyboard.

Allow field to be empty

Makes it possible to record the scanning without entering a value.

Scanner -> Disable scanner input

Disable input from the scanner to this field.

Scanner -> Trim from position

Trim the input value, it's used specially together with removing field pattern from the scanned input.

Scanner -> Trim to position

Trim the max length of scanned input. Specially used with pattern field to max the length of the scanned input for this field.

Database -> Database enabled

Enable converting of the input value through the database. Ex item number can be converted to item text.

Database -> If field "" changes and value matched CSV file value from column number "" then select value from CSV file column number ""

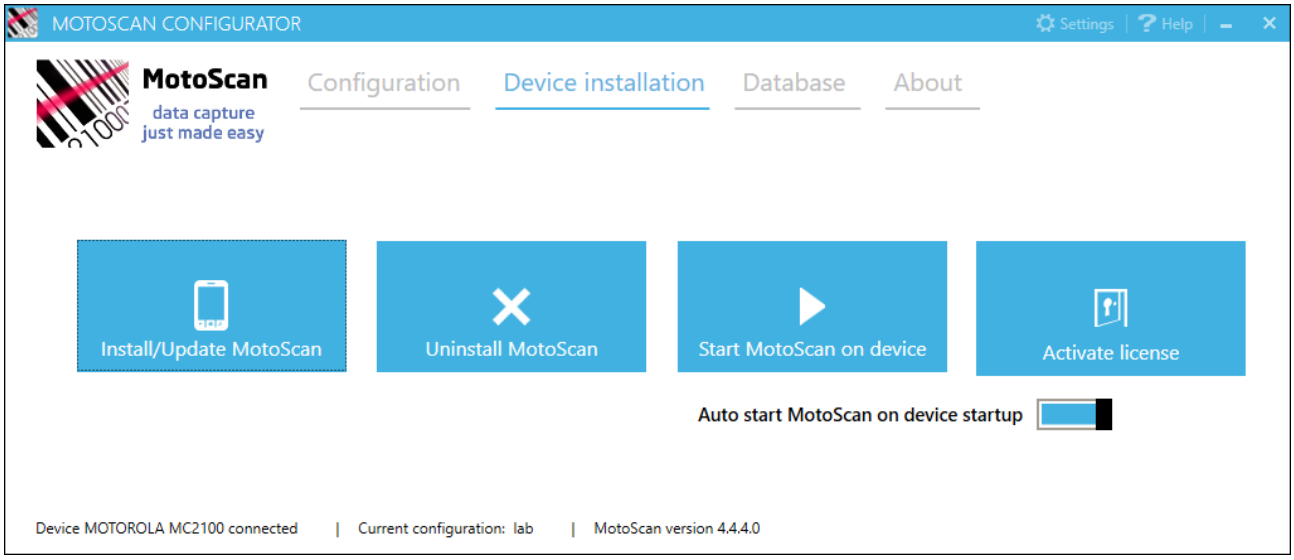
Load settings from device

This is for changing a setup on a specific terminal or backing up settings from a device. It loads all values from the docked device, possible to modify. You can also use this if you need to copy a configuration from one device to another. Remember to "transfer settings" again afterwards, so they get set on the docked device.

Transfer settings to device

This will load the current settings to the docked hand terminal device.
It will not delete any data stored in the docked hand terminal memory.

Device Installation



Install application

This is for loading a hand terminal device with the Moto-Scan application. It installs the application on the docked device, and reboots the terminal afterwards. Please notice that the application will automatically start up after a reboot. Also used when you need to update a terminal without overwriting the settings already in the terminal. This will not delete any data stored in the terminal memory. We recommend that you un-install previous versions of Moto-scan on the devices before installing the most recent version

Uninstall Moto-scan

This will delete Moto-scan software on the device. The license stays on the device even if you delete the application. This will also not delete any data stored in the terminal memory.

Start Moto-Scan on device

This will start up the application on the docked device. It allows the administrator to start up the Moto-Scan application at the terminal without having to navigate in Windows CE. This is very handy on hand terminals without touch screen.

As the application runs on the terminal, the operating system (Windows CE) is not visible at all, interaction with Windows is shielded off and the operating system is hidden from the users.

Activate license

After transferring the application to the terminal, you need to activate, buy a license or run in demo-mode. If your device stays in demo-mode, everything will be working correct but only 1 record will be stored on the terminal.

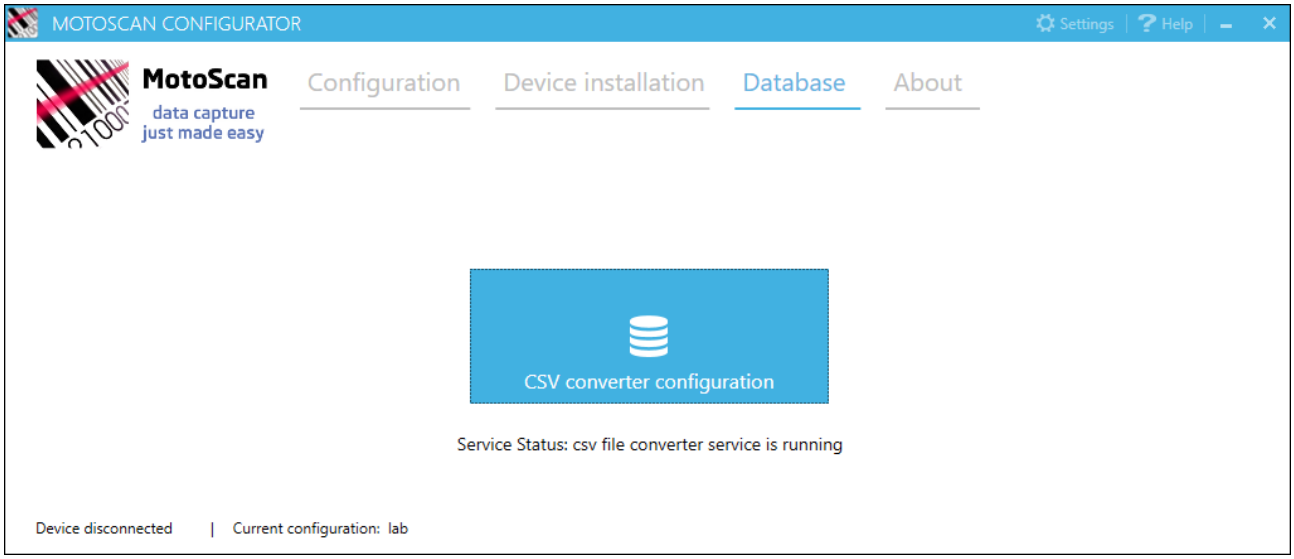
You need to have your device placed in the cradle, and then press "Activate License".
The "Activate License" button will start an Internet browser and go to the registration site of the Moto-Scan software.

This needs to be done for each unit that needs to be unlocked from demo-mode. Follow the activation procedure to get your system up and running right away.

Autostart Moto-Scan on device

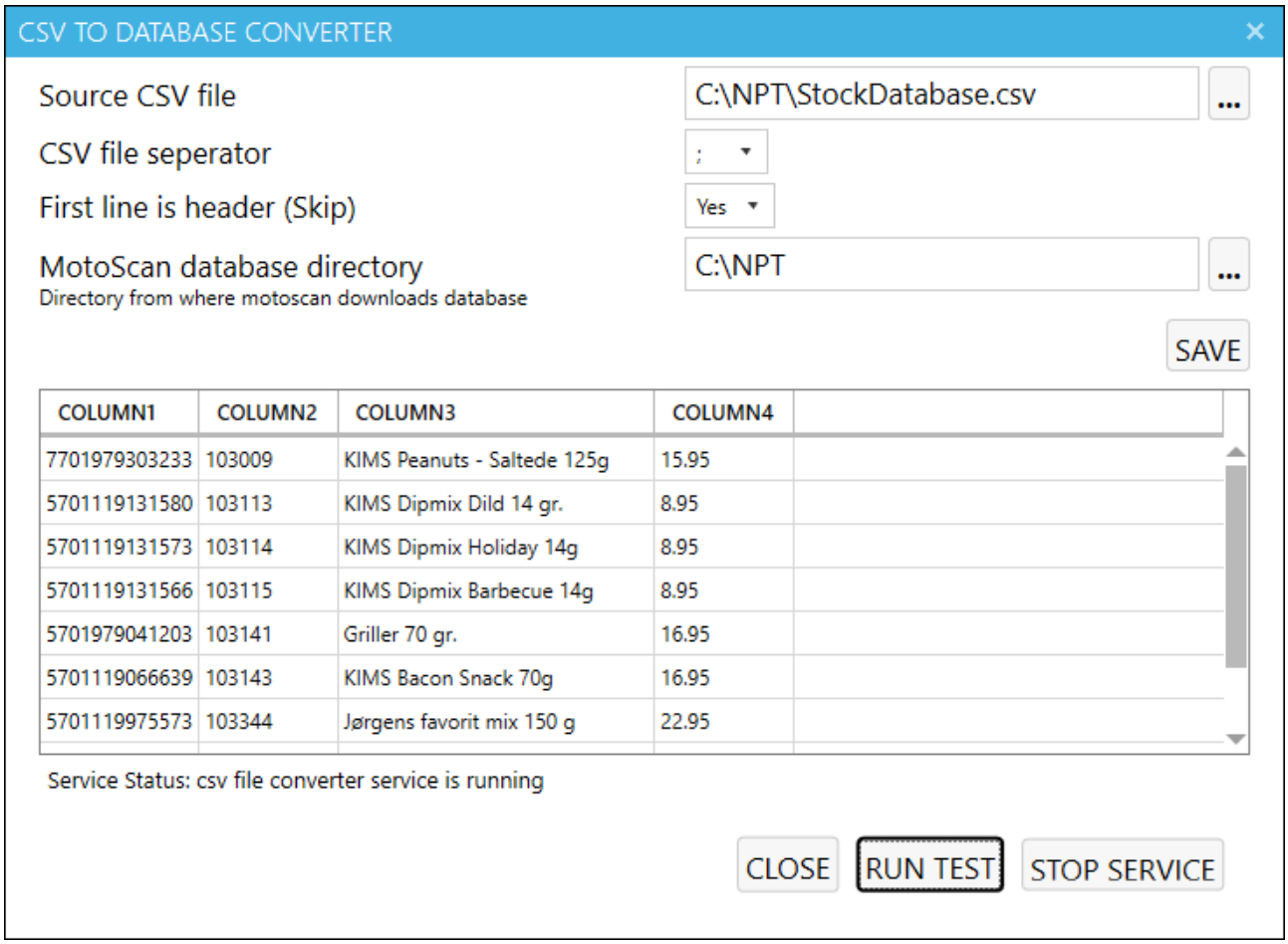
If you select this option, the device will update next time you press, "Transfer settings".
If the device then later is warm-booted or cold-booted, the Moto-Scan application will automatically startup on the device.

Database



The database option is used to translate the scanned object to a readable text. Ex if scanning an item number, the database can translate that into clear text of the product. The setup of the database is done under option "CSV converter configuration". Use of the database fields are done in the menu configuration. All input to the database are based on CSV file; they can easily be made in text notes or in Excel.

CSV converter configuration:



Source CSV file

Select the CSV file with the translation code that are send to the handterminal.

CSV file separator

Select the separator character used in the CSV file. It possible to select ";", ",", "-" or "_"

First line is header (Skip)

If the first line in the CSV, contains the column names then it can be skipped by selecting "Yes".

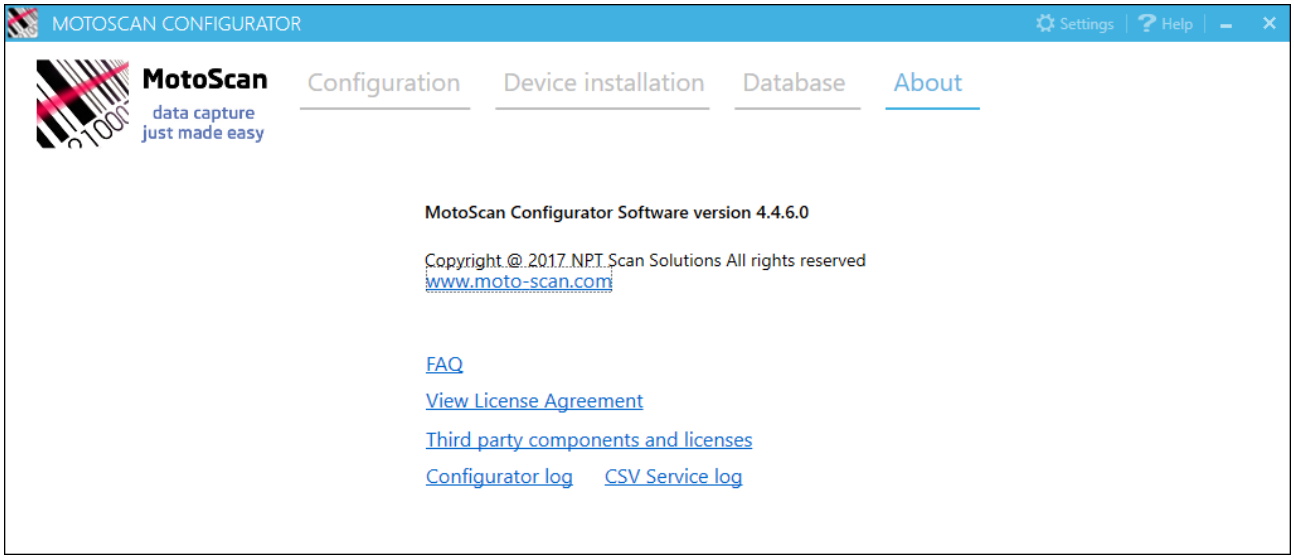
Moto-Scan database directory

Select the destination directory of the database.

RUN TEST

Load the CSV file on the screen press RUN TEST.

About



FAQ

The link "FAQ guides you to the most comment question and work around are located at the FAQ page.

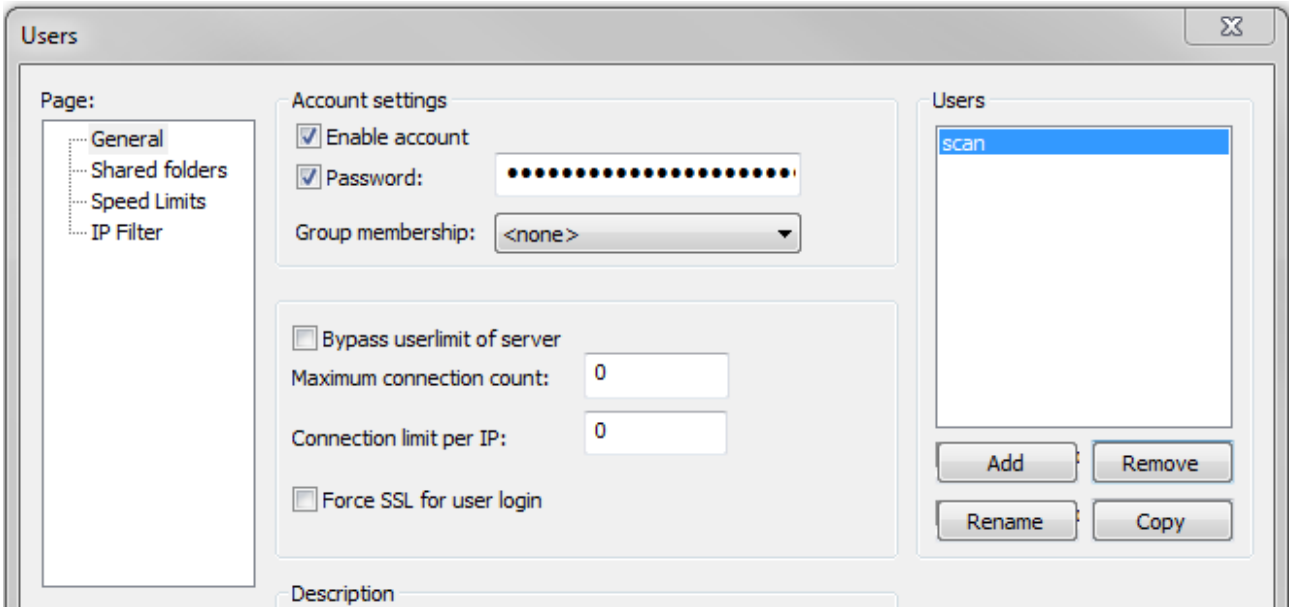
FTP Server Setup

We recommend using Filezilla FTP server with Moto-scan for easy setup. Any FTP server can be used, but to get the best use of the database functionality over FTP, it must support returning timestamp through FTP (MDTM). If not, the terminal cannot check if the database has been changed and will download it each time the terminal synchronizes to the FTP server.

The FTP user must have access to read/write/delete/append in the FTP folder.

To set up Filezilla FTP server, please download and install Filezilla server from:

https://filezilla-project.org/index.php



Please follow the steps below to setup the FTP server to work with Moto-scan 4.0 and later:

- Install the software, during the installation be aware of how the software starts. Use the recommended options if in doubt. If default options are used, the FTP server will with Windows as a service.
- When the FTP server installed, launch the program; click "ok" and go to "edit" → "users", click "Add" on the right side of the screen.
- Create an account to use when sending data to the FTP server, note that usernames are case sensitive. Check "Password" and enter a password for the account.
- Now go to the "shared folders sub menu", click "Add" and navigate to the folder you want to use for FTP server. It is highly recommended to have a dedicated folder for this. Click "Set as home dir" and make sure all boxes under "Files" and "Directories" are checked.
- If you are unable to access the FTP server Windows firewall might be blocking the incoming connections, try to disable the firewall or add an exception if you are experiencing this issue.

Navigating hand terminal with the keypad / F-keys

In the main menu, you can enter a menu by pressing the corresponding number of the menu or press the Up/Down arrow and select the menu by pressing the Enter key. As this app is made to support non-touch devices, the touch screen (if any on you device) is not active within the Moto-scan application.

Once you have entered a menu, you have following navigational options:

UP/DOWN keys: Navigate between fields

Alfa/Num keyboard input mode: Press the orange colored "A" button to shift between numeric and alphanumeric keys. If you experience that the device will not react to F-key press, you may have pressed the orange key by accident, and the F-key press will not work. Press the orange key again to get back to numeric input mode.

F-Keys:
To use a function key, you must press the F key followed by the number. F + 1 are a F1 key press.
Some hand terminals has direct F-keys on dedicated keys.

F1: Shows a list of saved registrations since last synchronization.
Browse through the registrations with the arrow keys.
Press Enter to return to you previous screen
Within this view, the F2 key press will delete the current record shown on the screen.

F7: Change from positive to negative value in a numeric field

F9 or ESC: Exit and return to main menu

F3 + F9: When you are in the main menu this key combination exits the Moto-Scan application and returns to the operating system of the device. For terminals without F-buttons, Left+right will have the same function.
This is for administrative use only.

When is a registration saved?
When all fields in a registration have been filled and cursor is situated in the last field, you can press the Enter key to save the registration. The terminal will signal a confirmation beep to let the user know that this registration is complete. The fields are cleared and ready for next registration.

Restart terminal
If an application, reset is needed:

MC1000: Press and hold the red power button until the boot screen is visible
MT2000: Press and hold button 2 and scanner-trigger button simultaneously until the boot screen is visible.
MC2100: Press and hold the power button until the boot screen is visible
MC3000: Press and hold keys 7 + 9 + Power button simultaneously until the boot screen is visible.

The device will then boot up and the application will start up automatically (if chosen when you installed the application) and be ready in the main menu of Moto-Scan application.

MT2000 WIFI setup

The following steps will setup the Motorola MT2000 terminal for WIFI. It can be difficult to do on a device without touchscreen; this guide will show how it can be setup using remote control software.

To setup WIFI on the scanner, we recommend downloading and installing Sparus EveryWan from the following location:

http://www.moto-scan.com/files/Sparus-remote-support.exe

When installing the software please make sure to remove any checks to automatically update the software. Please also remove the check in "Auto start Remote support when a device is connected to the PC".

This will allow you to remote control the terminal from a PC for easy setup of the device. Connect the device you wish to configure to the pc and start up Sparus EveryWan, it should automatically detect the connected device. If not, go to the menu Connection → Connect.

You should now be able to see the terminals interface on the PC. To set up WIFI on the scanner please do the following steps:

Start → Config → Wireless companion → Option – Select regulatory from the drop down menu and select your country from the menus, save and close options.

Now go to: Wireless companion → find WLANs → select WLAN and enter the information needed. The device is now be connected to your WLAN.

Data file definition

The terminal will transfer data to the PC in a simple ASCII text file. This is just an example, you can modify the output file to fit you exact needs.

The default settings define a data file consisting of:

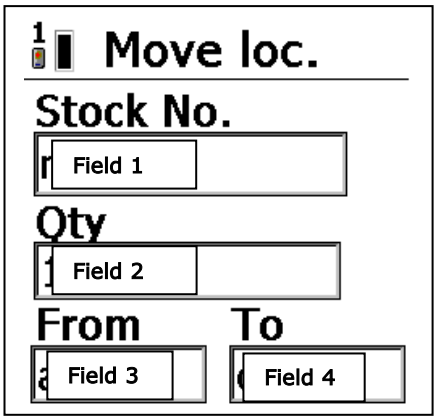
- A record identifier
- Field separators
- Field data

Default applications	Example for record identifier
Receive	R
Shipping	D
Move	M
Inventory	I

Example of a data file content:
I;1009030050151;20;Loc1;
F;1009030050151;20;Loc1;Loc2
F;1009030050151;20;Loc2;Loc3

Optional/additional data file content – see Application Menu chapter.
As you can enable / disable fields as you want to, the output file structure can be defined by you. This is just an example of a default output file.

All applications have the following order in the data file:



The fields will scale to the current screen size, and if you intend to use 5 fields, the field 2 and 3 will share the horizontal level and 4 and 5 will share the horizontal level. You will experience different scenarios of the screen layout depending on what device model you are using.

Moto-Scan scan commands

Built-in to the scan-module is a hidden function to open menu 1-4 by scanning these control barcodes.

MOTOCLEARFIELDS

MOTOCLOSEMENU

MOTOMENU1

MOTOMENU2

MOTOMENU3

MOTOMENU4